APPENDIX H - A227 WROTHAM ROAD / A2 EASTBOUND SLIP ROAD / SITE ACCESS ROUNDABOUT – EQUAL LANE USAGE ARCADY MODEL

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: A227_A2 EB Slips_Site Access RB PM Lane Sim Equal.j9
Path: M:\Projects\2022\22052 - BP Tollgate, Gravesend\07. Technical\07.02 Modelling\ARCADY\Direct Assessment
Report generation date: 06/03/2025 11:30:56

»2023, PM
»2025 Do Nothing, PM
»2025 Do Minimum, PM
»2025 Do Minimum Residual, PM
»2028 Do Nothing, PM
»2028 Do Minimum, PM
»2028 Do Minimum Residual, PM

Summary of junction performance

	PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	[Lane Simulation] - 2023				
Arm A227N	D2	4.1	8.66		A
Arm SA		0.0	13.07		B
Arm A227S		1.4	4.04		A
Arm A2OFF		2.6	6.41		A
	[Lane Simulation] - 2025 Do Nothing				
Arm A227N	D4	3.4	8.90		A
Arm SA		0.1	16.11		C
Arm A227S		1.4	4.07		A
Arm A2OFF		2.4	6.69		A
	[Lane Simulation] - 2025 Do Minimum				
Arm A227N	D6	4.6	9.65		A
Arm SA		1.5	28.10		D
Arm A227S		1.3	4.17		A
Arm A2OFF		2.8	7.65		A
	[Lane Simulation] - 2025 Do Minimum Residual				
Arm A227N	D8	4.6	9.23		A
Arm SA		0.8	24.74		C
Arm A227S		1.3	4.26		A
Arm A2OFF		2.7	7.64		A
	[Lane Simulation] - 2028 Do Nothing				
Arm A227N	D10	4.4	9.91		A
Arm SA		0.0	0.00		A
Arm A227S		1.6	4.13		A
Arm A2OFF		3.0	7.55		A
	[Lane Simulation] - 2028 Do Minimum				
Arm A227N	D12	5.6	11.61		B
Arm SA		1.4	36.90		E
Arm A227S		1.8	4.37		A
Arm A2OFF		3.7	8.82		A
	[Lane Simulation] - 2028 Do Minimum Residual				
Arm A227N	D14	4.9	11.28		B
Arm SA		1.5	36.99		E
Arm A227S		1.3	4.36		A
Arm A2OFF		3.1	8.42		A

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

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

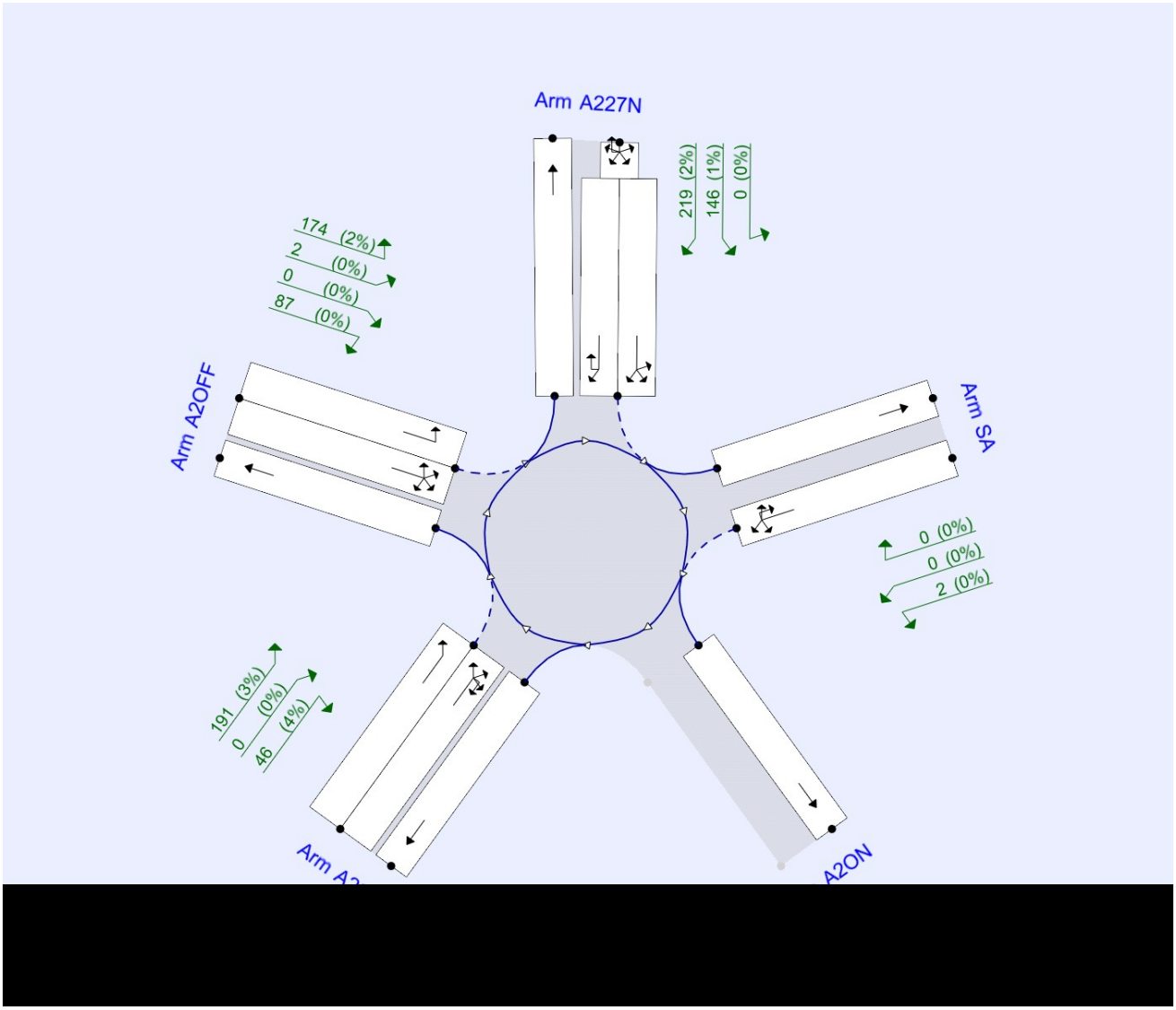
File summary

File Description

Title	
Location	
Site number	
Date	28/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MARKIDES\Markides Associates
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perTimeSegment	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

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

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	✓			2013437134	108	19.68

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2023	PM	DIRECT	16:45	18:15	90	15	✓
D4	2025 Do Nothing	PM	DIRECT	16:45	18:15	90	15	✓
D6	2025 Do Minimum	PM	DIRECT	16:45	18:15	90	15	✓
D8	2025 Do Minimum Residual	PM	DIRECT	16:45	18:15	90	15	✓
D10	2028 Do Nothing	PM	DIRECT	16:45	18:15	90	15	✓
D12	2028 Do Minimum	PM	DIRECT	16:45	18:15	90	15	✓
D14	2028 Do Minimum Residual	PM	DIRECT	16:45	18:15	90	15	✓

Analysis Set Details

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

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	6.63	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A227N	A227 Wrotham Road (N)	
SA	Site Access	
A2ON	A2 EB On Slip	
A227S	A227 Wrotham Road (S)	
A2OFF	A2 EB Off Slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A227N	4.60	9.30	22.1	48.8	63.9	50.0	
SA	3.10	5.50	5.4	12.7	63.9	59.0	
A2ON							✓
A227S	7.10	9.30	17.9	31.1	63.9	47.0	
A2OFF	7.00	10.20	17.9	40.0	63.9	24.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/TS)
A227N	Direct	Queue Survey	100.00
SA	None		
A2ON			
A227S	None		
A2OFF	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
A227N	0.600	637.586
SA	0.400	269.987
A2ON		
A227S	0.662	630.126
A2OFF	0.741	715.427

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
A227N	Evenly split	10.00
SA	Evenly split	10.00
A2ON	Evenly split	10.00
A227S	Evenly split	10.00
A2OFF	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/TS)	Maximum capacity (PCU/TS)	Signalised
A227N	Entry	1	1	SA, A2ON, A227S	✓	5.00		0.00	24999.75	
			2	A227N, A227S	✓	5.00		0.00	24999.75	
		2	1	(A227N, SA, A2ON, A227S, A2OFF)		Infinity				
	Exit	1	1			Infinity				
SA	Entry	1	1	A227N, SA, A2ON, A227S		Infinity		0.00	24999.75	
	Exit	1	1			Infinity				
A2ON	Exit	1	1			Infinity				
A227S	Entry	1	1	A227N		Infinity		0.00	24999.75	
			2	A227N, SA, A2ON, A227S		Infinity		0.00	24999.75	
	Exit	1	1			Infinity				
A2OFF	Entry	1	1	A227N		Infinity		0.00	24999.75	
			2	A227N, SA, A2ON, A227S		Infinity		0.00	24999.75	
	Exit	1	1			Infinity				

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/TS)
A227N	Entry	1	1	0.300	318.793
			2	0.300	318.793
SA	Entry	1	1	0.400	269.987
A227S	Entry	1	1	0.331	315.063
			2	0.331	315.063
A2OFF	Entry	1	1	0.370	357.713
			2	0.370	357.713

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm				
			A227N	SA	A2ON	A227S	A2OFF
A227N	1	1		✓	✓	✓	
		2	✓			✓	
	2	1	✓	✓	✓	✓	✓
SA	1	1	✓	✓	✓	✓	
A227S	1	1	✓				
		2	✓	✓	✓	✓	
A2OFF	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 period length (min)	Time segment length (min)	Run automatically
D2	2023	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

16:45 - 17:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	146.00	219.00	0.00
	SA	0.00	0.00	2.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	191.00	0.00	46.00	0.00	0.00
	A2OFF	174.00	2.00	0.00	87.00	0.00

17:00 - 17:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	144.00	197.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	207.00	0.00	42.00	0.00	0.00
	A2OFF	205.00	0.00	0.00	99.00	0.00

17:15 - 17:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	126.00	214.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	227.00	0.00	54.00	0.00	0.00
	A2OFF	197.00	0.00	1.00	84.00	0.00

17:30 - 17:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	131.00	197.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	190.00	0.00	43.00	0.00	0.00
	A2OFF	197.00	0.00	1.00	80.00	0.00

17:45 - 18:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	130.00	182.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	203.00	0.00	43.00	1.00	0.00
	A2OFF	189.00	0.00	2.00	69.00	0.00

18:00 - 18:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	132.00	186.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	155.00	0.00	35.00	0.00	0.00
	A2OFF	174.00	0.00	0.00	73.00	0.00

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	2	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	3	0	4	0	0
	A2OFF	2	0	0	0	0

17:00 - 17:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	1	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	0	0	0	0
	A2OFF	2	0	0	0	0

17:15 - 17:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	1	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	2	0	0
	A2OFF	1	0	0	0	0

17:30 - 17:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	2	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	0	2	0	0
	A2OFF	2	0	0	0	0

17:45 - 18:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	3	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	0	0	0	0
	A2OFF	1	0	50	0	0

18:00 - 18:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	1	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	0	0	0
	A2OFF	2	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	8.66	4.1	A	333.86	2003.17
SA	13.07	0.0	B	0.48	2.86
A2ON					
A227S	4.04	1.4	A	240.42	1442.53
A2OFF	6.41	2.6	A	272.51	1635.07

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	361.58	361.58	133.83	361.39	365.50	368.80	0.0	4.0	8.660	A
SA	2.56	2.56	493.28	2.67	2.56	1.94	0.0	0.0	12.417	B
A2ON			0.00			191.97				
A227S	239.22	239.22	0.00	239.00	246.69	303.97	0.0	1.0	3.877	A
A2OFF	262.89	262.89	239.00	263.64	267.12	0.00	0.0	1.6	5.528	A

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	341.47	341.47	142.56	340.47	345.68	414.42	4.0	3.1	7.620	A
SA	0.22	0.22	482.97	0.19	0.81	0.06	0.0	0.0	13.074	B
A2ON			0.00			187.38				
A227S	248.08	248.08	0.06	248.17	247.99	295.72	1.0	1.0	3.682	A
A2OFF	309.78	309.78	248.22	308.75	308.68	0.00	1.6	2.6	6.406	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	337.73	337.73	136.52	337.20	344.53	426.92	3.1	2.8	7.399	A
SA	0.08	0.08	473.69	0.08	0.19	0.03	0.0	0.0	10.077	B
A2ON			0.00			182.72				
A227S	285.44	285.44	0.08	284.78	283.13	290.97	1.0	1.4	4.040	A
A2OFF	278.86	278.86	284.86	278.58	282.44	0.00	2.6	2.0	6.358	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	332.67	332.67	124.14	331.97	333.16	386.47	2.8	2.6	7.073	A
SA	0.00	0.00	456.13	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			176.14				
A227S	234.39	234.39	0.00	234.11	242.54	279.97	1.4	1.0	3.827	A
A2OFF	275.47	275.47	234.11	276.50	282.30	0.00	2.0	1.7	5.760	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	313.39	313.39	113.72	314.14	323.12	394.22	2.6	2.4	6.520	A
SA	0.00	0.00	427.86	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			172.81				
A227S	245.81	245.81	0.00	245.50	246.68	255.06	1.0	1.0	3.734	A
A2OFF	262.14	262.14	245.50	262.43	263.08	0.00	1.7	1.5	5.227	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	316.28	316.28	105.97	315.58	320.14	329.61	2.4	2.5	6.354	A
SA	0.00	0.00	421.55	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			164.53				
A227S	189.64	189.64	0.00	189.58	193.04	257.03	1.0	0.6	3.373	A
A2OFF	246.00	246.00	189.58	246.00	249.47	0.00	1.5	1.1	4.700	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	210.44	274.89	0.766	209.67	211.99	0.0	2.3	8.299	A
			2	A227N, A227S	151.31	272.90	0.554	151.71	153.51	0.0	1.0	5.720	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	361.58			361.75	368.88	0.0	0.7	1.437	A
	Exit	1	1		368.80			368.80	377.69	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	2.56	69.97	0.037	2.67	2.56	0.0	0.0	12.417	B
	Exit	1	1		1.94			1.94	1.77	0.0	0.0	0.000	A
A2ON	Exit	1	1		191.97			191.97	195.66	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	106.42	306.43	0.347	106.69	109.54	0.0	0.4	3.695	A
			2	A227N, SA, A2ON, A227S	132.81	305.94	0.434	132.31	137.16	0.0	0.6	4.022	A
	Exit	1	1		303.97			303.97	306.77	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	106.97	261.64	0.409	107.32	110.99	0.0	0.6	4.781	A
			2	A227N, SA, A2ON, A227S	155.92	264.32	0.590	156.36	156.13	0.0	1.0	6.053	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	205.40	273.96	0.750	205.11	207.18	2.3	1.9	7.771	A
			2	A227N, A227S	135.78	273.19	0.497	135.33	138.50	1.0	0.9	5.340	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	341.47			341.19	345.09	0.7	0.4	0.824	A
	Exit	1	1		414.42			414.42	416.71	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.22	75.73	0.003	0.19	0.81	0.0	0.0	13.074	B
	Exit	1	1		0.06			0.06	0.30	0.0	0.0	0.000	A
A2ON	Exit	1	1		187.38			187.38	188.68	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	113.78	315.04	0.361	113.81	112.16	0.4	0.5	3.579	A
			2	A227N, SA, A2ON, A227S	134.31	315.04	0.426	134.36	135.83	0.6	0.5	3.767	A
	Exit	1	1		295.72			295.72	297.46	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	132.56	261.14	0.507	132.19	132.61	0.6	1.1	5.606	A
			2	A227N, SA, A2ON, A227S	177.22	263.73	0.672	176.55	176.06	1.0	1.5	7.003	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	197.52	272.86	0.724	197.19	201.19	1.9	1.7	7.485	A
			2	A227N, A227S	140.25	274.76	0.510	140.00	143.33	0.9	0.8	5.466	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	337.73			337.80	344.29	0.4	0.3	0.757	A
	Exit	1	1		426.92			426.92	427.78	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.08	78.29	0.001	0.08	0.19	0.0	0.0	10.077	B
	Exit	1	1		0.03			0.03	0.06	0.0	0.0	0.000	A
A2ON	Exit	1	1		182.72			182.72	185.93	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	130.16	312.76	0.416	130.08	127.96	0.5	0.5	3.804	A
			2	A227N, SA, A2ON, A227S	155.31	310.79	0.500	154.69	155.17	0.5	0.9	4.235	A
	Exit	1	1		290.97			290.97	296.54	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	119.91	248.73	0.482	119.42	121.81	1.1	0.9	5.744	A
			2	A227N, SA, A2ON, A227S	158.97	250.40	0.635	159.19	160.63	1.5	1.1	6.822	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	196.86	279.29	0.705	196.33	195.99	1.7	1.6	7.322	A
			2	A227N, A227S	135.69	275.24	0.493	135.64	137.17	0.8	0.7	5.193	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	332.67			332.56	333.03	0.3	0.3	0.620	A
	Exit	1	1		386.47			386.47	398.42	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	85.54	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		176.14			176.14	176.90	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	105.36	308.38	0.341	105.17	108.75	0.5	0.4	3.609	A
			2	A227N, SA, A2ON, A227S	129.03	308.23	0.419	128.97	133.79	0.9	0.5	4.004	A
	Exit	1	1		279.97			279.97	282.68	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	117.97	264.03	0.447	118.22	122.78	0.9	0.6	5.142	A
			2	A227N, SA, A2ON, A227S	157.50	266.73	0.591	158.31	159.52	1.1	1.1	6.230	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	190.80	278.98	0.684	191.14	194.39	1.6	1.5	6.933	A
			2	A227N, A227S	122.80	276.86	0.444	123.00	128.73	0.7	0.7	4.847	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	313.39			313.58	322.99	0.3	0.2	0.413	A
	Exit	1	1		394.22			394.22	393.66	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	95.74	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		172.81			172.81	178.26	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	111.89	315.06	0.355	111.69	111.17	0.4	0.5	3.579	A
			2	A227N, SA, A2ON, A227S	133.92	315.06	0.425	133.81	135.51	0.5	0.6	3.861	A
	Exit	1	1		255.06			255.06	260.96	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	113.10	264.28	0.428	113.06	113.13	0.6	0.6	4.746	A
			2	A227N, SA, A2ON, A227S	149.06	263.48	0.565	149.39	149.95	1.1	0.9	5.591	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	190.93	284.33	0.671	190.56	192.69	1.5	1.6	6.761	A
			2	A227N, A227S	125.31	284.20	0.441	125.03	127.44	0.7	0.7	4.829	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	316.28			316.22	320.19	0.2	0.1	0.368	A
	Exit	1	1		329.61			329.61	334.56	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	100.25	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		164.53			164.53	167.08	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	85.50	312.73	0.273	85.47	86.32	0.5	0.3	3.207	A
			2	A227N, SA, A2ON, A227S	104.12	312.15	0.334	104.11	106.71	0.6	0.3	3.506	A
	Exit	1	1		257.03			257.03	261.00	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	102.83	281.82	0.365	102.94	104.12	0.6	0.4	4.227	A
			2	A227N, SA, A2ON, A227S	143.17	285.02	0.502	143.08	145.35	0.9	0.7	5.035	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2025 Do Nothing, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	6.84	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 period length (min)	Time segment length (min)	Run automatically
D4	2025 Do Nothing	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	148.00	223.00	0.00
	SA	0.00	0.00	2.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	195.00	0.00	46.00	0.00	0.00
	A2OFF	181.00	2.00	0.00	88.00	0.00

17:00 - 17:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	146.00	201.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	211.00	0.00	42.00	0.00	0.00
	A2OFF	213.00	0.00	0.00	100.00	0.00

17:15 - 17:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	128.00	219.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	231.00	0.00	54.00	0.00	0.00
	A2OFF	205.00	0.00	1.00	85.00	0.00

17:30 - 17:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	133.00	201.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	194.00	0.00	43.00	0.00	0.00
	A2OFF	204.00	0.00	1.00	81.00	0.00

17:45 - 18:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	132.00	186.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	207.00	0.00	43.00	1.00	0.00
	A2OFF	196.00	0.00	2.00	70.00	0.00

18:00 - 18:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	134.00	190.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	158.00	0.00	35.00	0.00	0.00
	A2OFF	181.00	0.00	0.00	74.00	0.00

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	2	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	3	0	4	0	0
	A2OFF	2	0	0	0	0

17:00 - 17:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	0	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	0	0	0	0
	A2OFF	2	0	0	0	0

17:15 - 17:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	2	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	2	0	0
	A2OFF	1	0	0	0	0

17:30 - 17:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	2	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	0	2	0	0
	A2OFF	1	0	0	0	0

17:45 - 18:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	3	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	0	0	0	0
	A2OFF	1	0	50	0	0

18:00 - 18:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	1	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	0	0	0
	A2OFF	2	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	8.90	3.4	A	342.11	2052.68
SA	16.11	0.1	C	0.45	2.67
A2ON					
A227S	4.07	1.4	A	240.96	1445.77
A2OFF	6.69	2.4	A	282.13	1692.80

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	372.80	372.80	130.57	375.00	375.50	370.75	0.0	3.3	8.900	A
SA	2.17	2.17	503.57	2.14	2.38	2.02	0.0	0.1	16.107	C
A2ON			0.00			197.67				
A227S	235.10	235.10	0.00	235.07	246.66	308.02	0.0	1.1	3.935	A
A2OFF	264.89	264.89	235.07	266.26	272.79	0.00	0.0	1.4	5.608	A

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	347.70	347.70	141.95	347.91	349.28	427.40	3.3	3.1	8.093	A
SA	0.45	0.45	489.74	0.42	0.94	0.12	0.1	0.0	14.341	B
A2ON			0.00			185.73				
A227S	249.71	249.71	0.21	250.34	249.74	304.22	1.1	0.8	3.763	A
A2OFF	319.40	319.40	250.54	318.86	320.09	0.00	1.4	2.4	6.571	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	347.47	347.47	137.11	349.22	355.90	437.55	3.1	2.9	7.559	A
SA	0.03	0.03	486.33	0.03	0.08	0.00	0.0	0.0	14.984	B
A2ON			0.00			182.32				
A227S	284.35	284.35	0.00	285.00	290.57	304.04	0.8	1.4	4.068	A
A2OFF	289.48	289.48	285.00	289.66	292.64	0.00	2.4	2.4	6.695	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	334.22	334.22	124.78	334.93	336.59	404.82	2.9	2.1	6.718	A
SA	0.03	0.03	459.71	0.03	0.04	0.00	0.0	0.0	5.464	A
A2ON			0.00			178.25				
A227S	237.71	237.71	0.03	237.59	242.28	281.46	1.4	1.0	3.721	A
A2OFF	292.01	292.01	237.62	291.98	289.87	0.00	2.4	1.7	5.847	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	319.31	319.31	115.99	318.54	325.24	403.34	2.1	2.6	6.682	A
SA	0.00	0.00	434.53	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			175.57				
A227S	251.82	251.82	0.00	251.44	249.41	258.98	1.0	1.1	3.754	A
A2OFF	267.09	267.09	251.44	267.89	273.72	0.00	1.7	1.5	5.368	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	330.91	330.91	109.84	329.73	327.24	337.25	2.6	2.4	6.568	A
SA	0.00	0.00	439.58	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			168.80				
A227S	187.40	187.40	0.00	187.37	193.87	270.77	1.1	0.8	3.477	A
A2OFF	259.99	259.99	187.37	259.72	259.73	0.00	1.5	1.3	4.840	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	216.68	274.91	0.789	217.99	217.62	0.0	1.9	8.474	A
			2	A227N, A227S	157.61	273.87	0.575	157.01	157.88	0.0	1.0	5.891	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	372.80			374.26	378.40	0.0	0.5	1.505	A
	Exit	1	1		370.75			370.75	383.75	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	2.17	65.39	0.033	2.14	2.38	0.0	0.1	16.107	C
	Exit	1	1		2.02			2.02	1.88	0.0	0.0	0.000	A
A2ON	Exit	1	1		197.67			197.67	197.88	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	106.87	306.45	0.349	106.75	110.78	0.0	0.5	3.644	A
			2	A227N, SA, A2ON, A227S	128.23	305.31	0.420	128.32	135.88	0.0	0.6	4.173	A
	Exit	1	1		308.02			308.02	313.82	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	108.48	262.19	0.413	109.07	114.03	0.0	0.5	4.958	A
			2	A227N, SA, A2ON, A227S	156.42	265.88	0.588	157.16	158.76	0.0	1.0	6.067	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	204.39	272.62	0.750	203.95	207.46	1.9	2.0	8.088	A
			2	A227N, A227S	143.41	276.18	0.519	143.94	141.82	1.0	0.9	5.517	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	347.70			347.79	349.32	0.5	0.3	1.056	A
	Exit	1	1		427.40			427.40	428.42	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.45	73.13	0.006	0.42	0.94	0.1	0.0	14.341	B
	Exit	1	1		0.12			0.12	0.18	0.0	0.0	0.000	A
A2ON	Exit	1	1		185.73			185.73	189.54	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	114.62	314.99	0.364	114.89	115.00	0.5	0.3	3.565	A
			2	A227N, SA, A2ON, A227S	135.09	314.99	0.429	135.45	134.74	0.6	0.5	3.933	A
	Exit	1	1		304.22			304.22	301.91	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	139.78	259.15	0.540	139.57	139.28	0.5	0.9	5.722	A
			2	A227N, SA, A2ON, A227S	179.61	262.12	0.684	179.23	180.81	1.0	1.5	7.217	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	200.79	273.08	0.735	201.39	204.92	2.0	1.7	7.720	A
			2	A227N, A227S	147.95	271.43	0.545	147.83	150.98	0.9	1.0	5.611	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	347.47			348.74	355.78	0.3	0.1	0.735	A
	Exit	1	1		437.55			437.55	441.04	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.03	72.56	0.000	0.03	0.08	0.0	0.0	14.984	B
	Exit	1	1		0.00			0.00	0.02	0.0	0.0	0.000	A
A2ON	Exit	1	1		182.32			182.32	188.01	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	130.22	312.08	0.417	130.63	131.91	0.3	0.6	3.804	A
			2	A227N, SA, A2ON, A227S	154.16	310.76	0.496	154.37	158.66	0.5	0.8	4.289	A
	Exit	1	1		304.04			304.04	310.13	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	126.83	248.54	0.510	126.98	128.00	0.9	0.9	5.968	A
			2	A227N, SA, A2ON, A227S	162.68	249.78	0.651	162.68	164.64	1.5	1.5	7.257	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	200.17	279.03	0.717	200.38	199.94	1.7	1.5	7.077	A
			2	A227N, A227S	134.70	276.34	0.488	134.55	136.65	1.0	0.6	5.147	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	334.22			334.87	335.94	0.1	0.0	0.419	A
	Exit	1	1		404.82			404.82	406.77	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.03	84.36	0.000	0.03	0.04	0.0	0.0	5.464	A
	Exit	1	1		0.00			0.00	0.02	0.0	0.0	0.000	A
A2ON	Exit	1	1		178.25			178.25	177.31	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	107.23	309.15	0.347	106.99	109.06	0.6	0.5	3.580	A
			2	A227N, SA, A2ON, A227S	130.44	309.72	0.421	130.64	133.22	0.8	0.6	3.836	A
	Exit	1	1		281.46			281.46	284.68	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	125.61	265.69	0.473	125.80	126.18	0.9	0.6	5.326	A
			2	A227N, SA, A2ON, A227S	166.40	266.76	0.624	166.16	163.69	1.5	1.1	6.247	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	192.86	279.62	0.690	192.48	194.78	1.5	1.6	7.099	A
			2	A227N, A227S	126.54	275.83	0.459	126.06	130.46	0.6	0.7	4.869	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	319.31			319.53	325.54	0.0	0.2	0.470	A
	Exit	1	1		403.34			403.34	406.19	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	93.34	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		175.57			175.57	178.03	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	113.85	315.06	0.361	113.64	113.10	0.5	0.5	3.573	A
			2	A227N, SA, A2ON, A227S	137.97	315.06	0.438	137.79	136.31	0.6	0.6	3.904	A
	Exit	1	1		258.98			258.98	264.15	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	116.46	262.42	0.444	117.56	119.61	0.6	0.4	4.894	A
			2	A227N, SA, A2ON, A227S	150.62	261.31	0.577	150.33	154.11	1.1	1.1	5.736	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	199.07	282.87	0.704	198.51	197.59	1.6	1.5	6.912	A
			2	A227N, A227S	131.61	283.20	0.465	131.23	129.64	0.7	0.8	4.872	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	330.91			330.68	327.08	0.2	0.1	0.469	A
	Exit	1	1		337.25			337.25	342.99	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	92.93	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		168.80			168.80	169.69	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	82.93	312.71	0.265	82.75	85.00	0.5	0.4	3.428	A
			2	A227N, SA, A2ON, A227S	104.47	312.58	0.334	104.61	108.87	0.6	0.4	3.515	A
	Exit	1	1		270.77			270.77	268.16	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	108.48	281.71	0.385	108.36	109.63	0.4	0.6	4.322	A
			2	A227N, SA, A2ON, A227S	151.51	285.90	0.530	151.37	150.10	1.1	0.7	5.216	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2025 Do Minimum, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	8.09	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 period length (min)	Time segment length (min)	Run automatically
D6	2025 Do Minimum	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	148.00	223.00	0.00
	SA	7.00	0.00	13.00	11.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	192.00	12.00	46.00	0.00	0.00
	A2OFF	177.00	19.00	0.00	87.00	0.00

17:00 - 17:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	146.00	201.00	0.00
	SA	7.00	0.00	12.00	11.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	208.00	12.00	42.00	0.00	0.00
	A2OFF	208.00	18.00	0.00	99.00	0.00

17:15 - 17:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	128.00	219.00	0.00
	SA	7.00	0.00	12.00	11.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	228.00	12.00	54.00	0.00	0.00
	A2OFF	200.00	18.00	1.00	83.00	0.00

17:30 - 17:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	133.00	201.00	0.00
	SA	7.00	0.00	11.00	11.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	191.00	11.00	43.00	0.00	0.00
	A2OFF	200.00	17.00	1.00	80.00	0.00

17:45 - 18:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	132.00	186.00	0.00
	SA	7.00	0.00	11.00	10.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	204.00	11.00	43.00	1.00	0.00
	A2OFF	192.00	17.00	22.00	68.00	0.00

18:00 - 18:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	134.00	190.00	0.00
	SA	6.00	0.00	10.00	9.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	156.00	10.00	35.00	0.00	0.00
	A2OFF	177.00	15.00	0.00	73.00	0.00

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	2	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	3	1	4	0	0
	A2OFF	2	1	0	0	0

17:00 - 17:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	0	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	1	0	0	0
	A2OFF	2	1	0	0	0

17:15 - 17:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	1	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	1	2	0	0
	A2OFF	1	1	0	0	0

17:30 - 17:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	2	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	1	2	0	0
	A2OFF	2	1	0	0	0

17:45 - 18:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	3	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	1	0	0	0
	A2OFF	1	1	50	0	0

18:00 - 18:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	1	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	1	0	0	0
	A2OFF	2	1	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	9.65	4.6	A	340.69	2044.14
SA	28.10	1.5	D	29.38	176.30
A2ON					
A227S	4.17	1.3	A	250.06	1500.36
A2OFF	7.65	2.8	A	298.59	1791.56

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	373.96	373.96	167.35	371.08	373.61	379.09	0.0	4.5	9.649	A
SA	31.69	31.69	506.56	30.39	30.77	31.87	0.0	1.4	26.782	D
A2ON			0.00			206.82				
A227S	249.12	249.12	6.56	248.88	256.14	323.55	0.0	1.0	4.056	A
A2OFF	291.06	291.06	255.52	291.00	288.16	0.00	0.0	1.9	6.365	A

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	346.84	346.84	171.65	346.33	350.63	420.06	4.5	3.0	8.946	A
SA	32.17	32.17	487.96	31.25	30.99	30.03	1.4	1.1	28.102	D
A2ON			0.00			200.29				
A227S	258.09	258.09	7.19	258.80	259.93	311.73	1.0	0.9	3.887	A
A2OFF	324.77	324.77	265.99	325.72	327.52	0.00	1.9	2.8	7.647	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	345.83	345.83	168.06	346.34	352.07	438.77	3.0	3.3	8.261	A
SA	29.44	29.44	485.26	28.87	29.58	29.14	1.1	0.9	22.736	C
A2ON			0.00			195.59				
A227S	291.82	291.82	6.80	292.60	296.62	311.73	0.9	1.3	4.170	A
A2OFF	308.67	308.67	299.41	307.43	304.04	0.00	2.8	2.7	7.157	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	333.09	333.09	150.47	333.89	335.44	402.76	3.3	2.6	7.522	A
SA	28.31	28.31	457.28	28.37	29.50	27.09	0.9	0.5	17.878	C
A2ON			0.00			187.13				
A227S	242.05	242.05	7.31	242.70	249.47	291.21	1.3	0.9	3.849	A
A2OFF	302.76	302.76	250.01	303.24	306.21	0.00	2.7	2.2	6.687	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	321.74	321.74	162.06	322.51	326.11	405.47	2.6	2.4	7.485	A
SA	28.90	28.90	456.12	28.63	28.37	28.46	0.5	0.7	18.155	C
A2ON			0.00			208.04				
A227S	258.60	258.60	7.07	258.62	259.01	269.82	0.9	1.2	3.845	A
A2OFF	301.90	301.90	265.69	301.84	312.17	0.00	2.2	2.5	7.329	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	322.75	322.75	131.79	321.56	326.44	337.48	2.4	3.0	7.276	A
SA	25.75	25.75	427.84	25.40	25.81	25.51	0.7	0.4	14.545	B
A2ON			0.00			178.88				
A227S	200.88	200.88	5.41	200.76	201.93	268.99	1.2	0.8	3.553	A
A2OFF	262.66	262.66	206.17	263.11	271.21	0.00	2.5	1.3	5.145	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	214.90	264.52	0.813	213.71	215.70	0.0	2.4	8.913	A
			2	A227N, A227S	157.52	262.67	0.600	157.40	157.91	0.0	1.0	6.338	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	373.96			372.39	377.05	0.0	1.2	1.808	A
	Exit	1	1		379.09			379.09	385.14	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	31.69	63.97	0.496	30.39	30.77	0.0	1.4	26.782	D
	Exit	1	1		31.87			31.87	31.03	0.0	0.0	0.000	A
A2ON	Exit	1	1		206.82			206.82	208.05	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	107.61	304.21	0.353	108.21	111.62	0.0	0.3	3.771	A
			2	A227N, SA, A2ON, A227S	141.21	303.78	0.465	140.67	144.51	0.0	0.7	4.276	A
	Exit	1	1		323.55			323.55	324.47	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	119.46	255.61	0.467	119.18	117.74	0.0	0.7	5.328	A
			2	A227N, SA, A2ON, A227S	171.60	258.37	0.664	171.77	170.42	0.0	1.2	7.074	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	203.67	265.38	0.767	202.81	206.84	2.4	1.9	8.753	A
			2	A227N, A227S	143.61	267.17	0.538	143.52	143.79	1.0	0.9	5.824	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	346.84			347.29	349.93	1.2	0.3	1.407	A
	Exit	1	1		420.06			420.06	424.18	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	32.17	73.72	0.437	31.25	30.99	1.4	1.1	28.102	D
	Exit	1	1		30.03			30.03	29.52	0.0	0.0	0.000	A
A2ON	Exit	1	1		200.29			200.29	204.09	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	113.97	312.68	0.364	114.36	114.49	0.3	0.4	3.657	A
			2	A227N, SA, A2ON, A227S	144.12	312.30	0.461	144.45	145.45	0.7	0.5	4.068	A
	Exit	1	1		311.73			311.73	311.29	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	139.67	253.86	0.550	139.46	140.01	0.7	1.0	6.518	A
			2	A227N, SA, A2ON, A227S	185.08	256.87	0.720	186.25	187.51	1.2	1.7	8.478	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	200.00	262.90	0.761	199.75	203.59	1.9	1.9	8.142	A
			2	A227N, A227S	146.76	265.17	0.553	146.58	148.48	0.9	1.0	6.000	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	345.83			346.69	352.36	0.3	0.3	1.023	A
	Exit	1	1		438.77			438.77	439.22	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	29.44	72.78	0.404	28.87	29.58	1.1	0.9	22.736	C
	Exit	1	1		29.14			29.14	30.58	0.0	0.0	0.000	A
A2ON	Exit	1	1		195.59			195.59	199.97	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	130.46	310.14	0.421	130.75	131.61	0.4	0.5	3.889	A
			2	A227N, SA, A2ON, A227S	161.38	307.95	0.524	161.91	165.01	0.5	0.8	4.395	A
	Exit	1	1		311.73			311.73	312.54	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	132.68	243.53	0.545	131.88	130.74	1.0	1.1	6.222	A
			2	A227N, SA, A2ON, A227S	176.01	244.38	0.720	175.54	173.30	1.7	1.5	7.861	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	196.49	271.49	0.724	196.63	196.58	1.9	1.7	7.784	A
			2	A227N, A227S	136.84	267.35	0.512	137.28	138.85	1.0	0.8	5.536	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	333.09			333.33	334.87	0.3	0.2	0.667	A
	Exit	1	1		402.76			402.76	409.82	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	28.31	84.55	0.335	28.37	29.50	0.9	0.5	17.878	C
	Exit	1	1		27.09			27.09	27.19	0.0	0.0	0.000	A
A2ON	Exit	1	1		187.13			187.13	188.43	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	106.19	306.27	0.347	106.21	109.36	0.5	0.4	3.598	A
			2	A227N, SA, A2ON, A227S	135.86	307.10	0.442	136.49	140.11	0.8	0.5	4.045	A
	Exit	1	1		291.21			291.21	295.18	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	129.39	259.26	0.499	129.83	132.50	1.1	0.7	5.707	A
			2	A227N, SA, A2ON, A227S	173.38	260.82	0.665	173.41	173.70	1.5	1.5	7.425	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	193.79	262.86	0.737	194.26	194.23	1.7	1.5	7.814	A
			2	A227N, A227S	128.01	259.93	0.493	128.26	131.88	0.8	0.7	5.534	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	321.74			321.83	325.90	0.2	0.2	0.580	A
	Exit	1	1		405.47			405.47	404.93	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	28.90	80.17	0.361	28.63	28.37	0.5	0.7	18.155	C
	Exit	1	1		28.46			28.46	28.41	0.0	0.0	0.000	A
A2ON	Exit	1	1		208.04			208.04	219.79	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	115.10	312.72	0.368	114.83	115.26	0.4	0.5	3.546	A
			2	A227N, SA, A2ON, A227S	143.50	312.40	0.459	143.79	143.75	0.5	0.6	4.085	A
	Exit	1	1		269.82			269.82	272.52	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	131.55	256.17	0.514	132.00	131.11	0.7	0.7	5.949	A
			2	A227N, SA, A2ON, A227S	170.35	243.14	0.701	169.87	181.06	1.5	1.7	8.382	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	193.99	276.06	0.703	193.19	195.73	1.5	1.8	7.484	A
			2	A227N, A227S	128.38	277.11	0.463	128.38	130.70	0.7	0.9	5.300	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	322.75			322.37	326.93	0.2	0.3	0.678	A
	Exit	1	1		337.48			337.48	345.31	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	25.75	96.89	0.266	25.40	25.81	0.7	0.4	14.545	B
	Exit	1	1		25.51			25.51	25.55	0.0	0.0	0.000	A
A2ON	Exit	1	1		178.88			178.88	180.52	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	87.17	310.42	0.281	87.36	87.31	0.5	0.3	3.373	A
			2	A227N, SA, A2ON, A227S	113.73	311.24	0.365	113.41	114.62	0.6	0.5	3.689	A
	Exit	1	1		268.99			268.99	274.00	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	107.67	276.19	0.389	107.85	111.51	0.7	0.5	4.547	A
			2	A227N, SA, A2ON, A227S	154.99	278.19	0.557	155.26	159.69	1.7	0.9	5.560	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2025 Do Minimum Residual, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	7.80	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 period length (min)	Time segment length (min)	Run automatically
D8	2025 Do Minimum Residual	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	148.00	223.00	0.00
	SA	7.00	0.00	13.00	10.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	192.00	11.00	46.00	0.00	0.00
	A2OFF	177.00	18.00	0.00	87.00	0.00

17:00 - 17:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	146.00	201.00	0.00
	SA	7.00	0.00	11.00	10.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	208.00	11.00	42.00	0.00	0.00
	A2OFF	208.00	16.00	0.00	99.00	0.00

17:15 - 17:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	128.00	219.00	0.00
	SA	7.00	0.00	11.00	10.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	228.00	11.00	54.00	0.00	0.00
	A2OFF	200.00	16.00	1.00	83.00	0.00

17:30 - 17:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	133.00	201.00	0.00
	SA	7.00	0.00	10.00	9.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	191.00	10.00	43.00	0.00	0.00
	A2OFF	200.00	15.00	1.00	80.00	0.00

17:45 - 18:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	132.00	186.00	0.00
	SA	7.00	0.00	10.00	9.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	204.00	10.00	43.00	1.00	0.00
	A2OFF	192.00	14.00	2.00	68.00	0.00

18:00 - 18:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	134.00	190.00	0.00
	SA	6.00	0.00	9.00	9.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	156.00	9.00	35.00	0.00	0.00
	A2OFF	177.00	13.00	0.00	73.00	0.00

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	2	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	3	1	4	0	0
	A2OFF	2	1	0	0	0

17:00 - 17:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	0	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	1	0	0	0
	A2OFF	2	1	0	0	0

17:15 - 17:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	1	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	1	2	0	0
	A2OFF	1	1	0	0	0

17:30 - 17:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	2	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	1	2	0	0
	A2OFF	2	1	0	0	0

17:45 - 18:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	3	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	1	0	0	0
	A2OFF	1	1	50	0	0

18:00 - 18:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	1	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	1	0	0	0
	A2OFF	2	1	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	9.23	4.6	A	339.02	2034.15
SA	24.74	0.8	C	26.50	158.98
A2ON					
A227S	4.26	1.3	A	250.45	1502.67
A2OFF	7.64	2.7	A	288.90	1733.38

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	372.65	372.65	163.60	370.66	372.91	377.73	0.0	4.5	9.228	A
SA	28.35	28.35	505.05	29.11	30.29	29.23	0.0	0.8	24.736	C
A2ON			0.00			208.60				
A227S	252.27	252.27	6.95	252.27	257.36	318.61	0.0	1.1	3.973	A
A2OFF	282.45	282.45	259.22	282.12	284.39	0.00	0.0	2.0	6.222	A

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	349.69	349.69	165.89	352.01	352.41	425.75	4.5	3.1	8.929	A
SA	26.91	26.91	492.09	27.06	27.71	25.81	0.8	0.7	24.560	C
A2ON			0.00			202.01				
A227S	262.31	262.31	6.12	262.51	262.49	311.02	1.1	1.2	3.859	A
A2OFF	324.03	324.03	268.63	323.05	325.91	0.00	2.0	2.7	7.641	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	341.47	341.47	162.80	341.85	349.26	430.87	3.1	2.7	7.510	A
SA	27.18	27.18	478.61	27.00	28.27	26.05	0.7	0.7	21.653	C
A2ON			0.00			192.68				
A227S	292.22	292.22	6.42	292.78	291.83	306.47	1.2	1.3	4.259	A
A2OFF	294.89	294.89	299.20	294.47	301.86	0.00	2.7	2.4	7.071	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	326.67	326.67	149.85	326.29	334.37	400.21	2.7	2.6	7.361	A
SA	27.21	27.21	451.46	27.12	26.72	24.68	0.7	0.6	17.004	C
A2ON			0.00			185.91				
A227S	245.47	245.47	7.96	245.23	249.68	284.70	1.3	1.0	3.831	A
A2OFF	296.88	296.88	253.19	296.85	301.91	0.00	2.4	2.2	6.544	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	317.88	317.88	137.14	317.97	326.48	398.47	2.6	2.5	6.993	A
SA	26.37	26.37	430.55	26.20	26.73	24.56	0.6	0.4	14.253	B
A2ON			0.00			187.81				
A227S	254.85	254.85	7.66	254.76	257.45	261.27	1.0	1.2	3.858	A
A2OFF	272.91	272.91	262.42	273.18	278.35	0.00	2.2	1.6	5.859	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	325.66	325.66	128.41	322.96	326.37	335.44	2.5	3.4	6.839	A
SA	22.90	22.90	428.94	22.90	24.45	22.43	0.4	0.3	13.262	B
A2ON			0.00			176.67				
A227S	195.74	195.74	5.35	195.98	201.79	269.82	1.2	0.7	3.529	A
A2OFF	262.13	262.13	201.33	262.49	267.36	0.00	1.6	1.4	5.215	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	212.85	265.49	0.801	211.57	213.98	0.0	2.5	8.912	A
			2	A227N, A227S	158.73	263.47	0.603	159.09	158.93	0.0	1.1	6.061	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	372.65			371.58	376.50	0.0	1.0	1.511	A
	Exit	1	1		377.73			377.73	385.51	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	28.35	64.23	0.442	29.11	30.29	0.0	0.8	24.736	C
	Exit	1	1		29.23			29.23	28.95	0.0	0.0	0.000	A
A2ON	Exit	1	1		208.60			208.60	208.80	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	108.42	304.01	0.357	108.59	110.79	0.0	0.4	3.730	A
			2	A227N, SA, A2ON, A227S	143.85	303.66	0.473	143.67	146.56	0.0	0.7	4.156	A
	Exit	1	1		318.61			318.61	321.67	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	114.71	253.71	0.452	114.33	116.50	0.0	0.7	5.238	A
			2	A227N, SA, A2ON, A227S	167.73	256.44	0.654	167.79	167.89	0.0	1.3	6.895	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	209.20	267.37	0.783	209.55	209.13	2.5	1.9	8.603	A
			2	A227N, A227S	142.57	268.90	0.530	142.46	143.28	1.1	1.0	5.852	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	349.69			351.76	351.67	1.0	0.2	1.464	A
	Exit	1	1		425.75			425.75	426.36	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	26.91	72.09	0.373	27.06	27.71	0.8	0.7	24.560	C
	Exit	1	1		25.81			25.81	26.51	0.0	0.0	0.000	A
A2ON	Exit	1	1		202.01			202.01	203.19	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	115.72	313.04	0.370	116.08	116.92	0.4	0.5	3.572	A
			2	A227N, SA, A2ON, A227S	146.58	312.85	0.469	146.44	145.56	0.7	0.7	4.090	A
	Exit	1	1		311.02			311.02	312.46	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	138.77	252.95	0.549	138.62	139.50	0.7	1.0	6.548	A
			2	A227N, SA, A2ON, A227S	185.26	256.07	0.724	184.43	186.42	1.3	1.8	8.448	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	195.53	265.56	0.736	196.18	201.78	1.9	1.5	7.699	A
			2	A227N, A227S	146.05	267.56	0.546	145.66	147.48	1.0	0.9	5.664	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	341.47			341.59	348.91	0.2	0.3	0.672	A
	Exit	1	1		430.87			430.87	436.37	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	27.18	75.83	0.358	27.00	28.27	0.7	0.7	21.653	C
	Exit	1	1		26.05			26.05	26.94	0.0	0.0	0.000	A
A2ON	Exit	1	1		192.68			192.68	196.65	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	130.99	309.22	0.423	130.78	130.56	0.5	0.6	3.909	A
			2	A227N, SA, A2ON, A227S	161.23	309.31	0.521	162.00	161.27	0.7	0.7	4.544	A
	Exit	1	1		306.47			306.47	311.26	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	126.05	243.17	0.519	125.82	129.69	1.0	0.9	6.170	A
			2	A227N, SA, A2ON, A227S	168.86	244.09	0.692	168.65	172.17	1.8	1.5	7.745	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	192.98	271.49	0.711	193.37	196.92	1.5	1.5	7.629	A
			2	A227N, A227S	132.86	268.15	0.495	132.92	137.45	0.9	0.8	5.382	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	326.67			325.84	334.18	0.3	0.3	0.644	A
	Exit	1	1		400.21			400.21	409.13	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	27.21	86.72	0.314	27.12	26.72	0.7	0.6	17.004	C
	Exit	1	1		24.68			24.68	24.93	0.0	0.0	0.000	A
A2ON	Exit	1	1		185.91			185.91	186.49	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	108.77	306.26	0.355	108.78	109.46	0.6	0.4	3.613	A
			2	A227N, SA, A2ON, A227S	136.69	305.71	0.447	136.43	140.23	0.7	0.6	4.001	A
	Exit	1	1		284.70			284.70	292.14	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	125.64	257.67	0.488	125.85	129.34	0.9	0.8	5.660	A
			2	A227N, SA, A2ON, A227S	171.24	259.87	0.659	171.05	172.57	1.5	1.4	7.199	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	192.30	272.66	0.705	192.48	195.60	1.5	1.5	7.288	A
			2	A227N, A227S	125.67	269.21	0.467	125.50	130.87	0.8	0.8	5.188	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	317.88			317.91	326.54	0.3	0.2	0.546	A
	Exit	1	1		398.47			398.47	404.39	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	26.37	94.12	0.280	26.20	26.73	0.6	0.4	14.253	B
	Exit	1	1		24.56			24.56	23.82	0.0	0.0	0.000	A
A2ON	Exit	1	1		187.81			187.81	190.93	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	111.80	312.53	0.358	111.86	113.78	0.4	0.5	3.652	A
			2	A227N, SA, A2ON, A227S	143.05	312.39	0.458	142.90	143.66	0.6	0.7	4.021	A
	Exit	1	1		261.27			261.27	269.86	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	115.84	257.86	0.449	116.25	119.36	0.8	0.6	5.146	A
			2	A227N, SA, A2ON, A227S	157.07	257.23	0.610	156.90	158.99	1.4	1.0	6.396	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	194.06	277.45	0.700	193.04	195.04	1.5	1.8	7.151	A
			2	A227N, A227S	130.60	277.23	0.471	129.92	131.33	0.8	1.0	5.022	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	325.66			324.65	326.83	0.2	0.5	0.552	A
	Exit	1	1		335.44			335.44	343.99	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	22.90	95.78	0.239	22.90	24.45	0.4	0.3	13.262	B
	Exit	1	1		22.43			22.43	22.48	0.0	0.0	0.000	A
A2ON	Exit	1	1		176.67			176.67	178.70	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	82.07	310.20	0.265	82.17	86.25	0.5	0.3	3.340	A
			2	A227N, SA, A2ON, A227S	113.67	310.70	0.366	113.85	115.54	0.7	0.4	3.670	A
	Exit	1	1		269.82			269.82	274.79	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	109.51	276.88	0.395	109.55	111.19	0.6	0.5	4.540	A
			2	A227N, SA, A2ON, A227S	152.61	279.67	0.546	152.97	156.17	1.0	0.9	5.691	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2028 Do Nothing, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	7.53	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 period length (min)	Time segment length (min)	Run automatically
D10	2028 Do Nothing	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	153.00	238.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	205.00	0.00	47.00	0.00	0.00
	A2OFF	197.00	2.00	0.00	92.00	0.00

17:00 - 17:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	151.00	216.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	221.00	0.00	43.00	0.00	0.00
	A2OFF	230.00	0.00	0.00	105.00	0.00

17:15 - 17:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	133.00	234.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	242.00	0.00	56.00	0.00	0.00
	A2OFF	222.00	0.00	1.00	89.00	0.00

17:30 - 17:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	138.00	215.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	204.00	0.00	44.00	0.00	0.00
	A2OFF	221.00	0.00	1.00	85.00	0.00

17:45 - 18:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	137.00	199.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	217.00	0.00	44.00	1.00	0.00
	A2OFF	212.00	0.00	2.00	73.00	0.00

18:00 - 18:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	139.00	202.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	167.00	0.00	36.00	0.00	0.00
	A2OFF	195.00	0.00	0.00	77.00	0.00

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	2	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	3	0	4	0	0
	A2OFF	2	0	0	0	0

17:00 - 17:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	0	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	0	0	0	0
	A2OFF	2	0	0	0	0

17:15 - 17:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	1	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	2	0	0
	A2OFF	1	0	0	0	0

17:30 - 17:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	1	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	0	2	0	0
	A2OFF	1	0	0	0	0

17:45 - 18:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	3	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	0	0	0	0
	A2OFF	1	0	50	0	0

18:00 - 18:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	1	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	0	0	0
	A2OFF	2	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	9.91	4.4	A	360.51	2163.08
SA	0.00	0.0	A	0.00	0.00
A2ON					
A227S	4.13	1.6	A	254.19	1525.14
A2OFF	7.55	3.0	A	303.59	1821.54

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	391.36	391.36	136.23	388.77	392.86	393.24	0.0	4.4	9.915	A
SA	0.00	0.00	522.82	0.00	0.00	2.18	0.0	0.0	0.000	A
A2ON			0.00			196.84				
A227S	250.02	250.02	0.00	248.25	257.41	325.98	0.0	1.3	3.814	A
A2OFF	283.02	283.02	248.25	281.25	287.16	0.00	0.0	2.2	6.193	A

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	359.86	359.86	150.61	358.43	362.84	462.14	4.4	3.4	8.837	A
SA	0.00	0.00	509.05	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			187.02				
A227S	259.84	259.84	0.00	260.80	262.30	322.02	1.3	0.9	3.837	A
A2OFF	353.59	353.59	260.80	351.96	345.95	0.00	2.2	3.0	7.554	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	368.39	368.39	146.32	370.30	371.48	468.96	3.4	2.8	8.600	A
SA	0.00	0.00	516.61	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			190.50				
A227S	302.59	302.59	0.00	302.05	305.75	326.11	0.9	1.6	4.129	A
A2OFF	314.05	314.05	302.05	313.30	313.98	0.00	3.0	2.9	7.427	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	358.57	358.57	133.02	356.38	360.93	417.13	2.8	2.9	7.425	A
SA	0.00	0.00	489.41	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			181.98				
A227S	247.57	247.57	0.00	246.75	254.91	307.43	1.6	1.1	3.940	A
A2OFF	304.23	304.23	246.75	303.41	308.09	0.00	2.9	2.3	6.552	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	340.84	340.84	121.84	341.66	348.41	432.41	2.9	3.0	7.803	A
SA	0.00	0.00	463.50	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			189.20				
A227S	259.30	259.30	0.00	260.66	260.84	274.30	1.1	0.9	3.706	A
A2OFF	294.96	294.96	260.66	293.59	298.59	0.00	2.3	1.8	6.111	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	343.23	343.23	116.25	340.77	348.98	360.00	3.0	3.1	6.969	A
SA	0.00	0.00	457.09	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			176.32				
A227S	205.64	205.64	0.00	205.30	202.41	280.77	0.9	0.9	3.507	A
A2OFF	271.16	271.16	205.30	270.95	275.45	0.00	1.8	1.5	5.006	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	224.86	272.93	0.824	223.16	225.68	0.0	2.4	8.812	A
			2	A227N, A227S	165.48	272.30	0.608	165.61	167.18	0.0	1.2	6.370	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	391.36			390.52	396.55	0.0	0.8	2.135	A
	Exit	1	1		393.24			393.24	406.14	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	57.55	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		2.18			2.18	2.14	0.0	0.0	0.000	A
A2ON	Exit	1	1		196.84			196.84	198.27	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	110.45	306.68	0.359	109.77	114.27	0.0	0.6	3.669	A
			2	A227N, SA, A2ON, A227S	139.57	304.86	0.458	138.48	143.14	0.0	0.7	3.930	A
	Exit	1	1		325.98			325.98	330.89	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	121.38	258.59	0.469	120.89	122.77	0.0	0.8	5.435	A
			2	A227N, SA, A2ON, A227S	161.80	260.75	0.621	160.36	164.39	0.0	1.4	6.753	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	211.30	272.43	0.775	209.93	212.98	2.4	2.2	8.445	A
			2	A227N, A227S	148.70	273.58	0.544	148.50	149.86	1.2	1.0	5.779	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	359.86			360.00	362.30	0.8	0.2	1.499	A
	Exit	1	1		462.14			462.14	458.93	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	66.11	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.05	0.0	0.0	0.000	A
A2ON	Exit	1	1		187.02			187.02	192.41	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	119.52	315.06	0.379	119.86	120.75	0.6	0.4	3.668	A
			2	A227N, SA, A2ON, A227S	140.32	315.06	0.445	140.93	141.55	0.7	0.5	3.981	A
	Exit	1	1		322.02			322.02	319.70	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	157.09	256.21	0.614	157.09	153.66	0.8	1.0	6.617	A
			2	A227N, SA, A2ON, A227S	196.57	259.51	0.758	194.86	192.30	1.4	2.0	8.292	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	208.98	270.58	0.773	210.61	210.64	2.2	1.6	8.301	A
			2	A227N, A227S	159.48	272.43	0.586	159.68	160.84	1.0	1.0	6.014	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	368.39			368.45	371.02	0.2	0.2	1.298	A
	Exit	1	1		468.96			468.96	472.20	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	61.26	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		190.50			190.50	192.93	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	138.61	311.80	0.445	138.00	138.75	0.4	0.7	3.901	A
			2	A227N, SA, A2ON, A227S	164.02	311.63	0.526	164.04	167.00	0.5	0.9	4.320	A
	Exit	1	1		326.11			326.11	326.07	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	138.89	242.61	0.572	138.25	139.45	1.0	1.0	6.687	A
			2	A227N, SA, A2ON, A227S	175.16	243.83	0.719	174.95	174.52	2.0	1.9	8.015	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	211.36	277.16	0.763	208.98	210.66	1.6	1.9	7.564	A
			2	A227N, A227S	147.48	275.75	0.535	147.41	150.27	1.0	0.8	5.482	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	358.57			358.61	361.05	0.2	0.2	0.717	A
	Exit	1	1		417.13			417.13	429.84	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	72.79	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		181.98			181.98	185.89	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	113.45	310.02	0.366	113.05	114.50	0.7	0.5	3.815	A
			2	A227N, SA, A2ON, A227S	134.11	307.84	0.436	133.70	140.41	0.9	0.7	4.042	A
	Exit	1	1		307.43			307.43	308.20	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	133.50	262.48	0.509	132.89	135.50	1.0	1.0	5.951	A
			2	A227N, SA, A2ON, A227S	170.78	262.93	0.649	170.52	172.59	1.9	1.3	7.022	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	205.09	277.09	0.741	204.27	206.73	1.9	2.0	7.594	A
			2	A227N, A227S	136.98	272.52	0.502	137.39	141.68	0.8	1.0	5.331	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	340.84			342.13	348.61	0.2	0.1	1.128	A
	Exit	1	1		432.41			432.41	438.30	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	81.02	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		189.20			189.20	187.45	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	118.02	315.06	0.375	118.23	119.32	0.5	0.5	3.516	A
			2	A227N, SA, A2ON, A227S	141.27	315.06	0.448	142.43	141.52	0.7	0.5	3.866	A
	Exit	1	1		274.30			274.30	282.09	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	131.25	257.84	0.509	130.91	133.11	1.0	0.7	5.599	A
			2	A227N, SA, A2ON, A227S	163.70	258.17	0.635	162.68	165.48	1.3	1.1	6.524	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	202.71	281.24	0.721	202.50	207.09	2.0	1.7	7.344	A
			2	A227N, A227S	138.68	281.26	0.493	138.34	141.89	1.0	0.8	5.172	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	343.23			341.39	348.48	0.1	0.6	0.517	A
	Exit	1	1		360.00			360.00	365.07	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	85.96	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		176.32			176.32	179.25	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	94.77	310.74	0.305	94.68	91.30	0.5	0.5	3.354	A
			2	A227N, SA, A2ON, A227S	110.86	312.18	0.355	110.66	111.11	0.5	0.4	3.633	A
	Exit	1	1		280.77			280.77	282.52	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	115.09	275.59	0.418	115.02	118.89	0.7	0.5	4.421	A
			2	A227N, SA, A2ON, A227S	156.07	279.10	0.560	155.93	156.57	1.1	1.1	5.447	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2028 Do Minimum, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	9.46	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 period length (min)	Time segment length (min)	Run automatically
D12	2028 Do Minimum	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	153.00	238.00	0.00
	SA	7.00	0.00	11.00	13.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	202.00	12.00	47.00	0.00	0.00
	A2OFF	193.00	19.00	0.00	90.00	0.00

17:00 - 17:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	151.00	216.00	0.00
	SA	7.00	0.00	12.00	11.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	219.00	12.00	43.00	0.00	0.00
	A2OFF	226.00	18.00	0.00	103.00	0.00

17:15 - 17:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	133.00	234.00	0.00
	SA	7.00	0.00	12.00	11.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	239.00	12.00	56.00	0.00	0.00
	A2OFF	218.00	18.00	1.00	87.00	0.00

17:30 - 17:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	138.00	215.00	0.00
	SA	7.00	0.00	11.00	11.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	201.00	11.00	44.00	0.00	0.00
	A2OFF	217.00	17.00	1.00	83.00	0.00

17:45 - 18:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	137.00	199.00	0.00
	SA	7.00	0.00	11.00	10.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	214.00	11.00	44.00	1.00	0.00
	A2OFF	208.00	17.00	2.00	72.00	0.00

18:00 - 18:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	139.00	202.00	0.00
	SA	6.00	0.00	10.00	9.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	164.00	10.00	36.00	0.00	0.00
	A2OFF	192.00	15.00	0.00	76.00	0.00

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	2	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	1	4	0	0
	A2OFF	2	1	0	0	0

17:00 - 17:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	0	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	1	0	0	0
	A2OFF	2	1	0	0	0

17:15 - 17:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	1	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	1	2	0	0
	A2OFF	1	1	0	0	0

17:30 - 17:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	1	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	1	2	0	0
	A2OFF	1	1	0	0	0

17:45 - 18:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	3	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	1	0	0	0
	A2OFF	1	1	50	0	0

18:00 - 18:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	1	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	1	0	0	0
	A2OFF	2	1	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	11.61	5.6	B	356.77	2140.60
SA	36.90	1.4	E	28.13	168.75
A2ON					
A227S	4.37	1.8	A	262.37	1574.23
A2OFF	8.82	3.7	A	311.47	1868.80

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	385.19	385.19	170.52	385.61	389.72	400.90	0.0	5.6	11.613	B
SA	30.47	30.47	525.59	30.65	29.89	30.50	0.0	1.4	36.901	E
A2ON			0.00			208.52				
A227S	262.19	262.19	7.34	261.98	268.50	340.43	0.0	1.3	4.109	A
A2OFF	301.60	301.60	269.32	302.11	303.87	0.00	0.0	2.6	7.124	A

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	362.08	362.08	172.78	362.76	367.65	452.58	5.6	3.9	10.421	B
SA	29.38	29.38	505.97	30.03	30.33	29.58	1.4	1.0	36.759	E
A2ON			0.00			202.11				
A227S	274.01	274.01	7.37	273.54	274.51	326.50	1.3	1.2	3.996	A
A2OFF	345.24	345.24	280.90	344.47	351.66	0.00	2.6	3.6	8.819	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	365.70	365.70	171.39	365.32	371.86	459.86	3.9	3.8	8.986	A
SA	29.37	29.37	507.15	30.09	30.41	29.54	1.0	1.0	31.282	D
A2ON			0.00			201.18				
A227S	305.11	305.11	6.45	303.92	308.95	329.61	1.2	1.8	4.368	A
A2OFF	319.43	319.43	310.37	320.88	325.60	0.00	3.6	2.6	8.411	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	349.16	349.16	153.30	347.94	355.90	423.71	3.8	3.6	8.490	A
SA	28.22	28.22	473.94	28.87	29.27	27.30	1.0	0.6	22.005	C
A2ON			0.00			191.94				
A227S	253.72	253.72	7.34	253.51	260.95	303.54	1.8	1.1	4.018	A
A2OFF	315.51	315.51	260.85	316.16	321.37	0.00	2.6	2.3	7.102	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	337.48	337.48	143.91	337.34	345.20	431.58	3.6	3.0	7.893	A
SA	26.76	26.76	452.46	26.49	26.99	28.78	0.6	0.4	17.095	C
A2ON			0.00			188.02				
A227S	269.17	269.17	7.25	269.76	269.35	283.68	1.1	1.1	3.914	A
A2OFF	299.76	299.76	277.01	298.49	302.58	0.00	2.3	2.6	6.435	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	341.08	341.08	139.16	342.68	345.99	363.71	3.0	2.3	7.318	A
SA	24.56	24.56	457.78	24.59	25.61	24.06	0.4	0.3	14.499	B
A2ON			0.00			183.94				
A227S	209.82	209.82	5.20	210.76	212.91	293.23	1.1	0.6	3.597	A
A2OFF	287.08	287.08	215.97	286.90	289.02	0.00	2.6	1.8	5.537	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	219.42	263.73	0.832	220.19	222.60	0.0	2.4	9.699	A
			2	A227N, A227S	165.56	260.82	0.635	165.42	167.12	0.0	1.4	6.761	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	385.19			384.95	393.60	0.0	1.8	3.143	A
	Exit	1	1		400.90			400.90	409.56	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	30.47	56.19	0.543	30.65	29.89	0.0	1.4	36.901	E
	Exit	1	1		30.50			30.50	30.82	0.0	0.0	0.000	A
A2ON	Exit	1	1		208.52			208.52	209.77	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	115.16	305.70	0.377	115.13	117.99	0.0	0.5	3.855	A
			2	A227N, SA, A2ON, A227S	147.06	305.23	0.482	146.85	150.50	0.0	0.8	4.310	A
	Exit	1	1		340.43			340.43	341.82	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	125.79	250.33	0.503	125.85	127.82	0.0	0.9	6.022	A
			2	A227N, SA, A2ON, A227S	175.81	253.72	0.693	176.24	176.05	0.0	1.7	7.914	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	209.08	264.83	0.789	209.23	213.73	2.4	2.1	9.326	A
			2	A227N, A227S	152.61	266.83	0.572	153.53	153.92	1.4	0.9	6.313	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	362.08			361.69	366.77	1.8	0.9	2.384	A
	Exit	1	1		452.58			452.58	457.04	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	29.38	66.21	0.441	30.03	30.33	1.4	1.0	36.759	E
	Exit	1	1		29.58			29.58	29.82	0.0	0.0	0.000	A
A2ON	Exit	1	1		202.11			202.11	206.60	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	124.10	312.63	0.397	124.01	123.63	0.5	0.5	3.703	A
			2	A227N, SA, A2ON, A227S	149.91	312.25	0.480	149.53	150.88	0.8	0.7	4.236	A
	Exit	1	1		326.50			326.50	330.69	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	151.60	249.10	0.609	151.78	156.05	0.9	1.3	7.330	A
			2	A227N, SA, A2ON, A227S	193.63	252.00	0.768	192.68	195.61	1.7	2.3	9.991	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	207.62	262.62	0.790	207.95	211.64	2.1	2.0	8.671	A
			2	A227N, A227S	157.10	264.02	0.595	157.37	160.22	0.9	1.1	6.457	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	365.70			364.72	372.00	0.9	0.8	1.267	A
	Exit	1	1		459.86			459.86	465.34	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	29.37	64.31	0.458	30.09	30.41	1.0	1.0	31.282	D
	Exit	1	1		29.54			29.54	30.46	0.0	0.0	0.000	A
A2ON	Exit	1	1		201.18			201.18	205.99	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	139.19	310.41	0.449	138.89	138.77	0.5	0.8	4.031	A
			2	A227N, SA, A2ON, A227S	165.92	309.22	0.537	165.01	170.18	0.7	1.0	4.643	A
	Exit	1	1		329.61			329.61	335.04	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	139.96	238.66	0.587	140.97	143.55	1.3	1.0	7.236	A
			2	A227N, SA, A2ON, A227S	179.46	240.53	0.746	179.90	182.05	2.3	1.6	9.334	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	203.88	271.55	0.751	203.61	207.25	2.0	2.0	8.159	A
			2	A227N, A227S	144.17	269.41	0.535	144.33	148.65	1.1	0.9	5.782	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	349.16			348.06	355.72	0.8	0.7	1.326	A
	Exit	1	1		423.71			423.71	434.15	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	28.22	78.68	0.359	28.87	29.27	1.0	0.6	22.005	C
	Exit	1	1		27.30			27.30	27.76	0.0	0.0	0.000	A
A2ON	Exit	1	1		191.94			191.94	195.62	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	111.28	305.62	0.364	111.36	115.59	0.8	0.4	3.769	A
			2	A227N, SA, A2ON, A227S	142.46	306.53	0.465	142.16	145.36	1.0	0.7	4.216	A
	Exit	1	1		303.54			303.54	309.95	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	136.40	256.68	0.531	136.52	140.29	1.0	0.8	6.321	A
			2	A227N, SA, A2ON, A227S	179.11	257.83	0.695	179.64	181.08	1.6	1.4	7.704	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	199.48	270.36	0.738	199.31	203.58	2.0	1.8	7.944	A
			2	A227N, A227S	138.47	268.09	0.517	138.03	141.61	0.9	0.9	5.675	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	337.48			337.99	344.99	0.7	0.3	0.878	A
	Exit	1	1		431.58			431.58	432.44	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	26.76	85.29	0.314	26.49	26.99	0.6	0.4	17.095	C
	Exit	1	1		28.78			28.78	28.51	0.0	0.0	0.000	A
A2ON	Exit	1	1		188.02			188.02	194.78	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	118.84	312.66	0.380	119.44	119.95	0.4	0.4	3.706	A
			2	A227N, SA, A2ON, A227S	150.33	312.42	0.481	150.33	149.40	0.7	0.7	4.081	A
	Exit	1	1		283.68			283.68	288.39	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	131.04	253.08	0.518	130.66	132.38	0.8	1.0	5.623	A
			2	A227N, SA, A2ON, A227S	168.68	252.15	0.669	167.82	170.21	1.4	1.6	7.067	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	202.02	274.71	0.735	202.45	205.72	1.8	1.5	7.408	A
			2	A227N, A227S	139.78	274.22	0.510	140.24	140.27	0.9	0.7	5.211	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	341.08			341.88	345.54	0.3	0.1	0.800	A
	Exit	1	1		363.71			363.71	369.24	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	24.56	85.21	0.288	24.59	25.61	0.4	0.3	14.499	B
	Exit	1	1		24.06			24.06	24.33	0.0	0.0	0.000	A
A2ON	Exit	1	1		183.94			183.94	187.57	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	90.33	310.30	0.291	90.92	92.35	0.4	0.2	3.405	A
			2	A227N, SA, A2ON, A227S	119.50	311.80	0.383	119.85	120.56	0.7	0.4	3.743	A
	Exit	1	1		293.23			293.23	292.40	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	121.78	272.53	0.447	121.49	122.30	1.0	0.7	4.800	A
			2	A227N, SA, A2ON, A227S	165.30	275.15	0.601	165.44	166.72	1.6	1.0	6.073	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2028 Do Minimum Residual, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	9.19	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 period length (min)	Time segment length (min)	Run automatically
D14	2028 Do Minimum Residual	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	153.00	237.00	0.00
	SA	7.00	0.00	13.00	10.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	202.00	11.00	47.00	0.00	0.00
	A2OFF	193.00	18.00	0.00	90.00	0.00

17:00 - 17:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	151.00	216.00	0.00
	SA	7.00	0.00	11.00	10.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	219.00	11.00	43.00	0.00	0.00
	A2OFF	226.00	16.00	0.00	103.00	0.00

17:15 - 17:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	133.00	234.00	0.00
	SA	7.00	0.00	11.00	10.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	239.00	11.00	56.00	0.00	0.00
	A2OFF	218.00	16.00	1.00	87.00	0.00

17:30 - 17:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	138.00	215.00	0.00
	SA	7.00	0.00	10.00	9.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	201.00	10.00	44.00	0.00	0.00
	A2OFF	217.00	15.00	1.00	83.00	0.00

17:45 - 18:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	137.00	199.00	0.00
	SA	7.00	0.00	10.00	9.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	214.00	10.00	44.00	1.00	0.00
	A2OFF	208.00	14.00	2.00	72.00	0.00

18:00 - 18:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	139.00	202.00	0.00
	SA	6.00	0.00	9.00	9.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	164.00	9.00	36.00	0.00	0.00
	A2OFF	192.00	13.00	0.00	76.00	0.00

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	2	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	3	1	4	0	0
	A2OFF	2	1	0	0	0

17:00 - 17:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	0	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	1	0	0	0
	A2OFF	2	1	0	0	0

17:15 - 17:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	1	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	1	2	0	0
	A2OFF	1	1	0	0	0

17:30 - 17:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	1	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	1	2	0	0
	A2OFF	1	1	0	0	0

17:45 - 18:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	3	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	1	0	0	0
	A2OFF	1	1	50	0	0

18:00 - 18:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	1	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	1	0	0	0
	A2OFF	2	1	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	11.28	4.9	B	358.82	2152.94
SA	36.99	1.5	E	27.04	162.26
A2ON					
A227S	4.36	1.3	A	260.38	1562.29
A2OFF	8.42	3.1	A	311.47	1868.80

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	389.31	389.31	166.66	390.50	389.49	398.78	0.0	4.9	11.278	B
SA	30.85	30.85	527.95	29.88	29.44	29.21	0.0	1.5	36.995	E
A2ON			0.00			215.05				
A227S	256.01	256.01	6.55	256.02	266.28	336.23	0.0	1.1	4.144	A
A2OFF	302.50	302.50	262.58	302.87	304.50	0.00	0.0	2.2	6.880	A

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	366.96	366.96	172.64	369.47	368.63	449.50	4.9	3.5	10.249	B
SA	27.75	27.75	514.86	27.30	28.73	27.25	1.5	1.1	31.470	D
A2ON			0.00			204.54				
A227S	270.95	270.95	7.22	270.70	272.31	330.40	1.1	1.3	3.940	A
A2OFF	343.44	343.44	277.93	344.21	347.13	0.00	2.2	2.9	8.273	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	369.14	369.14	173.07	368.88	370.89	464.80	3.5	3.9	9.334	A
SA	28.12	28.12	514.81	27.42	28.04	27.13	1.1	1.2	33.160	D
A2ON			0.00			200.63				
A227S	304.31	304.31	6.91	305.26	307.74	334.69	1.3	1.1	4.364	A
A2OFF	324.94	324.94	312.17	325.69	326.71	0.00	2.9	3.1	8.416	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	352.22	352.22	152.38	353.10	355.54	422.18	3.9	3.0	8.145	A
SA	25.99	25.99	480.45	26.41	27.05	25.02	1.2	0.4	23.167	C
A2ON			0.00			194.03				
A227S	253.66	253.66	6.84	253.51	258.77	306.00	1.1	1.1	3.878	A
A2OFF	314.78	314.78	260.31	314.25	320.22	0.00	3.1	2.6	7.131	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	332.95	332.95	145.06	335.35	342.00	430.73	3.0	2.2	7.768	A
SA	25.88	25.88	456.10	25.53	26.55	24.30	0.4	0.5	16.225	C
A2ON			0.00			193.79				
A227S	268.32	268.32	6.42	268.61	269.35	281.41	1.1	1.2	3.991	A
A2OFF	301.36	301.36	275.03	300.75	302.19	0.00	2.6	2.6	6.746	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	342.32	342.32	136.94	343.04	342.27	360.34	2.2	2.7	7.585	A
SA	23.45	23.45	457.52	23.56	24.56	22.46	0.5	0.4	15.950	C
A2ON			0.00			184.29				
A227S	208.88	208.88	5.97	209.45	212.20	290.83	1.2	0.8	3.601	A
A2OFF	281.83	281.83	215.41	281.87	285.27	0.00	2.6	1.6	5.494	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	223.38	264.83	0.843	223.78	223.08	0.0	2.3	9.565	A
			2	A227N, A227S	166.41	263.04	0.633	166.73	166.41	0.0	1.2	6.730	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	389.31			389.77	393.11	0.0	1.4	2.903	A
	Exit	1	1		398.78			398.78	410.87	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	30.85	55.27	0.559	29.88	29.44	0.0	1.5	36.995	E
	Exit	1	1		29.21			29.21	28.99	0.0	0.0	0.000	A
A2ON	Exit	1	1		215.05			215.05	213.98	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	111.62	304.75	0.366	111.65	117.12	0.0	0.4	3.853	A
			2	A227N, SA, A2ON, A227S	144.45	304.03	0.475	144.37	149.16	0.0	0.7	4.373	A
	Exit	1	1		336.23			336.23	335.88	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	126.69	253.22	0.500	127.11	128.43	0.0	0.8	5.836	A
			2	A227N, SA, A2ON, A227S	175.78	255.75	0.687	175.76	176.07	0.0	1.4	7.631	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	213.40	265.40	0.804	213.43	214.79	2.3	2.1	9.144	A
			2	A227N, A227S	155.09	266.89	0.581	156.03	153.84	1.2	0.9	6.306	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	366.96			368.50	368.05	1.4	0.5	2.309	A
	Exit	1	1		449.50			449.50	454.45	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	27.75	62.85	0.442	27.30	28.73	1.5	1.1	31.470	D
	Exit	1	1		27.25			27.25	27.46	0.0	0.0	0.000	A
A2ON	Exit	1	1		204.54			204.54	206.80	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	120.79	312.67	0.386	120.65	122.16	0.4	0.6	3.708	A
			2	A227N, SA, A2ON, A227S	150.17	312.36	0.481	150.05	150.16	0.7	0.7	4.130	A
	Exit	1	1		330.40			330.40	328.10	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	150.18	249.41	0.602	150.32	153.17	0.8	1.1	6.998	A
			2	A227N, SA, A2ON, A227S	193.26	252.61	0.765	193.88	193.97	1.4	1.8	9.268	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	207.77	261.92	0.793	207.39	211.01	2.1	2.1	8.786	A
			2	A227N, A227S	161.35	263.98	0.612	161.50	159.89	0.9	1.1	6.363	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	369.14			369.12	371.15	0.5	0.7	1.586	A
	Exit	1	1		464.80			464.80	468.37	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	28.12	61.11	0.460	27.42	28.04	1.1	1.2	33.160	D
	Exit	1	1		27.13			27.13	27.42	0.0	0.0	0.000	A
A2ON	Exit	1	1		200.63			200.63	204.47	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	137.35	309.17	0.444	137.61	138.92	0.6	0.5	4.015	A
			2	A227N, SA, A2ON, A227S	166.96	309.21	0.540	167.67	168.82	0.7	0.6	4.650	A
	Exit	1	1		334.69			334.69	333.12	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	144.45	238.61	0.605	144.28	143.99	1.1	1.3	7.299	A
			2	A227N, SA, A2ON, A227S	180.49	239.40	0.753	181.41	182.72	1.8	1.8	9.293	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	203.20	271.80	0.748	203.95	206.19	2.1	1.6	8.129	A
			2	A227N, A227S	148.64	270.21	0.550	149.15	149.35	1.1	0.8	5.779	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	352.22			351.84	354.67	0.7	0.5	1.009	A
	Exit	1	1		422.18			422.18	431.49	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	25.99	75.49	0.345	26.41	27.05	1.2	0.4	23.167	C
	Exit	1	1		25.02			25.02	24.98	0.0	0.0	0.000	A
A2ON	Exit	1	1		194.03			194.03	194.99	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	111.37	306.39	0.364	111.37	113.62	0.5	0.4	3.679	A
			2	A227N, SA, A2ON, A227S	142.29	307.33	0.463	142.11	145.15	0.6	0.7	4.033	A
	Exit	1	1		306.00			306.00	310.11	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	135.79	256.76	0.529	135.65	140.34	1.3	0.9	6.261	A
			2	A227N, SA, A2ON, A227S	178.99	258.51	0.693	178.59	179.88	1.8	1.6	7.805	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	197.73	269.71	0.733	198.77	202.75	1.6	1.4	7.733	A
			2	A227N, A227S	136.42	265.82	0.513	136.57	139.25	0.8	0.8	5.488	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	332.95			334.16	341.78	0.5	0.0	0.947	A
	Exit	1	1		430.73			430.73	433.40	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	25.88	82.81	0.312	25.53	26.55	0.4	0.5	16.225	C
	Exit	1	1		24.30			24.30	23.79	0.0	0.0	0.000	A
A2ON	Exit	1	1		193.79			193.79	195.60	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	119.48	312.94	0.382	119.45	120.39	0.4	0.6	3.705	A
			2	A227N, SA, A2ON, A227S	148.84	312.69	0.476	149.16	148.97	0.7	0.7	4.223	A
	Exit	1	1		281.41			281.41	287.30	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	132.64	253.40	0.524	132.54	132.09	0.9	1.1	5.995	A
			2	A227N, SA, A2ON, A227S	168.71	252.48	0.668	168.21	170.09	1.6	1.5	7.333	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	201.99	274.93	0.735	202.32	202.27	1.4	1.7	7.719	A
			2	A227N, A227S	139.78	274.73	0.509	140.72	139.99	0.8	0.7	5.290	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	342.32			341.77	342.51	0.0	0.3	0.863	A
	Exit	1	1		360.34			360.34	367.97	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	23.45	84.90	0.277	23.56	24.56	0.5	0.4	15.950	C
	Exit	1	1		22.46			22.46	22.11	0.0	0.0	0.000	A
A2ON	Exit	1	1		184.29			184.29	185.63	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	91.64	310.54	0.295	91.74	92.59	0.6	0.4	3.372	A
			2	A227N, SA, A2ON, A227S	117.24	311.05	0.377	117.70	119.61	0.7	0.4	3.778	A
	Exit	1	1		290.83			290.83	288.60	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	117.45	271.88	0.432	117.42	120.70	1.1	0.5	4.785	A
			2	A227N, SA, A2ON, A227S	164.38	274.56	0.599	164.45	164.57	1.5	1.0	6.009	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

APPENDIX I – A227 WROTHAM ROAD / A2 WESTBOUND SLIP ROAD ROUNDABOUT – 2023 DIRECT PROFILE ARCADY MODEL

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: A227_A2 WB Slips RB 23.j9
Path: M:\Projects\2022\22052 - BP Tollgate, Gravesend\07. Technical\07.02 Modelling\ARCADY\Direct Assessment
Report generation date: 18/03/2025 16:42:32

»2023, AM
»2023, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2023									
Arm A227N	D1	1.1	3.29	0.53	A	D2	1.1	3.19	0.52	A
Arm A2OFF		1.2	6.33	0.53	A		1.2	6.04	0.54	A
Arm A227S		1.7	6.89	0.63	A		1.1	5.15	0.53	A

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

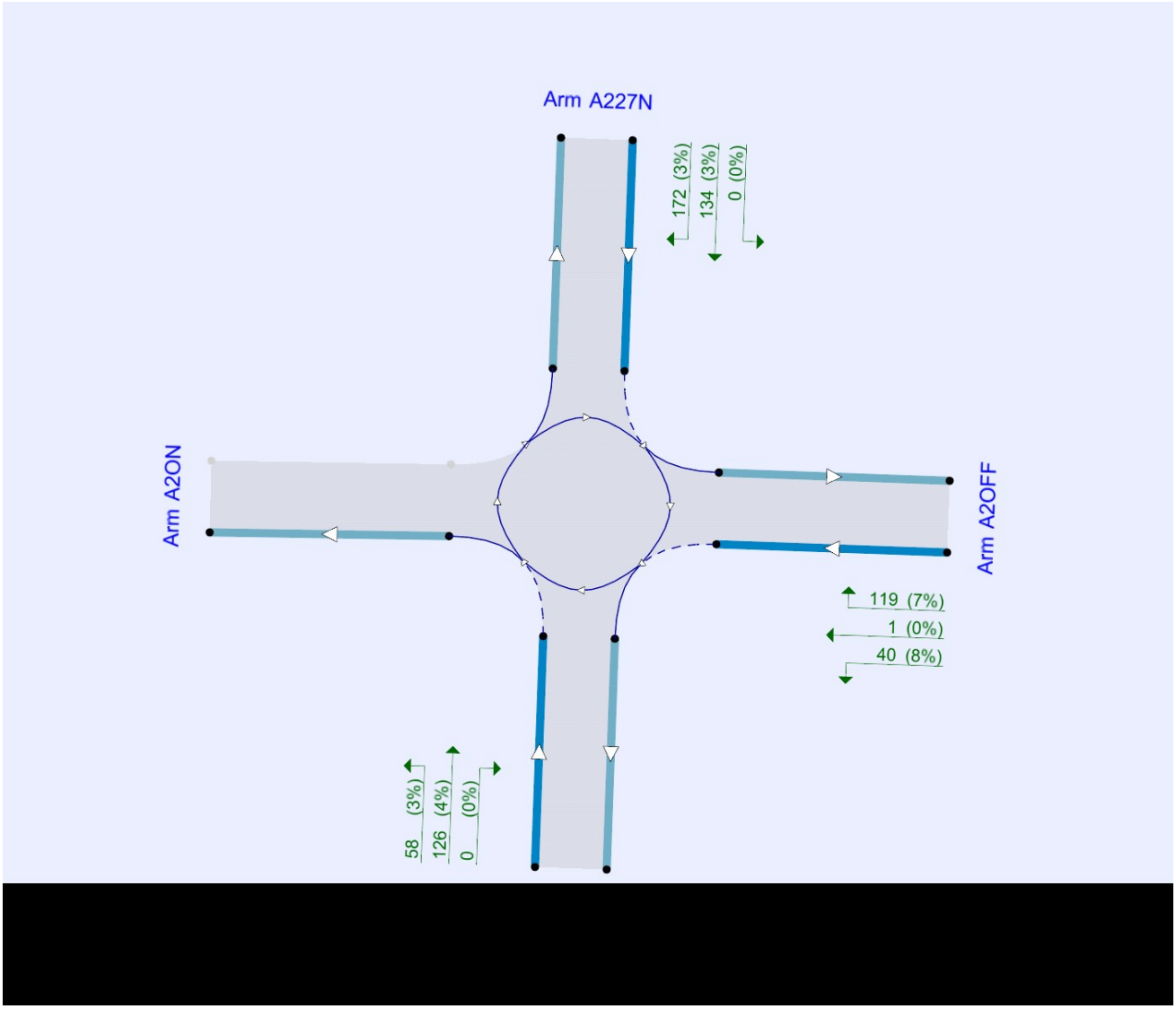
File summary

File Description

Title	
Location	
Site number	
Date	28/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MARKIDES\Markides Associates
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perTimeSegment	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2023	AM	DIRECT	07:45	09:15	90	15	✓
D2	2023	PM	DIRECT	16:45	18:15	90	15	✓

Analysis Set Details

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

2023, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	5.15	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A227N	A227 Wrotham Road (N)	
A2OFF	A2 WB Off Slip	
A227S	A227 Wrotham Road (S)	
A2ON	A2 WB On Slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A227N	7.60	8.10	6.9	20.8	59.9	36.0	
A2OFF	6.10	8.50	10.2	19.1	59.9	60.0	
A227S	4.90	9.20	22.2	24.1	59.9	49.0	
A2ON							✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
A227N	0.671	594.960
A2OFF	0.586	505.584
A227S	0.622	539.294
A2ON		

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2023	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

07:45 - 08:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	134.00	172.00
	A2OFF	119.00	0.00	40.00	1.00
	A227S	126.00	0.00	0.00	58.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	110.00	173.00
	A2OFF	127.00	0.00	42.00	2.00
	A227S	124.00	0.00	0.00	71.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:15 - 08:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	112.00	153.00
	A2OFF	136.00	0.00	45.00	0.00
	A227S	122.00	0.00	0.00	54.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	127.00	171.00
	A2OFF	111.00	0.00	41.00	1.00
	A227S	116.00	0.00	0.00	56.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	1.00	0.00	107.00	165.00
	A2OFF	113.00	0.00	50.00	1.00
	A227S	151.00	0.00	0.00	70.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	86.00	143.00
	A2OFF	114.00	0.00	54.00	0.00
	A227S	115.00	0.00	0.00	66.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

07:45 - 08:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	3
	A2OFF	7	0	8	0
	A227S	4	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	4	5
	A2OFF	2	0	5	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:15 - 08:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	3
	A2OFF	1	0	0	0
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	5
	A2OFF	2	0	0	0
	A227S	3	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	100	0	3	6
	A2OFF	2	0	4	0
	A227S	1	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	8
	A2OFF	3	0	4	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	0.53	3.29	1.1	A	275.67	1654.02
A2OFF	0.53	6.33	1.2	A	166.17	997.00
A227S	0.63	6.89	1.7	A	188.16	1128.99
A2ON						

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	306.00	306.00	0.00	577.63	0.530	304.88	243.35	0.0	1.1	3.286	A
A2OFF	160.00	160.00	304.88	300.08	0.533	158.88	0.00	0.0	1.1	6.326	A
A227S	184.00	184.00	290.53	337.86	0.545	182.82	173.23	0.0	1.2	5.761	A
A2ON			243.35				229.99				

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	283.00	283.00	0.00	568.77	0.498	283.12	250.96	1.1	1.0	3.151	A
A2OFF	171.00	171.00	283.12	323.29	0.529	171.00	0.00	1.1	1.1	5.911	A
A227S	195.00	195.00	302.01	338.64	0.576	194.84	152.11	1.2	1.3	6.250	A
A2ON			250.96				245.90				

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	265.00	265.00	0.00	579.97	0.457	265.15	258.10	1.0	0.8	2.861	A
A2OFF	181.00	181.00	265.15	343.68	0.527	181.00	0.00	1.1	1.1	5.534	A
A227S	176.00	176.00	289.13	342.18	0.514	176.27	157.03	1.3	1.1	5.435	A
A2ON			258.10				207.29				

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	298.00	298.00	0.00	571.29	0.522	297.76	227.25	0.8	1.1	3.287	A
A2OFF	153.00	153.00	297.76	319.38	0.479	153.19	0.00	1.1	0.9	5.423	A
A227S	172.00	172.00	283.03	349.52	0.492	172.09	167.93	1.1	1.0	5.077	A
A2ON			227.25				227.87				

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	273.00	273.00	0.00	565.74	0.483	273.15	264.51	1.1	0.9	3.076	A
A2OFF	164.00	164.00	273.15	328.86	0.499	163.95	0.00	0.9	1.0	5.457	A
A227S	221.00	221.00	280.05	350.16	0.631	220.30	157.04	1.0	1.7	6.893	A
A2ON			264.51				235.84				

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	229.00	229.00	0.00	564.65	0.406	229.26	229.57	0.9	0.7	2.687	A
A2OFF	168.00	168.00	229.26	352.44	0.477	168.07	0.00	1.0	0.9	4.882	A
A227S	181.00	181.00	257.21	363.83	0.497	181.68	140.12	1.7	1.0	4.960	A
A2ON			229.57				209.31				

2023, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	4.47	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 period length (min)	Time segment length (min)	Run automatically
D2	2023	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	166.00	141.00
	A2OFF	107.00	0.00	39.00	0.00
	A227S	132.00	0.00	0.00	50.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

17:00 - 17:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	164.00	131.00
	A2OFF	122.00	0.00	52.00	0.00
	A227S	124.00	0.00	1.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	166.00	129.00
	A2OFF	131.00	0.00	42.00	0.00
	A227S	150.00	0.00	1.00	47.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:30 - 17:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	163.00	114.00
	A2OFF	98.00	0.00	45.00	1.00
	A227S	134.00	0.00	0.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:45 - 18:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	142.00	109.00
	A2OFF	96.00	0.00	30.00	0.00
	A227S	144.00	0.00	0.00	43.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

18:00 - 18:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	147.00	109.00
	A2OFF	87.00	0.00	38.00	0.00
	A227S	103.00	0.00	0.00	45.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	3
	A2OFF	2	0	3	0
	A227S	4	0	0	6
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	0
	A2OFF	0	0	0	0
	A227S	0	0	0	5
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	2	0	5	0
	A227S	1	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:30 - 17:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	2	0
	A227S	2	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:45 - 18:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	4
	A2OFF	0	0	0	0
	A227S	0	0	0	2
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

18:00 - 18:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	0
	A2OFF	2	0	0	0
	A227S	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	0.52	3.19	1.1	A	280.16	1680.99
A2OFF	0.54	6.04	1.2	A	148.00	888.00
A227S	0.53	5.15	1.1	A	183.00	1097.99
A2ON						

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	307.00	307.00	0.00	586.87	0.523	305.91	237.67	0.0	1.1	3.192	A
A2OFF	146.00	146.00	305.91	316.80	0.461	145.15	0.00	0.0	0.8	5.219	A
A227S	182.00	182.00	246.88	365.23	0.498	181.02	204.18	0.0	1.0	4.861	A
A2ON			237.67				190.23				

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	295.00	295.00	0.99	590.99	0.499	295.09	245.91	1.1	1.0	3.041	A
A2OFF	174.00	174.00	296.08	331.21	0.525	173.75	0.00	0.8	1.1	5.706	A
A227S	187.00	187.00	252.91	375.74	0.498	187.00	216.92	1.0	1.0	4.767	A
A2ON			246.91				193.00				

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	295.00	295.00	1.00	588.41	0.501	295.00	280.70	1.0	1.0	3.066	A
A2OFF	173.00	173.00	296.00	321.80	0.538	172.94	0.00	1.1	1.1	6.042	A
A227S	198.00	198.00	259.90	372.45	0.532	197.87	209.04	1.0	1.1	5.150	A
A2ON			281.70				176.07				

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	277.00	277.00	0.01	589.07	0.470	277.11	232.55	1.0	0.9	2.887	A
A2OFF	144.00	144.00	277.12	337.25	0.427	144.40	0.00	1.1	0.8	4.676	A
A227S	196.00	196.00	213.43	399.81	0.490	196.15	208.09	1.1	1.0	4.424	A
A2ON			232.55				177.03				

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	251.00	251.00	0.00	581.59	0.432	251.13	240.09	0.9	0.8	2.723	A
A2OFF	126.00	126.00	251.13	355.13	0.355	126.20	0.00	0.8	0.6	3.936	A
A227S	187.00	187.00	205.13	407.14	0.459	187.11	172.20	1.0	0.9	4.092	A
A2ON			240.09				152.15				

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	256.00	256.00	0.00	594.92	0.430	256.00	190.31	0.8	0.8	2.655	A
A2OFF	125.00	125.00	256.00	350.81	0.356	125.00	0.00	0.6	0.6	3.985	A
A227S	148.00	148.00	196.04	416.30	0.356	148.30	184.96	0.9	0.6	3.361	A
A2ON			190.31				154.04				

APPENDIX J - A227 WROTHAM ROAD / A2 WESTBOUND SLIP ROAD ROUNDABOUT – ARCADY MODEL

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: A227_A2 WB Slips RB AM Lane Sim.j9
Path: M:\Projects\2022\22052 - BP Tollgate, Gravesend\07. Technical\07.02 Modelling\ARCADY\Direct Assessment
Report generation date: 06/03/2025 11:40:27

»2023, AM
»2025 Do Nothing, AM
»2025 Do Minimum, AM
»2025 Do Minimum Residual, AM
»2028 Do Nothing, AM
»2028 Do Minimum, AM
»2028 Do Minimum Residual, AM

Summary of junction performance

	AM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	[Lane Simulation] - 2023				
Arm A227N	D1	2.4	7.25		A
Arm A2OFF		13.1	63.92		F
Arm A227S		2.8	11.95		B
	[Lane Simulation] - 2025 Do Nothing				
Arm A227N	D3	2.6	7.67		A
Arm A2OFF		19.1	100.93		F
Arm A227S		3.5	12.45		B
	[Lane Simulation] - 2025 Do Minimum				
Arm A227N	D5	3.0	8.25		A
Arm A2OFF		44.2	213.83		F
Arm A227S		3.7	14.57		B
	[Lane Simulation] - 2025 Do Minimum Residual				
Arm A227N	D7	3.0	8.57		A
Arm A2OFF		42.6	202.60		F
Arm A227S		3.9	13.91		B
	[Lane Simulation] - 2028 Do Nothing				
Arm A227N	D9	3.3	9.02		A
Arm A2OFF		45.7	216.36		F
Arm A227S		3.8	14.98		B
	[Lane Simulation] - 2028 Do Minimum				
Arm A227N	D11	4.1	10.25		B
Arm A2OFF		97.2	466.64		F
Arm A227S		5.0	18.44		C
	[Lane Simulation] - 2028 Do Minimum Residual				
Arm A227N	D13	4.2	10.18		B
Arm A2OFF		86.6	421.61		F
Arm A227S		4.6	17.87		C

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.

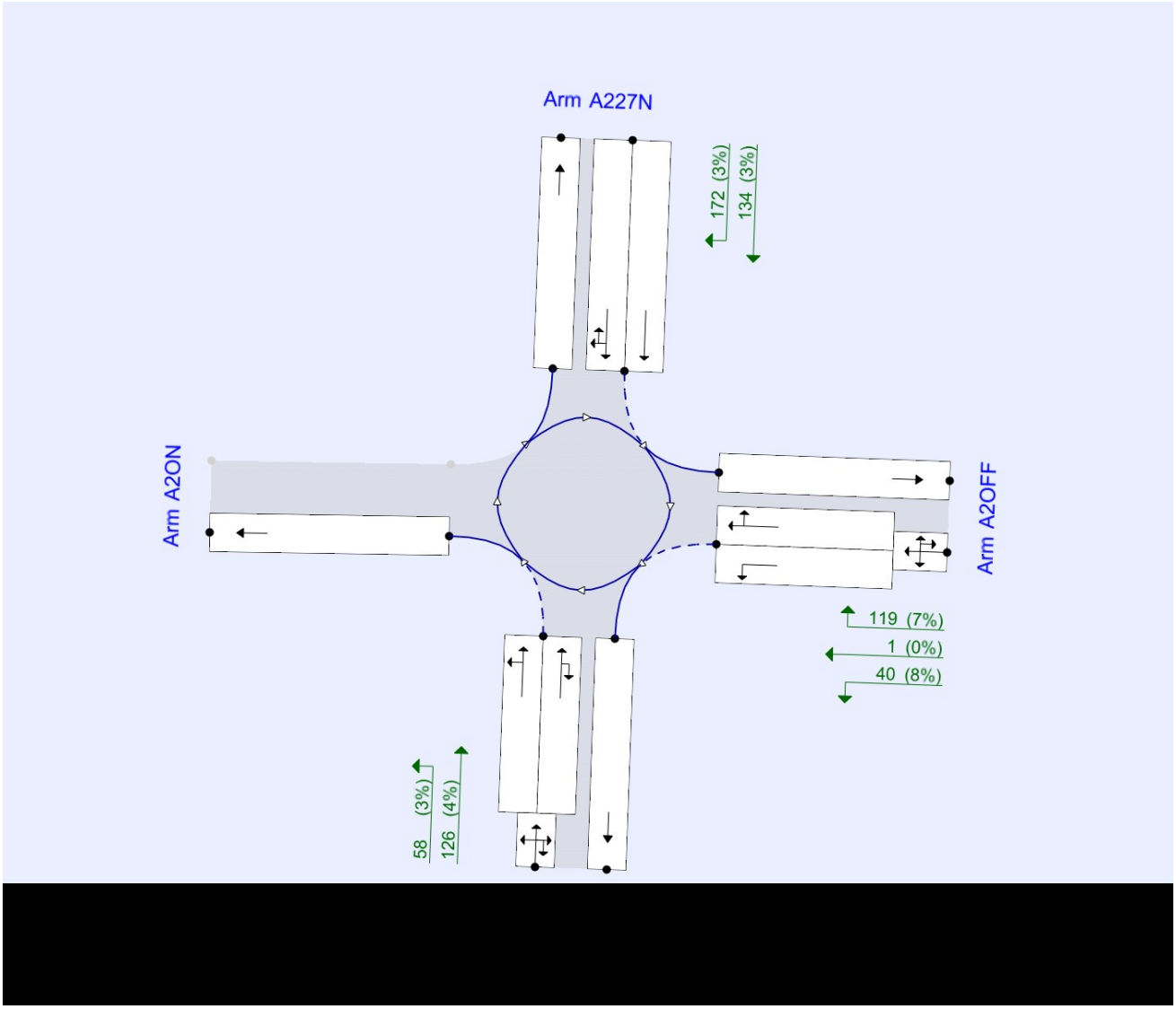
File summary

File Description

Title	
Location	
Site number	
Date	28/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MARKIDES\Markides Associates
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perTimeSegment	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

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

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	✓			1184950759	109	13.66

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2023	AM	DIRECT	07:45	09:15	90	15	✓
D3	2025 Do Nothing	AM	DIRECT	07:45	09:15	90	15	✓
D5	2025 Do Minimum	AM	DIRECT	07:45	09:15	90	15	✓
D7	2025 Do Minimum Residual	AM	DIRECT	07:45	09:15	90	15	✓
D9	2028 Do Nothing	AM	DIRECT	07:45	09:15	90	15	✓
D11	2028 Do Minimum	AM	DIRECT	07:45	09:15	90	15	✓
D13	2028 Do Minimum Residual	AM	DIRECT	07:45	09:15	90	15	✓

Analysis Set Details

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

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	23.45	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A227N	A227 Wrotham Road (N)	
A2OFF	A2 WB Off Slip	
A227S	A227 Wrotham Road (S)	
A2ON	A2 WB On Slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A227N	7.60	8.10	6.9	20.8	59.9	36.0	
A2OFF	5.00	8.50	10.2	19.1	59.9	60.0	
A227S	4.90	9.20	22.2	24.1	59.9	49.0	
A2ON							✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
A227N	0.671	594.960
A2OFF	0.548	451.371
A227S	0.622	539.294
A2ON		

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
A227N	Evenly split	10.00
A2OFF	Evenly split	10.00
A227S	Evenly split	10.00
A2ON	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/TS)	Maximum capacity (PCU/TS)	Signalised
A227N	Entry	1	1	A227S		Infinity		0.00	24999.75	
			2	A227N, A227S, A2ON		Infinity		0.00	24999.75	
	Exit	1	1			Infinity				
A2OFF	Entry	1	1	A227S	✓	4.00		0.00	24999.75	
			2	A227N, A2ON	✓	4.00		0.00	24999.75	
		2	1	(A227N, A2OFF, A227S, A2ON)		Infinity				
	Exit	1	1			Infinity				
A227S	Entry	1	1	A227N, A2ON	✓	4.00		0.00	24999.75	
			2	A227N, A227S	✓	4.00		0.00	24999.75	
		2	1	(A227N, A2OFF, A227S, A2ON)		Infinity				
	Exit	1	1			Infinity				
A2ON	Exit	1	1			Infinity				

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/TS)
A227N	Entry	1	1	0.335	297.480
			2	0.335	297.480
A2OFF	Entry	1	1	0.274	225.686
			2	0.274	225.686
A227S	Entry	1	1	0.311	269.647
			2	0.311	269.647

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm			
			A227N	A2OFF	A227S	A2ON
A227N	1	1			✓	
		2	✓		✓	✓
A2OFF	1	1			✓	
		2	✓			✓
	2	1	✓	✓	✓	✓
A227S	1	1	✓			✓
		2	✓		✓	
	2	1	✓	✓	✓	✓

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2023	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	134.00	172.00
	A2OFF	119.00	0.00	40.00	1.00
	A227S	126.00	0.00	0.00	58.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:00 - 08:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	110.00	173.00
	A2OFF	127.00	0.00	42.00	2.00
	A227S	124.00	0.00	0.00	71.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:15 - 08:30

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	112.00	153.00
	A2OFF	136.00	0.00	45.00	0.00
	A227S	122.00	0.00	0.00	54.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:30 - 08:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	127.00	171.00
	A2OFF	111.00	0.00	41.00	1.00
	A227S	116.00	0.00	0.00	56.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:45 - 09:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	1.00	0.00	107.00	165.00
	A2OFF	113.00	0.00	50.00	1.00
	A227S	151.00	0.00	0.00	70.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

09:00 - 09:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	86.00	143.00
	A2OFF	114.00	0.00	54.00	0.00
	A227S	115.00	0.00	0.00	66.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	3
	A2OFF	7	0	8	0
	A227S	4	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	4	5
	A2OFF	2	0	5	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:15 - 08:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	3
	A2OFF	1	0	0	0
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	5
	A2OFF	2	0	0	0
	A227S	3	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	100	0	3	6
	A2OFF	2	0	4	0
	A227S	1	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	8
	A2OFF	3	0	4	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	7.25	2.4	A	275.81	1654.86
A2OFF	63.92	13.1	F	165.10	990.62
A227S	11.95	2.8	B	188.48	1130.90
A2ON					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	308.39	308.39	0.00	308.15	314.73	242.31	0.0	2.2	6.816	A
A2OFF	156.27	156.27	308.15	157.76	160.23	0.00	0.0	8.8	42.414	E
A227S	183.69	183.69	288.52	183.69	188.92	177.39	0.0	1.9	8.936	A
A2ON			0.00			229.90				

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	280.57	280.57	0.00	280.10	296.50	247.68	2.2	2.3	7.251	A
A2OFF	172.18	172.18	280.10	171.44	174.28	0.00	8.8	10.2	55.424	F
A227S	197.09	197.09	301.54	193.95	198.95	150.08	1.9	2.9	10.761	B
A2ON			0.00			247.82				

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	265.65	265.65	0.00	265.90	275.65	259.90	2.3	1.8	6.187	A
A2OFF	182.28	182.28	265.90	181.68	181.52	0.00	10.2	13.3	63.919	F
A227S	175.82	175.82	288.36	176.62	183.81	159.22	2.9	1.6	9.257	A
A2ON			0.00			205.07				

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	299.53	299.53	0.00	299.70	311.18	227.31	1.8	2.3	7.049	A
A2OFF	153.22	153.22	299.70	157.51	161.87	0.00	13.3	6.2	44.863	E
A227S	168.74	168.74	290.09	167.92	174.06	167.15	1.6	1.7	8.345	A
A2ON			0.00			230.70				

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	270.33	270.33	0.00	270.06	286.99	265.33	2.3	2.1	6.810	A
A2OFF	160.62	160.62	270.06	161.12	167.67	0.00	6.2	5.0	32.270	D
A227S	223.54	223.54	275.89	224.73	227.52	155.28	1.7	2.7	11.947	B
A2ON			0.00			235.27				

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	230.17	230.17	0.00	230.61	242.99	231.44	2.1	1.4	6.149	A
A2OFF	166.05	166.05	230.61	169.73	174.58	0.00	5.0	3.9	25.782	D
A227S	182.12	182.12	259.82	182.23	184.26	140.53	2.7	1.5	8.659	A
A2ON			0.00			210.61				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	102.94	289.00	0.356	103.16	103.33	0.0	0.4	4.315	A
			2	A227N, A227S, A2ON	205.40	288.36	0.713	205.03	211.40	0.0	1.8	8.034	A
	Exit	1	1		242.31			242.31	248.76	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	40.73	127.53	0.320	41.04	41.17	0.0	0.4	10.791	B
			2	A227N, A2ON	115.98	129.98	0.892	116.75	119.06	0.0	2.5	20.306	C
		2	1	(A227N, A2OFF, A227S, A2ON)	156.27			156.72	163.51	0.0	5.8	24.356	C
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	105.06	170.00	0.617	104.89	108.76	0.0	1.2	9.130	A
			2	A227N, A227S	78.99	169.69	0.465	78.77	80.16	0.0	0.7	7.547	A
		2	1	(A227N, A2OFF, A227S, A2ON)	183.69			184.05	190.83	0.0	0.1	0.471	A
	Exit	1	1		177.39			177.39	179.10	0.0	0.0	0.000	A
A2ON	Exit	1	1		229.90			229.90	236.02	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	83.26	286.73	0.290	82.98	87.80	0.4	0.4	4.074	A
			2	A227N, A227S, A2ON	197.31	283.66	0.696	197.20	208.71	1.8	1.9	8.598	A
	Exit	1	1		247.68			247.68	253.77	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	43.21	138.74	0.310	43.29	44.09	0.4	0.5	10.390	B
			2	A227N, A2ON	128.94	143.04	0.902	128.15	130.18	2.5	3.1	20.915	C
		2	1	(A227N, A2OFF, A227S, A2ON)	172.18			172.16	174.68	5.8	6.6	37.126	E
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	114.28	169.04	0.676	113.04	116.45	1.2	1.6	10.881	B
			2	A227N, A227S	81.88	170.40	0.480	80.92	82.50	0.7	0.9	8.236	A
		2	1	(A227N, A2OFF, A227S, A2ON)	197.09			196.16	199.54	0.1	0.4	0.958	A
	Exit	1	1		150.08			150.08	157.70	0.0	0.0	0.000	A
A2ON	Exit	1	1		247.82			247.82	258.27	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	83.48	291.18	0.287	83.94	85.53	0.4	0.3	3.950	A
			2	A227N, A227S, A2ON	182.17	289.00	0.630	181.95	190.12	1.9	1.5	7.202	A
	Exit	1	1		259.90			259.90	264.45	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	44.50	150.88	0.295	43.79	44.09	0.5	0.7	9.707	A
			2	A227N, A2ON	137.94	149.59	0.923	137.89	137.43	3.1	3.2	21.319	C
		2	1	(A227N, A2OFF, A227S, A2ON)	182.28			182.40	181.81	6.6	9.4	45.445	E
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	100.67	171.04	0.589	101.01	105.68	1.6	1.0	9.380	A
			2	A227N, A227S	75.52	171.87	0.439	75.61	78.13	0.9	0.6	7.561	A
		2	1	(A227N, A2OFF, A227S, A2ON)	175.82			176.12	183.00	0.4	0.0	0.685	A
	Exit	1	1		159.22			159.22	161.49	0.0	0.0	0.000	A
A2ON	Exit	1	1		205.07			205.07	215.05	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	93.33	289.64	0.322	93.58	98.22	0.3	0.5	4.372	A
			2	A227N, A227S, A2ON	206.20	284.92	0.723	206.12	212.96	1.5	1.8	8.303	A
	Exit	1	1		227.31			227.31	236.39	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	41.59	140.40	0.296	41.86	43.32	0.7	0.3	9.524	A
			2	A227N, A2ON	115.46	138.09	0.835	115.65	118.55	3.2	2.5	20.012	C
		2	1	(A227N, A2OFF, A227S, A2ON)	153.22			157.05	160.71	9.4	3.4	27.785	D
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	98.83	174.23	0.568	98.31	101.09	1.0	1.1	8.739	A
			2	A227N, A227S	69.66	171.43	0.407	69.61	72.96	0.6	0.6	7.216	A
		2	1	(A227N, A2OFF, A227S, A2ON)	168.74			168.50	174.09	0.0	0.1	0.233	A
	Exit	1	1		167.15			167.15	173.01	0.0	0.0	0.000	A
A2ON	Exit	1	1		230.70			230.70	237.72	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	80.20	288.65	0.277	79.88	83.55	0.5	0.5	4.006	A
			2	A227N, A227S, A2ON	190.13	279.10	0.682	190.16	203.44	1.8	1.6	7.994	A
	Exit	1	1		265.33			265.33	273.20	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	48.80	142.05	0.344	49.05	50.83	0.3	0.6	10.842	B
			2	A227N, A2ON	112.44	145.14	0.774	112.08	116.83	2.5	2.2	18.406	C
		2	1	(A227N, A2OFF, A227S, A2ON)	160.62			161.32	167.72	3.4	2.2	16.179	C
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	125.48	175.15	0.716	126.58	128.37	1.1	1.3	11.142	B
			2	A227N, A227S	97.46	177.86	0.548	98.15	99.16	0.6	0.9	8.849	A
		2	1	(A227N, A2OFF, A227S, A2ON)	223.54			222.94	228.02	0.1	0.6	1.799	A
	Exit	1	1		155.28			155.28	160.95	0.0	0.0	0.000	A
A2ON	Exit	1	1		235.27			235.27	248.03	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	63.85	293.82	0.217	64.07	64.49	0.5	0.2	3.592	A
			2	A227N, A227S, A2ON	166.32	277.83	0.599	166.54	178.50	1.6	1.2	7.128	A
	Exit	1	1		231.44			231.44	235.48	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	54.72	152.93	0.359	54.25	55.29	0.6	0.7	9.485	A
			2	A227N, A2ON	114.06	153.99	0.740	115.49	119.28	2.2	1.8	16.335	C
		2	1	(A227N, A2OFF, A227S, A2ON)	166.05			168.83	174.32	2.2	1.4	11.696	B
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	108.91	180.02	0.605	108.94	110.34	1.3	0.9	8.999	A
			2	A227N, A227S	73.18	182.42	0.401	73.29	73.92	0.9	0.6	6.769	A
		2	1	(A227N, A2OFF, A227S, A2ON)	182.12			182.09	183.55	0.6	0.1	0.593	A
	Exit	1	1		140.53			140.53	143.39	0.0	0.0	0.000	A
A2ON	Exit	1	1		210.61			210.61	222.96	0.0	0.0	0.000	A

2025 Do Nothing, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	33.69	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 period length (min)	Time segment length (min)	Run automatically
D3	2025 Do Nothing	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	136.00	178.00
	A2OFF	122.00	0.00	41.00	1.00
	A227S	127.00	0.00	0.00	58.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:00 - 08:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	111.00	179.00
	A2OFF	130.00	0.00	43.00	2.00
	A227S	125.00	0.00	0.00	72.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:15 - 08:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	113.00	159.00
	A2OFF	139.00	0.00	46.00	0.00
	A227S	123.00	0.00	0.00	54.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	129.00	177.00
	A2OFF	114.00	0.00	42.00	1.00
	A227S	117.00	0.00	0.00	56.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	1.00	0.00	108.00	171.00
	A2OFF	116.00	0.00	51.00	1.00
	A227S	152.00	0.00	0.00	71.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	87.00	148.00
	A2OFF	116.00	0.00	55.00	0.00
	A227S	116.00	0.00	0.00	67.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

07:45 - 08:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	7	0	7	0
	A227S	4	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	4	5
	A2OFF	2	0	5	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:15 - 08:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	3
	A2OFF	1	0	0	0
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	5
	A2OFF	2	0	0	0
	A227S	3	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	100	0	3	6
	A2OFF	2	0	4	0
	A227S	1	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	7
	A2OFF	3	0	4	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	7.67	2.6	A	283.47	1700.85
A2OFF	100.93	19.1	F	169.90	1019.37
A227S	12.45	3.5	B	188.83	1132.98
A2ON					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	314.98	314.98	0.00	314.40	317.29	244.50	0.0	2.6	7.138	A
A2OFF	166.54	166.54	314.40	160.44	163.91	0.00	0.0	12.1	47.805	E
A227S	182.90	182.90	297.54	183.65	188.88	177.29	0.0	2.2	9.347	A
A2ON			0.00			236.70				

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	291.44	291.44	0.00	291.46	304.31	253.50	2.6	2.5	7.675	A
A2OFF	175.67	175.67	291.46	172.81	174.49	0.00	12.1	19.1	91.098	F
A227S	195.19	195.19	308.08	196.54	201.38	156.15	2.2	2.4	10.967	B
A2ON			0.00			251.13				

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	272.33	272.33	0.00	271.94	280.02	260.64	2.5	2.0	6.384	A
A2OFF	183.90	183.90	271.94	187.00	185.70	0.00	19.1	19.5	100.932	F
A227S	176.48	176.48	297.04	175.65	184.52	161.90	2.4	2.0	9.069	A
A2ON			0.00			212.04				

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	308.92	308.92	0.00	310.23	317.43	233.98	2.0	2.5	7.277	A
A2OFF	156.40	156.40	310.23	160.67	167.55	0.00	19.5	10.7	73.153	F
A227S	172.08	172.08	298.86	173.03	175.33	172.08	2.0	1.5	8.632	A
A2ON			0.00			237.87				

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	278.69	278.69	0.00	279.58	294.53	273.77	2.5	2.3	7.381	A
A2OFF	166.54	166.54	279.58	169.94	173.88	0.00	10.7	8.8	52.830	F
A227S	225.46	225.46	292.31	225.02	226.85	157.21	1.5	3.4	12.452	B
A2ON			0.00			243.56				

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	234.88	234.88	0.00	235.04	246.66	231.33	2.3	1.5	6.273	A
A2OFF	170.46	170.46	235.04	171.08	179.93	0.00	8.8	5.2	32.831	D
A227S	180.77	180.77	263.79	181.10	186.38	142.33	3.4	1.6	9.268	A
A2ON			0.00			213.56				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	103.54	291.08	0.355	103.23	103.72	0.0	0.6	4.309	A
			2	A227N, A227S, A2ON	211.44	292.29	0.723	211.23	213.58	0.0	2.0	8.505	A
	Exit	1	1		244.50			244.50	251.75	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	41.15	129.24	0.318	41.40	41.80	0.0	0.4	10.931	B
			2	A227N, A2ON	119.42	128.04	0.933	119.04	122.11	0.0	3.1	20.812	C
		2	1	(A227N, A2OFF, A227S, A2ON)	166.54			160.50	167.75	0.0	8.5	29.235	D
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	105.57	167.87	0.630	105.75	108.73	0.0	1.3	9.553	A
			2	A227N, A227S	77.52	166.52	0.465	77.90	80.15	0.0	0.7	7.732	A
		2	1	(A227N, A2OFF, A227S, A2ON)	182.90			183.10	190.97	0.0	0.2	0.556	A
	Exit	1	1		177.29			177.29	178.22	0.0	0.0	0.000	A
A2ON	Exit	1	1		236.70			236.70	240.11	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	87.92	284.55	0.309	87.56	90.77	0.6	0.5	4.081	A
			2	A227N, A227S, A2ON	203.52	283.24	0.718	203.90	213.53	2.0	2.1	9.216	A
	Exit	1	1		253.50			253.50	255.49	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	43.00	135.34	0.317	42.73	43.83	0.4	0.4	10.770	B
			2	A227N, A2ON	130.17	139.52	0.934	130.08	130.66	3.1	3.4	23.259	C
		2	1	(A227N, A2OFF, A227S, A2ON)	175.67			173.17	174.62	8.5	15.3	70.941	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	113.52	166.78	0.680	114.57	118.33	1.3	1.3	10.975	B
			2	A227N, A227S	81.63	168.66	0.484	81.96	83.05	0.7	0.8	8.280	A
		2	1	(A227N, A2OFF, A227S, A2ON)	195.19			195.17	201.49	0.2	0.3	1.110	A
	Exit	1	1		156.15			156.15	160.49	0.0	0.0	0.000	A
A2ON	Exit	1	1		251.13			251.13	264.19	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	85.10	293.25	0.291	84.48	85.83	0.5	0.4	3.936	A
			2	A227N, A227S, A2ON	187.23	289.50	0.646	187.46	194.19	2.1	1.6	7.478	A
	Exit	1	1		260.64			260.64	268.07	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	47.60	149.43	0.319	47.48	45.81	0.4	0.6	9.912	A
			2	A227N, A2ON	139.00	147.91	0.941	139.52	139.90	3.4	3.2	21.931	C
		2	1	(A227N, A2OFF, A227S, A2ON)	183.90			186.58	185.63	15.3	15.6	81.988	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	101.79	168.55	0.604	101.48	106.37	1.3	1.2	9.277	A
			2	A227N, A227S	74.54	169.53	0.440	74.17	78.15	0.8	0.7	7.608	A
		2	1	(A227N, A2OFF, A227S, A2ON)	176.48			176.35	184.37	0.3	0.1	0.504	A
	Exit	1	1		161.90			161.90	161.63	0.0	0.0	0.000	A
A2ON	Exit	1	1		212.04			212.04	220.54	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	100.38	287.77	0.349	100.46	101.75	0.4	0.5	4.331	A
			2	A227N, A227S, A2ON	208.54	284.83	0.731	209.81	215.68	1.6	1.9	8.681	A
	Exit	1	1		233.98			233.98	241.79	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	42.52	137.20	0.310	42.04	43.91	0.6	0.5	10.381	B
			2	A227N, A2ON	118.80	134.03	0.885	118.62	123.64	3.2	2.8	21.691	C
		2	1	(A227N, A2OFF, A227S, A2ON)	156.40			161.31	167.03	15.6	7.3	54.509	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	100.42	170.72	0.588	100.87	101.50	1.2	1.0	9.144	A
			2	A227N, A227S	71.79	168.80	0.425	72.15	73.83	0.7	0.5	7.293	A
		2	1	(A227N, A2OFF, A227S, A2ON)	172.08			172.21	174.83	0.1	0.0	0.265	A
	Exit	1	1		172.08			172.08	176.57	0.0	0.0	0.000	A
A2ON	Exit	1	1		237.87			237.87	241.95	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	81.00	288.34	0.281	81.16	85.33	0.5	0.4	4.093	A
			2	A227N, A227S, A2ON	197.69	279.79	0.707	198.39	209.20	1.9	1.9	8.763	A
	Exit	1	1		273.77			273.77	276.15	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	50.63	138.69	0.363	50.25	52.23	0.5	0.7	11.277	B
			2	A227N, A2ON	119.62	142.01	0.842	119.69	121.65	2.8	2.6	20.500	C
		2	1	(A227N, A2OFF, A227S, A2ON)	166.54			170.25	173.95	7.3	5.5	35.188	E
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	125.19	170.04	0.737	125.54	127.60	1.0	1.7	11.456	B
			2	A227N, A227S	99.96	172.81	0.579	99.48	99.26	0.5	1.1	8.919	A
		2	1	(A227N, A2OFF, A227S, A2ON)	225.46			225.15	228.15	0.0	0.7	2.101	A
	Exit	1	1		157.21			157.21	163.82	0.0	0.0	0.000	A
A2ON	Exit	1	1		243.56			243.56	255.30	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	63.10	294.25	0.215	63.24	64.10	0.4	0.2	3.555	A
			2	A227N, A227S, A2ON	171.79	279.45	0.615	171.79	182.56	1.9	1.3	7.279	A
	Exit	1	1		231.33			231.33	239.37	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	56.15	152.35	0.368	55.92	58.29	0.7	0.7	9.812	A
			2	A227N, A2ON	115.31	153.24	0.752	115.17	121.64	2.6	2.1	17.244	C
		2	1	(A227N, A2OFF, A227S, A2ON)	170.46			171.46	179.41	5.5	2.4	18.184	C
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	107.25	179.07	0.599	107.31	111.33	1.7	1.0	9.314	A
			2	A227N, A227S	73.46	181.85	0.404	73.77	75.06	1.1	0.5	7.301	A
		2	1	(A227N, A2OFF, A227S, A2ON)	180.77			180.69	185.15	0.7	0.1	0.795	A
	Exit	1	1		142.33			142.33	145.31	0.0	0.0	0.000	A
A2ON	Exit	1	1		213.56			213.56	228.30	0.0	0.0	0.000	A

2025 Do Minimum, 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.
Last Run	Lane Simulation	Arm A2OFF - Lane Simulation	Arm A2OFF: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	65.81	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 period length (min)	Time segment length (min)	Run automatically
D5	2025 Do Minimum	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	136.00	190.00
	A2OFF	133.00	0.00	41.00	1.00
	A227S	129.00	0.00	0.00	57.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	111.00	191.00
	A2OFF	141.00	0.00	43.00	2.00
	A227S	127.00	0.00	0.00	70.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:15 - 08:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	113.00	170.00
	A2OFF	150.00	0.00	46.00	0.00
	A227S	125.00	0.00	0.00	53.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	129.00	188.00
	A2OFF	124.00	0.00	42.00	1.00
	A227S	119.00	0.00	0.00	55.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	1.00	0.00	108.00	182.00
	A2OFF	126.00	0.00	51.00	1.00
	A227S	154.00	0.00	0.00	69.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	87.00	158.00
	A2OFF	126.00	0.00	55.00	0.00
	A227S	117.00	0.00	0.00	65.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

07:45 - 08:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	6	0	7	0
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	4	5
	A2OFF	2	0	5	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:15 - 08:30

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	3
	A2OFF	1	0	0	0
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:30 - 08:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	5
	A2OFF	2	0	0	0
	A227S	3	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:45 - 09:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	100	0	3	6
	A2OFF	2	0	4	0
	A227S	1	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

09:00 - 09:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	7
	A2OFF	3	0	4	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	8.25	3.0	A	292.81	1756.85
A2OFF	213.83	44.2	F	180.33	1081.99
A227S	14.57	3.7	B	189.54	1137.27
A2ON					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	321.77	321.77	0.00	323.01	329.49	251.97	0.0	2.6	8.047	A
A2OFF	178.03	178.03	323.01	161.06	165.26	0.00	0.0	20.5	72.424	F
A227S	185.81	185.81	310.13	186.02	192.02	173.87	0.0	2.0	10.125	B
A2ON			0.00			244.19				

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	299.67	299.67	0.00	299.48	313.40	259.90	2.6	2.7	8.204	A
A2OFF	183.85	183.85	299.48	175.21	178.03	0.00	20.5	32.4	143.520	F
A227S	195.39	195.39	326.18	195.31	198.26	148.51	2.0	2.5	11.447	B
A2ON			0.00			261.60				

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	284.07	284.07	0.00	285.65	290.98	267.04	2.7	2.1	6.897	A
A2OFF	197.05	197.05	285.65	188.31	187.18	0.00	32.4	45.1	199.216	F
A227S	176.01	176.01	315.46	176.09	184.59	158.50	2.5	1.8	9.996	A
A2ON			0.00			224.47				

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	316.78	316.78	0.00	316.93	329.06	247.45	2.1	3.0	8.253	A
A2OFF	166.19	166.19	316.93	170.64	174.75	0.00	45.1	38.8	213.832	F
A227S	176.04	176.04	315.72	176.21	178.72	171.80	1.8	1.9	9.592	A
A2ON			0.00			244.49				

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	289.18	289.18	0.00	288.85	306.43	285.93	3.0	2.6	8.093	A
A2OFF	175.68	175.68	288.85	187.22	188.37	0.00	38.8	33.4	180.701	F
A227S	221.07	221.07	315.17	222.41	225.23	160.90	1.9	3.7	14.566	B
A2ON			0.00			251.64				

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	245.50	245.50	0.00	246.01	257.99	252.64	2.6	1.9	6.912	A
A2OFF	181.79	181.79	246.01	193.15	199.14	0.00	33.4	21.2	115.715	F
A227S	182.73	182.73	292.57	183.90	188.59	146.59	3.7	2.0	10.343	B
A2ON			0.00			223.82				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	105.52	292.14	0.361	105.71	106.96	0.0	0.6	4.525	A
			2	A227N, A227S, A2ON	216.25	291.97	0.741	217.30	222.53	0.0	2.0	9.731	A
	Exit	1	1		251.97			251.97	258.47	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	37.96	126.96	0.299	38.12	39.43	0.0	0.5	11.088	B
			2	A227N, A2ON	123.91	127.77	0.970	122.87	125.83	0.0	3.5	22.943	C
		2	1	(A227N, A2OFF, A227S, A2ON)	178.03			161.87	169.55	0.0	16.5	52.067	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	105.61	163.04	0.648	105.73	109.85	0.0	1.2	10.208	B
			2	A227N, A227S	80.25	163.27	0.491	80.28	82.16	0.0	0.7	8.392	A
		2	1	(A227N, A2OFF, A227S, A2ON)	185.81			185.85	194.04	0.0	0.1	0.690	A
	Exit	1	1		173.87			173.87	176.63	0.0	0.0	0.000	A
A2ON	Exit	1	1		244.19			244.19	251.66	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	87.09	287.25	0.303	86.92	91.29	0.6	0.5	4.132	A
			2	A227N, A227S, A2ON	212.57	284.04	0.749	212.56	222.12	2.0	2.3	9.891	A
	Exit	1	1		259.90			259.90	263.09	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	39.75	133.37	0.298	39.72	41.28	0.5	0.5	10.727	B
			2	A227N, A2ON	135.35	137.43	0.984	135.49	136.75	3.5	3.7	24.606	C
		2	1	(A227N, A2OFF, A227S, A2ON)	183.85			175.10	178.08	16.5	28.1	122.040	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	113.07	161.44	0.701	112.79	115.28	1.2	1.5	11.238	B
			2	A227N, A227S	82.43	163.01	0.506	82.52	82.98	0.7	0.8	8.876	A
		2	1	(A227N, A2OFF, A227S, A2ON)	195.39			195.50	198.55	0.1	0.2	1.197	A
	Exit	1	1		148.51			148.51	155.54	0.0	0.0	0.000	A
A2ON	Exit	1	1		261.60			261.60	271.06	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	86.65	292.34	0.296	86.64	88.21	0.5	0.4	3.987	A
			2	A227N, A227S, A2ON	197.42	289.37	0.682	199.01	202.76	2.3	1.7	8.177	A
	Exit	1	1		267.04			267.04	272.82	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	44.95	145.48	0.309	44.86	43.77	0.5	0.5	10.038	B
			2	A227N, A2ON	143.34	144.03	0.995	143.45	143.41	3.7	3.8	24.034	C
		2	1	(A227N, A2OFF, A227S, A2ON)	197.05			188.29	187.14	28.1	40.8	178.402	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	101.08	163.28	0.619	101.45	105.32	1.5	1.1	10.115	B
			2	A227N, A227S	74.87	163.50	0.458	74.64	79.27	0.8	0.7	8.211	A
		2	1	(A227N, A2OFF, A227S, A2ON)	176.01			175.98	184.12	0.2	0.1	0.705	A
	Exit	1	1		158.50			158.50	159.83	0.0	0.0	0.000	A
A2ON	Exit	1	1		224.47			224.47	230.10	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	101.17	288.73	0.350	101.56	104.64	0.4	0.5	4.447	A
			2	A227N, A227S, A2ON	215.61	284.61	0.757	215.37	224.42	1.7	2.5	10.051	B
	Exit	1	1		247.45			247.45	255.22	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	43.29	135.34	0.320	42.88	42.46	0.5	0.6	11.249	B
			2	A227N, A2ON	127.35	132.57	0.961	127.76	132.29	3.8	3.5	24.920	C
		2	1	(A227N, A2OFF, A227S, A2ON)	166.19			170.64	174.68	40.8	34.7	192.330	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	101.91	165.52	0.615	102.06	102.70	1.1	1.1	9.929	A
			2	A227N, A227S	74.21	163.07	0.455	74.15	76.02	0.7	0.7	8.062	A
		2	1	(A227N, A2OFF, A227S, A2ON)	176.04			176.12	178.75	0.1	0.1	0.454	A
	Exit	1	1		171.80			171.80	174.73	0.0	0.0	0.000	A
A2ON	Exit	1	1		244.49			244.49	252.58	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	85.79	288.24	0.297	85.76	88.64	0.5	0.4	4.145	A
			2	A227N, A227S, A2ON	203.40	279.63	0.728	203.14	217.79	2.5	2.2	9.747	A
	Exit	1	1		285.93			285.93	290.21	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	53.58	135.80	0.394	53.78	53.01	0.6	0.6	11.861	B
			2	A227N, A2ON	133.48	139.42	0.958	133.44	135.37	3.5	3.5	23.863	C
		2	1	(A227N, A2OFF, A227S, A2ON)	175.68			187.07	188.38	34.7	29.3	160.444	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	122.70	162.99	0.753	123.09	125.85	1.1	1.8	12.759	B
			2	A227N, A227S	99.13	165.61	0.599	99.31	99.38	0.7	1.1	10.249	B
		2	1	(A227N, A2OFF, A227S, A2ON)	221.07			221.83	226.30	0.1	0.8	2.902	A
	Exit	1	1		160.90			160.90	164.85	0.0	0.0	0.000	A
A2ON	Exit	1	1		251.64			251.64	264.97	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	65.83	293.66	0.224	65.73	66.60	0.4	0.3	3.691	A
			2	A227N, A227S, A2ON	179.67	279.43	0.643	180.28	191.39	2.2	1.6	8.094	A
	Exit	1	1		252.64			252.64	260.47	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	59.28	148.98	0.398	58.88	59.33	0.6	0.8	11.073	B
			2	A227N, A2ON	133.92	150.20	0.891	134.26	139.81	3.5	3.0	21.150	C
		2	1	(A227N, A2OFF, A227S, A2ON)	181.79			193.19	198.84	29.3	17.3	97.909	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	106.52	170.28	0.626	107.42	110.87	1.8	1.1	10.326	B
			2	A227N, A227S	76.46	172.42	0.443	76.48	77.72	1.1	0.6	7.918	A
		2	1	(A227N, A2OFF, A227S, A2ON)	182.73			182.98	187.46	0.8	0.2	1.063	A
	Exit	1	1		146.59			146.59	147.94	0.0	0.0	0.000	A
A2ON	Exit	1	1		223.82			223.82	237.31	0.0	0.0	0.000	A

2025 Do Minimum Residual, 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.
Last Run	Lane Simulation	Arm A2OFF - Lane Simulation	Arm A2OFF: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	62.32	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 period length (min)	Time segment length (min)	Run automatically
D7	2025 Do Minimum Residual	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	136.00	188.00
	A2OFF	132.00	0.00	41.00	1.00
	A227S	129.00	0.00	0.00	57.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	111.00	189.00
	A2OFF	140.00	0.00	43.00	2.00
	A227S	127.00	0.00	0.00	70.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:15 - 08:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	113.00	169.00
	A2OFF	149.00	0.00	46.00	1.00
	A227S	125.00	0.00	0.00	53.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	129.00	187.00
	A2OFF	124.00	0.00	42.00	1.00
	A227S	119.00	0.00	0.00	55.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	1.00	0.00	108.00	181.00
	A2OFF	126.00	0.00	51.00	1.00
	A227S	154.00	0.00	0.00	69.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	87.00	157.00
	A2OFF	125.00	0.00	55.00	0.00
	A227S	117.00	0.00	0.00	65.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

07:45 - 08:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	6	0	7	0
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	4	5
	A2OFF	2	0	5	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:15 - 08:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	3
	A2OFF	1	0	0	0
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	5
	A2OFF	2	0	0	0
	A227S	3	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	100	0	3	6
	A2OFF	2	0	4	0
	A227S	1	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	7
	A2OFF	3	0	4	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	8.57	3.0	A	293.28	1759.67
A2OFF	202.60	42.6	F	179.16	1074.96
A227S	13.91	3.9	B	190.77	1144.61
A2ON					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	324.44	324.44	0.00	323.77	327.71	247.69	0.0	3.0	7.824	A
A2OFF	176.55	176.55	323.77	155.58	162.73	0.00	0.0	21.7	72.665	F
A227S	188.53	188.53	307.29	188.34	192.64	172.03	0.0	2.3	9.889	A
A2ON			0.00			247.94				

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	302.41	302.41	0.00	301.73	315.49	258.91	3.0	2.9	8.509	A
A2OFF	183.66	183.66	301.73	172.15	177.13	0.00	21.7	33.3	149.946	F
A227S	196.17	196.17	324.37	195.44	198.62	149.51	2.3	2.8	11.717	B
A2ON			0.00			260.87				

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	281.51	281.51	0.00	281.43	290.66	268.95	2.9	2.1	6.742	A
A2OFF	193.12	193.12	281.43	187.88	186.76	0.00	33.3	43.5	199.740	F
A227S	178.43	178.43	313.10	178.90	185.41	156.23	2.8	1.9	9.873	A
A2ON			0.00			223.05				

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	316.99	316.99	0.00	317.07	330.16	249.10	2.1	2.8	8.227	A
A2OFF	167.20	167.20	317.07	172.55	175.82	0.00	43.5	36.5	202.598	F
A227S	175.26	175.26	318.14	175.15	177.92	171.47	1.9	1.9	9.450	A
A2ON			0.00			244.19				

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	290.28	290.28	0.00	290.19	304.44	284.51	2.8	2.7	8.574	A
A2OFF	174.96	174.96	290.19	181.10	185.41	0.00	36.5	32.3	171.030	F
A227S	224.77	224.77	312.49	224.20	225.87	158.77	1.9	3.9	13.913	B
A2ON			0.00			252.17				

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	244.12	244.12	0.00	244.69	256.33	251.11	2.7	1.7	6.685	A
A2OFF	179.91	179.91	244.69	196.10	200.03	0.00	32.3	18.1	107.654	F
A227S	181.04	181.04	292.27	179.81	188.39	148.52	3.9	2.4	10.309	B
A2ON			0.00			221.01				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	106.92	291.58	0.367	106.83	106.99	0.0	0.6	4.282	A
			2	A227N, A227S, A2ON	217.53	291.69	0.746	216.94	220.72	0.0	2.4	9.529	A
	Exit	1	1		247.69			247.69	255.99	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	37.20	126.52	0.294	36.80	39.20	0.0	0.5	10.816	B
			2	A227N, A2ON	119.39	127.23	0.937	118.74	123.53	0.0	3.6	23.032	C
		2	1	(A227N, A2OFF, A227S, A2ON)	176.55			156.59	167.06	0.0	17.6	52.248	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	107.30	164.21	0.654	107.41	110.21	0.0	1.3	9.959	A
			2	A227N, A227S	80.81	163.75	0.494	80.93	82.43	0.0	0.8	8.132	A
		2	1	(A227N, A2OFF, A227S, A2ON)	188.53			188.14	194.85	0.0	0.3	0.705	A
	Exit	1	1		172.03			172.03	175.95	0.0	0.0	0.000	A
A2ON	Exit	1	1		247.94			247.94	251.13	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	88.50	287.59	0.307	88.76	91.35	0.6	0.4	4.141	A
			2	A227N, A227S, A2ON	213.82	282.84	0.756	212.97	224.13	2.4	2.6	10.301	B
	Exit	1	1		258.91			258.91	261.44	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	38.91	131.81	0.295	38.77	41.67	0.5	0.4	11.594	B
			2	A227N, A2ON	133.83	136.73	0.979	133.39	135.47	3.6	3.8	24.513	C
		2	1	(A227N, A2OFF, A227S, A2ON)	183.66			172.74	177.21	17.6	29.0	128.467	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	112.95	161.25	0.701	112.48	115.53	1.3	1.6	11.494	B
			2	A227N, A227S	82.87	163.57	0.507	82.97	83.08	0.8	0.9	8.774	A
		2	1	(A227N, A2OFF, A227S, A2ON)	196.17			195.82	198.94	0.3	0.3	1.357	A
	Exit	1	1		149.51			149.51	156.01	0.0	0.0	0.000	A
A2ON	Exit	1	1		260.87			260.87	273.80	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	84.05	291.80	0.288	83.75	87.08	0.4	0.5	3.975	A
			2	A227N, A227S, A2ON	197.43	289.56	0.682	197.72	203.58	2.6	1.6	7.941	A
	Exit	1	1		268.95			268.95	272.11	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	44.23	146.64	0.302	44.20	43.62	0.4	0.5	10.493	B
			2	A227N, A2ON	143.81	145.12	0.990	143.69	143.14	3.8	3.8	23.959	C
		2	1	(A227N, A2OFF, A227S, A2ON)	193.12			188.04	186.63	29.0	39.2	178.892	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	101.98	164.14	0.623	102.30	105.71	1.6	1.1	10.008	B
			2	A227N, A227S	76.51	163.48	0.468	76.60	79.70	0.9	0.7	8.270	A
		2	1	(A227N, A2OFF, A227S, A2ON)	178.43			178.48	184.92	0.3	0.1	0.631	A
	Exit	1	1		156.23			156.23	158.56	0.0	0.0	0.000	A
A2ON	Exit	1	1		223.05			223.05	232.16	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	100.17	288.65	0.347	100.22	104.19	0.5	0.4	4.512	A
			2	A227N, A227S, A2ON	216.82	284.48	0.763	216.86	225.98	1.6	2.4	9.963	A
	Exit	1	1		249.10			249.10	254.40	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	43.22	135.26	0.320	43.17	43.35	0.5	0.6	11.184	B
			2	A227N, A2ON	129.05	132.60	0.973	129.38	132.47	3.8	3.5	25.078	D
		2	1	(A227N, A2OFF, A227S, A2ON)	167.20			172.29	175.66	39.2	32.5	180.950	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	101.34	164.63	0.615	101.32	102.34	1.1	1.1	9.760	A
			2	A227N, A227S	73.88	161.78	0.457	73.83	75.58	0.7	0.7	8.154	A
		2	1	(A227N, A2OFF, A227S, A2ON)	175.26			175.22	177.80	0.1	0.1	0.362	A
	Exit	1	1		171.47			171.47	176.29	0.0	0.0	0.000	A
A2ON	Exit	1	1		244.19			244.19	253.21	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	86.11	288.09	0.299	85.64	87.47	0.4	0.5	4.176	A
			2	A227N, A227S, A2ON	204.19	280.45	0.728	204.52	216.97	2.4	2.3	10.396	B
	Exit	1	1		284.51			284.51	288.38	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	50.67	136.44	0.371	50.33	51.99	0.6	0.7	12.037	B
			2	A227N, A2ON	130.55	138.77	0.941	130.76	133.42	3.5	3.5	23.792	C
		2	1	(A227N, A2OFF, A227S, A2ON)	174.96			181.22	185.62	32.5	28.1	150.755	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	125.08	163.44	0.766	125.22	127.22	1.1	1.8	12.355	B
			2	A227N, A227S	99.08	166.22	0.596	98.98	98.65	0.7	1.3	10.007	B
		2	1	(A227N, A2OFF, A227S, A2ON)	224.77			224.16	227.09	0.1	0.9	2.579	A
	Exit	1	1		158.77			158.77	162.60	0.0	0.0	0.000	A
A2ON	Exit	1	1		252.17			252.17	264.74	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	65.60	294.98	0.222	65.77	67.07	0.5	0.2	3.758	A
			2	A227N, A227S, A2ON	178.52	280.03	0.638	178.88	189.26	2.3	1.4	7.779	A
	Exit	1	1		251.11			251.11	259.20	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	60.80	150.20	0.405	61.33	60.89	0.7	0.5	11.414	B
			2	A227N, A2ON	134.25	150.94	0.890	134.77	139.15	3.5	2.8	20.307	C
		2	1	(A227N, A2OFF, A227S, A2ON)	179.91			195.09	199.17	28.1	14.7	90.528	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	107.11	170.47	0.628	106.64	111.28	1.8	1.3	10.176	B
			2	A227N, A227S	73.59	172.24	0.427	73.17	77.10	1.3	0.8	7.968	A
		2	1	(A227N, A2OFF, A227S, A2ON)	181.04			180.70	187.43	0.9	0.2	1.076	A
	Exit	1	1		148.52			148.52	149.52	0.0	0.0	0.000	A
A2ON	Exit	1	1		221.01			221.01	236.03	0.0	0.0	0.000	A

2028 Do Nothing, 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.
Last Run	Lane Simulation	Arm A2OFF - Lane Simulation	Arm A2OFF: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	64.85	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 period length (min)	Time segment length (min)	Run automatically
D9	2028 Do Nothing	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.25	0.00	141.00	195.00
	A2OFF	127.00	0.00	42.00	1.00
	A227S	131.00	0.00	0.00	61.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	116.00	197.00
	A2OFF	136.00	0.00	44.00	2.00
	A227S	129.00	0.00	0.00	74.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:15 - 08:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	118.00	175.00
	A2OFF	145.00	0.00	47.00	1.00
	A227S	127.00	0.00	0.00	57.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	133.00	194.00
	A2OFF	119.00	0.00	43.00	1.00
	A227S	121.00	0.00	0.00	59.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	1.00	0.00	113.00	188.00
	A2OFF	121.00	0.00	53.00	1.00
	A227S	157.00	0.00	0.00	73.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	91.00	163.00
	A2OFF	122.00	0.00	57.00	0.00
	A227S	120.00	0.00	0.00	69.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

07:45 - 08:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	7	0	7	0
	A227S	4	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	4	5
	A2OFF	2	0	5	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:15 - 08:30

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	1	0	0	0
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:30 - 08:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	5
	A2OFF	2	0	0	0
	A227S	3	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:45 - 09:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	100	0	3	5
	A2OFF	2	0	4	0
	A227S	1	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

09:00 - 09:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	7
	A2OFF	3	0	4	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	9.02	3.3	A	305.55	1833.30
A2OFF	216.36	45.7	F	177.75	1066.48
A227S	14.98	3.8	B	195.64	1173.85
A2ON					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	338.91	338.91	0.00	338.67	342.51	248.66	0.0	3.3	8.110	A
A2OFF	173.47	173.47	338.67	160.34	162.56	0.00	0.0	19.0	71.479	F
A227S	192.12	192.12	317.35	190.90	196.66	181.65	0.0	2.7	10.653	B
A2ON			0.00			259.60				

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	316.48	316.48	0.00	316.49	328.18	255.31	3.3	3.2	9.018	A
A2OFF	184.49	184.49	316.49	169.40	174.41	0.00	19.0	33.8	144.779	F
A227S	203.30	203.30	325.54	203.74	208.27	160.35	2.7	2.9	13.784	B
A2ON			0.00			273.98				

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	296.10	296.10	0.00	296.02	299.46	263.66	3.2	2.2	6.805	A
A2OFF	193.37	193.37	296.02	183.97	182.89	0.00	33.8	46.6	208.516	F
A227S	181.57	181.57	315.55	182.37	190.67	164.43	2.9	2.0	10.688	B
A2ON			0.00			234.26				

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	322.77	322.77	0.00	323.52	339.82	245.64	2.2	2.9	8.391	A
A2OFF	162.56	162.56	323.52	171.75	174.50	0.00	46.6	36.5	216.357	F
A227S	178.80	178.80	317.14	180.36	185.34	178.13	2.0	1.8	10.540	B
A2ON			0.00			251.88				

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	303.24	303.24	0.00	302.86	316.40	284.08	2.9	2.9	8.343	A
A2OFF	173.47	173.47	302.86	182.66	185.10	0.00	36.5	30.2	169.393	F
A227S	228.21	228.21	317.98	229.05	231.87	167.55	1.8	3.8	14.981	B
A2ON			0.00			262.94				

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	255.62	255.62	0.00	255.00	268.15	249.33	2.9	2.2	7.191	A
A2OFF	179.26	179.26	255.00	188.66	195.69	0.00	30.2	18.8	103.557	F
A227S	189.72	189.72	295.17	189.51	194.61	148.44	3.8	2.2	10.270	B
A2ON			0.00			235.32				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	110.91	292.19	0.380	111.33	112.70	0.0	0.5	4.514	A
			2	A227N, A227S, A2ON	228.00	291.31	0.783	227.38	229.81	0.0	2.8	9.860	A
	Exit	1	1		248.66			248.66	255.89	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	40.31	123.07	0.328	40.70	41.35	0.0	0.4	11.921	B
			2	A227N, A2ON	119.81	122.79	0.976	119.68	121.21	0.0	3.3	23.186	C
		2	1	(A227N, A2OFF, A227S, A2ON)	173.47			160.13	166.64	0.0	15.3	50.872	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	110.49	161.42	0.684	110.47	112.62	0.0	1.4	10.559	B
			2	A227N, A227S	81.05	161.28	0.503	80.44	84.05	0.0	0.9	8.470	A
		2	1	(A227N, A2OFF, A227S, A2ON)	192.12			191.57	199.11	0.0	0.4	0.972	A
	Exit	1	1		181.65			181.65	184.82	0.0	0.0	0.000	A
A2ON	Exit	1	1		259.60			259.60	261.02	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	95.86	285.63	0.336	95.85	98.64	0.5	0.5	4.376	A
			2	A227N, A227S, A2ON	220.61	283.68	0.777	220.66	229.54	2.8	2.7	11.028	B
	Exit	1	1		255.31			255.31	261.18	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	41.26	128.29	0.322	41.18	43.45	0.4	0.6	11.544	B
			2	A227N, A2ON	128.47	132.20	0.971	128.25	130.96	3.3	3.8	25.494	D
		2	1	(A227N, A2OFF, A227S, A2ON)	184.49			169.73	174.80	15.3	29.4	122.661	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	117.82	160.72	0.733	117.79	120.18	1.4	1.6	12.584	B
			2	A227N, A227S	85.55	162.78	0.525	85.95	88.09	0.9	0.9	9.430	A
		2	1	(A227N, A2OFF, A227S, A2ON)	203.30			203.35	208.33	0.4	0.5	2.532	A
	Exit	1	1		160.35			160.35	165.30	0.0	0.0	0.000	A
A2ON	Exit	1	1		273.98			273.98	284.38	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	90.58	292.07	0.310	90.23	90.87	0.5	0.5	4.073	A
			2	A227N, A227S, A2ON	205.53	291.03	0.706	205.78	208.59	2.7	1.8	8.004	A
	Exit	1	1		263.66			263.66	269.09	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	45.02	142.83	0.315	44.83	43.57	0.6	0.6	10.716	B
			2	A227N, A2ON	138.86	141.42	0.984	139.13	139.32	3.8	3.7	24.658	C
		2	1	(A227N, A2OFF, A227S, A2ON)	193.37			183.87	182.82	29.4	42.3	187.197	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	103.94	162.85	0.639	104.02	109.23	1.6	1.2	10.583	B
			2	A227N, A227S	78.09	164.00	0.476	78.34	81.45	0.9	0.7	8.474	A
		2	1	(A227N, A2OFF, A227S, A2ON)	181.57			182.02	190.18	0.5	0.1	1.027	A
	Exit	1	1		164.43			164.43	163.91	0.0	0.0	0.000	A
A2ON	Exit	1	1		234.26			234.26	240.01	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	104.82	288.94	0.363	104.98	108.85	0.5	0.5	4.513	A
			2	A227N, A227S, A2ON	217.94	284.51	0.766	218.54	230.98	1.8	2.5	10.241	B
	Exit	1	1		245.64			245.64	254.25	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	46.73	133.48	0.350	47.18	45.07	0.6	0.5	11.661	B
			2	A227N, A2ON	124.65	130.95	0.951	124.56	129.42	3.7	3.5	25.771	D
		2	1	(A227N, A2OFF, A227S, A2ON)	162.56			171.38	174.17	42.3	32.4	194.186	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	103.97	165.15	0.630	104.30	106.78	1.2	1.1	10.524	B
			2	A227N, A227S	74.98	163.04	0.459	76.04	78.56	0.7	0.5	8.628	A
		2	1	(A227N, A2OFF, A227S, A2ON)	178.80			178.96	185.04	0.1	0.1	0.816	A
	Exit	1	1		178.13			178.13	181.40	0.0	0.0	0.000	A
A2ON	Exit	1	1		251.88			251.88	264.02	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	90.00	288.62	0.312	89.90	92.80	0.5	0.4	4.311	A
			2	A227N, A227S, A2ON	213.21	282.28	0.755	212.97	223.60	2.5	2.4	10.053	B
	Exit	1	1		284.08			284.08	288.46	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	55.25	133.59	0.415	55.22	54.99	0.5	0.7	12.886	B
			2	A227N, A2ON	127.44	136.10	0.936	127.42	130.10	3.5	3.2	24.052	C
		2	1	(A227N, A2OFF, A227S, A2ON)	173.47			182.69	185.18	32.4	26.2	149.000	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	127.83	161.80	0.790	128.13	130.24	1.1	1.7	12.880	B
			2	A227N, A227S	100.76	164.70	0.612	100.92	101.63	0.5	1.1	10.451	B
		2	1	(A227N, A2OFF, A227S, A2ON)	228.21			228.56	233.09	0.1	1.0	3.144	A
	Exit	1	1		167.55			167.55	171.49	0.0	0.0	0.000	A
A2ON	Exit	1	1		262.94			262.94	273.42	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	69.64	293.92	0.237	69.63	71.19	0.4	0.3	3.788	A
			2	A227N, A227S, A2ON	185.98	280.88	0.663	185.33	196.95	2.4	1.9	8.486	A
	Exit	1	1		249.33			249.33	256.63	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	57.87	146.60	0.394	58.59	61.73	0.7	0.6	11.666	B
			2	A227N, A2ON	129.65	148.82	0.870	130.06	133.96	3.2	2.8	21.010	C
		2	1	(A227N, A2OFF, A227S, A2ON)	179.26			187.53	194.99	26.2	15.4	85.996	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	111.84	169.57	0.660	111.74	114.94	1.7	1.3	10.259	B
			2	A227N, A227S	77.54	171.53	0.452	77.78	79.67	1.1	0.6	7.997	A
		2	1	(A227N, A2OFF, A227S, A2ON)	189.72			189.36	193.66	1.0	0.3	1.003	A
	Exit	1	1		148.44			148.44	154.05	0.0	0.0	0.000	A
A2ON	Exit	1	1		235.32			235.32	247.77	0.0	0.0	0.000	A

2028 Do Minimum, 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.
Last Run	Lane Simulation	Arm A2OFF - Lane Simulation	Arm A2OFF: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	134.74	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 period length (min)	Time segment length (min)	Run automatically
D11	2028 Do Minimum	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	141.00	206.00
	A2OFF	138.00	0.00	42.00	1.00
	A227S	133.00	0.00	0.00	59.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:00 - 08:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	116.00	208.00
	A2OFF	147.00	0.00	44.00	2.00
	A227S	131.00	0.00	0.00	73.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:15 - 08:30

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	118.00	187.00
	A2OFF	156.00	0.00	47.00	0.00
	A227S	128.00	0.00	0.00	55.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:30 - 08:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	133.00	205.00
	A2OFF	130.00	0.00	43.00	1.00
	A227S	122.00	0.00	0.00	57.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:45 - 09:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	1.00	0.00	113.00	199.00
	A2OFF	132.00	0.00	53.00	1.00
	A227S	158.00	0.00	0.00	72.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

09:00 - 09:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	91.00	172.00
	A2OFF	131.00	0.00	57.00	0.00
	A227S	121.00	0.00	0.00	68.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	6	0	7	0
	A227S	4	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:00 - 08:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	4	5
	A2OFF	2	0	5	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:15 - 08:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	1	0	0	0
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	5
	A2OFF	2	0	0	0
	A227S	3	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	100	0	3	5
	A2OFF	2	0	4	0
	A227S	1	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	7
	A2OFF	3	0	4	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	10.25	4.1	B	315.38	1892.30
A2OFF	466.64	97.2	F	187.87	1127.20
A227S	18.44	5.0	C	195.95	1175.72
A2ON					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	347.83	347.83	0.00	348.62	351.82	252.59	0.0	3.3	8.942	A
A2OFF	182.91	182.91	348.62	155.64	161.16	0.00	0.0	28.7	96.103	F
A227S	193.37	193.37	326.00	194.11	197.41	178.26	0.0	2.5	11.043	B
A2ON			0.00			267.55				

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	324.79	324.79	0.00	322.47	338.84	259.53	3.3	4.0	10.096	B
A2OFF	194.02	194.02	322.47	169.25	173.85	0.00	28.7	53.8	224.787	F
A227S	203.95	203.95	337.96	206.21	206.87	153.77	2.5	2.9	14.450	B
A2ON			0.00			284.64				

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	312.06	312.06	0.00	312.51	316.58	260.26	4.0	2.5	7.933	A
A2OFF	202.37	202.37	312.51	174.58	178.60	0.00	53.8	81.1	353.745	F
A227S	182.19	182.19	323.38	181.55	189.14	163.66	2.9	2.2	10.788	B
A2ON			0.00			244.68				

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	336.11	336.11	0.00	336.89	351.70	245.42	2.5	3.9	10.247	B
A2OFF	170.74	170.74	336.89	163.72	169.60	0.00	81.1	87.0	450.290	F
A227S	177.38	177.38	329.55	177.34	180.97	171.06	2.2	2.0	9.917	A
A2ON			0.00			261.47				

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	309.30	309.30	0.00	310.68	327.04	287.00	3.9	3.0	9.256	A
A2OFF	186.62	186.62	310.68	177.66	180.89	0.00	87.0	97.3	466.637	F
A227S	231.15	231.15	329.68	231.74	231.79	158.66	2.0	5.0	18.438	C
A2ON			0.00			274.42				

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	262.26	262.26	0.00	262.21	276.21	262.89	3.0	2.1	7.390	A
A2OFF	189.17	189.17	262.21	203.21	204.34	0.00	97.3	87.0	363.407	F
A227S	187.79	187.79	316.11	188.40	196.43	149.32	5.0	2.3	11.935	B
A2ON			0.00			241.62				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	116.23	292.19	0.398	116.23	116.65	0.0	0.6	4.694	A
			2	A227N, A227S, A2ON	231.61	292.16	0.793	232.38	235.16	0.0	2.7	11.034	B
	Exit	1	1		252.59			252.59	258.24	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	36.49	120.96	0.302	35.79	38.37	0.0	0.7	12.160	B
			2	A227N, A2ON	119.91	121.62	0.988	119.85	122.79	0.0	3.5	24.711	C
		2	1	(A227N, A2OFF, A227S, A2ON)	182.91			156.38	165.72	0.0	24.5	74.077	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	108.98	159.90	0.682	109.49	112.09	0.0	1.3	10.888	B
			2	A227N, A227S	84.32	158.85	0.530	84.61	85.32	0.0	0.8	8.620	A
		2	1	(A227N, A2OFF, A227S, A2ON)	193.37			193.30	199.72	0.0	0.3	1.126	A
	Exit	1	1		178.26			178.26	182.46	0.0	0.0	0.000	A
A2ON	Exit	1	1		267.55			267.55	269.69	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	95.87	285.14	0.336	95.36	100.50	0.6	0.6	4.533	A
			2	A227N, A227S, A2ON	228.91	282.85	0.809	227.11	238.33	2.7	3.4	12.444	B
	Exit	1	1		259.53			259.53	262.48	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	39.85	125.81	0.317	39.62	41.19	0.7	0.5	11.669	B
			2	A227N, A2ON	129.55	130.54	0.992	129.61	132.66	3.5	3.9	26.263	D
		2	1	(A227N, A2OFF, A227S, A2ON)	194.02			169.45	173.84	24.5	49.4	202.091	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	117.28	156.86	0.748	117.87	119.33	1.3	1.6	12.840	B
			2	A227N, A227S	88.00	158.51	0.555	88.31	87.53	0.8	0.9	9.648	A
		2	1	(A227N, A2OFF, A227S, A2ON)	203.95			205.30	207.11	0.3	0.4	2.959	A
	Exit	1	1		153.77			153.77	161.75	0.0	0.0	0.000	A
A2ON	Exit	1	1		284.64			284.64	295.32	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	95.60	291.83	0.328	95.66	95.87	0.6	0.5	4.275	A
			2	A227N, A227S, A2ON	216.47	291.72	0.742	216.81	220.72	3.4	2.0	9.527	A
	Exit	1	1		260.26			260.26	268.48	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	40.28	138.40	0.291	40.85	41.37	0.5	0.4	11.149	B
			2	A227N, A2ON	133.83	136.94	0.977	133.70	137.23	3.9	4.0	25.754	D
		2	1	(A227N, A2OFF, A227S, A2ON)	202.37			174.13	178.40	49.4	76.8	331.145	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	103.25	160.86	0.641	103.21	108.13	1.6	1.2	10.699	B
			2	A227N, A227S	78.53	161.04	0.487	78.34	81.01	0.9	0.7	8.873	A
		2	1	(A227N, A2OFF, A227S, A2ON)	182.19			181.79	188.64	0.4	0.3	0.880	A
	Exit	1	1		163.66			163.66	163.60	0.0	0.0	0.000	A
A2ON	Exit	1	1		244.68			244.68	252.24	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	108.74	288.53	0.377	108.40	113.23	0.5	0.6	4.840	A
			2	A227N, A227S, A2ON	227.30	283.61	0.802	228.49	238.47	2.0	3.2	12.843	B
	Exit	1	1		245.42			245.42	254.32	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	39.62	129.41	0.306	39.85	40.06	0.4	0.6	12.098	B
			2	A227N, A2ON	123.88	126.86	0.977	123.85	129.55	4.0	3.9	27.307	D
		2	1	(A227N, A2OFF, A227S, A2ON)	170.74			163.53	169.82	76.8	82.5	426.739	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	102.60	160.95	0.638	102.47	103.41	1.2	1.3	10.377	B
			2	A227N, A227S	74.81	158.42	0.472	74.87	77.56	0.7	0.6	8.315	A
		2	1	(A227N, A2OFF, A227S, A2ON)	177.38			177.40	180.87	0.3	0.1	0.423	A
	Exit	1	1		171.06			171.06	177.27	0.0	0.0	0.000	A
A2ON	Exit	1	1		261.47			261.47	270.68	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	90.28	288.81	0.312	90.72	94.46	0.6	0.4	4.368	A
			2	A227N, A227S, A2ON	219.02	282.24	0.776	219.96	232.57	3.2	2.6	11.288	B
	Exit	1	1		287.00			287.00	291.44	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	48.74	132.17	0.369	49.36	48.31	0.6	0.6	12.512	B
			2	A227N, A2ON	128.34	133.50	0.961	128.30	132.57	3.9	3.8	26.378	D
		2	1	(A227N, A2OFF, A227S, A2ON)	186.62			177.09	180.91	82.5	92.9	445.067	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	127.00	158.91	0.799	126.68	128.68	1.3	2.0	14.091	B
			2	A227N, A227S	104.81	161.33	0.649	105.06	103.11	0.6	1.3	11.219	B
		2	1	(A227N, A2OFF, A227S, A2ON)	231.15			231.81	233.22	0.1	1.7	5.602	A
	Exit	1	1		158.66			158.66	163.04	0.0	0.0	0.000	A
A2ON	Exit	1	1		274.42			274.42	285.23	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	68.85	295.02	0.233	69.00	71.01	0.4	0.3	3.822	A
			2	A227N, A227S, A2ON	193.40	279.65	0.692	193.21	205.20	2.6	1.8	8.696	A
	Exit	1	1		262.89			262.89	270.48	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	60.91	144.08	0.423	61.00	59.34	0.6	0.9	12.476	B
			2	A227N, A2ON	142.17	146.28	0.972	142.27	145.00	3.8	3.7	23.401	C
		2	1	(A227N, A2OFF, A227S, A2ON)	189.17			203.08	204.50	92.9	82.4	345.085	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	109.79	162.74	0.675	109.87	114.27	2.0	1.4	11.398	B
			2	A227N, A227S	78.13	164.88	0.474	78.50	82.16	1.3	0.6	8.933	A
		2	1	(A227N, A2OFF, A227S, A2ON)	187.79			187.91	195.16	1.7	0.2	1.640	A
	Exit	1	1		149.32			149.32	150.51	0.0	0.0	0.000	A
A2ON	Exit	1	1		241.62			241.62	255.99	0.0	0.0	0.000	A

2028 Do Minimum Residual, 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.
Last Run	Lane Simulation	Arm A2OFF - Lane Simulation	Arm A2OFF: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	122.91	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D13	2028 Do Minimum Residual	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	141.00	205.00
	A2OFF	138.00	0.00	42.00	1.00
	A227S	133.00	0.00	0.00	59.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	116.00	206.00
	A2OFF	146.00	0.00	44.00	2.00
	A227S	131.00	0.00	0.00	73.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:15 - 08:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	118.00	185.00
	A2OFF	155.00	0.00	47.00	1.00
	A227S	128.00	0.00	0.00	55.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	133.00	204.00
	A2OFF	129.00	0.00	43.00	1.00
	A227S	122.00	0.00	0.00	57.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	1.00	0.00	113.00	197.00
	A2OFF	131.00	0.00	53.00	1.00
	A227S	158.00	0.00	0.00	72.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	91.00	171.00
	A2OFF	130.00	0.00	57.00	0.00
	A227S	121.00	0.00	0.00	68.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

07:45 - 08:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	6	0	7	0
	A227S	4	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	4	5
	A2OFF	2	0	5	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:15 - 08:30

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	1	0	0	2
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:30 - 08:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	5
	A2OFF	2	0	0	0
	A227S	3	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:45 - 09:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	100	0	3	5
	A2OFF	2	0	4	0
	A227S	1	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

09:00 - 09:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	7
	A2OFF	3	0	4	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	10.18	4.2	B	315.10	1890.62
A2OFF	421.61	86.6	F	189.00	1133.99
A227S	17.87	4.6	C	195.81	1174.86
A2ON					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	345.88	345.88	0.00	343.86	350.60	247.00	0.0	4.0	8.602	A
A2OFF	184.26	184.26	343.86	154.92	161.76	0.00	0.0	29.1	95.413	F
A227S	191.89	191.89	321.08	189.81	196.09	177.71	0.0	3.0	11.151	B
A2ON			0.00			263.87				

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	321.18	321.18	0.00	321.81	339.03	256.46	4.0	3.3	9.819	A
A2OFF	192.53	192.53	321.81	165.35	169.02	0.00	29.1	56.2	238.383	F
A227S	202.46	202.46	333.30	202.16	206.52	153.86	3.0	3.5	13.468	B
A2ON			0.00			279.00				

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	305.35	305.35	0.00	304.50	308.88	264.03	3.3	2.6	7.307	A
A2OFF	201.05	201.05	304.50	178.89	181.69	0.00	56.2	76.4	347.444	F
A227S	182.19	182.19	324.56	182.98	191.38	158.85	3.5	2.0	11.126	B
A2ON			0.00			243.50				

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	338.70	338.70	0.00	338.72	350.39	250.56	2.6	4.0	10.178	B
A2OFF	175.03	175.03	338.72	170.32	169.97	0.00	76.4	80.7	421.614	F
A227S	177.33	177.33	333.65	178.01	182.91	175.39	2.0	2.2	10.646	B
A2ON			0.00			261.11				

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	314.34	314.34	0.00	313.08	327.13	292.92	4.0	4.0	9.419	A
A2OFF	189.91	189.91	313.08	183.76	184.98	0.00	80.7	86.5	415.571	F
A227S	231.50	231.50	332.02	231.86	232.66	164.82	2.2	4.6	17.869	C
A2ON			0.00			270.96				

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	265.11	265.11	0.00	262.59	278.29	261.78	4.0	2.8	7.455	A
A2OFF	188.34	188.34	262.59	200.37	203.64	0.00	86.5	77.4	321.817	F
A227S	189.97	189.97	310.99	190.06	193.17	152.02	4.6	2.3	11.146	B
A2ON			0.00			239.32				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	114.35	291.96	0.392	114.20	116.35	0.0	0.7	4.725	A
			2	A227N, A227S, A2ON	231.53	291.56	0.794	229.66	234.24	0.0	3.3	10.517	B
	Exit	1	1		247.00			247.00	257.77	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	36.81	122.15	0.302	36.76	39.18	0.0	0.4	12.218	B
			2	A227N, A2ON	118.44	121.71	0.974	118.16	122.59	0.0	3.7	24.594	C
		2	1	(A227N, A2OFF, A227S, A2ON)	184.26			155.29	166.19	0.0	25.0	73.382	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	109.24	160.35	0.681	108.55	111.54	0.0	1.6	10.683	B
			2	A227N, A227S	81.58	159.27	0.512	81.25	84.55	0.0	0.9	8.507	A
		2	1	(A227N, A2OFF, A227S, A2ON)	191.89			190.81	198.62	0.0	0.5	1.387	A
	Exit	1	1		177.71			177.71	184.87	0.0	0.0	0.000	A
A2ON	Exit	1	1		263.87			263.87	265.82	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	96.54	285.10	0.339	96.60	100.50	0.7	0.5	4.357	A
			2	A227N, A227S, A2ON	224.60	283.49	0.792	225.25	238.53	3.3	2.8	12.146	B
	Exit	1	1		256.46			256.46	260.20	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	37.34	127.55	0.293	36.61	38.78	0.4	0.6	11.994	B
			2	A227N, A2ON	128.34	131.11	0.979	128.72	130.24	3.7	3.8	26.819	D
		2	1	(A227N, A2OFF, A227S, A2ON)	192.53			165.68	169.11	25.0	51.8	215.342	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	116.87	158.41	0.738	116.82	120.10	1.6	1.7	12.390	B
			2	A227N, A227S	85.01	160.39	0.529	85.32	86.42	0.9	0.9	9.628	A
		2	1	(A227N, A2OFF, A227S, A2ON)	202.46			201.88	206.65	0.5	0.9	2.223	A
	Exit	1	1		153.86			153.86	160.32	0.0	0.0	0.000	A
A2ON	Exit	1	1		279.00			279.00	294.05	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	92.72	292.37	0.317	92.84	93.43	0.5	0.4	4.179	A
			2	A227N, A227S, A2ON	212.65	291.51	0.730	211.66	215.45	2.8	2.2	8.666	A
	Exit	1	1		264.03			264.03	271.28	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	40.39	140.63	0.287	40.51	42.03	0.6	0.4	10.715	B
			2	A227N, A2ON	138.38	139.20	0.994	138.39	139.66	3.8	3.8	25.321	D
		2	1	(A227N, A2OFF, A227S, A2ON)	201.05			178.76	181.52	51.8	72.2	325.028	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	103.13	160.99	0.640	103.84	108.37	1.7	1.1	10.876	B
			2	A227N, A227S	78.76	161.37	0.487	79.16	83.01	0.9	0.7	8.629	A
		2	1	(A227N, A2OFF, A227S, A2ON)	182.19			181.89	190.56	0.9	0.3	1.255	A
	Exit	1	1		158.85			158.85	161.92	0.0	0.0	0.000	A
A2ON	Exit	1	1		243.50			243.50	248.75	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	109.56	289.04	0.379	109.61	111.05	0.4	0.7	4.756	A
			2	A227N, A227S, A2ON	229.06	282.67	0.810	229.11	239.34	2.2	3.3	12.736	B
	Exit	1	1		250.56			250.56	256.38	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	42.93	128.76	0.333	42.48	39.59	0.4	0.5	11.786	B
			2	A227N, A2ON	127.74	126.83	1.008	127.84	130.38	3.8	3.9	26.931	D
		2	1	(A227N, A2OFF, A227S, A2ON)	175.03			170.67	170.08	72.2	76.4	398.506	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	103.29	159.48	0.648	103.48	104.62	1.1	1.3	10.706	B
			2	A227N, A227S	74.02	155.70	0.475	74.55	78.29	0.7	0.7	8.810	A
		2	1	(A227N, A2OFF, A227S, A2ON)	177.33			177.30	183.17	0.3	0.2	0.748	A
	Exit	1	1		175.39			175.39	175.38	0.0	0.0	0.000	A
A2ON	Exit	1	1		261.11			261.11	271.50	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	93.81	288.09	0.326	93.43	96.33	0.7	0.6	4.397	A
			2	A227N, A227S, A2ON	220.54	282.16	0.782	219.63	230.81	3.3	3.4	11.553	B
	Exit	1	1		292.92			292.92	295.07	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	50.51	131.02	0.386	50.50	49.81	0.5	0.8	12.700	B
			2	A227N, A2ON	133.44	133.22	1.002	133.26	135.18	3.9	3.7	25.582	D
		2	1	(A227N, A2OFF, A227S, A2ON)	189.91			183.96	185.20	76.4	82.0	394.197	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	126.35	157.82	0.801	126.40	128.60	1.3	2.0	14.261	B
			2	A227N, A227S	106.08	160.49	0.661	105.43	104.07	0.7	1.4	11.147	B
		2	1	(A227N, A2OFF, A227S, A2ON)	231.50			232.50	234.08	0.2	1.2	4.984	A
	Exit	1	1		164.82			164.82	167.19	0.0	0.0	0.000	A
A2ON	Exit	1	1		270.96			270.96	282.52	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	72.22	293.87	0.246	72.07	73.66	0.6	0.3	3.732	A
			2	A227N, A227S, A2ON	192.86	279.05	0.691	190.51	204.63	3.4	2.5	8.871	A
	Exit	1	1		261.78			261.78	265.17	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	59.01	144.73	0.409	58.75	60.45	0.8	0.9	12.446	B
			2	A227N, A2ON	141.60	145.48	0.973	141.68	143.19	3.7	3.5	23.568	C
		2	1	(A227N, A2OFF, A227S, A2ON)	188.34			200.67	203.54	82.0	73.0	303.400	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	110.85	164.21	0.675	111.63	113.39	2.0	1.1	10.903	B
			2	A227N, A227S	78.63	166.23	0.473	78.43	79.77	1.4	0.8	8.530	A
		2	1	(A227N, A2OFF, A227S, A2ON)	189.97			189.47	191.62	1.2	0.3	1.297	A
	Exit	1	1		152.02			152.02	154.78	0.0	0.0	0.000	A
A2ON	Exit	1	1		239.32			239.32	255.15	0.0	0.0	0.000	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: A227_A2 WB Slips RB PM Lane Sim.j9
Path: M:\Projects\2022\22052 - BP Tollgate, Gravesend\07. Technical\07.02 Modelling\ARCADY\Direct Assessment
Report generation date: 06/03/2025 11:54:00

»2023, PM
»2025 Do Nothing, PM
»2025 Do Minimum, PM
»2025 Do Minimum Residual, PM
»2028 Do Nothing, PM
»2028 Do Minimum, PM
»2028 Do Minimum Residual, PM

Summary of junction performance

	PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	[Lane Simulation] - 2023				
Arm A227N	D2	1.8	5.85		A
Arm A2OFF		12.2	54.75		F
Arm A227S		1.8	7.97		A
	[Lane Simulation] - 2025 Do Nothing				
Arm A227N	D4	2.2	5.85		A
Arm A2OFF		18.2	76.56		F
Arm A227S		2.0	8.13		A
	[Lane Simulation] - 2025 Do Minimum				
Arm A227N	D6	2.2	6.07		A
Arm A2OFF		31.6	129.55		F
Arm A227S		2.1	8.58		A
	[Lane Simulation] - 2025 Do Minimum Residual				
Arm A227N	D8	2.3	6.09		A
Arm A2OFF		29.4	121.13		F
Arm A227S		1.9	8.34		A
	[Lane Simulation] - 2028 Do Nothing				
Arm A227N	D10	2.6	6.30		A
Arm A2OFF		27.5	119.13		F
Arm A227S		2.3	9.08		A
	[Lane Simulation] - 2028 Do Minimum				
Arm A227N	D12	2.4	6.61		A
Arm A2OFF		55.6	232.02		F
Arm A227S		2.4	9.68		A
	[Lane Simulation] - 2028 Do Minimum Residual				
Arm A227N	D14	2.5	6.86		A
Arm A2OFF		53.7	224.46		F
Arm A227S		2.2	9.29		A

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

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

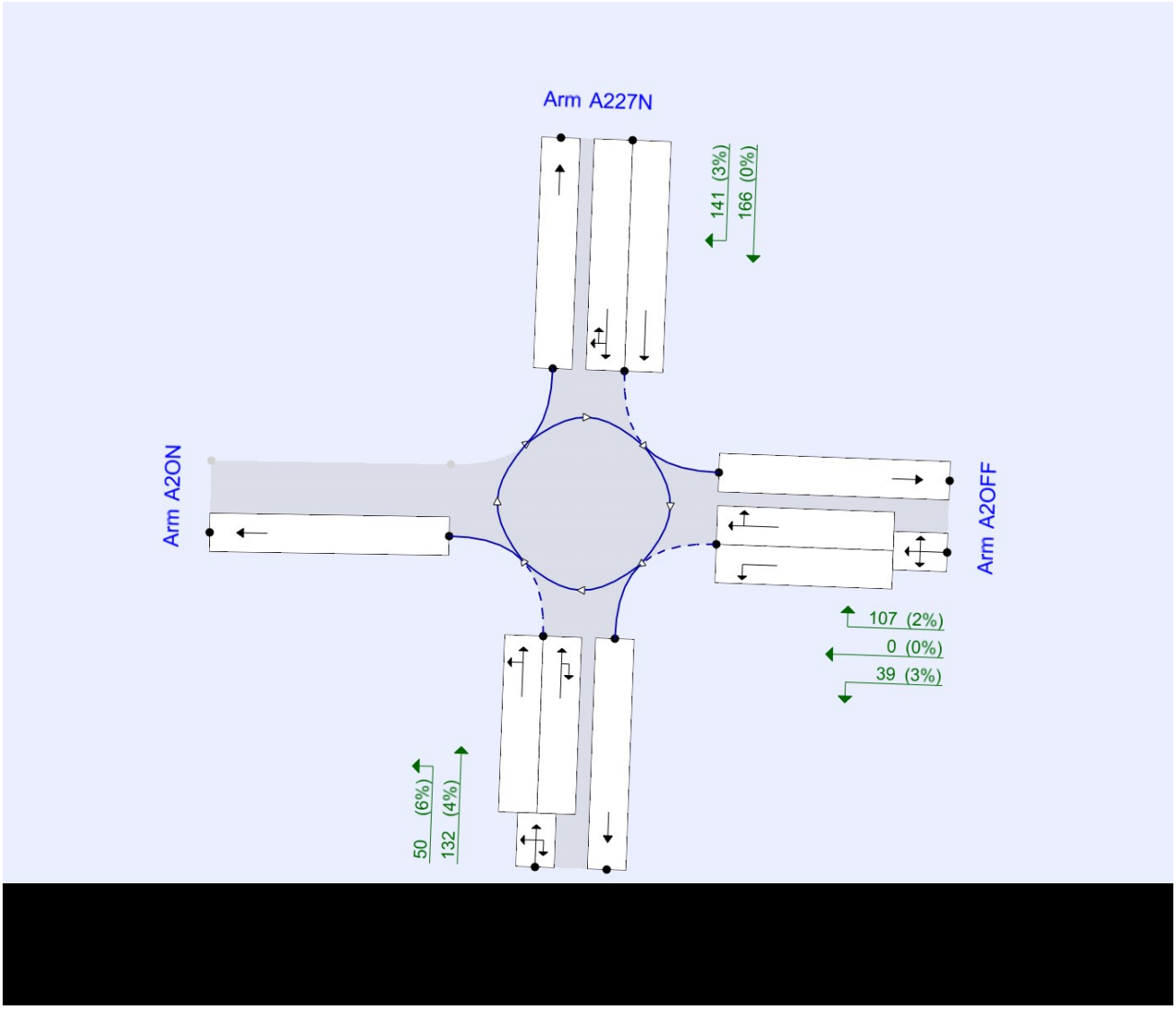
File summary

File Description

Title	
Location	
Site number	
Date	28/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MARKIDES\Markides Associates
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perTimeSegment	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

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

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	✓			350404170	131	14.03

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2023	PM	DIRECT	16:45	18:15	90	15	✓
D4	2025 Do Nothing	PM	DIRECT	16:45	18:15	90	15	✓
D6	2025 Do Minimum	PM	DIRECT	16:45	18:15	90	15	✓
D8	2025 Do Minimum Residual	PM	DIRECT	16:45	18:15	90	15	✓
D10	2028 Do Nothing	PM	DIRECT	16:45	18:15	90	15	✓
D12	2028 Do Minimum	PM	DIRECT	16:45	18:15	90	15	✓
D14	2028 Do Minimum Residual	PM	DIRECT	16:45	18:15	90	15	✓

Analysis Set Details

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

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	18.33	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A227N	A227 Wrotham Road (N)	
A2OFF	A2 WB Off Slip	
A227S	A227 Wrotham Road (S)	
A2ON	A2 WB On Slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A227N	7.60	8.10	6.9	20.8	59.9	36.0	
A2OFF	5.00	8.50	10.2	19.1	59.9	60.0	
A227S	4.90	9.20	22.2	24.1	59.9	49.0	
A2ON							✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
A227N	0.671	594.960
A2OFF	0.548	451.371
A227S	0.622	539.294
A2ON		

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
A227N	Evenly split	10.00
A2OFF	Evenly split	10.00
A227S	Evenly split	10.00
A2ON	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/TS)	Maximum capacity (PCU/TS)	Signalised
A227N	Entry	1	1	A227S		Infinity		0.00	24999.75	
			2	A227N, A227S, A2ON		Infinity		0.00	24999.75	
	Exit	1	1			Infinity				
A2OFF	Entry	1	1	A227S	✓	4.00		0.00	24999.75	
			2	A227N, A2ON	✓	4.00		0.00	24999.75	
		2	1	(A227N, A227S, A2ON)		Infinity				
	Exit	1	1			Infinity				
A227S	Entry	1	1	A227N, A2ON	✓	4.00		0.00	24999.75	
			2	A227N, A227S	✓	4.00		0.00	24999.75	
		2	1	(A227N, A227S, A2ON)		Infinity				
	Exit	1	1			Infinity				
A2ON	Exit	1	1			Infinity				

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/TS)
A227N	Entry	1	1	0.335	297.480
			2	0.335	297.480
A2OFF	Entry	1	1	0.274	225.686
			2	0.274	225.686
A227S	Entry	1	1	0.311	269.647
			2	0.311	269.647

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm			
			A227N	A2OFF	A227S	A2ON
A227N	1	1			✓	
		2	✓		✓	✓
A2OFF	1	1			✓	
		2	✓			✓
	2	1	✓		✓	✓
A227S	1	1	✓			✓
		2	✓		✓	
	2	1	✓		✓	✓

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2023	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

16:45 - 17:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	166.00	141.00
	A2OFF	107.00	0.00	39.00	0.00
	A227S	132.00	0.00	0.00	50.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	164.00	131.00
	A2OFF	122.00	0.00	52.00	0.00
	A227S	124.00	0.00	1.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	166.00	129.00
	A2OFF	131.00	0.00	42.00	0.00
	A227S	150.00	0.00	1.00	47.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:30 - 17:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	163.00	114.00
	A2OFF	98.00	0.00	45.00	1.00
	A227S	134.00	0.00	0.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:45 - 18:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	142.00	109.00
	A2OFF	96.00	0.00	30.00	0.00
	A227S	144.00	0.00	0.00	43.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

18:00 - 18:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	147.00	109.00
	A2OFF	87.00	0.00	38.00	0.00
	A227S	103.00	0.00	0.00	45.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	3
	A2OFF	2	0	3	0
	A227S	4	0	0	6
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	0
	A2OFF	0	0	0	0
	A227S	0	0	0	5
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	2	0	5	0
	A227S	1	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:30 - 17:45

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	2	0
	A227S	2	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:45 - 18:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	4
	A2OFF	0	0	0	0
	A227S	0	0	0	2
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

18:00 - 18:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	0
	A2OFF	2	0	0	0
	A227S	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	5.85	1.8	A	279.23	1675.38
A2OFF	54.75	12.2	F	147.14	882.86
A227S	7.97	1.8	A	181.65	1089.88
A2ON					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	307.97	307.97	0.00	308.84	309.54	234.97	0.0	1.7	5.848	A
A2OFF	145.07	145.07	308.84	146.63	145.89	0.00	0.0	3.8	23.576	C
A227S	178.92	178.92	248.95	178.33	187.77	206.52	0.0	1.6	7.799	A
A2ON			0.00			192.27				

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	293.36	293.36	0.96	293.40	294.73	245.08	1.7	1.7	5.259	A
A2OFF	175.72	175.72	294.38	174.32	169.69	0.00	3.8	7.6	32.646	D
A227S	187.24	187.24	250.33	186.55	190.14	218.36	1.6	1.7	7.974	A
A2ON			0.00			190.83				

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	291.83	291.83	1.12	291.92	299.02	273.16	1.7	1.8	5.372	A
A2OFF	168.78	168.78	293.04	166.21	171.99	0.00	7.6	12.0	54.751	F
A227S	194.40	194.40	255.23	194.95	198.56	204.02	1.7	1.6	7.784	A
A2ON			0.00			175.90				

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	277.31	277.31	0.00	277.17	280.88	231.11	1.8	1.5	5.047	A
A2OFF	142.40	142.40	277.17	144.57	154.37	0.00	12.0	3.3	30.945	D
A227S	191.40	191.40	213.01	191.28	196.25	208.72	1.6	1.6	7.374	A
A2ON			0.00			173.16				

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	247.28	247.28	0.00	247.03	253.63	240.66	1.5	1.3	4.779	A
A2OFF	127.08	127.08	247.03	127.63	128.72	0.00	3.3	2.0	15.877	C
A227S	188.57	188.57	202.15	188.63	189.48	172.51	1.6	1.5	6.468	A
A2ON			0.00			150.11				

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	257.68	257.68	0.00	257.98	257.40	189.27	1.3	1.4	4.752	A
A2OFF	123.73	123.73	257.98	123.59	125.90	0.00	2.0	1.7	12.143	B
A227S	149.11	149.11	195.96	149.43	150.36	185.61	1.5	0.9	5.598	A
A2ON			0.00			156.11				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	118.31	297.48	0.398	118.08	115.38	0.0	0.6	4.291	A
			2	A227N, A227S, A2ON	189.66	291.77	0.650	190.76	194.16	0.0	1.1	6.792	A
	Exit	1	1		234.97			234.97	241.91	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	39.14	134.49	0.291	39.14	39.63	0.0	0.4	9.676	A
			2	A227N, A2ON	107.34	137.25	0.782	107.50	106.27	0.0	2.1	17.492	C
		2	1	(A227N, A227S, A2ON)	145.07			146.47	148.47	0.0	1.3	8.118	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	101.43	181.17	0.560	101.11	106.44	0.0	1.0	8.088	A
			2	A227N, A227S	77.35	182.40	0.424	77.22	81.33	0.0	0.5	6.656	A
		2	1	(A227N, A227S, A2ON)	178.92			178.83	189.42	0.0	0.1	0.331	A
	Exit	1	1		206.52			206.52	205.68	0.0	0.0	0.000	A
A2ON	Exit	1	1		192.27			192.27	195.62	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	109.35	293.56	0.372	109.20	110.26	0.6	0.5	4.184	A
			2	A227N, A227S, A2ON	184.01	296.38	0.621	184.17	184.47	1.1	1.1	5.897	A
	Exit	1	1		245.08			245.08	242.90	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	52.28	144.55	0.362	53.20	50.66	0.4	0.5	10.310	B
			2	A227N, A2ON	121.17	144.55	0.838	121.12	119.03	2.1	2.8	19.615	C
		2	1	(A227N, A227S, A2ON)	175.72			173.45	170.42	1.3	4.3	15.722	C
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	108.28	186.13	0.582	107.86	112.20	1.0	1.1	8.287	A
			2	A227N, A227S	78.73	191.82	0.410	78.69	77.94	0.5	0.6	6.531	A
		2	1	(A227N, A227S, A2ON)	187.24			187.00	190.21	0.1	0.1	0.419	A
	Exit	1	1		218.36			218.36	216.18	0.0	0.0	0.000	A
A2ON	Exit	1	1		190.83			190.83	195.48	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	109.37	293.25	0.373	109.69	113.37	0.5	0.5	4.145	A
			2	A227N, A227S, A2ON	182.45	294.35	0.620	182.22	185.65	1.1	1.2	6.121	A
	Exit	1	1		273.16			273.16	278.99	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	39.21	137.23	0.286	39.37	42.79	0.5	0.4	10.169	B
			2	A227N, A2ON	126.84	141.75	0.895	126.85	129.21	2.8	3.1	21.024	C
		2	1	(A227N, A227S, A2ON)	168.78			166.05	172.33	4.3	8.5	36.349	E
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	107.73	188.22	0.572	108.15	110.15	1.1	0.9	7.991	A
			2	A227N, A227S	86.63	187.96	0.461	86.81	88.41	0.6	0.6	7.149	A
		2	1	(A227N, A227S, A2ON)	194.40			194.36	198.37	0.1	0.1	0.166	A
	Exit	1	1		204.02			204.02	212.57	0.0	0.0	0.000	A
A2ON	Exit	1	1		175.90			175.90	178.01	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	106.65	294.76	0.362	106.69	108.04	0.5	0.5	4.165	A
			2	A227N, A227S, A2ON	170.66	294.25	0.580	170.47	172.84	1.2	1.0	5.599	A
	Exit	1	1		231.11			231.11	240.50	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	44.54	145.23	0.306	44.84	47.20	0.4	0.4	9.697	A
			2	A227N, A2ON	99.60	147.41	0.676	99.73	107.17	3.1	1.7	16.628	C
		2	1	(A227N, A227S, A2ON)	142.40			144.14	152.83	8.5	1.3	16.705	C
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	109.53	200.97	0.546	109.56	113.74	0.9	1.0	7.775	A
			2	A227N, A227S	81.73	199.84	0.409	81.76	82.51	0.6	0.6	6.292	A
		2	1	(A227N, A227S, A2ON)	191.40			191.27	196.36	0.1	0.0	0.223	A
	Exit	1	1		208.72			208.72	214.25	0.0	0.0	0.000	A
A2ON	Exit	1	1		173.16			173.16	176.74	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	92.04	293.76	0.313	92.20	92.65	0.5	0.4	3.826	A
			2	A227N, A227S, A2ON	155.26	288.24	0.539	154.83	160.98	1.0	1.0	5.337	A
	Exit	1	1		240.66			240.66	242.84	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	31.74	156.34	0.203	31.65	31.27	0.4	0.2	7.511	A
			2	A227N, A2ON	95.86	156.34	0.613	95.98	97.45	1.7	1.5	13.729	B
		2	1	(A227N, A227S, A2ON)	127.08			127.60	128.33	1.3	0.3	3.744	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	105.02	203.92	0.515	104.93	105.84	1.0	0.9	6.750	A
			2	A227N, A227S	83.52	205.44	0.407	83.70	83.64	0.6	0.5	5.848	A
		2	1	(A227N, A227S, A2ON)	188.57			188.54	189.27	0.0	0.1	0.119	A
	Exit	1	1		172.51			172.51	174.09	0.0	0.0	0.000	A
A2ON	Exit	1	1		150.11			150.11	154.89	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	96.18	297.48	0.323	96.69	95.95	0.4	0.3	3.854	A
			2	A227N, A227S, A2ON	161.50	297.48	0.543	161.29	161.44	1.0	1.0	5.286	A
	Exit	1	1		189.27			189.27	192.92	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	38.18	155.01	0.246	38.04	37.82	0.2	0.4	7.744	A
			2	A227N, A2ON	85.88	152.13	0.565	85.57	88.08	1.5	1.2	12.112	B
		2	1	(A227N, A227S, A2ON)	123.73			124.05	125.78	0.3	0.2	1.392	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	89.06	208.22	0.428	89.31	89.19	0.9	0.5	5.915	A
			2	A227N, A227S	60.07	208.22	0.288	60.11	61.17	0.5	0.4	5.090	A
		2	1	(A227N, A227S, A2ON)	149.11			149.13	149.78	0.1	0.0	0.020	A
	Exit	1	1		185.61			185.61	185.21	0.0	0.0	0.000	A
A2ON	Exit	1	1		156.11			156.11	155.52	0.0	0.0	0.000	A

2025 Do Nothing, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	23.86	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 period length (min)	Time segment length (min)	Run automatically
D4	2025 Do Nothing	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

16:45 - 17:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	168.00	145.00
	A2OFF	110.00	0.00	40.00	0.00
	A227S	133.00	0.00	0.00	50.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	166.00	135.00
	A2OFF	126.00	0.00	53.00	0.25
	A227S	125.00	0.00	1.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	168.00	133.00
	A2OFF	135.00	0.00	43.00	0.00
	A227S	152.00	0.00	1.00	47.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:30 - 17:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	165.00	117.00
	A2OFF	101.00	0.00	46.00	0.25
	A227S	135.00	0.00	0.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:45 - 18:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	143.00	112.00
	A2OFF	99.00	0.00	30.00	0.00
	A227S	145.00	0.00	0.00	43.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

18:00 - 18:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	148.00	112.00
	A2OFF	90.00	0.00	39.00	0.00
	A227S	104.00	0.00	0.00	45.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	3
	A2OFF	2	0	3	0
	A227S	4	0	0	6
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	0
	A2OFF	0	0	0	0
	A227S	0	0	0	5
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	2	0	5	0
	A227S	1	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:30 - 17:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	2	0
	A227S	2	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:45 - 18:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	4
	A2OFF	0	0	0	0
	A227S	1	0	0	2
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

18:00 - 18:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	1
	A2OFF	2	0	0	0
	A227S	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	5.85	2.2	A	285.15	1710.88
A2OFF	76.56	18.2	F	152.45	914.69
A227S	8.13	2.0	A	184.31	1105.86
A2ON					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	316.73	316.73	0.00	316.26	316.66	243.94	0.0	2.2	5.849	A
A2OFF	151.38	151.38	316.26	150.49	148.78	0.00	0.0	5.5	28.058	D
A227S	185.18	185.18	255.80	184.84	190.64	210.95	0.0	1.8	8.055	A
A2ON			0.00			196.69				

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	299.18	299.18	0.94	298.74	302.00	249.71	2.2	1.9	5.493	A
A2OFF	179.69	179.69	299.69	178.74	175.11	0.00	5.5	9.9	44.796	E
A227S	189.90	189.90	260.10	189.09	191.49	218.31	1.8	2.0	8.129	A
A2ON			0.00			198.54				

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	300.95	300.95	0.93	300.72	302.21	282.10	1.9	1.8	5.401	A
A2OFF	178.98	178.98	301.66	171.17	175.97	0.00	9.9	17.9	76.558	F
A227S	200.53	200.53	264.31	200.27	201.39	208.51	2.0	1.9	7.935	A
A2ON			0.00			181.55				

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	280.44	280.44	0.00	280.57	284.53	237.77	1.8	1.6	5.000	A
A2OFF	145.58	145.58	280.57	150.38	163.82	0.00	17.9	4.0	43.303	E
A227S	195.25	195.25	219.60	195.41	199.86	211.38	1.9	1.5	7.812	A
A2ON			0.00			177.23				

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	254.15	254.15	0.00	254.34	260.57	247.85	1.6	1.3	4.986	A
A2OFF	131.42	131.42	254.34	131.83	131.83	0.00	4.0	2.2	16.515	C
A227S	188.42	188.42	212.66	188.52	190.41	173.52	1.5	1.5	6.700	A
A2ON			0.00			153.32				

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	259.38	259.38	0.00	258.98	261.41	189.87	1.3	1.4	4.788	A
A2OFF	127.25	127.25	258.98	127.32	130.46	0.00	2.2	1.9	13.260	B
A227S	146.50	146.50	200.30	146.28	149.48	185.99	1.5	1.0	5.872	A
A2ON			0.00			156.71				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	120.17	297.48	0.404	120.02	117.54	0.0	0.6	4.328	A
			2	A227N, A227S, A2ON	196.56	291.05	0.676	196.24	199.13	0.0	1.5	6.765	A
	Exit	1	1		243.94			243.94	245.99	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	40.50	133.73	0.303	40.74	40.86	0.0	0.4	10.061	B
			2	A227N, A2ON	110.08	135.11	0.815	109.77	107.92	0.0	2.4	18.479	C
		2	1	(A227N, A227S, A2ON)	151.38			150.60	151.69	0.0	2.7	11.746	B
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	105.05	179.46	0.585	104.95	108.71	0.0	1.0	8.178	A
			2	A227N, A227S	80.18	180.77	0.444	79.88	81.94	0.0	0.7	6.988	A
		2	1	(A227N, A227S, A2ON)	185.18			185.23	192.46	0.0	0.1	0.387	A
	Exit	1	1		210.95			210.95	208.46	0.0	0.0	0.000	A
A2ON	Exit	1	1		196.69			196.69	201.63	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	111.80	294.16	0.380	111.67	113.60	0.6	0.5	4.227	A
			2	A227N, A227S, A2ON	187.38	296.35	0.632	187.05	188.39	1.5	1.3	6.252	A
	Exit	1	1		249.71			249.71	248.35	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	53.12	143.13	0.371	53.18	51.38	0.4	0.7	10.700	B
			2	A227N, A2ON	125.79	143.13	0.879	125.56	123.73	2.4	3.0	20.611	C
		2	1	(A227N, A227S, A2ON)	179.69			178.90	175.82	2.7	6.2	27.009	D
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	110.91	183.58	0.604	110.56	112.64	1.0	1.2	8.478	A
			2	A227N, A227S	78.76	188.79	0.417	78.53	78.84	0.7	0.7	6.663	A
		2	1	(A227N, A227S, A2ON)	189.90			189.68	191.54	0.1	0.2	0.410	A
	Exit	1	1		218.31			218.31	219.04	0.0	0.0	0.000	A
A2ON	Exit	1	1		198.54			198.54	201.21	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	112.46	294.36	0.382	112.41	113.56	0.5	0.5	4.225	A
			2	A227N, A227S, A2ON	188.50	294.17	0.641	188.31	188.65	1.3	1.3	6.110	A
	Exit	1	1		282.10			282.10	285.61	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	41.35	135.97	0.304	41.58	43.78	0.7	0.5	10.570	B
			2	A227N, A2ON	130.18	139.53	0.933	129.59	132.19	3.0	3.5	22.813	C
		2	1	(A227N, A227S, A2ON)	178.98			171.52	176.39	6.2	13.9	56.689	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	111.21	185.27	0.600	111.00	110.87	1.2	1.1	8.211	A
			2	A227N, A227S	89.44	184.64	0.485	89.26	90.53	0.7	0.8	7.179	A
		2	1	(A227N, A227S, A2ON)	200.53			200.65	201.40	0.2	0.0	0.189	A
	Exit	1	1		208.51			208.51	213.29	0.0	0.0	0.000	A
A2ON	Exit	1	1		181.55			181.55	180.67	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	107.10	294.23	0.364	107.33	108.72	0.5	0.5	4.062	A
			2	A227N, A227S, A2ON	173.34	294.55	0.588	173.26	175.81	1.3	1.1	5.581	A
	Exit	1	1		237.77			237.77	251.93	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	47.58	144.46	0.329	47.74	50.23	0.5	0.5	10.507	B
			2	A227N, A2ON	102.20	146.67	0.697	102.65	113.59	3.5	1.8	18.372	C
		2	1	(A227N, A227S, A2ON)	145.58			149.76	162.14	13.9	1.6	27.802	D
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	113.23	199.02	0.569	113.24	115.18	1.1	1.0	8.104	A
			2	A227N, A227S	81.97	197.16	0.416	82.19	84.68	0.8	0.5	6.678	A
		2	1	(A227N, A227S, A2ON)	195.25			195.21	199.50	0.0	0.0	0.307	A
	Exit	1	1		211.38			211.38	216.56	0.0	0.0	0.000	A
A2ON	Exit	1	1		177.23			177.23	179.72	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	93.85	294.71	0.318	94.04	94.52	0.5	0.4	3.887	A
			2	A227N, A227S, A2ON	160.30	288.79	0.555	160.32	166.05	1.1	1.0	5.624	A
	Exit	1	1		247.85			247.85	247.14	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	30.04	154.44	0.195	30.18	31.10	0.5	0.2	7.654	A
			2	A227N, A2ON	101.51	154.44	0.657	101.65	100.72	1.8	1.5	14.139	B
		2	1	(A227N, A227S, A2ON)	131.42			131.55	131.21	1.6	0.5	3.959	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	104.74	199.74	0.524	105.00	106.12	1.0	0.8	7.000	A
			2	A227N, A227S	83.63	200.10	0.418	83.52	84.29	0.5	0.6	6.114	A
		2	1	(A227N, A227S, A2ON)	188.42			188.36	190.36	0.0	0.0	0.096	A
	Exit	1	1		173.52			173.52	175.08	0.0	0.0	0.000	A
A2ON	Exit	1	1		153.32			153.32	160.60	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	95.33	297.48	0.320	95.24	96.69	0.4	0.4	3.850	A
			2	A227N, A227S, A2ON	164.05	295.66	0.555	163.74	164.72	1.0	1.0	5.344	A
	Exit	1	1		189.87			189.87	196.22	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	38.74	154.46	0.251	38.80	38.50	0.2	0.3	7.773	A
			2	A227N, A2ON	88.30	151.26	0.584	88.52	91.96	1.5	1.3	12.742	B
		2	1	(A227N, A227S, A2ON)	127.25			127.04	130.38	0.5	0.3	2.057	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	87.31	206.48	0.423	87.19	88.61	0.8	0.7	6.196	A
			2	A227N, A227S	59.12	206.48	0.286	59.09	60.87	0.6	0.3	5.277	A
		2	1	(A227N, A227S, A2ON)	146.50			146.43	149.02	0.0	0.0	0.053	A
	Exit	1	1		185.99			185.99	187.13	0.0	0.0	0.000	A
A2ON	Exit	1	1		156.71			156.71	158.00	0.0	0.0	0.000	A

2025 Do Minimum, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	37.99	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2025 Do Minimum	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	168.00	153.00
	A2OFF	120.00	0.00	39.00	0.00
	A227S	133.00	0.00	0.00	50.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

17:00 - 17:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	166.00	143.00
	A2OFF	135.00	0.00	52.00	0.00
	A227S	125.00	0.00	1.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	169.00	141.00
	A2OFF	144.00	0.00	42.00	0.00
	A227S	152.00	0.00	1.00	47.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:30 - 17:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	165.00	125.00
	A2OFF	110.00	0.00	45.00	1.00
	A227S	135.00	0.00	0.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:45 - 18:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	144.00	120.00
	A2OFF	108.00	0.00	30.00	0.00
	A227S	145.00	0.00	0.00	43.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

18:00 - 18:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	149.00	119.00
	A2OFF	98.00	0.00	38.00	0.00
	A227S	104.00	0.00	0.00	45.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	3
	A2OFF	2	0	3	0
	A227S	4	0	0	6
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	0
	A2OFF	0	0	0	0
	A227S	0	0	0	5
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	2	0	5	0
	A227S	1	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:30 - 17:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	2	0
	A227S	2	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:45 - 18:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	3
	A2OFF	0	0	0	0
	A227S	0	0	0	2
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

18:00 - 18:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	1
	A2OFF	2	0	0	0
	A227S	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	6.07	2.2	A	292.81	1756.86
A2OFF	129.55	31.6	F	161.09	966.55
A227S	8.58	2.1	A	183.99	1103.95
A2ON					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	317.78	317.78	0.00	317.42	324.03	252.44	0.0	2.2	6.066	A
A2OFF	160.93	160.93	317.42	158.12	155.48	0.00	0.0	9.3	40.507	E
A227S	183.21	183.21	271.67	183.37	191.48	203.87	0.0	1.8	8.165	A
A2ON			0.00			202.60				

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	311.01	311.01	1.09	311.94	312.06	253.67	2.2	1.9	5.680	A
A2OFF	186.92	186.92	313.01	182.03	179.05	0.00	9.3	17.1	71.778	F
A227S	187.95	187.95	275.95	187.06	190.08	219.07	1.8	2.0	8.576	A
A2ON			0.00			208.27				

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	310.32	310.32	1.00	310.14	313.58	283.10	1.9	2.0	5.713	A
A2OFF	186.34	186.34	311.13	172.64	175.95	0.00	17.1	31.2	129.552	F
A227S	198.67	198.67	273.74	198.21	200.70	210.04	2.0	2.1	8.263	A
A2ON			0.00			187.85				

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	288.75	288.75	0.00	289.41	292.26	254.78	2.0	1.5	5.202	A
A2OFF	156.53	156.53	289.41	169.67	179.02	0.00	31.2	10.8	96.607	F
A227S	197.50	197.50	246.96	197.17	199.64	212.10	2.1	1.8	8.313	A
A2ON			0.00			189.36				

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	263.62	263.62	0.00	264.56	269.13	256.28	1.5	1.4	5.143	A
A2OFF	138.43	138.43	264.56	140.87	146.59	0.00	10.8	3.2	30.873	D
A227S	187.63	187.63	232.59	187.50	189.63	172.84	1.8	1.5	7.084	A
A2ON			0.00			163.81				

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	265.69	265.69	0.00	265.70	268.94	204.21	1.4	1.3	4.948	A
A2OFF	137.50	137.50	265.70	137.13	138.77	0.00	3.2	2.6	16.465	C
A227S	149.07	149.07	216.06	149.34	150.30	186.76	1.5	0.9	5.986	A
A2ON			0.00			161.21				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	117.76	297.48	0.396	117.47	119.35	0.0	0.6	4.403	A
			2	A227N, A227S, A2ON	200.03	291.04	0.687	199.95	204.68	0.0	1.6	7.054	A
	Exit	1	1		252.44			252.44	254.88	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	39.32	133.48	0.295	39.25	39.19	0.0	0.5	10.323	B
			2	A227N, A2ON	118.94	135.06	0.881	118.87	116.30	0.0	2.9	20.469	C
		2	1	(A227N, A227S, A2ON)	160.93			158.26	158.97	0.0	5.9	22.382	C
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	104.75	174.44	0.600	104.67	109.08	0.0	1.1	8.376	A
			2	A227N, A227S	78.34	176.00	0.446	78.69	82.40	0.0	0.6	7.214	A
		2	1	(A227N, A227S, A2ON)	183.21			183.09	193.32	0.0	0.1	0.290	A
	Exit	1	1		203.87			203.87	206.55	0.0	0.0	0.000	A
A2ON	Exit	1	1		202.60			202.60	209.56	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	114.66	294.42	0.390	114.90	115.53	0.6	0.6	4.336	A
			2	A227N, A227S, A2ON	196.34	296.51	0.662	197.02	196.53	1.6	1.3	6.464	A
	Exit	1	1		253.67			253.67	252.47	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	51.83	139.53	0.371	51.74	50.25	0.5	0.7	11.297	B
			2	A227N, A2ON	130.16	139.53	0.933	130.29	128.81	2.9	3.3	22.525	C
		2	1	(A227N, A227S, A2ON)	186.92			181.99	179.51	5.9	13.1	52.312	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	108.58	178.63	0.608	108.31	111.22	1.1	1.2	8.944	A
			2	A227N, A227S	79.31	183.86	0.431	78.76	78.86	0.6	0.7	6.943	A
		2	1	(A227N, A227S, A2ON)	187.95			187.89	190.22	0.1	0.1	0.473	A
	Exit	1	1		219.07			219.07	219.74	0.0	0.0	0.000	A
A2ON	Exit	1	1		208.27			208.27	208.99	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	116.83	294.32	0.397	117.04	117.14	0.6	0.6	4.407	A
			2	A227N, A227S, A2ON	193.49	294.35	0.657	193.10	196.44	1.3	1.4	6.492	A
	Exit	1	1		283.10			283.10	286.41	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	38.92	132.74	0.293	39.35	41.50	0.7	0.5	10.910	B
			2	A227N, A2ON	133.22	136.82	0.973	133.29	134.45	3.3	3.7	24.810	C
		2	1	(A227N, A227S, A2ON)	186.34			172.14	176.26	13.1	27.0	107.972	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	110.12	181.99	0.605	109.78	110.69	1.2	1.2	8.561	A
			2	A227N, A227S	88.46	181.56	0.487	88.42	90.01	0.7	0.8	7.416	A
		2	1	(A227N, A227S, A2ON)	198.67			198.60	200.75	0.1	0.0	0.217	A
	Exit	1	1		210.04			210.04	213.79	0.0	0.0	0.000	A
A2ON	Exit	1	1		187.85			187.85	190.03	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	108.08	294.12	0.367	108.47	110.23	0.6	0.5	4.142	A
			2	A227N, A227S, A2ON	180.68	294.56	0.613	180.94	182.03	1.4	1.1	5.844	A
	Exit	1	1		254.78			254.78	266.20	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	49.32	142.57	0.347	48.66	49.84	0.5	0.8	11.052	B
			2	A227N, A2ON	120.01	144.08	0.833	120.98	129.18	3.7	2.5	21.885	C
		2	1	(A227N, A227S, A2ON)	156.53			169.33	178.20	27.0	7.5	78.131	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	114.98	190.06	0.605	114.73	115.10	1.2	1.1	8.579	A
			2	A227N, A227S	82.49	188.18	0.438	82.43	84.54	0.8	0.6	7.099	A
		2	1	(A227N, A227S, A2ON)	197.50			197.47	199.33	0.0	0.1	0.357	A
	Exit	1	1		212.10			212.10	215.34	0.0	0.0	0.000	A
A2ON	Exit	1	1		189.36			189.36	189.38	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	94.96	294.44	0.322	95.22	96.74	0.5	0.4	3.948	A
			2	A227N, A227S, A2ON	168.66	290.51	0.580	169.33	172.39	1.1	1.0	5.823	A
	Exit	1	1		256.28			256.28	259.61	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	29.41	151.82	0.194	29.46	32.51	0.8	0.3	8.279	A
			2	A227N, A2ON	111.04	151.82	0.731	111.41	114.09	2.5	1.9	16.959	C
		2	1	(A227N, A227S, A2ON)	138.43			140.44	145.35	7.5	1.0	16.098	C
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	103.98	194.93	0.534	103.94	105.56	1.1	0.9	7.366	A
			2	A227N, A227S	83.59	196.22	0.426	83.56	84.06	0.6	0.6	6.510	A
		2	1	(A227N, A227S, A2ON)	187.63			187.57	189.37	0.1	0.0	0.102	A
	Exit	1	1		172.84			172.84	177.63	0.0	0.0	0.000	A
A2ON	Exit	1	1		163.81			163.81	168.11	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	97.40	297.48	0.327	97.66	98.20	0.4	0.4	3.882	A
			2	A227N, A227S, A2ON	168.30	295.13	0.570	168.03	170.74	1.0	0.9	5.566	A
	Exit	1	1		204.21			204.21	206.35	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	39.69	152.53	0.260	39.39	38.59	0.3	0.4	8.064	A
			2	A227N, A2ON	97.99	149.35	0.656	97.75	100.18	1.9	1.6	14.292	B
		2	1	(A227N, A227S, A2ON)	137.50			137.68	138.66	1.0	0.5	4.016	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	87.65	201.42	0.435	87.74	88.65	0.9	0.6	6.368	A
			2	A227N, A227S	61.36	201.42	0.305	61.60	61.65	0.6	0.3	5.372	A
		2	1	(A227N, A227S, A2ON)	149.07			149.00	149.75	0.0	0.0	0.028	A
	Exit	1	1		186.76			186.76	186.75	0.0	0.0	0.000	A
A2ON	Exit	1	1		161.21			161.21	164.90	0.0	0.0	0.000	A

2025 Do Minimum Residual, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	35.77	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2025 Do Minimum Residual	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

16:45 - 17:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	168.00	152.00
	A2OFF	119.00	0.00	39.00	0.00
	A227S	133.00	0.00	0.00	50.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	166.00	142.00
	A2OFF	134.00	0.00	52.00	0.00
	A227S	125.00	0.00	1.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	169.00	140.00
	A2OFF	143.00	0.00	42.00	0.00
	A227S	152.00	0.00	1.00	47.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:30 - 17:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	165.00	124.00
	A2OFF	109.00	0.00	45.00	1.00
	A227S	135.00	0.00	0.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:45 - 18:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	144.00	119.00
	A2OFF	107.00	0.00	30.00	0.00
	A227S	145.00	0.00	0.00	43.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

18:00 - 18:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	149.00	118.00
	A2OFF	97.00	0.00	38.00	0.00
	A227S	104.00	0.00	0.00	45.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	3
	A2OFF	2	0	3	0
	A227S	4	0	0	6
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	0
	A2OFF	0	0	0	0
	A227S	0	0	0	5
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	2	0	5	0
	A227S	1	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:30 - 17:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	2	0
	A227S	2	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:45 - 18:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	3
	A2OFF	0	0	0	0
	A227S	0	0	0	2
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

18:00 - 18:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	1
	A2OFF	2	0	0	0
	A227S	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	6.09	2.3	A	293.28	1759.70
A2OFF	121.13	29.4	F	160.99	965.97
A227S	8.34	1.9	A	183.92	1103.50
A2ON					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	321.00	321.00	0.00	320.72	323.04	250.18	0.0	2.2	6.087	A
A2OFF	160.11	160.11	320.72	155.22	152.45	0.00	0.0	9.5	39.055	E
A227S	182.70	182.70	269.46	182.45	189.59	206.47	0.0	1.8	8.106	A
A2ON			0.00			201.71				

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	309.97	309.97	1.16	309.08	310.70	254.21	2.2	2.1	5.630	A
A2OFF	187.06	187.06	310.25	181.53	178.20	0.00	9.5	16.8	72.047	F
A227S	186.94	186.94	273.06	186.80	190.98	218.72	1.8	1.8	8.337	A
A2ON			0.00			204.49				

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	311.73	311.73	0.94	311.98	314.52	285.06	2.1	1.9	5.787	A
A2OFF	185.39	185.39	312.91	172.98	175.97	0.00	16.8	29.0	121.127	F
A227S	199.53	199.53	271.96	200.00	202.10	213.94	1.8	1.9	8.277	A
A2ON			0.00			185.98				

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	287.54	287.54	0.00	287.29	292.13	256.80	1.9	1.8	5.166	A
A2OFF	156.99	156.99	287.29	171.77	178.49	0.00	29.0	10.0	91.345	F
A227S	198.42	198.42	243.75	198.78	200.50	215.31	1.9	1.8	8.264	A
A2ON			0.00			185.74				

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	261.04	261.04	0.00	261.45	267.49	254.04	1.8	1.5	5.126	A
A2OFF	138.81	138.81	261.45	140.63	144.35	0.00	10.0	3.3	29.766	D
A227S	186.70	186.70	227.88	186.70	188.30	174.20	1.8	1.4	6.885	A
A2ON			0.00			160.54				

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	268.32	268.32	0.00	268.09	268.46	201.52	1.5	1.5	4.938	A
A2OFF	137.15	137.15	268.09	136.42	137.87	0.00	3.3	2.6	16.176	C
A227S	149.30	149.30	215.49	149.31	149.68	189.02	1.4	1.0	5.939	A
A2ON			0.00			163.26				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	119.82	297.48	0.403	119.75	119.09	0.0	0.6	4.414	A
			2	A227N, A227S, A2ON	201.19	290.78	0.692	200.97	203.95	0.0	1.7	7.083	A
	Exit	1	1		250.18			250.18	251.26	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	37.88	132.48	0.287	37.62	38.06	0.0	0.5	9.959	A
			2	A227N, A2ON	118.26	133.88	0.884	117.60	114.39	0.0	3.1	20.363	C
		2	1	(A227N, A227S, A2ON)	160.11			156.15	156.11	0.0	6.0	21.072	C
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	101.78	175.10	0.581	101.87	107.80	0.0	1.0	8.373	A
			2	A227N, A227S	81.02	177.04	0.457	80.60	81.78	0.0	0.7	6.932	A
		2	1	(A227N, A227S, A2ON)	182.70			182.80	191.41	0.0	0.0	0.355	A
	Exit	1	1		206.47			206.47	206.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		201.71			201.71	207.81	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	114.92	294.16	0.391	114.87	116.07	0.6	0.6	4.293	A
			2	A227N, A227S, A2ON	195.04	296.38	0.658	194.23	194.62	1.7	1.5	6.422	A
	Exit	1	1		254.21			254.21	253.98	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	50.70	140.24	0.362	51.31	49.35	0.5	0.5	11.219	B
			2	A227N, A2ON	130.62	140.24	0.931	130.22	128.85	3.1	3.4	22.922	C
		2	1	(A227N, A227S, A2ON)	187.06			181.32	178.45	6.0	12.9	52.284	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	107.90	180.01	0.599	107.83	111.83	1.0	1.1	8.695	A
			2	A227N, A227S	78.97	184.76	0.427	78.97	79.14	0.7	0.6	6.918	A
		2	1	(A227N, A227S, A2ON)	186.94			186.86	190.92	0.0	0.1	0.392	A
	Exit	1	1		218.72			218.72	218.80	0.0	0.0	0.000	A
A2ON	Exit	1	1		204.49			204.49	207.10	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	119.58	294.01	0.407	119.78	119.77	0.6	0.5	4.388	A
			2	A227N, A227S, A2ON	192.16	294.36	0.653	192.22	194.76	1.5	1.4	6.646	A
	Exit	1	1		285.06			285.06	287.62	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	39.79	131.83	0.302	39.61	41.89	0.5	0.5	11.005	B
			2	A227N, A2ON	133.62	136.62	0.979	133.37	134.08	3.4	3.7	24.329	C
		2	1	(A227N, A227S, A2ON)	185.39			173.41	176.39	12.9	24.8	99.824	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	110.24	183.06	0.602	110.70	112.13	1.1	1.0	8.346	A
			2	A227N, A227S	89.51	182.09	0.492	89.30	89.97	0.6	0.8	7.492	A
		2	1	(A227N, A227S, A2ON)	199.53			199.74	202.16	0.1	0.1	0.309	A
	Exit	1	1		213.94			213.94	215.52	0.0	0.0	0.000	A
A2ON	Exit	1	1		185.98			185.98	189.45	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	108.88	294.79	0.369	108.61	110.31	0.5	0.6	4.109	A
			2	A227N, A227S, A2ON	178.66	294.23	0.607	178.67	181.82	1.4	1.2	5.807	A
	Exit	1	1		256.80			256.80	265.51	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	50.16	143.46	0.350	50.36	50.60	0.5	0.5	10.694	B
			2	A227N, A2ON	120.67	144.80	0.834	121.41	127.90	3.7	2.7	21.705	C
		2	1	(A227N, A227S, A2ON)	156.99			170.83	177.43	24.8	6.8	73.225	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	114.08	191.20	0.597	114.45	115.23	1.0	1.1	8.585	A
			2	A227N, A227S	84.30	189.00	0.446	84.35	85.27	0.8	0.7	7.025	A
		2	1	(A227N, A227S, A2ON)	198.42			198.38	200.42	0.1	0.1	0.336	A
	Exit	1	1		215.31			215.31	217.70	0.0	0.0	0.000	A
A2ON	Exit	1	1		185.74			185.74	187.92	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	95.59	294.48	0.325	95.62	96.84	0.6	0.5	3.974	A
			2	A227N, A227S, A2ON	165.44	290.56	0.570	165.82	170.64	1.2	1.0	5.789	A
	Exit	1	1		254.04			254.04	257.33	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	30.33	152.71	0.199	30.38	31.57	0.5	0.2	7.947	A
			2	A227N, A2ON	109.92	152.71	0.720	110.25	112.79	2.7	1.8	16.854	C
		2	1	(A227N, A227S, A2ON)	138.81			140.25	143.13	6.8	1.2	15.109	C
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	103.16	196.04	0.526	103.03	104.79	1.1	0.9	7.177	A
			2	A227N, A227S	83.54	197.70	0.423	83.68	83.52	0.7	0.5	6.359	A
		2	1	(A227N, A227S, A2ON)	186.70			186.70	188.01	0.1	0.0	0.078	A
	Exit	1	1		174.20			174.20	177.21	0.0	0.0	0.000	A
A2ON	Exit	1	1		160.54			160.54	165.61	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	98.78	297.48	0.332	98.94	98.12	0.5	0.4	3.946	A
			2	A227N, A227S, A2ON	169.54	295.41	0.574	169.15	170.33	1.0	1.1	5.513	A
	Exit	1	1		201.52			201.52	203.91	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	38.46	151.91	0.253	38.44	37.87	0.2	0.3	8.095	A
			2	A227N, A2ON	98.31	149.03	0.659	97.97	99.99	1.8	1.6	14.167	B
		2	1	(A227N, A227S, A2ON)	137.15			136.78	137.87	1.2	0.6	3.786	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	88.65	201.70	0.440	88.81	88.89	0.9	0.6	6.307	A
			2	A227N, A227S	60.56	201.70	0.300	60.50	60.78	0.5	0.4	5.347	A
		2	1	(A227N, A227S, A2ON)	149.30			149.21	149.22	0.0	0.0	0.023	A
	Exit	1	1		189.02			189.02	187.11	0.0	0.0	0.000	A
A2ON	Exit	1	1		163.26			163.26	164.98	0.0	0.0	0.000	A

2028 Do Nothing, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	34.76	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 period length (min)	Time segment length (min)	Run automatically
D10	2028 Do Nothing	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	173.00	157.00
	A2OFF	117.00	0.00	41.00	0.00
	A227S	139.00	0.00	0.00	52.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

17:00 - 17:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	171.00	147.00
	A2OFF	133.00	0.00	55.00	0.00
	A227S	131.00	0.00	1.00	65.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	173.00	145.00
	A2OFF	142.00	0.00	44.00	0.00
	A227S	158.00	0.00	0.00	49.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:30 - 17:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	170.00	129.00
	A2OFF	107.00	0.00	47.00	1.00
	A227S	141.00	0.00	0.00	65.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:45 - 18:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	148.00	123.00
	A2OFF	105.00	0.00	31.00	0.00
	A227S	151.00	0.00	0.00	45.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

18:00 - 18:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	153.00	122.00
	A2OFF	95.00	0.00	40.00	0.00
	A227S	109.00	0.00	0.00	47.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	3
	A2OFF	2	0	3	0
	A227S	4	0	0	6
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	0
	A2OFF	0	0	0	0
	A227S	0	0	0	5
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	5	0
	A227S	1	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:30 - 17:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	2	0
	A227S	2	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:45 - 18:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	2	0
	A227S	1	0	0	2
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

18:00 - 18:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	1
	A2OFF	2	0	0	0
	A227S	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	6.30	2.6	A	301.04	1806.24
A2OFF	119.13	27.5	F	160.07	960.42
A227S	9.08	2.3	A	192.95	1157.67
A2ON					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	324.88	324.88	0.00	324.53	331.58	255.82	0.0	2.5	6.298	A
A2OFF	158.49	158.49	324.53	155.71	153.04	0.00	0.0	8.8	39.883	E
A227S	193.85	193.85	268.64	192.41	200.58	211.60	0.0	2.2	8.742	A
A2ON			0.00			205.23				

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	314.36	314.36	0.92	314.38	317.90	262.44	2.5	1.8	5.693	A
A2OFF	187.68	187.68	315.29	184.62	181.63	0.00	8.8	17.1	74.389	F
A227S	197.25	197.25	277.89	196.23	200.64	222.02	2.2	2.2	9.084	A
A2ON			0.00			210.76				

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	318.22	318.22	0.00	318.37	322.55	289.69	1.8	2.0	6.165	A
A2OFF	184.25	184.25	318.37	176.75	177.84	0.00	17.1	27.4	119.126	F
A227S	207.95	207.95	279.10	207.49	208.31	216.02	2.2	1.9	8.805	A
A2ON			0.00			196.91				

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	301.36	301.36	0.00	301.40	301.97	255.76	2.0	1.7	5.338	A
A2OFF	155.79	155.79	301.40	165.70	174.13	0.00	27.4	11.5	92.790	F
A227S	204.29	204.29	248.85	205.01	207.27	218.26	1.9	1.8	8.548	A
A2ON			0.00			198.02				

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	272.24	272.24	0.00	271.95	274.29	261.86	1.7	1.5	5.027	A
A2OFF	136.83	136.83	271.95	138.41	147.25	0.00	11.5	3.3	31.044	D
A227S	198.33	198.33	229.05	198.68	198.25	181.31	1.8	1.4	7.335	A
A2ON			0.00			165.90				

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	275.18	275.18	0.00	274.77	273.74	206.22	1.5	1.6	5.031	A
A2OFF	137.65	137.65	274.77	138.23	139.11	0.00	3.3	2.2	15.815	C
A227S	155.69	155.69	220.07	155.96	155.64	192.94	1.4	1.0	6.028	A
A2ON			0.00			169.81				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	122.24	297.48	0.411	121.93	122.39	0.0	0.8	4.452	A
			2	A227N, A227S, A2ON	202.64	290.31	0.698	202.60	209.19	0.0	1.7	7.402	A
	Exit	1	1		255.82			255.82	257.45	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	41.49	131.52	0.315	40.89	40.95	0.0	0.5	10.715	B
			2	A227N, A2ON	114.58	132.83	0.864	114.82	112.09	0.0	2.8	20.711	C
		2	1	(A227N, A227S, A2ON)	158.49			156.08	156.51	0.0	5.5	21.633	C
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	109.38	175.38	0.624	108.58	112.94	0.0	1.2	8.924	A
			2	A227N, A227S	84.31	176.42	0.478	83.82	87.64	0.0	0.9	7.483	A
		2	1	(A227N, A227S, A2ON)	193.85			193.70	202.81	0.0	0.1	0.443	A
	Exit	1	1		211.60			211.60	211.89	0.0	0.0	0.000	A
A2ON	Exit	1	1		205.23			205.23	215.86	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	116.20	293.61	0.396	116.04	118.93	0.8	0.5	4.316	A
			2	A227N, A227S, A2ON	198.16	296.18	0.669	198.33	198.97	1.7	1.2	6.509	A
	Exit	1	1		262.44			262.44	260.90	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	53.63	138.74	0.387	53.96	52.88	0.5	0.8	12.132	B
			2	A227N, A2ON	129.94	138.74	0.937	130.66	128.75	2.8	3.2	22.803	C
		2	1	(A227N, A227S, A2ON)	187.68			183.56	182.23	5.5	13.0	54.656	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	112.07	178.13	0.629	111.62	116.45	1.2	1.2	9.166	A
			2	A227N, A227S	84.74	183.26	0.462	84.60	84.19	0.9	0.7	7.516	A
		2	1	(A227N, A227S, A2ON)	197.25			196.81	200.40	0.1	0.3	0.619	A
	Exit	1	1		222.02			222.02	225.53	0.0	0.0	0.000	A
A2ON	Exit	1	1		210.76			210.76	213.75	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	119.73	294.70	0.407	119.81	122.82	0.5	0.5	4.459	A
			2	A227N, A227S, A2ON	198.49	293.96	0.675	198.56	199.72	1.2	1.5	7.214	A
	Exit	1	1		289.69			289.69	291.99	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	43.57	131.43	0.332	43.42	44.63	0.8	0.6	11.495	B
			2	A227N, A2ON	133.34	136.13	0.980	133.32	133.21	3.2	3.6	24.382	C
		2	1	(A227N, A227S, A2ON)	184.25			176.90	178.07	13.0	23.2	97.724	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	116.03	180.62	0.642	115.46	114.42	1.2	1.1	8.910	A
			2	A227N, A227S	91.68	179.71	0.510	92.03	93.90	0.7	0.7	7.684	A
		2	1	(A227N, A227S, A2ON)	207.95			207.70	208.18	0.3	0.1	0.453	A
	Exit	1	1		216.02			216.02	220.10	0.0	0.0	0.000	A
A2ON	Exit	1	1		196.91			196.91	196.61	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	113.36	294.74	0.384	113.42	113.60	0.5	0.5	4.170	A
			2	A227N, A227S, A2ON	188.01	294.31	0.639	187.99	188.37	1.5	1.2	6.043	A
	Exit	1	1		255.76			255.76	265.15	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	48.49	139.53	0.348	48.87	51.29	0.6	0.6	11.567	B
			2	A227N, A2ON	116.43	140.56	0.827	116.82	122.84	3.6	2.6	22.044	C
		2	1	(A227N, A227S, A2ON)	155.79			164.92	173.00	23.2	8.3	74.318	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	118.56	189.55	0.625	118.97	119.25	1.1	1.1	8.675	A
			2	A227N, A227S	85.83	188.29	0.456	85.95	88.02	0.7	0.6	7.195	A
		2	1	(A227N, A227S, A2ON)	204.29			204.37	207.13	0.1	0.1	0.497	A
	Exit	1	1		218.26			218.26	221.43	0.0	0.0	0.000	A
A2ON	Exit	1	1		198.02			198.02	196.79	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	97.95	295.23	0.332	98.07	99.53	0.5	0.3	3.974	A
			2	A227N, A227S, A2ON	174.29	294.84	0.591	173.88	174.76	1.2	1.2	5.626	A
	Exit	1	1		261.86			261.86	265.99	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	31.54	147.05	0.215	31.77	34.79	0.6	0.3	8.566	A
			2	A227N, A2ON	106.23	149.45	0.711	106.64	112.46	2.6	1.9	16.962	C
		2	1	(A227N, A227S, A2ON)	136.83			137.77	146.25	8.3	1.1	16.314	C
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	108.64	194.36	0.559	109.08	109.38	1.1	0.8	7.640	A
			2	A227N, A227S	89.67	196.07	0.457	89.63	88.86	0.6	0.6	6.623	A
		2	1	(A227N, A227S, A2ON)	198.33			198.31	197.94	0.1	0.0	0.157	A
	Exit	1	1		181.31			181.31	185.23	0.0	0.0	0.000	A
A2ON	Exit	1	1		165.90			165.90	168.56	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	99.00	297.48	0.333	99.27	99.51	0.3	0.4	3.987	A
			2	A227N, A227S, A2ON	176.21	295.50	0.596	175.51	174.23	1.2	1.3	5.633	A
	Exit	1	1		206.22			206.22	207.64	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	41.18	150.08	0.274	41.16	40.36	0.3	0.4	8.329	A
			2	A227N, A2ON	96.82	146.84	0.660	97.05	98.75	1.9	1.5	14.320	B
		2	1	(A227N, A227S, A2ON)	137.65			138.00	138.81	1.1	0.4	3.346	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	90.82	200.20	0.454	91.13	91.45	0.8	0.6	6.424	A
			2	A227N, A227S	64.93	200.20	0.324	64.83	64.19	0.6	0.4	5.332	A
		2	1	(A227N, A227S, A2ON)	155.69			155.75	155.22	0.0	0.0	0.054	A
	Exit	1	1		192.94			192.94	190.25	0.0	0.0	0.000	A
A2ON	Exit	1	1		169.81			169.81	170.60	0.0	0.0	0.000	A

2028 Do Minimum, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	63.86	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 period length (min)	Time segment length (min)	Run automatically
D12	2028 Do Minimum	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	174.00	165.00
	A2OFF	126.00	0.00	40.00	0.00
	A227S	139.00	0.00	0.00	52.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

17:00 - 17:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	172.00	155.00
	A2OFF	142.00	0.00	54.00	0.00
	A227S	131.00	0.00	1.00	65.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	174.00	153.00
	A2OFF	152.00	0.00	43.00	0.00
	A227S	158.00	0.00	1.00	49.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:30 - 17:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	171.00	137.00
	A2OFF	116.00	0.00	46.00	1.00
	A227S	141.00	0.00	0.00	65.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:45 - 18:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	149.00	131.00
	A2OFF	114.00	0.00	31.00	0.00
	A227S	151.00	0.00	0.00	45.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

18:00 - 18:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	154.00	129.00
	A2OFF	103.00	0.00	39.00	0.00
	A227S	109.00	0.00	0.00	47.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	3
	A2OFF	2	0	3	0
	A227S	4	0	0	6
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	0
	A2OFF	0	0	0	0
	A227S	0	0	0	5
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	5	0
	A227S	1	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:30 - 17:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	2	0
	A227S	2	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:45 - 18:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	3
	A2OFF	0	0	0	0
	A227S	0	0	0	2
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

18:00 - 18:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	1
	A2OFF	2	0	0	0
	A227S	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	6.61	2.4	A	310.29	1861.73
A2OFF	232.02	55.6	F	167.58	1005.49
A227S	9.68	2.4	A	191.92	1151.51
A2ON					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	339.11	339.11	0.00	339.93	341.05	257.68	0.0	2.4	6.612	A
A2OFF	166.02	166.02	339.93	157.76	155.69	0.00	0.0	13.9	54.155	F
A227S	191.17	191.17	285.16	190.21	197.44	212.54	0.0	2.3	9.003	A
A2ON			0.00			217.69				

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	328.53	328.53	0.99	328.51	329.00	262.47	2.4	2.3	6.086	A
A2OFF	195.23	195.23	329.50	182.52	179.63	0.00	13.9	30.4	121.866	F
A227S	196.57	196.57	287.83	195.93	200.47	224.19	2.3	2.1	9.678	A
A2ON			0.00			220.30				

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	325.12	325.12	1.11	324.64	330.24	291.39	2.3	2.3	6.189	A
A2OFF	194.83	194.83	325.76	169.98	173.71	0.00	30.4	55.3	227.985	F
A227S	208.41	208.41	285.04	208.39	208.54	210.73	2.1	2.1	9.193	A
A2ON			0.00			200.92				

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	308.62	308.62	0.00	308.94	312.23	270.84	2.3	1.8	5.640	A
A2OFF	163.27	163.27	308.94	182.67	185.18	0.00	55.3	37.0	232.019	F
A227S	204.47	204.47	268.56	204.03	207.15	223.05	2.1	2.1	9.377	A
A2ON			0.00			201.75				

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	279.91	279.91	0.00	279.56	284.58	277.38	1.8	1.8	5.483	A
A2OFF	145.01	145.01	279.56	161.18	168.56	0.00	37.0	14.3	120.582	F
A227S	194.35	194.35	257.33	194.63	196.85	183.41	2.1	1.6	7.729	A
A2ON			0.00			174.59				

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	280.48	280.48	0.00	280.15	282.57	216.22	1.8	1.6	5.149	A
A2OFF	141.35	141.35	280.15	147.23	152.92	0.00	14.3	5.7	46.150	E
A227S	156.45	156.45	234.86	156.03	156.61	192.52	1.6	1.2	6.479	A
A2ON			0.00			174.67				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	127.28	297.48	0.428	127.93	126.19	0.0	0.6	4.527	A
			2	A227N, A227S, A2ON	211.81	290.28	0.730	212.00	214.86	0.0	1.8	7.860	A
	Exit	1	1		257.68			257.68	260.26	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	38.62	127.18	0.304	38.59	38.86	0.0	0.5	10.960	B
			2	A227N, A2ON	119.34	128.46	0.930	119.17	116.83	0.0	3.3	22.376	C
		2	1	(A227N, A227S, A2ON)	166.02			157.97	159.59	0.0	10.1	34.325	D
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	106.93	169.95	0.629	106.47	111.30	0.0	1.3	9.148	A
			2	A227N, A227S	83.91	171.53	0.490	83.75	86.14	0.0	0.8	7.624	A
		2	1	(A227N, A227S, A2ON)	191.17			190.83	199.68	0.0	0.2	0.512	A
	Exit	1	1		212.54			212.54	211.62	0.0	0.0	0.000	A
A2ON	Exit	1	1		217.69			217.69	222.29	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	122.20	293.95	0.416	121.93	122.37	0.6	0.7	4.460	A
			2	A227N, A227S, A2ON	206.34	296.43	0.696	206.57	206.63	1.8	1.7	7.044	A
	Exit	1	1		262.47			262.47	260.95	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	50.66	134.91	0.375	50.73	49.34	0.5	0.7	12.170	B
			2	A227N, A2ON	131.84	134.91	0.977	131.79	130.29	3.3	3.7	24.899	C
		2	1	(A227N, A227S, A2ON)	195.23			182.50	180.11	10.1	26.0	100.443	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	111.75	174.97	0.639	111.51	116.15	1.3	1.2	9.743	A
			2	A227N, A227S	84.67	180.17	0.470	84.43	84.33	0.8	0.7	7.502	A
		2	1	(A227N, A227S, A2ON)	196.57			196.43	200.23	0.2	0.2	0.899	A
	Exit	1	1		224.19			224.19	224.05	0.0	0.0	0.000	A
A2ON	Exit	1	1		220.30			220.30	224.11	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	122.07	294.39	0.415	122.10	124.37	0.7	0.6	4.450	A
			2	A227N, A227S, A2ON	203.05	293.98	0.691	202.53	205.88	1.7	1.7	7.238	A
	Exit	1	1		291.39			291.39	291.75	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	37.55	128.24	0.293	37.25	40.70	0.7	0.5	11.370	B
			2	A227N, A2ON	132.78	134.07	0.990	132.73	133.01	3.7	3.9	26.093	D
		2	1	(A227N, A227S, A2ON)	194.83			170.32	173.84	26.0	50.8	205.229	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	114.42	178.84	0.640	114.42	114.14	1.2	1.1	9.273	A
			2	A227N, A227S	93.97	178.34	0.527	93.98	94.40	0.7	0.9	7.997	A
		2	1	(A227N, A227S, A2ON)	208.41			208.39	208.56	0.2	0.1	0.496	A
	Exit	1	1		210.73			210.73	217.29	0.0	0.0	0.000	A
A2ON	Exit	1	1		200.92			200.92	203.46	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	116.95	294.34	0.397	117.27	117.99	0.6	0.5	4.326	A
			2	A227N, A227S, A2ON	191.66	294.49	0.651	191.66	194.24	1.7	1.3	6.439	A
	Exit	1	1		270.84			270.84	278.19	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	51.12	137.39	0.372	51.07	49.43	0.5	0.7	11.814	B
			2	A227N, A2ON	131.21	138.74	0.946	131.60	135.75	3.9	3.5	24.598	C
		2	1	(A227N, A227S, A2ON)	163.27			182.34	184.96	50.8	32.8	211.213	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	117.16	183.68	0.638	117.02	118.13	1.1	1.2	9.502	A
			2	A227N, A227S	87.18	182.03	0.479	87.01	89.02	0.9	0.7	7.631	A
		2	1	(A227N, A227S, A2ON)	204.47			204.34	207.14	0.1	0.2	0.673	A
	Exit	1	1		223.05			223.05	222.18	0.0	0.0	0.000	A
A2ON	Exit	1	1		201.75			201.75	204.20	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	101.94	294.54	0.346	101.84	102.44	0.5	0.5	4.143	A
			2	A227N, A227S, A2ON	177.97	289.88	0.614	177.72	182.14	1.3	1.4	6.249	A
	Exit	1	1		277.38			277.38	281.05	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	33.96	147.54	0.230	34.08	38.08	0.7	0.3	9.546	A
			2	A227N, A2ON	126.19	147.53	0.855	127.10	130.48	3.5	2.7	21.544	C
		2	1	(A227N, A227S, A2ON)	145.01			160.15	167.28	32.8	11.3	102.104	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	108.06	186.79	0.579	108.21	109.22	1.2	0.9	7.983	A
			2	A227N, A227S	86.34	188.35	0.458	86.43	87.64	0.7	0.7	6.987	A
		2	1	(A227N, A227S, A2ON)	194.35			194.40	196.43	0.2	0.0	0.199	A
	Exit	1	1		183.41			183.41	188.30	0.0	0.0	0.000	A
A2ON	Exit	1	1		174.59			174.59	180.65	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	102.39	297.48	0.344	102.22	102.55	0.5	0.5	3.987	A
			2	A227N, A227S, A2ON	178.09	295.51	0.603	177.93	180.01	1.4	1.2	5.817	A
	Exit	1	1		216.22			216.22	221.89	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	40.34	148.61	0.271	40.24	40.67	0.3	0.4	8.904	A
			2	A227N, A2ON	106.42	145.69	0.731	106.99	112.25	2.7	2.0	18.103	C
		2	1	(A227N, A227S, A2ON)	141.35			146.76	152.42	11.3	3.3	30.937	D
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	92.47	195.60	0.473	92.30	92.24	0.9	0.7	6.858	A
			2	A227N, A227S	63.91	195.60	0.327	63.73	64.37	0.7	0.4	5.790	A
		2	1	(A227N, A227S, A2ON)	156.45			156.38	156.20	0.0	0.0	0.062	A
	Exit	1	1		192.52			192.52	193.45	0.0	0.0	0.000	A
A2ON	Exit	1	1		174.67			174.67	176.77	0.0	0.0	0.000	A

2028 Do Minimum Residual, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	62.08	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 period length (min)	Time segment length (min)	Run automatically
D14	2028 Do Minimum Residual	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

16:45 - 17:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	174.00	164.00
	A2OFF	125.00	0.00	40.00	0.00
	A227S	139.00	0.00	0.00	52.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	172.00	154.00
	A2OFF	141.00	0.00	54.00	0.00
	A227S	131.00	0.00	1.00	65.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	174.00	152.00
	A2OFF	151.00	0.00	43.00	0.00
	A227S	158.00	0.00	1.00	49.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:30 - 17:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	171.00	135.00
	A2OFF	115.00	0.00	46.00	1.00
	A227S	141.00	0.00	0.00	65.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:45 - 18:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	149.00	130.00
	A2OFF	113.00	0.00	31.00	0.00
	A227S	151.00	0.00	0.00	45.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

18:00 - 18:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	154.00	128.00
	A2OFF	102.00	0.00	39.00	0.00
	A227S	109.00	0.00	0.00	47.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	3
	A2OFF	2	0	3	0
	A227S	4	0	0	6
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	0
	A2OFF	0	0	0	0
	A227S	0	0	0	5
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	5	0
	A227S	1	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:30 - 17:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	2	0
	A227S	2	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:45 - 18:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	3
	A2OFF	0	0	0	0
	A227S	0	0	0	2
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

18:00 - 18:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	1
	A2OFF	2	0	0	0
	A227S	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	6.86	2.5	A	309.36	1856.15
A2OFF	224.46	53.7	F	167.57	1005.39
A227S	9.29	2.2	A	191.14	1146.86
A2ON					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	336.19	336.19	0.00	337.27	341.48	256.15	0.0	2.4	6.859	A
A2OFF	166.52	166.52	337.27	156.21	154.95	0.00	0.0	14.3	55.189	F
A227S	190.13	190.13	282.47	189.29	197.61	211.01	0.0	2.0	8.952	A
A2ON			0.00			215.61				

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	332.46	332.46	0.84	331.59	329.20	261.47	2.4	2.4	6.196	A
A2OFF	194.58	194.58	332.42	183.47	179.13	0.00	14.3	30.7	121.704	F
A227S	195.15	195.15	289.26	194.39	198.98	226.62	2.0	2.2	9.291	A
A2ON			0.00			221.33				

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	323.45	323.45	0.84	323.89	328.87	289.80	2.4	2.0	6.103	A
A2OFF	194.81	194.81	324.74	169.99	174.76	0.00	30.7	53.3	221.231	F
A227S	206.61	206.61	282.91	206.86	208.45	211.81	2.2	2.0	9.163	A
A2ON			0.00			199.11				

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	302.28	302.28	0.00	303.08	309.00	268.46	2.0	1.8	5.628	A
A2OFF	162.67	162.67	303.08	183.87	183.85	0.00	53.3	35.3	224.456	F
A227S	202.50	202.50	265.32	202.61	208.69	221.63	2.0	2.0	9.092	A
A2ON			0.00			199.47				

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	277.87	277.87	0.00	277.43	283.38	277.31	1.8	1.7	5.337	A
A2OFF	144.72	144.72	277.43	159.92	167.50	0.00	35.3	13.3	112.425	F
A227S	197.93	197.93	252.26	198.32	197.65	185.09	2.0	1.7	7.833	A
A2ON			0.00			173.25				

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	283.78	283.78	0.00	283.16	284.63	211.96	1.7	1.7	5.172	A
A2OFF	141.56	141.56	283.16	144.44	151.15	0.00	13.3	5.0	40.065	E
A227S	154.26	154.26	233.32	154.62	156.36	194.27	1.7	0.9	6.394	A
A2ON			0.00			175.98				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	127.00	297.48	0.427	127.39	126.99	0.0	0.7	4.729	A
			2	A227N, A227S, A2ON	209.19	290.90	0.720	209.88	214.49	0.0	1.8	8.145	A
	Exit	1	1		256.15			256.15	260.20	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	37.33	128.22	0.291	37.39	38.04	0.0	0.5	10.927	B
			2	A227N, A2ON	119.08	129.65	0.919	118.83	116.90	0.0	3.2	22.550	C
		2	1	(A227N, A227S, A2ON)	166.52			156.41	158.75	0.0	10.6	35.233	E
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	106.54	171.15	0.623	106.32	111.70	0.0	1.1	9.029	A
			2	A227N, A227S	83.12	171.97	0.484	82.98	85.91	0.0	0.7	7.662	A
		2	1	(A227N, A227S, A2ON)	190.13			189.66	199.56	0.0	0.2	0.511	A
	Exit	1	1		211.01			211.01	211.57	0.0	0.0	0.000	A
A2ON	Exit	1	1		215.61			215.61	222.26	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	124.03	294.21	0.422	123.86	123.09	0.7	0.6	4.560	A
			2	A227N, A227S, A2ON	208.44	296.39	0.703	207.73	206.11	1.8	1.8	7.166	A
	Exit	1	1		261.47			261.47	259.86	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	51.32	134.11	0.383	51.06	49.54	0.5	0.7	12.506	B
			2	A227N, A2ON	132.19	134.11	0.986	132.41	129.59	3.2	3.6	24.809	C
		2	1	(A227N, A227S, A2ON)	194.58			183.51	179.70	10.6	26.3	100.236	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	111.91	174.79	0.641	111.27	115.43	1.1	1.3	9.480	A
			2	A227N, A227S	83.16	179.72	0.463	83.11	83.55	0.7	0.7	7.386	A
		2	1	(A227N, A227S, A2ON)	195.15			195.07	199.11	0.2	0.2	0.706	A
	Exit	1	1		226.62			226.62	224.95	0.0	0.0	0.000	A
A2ON	Exit	1	1		221.33			221.33	222.49	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	121.07	294.12	0.412	121.44	124.39	0.6	0.5	4.529	A
			2	A227N, A227S, A2ON	202.38	294.39	0.687	202.46	204.48	1.8	1.4	7.061	A
	Exit	1	1		289.80			289.80	290.84	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	37.01	130.12	0.285	36.91	41.56	0.7	0.5	11.819	B
			2	A227N, A2ON	132.92	134.46	0.988	133.08	133.20	3.6	3.8	25.950	D
		2	1	(A227N, A227S, A2ON)	194.81			169.93	174.84	26.3	49.0	198.502	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	112.67	179.93	0.626	113.00	114.22	1.3	1.1	9.217	A
			2	A227N, A227S	93.78	179.02	0.524	93.86	94.24	0.7	0.8	7.856	A
		2	1	(A227N, A227S, A2ON)	206.61			206.46	208.22	0.2	0.1	0.555	A
	Exit	1	1		211.81			211.81	218.72	0.0	0.0	0.000	A
A2ON	Exit	1	1		199.11			199.11	202.52	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	114.64	294.02	0.390	114.87	116.88	0.5	0.5	4.376	A
			2	A227N, A227S, A2ON	187.65	294.91	0.636	188.21	192.12	1.4	1.3	6.388	A
	Exit	1	1		268.46			268.46	277.43	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	52.91	139.06	0.380	52.84	49.50	0.5	0.7	12.135	B
			2	A227N, A2ON	130.60	140.42	0.930	131.03	134.35	3.8	3.3	24.489	C
		2	1	(A227N, A227S, A2ON)	162.67			183.51	183.54	49.0	31.2	203.752	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	115.71	184.92	0.626	116.12	119.28	1.1	1.1	9.242	A
			2	A227N, A227S	86.79	183.11	0.474	86.49	89.40	0.8	0.8	7.530	A
		2	1	(A227N, A227S, A2ON)	202.50			202.50	208.73	0.1	0.1	0.584	A
	Exit	1	1		221.63			221.63	221.77	0.0	0.0	0.000	A
A2ON	Exit	1	1		199.47			199.47	202.33	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	101.41	294.07	0.345	100.92	102.41	0.5	0.5	4.019	A
			2	A227N, A227S, A2ON	176.46	290.76	0.607	176.50	180.97	1.3	1.1	6.094	A
	Exit	1	1		277.31			277.31	280.41	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	35.35	148.20	0.239	35.35	38.41	0.7	0.3	9.613	A
			2	A227N, A2ON	123.66	148.22	0.834	124.56	129.09	3.3	2.6	21.058	C
		2	1	(A227N, A227S, A2ON)	144.72			159.01	166.24	31.2	10.5	94.391	F
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	108.83	188.15	0.578	109.06	109.18	1.1	1.0	8.001	A
			2	A227N, A227S	89.16	190.10	0.469	89.26	88.47	0.8	0.7	7.052	A
		2	1	(A227N, A227S, A2ON)	197.93			198.00	197.39	0.1	0.0	0.262	A
	Exit	1	1		185.09			185.09	189.82	0.0	0.0	0.000	A
A2ON	Exit	1	1		173.25			173.25	178.31	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	104.04	297.48	0.350	103.62	103.78	0.5	0.5	4.034	A
			2	A227N, A227S, A2ON	179.74	295.41	0.609	179.53	180.85	1.1	1.2	5.829	A
	Exit	1	1		211.96			211.96	219.73	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227S	39.67	147.77	0.268	39.86	40.96	0.3	0.4	9.403	A
			2	A227N, A2ON	105.13	144.82	0.726	104.58	110.19	2.6	2.2	17.376	C
		2	1	(A227N, A227S, A2ON)	141.56			144.79	150.91	10.5	2.4	25.194	D
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	91.08	196.07	0.465	91.35	92.09	1.0	0.6	6.788	A
			2	A227N, A227S	63.18	196.07	0.322	63.27	64.28	0.7	0.3	5.755	A
		2	1	(A227N, A227S, A2ON)	154.26			154.26	155.65	0.0	0.0	0.033	A
	Exit	1	1		194.27			194.27	194.95	0.0	0.0	0.000	A
A2ON	Exit	1	1		175.98			175.98	177.47	0.0	0.0	0.000	A

APPENDIX K - A227 WROTHAM ROAD / A2 EASTBOUND SLIP ROAD / SITE ACCESS ROUNDABOUT – SITE ACCESS IMPROVEMENT ARCADY REPORT

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: A227_A2 EB Slips_Site Access RB Direct AM LS SA.j9
Path: M:\Projects\2022\22052 - BP Tollgate, Gravesend\07. Technical\07.02 Modelling\ARCADY\Direct Assessment
Report generation date: 06/03/2025 12:10:13

»2023, AM
»2025 Do Nothing, AM
»2025 Do Minimum, AM
»2025 Do Minimum Residual, AM
»2028 Do Nothing, AM
»2028 Do Minimum, AM
»2028 Do Minimum Residual, AM

Summary of junction performance

	AM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	[Lane Simulation] - 2023				
Arm A227N	D1	2.2	4.29		A
Arm SA		0.0	0.00		A
Arm A227S		1.3	4.02		A
Arm A2OFF		1.2	6.42		A
	[Lane Simulation] - 2025 Do Nothing				
Arm A227N	D3	1.8	4.19		A
Arm SA		0.0	0.00		A
Arm A227S		1.2	4.03		A
Arm A2OFF		1.4	6.46		A
	[Lane Simulation] - 2025 Do Minimum				
Arm A227N	D5	2.0	4.44		A
Arm SA		0.1	4.96		A
Arm A227S		1.3	4.22		A
Arm A2OFF		1.4	6.81		A
	[Lane Simulation] - 2025 Do Minimum Residual				
Arm A227N	D7	2.2	4.51		A
Arm SA		0.2	5.00		A
Arm A227S		1.6	4.16		A
Arm A2OFF		1.2	6.79		A
	[Lane Simulation] - 2028 Do Nothing				
Arm A227N	D9	2.8	4.76		A
Arm SA		0.0	0.00		A
Arm A227S		1.4	4.01		A
Arm A2OFF		1.3	6.91		A
	[Lane Simulation] - 2028 Do Minimum				
Arm A227N	D11	2.2	4.92		A
Arm SA		0.2	5.51		A
Arm A227S		1.5	4.18		A
Arm A2OFF		1.7	7.36		A
	[Lane Simulation] - 2028 Do Minimum Residual				
Arm A227N	D13	2.0	4.84		A
Arm SA		0.2	5.48		A
Arm A227S		1.5	4.27		A
Arm A2OFF		1.6	7.09		A

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

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

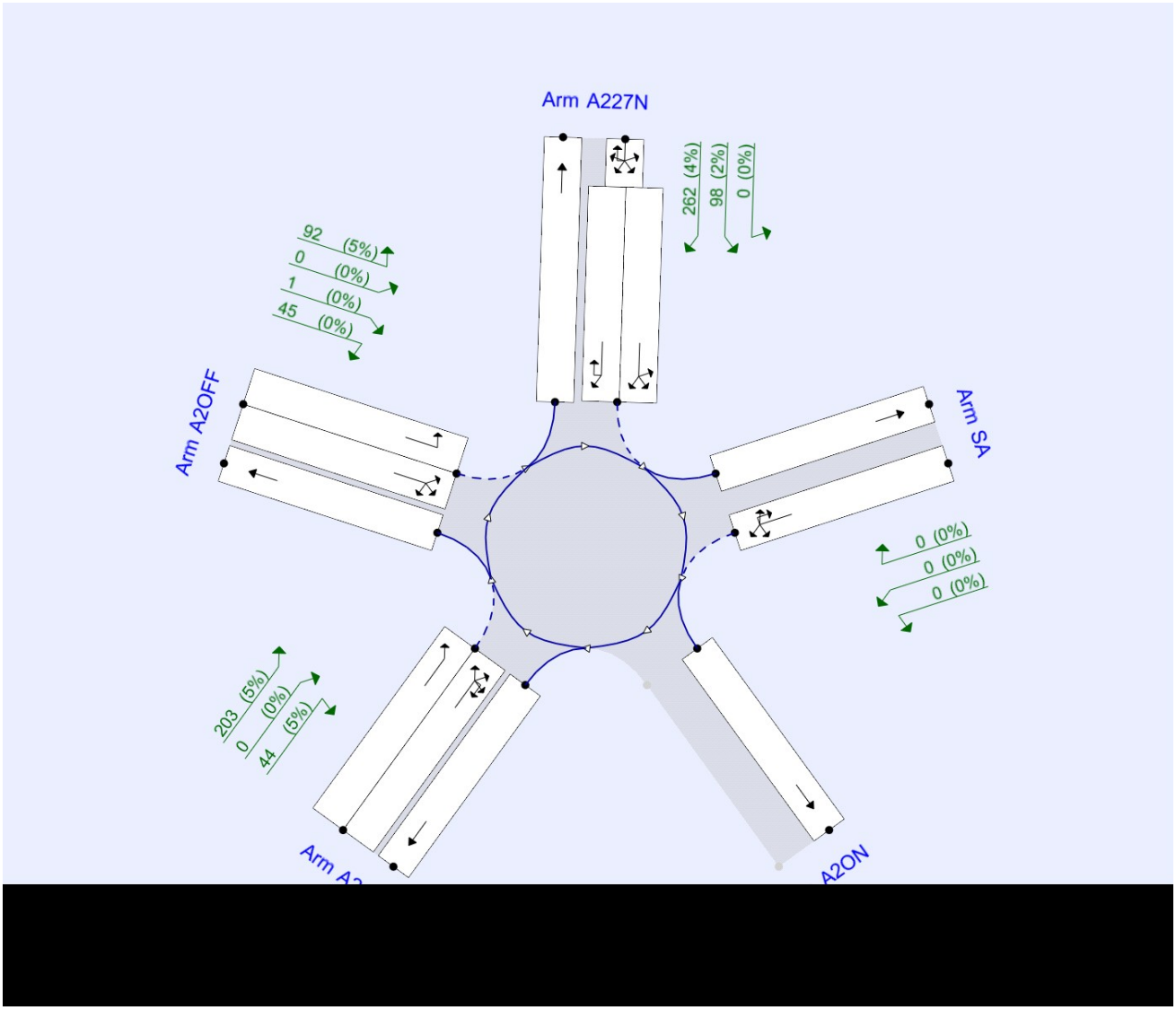
File summary

File Description

Title	
Location	
Site number	
Date	28/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MARKIDES\Markides Associates
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perTimeSegment	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

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

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	✓			30256230	39	5.55

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2023	AM	DIRECT	07:45	09:15	90	15	✓
D3	2025 Do Nothing	AM	DIRECT	07:45	09:15	90	15	✓
D5	2025 Do Minimum	AM	DIRECT	07:45	09:15	90	15	✓
D7	2025 Do Minimum Residual	AM	DIRECT	07:45	09:15	90	15	✓
D9	2028 Do Nothing	AM	DIRECT	07:45	09:15	90	15	✓
D11	2028 Do Minimum	AM	DIRECT	07:45	09:15	90	15	✓
D13	2028 Do Minimum Residual	AM	DIRECT	07:45	09:15	90	15	✓

Analysis Set Details

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

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	4.63	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A227N	A227 Wrotham Road (N)	
SA	Site Access	
A2ON	A2 EB On Slip	
A227S	A227 Wrotham Road (S)	
A2OFF	A2 EB Off Slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A227N	4.60	9.30	22.1	48.8	63.9	50.0	
SA	5.51	8.49	6.7	12.4	63.9	41.0	
A2ON							✓
A227S	7.10	9.30	17.9	31.1	63.9	47.0	
A2OFF	7.00	10.20	17.9	40.0	63.9	24.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/TS)
A227N	Direct	Queue Survey	250.00
SA	None		
A2ON			
A227S	None		
A2OFF	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
A227N	0.600	787.586
SA	0.552	475.747
A2ON		
A227S	0.662	630.126
A2OFF	0.741	715.427

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
A227N	Evenly split	10.00
SA	Evenly split	10.00
A2ON	Evenly split	10.00
A227S	Evenly split	10.00
A2OFF	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/TS)	Maximum capacity (PCU/TS)	Signalised
A227N	Entry	1	1	SA, A2ON, A227S	✓	5.00		0.00	24999.75	
			2	A227N, A227S	✓	5.00		0.00	24999.75	
		2	1	(A227N, SA, A2ON, A227S, A2OFF)		Infinity				
	Exit	1	1			Infinity				
SA	Entry	1	1	A227N, SA, A2ON, A227S		Infinity		0.00	24999.75	
	Exit	1	1			Infinity				
A2ON	Exit	1	1			Infinity				
A227S	Entry	1	1	A227N		Infinity		0.00	24999.75	
			2	A227N, SA, A2ON, A227S		Infinity		0.00	24999.75	
	Exit	1	1			Infinity				
A2OFF	Entry	1	1	A227N		Infinity		0.00	24999.75	
			2	SA, A2ON, A227S		Infinity		0.00	24999.75	
	Exit	1	1			Infinity				

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/TS)
A227N	Entry	1	1	0.300	393.793
			2	0.300	393.793
SA	Entry	1	1	0.552	475.747
A227S	Entry	1	1	0.331	315.063
			2	0.331	315.063
A2OFF	Entry	1	1	0.370	357.713
			2	0.370	357.713

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm				
			A227N	SA	A2ON	A227S	A2OFF
A227N	1	1		✓	✓	✓	
		2	✓			✓	
	2	1	✓	✓	✓	✓	✓
SA	1	1	✓	✓	✓	✓	
A227S	1	1	✓				
		2	✓	✓	✓	✓	
A2OFF	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 period length (min)	Time segment length (min)	Run automatically
D1	2023	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

07:45 - 08:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	98.00	262.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	203.00	0.00	44.00	0.00	0.00
	A2OFF	92.00	0.00	1.00	45.00	0.00

08:00 - 08:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	109.00	249.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	210.00	0.00	43.00	0.00	0.00
	A2OFF	114.00	1.00	0.00	34.00	0.00

08:15 - 08:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	117.00	222.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	202.00	0.00	51.00	0.00	0.00
	A2OFF	118.00	0.00	2.00	40.00	0.00

08:30 - 08:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	113.00	249.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	177.00	0.00	54.00	0.00	0.00
	A2OFF	114.00	0.00	0.00	50.00	0.00

08:45 - 09:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	102.00	229.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	217.00	0.00	46.00	1.00	0.00
	A2OFF	99.00	0.00	0.00	42.00	0.00

09:00 - 09:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	89.00	192.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	196.00	0.00	34.00	0.00	0.00
	A2OFF	91.00	0.00	0.00	30.00	0.00

Vehicle Mix

07:45 - 08:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	4	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	5	0	5	0	0
	A2OFF	5	0	0	0	0

08:00 - 08:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	5	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	0	0	0
	A2OFF	3	0	0	3	0

08:15 - 08:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	3	2	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	0	2	0	0
	A2OFF	5	0	0	5	0

08:30 - 08:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	4	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	0	6	0	0
	A2OFF	7	0	0	6	0

Heavy Vehicle Percentages

08:45 - 09:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	3	6	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	0	100	0
	A2OFF	4	0	0	2	0

Heavy Vehicle Percentages

09:00 - 09:15

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	5	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	0	0	0	0
	A2OFF	8	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	4.29	2.2	A	341.62	2049.69
SA	0.00	0.0	A	0.00	0.00
A2ON					
A227S	4.02	1.3	A	246.73	1480.40
A2OFF	6.42	1.2	A	145.50	873.01

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	366.08	366.08	92.69	367.69	375.92	288.46	0.0	1.2	4.181	A
SA	0.00	0.00	460.46	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			146.69				
A227S	245.08	245.08	0.00	244.08	259.49	313.77	0.0	1.3	4.018	A
A2OFF	136.69	136.69	244.08	137.13	142.49	0.00	0.0	0.8	5.232	A

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	358.69	358.69	76.77	359.46	372.54	319.85	1.2	1.8	4.030	A
SA	0.00	0.00	435.08	0.00	0.00	1.15	0.0	0.0	0.000	A
A2ON			0.00			153.15				
A227S	251.62	251.62	0.00	251.08	251.74	281.92	1.3	1.2	3.775	A
A2OFF	146.08	146.08	251.08	145.38	151.41	0.00	0.8	0.8	6.027	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	339.16	339.16	90.46	338.92	347.97	315.08	1.8	1.5	4.017	A
SA	0.00	0.00	429.38	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			167.92				
A227S	248.38	248.38	0.00	247.92	256.56	261.46	1.2	1.2	3.908	A
A2OFF	157.38	157.38	247.92	157.62	170.08	0.00	0.8	1.1	6.416	A

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	371.15	371.15	101.00	368.54	370.95	295.62	1.5	2.2	4.292	A
SA	0.00	0.00	469.42	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			167.08				
A227S	230.77	230.77	0.00	229.54	236.00	302.31	1.2	1.1	3.810	A
A2OFF	166.46	166.46	229.54	167.31	177.44	0.00	1.1	1.0	6.018	A

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	335.08	335.08	92.92	335.31	345.13	313.00	2.2	1.7	4.195	A
SA	0.00	0.00	428.23	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			151.85				
A227S	265.92	265.92	0.00	267.00	269.31	276.38	1.1	1.1	4.018	A
A2OFF	140.54	140.54	267.00	138.92	144.67	0.00	1.0	1.1	5.614	A

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	279.08	279.08	68.31	279.46	292.05	294.69	1.7	1.2	3.520	A
SA	0.00	0.00	347.85	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			129.69				
A227S	238.46	238.46	0.00	238.00	235.67	218.08	1.1	1.1	3.582	A
A2OFF	125.92	125.92	238.00	125.00	132.97	0.00	1.1	0.9	5.542	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	205.77	353.66	0.582	206.85	211.59	0.0	0.6	4.336	A
			2	A227N, A227S	160.92	352.03	0.457	160.85	164.33	0.0	0.5	3.654	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	366.08			366.69	377.08	0.0	0.0	0.142	A
	Exit	1	1		288.46			288.46	309.10	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	213.19	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		146.69			146.69	149.87	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	110.92	301.05	0.368	110.69	118.05	0.0	0.5	3.834	A
			2	A227N, SA, A2ON, A227S	134.15	299.52	0.448	133.39	141.44	0.0	0.7	4.172	A
	Exit	1	1		313.77			313.77	318.92	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	88.23	250.43	0.352	88.62	95.82	0.0	0.6	5.763	A
			2	SA, A2ON, A227S	48.46	262.86	0.184	48.54	46.67	0.0	0.2	4.191	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	210.14	360.63	0.583	211.00	213.13	0.6	1.1	4.262	A
			2	A227N, A227S	148.46	351.72	0.423	148.46	159.41	0.5	0.7	3.501	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	358.69			358.69	373.28	0.0	0.0	0.089	A
	Exit	1	1		319.85			319.85	325.62	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	227.38	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		1.15			1.15	0.97	0.0	0.0	0.000	A
A2ON	Exit	1	1		153.15			153.15	151.64	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	112.50	311.99	0.361	112.23	113.92	0.5	0.6	3.577	A
			2	A227N, SA, A2ON, A227S	139.23	313.16	0.444	138.92	137.82	0.7	0.7	3.938	A
	Exit	1	1		281.92			281.92	297.46	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	110.46	255.74	0.432	109.92	115.28	0.6	0.6	6.687	A
			2	SA, A2ON, A227S	35.60	257.71	0.138	35.62	36.13	0.2	0.2	3.950	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	199.92	356.69	0.561	200.31	206.31	1.1	0.9	4.344	A
			2	A227N, A227S	139.23	358.38	0.388	138.62	141.67	0.7	0.6	3.294	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	339.16			339.16	347.62	0.0	0.0	0.101	A
	Exit	1	1		315.08			315.08	330.69	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	232.60	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		167.92			167.92	173.95	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	112.54	309.52	0.364	111.69	115.69	0.6	0.6	3.666	A
			2	A227N, SA, A2ON, A227S	135.85	308.44	0.441	136.23	140.87	0.7	0.6	4.106	A
	Exit	1	1		261.46			261.46	269.97	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	117.38	248.52	0.472	117.85	125.62	0.6	0.9	7.131	A
			2	SA, A2ON, A227S	40.03	253.47	0.159	39.79	44.46	0.2	0.2	4.409	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	216.08	354.80	0.610	215.23	213.62	0.9	1.2	4.509	A
			2	A227N, A227S	154.46	346.02	0.447	153.31	157.33	0.6	0.8	3.716	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	371.15			370.54	371.51	0.0	0.2	0.113	A
	Exit	1	1		295.62			295.62	305.26	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	206.99	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		167.08			167.08	168.03	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	102.69	307.88	0.334	102.23	102.33	0.6	0.4	3.546	A
			2	A227N, SA, A2ON, A227S	128.08	305.64	0.420	127.31	133.67	0.6	0.7	4.015	A
	Exit	1	1		302.31			302.31	311.10	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	115.54	254.20	0.455	116.36	123.97	0.9	0.8	6.622	A
			2	SA, A2ON, A227S	50.92	250.97	0.202	50.92	53.46	0.2	0.2	4.620	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	193.69	352.59	0.550	193.92	198.74	1.2	1.0	4.383	A
			2	A227N, A227S	141.15	345.71	0.408	141.38	146.38	0.8	0.6	3.617	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	335.08			334.84	344.79	0.2	0.1	0.133	A
	Exit	1	1		313.00			313.00	321.33	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	230.09	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		151.85			151.85	149.69	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	116.85	310.99	0.376	117.38	120.44	0.4	0.5	3.939	A
			2	A227N, SA, A2ON, A227S	149.08	311.38	0.479	149.69	148.87	0.7	0.6	4.082	A
	Exit	1	1		276.38			276.38	288.08	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	97.92	247.72	0.395	96.46	101.21	0.8	0.9	6.271	A
			2	SA, A2ON, A227S	42.62	255.28	0.167	42.46	43.46	0.2	0.2	4.108	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	167.15	363.09	0.461	167.23	173.59	1.0	0.8	3.740	A
			2	A227N, A227S	112.23	354.02	0.317	112.23	118.46	0.6	0.4	3.141	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	279.08			279.38	291.54	0.1	0.0	0.022	A
	Exit	1	1		294.69			294.69	301.54	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	277.24	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		129.69			129.69	126.82	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	108.54	310.65	0.349	108.15	108.46	0.5	0.6	3.433	A
			2	A227N, SA, A2ON, A227S	129.92	311.01	0.418	129.85	127.21	0.6	0.5	3.708	A
	Exit	1	1		218.08			218.08	232.33	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	95.15	246.27	0.386	94.23	101.87	0.9	0.8	6.068	A
			2	SA, A2ON, A227S	30.85	258.69	0.119	30.77	31.10	0.2	0.2	3.900	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2025 Do Nothing, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	4.60	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 period length (min)	Time segment length (min)	Run automatically
D3	2025 Do Nothing	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	101.00	270.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	206.00	0.00	44.00	0.00	0.00
	A2OFF	95.00	0.00	1.00	46.00	0.00

08:00 - 08:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	112.00	257.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	213.00	0.00	43.00	0.25	0.00
	A2OFF	118.00	1.00	0.00	35.00	0.00

08:15 - 08:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	120.00	229.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	205.00	0.00	51.00	0.00	0.00
	A2OFF	122.00	0.00	2.00	41.00	0.00

08:30 - 08:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	116.00	256.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	179.00	0.00	54.00	0.00	0.00
	A2OFF	118.00	0.00	0.50	51.00	0.00

08:45 - 09:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	105.00	236.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	220.00	0.00	46.00	1.00	0.00
	A2OFF	102.00	0.00	0.00	43.00	0.00

09:00 - 09:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	91.00	198.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	198.00	0.00	34.00	0.00	0.00
	A2OFF	94.00	0.00	0.00	30.00	0.00

Vehicle Mix

07:45 - 08:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	4	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	5	0	5	0	0
	A2OFF	5	0	0	0	0

08:00 - 08:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	5	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	0	0	0
	A2OFF	3	0	0	3	0

08:15 - 08:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	3	2	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	0	2	0	0
	A2OFF	5	0	0	5	0

08:30 - 08:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	4	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	0	6	0	0
	A2OFF	7	0	0	6	0

08:45 - 09:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	3	6	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	0	100	0
	A2OFF	4	0	0	2	0

09:00 - 09:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	5	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	0	0	0	0
	A2OFF	8	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	4.19	1.8	A	344.79	2068.75
SA	0.00	0.0	A	0.00	0.00
A2ON					
A227S	4.03	1.2	A	248.55	1491.32
A2OFF	6.46	1.4	A	150.19	901.11

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	363.18	363.18	90.50	363.73	378.77	299.45	0.0	1.5	3.936	A
SA	0.00	0.00	454.18	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			144.55				
A227S	248.41	248.41	0.00	248.68	262.86	309.64	0.0	1.1	4.030	A
A2OFF	141.27	141.27	248.68	141.34	149.67	0.00	0.0	0.9	5.525	A

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	362.77	362.77	80.82	362.32	380.12	329.00	1.5	1.7	4.134	A
SA	0.00	0.00	442.23	0.00	0.00	0.91	0.0	0.0	0.000	A
A2ON			0.00			157.76				
A227S	255.32	255.32	0.00	255.04	258.03	284.45	1.1	0.9	3.831	A
A2OFF	154.00	154.00	255.04	154.77	156.32	0.00	0.9	1.1	6.362	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	346.91	346.91	94.00	346.96	356.03	328.82	1.7	1.8	4.187	A
SA	0.00	0.00	440.96	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			169.59				
A227S	257.14	257.14	0.00	257.36	259.92	271.36	0.9	1.0	3.870	A
A2OFF	165.63	165.63	257.36	165.45	175.33	0.00	1.1	1.3	6.460	A

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	361.77	361.77	101.86	363.13	379.89	299.27	1.8	1.5	4.057	A
SA	0.00	0.00	465.00	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			162.77				
A227S	231.45	231.45	0.00	230.89	239.67	302.23	1.0	1.2	3.842	A
A2OFF	170.14	170.14	230.89	170.09	181.82	0.00	1.3	1.1	6.107	A

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	344.73	344.73	88.86	343.64	357.41	321.82	1.5	1.5	3.974	A
SA	0.00	0.00	432.55	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			151.09				
A227S	266.90	266.90	0.00	267.91	269.56	281.29	1.2	0.8	3.876	A
A2OFF	142.83	142.83	267.91	142.80	153.17	0.00	1.1	0.9	5.649	A

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	289.36	289.36	65.17	288.82	302.50	293.73	1.5	1.2	3.525	A
SA	0.00	0.00	354.00	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			126.18				
A227S	232.23	232.23	0.00	232.36	239.03	227.82	0.8	0.8	3.656	A
A2OFF	127.09	127.09	232.36	126.55	131.55	0.00	0.9	0.8	5.680	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	205.36	352.97	0.582	205.36	214.20	0.0	1.0	4.162	A
			2	A227N, A227S	157.91	351.80	0.449	158.32	164.58	0.0	0.6	3.540	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	363.18			363.18	380.38	0.0	0.0	0.043	A
	Exit	1	1		299.45			299.45	318.67	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	216.13	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		144.55			144.55	150.21	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	112.50	299.15	0.376	112.82	118.86	0.0	0.4	3.828	A
			2	A227N, SA, A2ON, A227S	135.91	298.86	0.454	135.86	144.00	0.0	0.7	4.197	A
	Exit	1	1		309.64			309.64	322.42	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	95.14	249.00	0.382	94.91	102.44	0.0	0.7	6.124	A
			2	SA, A2ON, A227S	46.14	260.68	0.177	46.27	47.23	0.0	0.2	4.284	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	211.68	359.64	0.589	211.32	219.39	1.0	1.0	4.334	A
			2	A227N, A227S	151.23	350.53	0.432	151.00	160.73	0.6	0.6	3.585	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	362.77			362.91	380.26	0.0	0.0	0.114	A
	Exit	1	1		329.00			329.00	334.55	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	223.33	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.91			0.91	0.85	0.0	0.0	0.000	A
A2ON	Exit	1	1		157.76			157.76	156.56	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	116.41	310.69	0.375	116.27	117.73	0.4	0.4	3.591	A
			2	A227N, SA, A2ON, A227S	138.91	313.32	0.443	138.77	140.30	0.7	0.5	4.032	A
	Exit	1	1		284.45			284.45	302.52	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	117.68	255.62	0.461	118.55	120.33	0.7	0.9	7.043	A
			2	SA, A2ON, A227S	36.27	254.71	0.142	36.23	35.98	0.2	0.2	4.100	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	204.23	356.21	0.573	204.33	211.14	1.0	1.1	4.473	A
			2	A227N, A227S	143.05	358.31	0.399	142.68	144.89	0.6	0.6	3.442	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	346.91			347.27	356.09	0.0	0.0	0.135	A
	Exit	1	1		328.82			328.82	336.62	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	226.37	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.02	0.0	0.0	0.000	A
A2ON	Exit	1	1		169.59			169.59	177.30	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	112.50	309.92	0.363	112.27	114.47	0.4	0.5	3.601	A
			2	A227N, SA, A2ON, A227S	144.64	310.01	0.467	145.09	145.45	0.5	0.5	4.083	A
	Exit	1	1		271.36			271.36	277.35	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	121.50	248.45	0.489	121.14	128.85	0.9	1.1	7.159	A
			2	SA, A2ON, A227S	44.18	246.44	0.179	44.32	46.48	0.2	0.2	4.518	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	208.47	354.54	0.589	209.73	216.67	1.1	0.9	4.351	A
			2	A227N, A227S	153.45	345.96	0.444	153.36	163.23	0.6	0.6	3.499	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	361.77			362.00	379.65	0.0	0.0	0.067	A
	Exit	1	1		299.27			299.27	311.08	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	209.33	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		162.77			162.77	168.85	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	103.23	308.43	0.335	103.50	105.52	0.5	0.4	3.560	A
			2	A227N, SA, A2ON, A227S	128.23	303.05	0.423	127.27	134.15	0.5	0.7	4.067	A
	Exit	1	1		302.23			302.23	321.45	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	118.32	252.46	0.468	118.73	126.55	1.1	0.8	6.817	A
			2	SA, A2ON, A227S	51.82	252.83	0.205	51.29	55.27	0.2	0.3	4.503	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	201.04	350.97	0.572	200.32	206.70	0.9	1.0	4.189	A
			2	A227N, A227S	143.50	343.29	0.417	143.32	150.71	0.6	0.4	3.536	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	344.73			344.55	357.42	0.0	0.1	0.056	A
	Exit	1	1		321.82			321.82	332.45	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	225.57	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		151.09			151.09	151.68	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	122.14	312.05	0.391	122.55	123.44	0.4	0.3	3.651	A
			2	A227N, SA, A2ON, A227S	144.68	310.76	0.465	145.31	146.12	0.7	0.5	4.067	A
	Exit	1	1		281.29			281.29	296.00	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	100.09	247.67	0.404	100.05	109.15	0.8	0.7	6.213	A
			2	SA, A2ON, A227S	42.68	252.78	0.169	42.77	44.02	0.3	0.2	4.272	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	171.59	360.48	0.476	171.09	179.18	1.0	0.7	3.740	A
			2	A227N, A227S	117.77	356.50	0.330	117.73	123.32	0.4	0.5	3.135	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	289.36			289.36	302.15	0.1	0.0	0.030	A
	Exit	1	1		293.73			293.73	305.92	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	273.08	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		126.18			126.18	129.12	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	106.36	308.22	0.345	106.41	110.20	0.3	0.3	3.496	A
			2	A227N, SA, A2ON, A227S	125.84	310.36	0.406	125.95	128.83	0.5	0.5	3.792	A
	Exit	1	1		227.82			227.82	238.03	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	97.41	250.51	0.389	97.14	101.64	0.7	0.7	6.198	A
			2	SA, A2ON, A227S	29.68	262.78	0.113	29.41	29.91	0.2	0.2	4.001	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2025 Do Minimum, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	4.86	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 period length (min)	Time segment length (min)	Run automatically
D5	2025 Do Minimum	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	98.00	265.00	0.00
	SA	0.00	0.00	11.00	15.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	206.00	13.00	43.00	0.00	0.00
	A2OFF	95.00	8.00	1.00	46.00	0.00

08:00 - 08:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	109.00	252.00	0.00
	SA	0.00	0.00	11.00	16.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	213.00	14.00	42.00	0.00	0.00
	A2OFF	118.00	9.00	0.00	35.00	0.00

08:15 - 08:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	117.00	225.00	0.00
	SA	0.00	0.00	11.00	15.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	205.00	13.00	50.00	0.00	0.00
	A2OFF	122.00	8.00	2.00	41.00	0.00

08:30 - 08:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	113.00	252.00	0.00
	SA	0.00	0.00	11.00	15.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	179.00	13.00	53.00	0.00	0.00
	A2OFF	118.00	8.00	0.00	51.00	0.00

08:45 - 09:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	102.00	232.00	0.00
	SA	0.00	0.00	11.00	15.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	220.00	13.00	45.00	1.00	0.00
	A2OFF	102.00	8.00	0.00	43.00	0.00

09:00 - 09:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	6.00	89.00	195.00	0.00
	SA	0.00	0.00	9.00	13.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	198.00	11.00	33.00	0.00	0.00
	A2OFF	94.00	7.00	0.00	30.00	0.00

Vehicle Mix

07:45 - 08:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	4	2	0
	SA	0	0	2	2	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	5	3	5	0	0
	A2OFF	5	4	0	0	0

08:00 - 08:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	5	0
	SA	0	0	2	2	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	3	0	0	0
	A2OFF	3	3	0	3	0

08:15 - 08:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	3	2	0
	SA	0	0	2	2	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	3	2	0	0
	A2OFF	5	4	0	5	0

08:30 - 08:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	4	0
	SA	0	0	2	2	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	3	6	0	0
	A2OFF	7	4	0	6	0

08:45 - 09:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	3	6	0
	SA	0	0	2	2	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	3	0	100	0
	A2OFF	4	4	0	2	0

09:00 - 09:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	5	0
	SA	0	0	2	2	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	3	0	0	0
	A2OFF	8	4	0	3	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	4.44	2.0	A	350.12	2100.73
SA	4.96	0.1	A	25.31	151.84
A2ON					
A227S	4.22	1.3	A	261.19	1567.16
A2OFF	6.81	1.4	A	158.49	950.95

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	373.37	373.37	110.62	375.96	381.10	304.92	0.0	1.5	4.403	A
SA	26.95	26.95	458.58	27.17	27.53	28.00	0.0	0.1	4.836	A
A2ON			0.00			157.17				
A227S	260.25	260.25	0.00	259.92	276.49	328.58	0.0	1.2	4.224	A
A2OFF	155.21	155.21	259.92	155.62	157.74	0.00	0.0	0.9	5.545	A

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	367.50	367.50	99.00	366.92	382.97	332.00	1.5	1.8	4.393	A
SA	25.74	25.74	437.25	25.54	26.04	28.67	0.1	0.1	4.634	A
A2ON			0.00			162.00				
A227S	272.79	272.79	0.00	272.79	271.26	300.71	1.2	1.3	3.995	A
A2OFF	159.25	159.25	272.79	158.21	166.64	0.00	0.9	1.3	6.270	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	348.63	348.63	115.50	347.75	351.79	329.42	1.8	1.9	4.323	A
SA	25.75	25.75	435.29	25.79	27.19	27.96	0.1	0.1	4.479	A
A2ON			0.00			183.45				
A227S	268.53	268.53	0.00	268.25	274.17	277.53	1.3	1.3	4.089	A
A2OFF	176.50	176.50	268.25	176.67	182.04	0.00	1.3	1.2	6.724	A

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	373.50	373.50	118.21	373.46	383.26	295.09	1.9	1.6	4.436	A
SA	26.17	26.17	465.54	26.21	27.03	26.15	0.1	0.1	4.961	A
A2ON			0.00			174.12				
A227S	240.75	240.75	0.00	239.71	250.65	317.62	1.3	1.2	3.950	A
A2OFF	173.54	173.54	239.71	173.58	187.57	0.00	1.2	1.3	6.814	A

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	345.54	345.54	108.38	344.83	360.94	330.28	1.6	1.9	4.315	A
SA	26.38	26.38	425.42	26.13	26.76	27.79	0.1	0.2	4.787	A
A2ON			0.00			159.83				
A227S	282.67	282.67	0.00	283.42	283.44	291.71	1.2	1.2	4.104	A
A2OFF	155.46	155.46	283.42	155.13	159.53	0.00	1.3	1.0	5.945	A

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	292.40	292.40	83.33	291.79	303.56	291.38	1.9	1.3	3.660	A
SA	20.79	20.79	350.04	20.75	21.83	25.13	0.2	0.1	3.652	A
A2ON			0.00			131.88				
A227S	242.46	242.46	0.00	242.75	249.10	238.92	1.2	1.0	3.844	A
A2OFF	131.42	131.42	242.75	131.96	139.33	0.00	1.0	0.8	5.584	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	213.96	349.95	0.612	215.25	216.94	0.0	0.9	4.592	A
			2	A227N, A227S	160.16	352.77	0.454	160.71	164.15	0.0	0.6	3.713	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	373.37			374.08	382.69	0.0	0.0	0.191	A
	Exit	1	1		304.92			304.92	320.26	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	26.95	210.93	0.128	27.17	27.53	0.0	0.1	4.836	A
	Exit	1	1		28.00			28.00	27.86	0.0	0.0	0.000	A
A2ON	Exit	1	1		157.17			157.17	160.68	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	114.92	298.72	0.385	115.00	122.99	0.0	0.5	3.907	A
			2	A227N, SA, A2ON, A227S	145.33	300.28	0.483	144.91	153.50	0.0	0.7	4.478	A
	Exit	1	1		328.58			328.58	334.04	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	99.77	244.69	0.408	100.00	101.94	0.0	0.6	6.023	A
			2	SA, A2ON, A227S	55.29	254.59	0.217	55.58	55.79	0.0	0.2	4.703	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	211.63	353.86	0.598	212.04	219.38	0.9	0.9	4.618	A
			2	A227N, A227S	155.00	345.80	0.448	154.88	163.60	0.6	0.7	3.717	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	367.50			366.63	382.93	0.0	0.3	0.152	A
	Exit	1	1		332.00			332.00	337.31	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	25.74	222.51	0.116	25.54	26.04	0.1	0.1	4.634	A
	Exit	1	1		28.67			28.67	30.39	0.0	0.0	0.000	A
A2ON	Exit	1	1		162.00			162.00	161.06	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	122.06	311.76	0.392	122.04	120.67	0.5	0.5	3.782	A
			2	A227N, SA, A2ON, A227S	150.71	312.47	0.482	150.75	150.60	0.7	0.8	4.166	A
	Exit	1	1		300.71			300.71	318.17	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	116.50	249.13	0.467	115.79	121.88	0.6	1.0	6.967	A
			2	SA, A2ON, A227S	42.73	249.78	0.171	42.42	44.76	0.2	0.3	4.371	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	206.00	349.78	0.589	205.58	209.76	0.9	1.1	4.560	A
			2	A227N, A227S	142.58	350.97	0.406	142.17	142.03	0.7	0.7	3.531	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	348.63			348.58	352.07	0.3	0.1	0.183	A
	Exit	1	1		329.42			329.42	337.58	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	25.75	224.12	0.115	25.79	27.19	0.1	0.1	4.479	A
	Exit	1	1		27.96			27.96	28.13	0.0	0.0	0.000	A
A2ON	Exit	1	1		183.45			183.45	185.10	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	116.74	309.01	0.378	116.92	119.76	0.5	0.5	3.774	A
			2	A227N, SA, A2ON, A227S	151.71	308.69	0.491	151.33	154.40	0.8	0.7	4.333	A
	Exit	1	1		277.53			277.53	284.39	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	123.71	246.05	0.503	124.00	127.82	1.0	1.0	7.540	A
			2	SA, A2ON, A227S	52.79	245.88	0.215	52.67	54.22	0.3	0.3	4.804	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	216.38	350.22	0.618	216.33	221.29	1.1	1.0	4.716	A
			2	A227N, A227S	157.00	343.25	0.457	157.12	161.97	0.7	0.6	3.780	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	373.50			373.50	383.07	0.1	0.0	0.111	A
	Exit	1	1		295.09			295.09	310.11	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	26.17	204.62	0.128	26.21	27.03	0.1	0.1	4.961	A
	Exit	1	1		26.15			26.15	28.10	0.0	0.0	0.000	A
A2ON	Exit	1	1		174.12			174.12	180.01	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	102.67	310.07	0.331	102.35	105.75	0.5	0.5	3.620	A
			2	A227N, SA, A2ON, A227S	138.08	303.99	0.454	137.33	144.90	0.7	0.7	4.195	A
	Exit	1	1		317.62			317.62	330.29	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	116.67	250.80	0.466	117.17	126.89	1.0	0.9	7.738	A
			2	SA, A2ON, A227S	56.83	252.34	0.225	56.42	60.68	0.3	0.3	4.911	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	204.50	348.01	0.588	204.29	210.93	1.0	1.2	4.495	A
			2	A227N, A227S	141.08	340.34	0.415	140.54	150.01	0.6	0.7	3.747	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	345.54			345.58	361.26	0.0	0.1	0.127	A
	Exit	1	1		330.28			330.28	331.35	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	26.38	228.51	0.115	26.13	26.76	0.1	0.2	4.787	A
	Exit	1	1		27.79			27.79	28.75	0.0	0.0	0.000	A
A2ON	Exit	1	1		159.83			159.83	163.64	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	128.13	312.33	0.410	128.46	125.64	0.5	0.5	3.850	A
			2	A227N, SA, A2ON, A227S	154.54	309.57	0.499	154.96	157.81	0.7	0.7	4.309	A
	Exit	1	1		291.71			291.71	306.94	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	105.04	241.74	0.435	104.64	108.69	0.9	0.8	6.627	A
			2	SA, A2ON, A227S	50.42	247.80	0.204	50.58	50.83	0.3	0.3	4.516	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	175.50	356.46	0.492	174.83	181.85	1.2	0.9	3.866	A
			2	A227N, A227S	117.08	351.45	0.333	117.00	121.71	0.7	0.4	3.264	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	292.40			292.56	302.99	0.1	0.0	0.035	A
	Exit	1	1		291.38			291.38	305.75	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	20.79	267.64	0.078	20.75	21.83	0.2	0.1	3.652	A
	Exit	1	1		25.13			25.13	24.82	0.0	0.0	0.000	A
A2ON	Exit	1	1		131.88			131.88	134.61	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	110.63	306.95	0.360	110.42	113.21	0.5	0.4	3.610	A
			2	A227N, SA, A2ON, A227S	131.83	309.64	0.426	132.33	135.89	0.7	0.5	4.037	A
	Exit	1	1		238.92			238.92	248.64	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	93.67	247.02	0.378	94.37	101.78	0.8	0.5	6.115	A
			2	SA, A2ON, A227S	37.74	259.55	0.145	37.58	37.56	0.3	0.2	4.209	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2025 Do Minimum Residual, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	4.87	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 period length (min)	Time segment length (min)	Run automatically
D7	2025 Do Minimum Residual	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	98.00	265.00	0.00
	SA	0.00	0.00	10.00	14.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	206.00	13.00	43.00	0.00	0.00
	A2OFF	95.00	7.00	1.00	46.00	0.00

08:00 - 08:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	109.00	252.00	0.00
	SA	0.00	0.00	10.00	14.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	213.00	13.00	42.00	0.00	0.00
	A2OFF	118.00	8.00	0.00	35.00	0.00

08:15 - 08:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	117.00	225.00	0.00
	SA	0.00	0.00	10.00	4.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	205.00	13.00	50.00	0.00	0.00
	A2OFF	122.00	7.00	2.00	41.00	0.00

08:30 - 08:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	113.00	252.00	0.00
	SA	0.00	0.00	10.00	14.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	179.00	13.00	53.00	0.00	0.00
	A2OFF	118.00	7.00	0.00	51.00	0.00

08:45 - 09:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	102.00	232.00	0.00
	SA	0.00	0.00	10.00	14.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	220.00	13.00	45.00	1.00	0.00
	A2OFF	102.00	7.00	0.00	43.00	0.00

09:00 - 09:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	6.00	89.00	195.00	0.00
	SA	0.00	0.00	8.00	12.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	198.00	10.00	33.00	0.00	0.00
	A2OFF	94.00	6.00	0.00	30.00	0.00

Vehicle Mix

07:45 - 08:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	4	2	0
	SA	0	0	2	2	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	5	3	5	0	0
	A2OFF	5	4	0	0	0

08:00 - 08:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	5	0
	SA	0	0	3	3	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	3	0	0	0
	A2OFF	3	3	0	3	0

08:15 - 08:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	3	1	0
	SA	0	0	3	3	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	3	2	0	0
	A2OFF	5	4	0	5	0

08:30 - 08:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	4	0
	SA	0	0	3	3	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	3	6	0	0
	A2OFF	7	4	0	6	0

08:45 - 09:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	3	6	0
	SA	0	0	3	3	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	3	0	100	0
	A2OFF	4	4	0	2	0

09:00 - 09:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	5	0
	SA	0	0	2	2	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	3	0	0	0
	A2OFF	8	4	0	3	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	4.51	2.2	A	349.44	2096.61
SA	5.00	0.2	A	22.12	132.73
A2ON					
A227S	4.16	1.6	A	262.35	1574.09
A2OFF	6.79	1.2	A	155.98	935.89

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	363.92	363.92	110.72	365.54	374.88	304.41	0.0	1.7	4.214	A
SA	25.52	25.52	448.59	25.12	25.33	27.71	0.0	0.2	4.716	A
A2ON			0.00			152.58				
A227S	269.51	269.51	0.00	269.61	278.81	321.14	0.0	1.2	4.162	A
A2OFF	145.45	145.45	269.61	145.55	153.38	0.00	0.0	0.9	5.586	A

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	370.13	370.13	97.48	369.46	380.53	326.79	1.7	2.2	4.404	A
SA	23.86	23.86	439.39	23.82	25.20	27.53	0.2	0.2	5.003	A
A2ON			0.00			164.12				
A227S	267.00	267.00	0.00	266.61	269.80	299.12	1.2	1.3	3.983	A
A2OFF	157.62	157.62	266.61	157.77	163.75	0.00	0.9	1.0	6.102	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	344.47	344.47	113.55	344.68	352.93	332.15	2.2	1.7	4.194	A
SA	13.66	13.66	433.20	13.76	14.78	24.92	0.2	0.1	4.336	A
A2ON			0.00			176.54				
A227S	269.22	269.22	0.00	269.93	274.62	270.42	1.3	1.2	4.090	A
A2OFF	175.62	175.62	269.93	175.65	181.45	0.00	1.0	1.1	6.793	A

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	382.91	382.91	126.99	383.19	385.38	296.61	1.7	1.8	4.512	A
SA	25.20	25.20	482.30	25.06	24.04	27.88	0.1	0.2	4.999	A
A2ON			0.00			185.33				
A227S	242.86	242.86	0.00	242.72	250.18	322.02	1.2	1.1	4.030	A
A2OFF	179.75	179.75	242.72	180.95	189.34	0.00	1.1	1.1	6.401	A

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	343.98	343.98	107.79	345.42	356.24	320.82	1.8	1.6	4.269	A
SA	25.18	25.18	427.80	24.80	24.51	25.41	0.2	0.2	4.480	A
A2ON			0.00			158.82				
A227S	281.15	281.15	0.00	280.09	282.02	293.75	1.1	1.6	4.129	A
A2OFF	149.05	149.05	280.09	148.45	156.67	0.00	1.1	1.1	6.099	A

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	291.21	291.21	79.34	290.47	301.81	292.73	1.6	1.5	3.650	A
SA	19.38	19.38	348.81	19.62	20.48	21.00	0.2	0.0	3.726	A
A2ON			0.00			131.09				
A227S	244.52	244.52	0.00	244.29	245.78	237.28	1.6	1.0	3.724	A
A2OFF	127.98	127.98	244.29	127.76	137.48	0.00	1.1	0.8	5.296	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	206.47	350.63	0.589	207.60	213.32	0.0	1.0	4.469	A
			2	A227N, A227S	157.73	353.05	0.446	157.94	161.56	0.0	0.7	3.650	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	363.92			364.20	376.67	0.0	0.0	0.099	A
	Exit	1	1		304.41			304.41	318.44	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	25.52	218.89	0.117	25.12	25.33	0.0	0.2	4.716	A
	Exit	1	1		27.71			27.71	28.72	0.0	0.0	0.000	A
A2ON	Exit	1	1		152.58			152.58	156.79	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	117.11	299.88	0.390	117.11	123.69	0.0	0.5	3.932	A
			2	A227N, SA, A2ON, A227S	152.40	300.53	0.507	152.51	155.12	0.0	0.7	4.346	A
	Exit	1	1		321.14			321.14	328.46	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	92.82	240.25	0.386	92.75	98.53	0.0	0.7	6.212	A
			2	SA, A2ON, A227S	52.62	251.24	0.209	52.80	54.85	0.0	0.2	4.500	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	214.34	354.51	0.605	214.45	218.32	1.0	1.2	4.672	A
			2	A227N, A227S	155.44	346.02	0.449	155.01	162.21	0.7	0.8	3.682	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	370.13			369.77	380.88	0.0	0.2	0.148	A
	Exit	1	1		326.79			326.79	335.04	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	23.86	214.47	0.111	23.82	25.20	0.2	0.2	5.003	A
	Exit	1	1		27.53			27.53	28.40	0.0	0.0	0.000	A
A2ON	Exit	1	1		164.12			164.12	161.88	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	119.19	312.75	0.381	119.12	120.81	0.5	0.6	3.756	A
			2	A227N, SA, A2ON, A227S	147.81	313.04	0.472	147.49	148.99	0.7	0.7	4.167	A
	Exit	1	1		299.12			299.12	313.96	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	115.15	251.87	0.457	114.94	119.33	0.7	0.9	6.753	A
			2	SA, A2ON, A227S	42.41	247.87	0.171	42.71	44.42	0.2	0.1	4.339	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	204.49	351.51	0.581	204.78	210.73	1.2	1.0	4.430	A
			2	A227N, A227S	139.91	355.87	0.393	139.80	142.20	0.8	0.6	3.481	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	344.47			344.40	352.40	0.2	0.1	0.148	A
	Exit	1	1		332.15			332.15	339.11	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	13.66	228.01	0.060	13.76	14.78	0.2	0.1	4.336	A
	Exit	1	1		24.92			24.92	26.96	0.0	0.0	0.000	A
A2ON	Exit	1	1		176.54			176.54	183.38	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	117.21	307.32	0.381	117.71	119.96	0.6	0.4	3.813	A
			2	A227N, SA, A2ON, A227S	152.01	309.20	0.492	152.23	154.66	0.7	0.7	4.305	A
	Exit	1	1		270.42			270.42	274.33	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	124.34	244.23	0.509	124.73	129.45	0.9	0.8	7.599	A
			2	SA, A2ON, A227S	51.29	244.16	0.210	50.93	52.00	0.1	0.3	4.797	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	222.59	347.88	0.640	223.02	221.66	1.0	1.0	4.768	A
			2	A227N, A227S	160.23	340.57	0.470	160.17	163.72	0.6	0.8	3.848	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	382.91			382.87	385.62	0.1	0.0	0.131	A
	Exit	1	1		296.61			296.61	307.91	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	25.20	197.35	0.128	25.06	24.04	0.1	0.2	4.999	A
	Exit	1	1		27.88			27.88	28.04	0.0	0.0	0.000	A
A2ON	Exit	1	1		185.33			185.33	182.02	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	102.92	308.80	0.333	102.71	104.69	0.4	0.4	3.698	A
			2	A227N, SA, A2ON, A227S	139.94	305.65	0.458	140.04	145.48	0.7	0.6	4.273	A
	Exit	1	1		322.02			322.02	330.96	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	120.85	248.15	0.487	121.94	128.07	0.8	0.9	7.268	A
			2	SA, A2ON, A227S	58.91	251.95	0.234	58.94	61.27	0.3	0.2	4.614	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	202.42	346.66	0.583	202.81	209.01	1.0	1.0	4.465	A
			2	A227N, A227S	141.81	340.24	0.417	142.52	147.22	0.8	0.5	3.703	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	343.98			344.15	356.02	0.0	0.0	0.116	A
	Exit	1	1		320.82			320.82	328.74	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	25.18	221.49	0.114	24.80	24.51	0.2	0.2	4.480	A
	Exit	1	1		25.41			25.41	27.16	0.0	0.0	0.000	A
A2ON	Exit	1	1		158.82			158.82	160.16	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	126.25	312.34	0.404	125.26	126.16	0.4	0.8	3.791	A
			2	A227N, SA, A2ON, A227S	154.90	309.77	0.500	154.83	155.86	0.6	0.8	4.404	A
	Exit	1	1		293.75			293.75	303.36	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	99.64	243.17	0.411	99.00	106.29	0.9	0.8	6.835	A
			2	SA, A2ON, A227S	49.41	246.98	0.200	49.52	50.38	0.2	0.2	4.569	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	174.78	358.93	0.487	174.04	178.75	1.0	1.0	3.889	A
			2	A227N, A227S	116.58	353.96	0.329	116.43	123.06	0.5	0.5	3.220	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	291.21			291.21	301.72	0.0	0.0	0.031	A
	Exit	1	1		292.73			292.73	303.15	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	19.38	273.56	0.071	19.62	20.48	0.2	0.0	3.726	A
	Exit	1	1		21.00			21.00	22.64	0.0	0.0	0.000	A
A2ON	Exit	1	1		131.09			131.09	132.76	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	109.16	309.46	0.353	109.24	110.75	0.8	0.5	3.565	A
			2	A227N, SA, A2ON, A227S	135.34	310.15	0.437	135.07	135.02	0.8	0.6	3.853	A
	Exit	1	1		237.28			237.28	247.00	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	90.88	245.73	0.370	90.71	100.25	0.8	0.6	5.820	A
			2	SA, A2ON, A227S	37.09	260.02	0.143	37.06	37.24	0.2	0.2	3.955	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2028 Do Nothing, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	4.95	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 period length (min)	Time segment length (min)	Run automatically
D9	2028 Do Nothing	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	106.00	290.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	213.00	0.00	46.00	0.00	0.00
	A2OFF	103.00	0.00	1.00	48.00	0.00

08:00 - 08:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	118.00	277.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	220.00	0.00	44.00	0.00	0.00
	A2OFF	126.00	1.00	0.00	36.00	0.00

08:15 - 08:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	126.00	248.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	212.00	0.00	53.00	0.00	0.00
	A2OFF	130.00	0.00	2.00	43.00	0.00

08:30 - 08:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	122.00	276.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	186.00	0.00	56.00	0.00	0.00
	A2OFF	126.00	0.00	0.00	53.00	0.00

08:45 - 09:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	110.00	256.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	228.00	0.00	48.00	1.00	0.00
	A2OFF	110.00	0.00	0.00	45.00	0.00

09:00 - 09:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	96.00	215.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	205.00	0.00	35.00	0.00	0.00
	A2OFF	101.00	0.00	0.00	32.00	0.00

Vehicle Mix

07:45 - 08:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	4	2	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	5	0	5	0	0
	A2OFF	5	0	0	0	0

08:00 - 08:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	4	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	0	0	0
	A2OFF	2	0	0	3	0

08:15 - 08:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	3	2	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	0	2	0	0
	A2OFF	5	0	0	5	0

08:30 - 08:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	4	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	0	6	0	0
	A2OFF	7	0	0	6	0

08:45 - 09:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	3	5	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	0	100	0
	A2OFF	4	0	0	2	0

09:00 - 09:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	5	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	0	0	0	0
	A2OFF	7	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	4.76	2.8	A	378.35	2270.09
SA	0.00	0.0	A	0.00	0.00
A2ON					
A227S	4.01	1.4	A	256.74	1540.46
A2OFF	6.91	1.3	A	157.16	942.96

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	409.33	409.33	94.26	411.98	408.79	309.14	0.0	2.1	4.433	A
SA	0.00	0.00	506.23	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			155.72				
A227S	254.30	254.30	0.00	254.02	267.16	350.44	0.0	1.3	3.992	A
A2OFF	150.00	150.00	254.02	149.37	151.53	0.00	0.0	1.1	5.928	A

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	397.47	397.47	79.74	397.04	410.86	344.72	2.1	2.1	4.505	A
SA	0.00	0.00	475.61	0.00	0.00	1.19	0.0	0.0	0.000	A
A2ON			0.00			162.77				
A227S	265.25	265.25	0.00	265.47	269.30	312.84	1.3	1.2	4.008	A
A2OFF	158.02	158.02	265.47	159.00	167.28	0.00	1.1	0.6	6.273	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	372.56	372.56	100.33	372.77	385.51	335.09	2.1	1.8	4.433	A
SA	0.00	0.00	473.10	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			182.81				
A227S	265.74	265.74	0.00	265.46	273.72	290.30	1.2	1.3	3.994	A
A2OFF	171.56	171.56	265.46	169.95	182.23	0.00	0.6	1.3	6.910	A

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	407.86	407.86	109.12	405.75	409.95	312.28	1.8	2.6	4.756	A
SA	0.00	0.00	514.54	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			178.53				
A227S	244.68	244.68	0.00	244.32	248.74	336.00	1.3	1.0	3.860	A
A2OFF	177.77	177.77	244.32	177.07	190.35	0.00	1.3	1.3	6.605	A

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	365.93	365.93	95.37	366.85	384.70	336.70	2.6	1.7	4.499	A
SA	0.00	0.00	462.21	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			156.70				
A227S	274.61	274.61	0.00	276.42	282.95	305.51	1.0	0.9	3.909	A
A2OFF	154.95	154.95	276.42	155.65	161.84	0.00	1.3	0.8	6.032	A

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	315.77	315.77	62.23	314.79	324.84	302.51	1.7	1.3	3.743	A
SA	0.00	0.00	377.02	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			129.91				
A227S	236.02	236.02	0.00	234.77	243.30	247.12	0.9	1.0	3.754	A
A2OFF	129.77	129.77	234.77	129.98	139.93	0.00	0.8	0.8	5.489	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	225.00	355.52	0.633	226.40	228.12	0.0	1.0	4.589	A
			2	A227N, A227S	185.51	357.09	0.519	185.54	180.67	0.0	1.0	3.706	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	409.33			410.51	410.88	0.0	0.1	0.235	A
	Exit	1	1		309.14			309.14	321.74	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	189.53	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		155.72			155.72	159.95	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	115.95	299.71	0.386	115.74	121.84	0.0	0.5	3.814	A
			2	A227N, SA, A2ON, A227S	138.56	301.38	0.460	138.28	145.33	0.0	0.8	4.141	A
	Exit	1	1		350.44			350.44	345.79	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	99.64	246.69	0.404	99.63	102.60	0.0	0.8	6.679	A
			2	SA, A2ON, A227S	50.44	259.13	0.195	49.74	48.93	0.0	0.3	4.417	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	227.79	362.62	0.628	227.30	230.98	1.0	1.3	4.665	A
			2	A227N, A227S	169.74	352.98	0.481	169.74	179.88	1.0	0.7	3.804	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	397.47			397.53	410.86	0.1	0.1	0.212	A
	Exit	1	1		344.72			344.72	354.84	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	205.67	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		1.19			1.19	1.14	0.0	0.0	0.000	A
A2ON	Exit	1	1		162.77			162.77	163.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	120.21	312.17	0.385	120.42	123.44	0.5	0.6	3.847	A
			2	A227N, SA, A2ON, A227S	145.04	313.55	0.462	145.05	145.86	0.8	0.6	4.143	A
	Exit	1	1		312.84			312.84	328.47	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	122.79	253.45	0.483	123.56	129.56	0.8	0.5	6.884	A
			2	SA, A2ON, A227S	35.23	250.69	0.140	35.44	37.72	0.3	0.1	4.147	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	221.60	354.08	0.626	221.72	226.53	1.3	1.0	4.661	A
			2	A227N, A227S	151.12	355.37	0.425	151.19	158.98	0.7	0.7	3.660	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	372.56			372.49	385.21	0.1	0.1	0.187	A
	Exit	1	1		335.09			335.09	353.81	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	207.71	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		182.81			182.81	186.74	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	118.67	309.60	0.383	118.67	121.86	0.6	0.5	3.783	A
			2	A227N, SA, A2ON, A227S	147.07	308.75	0.477	146.79	151.86	0.6	0.8	4.163	A
	Exit	1	1		290.30			290.30	300.91	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	125.37	245.19	0.511	123.91	135.02	0.5	1.1	7.757	A
			2	SA, A2ON, A227S	46.19	242.81	0.190	46.05	47.21	0.1	0.2	4.481	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	229.33	351.69	0.653	228.21	232.47	1.0	1.5	4.880	A
			2	A227N, A227S	178.46	345.12	0.518	177.21	177.49	0.7	1.1	4.080	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	407.86			407.86	411.07	0.1	0.0	0.219	A
	Exit	1	1		312.28			312.28	324.65	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	181.44	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		178.53			178.53	179.53	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	107.02	309.01	0.346	106.81	107.42	0.5	0.5	3.616	A
			2	A227N, SA, A2ON, A227S	137.65	303.66	0.453	137.51	141.33	0.8	0.6	4.048	A
	Exit	1	1		336.00			336.00	344.86	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	126.07	247.50	0.511	125.23	134.88	1.1	1.1	7.418	A
			2	SA, A2ON, A227S	51.70	251.04	0.206	51.84	55.47	0.2	0.1	4.642	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	207.00	348.92	0.593	206.93	218.09	1.5	1.2	4.754	A
			2	A227N, A227S	159.14	349.64	0.455	159.77	166.60	1.1	0.5	3.834	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	365.93			366.14	383.65	0.0	0.0	0.142	A
	Exit	1	1		336.70			336.70	348.05	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	210.45	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		156.70			156.70	160.84	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	125.37	312.14	0.402	126.77	128.72	0.5	0.4	3.783	A
			2	A227N, SA, A2ON, A227S	149.23	311.05	0.480	149.74	154.23	0.6	0.5	4.015	A
	Exit	1	1		305.51			305.51	320.60	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	109.60	245.81	0.447	110.72	115.79	1.1	0.6	6.766	A
			2	SA, A2ON, A227S	45.35	246.89	0.184	44.93	46.05	0.1	0.2	4.225	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	186.70	362.07	0.516	186.28	189.67	1.2	0.8	3.963	A
			2	A227N, A227S	129.07	357.41	0.362	128.51	135.16	0.5	0.5	3.291	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	315.77			315.77	324.40	0.0	0.0	0.057	A
	Exit	1	1		302.51			302.51	315.35	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	259.84	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		129.91			129.91	133.86	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	107.20	308.79	0.347	106.47	111.88	0.4	0.4	3.568	A
			2	A227N, SA, A2ON, A227S	128.86	311.41	0.414	128.26	131.42	0.5	0.6	3.911	A
	Exit	1	1		247.12			247.12	258.86	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	101.16	254.16	0.399	100.95	107.63	0.6	0.8	5.958	A
			2	SA, A2ON, A227S	28.59	260.67	0.110	29.02	32.30	0.2	0.0	3.972	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2028 Do Minimum, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	5.19	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 period length (min)	Time segment length (min)	Run automatically
D11	2028 Do Minimum	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	103.00	286.00	0.00
	SA	0.00	0.00	11.00	15.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	213.00	13.00	44.00	0.00	0.00
	A2OFF	103.00	8.00	1.00	48.00	0.00

08:00 - 08:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	115.00	272.00	0.00
	SA	0.00	0.00	11.00	16.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	220.00	14.00	43.00	0.00	0.00
	A2OFF	126.00	9.00	0.00	36.00	0.00

08:15 - 08:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	123.00	244.00	0.00
	SA	0.00	0.00	11.00	15.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	212.00	13.00	52.00	0.00	0.00
	A2OFF	130.00	8.00	2.00	43.00	0.00

08:30 - 08:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	119.00	272.00	0.00
	SA	0.00	0.00	11.00	15.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	186.00	13.00	55.00	0.00	0.00
	A2OFF	126.00	8.00	0.00	53.00	0.00

08:45 - 09:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	108.00	251.00	0.00
	SA	0.00	0.00	11.00	15.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	228.00	13.00	47.00	1.00	0.00
	A2OFF	110.00	8.00	0.00	45.00	0.00

09:00 - 09:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	6.00	94.00	211.00	0.00
	SA	0.00	0.00	9.00	13.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	205.00	11.00	34.00	0.00	0.00
	A2OFF	101.00	7.00	0.00	32.00	0.00

Vehicle Mix

07:45 - 08:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	4	2	0
	SA	0	0	2	2	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	5	3	5	0	0
	A2OFF	5	4	0	0	0

08:00 - 08:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	5	0
	SA	0	0	2	2	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	3	0	0	0
	A2OFF	2	3	0	3	0

08:15 - 08:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	3	2	0
	SA	0	0	2	2	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	3	2	0	0
	A2OFF	5	4	0	5	0

08:30 - 08:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	4	0
	SA	0	0	2	2	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	3	6	0	0
	A2OFF	7	4	0	6	0

08:45 - 09:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	3	5	0
	SA	0	0	2	2	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	3	0	100	0
	A2OFF	4	4	0	2	0

09:00 - 09:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	5	0
	SA	0	0	2	2	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	3	0	0	0
	A2OFF	7	4	0	3	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	4.92	2.2	A	375.02	2250.14
SA	5.51	0.2	A	25.26	151.59
A2ON					
A227S	4.18	1.5	A	270.50	1623.01
A2OFF	7.36	1.7	A	168.54	1011.26

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	399.46	399.46	114.65	398.73	406.65	319.22	0.0	1.9	4.608	A
SA	25.41	25.41	487.10	25.52	27.11	26.28	0.0	0.2	5.410	A
A2ON			0.00			164.01				
A227S	274.03	274.03	0.00	274.43	285.28	348.61	0.0	1.2	4.178	A
A2OFF	158.73	158.73	274.43	159.42	166.04	0.00	0.0	1.0	6.008	A

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	396.61	396.61	102.72	397.03	407.37	343.25	1.9	1.9	4.724	A
SA	26.73	26.73	468.23	26.81	27.38	31.55	0.2	0.1	4.995	A
A2ON			0.00			168.87				
A227S	274.60	274.60	0.00	274.44	280.77	326.16	1.2	1.3	4.086	A
A2OFF	171.42	171.42	274.44	171.58	175.66	0.00	1.0	1.3	6.939	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	369.99	369.99	117.00	368.43	384.77	348.00	1.9	2.2	4.558	A
SA	25.78	25.78	457.22	25.70	26.66	28.21	0.1	0.2	5.041	A
A2ON			0.00			184.44				
A227S	281.47	281.47	0.00	280.94	283.35	298.48	1.3	1.5	4.075	A
A2OFF	184.63	184.63	280.94	183.97	189.77	0.00	1.3	1.6	7.357	A

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	404.73	404.73	126.95	405.80	408.76	313.86	2.2	1.7	4.919	A
SA	25.44	25.44	505.98	25.62	26.43	26.77	0.2	0.1	5.514	A
A2ON			0.00			186.76				
A227S	253.37	253.37	0.00	252.65	263.97	344.75	1.5	1.2	4.089	A
A2OFF	187.86	187.86	252.65	188.11	200.87	0.00	1.6	1.6	7.030	A

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	367.06	367.06	114.34	366.80	381.97	339.95	1.7	1.9	4.556	A
SA	26.54	26.54	452.43	26.39	26.52	28.68	0.1	0.2	5.168	A
A2ON			0.00			164.96				
A227S	288.46	288.46	0.00	288.53	291.78	313.86	1.2	1.1	4.110	A
A2OFF	167.66	167.66	288.53	165.76	169.94	0.00	1.6	1.6	6.357	A

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	312.30	312.30	84.32	311.17	321.92	307.25	1.9	1.4	3.741	A
SA	21.68	21.68	372.04	21.72	22.24	23.47	0.2	0.1	3.817	A
A2ON			0.00			138.57				
A227S	251.16	251.16	0.00	250.67	253.11	255.21	1.1	1.0	3.858	A
A2OFF	140.86	140.86	250.67	141.00	148.90	0.00	1.6	0.8	5.928	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	222.95	347.64	0.642	222.68	228.18	0.0	1.2	4.841	A
			2	A227N, A227S	176.70	352.63	0.501	176.05	178.47	0.0	0.7	3.972	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	399.46			399.65	408.62	0.0	0.0	0.151	A
	Exit	1	1		319.22			319.22	333.10	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	25.41	194.21	0.131	25.52	27.11	0.0	0.2	5.410	A
	Exit	1	1		26.28			26.28	29.13	0.0	0.0	0.000	A
A2ON	Exit	1	1		164.01			164.01	166.37	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	121.41	297.28	0.408	121.32	127.72	0.0	0.5	3.931	A
			2	A227N, SA, A2ON, A227S	152.62	301.88	0.506	153.22	157.56	0.0	0.7	4.378	A
	Exit	1	1		348.61			348.61	356.48	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	101.01	239.90	0.420	101.82	106.92	0.0	0.6	6.782	A
			2	SA, A2ON, A227S	57.72	249.41	0.231	57.49	59.11	0.0	0.3	4.665	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	228.61	352.00	0.649	228.83	232.44	1.2	1.2	4.851	A
			2	A227N, A227S	167.92	344.77	0.487	168.19	174.92	0.7	0.7	3.928	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	396.61			396.53	407.37	0.0	0.1	0.264	A
	Exit	1	1		343.25			343.25	351.15	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	26.73	204.32	0.131	26.81	27.38	0.2	0.1	4.995	A
	Exit	1	1		31.55			31.55	31.03	0.0	0.0	0.000	A
A2ON	Exit	1	1		168.87			168.87	171.09	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	122.20	311.77	0.392	122.43	125.78	0.5	0.5	3.797	A
			2	A227N, SA, A2ON, A227S	152.39	312.95	0.487	152.01	154.99	0.7	0.8	4.320	A
	Exit	1	1		326.16			326.16	337.91	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	126.15	249.88	0.504	125.85	128.89	0.6	1.1	7.808	A
			2	SA, A2ON, A227S	45.27	248.22	0.182	45.68	46.77	0.3	0.2	4.499	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	217.97	348.47	0.626	216.80	226.11	1.2	1.4	4.814	A
			2	A227N, A227S	152.05	350.37	0.434	151.63	158.66	0.7	0.7	3.771	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	369.99			370.02	384.94	0.1	0.2	0.177	A
	Exit	1	1		348.00			348.00	352.10	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	25.78	212.83	0.121	25.70	26.66	0.1	0.2	5.041	A
	Exit	1	1		28.21			28.21	29.15	0.0	0.0	0.000	A
A2ON	Exit	1	1		184.44			184.44	193.63	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	123.08	309.38	0.398	123.27	123.81	0.5	0.5	3.801	A
			2	A227N, SA, A2ON, A227S	158.43	308.22	0.514	157.67	159.54	0.8	1.0	4.287	A
	Exit	1	1		298.48			298.48	309.67	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	131.09	239.78	0.546	130.44	134.81	1.1	1.3	8.415	A
			2	SA, A2ON, A227S	53.54	241.00	0.223	53.62	54.96	0.2	0.3	4.755	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	230.89	346.90	0.665	231.38	231.27	1.4	1.1	5.163	A
			2	A227N, A227S	174.76	339.77	0.515	174.42	177.49	0.7	0.6	4.048	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	404.73			405.65	408.37	0.2	0.1	0.233	A
	Exit	1	1		313.86			313.86	326.25	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	25.44	183.64	0.138	25.62	26.43	0.2	0.1	5.514	A
	Exit	1	1		26.77			26.77	28.32	0.0	0.0	0.000	A
A2ON	Exit	1	1		186.76			186.76	189.95	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	109.25	308.52	0.354	109.18	111.89	0.5	0.5	3.712	A
			2	A227N, SA, A2ON, A227S	144.11	304.21	0.473	143.44	152.09	1.0	0.7	4.371	A
	Exit	1	1		344.75			344.75	355.52	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	127.07	246.07	0.518	127.82	135.23	1.3	1.1	8.040	A
			2	SA, A2ON, A227S	60.72	249.19	0.243	60.34	65.65	0.3	0.5	4.982	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	213.30	344.50	0.619	213.27	220.48	1.1	1.0	4.703	A
			2	A227N, A227S	153.76	343.14	0.448	153.53	161.49	0.6	0.8	3.915	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	367.06			367.06	382.11	0.1	0.1	0.185	A
	Exit	1	1		339.95			339.95	344.44	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	26.54	209.52	0.127	26.39	26.52	0.1	0.2	5.168	A
	Exit	1	1		28.68			28.68	29.32	0.0	0.0	0.000	A
A2ON	Exit	1	1		164.96			164.96	168.72	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	129.89	311.73	0.417	130.15	129.99	0.5	0.4	3.816	A
			2	A227N, SA, A2ON, A227S	158.62	310.23	0.511	158.39	161.80	0.7	0.6	4.347	A
	Exit	1	1		313.86			313.86	327.73	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	113.89	239.25	0.476	112.37	115.76	1.1	1.1	7.126	A
			2	SA, A2ON, A227S	53.77	243.04	0.222	53.39	54.18	0.5	0.4	4.741	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	184.97	356.68	0.519	184.40	189.91	1.0	0.8	3.997	A
			2	A227N, A227S	127.20	353.15	0.360	126.76	132.01	0.8	0.5	3.274	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	312.30			312.15	321.56	0.1	0.1	0.039	A
	Exit	1	1		307.25			307.25	316.42	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	21.68	256.90	0.084	21.72	22.24	0.2	0.1	3.817	A
	Exit	1	1		23.47			23.47	24.30	0.0	0.0	0.000	A
A2ON	Exit	1	1		138.57			138.57	139.01	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	114.00	309.19	0.369	113.89	115.63	0.4	0.4	3.658	A
			2	A227N, SA, A2ON, A227S	137.16	310.38	0.442	136.79	137.48	0.6	0.6	4.026	A
	Exit	1	1		255.21			255.21	266.44	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	100.97	247.26	0.409	101.27	108.47	1.1	0.6	6.591	A
			2	SA, A2ON, A227S	39.87	255.34	0.156	39.68	40.43	0.4	0.2	4.209	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2028 Do Minimum Residual, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	5.13	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 period length (min)	Time segment length (min)	Run automatically
D13	2028 Do Minimum Residual	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	103.00	286.00	0.00
	SA	0.00	0.00	10.00	14.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	213.00	13.00	44.00	0.00	0.00
	A2OFF	103.00	7.00	1.00	48.00	0.00

08:00 - 08:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	115.00	272.00	0.00
	SA	0.00	0.00	10.00	14.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	220.00	13.00	43.00	0.00	0.00
	A2OFF	126.00	8.00	0.00	36.00	0.00

08:15 - 08:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	123.00	244.00	0.00
	SA	0.00	0.00	10.00	14.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	212.00	13.00	52.00	0.00	0.00
	A2OFF	130.00	7.00	2.00	43.00	0.00

08:30 - 08:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	119.00	272.00	0.00
	SA	0.00	0.00	10.00	14.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	186.00	13.00	55.00	0.00	0.00
	A2OFF	126.00	7.00	0.00	53.00	0.00

08:45 - 09:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	7.00	108.00	251.00	0.00
	SA	0.00	0.00	10.00	14.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	228.00	13.00	47.00	1.00	0.00
	A2OFF	110.00	7.00	0.00	45.00	0.00

09:00 - 09:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	6.00	94.00	211.00	0.00
	SA	0.00	0.00	8.00	12.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	205.00	10.00	34.00	0.00	0.00
	A2OFF	101.00	6.00	0.00	32.00	0.00

Vehicle Mix

07:45 - 08:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	4	2	0
	SA	0	0	2	2	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	5	3	5	0	0
	A2OFF	5	4	0	0	0

08:00 - 08:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	5	0
	SA	0	0	3	3	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	3	0	0	0
	A2OFF	2	3	0	3	0

08:15 - 08:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	3	2	0
	SA	0	0	3	3	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	3	2	0	0
	A2OFF	5	4	0	5	0

08:30 - 08:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	4	0
	SA	0	0	3	3	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	3	6	0	0
	A2OFF	7	4	0	6	0

08:45 - 09:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	3	5	0
	SA	0	0	3	3	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	3	0	100	0
	A2OFF	4	4	0	2	0

09:00 - 09:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	5	0
	SA	0	0	2	2	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	3	0	0	0
	A2OFF	7	4	0	3	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	4.84	2.0	A	371.99	2231.97
SA	5.48	0.2	A	23.22	139.30
A2ON					
A227S	4.27	1.5	A	267.45	1604.70
A2OFF	7.09	1.6	A	165.46	992.78

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	391.59	391.59	113.05	391.66	401.82	318.92	0.0	1.9	4.745	A
SA	24.74	24.74	479.23	24.51	25.31	25.54	0.0	0.2	5.423	A
A2ON			0.00			160.16				
A227S	271.96	271.96	0.00	272.38	286.67	343.58	0.0	1.1	4.275	A
A2OFF	158.94	158.94	272.38	159.59	163.14	0.00	0.0	1.0	6.181	A

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	396.62	396.62	100.13	396.74	405.47	345.21	1.9	1.9	4.709	A
SA	23.20	23.20	469.51	23.22	24.51	27.38	0.2	0.1	5.091	A
A2ON			0.00			169.57				
A227S	278.20	278.20	0.00	278.73	279.22	323.17	1.1	1.0	4.048	A
A2OFF	166.38	166.38	278.73	166.60	170.84	0.00	1.0	1.1	6.582	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	376.48	376.48	115.46	376.75	382.34	340.86	1.9	1.7	4.299	A
SA	24.08	24.08	466.87	24.11	25.36	25.34	0.1	0.2	4.921	A
A2ON			0.00			185.02				
A227S	276.24	276.24	0.00	275.37	281.44	305.97	1.0	1.5	4.186	A
A2OFF	180.36	180.36	275.37	180.86	190.29	0.00	1.1	1.3	7.089	A

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	391.93	391.93	125.76	392.60	405.48	308.50	1.7	1.9	4.838	A
SA	23.97	23.97	491.79	23.67	24.44	26.61	0.2	0.2	5.481	A
A2ON			0.00			180.51				
A227S	253.57	253.57	0.00	253.75	261.91	334.90	1.5	1.1	3.992	A
A2OFF	181.32	181.32	253.75	180.50	196.61	0.00	1.3	1.6	6.935	A

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	365.58	365.58	115.31	364.81	381.70	336.33	1.9	1.9	4.378	A
SA	23.47	23.47	453.71	23.40	24.46	26.32	0.2	0.1	4.995	A
A2ON			0.00			166.78				
A227S	283.66	283.66	0.00	284.23	290.39	310.42	1.1	1.1	4.166	A
A2OFF	166.16	166.16	284.23	167.41	168.60	0.00	1.6	1.0	6.425	A

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	309.83	309.83	82.04	309.71	323.57	299.05	1.9	1.3	3.757	A
SA	19.81	19.81	370.01	20.02	20.71	21.77	0.1	0.1	3.851	A
A2ON			0.00			135.47				
A227S	241.13	241.13	0.00	241.93	248.45	254.56	1.1	1.0	3.766	A
A2OFF	140.17	140.17	241.93	139.16	148.59	0.00	1.0	1.0	5.638	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	219.86	348.68	0.630	220.33	225.51	0.0	1.0	4.840	A
			2	A227N, A227S	171.48	351.79	0.488	171.30	176.31	0.0	0.7	3.965	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	391.59			391.34	403.67	0.0	0.1	0.290	A
	Exit	1	1		318.92			318.92	334.24	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	24.74	200.62	0.124	24.51	25.31	0.0	0.2	5.423	A
	Exit	1	1		25.54			25.54	27.37	0.0	0.0	0.000	A
A2ON	Exit	1	1		160.16			160.16	164.53	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	120.83	299.54	0.404	120.92	127.54	0.0	0.5	3.998	A
			2	A227N, SA, A2ON, A227S	151.13	302.42	0.500	151.46	159.13	0.0	0.6	4.495	A
	Exit	1	1		343.58			343.58	350.80	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	104.41	239.03	0.437	104.54	108.28	0.0	0.7	6.907	A
			2	SA, A2ON, A227S	54.53	250.96	0.217	55.13	54.86	0.0	0.3	4.812	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	223.37	353.11	0.632	223.49	229.12	1.0	1.1	4.942	A
			2	A227N, A227S	173.53	346.69	0.500	173.26	176.35	0.7	0.7	3.890	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	396.62			396.89	405.54	0.1	0.0	0.220	A
	Exit	1	1		345.21			345.21	349.86	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	23.20	202.28	0.115	23.22	24.51	0.2	0.1	5.091	A
	Exit	1	1		27.38			27.38	27.91	0.0	0.0	0.000	A
A2ON	Exit	1	1		169.57			169.57	169.11	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	122.97	312.13	0.394	123.27	124.44	0.5	0.4	3.834	A
			2	A227N, SA, A2ON, A227S	155.23	312.67	0.496	155.47	154.78	0.6	0.6	4.219	A
	Exit	1	1		323.17			323.17	333.16	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	122.08	247.90	0.492	122.02	125.84	0.7	1.0	7.283	A
			2	SA, A2ON, A227S	44.32	245.14	0.181	44.58	45.00	0.3	0.1	4.590	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	218.98	348.71	0.628	218.91	223.77	1.1	1.1	4.610	A
			2	A227N, A227S	157.43	351.18	0.448	157.84	158.56	0.7	0.6	3.627	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	376.48			376.48	382.22	0.0	0.0	0.098	A
	Exit	1	1		340.86			340.86	350.78	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	24.08	202.74	0.119	24.11	25.36	0.1	0.2	4.921	A
	Exit	1	1		25.34			25.34	26.91	0.0	0.0	0.000	A
A2ON	Exit	1	1		185.02			185.02	191.12	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	122.17	308.67	0.396	121.93	124.03	0.4	0.6	3.890	A
			2	A227N, SA, A2ON, A227S	154.07	308.20	0.500	153.39	157.41	0.6	0.9	4.419	A
	Exit	1	1		305.97			305.97	310.60	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	128.55	240.92	0.533	129.20	135.76	1.0	1.0	8.122	A
			2	SA, A2ON, A227S	51.80	242.29	0.214	51.68	54.52	0.1	0.3	4.528	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	226.03	347.99	0.649	226.36	232.81	1.1	1.2	4.964	A
			2	A227N, A227S	166.04	339.49	0.489	166.28	172.66	0.6	0.7	4.050	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	391.93			392.08	405.53	0.0	0.1	0.257	A
	Exit	1	1		308.50			308.50	324.87	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	23.97	190.14	0.126	23.67	24.44	0.2	0.2	5.481	A
	Exit	1	1		26.61			26.61	27.37	0.0	0.0	0.000	A
A2ON	Exit	1	1		180.51			180.51	188.79	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	105.84	309.10	0.342	105.83	110.72	0.6	0.4	3.607	A
			2	A227N, SA, A2ON, A227S	147.80	305.07	0.484	147.92	151.19	0.9	0.7	4.279	A
	Exit	1	1		334.90			334.90	347.41	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	123.62	244.53	0.505	122.70	133.77	1.0	1.3	7.825	A
			2	SA, A2ON, A227S	57.68	246.61	0.234	57.80	62.84	0.3	0.3	5.038	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	211.01	346.19	0.610	211.07	220.01	1.2	1.0	4.629	A
			2	A227N, A227S	154.25	341.54	0.452	153.74	161.69	0.7	0.7	3.666	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	365.58			365.26	381.63	0.1	0.2	0.155	A
	Exit	1	1		336.33			336.33	344.38	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	23.47	209.47	0.112	23.40	24.46	0.2	0.1	4.995	A
	Exit	1	1		26.32			26.32	27.43	0.0	0.0	0.000	A
A2ON	Exit	1	1		166.78			166.78	168.78	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	126.03	311.91	0.404	126.15	129.21	0.4	0.4	3.896	A
			2	A227N, SA, A2ON, A227S	157.63	310.63	0.508	158.08	161.18	0.7	0.7	4.384	A
	Exit	1	1		310.42			310.42	324.56	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	112.05	241.65	0.464	113.20	114.96	1.3	0.7	7.224	A
			2	SA, A2ON, A227S	54.09	245.38	0.220	54.21	53.64	0.3	0.3	4.749	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	184.60	356.29	0.518	184.57	190.30	1.0	0.8	4.003	A
			2	A227N, A227S	125.14	352.35	0.355	125.14	133.28	0.7	0.5	3.250	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	309.83			309.74	323.09	0.2	0.0	0.064	A
	Exit	1	1		299.05			299.05	312.95	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	19.81	259.93	0.076	20.02	20.71	0.1	0.1	3.851	A
	Exit	1	1		21.77			21.77	21.71	0.0	0.0	0.000	A
A2ON	Exit	1	1		135.47			135.47	137.78	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	109.25	309.86	0.352	109.69	112.39	0.4	0.4	3.593	A
			2	A227N, SA, A2ON, A227S	131.88	310.87	0.424	132.24	136.06	0.7	0.6	3.909	A
	Exit	1	1		254.56			254.56	268.88	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	100.63	249.63	0.403	99.86	107.83	0.7	0.8	6.207	A
			2	SA, A2ON, A227S	39.53	258.90	0.153	39.29	40.76	0.3	0.2	4.182	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: A227_A2 EB Slips_Site Access RB PM EqLS SA.j9
Path: M:\Projects\2022\22052 - BP Tollgate, Gravesend\07. Technical\07.02 Modelling\ARCADY\Direct Assessment
Report generation date: 18/03/2025 15:35:05

»2023, PM
»2025 Do Nothing, PM
»2025 Do Minimum, PM
»2025 Do Minimum Residual, PM
»2028 Do Nothing, PM
»2028 Do Minimum, PM
»2028 Do Minimum Residual, PM

Summary of junction performance

	PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	[Lane Simulation] - 2023				
Arm A227N	D2	3.9	8.51		A
Arm SA		0.0	7.04		A
Arm A227S		1.1	4.10		A
Arm A2OFF		2.5	6.27		A
	[Lane Simulation] - 2025 Do Nothing				
Arm A227N	D4	4.1	8.97		A
Arm SA		0.0	7.25		A
Arm A227S		1.5	4.13		A
Arm A2OFF		2.1	6.64		A
	[Lane Simulation] - 2025 Do Minimum				
Arm A227N	D6	4.9	9.41		A
Arm SA		0.2	5.76		A
Arm A227S		1.5	4.29		A
Arm A2OFF		2.9	7.65		A
	[Lane Simulation] - 2025 Do Minimum Residual				
Arm A227N	D8	4.1	9.66		A
Arm SA		0.2	5.31		A
Arm A227S		1.6	4.30		A
Arm A2OFF		2.6	7.27		A
	[Lane Simulation] - 2028 Do Nothing				
Arm A227N	D10	5.1	9.79		A
Arm SA		0.0	0.00		A
Arm A227S		1.4	4.25		A
Arm A2OFF		2.4	7.80		A
	[Lane Simulation] - 2028 Do Minimum				
Arm A227N	D12	4.4	10.76		B
Arm SA		0.3	6.23		A
Arm A227S		1.7	4.43		A
Arm A2OFF		3.2	8.88		A
	[Lane Simulation] - 2028 Do Minimum Residual				
Arm A227N	D14	5.6	11.92		B
Arm SA		0.3	5.91		A
Arm A227S		1.6	4.34		A
Arm A2OFF		3.8	8.76		A

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

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

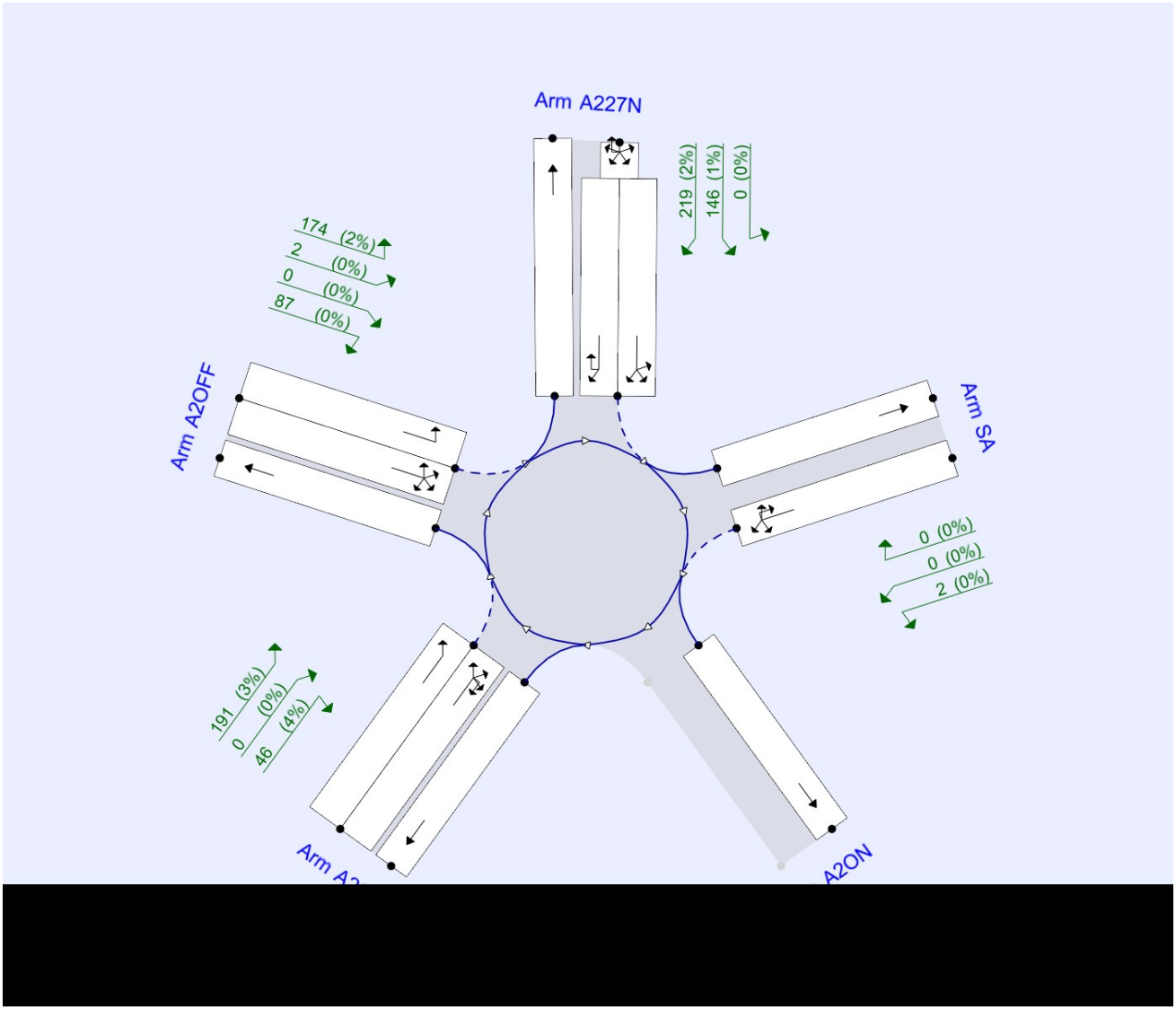
File summary

File Description

Title	
Location	
Site number	
Date	28/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MARKIDES\Markides Associates
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perTimeSegment	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

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

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	✓			411361740	101	19.12

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2023	PM	DIRECT	16:45	18:15	90	15	✓
D4	2025 Do Nothing	PM	DIRECT	16:45	18:15	90	15	✓
D6	2025 Do Minimum	PM	DIRECT	16:45	18:15	90	15	✓
D8	2025 Do Minimum Residual	PM	DIRECT	16:45	18:15	90	15	✓
D10	2028 Do Nothing	PM	DIRECT	16:45	18:15	90	15	✓
D12	2028 Do Minimum	PM	DIRECT	16:45	18:15	90	15	✓
D14	2028 Do Minimum Residual	PM	DIRECT	16:45	18:15	90	15	✓

Analysis Set Details

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

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	6.54	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A227N	A227 Wrotham Road (N)	
SA	Site Access	
A2ON	A2 EB On Slip	
A227S	A227 Wrotham Road (S)	
A2OFF	A2 EB Off Slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A227N	4.60	9.30	22.1	48.8	63.9	50.0	
SA	5.51	8.49	6.7	12.4	63.9	41.0	
A2ON							✓
A227S	7.10	9.30	17.9	31.1	63.9	47.0	
A2OFF	7.00	10.20	17.9	40.0	63.9	24.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/TS)
A227N	Direct	Queue Survey	100.00
SA	None		
A2ON			
A227S	None		
A2OFF	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
A227N	0.600	637.586
SA	0.552	475.747
A2ON		
A227S	0.662	630.126
A2OFF	0.741	715.427

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
A227N	Evenly split	10.00
SA	Evenly split	10.00
A2ON	Evenly split	10.00
A227S	Evenly split	10.00
A2OFF	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/TS)	Maximum capacity (PCU/TS)	Signalised
A227N	Entry	1	1	SA, A2ON, A227S	✓	5.00		0.00	24999.75	
			2	A227N, A227S	✓	5.00		0.00	24999.75	
		2	1	(A227N, SA, A2ON, A227S, A2OFF)		Infinity				
	Exit	1	1			Infinity				
SA	Entry	1	1	A227N, SA, A2ON, A227S		Infinity		0.00	24999.75	
	Exit	1	1			Infinity				
A2ON	Exit	1	1			Infinity				
A227S	Entry	1	1	A227N		Infinity		0.00	24999.75	
			2	A227N, SA, A2ON, A227S		Infinity		0.00	24999.75	
	Exit	1	1			Infinity				
A2OFF	Entry	1	1	A227N		Infinity		0.00	24999.75	
			2	A227N, SA, A2ON, A227S		Infinity		0.00	24999.75	
	Exit	1	1			Infinity				

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/TS)
A227N	Entry	1	1	0.300	318.793
			2	0.300	318.793
SA	Entry	1	1	0.552	475.747
A227S	Entry	1	1	0.331	315.063
			2	0.331	315.063
A2OFF	Entry	1	1	0.370	357.713
			2	0.370	357.713

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm				
			A227N	SA	A2ON	A227S	A2OFF
A227N	1	1		✓	✓	✓	
		2	✓			✓	
	2	1	✓	✓	✓	✓	✓
SA	1	1	✓	✓	✓	✓	
A227S	1	1	✓				
		2	✓	✓	✓	✓	
A2OFF	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 period length (min)	Time segment length (min)	Run automatically
D2	2023	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

16:45 - 17:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	146.00	219.00	0.00
	SA	0.00	0.00	2.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	191.00	0.00	46.00	0.00	0.00
	A2OFF	174.00	2.00	0.00	87.00	0.00

17:00 - 17:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	144.00	197.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	207.00	0.00	42.00	0.00	0.00
	A2OFF	205.00	0.00	0.00	99.00	0.00

17:15 - 17:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	126.00	214.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	227.00	0.00	54.00	0.00	0.00
	A2OFF	197.00	0.00	1.00	84.00	0.00

17:30 - 17:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	131.00	197.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	190.00	0.00	43.00	0.00	0.00
	A2OFF	197.00	0.00	1.00	80.00	0.00

17:45 - 18:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	130.00	182.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	203.00	0.00	43.00	1.00	0.00
	A2OFF	189.00	0.00	2.00	69.00	0.00

18:00 - 18:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	132.00	186.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	155.00	0.00	35.00	0.00	0.00
	A2OFF	174.00	0.00	0.00	73.00	0.00

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	2	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	3	0	4	0	0
	A2OFF	2	0	0	0	0

17:00 - 17:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	1	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	0	0	0	0
	A2OFF	2	0	0	0	0

17:15 - 17:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	1	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	2	0	0
	A2OFF	1	0	0	0	0

17:30 - 17:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	2	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	0	2	0	0
	A2OFF	2	0	0	0	0

17:45 - 18:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	3	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	0	0	0	0
	A2OFF	1	0	50	0	0

18:00 - 18:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	1	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	0	0	0
	A2OFF	2	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	8.51	3.9	A	332.98	1997.86
SA	7.04	0.0	A	0.44	2.61
A2ON					
A227S	4.10	1.1	A	237.92	1427.52
A2OFF	6.27	2.5	A	271.31	1627.83

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	364.37	364.37	135.98	364.90	368.39	363.89	0.0	3.4	8.511	A
SA	2.17	2.17	498.92	2.17	2.50	1.96	0.0	0.0	4.467	A
A2ON			0.00			194.23				
A227S	234.18	234.18	0.00	233.52	239.57	306.86	0.0	1.0	3.781	A
A2OFF	265.61	265.61	233.52	266.35	267.65	0.00	0.0	1.3	5.499	A

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	345.45	345.45	138.80	342.24	343.30	406.72	3.4	3.9	8.132	A
SA	0.39	0.39	480.83	0.39	0.87	0.21	0.0	0.0	3.711	A
A2ON			0.00			187.57				
A227S	247.66	247.66	0.27	247.40	246.62	293.38	1.0	1.1	3.699	A
A2OFF	298.13	298.13	247.66	297.88	304.32	0.00	1.3	2.4	6.268	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	341.05	341.05	138.98	338.97	348.63	424.37	3.9	3.1	7.455	A
SA	0.06	0.06	477.95	0.06	0.12	0.00	0.0	0.0	4.400	A
A2ON			0.00			182.08				
A227S	278.79	278.79	0.06	279.98	283.63	295.87	1.1	1.1	4.099	A
A2OFF	284.14	284.14	280.04	283.31	284.19	0.00	2.4	2.3	6.256	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	322.93	322.93	125.32	324.00	333.35	380.82	3.1	2.3	6.652	A
SA	0.00	0.00	449.32	0.00	0.02	0.00	0.0	0.0	2.791	A
A2ON			0.00			170.84				
A227S	230.50	230.50	0.00	230.35	236.82	278.53	1.1	0.8	3.673	A
A2OFF	275.47	275.47	230.35	275.76	281.31	0.00	2.3	1.6	5.607	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	304.66	304.66	115.07	306.09	317.87	390.71	2.3	1.8	6.533	A
SA	0.00	0.00	421.16	0.00	0.01	0.00	0.0	0.0	7.044	A
A2ON			0.00			172.13				
A227S	247.84	247.84	0.00	248.26	246.93	248.98	0.8	1.0	3.667	A
A2OFF	256.51	256.51	248.26	257.53	262.66	0.00	1.6	1.3	5.295	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	319.37	319.37	104.97	317.91	319.33	331.22	1.8	2.5	6.132	A
SA	0.00	0.00	422.88	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			166.48				
A227S	188.46	188.46	0.00	187.99	193.20	256.40	1.0	0.9	3.411	A
A2OFF	248.20	248.20	187.99	248.18	252.74	0.00	1.3	1.3	4.706	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	213.59	274.35	0.779	214.13	214.83	0.0	1.9	8.272	A
			2	A227N, A227S	150.27	272.02	0.552	150.77	153.55	0.0	0.9	5.956	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	364.37			363.89	371.29	0.0	0.5	1.194	A
	Exit	1	1		363.89			363.89	371.09	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	2.17	196.38	0.011	2.17	2.50	0.0	0.0	4.467	A
	Exit	1	1		1.96			1.96	2.03	0.0	0.0	0.000	A
A2ON	Exit	1	1		194.23			194.23	194.51	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	103.43	306.01	0.338	102.97	105.54	0.0	0.5	3.633	A
			2	A227N, SA, A2ON, A227S	130.75	304.24	0.430	130.56	134.03	0.0	0.5	3.899	A
	Exit	1	1		306.86			306.86	310.48	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	109.57	264.01	0.415	109.84	110.74	0.0	0.4	4.769	A
			2	A227N, SA, A2ON, A227S	156.04	266.11	0.586	156.51	156.91	0.0	0.9	6.008	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	204.06	274.84	0.743	203.41	203.92	1.9	2.1	8.060	A
			2	A227N, A227S	138.99	274.25	0.507	138.83	139.38	0.9	0.8	5.369	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	345.45			343.07	343.37	0.5	1.0	1.155	A
	Exit	1	1		406.72			406.72	411.96	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.39	208.48	0.002	0.39	0.87	0.0	0.0	3.711	A
	Exit	1	1		0.21			0.21	0.32	0.0	0.0	0.000	A
A2ON	Exit	1	1		187.57			187.57	186.96	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	112.99	314.97	0.359	112.54	111.30	0.5	0.6	3.559	A
			2	A227N, SA, A2ON, A227S	134.67	314.97	0.428	134.85	135.33	0.5	0.5	3.814	A
	Exit	1	1		293.38			293.38	295.87	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	125.85	260.13	0.484	125.77	129.58	0.4	0.9	5.577	A
			2	A227N, SA, A2ON, A227S	172.28	263.40	0.654	172.11	174.73	0.9	1.6	6.775	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	198.27	272.68	0.727	197.38	202.77	2.1	1.8	7.437	A
			2	A227N, A227S	142.16	274.44	0.518	141.59	145.86	0.8	1.0	5.510	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	341.05			340.43	348.54	1.0	0.4	0.837	A
	Exit	1	1		424.37			424.37	428.30	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.06	208.93	0.000	0.06	0.12	0.0	0.0	4.400	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		182.08			182.08	187.57	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	127.46	311.71	0.409	127.87	128.28	0.6	0.4	3.849	A
			2	A227N, SA, A2ON, A227S	151.34	311.39	0.486	152.11	155.36	0.5	0.7	4.306	A
	Exit	1	1		295.87			295.87	300.70	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	123.03	250.31	0.491	122.70	122.64	0.9	0.9	5.590	A
			2	A227N, SA, A2ON, A227S	161.10	251.46	0.640	160.60	161.54	1.6	1.4	6.760	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	192.68	279.13	0.690	193.54	198.14	1.8	1.5	6.983	A
			2	A227N, A227S	130.48	274.47	0.475	130.46	135.21	1.0	0.8	5.159	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	322.93			323.17	332.74	0.4	0.1	0.408	A
	Exit	1	1		380.82			380.82	392.17	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	224.69	0.000	0.00	0.02	0.0	0.0	2.791	A
	Exit	1	1		0.00			0.00	0.01	0.0	0.0	0.000	A
A2ON	Exit	1	1		170.84			170.84	175.87	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	103.01	308.91	0.334	102.83	106.04	0.4	0.4	3.474	A
			2	A227N, SA, A2ON, A227S	127.47	307.26	0.415	127.51	130.78	0.7	0.4	3.835	A
	Exit	1	1		278.53			278.53	283.45	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	118.84	265.62	0.448	118.87	121.69	0.9	0.6	4.961	A
			2	A227N, SA, A2ON, A227S	156.62	268.06	0.584	156.92	159.61	1.4	1.0	6.095	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	185.67	279.45	0.664	186.71	192.44	1.5	1.1	6.804	A
			2	A227N, A227S	118.96	276.70	0.429	119.34	125.44	0.8	0.6	4.961	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	304.66			304.63	317.37	0.1	0.1	0.449	A
	Exit	1	1		390.71			390.71	394.89	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	239.25	0.000	0.00	0.01	0.0	0.0	7.044	A
	Exit	1	1		0.00			0.00	0.01	0.0	0.0	0.000	A
A2ON	Exit	1	1		172.13			172.13	176.63	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	112.63	315.06	0.358	112.60	111.41	0.4	0.4	3.489	A
			2	A227N, SA, A2ON, A227S	135.21	315.06	0.429	135.65	135.52	0.4	0.5	3.813	A
	Exit	1	1		248.98			248.98	255.94	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	110.67	262.35	0.422	111.15	113.25	0.6	0.5	4.800	A
			2	A227N, SA, A2ON, A227S	145.84	262.28	0.556	146.38	149.42	1.0	0.8	5.672	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	192.68	284.69	0.677	192.27	193.66	1.1	1.6	6.563	A
			2	A227N, A227S	126.09	284.37	0.444	125.69	125.66	0.6	0.7	4.674	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	319.37			318.77	319.89	0.1	0.2	0.317	A
	Exit	1	1		331.22			331.22	338.20	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	240.52	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		166.48			166.48	168.60	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	82.16	311.12	0.264	82.10	85.29	0.4	0.4	3.334	A
			2	A227N, SA, A2ON, A227S	106.31	312.58	0.340	105.89	107.91	0.5	0.5	3.471	A
	Exit	1	1		256.40			256.40	258.47	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	105.30	281.17	0.374	105.54	106.75	0.5	0.4	4.232	A
			2	A227N, SA, A2ON, A227S	142.93	284.22	0.503	142.69	145.99	0.8	0.8	5.049	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2025 Do Nothing, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	6.85	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 period length (min)	Time segment length (min)	Run automatically
D4	2025 Do Nothing	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	148.00	223.00	0.00
	SA	0.00	0.00	2.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	195.00	0.00	46.00	0.00	0.00
	A2OFF	181.00	2.00	0.00	88.00	0.00

17:00 - 17:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	146.00	201.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	211.00	0.00	42.00	0.00	0.00
	A2OFF	213.00	0.00	0.00	100.00	0.00

17:15 - 17:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	128.00	219.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	231.00	0.00	54.00	0.00	0.00
	A2OFF	205.00	0.00	1.00	85.00	0.00

17:30 - 17:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	133.00	201.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	194.00	0.00	43.00	0.00	0.00
	A2OFF	204.00	0.00	1.00	81.00	0.00

17:45 - 18:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	132.00	186.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	207.00	0.00	43.00	1.00	0.00
	A2OFF	196.00	0.00	2.00	70.00	0.00

18:00 - 18:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	134.00	190.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	158.00	0.00	35.00	0.00	0.00
	A2OFF	181.00	0.00	0.00	74.00	0.00

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	2	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	3	0	4	0	0
	A2OFF	2	0	0	0	0

17:00 - 17:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	0	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	0	0	0	0
	A2OFF	2	0	0	0	0

17:15 - 17:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	2	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	2	0	0
	A2OFF	1	0	0	0	0

17:30 - 17:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	2	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	0	2	0	0
	A2OFF	1	0	0	0	0

17:45 - 18:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	3	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	0	0	0	0
	A2OFF	1	0	50	0	0

18:00 - 18:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	1	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	0	0	0
	A2OFF	2	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	8.97	4.1	A	340.61	2043.64
SA	7.25	0.0	A	0.42	2.50
A2ON					
A227S	4.13	1.5	A	243.65	1461.89
A2OFF	6.64	2.1	A	279.34	1676.03

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	370.43	370.43	137.94	369.26	373.50	379.10	0.0	4.0	8.965	A
SA	2.02	2.02	505.55	2.08	2.65	1.66	0.0	0.0	4.399	A
A2ON			0.00			197.73				
A227S	241.10	241.10	0.00	241.66	247.43	309.86	0.0	0.9	3.873	A
A2OFF	275.29	275.29	241.66	275.38	273.72	0.00	0.0	1.8	5.636	A

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	349.55	349.55	141.89	346.75	348.66	417.74	4.0	3.6	7.919	A
SA	0.45	0.45	488.49	0.45	0.86	0.15	0.0	0.0	4.357	A
A2ON			0.00			190.37				
A227S	249.98	249.98	0.18	249.65	252.47	298.40	0.9	1.1	3.781	A
A2OFF	308.91	308.91	249.83	309.80	316.76	0.00	1.8	1.9	6.645	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	346.40	346.40	141.39	347.55	351.34	435.39	3.6	3.1	7.561	A
SA	0.03	0.03	489.00	0.03	0.13	0.00	0.0	0.0	7.250	A
A2ON			0.00			185.26				
A227S	284.88	284.88	0.00	283.34	286.85	303.71	1.1	1.5	4.126	A
A2OFF	292.57	292.57	283.34	293.44	293.99	0.00	1.9	1.8	6.271	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	337.01	337.01	122.20	337.08	339.18	396.48	3.1	2.6	6.994	A
SA	0.00	0.00	459.24	0.00	0.02	0.00	0.0	0.0	1.393	A
A2ON			0.00			181.31				
A227S	236.53	236.53	0.00	237.24	242.68	277.93	1.5	0.8	3.718	A
A2OFF	283.31	283.31	237.24	281.44	285.67	0.00	1.8	2.1	5.696	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	319.07	319.07	114.21	319.72	326.09	403.93	2.6	2.3	6.972	A
SA	0.00	0.00	433.93	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			180.42				
A227S	254.52	254.52	0.00	254.08	251.96	253.51	0.8	1.0	3.745	A
A2OFF	264.36	264.36	254.08	264.06	268.59	0.00	2.1	1.7	5.416	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	320.85	320.85	109.31	320.67	326.67	337.78	2.3	2.3	6.420	A
SA	0.00	0.00	429.98	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			168.86				
A227S	194.90	194.90	0.00	194.87	197.21	261.13	1.0	0.8	3.517	A
A2OFF	251.67	251.67	194.87	252.21	256.77	0.00	1.7	1.0	4.825	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	216.47	273.27	0.792	216.09	217.96	0.0	2.2	8.464	A
			2	A227N, A227S	153.36	272.04	0.564	153.18	155.53	0.0	1.0	6.080	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	370.43			369.83	376.75	0.0	0.9	1.485	A
	Exit	1	1		379.10			379.10	383.26	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	2.02	192.52	0.010	2.08	2.65	0.0	0.0	4.399	A
	Exit	1	1		1.66			1.66	1.89	0.0	0.0	0.000	A
A2ON	Exit	1	1		197.73			197.73	198.83	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	108.12	306.67	0.352	108.36	110.55	0.0	0.4	3.631	A
			2	A227N, SA, A2ON, A227S	132.98	304.68	0.436	133.31	136.87	0.0	0.5	4.070	A
	Exit	1	1		309.86			309.86	313.32	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	114.80	260.40	0.441	114.65	113.78	0.0	0.7	4.968	A
			2	A227N, SA, A2ON, A227S	160.49	262.84	0.610	160.69	159.94	0.0	1.1	6.106	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	206.94	272.46	0.759	205.87	208.32	2.2	2.0	7.895	A
			2	A227N, A227S	141.45	276.20	0.512	140.88	140.35	1.0	0.9	5.489	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	349.55			348.39	348.35	0.9	0.7	0.996	A
	Exit	1	1		417.74			417.74	428.40	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.45	204.45	0.002	0.45	0.86	0.0	0.0	4.357	A
	Exit	1	1		0.15			0.15	0.23	0.0	0.0	0.000	A
A2ON	Exit	1	1		190.37			190.37	190.71	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	113.23	315.00	0.359	113.14	114.43	0.4	0.5	3.625	A
			2	A227N, SA, A2ON, A227S	136.75	315.00	0.434	136.51	138.04	0.5	0.6	3.910	A
	Exit	1	1		298.40			298.40	299.42	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	134.26	260.21	0.516	134.61	138.53	0.7	0.6	5.711	A
			2	A227N, SA, A2ON, A227S	174.65	262.82	0.665	175.17	178.23	1.1	1.3	7.361	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	201.95	272.35	0.741	202.54	202.70	2.0	1.8	7.700	A
			2	A227N, A227S	145.01	270.46	0.536	145.01	148.63	0.9	1.0	5.727	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	346.40			346.96	351.28	0.7	0.3	0.698	A
	Exit	1	1		435.39			435.39	439.88	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.03	202.09	0.000	0.03	0.13	0.0	0.0	7.250	A
	Exit	1	1		0.00			0.00	0.03	0.0	0.0	0.000	A
A2ON	Exit	1	1		185.26			185.26	184.86	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	130.66	311.99	0.419	129.59	129.59	0.5	0.7	3.894	A
			2	A227N, SA, A2ON, A227S	154.22	311.60	0.495	153.74	157.26	0.6	0.8	4.318	A
	Exit	1	1		303.71			303.71	307.53	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	127.55	249.10	0.512	127.60	128.13	0.6	0.8	5.686	A
			2	A227N, SA, A2ON, A227S	165.03	250.76	0.658	165.83	165.86	1.3	1.1	6.722	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	201.74	280.24	0.720	202.22	201.51	1.8	1.4	7.200	A
			2	A227N, A227S	134.76	276.03	0.489	134.82	137.66	1.0	0.9	5.249	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	337.01			336.51	338.73	0.3	0.3	0.581	A
	Exit	1	1		396.48			396.48	402.13	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	219.41	0.000	0.00	0.02	0.0	0.0	1.393	A
	Exit	1	1		0.00			0.00	0.02	0.0	0.0	0.000	A
A2ON	Exit	1	1		181.31			181.31	180.51	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	106.60	310.10	0.344	106.69	108.80	0.7	0.4	3.520	A
			2	A227N, SA, A2ON, A227S	129.92	309.09	0.420	130.54	133.88	0.8	0.4	3.880	A
	Exit	1	1		277.93			277.93	284.89	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	122.76	265.91	0.462	122.02	123.54	0.8	0.8	5.098	A
			2	A227N, SA, A2ON, A227S	160.54	267.11	0.601	159.42	162.13	1.1	1.3	6.150	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	195.06	280.10	0.697	194.88	196.51	1.4	1.6	7.194	A
			2	A227N, A227S	124.52	275.89	0.451	124.84	129.57	0.9	0.5	5.046	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	319.07			319.58	325.89	0.3	0.2	0.624	A
	Exit	1	1		403.93			403.93	404.59	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	231.96	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		180.42			180.42	180.51	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	116.35	315.06	0.369	116.11	114.16	0.4	0.4	3.559	A
			2	A227N, SA, A2ON, A227S	138.18	315.06	0.439	137.97	137.80	0.4	0.6	3.899	A
	Exit	1	1		253.51			253.51	261.53	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	115.77	261.22	0.443	115.55	117.06	0.8	0.7	4.973	A
			2	A227N, SA, A2ON, A227S	148.60	260.76	0.570	148.51	151.53	1.3	0.9	5.761	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	194.20	283.43	0.685	194.61	196.50	1.6	1.4	6.775	A
			2	A227N, A227S	126.77	282.65	0.448	126.06	130.17	0.5	0.8	4.789	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	320.85			320.97	326.67	0.2	0.1	0.439	A
	Exit	1	1		337.78			337.78	343.66	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	236.53	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		168.86			168.86	170.73	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	86.44	311.92	0.277	86.22	87.71	0.4	0.4	3.337	A
			2	A227N, SA, A2ON, A227S	108.46	313.25	0.346	108.65	109.50	0.6	0.4	3.661	A
	Exit	1	1		261.13			261.13	266.26	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	105.62	279.48	0.378	105.95	108.24	0.7	0.4	4.399	A
			2	A227N, SA, A2ON, A227S	145.99	282.42	0.517	146.26	148.53	0.9	0.6	5.132	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2025 Do Minimum, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	7.32	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 period length (min)	Time segment length (min)	Run automatically
D6	2025 Do Minimum	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	148.00	223.00	0.00
	SA	7.00	0.00	13.00	11.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	192.00	12.00	46.00	0.00	0.00
	A2OFF	177.00	19.00	0.00	87.00	0.00

17:00 - 17:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	146.00	201.00	0.00
	SA	7.00	0.00	12.00	11.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	208.00	12.00	42.00	0.00	0.00
	A2OFF	208.00	18.00	0.00	99.00	0.00

17:15 - 17:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	128.00	219.00	0.00
	SA	7.00	0.00	12.00	11.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	228.00	12.00	54.00	0.00	0.00
	A2OFF	200.00	18.00	1.00	83.00	0.00

17:30 - 17:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	133.00	201.00	0.00
	SA	7.00	0.00	11.00	11.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	191.00	11.00	43.00	0.00	0.00
	A2OFF	200.00	17.00	1.00	80.00	0.00

17:45 - 18:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	132.00	186.00	0.00
	SA	7.00	0.00	11.00	10.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	204.00	11.00	43.00	1.00	0.00
	A2OFF	192.00	17.00	22.00	68.00	0.00

18:00 - 18:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	134.00	190.00	0.00
	SA	6.00	0.00	10.00	9.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	156.00	10.00	35.00	0.00	0.00
	A2OFF	177.00	15.00	0.00	73.00	0.00

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	2	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	3	1	4	0	0
	A2OFF	2	1	0	0	0

17:00 - 17:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	0	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	1	0	0	0
	A2OFF	2	1	0	0	0

17:15 - 17:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	1	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	1	2	0	0
	A2OFF	1	1	0	0	0

17:30 - 17:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	2	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	1	2	0	0
	A2OFF	2	1	0	0	0

17:45 - 18:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	3	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	1	0	0	0
	A2OFF	1	1	50	0	0

18:00 - 18:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	1	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	1	0	0	0
	A2OFF	2	1	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	9.41	4.9	A	340.93	2045.55
SA	5.76	0.2	A	28.59	171.54
A2ON					
A227S	4.29	1.5	A	252.42	1514.54
A2OFF	7.65	2.9	A	294.97	1769.85

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	374.30	374.30	160.85	372.30	372.62	386.45	0.0	4.9	9.392	A
SA	31.40	31.40	503.60	31.40	31.92	29.54	0.0	0.2	5.765	A
A2ON			0.00			206.30				
A227S	252.65	252.65	8.15	253.65	257.63	320.55	0.0	0.9	4.040	A
A2OFF	284.45	284.45	261.80	285.50	286.07	0.00	0.0	2.1	6.046	A

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	342.80	342.80	171.10	342.42	349.42	421.05	4.9	3.6	9.414	A
SA	30.50	30.50	483.40	29.95	29.23	30.10	0.2	0.3	5.270	A
A2ON			0.00			197.50				
A227S	264.25	264.25	6.85	263.50	262.43	309.00	0.9	1.2	3.875	A
A2OFF	321.00	321.00	270.35	321.78	326.77	0.00	2.1	2.8	7.648	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	349.75	349.75	166.25	346.95	352.28	437.55	3.6	3.7	8.647	A
SA	28.85	28.85	481.70	28.70	29.18	31.50	0.3	0.1	4.954	A
A2ON			0.00			186.10				
A227S	289.95	289.95	5.80	290.50	296.55	318.50	1.2	1.5	4.293	A
A2OFF	306.95	306.95	296.30	307.50	304.77	0.00	2.8	2.5	7.376	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	333.30	333.30	155.50	330.35	337.53	392.29	3.7	3.3	7.728	A
SA	27.70	27.70	456.50	27.40	28.00	29.35	0.1	0.2	4.752	A
A2ON			0.00			188.75				
A227S	242.75	242.75	6.65	243.05	251.45	288.50	1.5	1.0	3.968	A
A2OFF	296.60	296.60	249.70	298.00	304.18	0.00	2.5	1.6	6.455	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	319.15	319.15	159.45	320.00	327.65	403.60	3.3	2.8	7.841	A
SA	28.35	28.35	450.70	28.45	28.92	28.64	0.2	0.2	5.051	A
A2ON			0.00			209.65				
A227S	259.30	259.30	7.80	259.05	258.80	261.77	1.0	1.1	3.908	A
A2OFF	297.15	297.15	266.85	296.10	306.18	0.00	1.6	2.4	6.947	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	325.45	325.45	134.95	326.50	332.93	337.95	2.8	2.4	7.035	A
SA	24.70	24.70	435.95	24.50	26.03	25.50	0.2	0.1	4.367	A
A2ON			0.00			181.95				
A227S	205.60	205.60	5.60	205.10	205.72	272.90	1.1	0.8	3.475	A
A2OFF	263.15	263.15	210.70	262.20	268.78	0.00	2.4	1.7	5.195	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	217.70	266.47	0.817	216.31	216.43	0.0	2.6	8.657	A
			2	A227N, A227S	156.35	264.00	0.592	155.95	156.18	0.0	1.1	6.156	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	374.30			374.00	376.48	0.0	1.1	1.762	A
	Exit	1	1		386.45			386.45	388.72	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	31.40	191.49	0.164	31.40	31.92	0.0	0.2	5.765	A
	Exit	1	1		29.54			29.54	30.48	0.0	0.0	0.000	A
A2ON	Exit	1	1		206.30			206.30	207.23	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	111.65	301.77	0.370	112.50	112.98	0.0	0.3	3.789	A
			2	A227N, SA, A2ON, A227S	141.00	303.24	0.465	141.15	144.65	0.0	0.6	4.236	A
	Exit	1	1		320.55			320.55	321.80	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	115.55	253.03	0.457	115.55	117.27	0.0	0.7	5.096	A
			2	A227N, SA, A2ON, A227S	168.90	255.31	0.662	169.95	168.80	0.0	1.4	6.697	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	203.80	265.18	0.769	202.60	207.52	2.6	2.2	8.778	A
			2	A227N, A227S	140.00	267.34	0.524	139.80	141.90	1.1	0.9	6.079	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	342.80			343.80	348.75	1.1	0.5	1.745	A
	Exit	1	1		421.05			421.05	424.13	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	30.50	207.20	0.147	29.95	29.23	0.2	0.3	5.270	A
	Exit	1	1		30.10			30.10	30.35	0.0	0.0	0.000	A
A2ON	Exit	1	1		197.50			197.50	202.43	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	117.65	312.80	0.376	117.25	115.83	0.3	0.5	3.624	A
			2	A227N, SA, A2ON, A227S	146.60	312.58	0.469	146.25	146.60	0.6	0.7	4.074	A
	Exit	1	1		309.00			309.00	310.93	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	137.10	252.91	0.542	137.60	140.25	0.7	1.0	6.411	A
			2	A227N, SA, A2ON, A227S	183.90	255.83	0.719	184.20	186.52	1.4	1.8	8.564	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	197.80	264.58	0.748	196.15	200.87	2.2	2.1	8.454	A
			2	A227N, A227S	150.78	266.29	0.566	150.80	151.42	0.9	1.1	6.174	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	349.75			348.60	352.35	0.5	0.6	1.173	A
	Exit	1	1		437.55			437.55	438.75	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	28.85	205.74	0.140	28.70	29.18	0.3	0.1	4.954	A
	Exit	1	1		31.50			31.50	30.90	0.0	0.0	0.000	A
A2ON	Exit	1	1		186.10			186.10	196.17	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	127.70	310.83	0.411	127.75	131.58	0.5	0.7	3.962	A
			2	A227N, SA, A2ON, A227S	162.23	308.89	0.525	162.76	164.97	0.7	0.8	4.558	A
	Exit	1	1		318.50			318.50	316.97	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	132.85	244.42	0.544	132.50	130.33	1.0	1.0	6.369	A
			2	A227N, SA, A2ON, A227S	174.10	245.32	0.709	174.98	174.43	1.8	1.5	8.127	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	196.90	269.59	0.730	195.05	198.53	2.1	2.0	7.828	A
			2	A227N, A227S	135.00	266.87	0.506	135.30	139.00	1.1	0.7	5.618	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	333.30			331.90	337.07	0.6	0.5	0.813	A
	Exit	1	1		392.29			392.29	407.17	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	27.70	218.55	0.126	27.40	28.00	0.1	0.2	4.752	A
	Exit	1	1		29.35			29.35	29.22	0.0	0.0	0.000	A
A2ON	Exit	1	1		188.75			188.75	190.70	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	106.80	306.59	0.348	106.70	110.88	0.7	0.4	3.659	A
			2	A227N, SA, A2ON, A227S	135.97	307.56	0.442	136.35	140.57	0.8	0.6	4.211	A
	Exit	1	1		288.50			288.50	294.08	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	125.72	259.88	0.484	126.05	130.47	1.0	0.7	5.631	A
			2	A227N, SA, A2ON, A227S	170.90	261.76	0.653	171.95	173.72	1.5	0.9	7.068	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	191.60	264.26	0.725	192.15	195.70	2.0	1.6	8.063	A
			2	A227N, A227S	127.75	261.12	0.490	127.85	131.95	0.7	0.8	5.578	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	319.15			319.35	327.42	0.5	0.4	0.768	A
	Exit	1	1		403.60			403.60	402.12	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	28.35	215.90	0.131	28.45	28.92	0.2	0.2	5.051	A
	Exit	1	1		28.64			28.64	29.30	0.0	0.0	0.000	A
A2ON	Exit	1	1		209.65			209.65	219.72	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	114.15	312.48	0.365	114.35	114.20	0.4	0.5	3.675	A
			2	A227N, SA, A2ON, A227S	145.15	312.37	0.465	144.70	144.60	0.6	0.7	4.093	A
	Exit	1	1		261.77			261.77	270.42	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	128.45	256.18	0.502	127.65	126.97	0.7	0.9	5.607	A
			2	A227N, SA, A2ON, A227S	168.68	242.68	0.695	168.45	179.22	0.9	1.5	7.947	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	196.05	275.40	0.712	196.46	198.67	1.6	1.5	7.260	A
			2	A227N, A227S	129.69	274.32	0.473	130.00	134.27	0.8	0.7	5.159	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	325.45			325.75	332.62	0.4	0.2	0.625	A
	Exit	1	1		337.95			337.95	345.87	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	24.70	231.55	0.107	24.50	26.03	0.2	0.1	4.367	A
	Exit	1	1		25.50			25.50	25.82	0.0	0.0	0.000	A
A2ON	Exit	1	1		181.95			181.95	182.98	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	85.40	310.47	0.275	85.00	86.87	0.5	0.4	3.287	A
			2	A227N, SA, A2ON, A227S	120.23	310.82	0.387	120.08	118.85	0.7	0.5	3.613	A
	Exit	1	1		272.90			272.90	278.80	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	108.60	273.18	0.397	108.06	111.45	0.9	0.7	4.598	A
			2	A227N, SA, A2ON, A227S	154.55	276.77	0.558	154.21	157.33	1.5	1.0	5.613	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2025 Do Minimum Residual, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	7.28	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 period length (min)	Time segment length (min)	Run automatically
D8	2025 Do Minimum Residual	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	148.00	223.00	0.00
	SA	7.00	0.00	13.00	10.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	192.00	11.00	46.00	0.00	0.00
	A2OFF	177.00	18.00	0.00	87.00	0.00

17:00 - 17:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	146.00	201.00	0.00
	SA	7.00	0.00	11.00	10.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	208.00	11.00	42.00	0.00	0.00
	A2OFF	208.00	16.00	0.00	99.00	0.00

17:15 - 17:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	128.00	219.00	0.00
	SA	7.00	0.00	11.00	10.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	228.00	11.00	54.00	0.00	0.00
	A2OFF	200.00	16.00	1.00	83.00	0.00

17:30 - 17:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	133.00	201.00	0.00
	SA	7.00	0.00	10.00	9.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	191.00	10.00	43.00	0.00	0.00
	A2OFF	200.00	15.00	1.00	80.00	0.00

17:45 - 18:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	132.00	186.00	0.00
	SA	7.00	0.00	10.00	9.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	204.00	10.00	43.00	1.00	0.00
	A2OFF	192.00	14.00	2.00	68.00	0.00

18:00 - 18:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	134.00	190.00	0.00
	SA	6.00	0.00	9.00	9.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	156.00	9.00	35.00	0.00	0.00
	A2OFF	177.00	13.00	0.00	73.00	0.00

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	2	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	3	1	4	0	0
	A2OFF	2	1	0	0	0

17:00 - 17:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	0	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	1	0	0	0
	A2OFF	2	1	0	0	0

17:15 - 17:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	1	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	1	2	0	0
	A2OFF	1	1	0	0	0

17:30 - 17:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	2	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	1	2	0	0
	A2OFF	2	1	0	0	0

17:45 - 18:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	3	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	1	0	0	0
	A2OFF	1	1	50	0	0

18:00 - 18:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	1	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	1	0	0	0
	A2OFF	2	1	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	9.66	4.1	A	338.12	2028.69
SA	5.31	0.2	A	27.10	162.58
A2ON					
A227S	4.30	1.6	A	251.07	1506.45
A2OFF	7.27	2.6	A	290.21	1741.28

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	365.51	365.51	165.84	364.87	368.54	373.52	0.0	4.1	9.664	A
SA	29.95	29.95	502.33	29.41	30.48	28.43	0.0	0.2	5.283	A
A2ON			0.00			202.62				
A227S	245.56	245.56	6.98	244.33	253.66	322.13	0.0	1.5	4.005	A
A2OFF	286.29	286.29	251.56	288.10	284.69	0.00	0.0	1.7	6.248	A

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	339.37	339.37	172.52	341.16	349.28	431.31	4.1	2.9	8.686	A
SA	26.99	26.99	486.10	26.85	27.90	27.59	0.2	0.2	5.312	A
A2ON			0.00			196.28				
A227S	269.46	269.46	7.28	269.85	264.25	309.39	1.5	1.0	3.937	A
A2OFF	327.39	327.39	277.13	326.71	327.69	0.00	1.7	2.6	7.268	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	342.15	342.15	169.52	342.49	350.69	429.00	2.9	3.1	8.078	A
SA	28.43	28.43	484.67	28.43	28.31	27.34	0.2	0.1	5.109	A
A2ON			0.00			188.56				
A227S	289.92	289.92	7.57	290.26	294.66	316.97	1.0	1.3	4.302	A
A2OFF	300.64	300.64	297.84	300.74	306.08	0.00	2.6	2.0	7.254	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	341.61	341.61	150.10	340.97	338.89	396.74	3.1	2.5	7.017	A
SA	27.44	27.44	465.88	27.30	26.38	25.13	0.1	0.1	4.823	A
A2ON			0.00			191.95				
A227S	244.38	244.38	7.48	243.64	248.97	293.75	1.3	1.3	4.044	A
A2OFF	296.41	296.41	251.12	295.69	297.11	0.00	2.0	2.5	6.394	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	317.26	317.26	141.18	315.69	326.26	390.34	2.5	2.9	7.193	A
SA	25.77	25.77	431.70	26.02	27.02	25.13	0.1	0.1	4.414	A
A2ON			0.00			182.56				
A227S	252.79	252.79	6.84	251.95	257.00	268.34	1.3	1.3	3.903	A
A2OFF	270.99	270.99	258.79	272.70	278.51	0.00	2.5	1.6	5.960	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	322.67	322.67	128.85	323.61	328.26	341.88	2.9	2.4	6.994	A
SA	24.00	24.00	431.16	23.75	24.84	21.30	0.1	0.2	4.521	A
A2ON			0.00			174.44				
A227S	204.25	204.25	6.05	204.59	206.62	274.43	1.3	0.8	3.614	A
A2OFF	259.97	259.97	210.64	260.16	264.89	0.00	1.6	1.3	5.093	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	210.95	264.14	0.798	210.64	211.21	0.0	2.4	9.026	A
			2	A227N, A227S	154.38	262.47	0.588	154.23	157.33	0.0	1.2	6.212	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	365.51			365.36	372.16	0.0	0.5	1.823	A
	Exit	1	1		373.52			373.52	381.80	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	29.95	192.58	0.156	29.41	30.48	0.0	0.2	5.283	A
	Exit	1	1		28.43			28.43	28.82	0.0	0.0	0.000	A
A2ON	Exit	1	1		202.62			202.62	205.25	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	109.03	303.51	0.359	108.20	110.74	0.0	0.7	3.804	A
			2	A227N, SA, A2ON, A227S	136.52	302.52	0.451	136.10	142.92	0.0	0.8	4.161	A
	Exit	1	1		322.13			322.13	321.49	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	113.56	256.11	0.443	114.10	116.34	0.0	0.6	5.345	A
			2	A227N, SA, A2ON, A227S	172.62	259.40	0.666	174.00	168.34	0.0	1.2	6.862	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	199.28	264.96	0.752	200.41	207.52	2.4	1.8	8.601	A
			2	A227N, A227S	140.46	266.97	0.526	140.75	141.75	1.2	0.9	5.987	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	339.37			339.74	348.31	0.5	0.2	1.159	A
	Exit	1	1		431.31			431.31	428.23	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	26.99	204.57	0.132	26.85	27.90	0.2	0.2	5.312	A
	Exit	1	1		27.59			27.59	27.97	0.0	0.0	0.000	A
A2ON	Exit	1	1		196.28			196.28	203.69	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	119.75	312.65	0.383	120.15	118.33	0.7	0.4	3.694	A
			2	A227N, SA, A2ON, A227S	149.70	312.55	0.479	149.70	145.92	0.8	0.5	4.134	A
	Exit	1	1		309.39			309.39	309.23	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	140.11	250.34	0.559	140.36	140.13	0.6	1.0	6.157	A
			2	A227N, SA, A2ON, A227S	187.28	253.07	0.740	186.34	187.56	1.2	1.6	8.091	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	196.43	263.12	0.746	196.57	202.49	1.8	1.8	7.930	A
			2	A227N, A227S	146.51	264.56	0.554	145.92	148.20	0.9	1.1	5.855	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	342.15			342.93	350.97	0.2	0.2	1.030	A
	Exit	1	1		429.00			429.00	439.75	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	28.43	202.13	0.141	28.43	28.31	0.2	0.1	5.109	A
	Exit	1	1		27.34			27.34	28.03	0.0	0.0	0.000	A
A2ON	Exit	1	1		188.56			188.56	194.26	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	129.93	309.82	0.420	130.18	131.82	0.4	0.5	3.939	A
			2	A227N, SA, A2ON, A227S	159.98	309.09	0.518	160.13	162.84	0.5	0.8	4.596	A
	Exit	1	1		316.97			316.97	317.69	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	128.61	243.52	0.527	128.82	131.79	1.0	0.7	6.239	A
			2	A227N, SA, A2ON, A227S	172.21	244.60	0.704	171.88	174.30	1.6	1.4	8.018	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	205.08	271.58	0.755	204.43	201.03	1.8	1.6	7.389	A
			2	A227N, A227S	136.38	266.55	0.512	136.48	137.85	1.1	0.7	5.314	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	341.61			341.46	338.36	0.2	0.1	0.465	A
	Exit	1	1		396.74			396.74	404.34	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	27.44	213.68	0.129	27.30	26.38	0.1	0.1	4.823	A
	Exit	1	1		25.13			25.13	25.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		191.95			191.95	189.79	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	106.23	307.81	0.346	106.11	110.30	0.5	0.4	3.735	A
			2	A227N, SA, A2ON, A227S	138.15	305.49	0.452	137.51	138.67	0.8	0.8	4.289	A
	Exit	1	1		293.75			293.75	292.21	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	127.38	257.36	0.495	126.88	127.74	0.7	0.9	5.566	A
			2	A227N, SA, A2ON, A227S	169.03	260.59	0.648	168.84	169.38	1.4	1.5	7.012	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	191.11	271.89	0.703	191.02	196.03	1.6	1.7	7.411	A
			2	A227N, A227S	125.70	268.71	0.468	124.67	130.23	0.7	1.0	5.339	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	317.26			316.92	326.57	0.1	0.3	0.601	A
	Exit	1	1		390.34			390.34	402.70	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	25.77	229.80	0.112	26.02	27.02	0.1	0.1	4.414	A
	Exit	1	1		25.13			25.13	25.18	0.0	0.0	0.000	A
A2ON	Exit	1	1		182.56			182.56	187.84	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	110.36	312.80	0.353	109.97	114.11	0.4	0.5	3.596	A
			2	A227N, SA, A2ON, A227S	142.43	312.69	0.455	141.98	142.89	0.8	0.7	4.149	A
	Exit	1	1		268.34			268.34	273.07	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	114.58	260.21	0.440	115.72	119.23	0.9	0.5	5.253	A
			2	A227N, SA, A2ON, A227S	156.39	258.71	0.604	156.98	159.28	1.5	1.0	6.493	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	190.67	276.85	0.689	191.56	195.92	1.7	1.4	7.304	A
			2	A227N, A227S	131.85	276.78	0.476	131.92	132.34	1.0	0.7	5.195	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	322.67			322.53	327.64	0.3	0.3	0.549	A
	Exit	1	1		341.88			341.88	345.38	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	24.00	231.80	0.103	23.75	24.84	0.1	0.2	4.521	A
	Exit	1	1		21.30			21.30	22.38	0.0	0.0	0.000	A
A2ON	Exit	1	1		174.44			174.44	179.92	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	88.43	309.96	0.285	88.33	88.25	0.5	0.4	3.439	A
			2	A227N, SA, A2ON, A227S	115.82	310.56	0.373	116.26	118.38	0.7	0.4	3.745	A
	Exit	1	1		274.43			274.43	276.93	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	107.95	275.72	0.393	108.00	109.75	0.5	0.4	4.496	A
			2	A227N, SA, A2ON, A227S	152.02	276.72	0.550	152.21	155.13	1.0	0.9	5.512	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2028 Do Nothing, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	7.60	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 period length (min)	Time segment length (min)	Run automatically
D10	2028 Do Nothing	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	153.00	238.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	205.00	0.00	47.00	0.00	0.00
	A2OFF	197.00	2.00	0.00	92.00	0.00

17:00 - 17:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	151.00	216.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	221.00	0.00	43.00	0.00	0.00
	A2OFF	230.00	0.00	0.00	105.00	0.00

17:15 - 17:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	133.00	234.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	242.00	0.00	56.00	0.00	0.00
	A2OFF	222.00	0.00	1.00	89.00	0.00

17:30 - 17:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	138.00	215.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	204.00	0.00	44.00	0.00	0.00
	A2OFF	221.00	0.00	1.00	85.00	0.00

17:45 - 18:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	137.00	199.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	217.00	0.00	44.00	1.00	0.00
	A2OFF	212.00	0.00	2.00	73.00	0.00

18:00 - 18:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	139.00	202.00	0.00
	SA	0.00	0.00	0.00	0.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	167.00	0.00	36.00	0.00	0.00
	A2OFF	195.00	0.00	0.00	77.00	0.00

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	2	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	3	0	4	0	0
	A2OFF	2	0	0	0	0

17:00 - 17:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	0	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	0	0	0	0
	A2OFF	2	0	0	0	0

17:15 - 17:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	1	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	2	0	0
	A2OFF	1	0	0	0	0

17:30 - 17:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	1	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	0	2	0	0
	A2OFF	1	0	0	0	0

17:45 - 18:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	3	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	0	0	0	0
	A2OFF	1	0	50	0	0

18:00 - 18:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	1	0
	SA	0	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	0	0	0	0
	A2OFF	2	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	9.79	5.1	A	360.91	2165.49
SA	0.00	0.0	A	0.00	0.00
A2ON					
A227S	4.25	1.4	A	253.67	1522.02
A2OFF	7.80	2.4	A	301.31	1807.86

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	387.52	387.52	141.93	384.41	391.10	409.14	0.0	5.0	9.793	A
SA	0.00	0.00	524.33	0.00	0.00	2.02	0.0	0.0	0.000	A
A2ON			0.00			200.89				
A227S	256.91	256.91	0.00	256.09	262.29	323.38	0.0	1.2	4.020	A
A2OFF	296.59	296.59	256.09	294.98	293.60	0.00	0.0	2.3	6.586	A

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	366.16	366.16	150.05	368.12	368.40	446.02	5.0	2.9	8.803	A
SA	0.00	0.00	518.17	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			198.16				
A227S	261.10	261.10	0.00	261.31	263.72	320.02	1.2	1.0	3.772	A
A2OFF	333.10	333.10	261.31	334.76	338.74	0.00	2.3	2.4	7.801	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	372.83	372.83	147.00	370.91	374.34	453.36	2.9	3.9	8.969	A
SA	0.00	0.00	517.91	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			191.59				
A227S	288.88	288.88	0.00	290.07	299.31	326.33	1.0	1.0	4.253	A
A2OFF	309.67	309.67	290.07	310.29	312.26	0.00	2.4	2.2	7.389	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	366.41	366.41	129.98	366.67	360.52	424.19	3.9	2.8	7.741	A
SA	0.00	0.00	496.66	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			188.43				
A227S	251.22	251.22	0.00	251.33	252.84	308.22	1.0	0.9	3.868	A
A2OFF	302.64	302.64	251.33	302.84	308.81	0.00	2.2	2.4	6.384	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	333.78	333.78	118.09	333.62	343.95	433.04	2.8	2.4	7.021	A
SA	0.00	0.00	451.71	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			178.29				
A227S	259.86	259.86	0.00	258.21	260.10	273.42	0.9	1.5	3.828	A
A2OFF	292.29	292.29	258.21	292.91	290.50	0.00	2.4	1.6	5.937	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	338.85	338.85	117.10	338.33	344.88	362.17	2.4	3.1	6.822	A
SA	0.00	0.00	455.43	0.00	0.00	0.00	0.0	0.0	0.000	A
A2ON			0.00			176.90				
A227S	203.95	203.95	0.00	204.31	207.12	278.53	1.5	0.6	3.526	A
A2OFF	273.72	273.72	204.31	274.96	279.02	0.00	1.6	1.3	5.056	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	221.12	272.12	0.812	220.86	223.88	0.0	2.4	8.946	A
			2	A227N, A227S	163.97	269.26	0.609	163.55	167.22	0.0	1.2	6.181	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	387.52			385.09	394.81	0.0	1.4	2.015	A
	Exit	1	1		409.14			409.14	414.07	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	181.58	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		2.02			2.02	1.97	0.0	0.0	0.000	A
A2ON	Exit	1	1		200.89			200.89	201.72	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	115.29	306.78	0.376	114.98	118.38	0.0	0.4	3.836	A
			2	A227N, SA, A2ON, A227S	141.62	305.33	0.464	141.10	143.91	0.0	0.8	4.171	A
	Exit	1	1		323.38			323.38	329.24	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	127.55	254.60	0.501	126.79	125.98	0.0	0.8	5.790	A
			2	A227N, SA, A2ON, A227S	169.02	258.09	0.655	168.10	167.62	0.0	1.4	7.176	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	212.33	271.73	0.782	213.59	215.98	2.4	1.8	8.516	A
			2	A227N, A227S	154.97	273.75	0.566	154.55	152.41	1.2	1.0	5.802	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	366.16			367.29	367.50	1.4	0.1	1.419	A
	Exit	1	1		446.02			446.02	453.50	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	188.72	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.02	0.0	0.0	0.000	A
A2ON	Exit	1	1		198.16			198.16	197.91	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	117.05	315.06	0.372	117.36	119.66	0.4	0.4	3.651	A
			2	A227N, SA, A2ON, A227S	144.05	315.06	0.457	143.95	144.07	0.8	0.6	3.873	A
	Exit	1	1		320.02			320.02	319.43	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	143.43	255.08	0.562	143.64	148.52	0.8	1.0	7.021	A
			2	A227N, SA, A2ON, A227S	189.66	258.69	0.733	191.05	190.22	1.4	1.3	8.404	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	208.76	268.57	0.777	208.81	213.00	1.8	1.9	8.549	A
			2	A227N, A227S	162.52	271.75	0.598	162.10	161.34	1.0	1.2	6.209	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	372.83			371.28	374.72	0.1	0.8	1.429	A
	Exit	1	1		453.36			453.36	463.29	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	185.83	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		191.59			191.59	194.60	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	130.97	311.20	0.421	131.41	135.57	0.4	0.4	4.049	A
			2	A227N, SA, A2ON, A227S	157.91	310.51	0.508	158.69	163.74	0.6	0.6	4.421	A
	Exit	1	1		326.33			326.33	328.02	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	134.74	245.73	0.548	134.75	136.90	1.0	0.9	6.754	A
			2	A227N, SA, A2ON, A227S	174.93	247.28	0.707	175.55	175.36	1.3	1.3	7.881	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	213.41	278.63	0.766	213.16	210.00	1.9	1.7	7.730	A
			2	A227N, A227S	152.84	275.98	0.554	153.52	150.52	1.2	0.8	5.578	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	366.41			366.26	359.88	0.8	0.2	0.913	A
	Exit	1	1		424.19			424.19	431.22	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	199.54	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		188.43			188.43	185.74	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	111.48	309.48	0.360	111.88	113.69	0.4	0.4	3.695	A
			2	A227N, SA, A2ON, A227S	139.71	308.54	0.453	139.45	139.16	0.6	0.6	4.009	A
	Exit	1	1		308.22			308.22	305.21	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	132.31	259.87	0.509	132.26	136.59	0.9	1.0	5.853	A
			2	A227N, SA, A2ON, A227S	170.33	261.31	0.652	170.59	172.22	1.3	1.4	6.803	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	200.33	278.38	0.719	200.79	204.05	1.7	1.5	7.282	A
			2	A227N, A227S	133.35	276.98	0.481	132.83	139.90	0.8	0.8	5.192	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	333.78			333.67	343.72	0.2	0.1	0.582	A
	Exit	1	1		433.04			433.04	431.76	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	222.42	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		178.29			178.29	184.72	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	117.31	315.06	0.372	116.74	118.76	0.4	0.6	3.667	A
			2	A227N, SA, A2ON, A227S	142.55	315.06	0.452	141.47	141.34	0.6	0.8	3.963	A
	Exit	1	1		273.42			273.42	278.07	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	131.61	260.34	0.506	131.73	128.93	1.0	0.7	5.378	A
			2	A227N, SA, A2ON, A227S	160.66	260.02	0.618	161.17	161.57	1.4	0.9	6.385	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	202.29	280.61	0.721	201.21	206.33	1.5	2.0	7.082	A
			2	A227N, A227S	136.58	281.09	0.486	137.12	138.55	0.8	0.9	5.142	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	338.85			338.90	345.43	0.1	0.3	0.523	A
	Exit	1	1		362.17			362.17	371.52	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	0.00	222.36	0.000	0.00	0.00	0.0	0.0	0.000	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		176.90			176.90	177.97	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	89.28	311.02	0.287	89.46	93.12	0.6	0.2	3.323	A
			2	A227N, SA, A2ON, A227S	114.67	313.09	0.366	114.83	114.00	0.8	0.3	3.692	A
	Exit	1	1		278.53			278.53	281.53	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	117.57	276.05	0.426	118.03	120.09	0.7	0.6	4.581	A
			2	A227N, SA, A2ON, A227S	156.15	278.56	0.561	156.98	158.93	0.9	0.8	5.412	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2028 Do Minimum, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	8.29	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 period length (min)	Time segment length (min)	Run automatically
D12	2028 Do Minimum	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	153.00	238.00	0.00
	SA	7.00	0.00	11.00	13.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	202.00	12.00	47.00	0.00	0.00
	A2OFF	193.00	19.00	0.00	90.00	0.00

17:00 - 17:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	151.00	216.00	0.00
	SA	7.00	0.00	12.00	11.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	219.00	12.00	43.00	0.00	0.00
	A2OFF	226.00	18.00	0.00	103.00	0.00

17:15 - 17:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	133.00	234.00	0.00
	SA	7.00	0.00	12.00	11.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	239.00	12.00	56.00	0.00	0.00
	A2OFF	218.00	18.00	1.00	87.00	0.00

17:30 - 17:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	138.00	215.00	0.00
	SA	7.00	0.00	11.00	11.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	201.00	11.00	44.00	0.00	0.00
	A2OFF	217.00	17.00	1.00	83.00	0.00

17:45 - 18:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	137.00	199.00	0.00
	SA	7.00	0.00	11.00	10.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	214.00	11.00	44.00	1.00	0.00
	A2OFF	208.00	17.00	2.00	72.00	0.00

18:00 - 18:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	139.00	202.00	0.00
	SA	6.00	0.00	10.00	9.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	164.00	10.00	36.00	0.00	0.00
	A2OFF	192.00	15.00	0.00	76.00	0.00

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	2	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	1	4	0	0
	A2OFF	2	1	0	0	0

17:00 - 17:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	0	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	1	0	0	0
	A2OFF	2	1	0	0	0

17:15 - 17:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	1	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	1	2	0	0
	A2OFF	1	1	0	0	0

17:30 - 17:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	1	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	1	2	0	0
	A2OFF	1	1	0	0	0

17:45 - 18:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	3	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	1	0	0	0
	A2OFF	1	1	50	0	0

18:00 - 18:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	1	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	1	0	0	0
	A2OFF	2	1	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	10.76	4.4	B	359.12	2154.70
SA	6.23	0.3	A	28.94	173.63
A2ON					
A227S	4.43	1.7	A	263.58	1581.48
A2OFF	8.88	3.2	A	312.13	1872.78

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	385.03	385.03	171.23	387.47	392.95	393.61	0.0	4.3	10.759	B
SA	32.02	32.02	528.09	31.78	31.39	30.61	0.0	0.3	6.231	A
A2ON			0.00			211.13				
A227S	261.61	261.61	6.98	260.02	265.77	341.77	0.0	1.3	4.030	A
A2OFF	297.56	297.56	267.00	297.84	301.52	0.00	0.0	2.3	6.639	A

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	366.70	366.70	176.67	371.02	370.94	459.94	4.3	3.6	10.733	B
SA	30.89	30.89	518.39	31.22	30.56	29.30	0.3	0.2	6.087	A
A2ON			0.00			209.58				
A227S	276.84	276.84	7.69	277.78	277.56	332.34	1.3	0.9	3.958	A
A2OFF	351.29	351.29	285.47	351.14	353.89	0.00	2.3	3.2	8.884	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	362.06	362.06	171.94	361.78	372.03	460.08	3.6	3.8	9.678	A
SA	29.39	29.39	502.31	29.20	29.25	31.36	0.2	0.3	6.087	A
A2ON			0.00			200.44				
A227S	308.63	308.63	6.98	308.39	310.19	324.09	0.9	1.7	4.432	A
A2OFF	316.17	316.17	315.38	316.59	323.17	0.00	3.2	3.0	8.186	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	360.33	360.33	159.00	357.38	355.67	429.47	3.8	3.3	8.026	A
SA	27.28	27.28	488.20	27.42	28.48	28.17	0.3	0.1	5.303	A
A2ON			0.00			188.06				
A227S	261.61	261.61	6.80	261.14	262.80	320.77	1.7	1.2	3.981	A
A2OFF	319.12	319.12	267.94	320.53	321.42	0.00	3.0	2.0	7.198	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	337.67	337.67	148.88	337.41	345.09	427.03	3.3	2.5	8.282	A
SA	27.75	27.75	456.37	28.08	27.09	29.91	0.1	0.1	4.687	A
A2ON			0.00			194.20				
A227S	268.45	268.45	6.38	268.73	272.86	283.87	1.2	1.0	3.985	A
A2OFF	301.88	301.88	275.11	300.80	302.14	0.00	2.0	2.4	6.785	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	343.08	343.08	137.11	342.28	341.13	360.23	2.5	3.3	7.370	A
SA	26.25	26.25	454.83	26.25	26.56	24.56	0.1	0.1	4.595	A
A2ON			0.00			182.25				
A227S	204.33	204.33	6.80	203.95	210.25	291.99	1.0	0.9	3.570	A
A2OFF	286.97	286.97	210.75	286.59	290.20	0.00	2.4	1.6	5.541	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	221.49	263.62	0.841	222.00	223.84	0.0	2.4	9.645	A
			2	A227N, A227S	165.14	261.94	0.630	165.47	169.11	0.0	1.2	6.915	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	385.03			386.63	396.61	0.0	0.8	2.279	A
	Exit	1	1		393.61			393.61	405.67	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	32.02	178.14	0.180	31.78	31.39	0.0	0.3	6.231	A
	Exit	1	1		30.61			30.61	30.59	0.0	0.0	0.000	A
A2ON	Exit	1	1		211.13			211.13	211.59	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	115.17	306.86	0.375	114.70	116.97	0.0	0.5	3.802	A
			2	A227N, SA, A2ON, A227S	146.47	306.91	0.477	145.31	148.80	0.0	0.8	4.210	A
	Exit	1	1		341.77			341.77	343.77	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	120.70	252.02	0.478	120.80	125.28	0.0	0.8	5.608	A
			2	A227N, SA, A2ON, A227S	176.86	254.32	0.695	177.05	176.23	0.0	1.5	7.362	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	213.33	264.17	0.807	214.55	216.06	2.4	2.0	9.507	A
			2	A227N, A227S	156.14	265.67	0.588	156.47	154.88	1.2	0.9	6.472	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	366.70			369.42	370.30	0.8	0.7	2.488	A
	Exit	1	1		459.94			459.94	462.41	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	30.89	187.40	0.165	31.22	30.56	0.3	0.2	6.087	A
	Exit	1	1		29.30			29.30	30.22	0.0	0.0	0.000	A
A2ON	Exit	1	1		209.58			209.58	210.41	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	123.70	312.52	0.396	124.22	123.95	0.5	0.4	3.708	A
			2	A227N, SA, A2ON, A227S	153.14	312.23	0.491	153.56	153.61	0.8	0.5	4.161	A
	Exit	1	1		332.34			332.34	329.92	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	153.09	247.78	0.618	153.00	155.91	0.8	1.2	7.615	A
			2	A227N, SA, A2ON, A227S	198.14	249.89	0.793	198.14	197.98	1.5	2.0	9.873	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	203.39	262.06	0.776	202.78	209.80	2.0	2.1	9.159	A
			2	A227N, A227S	158.48	264.16	0.601	159.00	162.23	0.9	0.9	6.658	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	362.06			361.87	372.19	0.7	0.7	1.619	A
	Exit	1	1		460.08			460.08	463.08	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	29.39	193.29	0.152	29.20	29.25	0.2	0.3	6.087	A
	Exit	1	1		31.36			31.36	30.14	0.0	0.0	0.000	A
A2ON	Exit	1	1		200.44			200.44	206.06	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	139.22	308.52	0.451	138.91	139.27	0.4	0.7	4.023	A
			2	A227N, SA, A2ON, A227S	169.45	308.32	0.549	169.55	170.92	0.5	1.0	4.765	A
	Exit	1	1		324.09			324.09	335.36	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	141.33	236.39	0.598	140.63	142.13	1.2	1.2	7.187	A
			2	A227N, SA, A2ON, A227S	174.84	238.35	0.733	175.97	181.05	2.0	1.8	8.967	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	206.58	269.66	0.766	205.73	206.11	2.1	1.8	8.071	A
			2	A227N, A227S	151.50	268.00	0.565	151.64	149.56	0.9	0.7	5.747	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	360.33			358.08	355.02	0.7	0.8	0.941	A
	Exit	1	1		429.47			429.47	431.98	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	27.28	203.91	0.134	27.42	28.48	0.3	0.1	5.303	A
	Exit	1	1		28.17			28.17	28.86	0.0	0.0	0.000	A
A2ON	Exit	1	1		188.06			188.06	194.55	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	114.80	307.45	0.373	114.70	116.28	0.7	0.5	3.645	A
			2	A227N, SA, A2ON, A227S	146.81	306.24	0.479	146.34	146.52	1.0	0.7	4.248	A
	Exit	1	1		320.77			320.77	312.98	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	138.70	254.33	0.545	139.17	141.78	1.2	0.8	6.237	A
			2	A227N, SA, A2ON, A227S	180.42	255.26	0.707	181.36	179.64	1.8	1.2	7.953	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	200.62	269.16	0.745	200.49	202.64	1.8	1.6	8.248	A
			2	A227N, A227S	137.25	266.22	0.516	136.92	142.45	0.7	0.7	5.638	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	337.67			337.87	345.00	0.8	0.1	1.101	A
	Exit	1	1		427.03			427.03	430.94	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	27.75	217.07	0.128	28.08	27.09	0.1	0.1	4.687	A
	Exit	1	1		29.91			29.91	29.27	0.0	0.0	0.000	A
A2ON	Exit	1	1		194.20			194.20	197.83	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	120.28	312.95	0.384	120.47	120.48	0.5	0.4	3.745	A
			2	A227N, SA, A2ON, A227S	148.17	312.26	0.475	148.27	152.38	0.7	0.6	4.174	A
	Exit	1	1		283.87			283.87	289.16	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	132.80	253.13	0.525	132.75	133.78	0.8	0.7	5.900	A
			2	A227N, SA, A2ON, A227S	169.05	253.32	0.667	168.05	168.36	1.2	1.6	7.486	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	201.70	274.74	0.734	200.86	201.98	1.6	1.9	7.398	A
			2	A227N, A227S	141.42	275.37	0.514	141.42	139.14	0.7	1.0	5.363	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	343.08			343.12	341.61	0.1	0.4	0.806	A
	Exit	1	1		360.23			360.23	370.33	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	26.25	220.46	0.119	26.25	26.56	0.1	0.1	4.595	A
	Exit	1	1		24.56			24.56	25.14	0.0	0.0	0.000	A
A2ON	Exit	1	1		182.25			182.25	182.38	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	87.05	310.14	0.281	86.95	90.34	0.4	0.4	3.428	A
			2	A227N, SA, A2ON, A227S	117.28	309.96	0.379	117.00	119.91	0.6	0.5	3.678	A
	Exit	1	1		291.99			291.99	290.30	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	120.98	274.73	0.441	120.75	122.56	0.7	0.7	4.749	A
			2	A227N, SA, A2ON, A227S	165.98	275.26	0.602	165.84	167.64	1.6	0.9	6.119	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

2028 Do Minimum Residual, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 EB Slips / Site Access RB	Standard Roundabout		A227N, SA, A2ON, A227S, A2OFF	8.65	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 period length (min)	Time segment length (min)	Run automatically
D14	2028 Do Minimum Residual	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
SA		DIRECT	✓	100.000
A2ON				
A227S		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	153.00	237.00	0.00
	SA	7.00	0.00	13.00	10.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	202.00	11.00	47.00	0.00	0.00
	A2OFF	193.00	18.00	0.00	90.00	0.00

17:00 - 17:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	151.00	216.00	0.00
	SA	7.00	0.00	11.00	10.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	219.00	11.00	43.00	0.00	0.00
	A2OFF	226.00	16.00	0.00	103.00	0.00

17:15 - 17:30

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	133.00	234.00	0.00
	SA	7.00	0.00	11.00	10.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	239.00	11.00	56.00	0.00	0.00
	A2OFF	218.00	16.00	1.00	87.00	0.00

17:30 - 17:45

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	138.00	215.00	0.00
	SA	7.00	0.00	10.00	9.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	201.00	10.00	44.00	0.00	0.00
	A2OFF	217.00	15.00	1.00	83.00	0.00

17:45 - 18:00

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	137.00	199.00	0.00
	SA	7.00	0.00	10.00	9.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	214.00	10.00	44.00	1.00	0.00
	A2OFF	208.00	14.00	2.00	72.00	0.00

18:00 - 18:15

Demand (Veh/TS)

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0.00	0.00	139.00	202.00	0.00
	SA	6.00	0.00	9.00	9.00	0.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	164.00	9.00	36.00	0.00	0.00
	A2OFF	192.00	13.00	0.00	76.00	0.00

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	2	0
	SA	0	0	1	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	3	1	4	0	0
	A2OFF	2	1	0	0	0

17:00 - 17:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	0	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	1	0	0	0
	A2OFF	2	1	0	0	0

17:15 - 17:30

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	2	1	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	1	2	0	0
	A2OFF	1	1	0	0	0

17:30 - 17:45

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	0	1	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	2	1	2	0	0
	A2OFF	1	1	0	0	0

17:45 - 18:00

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	3	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	0	1	0	0	0
	A2OFF	1	1	50	0	0

18:00 - 18:15

Heavy Vehicle Percentages

		To				
		A227N	SA	A2ON	A227S	A2OFF
From	A227N	0	0	1	1	0
	SA	0	0	2	1	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	A227S	1	1	0	0	0
	A2OFF	2	1	0	0	0

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	11.92	5.6	B	357.02	2142.09
SA	5.91	0.3	A	26.87	161.21
A2ON					
A227S	4.34	1.6	A	263.12	1578.69
A2OFF	8.76	3.8	A	310.08	1860.47

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	386.87	386.87	165.73	387.68	391.67	398.42	0.0	5.6	11.923	B
SA	30.23	30.23	524.27	30.05	31.67	29.12	0.0	0.3	5.884	A
A2ON			0.00			213.55				
A227S	258.91	258.91	7.23	258.77	267.56	333.55	0.0	1.3	4.112	A
A2OFF	298.00	298.00	266.00	298.14	300.44	0.00	0.0	2.1	6.520	A

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	365.09	365.09	168.27	364.73	371.67	458.73	5.6	3.8	10.042	B
SA	28.95	28.95	508.41	29.41	29.61	24.59	0.3	0.1	5.913	A
A2ON			0.00			204.96				
A227S	276.27	276.27	7.50	275.68	273.41	325.36	1.3	1.5	3.979	A
A2OFF	345.77	345.77	283.18	343.82	349.15	0.00	2.1	3.9	8.762	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	369.57	369.57	170.36	368.64	368.05	467.64	3.8	4.0	9.151	A
SA	27.50	27.50	512.92	27.73	29.23	26.18	0.1	0.1	5.417	A
A2ON			0.00			204.27				
A227S	304.82	304.82	7.36	304.56	306.33	328.91	1.5	1.5	4.342	A
A2OFF	324.36	324.36	311.95	326.05	327.24	0.00	3.9	2.8	8.182	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	349.91	349.91	155.91	350.05	353.53	424.32	4.0	3.4	8.479	A
SA	23.95	23.95	481.49	24.00	25.62	24.47	0.1	0.1	5.115	A
A2ON			0.00			194.73				
A227S	256.18	256.18	6.50	256.45	262.52	304.23	1.5	1.2	3.964	A
A2OFF	316.46	316.46	262.96	317.27	318.64	0.00	2.8	2.3	7.049	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	327.77	327.77	146.05	327.45	338.15	429.64	3.4	3.0	7.132	A
SA	27.32	27.32	450.59	27.55	26.47	22.91	0.1	0.2	4.925	A
A2ON			0.00			189.73				
A227S	270.50	270.50	7.55	271.32	270.94	280.86	1.2	1.0	4.083	A
A2OFF	297.46	297.46	278.86	296.82	300.33	0.00	2.3	2.4	6.367	A

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	343.13	343.13	138.46	344.68	343.29	356.27	3.0	2.5	7.226	A
SA	23.36	23.36	459.18	23.36	24.65	23.95	0.2	0.1	4.836	A
A2ON			0.00			184.23				
A227S	211.55	211.55	6.00	211.00	210.52	292.27	1.0	1.1	3.618	A
A2OFF	278.68	278.68	217.00	277.77	290.17	0.00	2.4	2.0	5.666	A

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	223.68	265.37	0.842	223.23	224.45	0.0	2.6	9.681	A
			2	A227N, A227S	164.18	263.25	0.624	164.45	167.21	0.0	1.1	7.153	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	386.87			387.86	395.47	0.0	1.8	3.299	A
	Exit	1	1		398.42			398.42	408.65	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	30.23	179.81	0.168	30.05	31.67	0.0	0.3	5.884	A
	Exit	1	1		29.12			29.12	29.03	0.0	0.0	0.000	A
A2ON	Exit	1	1		213.55			213.55	215.20	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	114.09	305.01	0.374	113.95	117.14	0.0	0.6	3.751	A
			2	A227N, SA, A2ON, A227S	144.78	302.69	0.479	144.82	150.42	0.0	0.7	4.394	A
	Exit	1	1		333.55			333.55	338.45	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	123.64	251.59	0.491	123.73	125.08	0.0	0.8	5.542	A
			2	A227N, SA, A2ON, A227S	174.41	254.56	0.685	174.41	175.36	0.0	1.3	7.209	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	213.36	265.85	0.802	213.27	217.30	2.6	2.0	9.176	A
			2	A227N, A227S	151.55	268.15	0.565	151.45	154.36	1.1	1.0	6.355	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	365.09			364.91	370.89	1.8	0.8	2.051	A
	Exit	1	1		458.73			458.73	457.83	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	28.95	191.62	0.151	29.41	29.61	0.3	0.1	5.913	A
	Exit	1	1		24.59			24.59	27.17	0.0	0.0	0.000	A
A2ON	Exit	1	1		204.96			204.96	208.89	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	124.32	312.58	0.398	124.27	122.77	0.6	0.7	3.772	A
			2	A227N, SA, A2ON, A227S	151.95	312.11	0.487	151.41	150.64	0.7	0.8	4.148	A
	Exit	1	1		325.36			325.36	329.94	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	153.59	247.77	0.619	152.60	154.89	0.8	1.5	7.382	A
			2	A227N, SA, A2ON, A227S	192.18	250.69	0.766	191.23	194.26	1.3	2.4	9.848	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	209.18	262.63	0.796	208.86	208.58	2.0	2.1	8.835	A
			2	A227N, A227S	158.68	264.44	0.600	159.77	159.47	1.0	1.0	6.415	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	369.57			367.86	368.23	0.8	0.8	1.374	A
	Exit	1	1		467.64			467.64	466.73	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	27.50	186.72	0.147	27.73	29.23	0.1	0.1	5.417	A
	Exit	1	1		26.18			26.18	27.33	0.0	0.0	0.000	A
A2ON	Exit	1	1		204.27			204.27	204.70	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	137.18	308.93	0.444	136.77	137.38	0.7	0.7	3.944	A
			2	A227N, SA, A2ON, A227S	167.64	308.61	0.544	167.82	168.95	0.8	0.9	4.667	A
	Exit	1	1		328.91			328.91	332.09	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	145.32	237.76	0.611	146.36	144.30	1.5	1.1	7.285	A
			2	A227N, SA, A2ON, A227S	179.05	239.52	0.748	179.68	182.94	2.4	1.7	8.887	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	205.77	270.91	0.759	206.68	204.89	2.1	1.8	8.360	A
			2	A227N, A227S	143.59	269.13	0.534	143.36	148.64	1.0	1.1	5.725	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	349.91			349.37	353.27	0.8	0.5	1.225	A
	Exit	1	1		424.32			424.32	431.06	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	23.95	204.25	0.117	24.00	25.62	0.1	0.1	5.115	A
	Exit	1	1		24.47			24.47	24.83	0.0	0.0	0.000	A
A2ON	Exit	1	1		194.73			194.73	194.68	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	114.00	308.01	0.370	114.32	115.85	0.7	0.5	3.701	A
			2	A227N, SA, A2ON, A227S	142.14	307.50	0.463	142.14	146.67	0.9	0.7	4.172	A
	Exit	1	1		304.23			304.23	309.73	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	139.55	255.92	0.545	139.82	140.56	1.1	1.0	6.023	A
			2	A227N, SA, A2ON, A227S	176.91	257.36	0.687	177.45	178.08	1.7	1.4	7.856	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	193.86	269.73	0.719	193.41	200.95	1.8	1.8	7.389	A
			2	A227N, A227S	134.23	266.83	0.503	134.05	137.20	1.1	0.9	5.423	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	327.77			328.09	338.02	0.5	0.2	0.540	A
	Exit	1	1		429.64			429.64	433.92	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	27.32	220.10	0.124	27.55	26.47	0.1	0.2	4.925	A
	Exit	1	1		22.91			22.91	23.67	0.0	0.0	0.000	A
A2ON	Exit	1	1		189.73			189.73	193.68	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	121.82	312.57	0.390	122.36	122.24	0.5	0.4	3.810	A
			2	A227N, SA, A2ON, A227S	148.68	312.38	0.476	148.95	148.70	0.7	0.6	4.309	A
	Exit	1	1		280.86			280.86	284.62	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	127.32	251.89	0.505	126.73	130.33	1.0	1.0	5.692	A
			2	A227N, SA, A2ON, A227S	170.14	251.73	0.676	170.09	170.00	1.4	1.4	6.884	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	SA, A2ON, A227S	199.05	274.42	0.725	199.76	201.30	1.8	1.6	7.429	A
			2	A227N, A227S	144.91	274.82	0.527	144.91	141.98	0.9	0.8	5.230	A
		2	1	(A227N, SA, A2ON, A227S, A2OFF)	343.13			343.95	342.89	0.2	0.1	0.709	A
	Exit	1	1		356.27			356.27	370.03	0.0	0.0	0.000	A
SA	Entry	1	1	A227N, SA, A2ON, A227S	23.36	218.19	0.107	23.36	24.65	0.2	0.1	4.836	A
	Exit	1	1		23.95			23.95	22.98	0.0	0.0	0.000	A
A2ON	Exit	1	1		184.23			184.23	184.09	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N	90.05	310.24	0.290	89.45	90.95	0.4	0.5	3.392	A
			2	A227N, SA, A2ON, A227S	121.48	310.41	0.391	121.50	119.56	0.6	0.6	3.789	A
	Exit	1	1		292.27			292.27	291.52	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N	114.36	271.08	0.422	114.14	123.03	1.0	0.7	4.979	A
			2	A227N, SA, A2ON, A227S	164.32	273.27	0.601	163.59	167.14	1.4	1.3	6.166	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A

APPENDIX L - A227 WROTHAM ROAD / A2 WESTBOUND SLIP ROAD ROUNDABOUT – MITIGATION ARCADY REPORT

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: A227_A2 WB Slips RB AM Lane Sim Mit.j9
Path: M:\Projects\2022\22052 - BP Tollgate, Gravesend\07. Technical\07.02 Modelling\ARCADY\Direct Assessment
Report generation date: 06/03/2025 12:01:18

»2023, AM
»2025 Do Nothing, AM
»2025 Do Minimum, AM
»2025 Do Minimum Residual, AM
»2028 Do Nothing, AM
»2028 Do Minimum, AM
»2028 Do Minimum Residual, AM

Summary of junction performance

	AM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	[Lane Simulation] - 2023				
Arm A227N	D1	2.3	7.23		A
Arm A2OFF		2.5	13.48		B
Arm A227S		2.8	11.18		B
	[Lane Simulation] - 2025 Do Nothing				
Arm A227N	D3	2.6	7.85		A
Arm A2OFF		3.0	14.69		B
Arm A227S		2.9	12.32		B
	[Lane Simulation] - 2025 Do Minimum				
Arm A227N	D5	3.5	9.07		A
Arm A2OFF		4.2	16.91		C
Arm A227S		3.1	12.72		B
	[Lane Simulation] - 2025 Do Minimum Residual				
Arm A227N	D7	3.0	8.42		A
Arm A2OFF		3.5	16.06		C
Arm A227S		3.1	13.86		B
	[Lane Simulation] - 2028 Do Nothing				
Arm A227N	D9	3.7	9.49		A
Arm A2OFF		4.0	17.19		C
Arm A227S		3.7	15.17		C
	[Lane Simulation] - 2028 Do Minimum				
Arm A227N	D11	4.1	10.37		B
Arm A2OFF		4.9	23.00		C
Arm A227S		4.6	16.63		C
	[Lane Simulation] - 2028 Do Minimum Residual				
Arm A227N	D13	3.9	10.04		B
Arm A2OFF		4.9	21.68		C
Arm A227S		4.1	16.13		C

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.

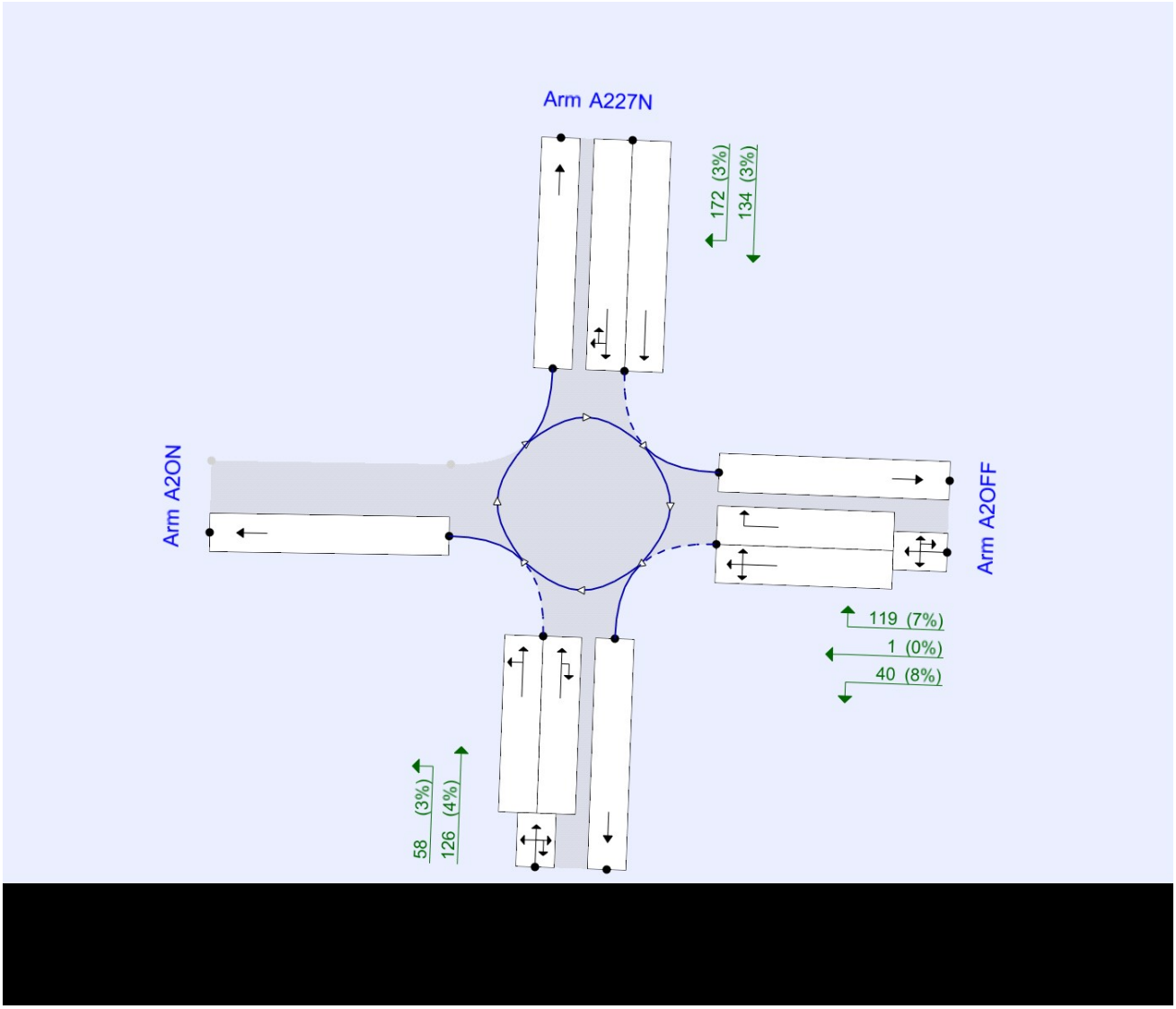
File summary

File Description

Title	
Location	
Site number	
Date	28/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MARKIDES\Markides Associates
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perTimeSegment	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

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

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	✓			2017165902	68	8.58

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2023	AM	DIRECT	07:45	09:15	90	15	✓
D3	2025 Do Nothing	AM	DIRECT	07:45	09:15	90	15	✓
D5	2025 Do Minimum	AM	DIRECT	07:45	09:15	90	15	✓
D7	2025 Do Minimum Residual	AM	DIRECT	07:45	09:15	90	15	✓
D9	2028 Do Nothing	AM	DIRECT	07:45	09:15	90	15	✓
D11	2028 Do Minimum	AM	DIRECT	07:45	09:15	90	15	✓
D13	2028 Do Minimum Residual	AM	DIRECT	07:45	09:15	90	15	✓

Analysis Set Details

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

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	10.06	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A227N	A227 Wrotham Road (N)	
A2OFF	A2 WB Off Slip	
A227S	A227 Wrotham Road (S)	
A2ON	A2 WB On Slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A227N	7.60	8.10	6.9	20.8	59.9	36.0	
A2OFF	5.00	8.50	10.2	19.1	59.9	60.0	
A227S	4.90	9.20	22.2	24.1	59.9	49.0	
A2ON							✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
A227N	0.671	594.960
A2OFF	0.548	451.371
A227S	0.622	539.294
A2ON		

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
A227N	Evenly split	10.00
A2OFF	Evenly split	10.00
A227S	Evenly split	10.00
A2ON	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/TS)	Maximum capacity (PCU/TS)	Signalised
A227N	Entry	1	1	A227S		Infinity		0.00	24999.75	
			2	A227N, A227S, A2ON		Infinity		0.00	24999.75	
	Exit	1	1			Infinity				
A2OFF	Entry	1	1	A227N, A227S, A2ON	✓	4.00		0.00	24999.75	
			2	A227N	✓	4.00		0.00	24999.75	
		2	1	(A227N, A2OFF, A227S, A2ON)		Infinity				
	Exit	1	1			Infinity				
A227S	Entry	1	1	A227N, A2ON	✓	4.00		0.00	24999.75	
			2	A227N, A227S	✓	4.00		0.00	24999.75	
		2	1	(A227N, A2OFF, A227S, A2ON)		Infinity				
	Exit	1	1			Infinity				
A2ON	Exit	1	1			Infinity				

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/TS)
A227N	Entry	1	1	0.335	297.480
			2	0.335	297.480
A2OFF	Entry	1	1	0.274	225.686
			2	0.274	225.686
A227S	Entry	1	1	0.311	269.647
			2	0.311	269.647

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm			
			A227N	A2OFF	A227S	A2ON
A227N	1	1			✓	
		2	✓		✓	✓
A2OFF	1	1	✓		✓	✓
		2	✓			
	2	1	✓	✓	✓	✓
A227S	1	1	✓			✓
		2	✓		✓	
	2	1	✓	✓	✓	✓

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2023	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	134.00	172.00
	A2OFF	119.00	0.00	40.00	1.00
	A227S	126.00	0.00	0.00	58.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:00 - 08:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	110.00	173.00
	A2OFF	127.00	0.00	42.00	2.00
	A227S	124.00	0.00	0.00	71.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:15 - 08:30

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	112.00	153.00
	A2OFF	136.00	0.00	45.00	0.00
	A227S	122.00	0.00	0.00	54.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:30 - 08:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	127.00	171.00
	A2OFF	111.00	0.00	41.00	1.00
	A227S	116.00	0.00	0.00	56.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:45 - 09:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	1.00	0.00	107.00	165.00
	A2OFF	113.00	0.00	50.00	1.00
	A227S	151.00	0.00	0.00	70.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

09:00 - 09:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	86.00	143.00
	A2OFF	114.00	0.00	54.00	0.00
	A227S	115.00	0.00	0.00	66.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	3
	A2OFF	7	0	8	0
	A227S	4	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	4	5
	A2OFF	2	0	5	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:15 - 08:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	3
	A2OFF	1	0	0	0
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	5
	A2OFF	2	0	0	0
	A227S	3	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	100	0	3	6
	A2OFF	2	0	4	0
	A227S	1	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	8
	A2OFF	3	0	4	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	7.23	2.3	A	273.78	1642.69
A2OFF	13.48	2.5	B	166.42	998.49
A227S	11.18	2.8	B	189.34	1136.05
A2ON					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	301.81	301.81	0.00	303.93	313.06	246.53	0.0	2.0	6.855	A
A2OFF	159.00	159.00	303.93	160.72	169.31	0.00	0.0	2.4	13.485	B
A227S	184.13	184.13	295.01	183.79	189.51	169.76	0.0	2.5	10.040	B
A2ON			0.00			232.15				

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	278.07	278.07	0.00	278.43	296.44	249.97	2.0	2.3	7.228	A
A2OFF	173.91	173.91	278.43	173.47	177.38	0.00	2.4	2.5	13.160	B
A227S	191.04	191.04	299.21	190.54	194.97	152.59	2.5	2.5	10.475	B
A2ON			0.00			239.78				

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	266.03	266.03	0.00	265.54	271.88	260.06	2.3	1.5	6.105	A
A2OFF	180.75	180.75	265.54	180.97	181.60	0.00	2.5	2.2	12.041	B
A227S	180.53	180.53	293.51	178.59	185.24	153.00	2.5	2.2	9.308	A
A2ON			0.00			212.07				

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	296.69	296.69	0.00	297.71	305.35	227.03	1.5	1.9	7.071	A
A2OFF	153.93	153.93	297.71	153.85	155.13	0.00	2.2	1.8	10.240	B
A227S	172.35	172.35	287.56	172.30	176.41	164.03	2.2	1.3	8.325	A
A2ON			0.00			232.82				

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	275.65	275.65	0.00	277.19	283.56	260.78	1.9	2.1	7.189	A
A2OFF	161.91	161.91	277.19	161.07	165.07	0.00	1.8	1.9	11.365	B
A227S	221.12	221.12	280.23	222.18	222.84	158.03	1.3	2.8	11.179	B
A2ON			0.00			241.63				

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	224.82	224.82	0.00	226.97	239.93	232.99	2.1	1.1	6.086	A
A2OFF	169.50	169.50	226.97	169.11	173.99	0.00	1.9	1.9	10.678	B
A227S	187.46	187.46	258.49	186.79	189.24	137.65	2.8	1.7	8.334	A
A2ON			0.00			212.29				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	97.50	289.64	0.337	97.76	102.03	0.0	0.5	4.366	A
			2	A227N, A227S, A2ON	204.31	288.73	0.709	206.18	211.03	0.0	1.5	8.056	A
	Exit	1	1		246.53			246.53	256.40	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	88.76	131.28	0.678	89.96	94.09	0.0	1.2	13.086	B
			2	A227N	70.15	130.99	0.537	70.76	75.22	0.0	0.9	11.337	B
		2	1	(A227N, A2OFF, A227S, A2ON)	159.00			158.91	171.66	0.0	0.2	1.155	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	104.65	167.87	0.623	104.52	108.01	0.0	1.4	9.985	A
			2	A227N, A227S	78.97	166.24	0.475	79.28	81.50	0.0	0.6	7.743	A
		2	1	(A227N, A2OFF, A227S, A2ON)	184.13			183.62	191.71	0.0	0.5	0.981	A
	Exit	1	1		169.76			169.76	178.69	0.0	0.0	0.000	A
A2ON	Exit	1	1		232.15			232.15	236.79	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	85.05	286.52	0.297	85.50	88.78	0.5	0.3	4.224	A
			2	A227N, A227S, A2ON	192.99	283.54	0.681	192.93	207.66	1.5	2.0	8.515	A
	Exit	1	1		249.97			249.97	253.49	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	95.69	141.37	0.676	95.29	97.87	1.2	1.3	13.050	B
			2	A227N	78.53	142.96	0.549	78.18	79.51	0.9	1.0	11.060	B
		2	1	(A227N, A2OFF, A227S, A2ON)	173.91			174.22	177.43	0.2	0.1	1.024	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	109.32	169.30	0.645	108.88	113.53	1.4	1.5	10.800	B
			2	A227N, A227S	82.06	171.98	0.477	81.66	81.44	0.6	0.8	7.878	A
		2	1	(A227N, A2OFF, A227S, A2ON)	191.04			191.39	195.13	0.5	0.2	0.930	A
	Exit	1	1		152.59			152.59	160.44	0.0	0.0	0.000	A
A2ON	Exit	1	1		239.78			239.78	254.87	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	80.16	291.83	0.275	79.72	81.71	0.3	0.4	3.947	A
			2	A227N, A227S, A2ON	185.87	288.63	0.644	185.90	190.18	2.0	1.2	7.048	A
	Exit	1	1		260.06			260.06	265.07	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	99.57	150.53	0.662	99.26	99.88	1.3	1.3	11.706	B
			2	A227N	81.84	149.16	0.548	81.75	81.72	1.0	0.8	10.331	B
		2	1	(A227N, A2OFF, A227S, A2ON)	180.75			181.41	181.34	0.1	0.1	0.954	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	103.94	169.28	0.613	103.01	106.69	1.5	1.3	9.523	A
			2	A227N, A227S	76.28	170.90	0.447	75.57	78.54	0.8	0.8	7.685	A
		2	1	(A227N, A2OFF, A227S, A2ON)	180.53			180.22	184.99	0.2	0.1	0.570	A
	Exit	1	1		153.00			153.00	156.94	0.0	0.0	0.000	A
A2ON	Exit	1	1		212.07			212.07	216.71	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	94.81	289.63	0.327	94.75	96.51	0.4	0.4	4.215	A
			2	A227N, A227S, A2ON	201.88	285.26	0.707	202.94	208.84	1.2	1.5	8.410	A
	Exit	1	1		227.03			227.03	233.10	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	86.91	139.64	0.622	87.09	87.65	1.3	1.0	10.775	B
			2	A227N	66.71	137.79	0.484	66.81	67.49	0.8	0.7	8.950	A
		2	1	(A227N, A2OFF, A227S, A2ON)	153.93			153.62	154.69	0.1	0.1	0.260	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	102.49	175.05	0.585	102.81	103.63	1.3	0.7	8.592	A
			2	A227N, A227S	69.62	171.23	0.406	69.57	72.78	0.8	0.5	7.359	A
		2	1	(A227N, A2OFF, A227S, A2ON)	172.35			172.08	175.56	0.1	0.1	0.241	A
	Exit	1	1		164.03			164.03	168.04	0.0	0.0	0.000	A
A2ON	Exit	1	1		232.82			232.82	235.75	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	81.97	290.01	0.283	82.19	81.28	0.4	0.3	4.177	A
			2	A227N, A227S, A2ON	193.68	280.44	0.691	195.01	202.28	1.5	1.8	8.438	A
	Exit	1	1		260.78			260.78	264.62	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	93.31	141.39	0.659	93.00	95.34	1.0	1.0	11.417	B
			2	A227N	68.43	142.56	0.480	68.07	69.74	0.7	0.8	9.585	A
		2	1	(A227N, A2OFF, A227S, A2ON)	161.91			161.73	165.28	0.1	0.1	0.723	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	124.02	172.78	0.716	124.63	126.90	0.7	1.5	10.643	B
			2	A227N, A227S	97.50	176.83	0.551	97.54	95.94	0.5	0.8	8.209	A
		2	1	(A227N, A2OFF, A227S, A2ON)	221.12			221.51	223.94	0.1	0.5	1.585	A
	Exit	1	1		158.03			158.03	158.85	0.0	0.0	0.000	A
A2ON	Exit	1	1		241.63			241.63	248.00	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	60.49	295.76	0.204	60.66	62.79	0.3	0.2	3.597	A
			2	A227N, A227S, A2ON	164.43	278.68	0.590	166.35	177.13	1.8	0.9	7.024	A
	Exit	1	1		232.99			232.99	236.40	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	96.92	155.21	0.626	96.57	100.24	1.0	1.2	10.803	B
			2	A227N	72.49	155.68	0.466	72.62	73.75	0.8	0.6	8.718	A
		2	1	(A227N, A2OFF, A227S, A2ON)	169.50			169.41	173.94	0.1	0.1	0.766	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	112.99	180.86	0.625	112.37	113.37	1.5	1.1	8.675	A
			2	A227N, A227S	74.23	183.00	0.406	74.43	75.87	0.8	0.5	6.686	A
		2	1	(A227N, A2OFF, A227S, A2ON)	187.46			187.23	188.53	0.5	0.1	0.481	A
	Exit	1	1		137.65			137.65	143.71	0.0	0.0	0.000	A
A2ON	Exit	1	1		212.29			212.29	223.04	0.0	0.0	0.000	A

2025 Do Nothing, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	10.96	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 period length (min)	Time segment length (min)	Run automatically
D3	2025 Do Nothing	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	136.00	178.00
	A2OFF	122.00	0.00	41.00	1.00
	A227S	127.00	0.00	0.00	58.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:00 - 08:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	111.00	179.00
	A2OFF	130.00	0.00	43.00	2.00
	A227S	125.00	0.00	0.00	72.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:15 - 08:30

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	113.00	159.00
	A2OFF	139.00	0.00	46.00	0.00
	A227S	123.00	0.00	0.00	54.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:30 - 08:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	129.00	177.00
	A2OFF	114.00	0.00	42.00	1.00
	A227S	117.00	0.00	0.00	56.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:45 - 09:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	1.00	0.00	108.00	171.00
	A2OFF	116.00	0.00	51.00	1.00
	A227S	152.00	0.00	0.00	71.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

09:00 - 09:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	87.00	148.00
	A2OFF	116.00	0.00	55.00	0.00
	A227S	116.00	0.00	0.00	67.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	7	0	7	0
	A227S	4	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:00 - 08:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	4	5
	A2OFF	2	0	5	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:15 - 08:30

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	3
	A2OFF	1	0	0	0
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	5
	A2OFF	2	0	0	0
	A227S	3	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	100	0	3	6
	A2OFF	2	0	4	0
	A227S	1	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	7
	A2OFF	3	0	4	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	7.85	2.6	A	283.82	1702.93
A2OFF	14.69	3.0	B	170.11	1020.66
A227S	12.32	2.9	B	190.68	1144.05
A2ON					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	316.25	316.25	0.00	317.47	318.98	251.64	0.0	2.1	6.877	A
A2OFF	165.56	165.56	317.47	166.46	173.30	0.00	0.0	2.9	14.693	B
A227S	185.32	185.32	304.28	185.05	188.96	179.64	0.0	2.1	9.382	A
A2ON			0.00			237.68				

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	293.41	293.41	0.00	293.62	304.46	255.47	2.1	2.2	7.846	A
A2OFF	176.61	176.61	293.62	176.02	179.99	0.00	2.9	2.5	13.355	B
A227S	197.49	197.49	316.34	196.04	199.67	153.30	2.1	2.7	11.145	B
A2ON			0.00			256.90				

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	269.61	269.61	0.00	269.64	280.65	262.04	2.2	1.7	6.321	A
A2OFF	182.64	182.64	269.64	181.60	185.62	0.00	2.5	2.7	12.938	B
A227S	177.39	177.39	294.89	178.63	188.45	156.36	2.7	1.5	9.673	A
A2ON			0.00			211.48				

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	305.78	305.78	0.00	307.07	316.87	229.13	1.7	2.5	7.574	A
A2OFF	152.29	152.29	307.07	152.70	158.80	0.00	2.7	1.9	11.437	B
A227S	173.70	173.70	290.29	173.35	175.35	169.60	1.5	1.7	8.384	A
A2ON			0.00			234.51				

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	281.35	281.35	0.00	280.37	294.50	269.35	2.5	2.5	7.354	A
A2OFF	167.75	167.75	280.37	167.29	171.08	0.00	1.9	2.1	13.325	B
A227S	227.67	227.67	284.14	228.06	228.49	163.49	1.7	3.0	12.318	B
A2ON			0.00			242.81				

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	236.26	236.26	0.00	235.81	245.74	235.40	2.5	1.8	5.858	A
A2OFF	176.05	176.05	235.81	175.60	179.12	0.00	2.1	2.3	11.573	B
A227S	182.92	182.92	265.63	183.28	187.55	145.78	3.0	1.3	8.671	A
A2ON			0.00			213.37				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	105.18	292.79	0.359	105.62	105.35	0.0	0.4	4.319	A
			2	A227N, A227S, A2ON	211.07	291.95	0.723	211.84	213.63	0.0	1.7	8.136	A
	Exit	1	1		251.64			251.64	258.42	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	91.54	128.52	0.711	92.02	96.02	0.0	1.3	13.392	B
			2	A227N	74.44	128.34	0.579	74.44	77.28	0.0	1.0	11.384	B
		2	1	(A227N, A2OFF, A227S, A2ON)	165.56			165.98	175.83	0.0	0.5	2.157	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	106.22	165.17	0.644	106.40	108.81	0.0	1.2	9.574	A
			2	A227N, A227S	78.88	164.90	0.478	78.65	80.15	0.0	0.8	7.653	A
		2	1	(A227N, A2OFF, A227S, A2ON)	185.32			185.08	191.00	0.0	0.1	0.616	A
	Exit	1	1		179.64			179.64	182.11	0.0	0.0	0.000	A
A2ON	Exit	1	1		237.68			237.68	240.71	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	86.63	286.85	0.302	86.55	89.55	0.4	0.3	4.106	A
			2	A227N, A227S, A2ON	206.82	282.98	0.731	207.06	214.90	1.7	1.9	9.426	A
	Exit	1	1		255.47			255.47	259.33	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	97.22	137.19	0.709	97.21	99.19	1.3	1.2	12.961	B
			2	A227N	78.95	138.92	0.568	78.77	80.80	1.0	1.0	10.984	B
		2	1	(A227N, A2OFF, A227S, A2ON)	176.61			176.17	179.81	0.5	0.2	1.307	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	115.87	163.68	0.709	115.28	117.37	1.2	1.6	10.946	B
			2	A227N, A227S	81.36	166.26	0.489	80.76	82.31	0.8	0.9	8.525	A
		2	1	(A227N, A2OFF, A227S, A2ON)	197.49			197.26	200.13	0.1	0.3	1.193	A
	Exit	1	1		153.30			153.30	159.93	0.0	0.0	0.000	A
A2ON	Exit	1	1		256.90			256.90	264.86	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	81.89	290.94	0.281	81.95	85.75	0.3	0.2	4.019	A
			2	A227N, A227S, A2ON	187.72	288.44	0.650	187.66	194.90	1.9	1.4	7.343	A
	Exit	1	1		262.04			262.04	271.29	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	100.75	149.03	0.676	100.18	101.98	1.2	1.5	12.432	B
			2	A227N	81.74	148.46	0.551	81.42	83.64	1.0	1.1	10.890	B
		2	1	(A227N, A2OFF, A227S, A2ON)	182.64			182.50	185.83	0.2	0.2	1.207	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	103.43	168.66	0.612	104.44	108.51	1.6	0.9	9.659	A
			2	A227N, A227S	74.14	168.44	0.440	74.20	79.93	0.9	0.6	8.007	A
		2	1	(A227N, A2OFF, A227S, A2ON)	177.39			177.61	187.56	0.3	0.0	0.731	A
	Exit	1	1		156.36			156.36	162.13	0.0	0.0	0.000	A
A2ON	Exit	1	1		211.48			211.48	221.31	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	100.01	288.51	0.347	100.34	102.38	0.2	0.5	4.376	A
			2	A227N, A227S, A2ON	205.84	283.59	0.726	206.85	214.50	1.4	1.9	9.125	A
	Exit	1	1		229.13			229.13	235.53	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	86.05	136.22	0.631	86.27	89.90	1.5	1.1	11.607	B
			2	A227N	66.33	135.24	0.490	66.45	68.90	1.1	0.8	10.096	B
		2	1	(A227N, A2OFF, A227S, A2ON)	152.29			152.38	158.16	0.2	0.0	0.489	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	100.57	173.26	0.580	100.16	101.66	0.9	1.1	8.775	A
			2	A227N, A227S	73.25	170.72	0.428	73.19	73.68	0.6	0.6	7.108	A
		2	1	(A227N, A2OFF, A227S, A2ON)	173.70			173.85	175.45	0.0	0.0	0.301	A
	Exit	1	1		169.60			169.60	173.85	0.0	0.0	0.000	A
A2ON	Exit	1	1		234.51			234.51	241.63	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	84.77	288.88	0.294	84.77	87.47	0.5	0.4	4.058	A
			2	A227N, A227S, A2ON	196.51	280.71	0.701	195.59	207.03	1.9	2.1	8.782	A
	Exit	1	1		269.35			269.35	273.07	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	93.18	140.79	0.662	93.18	96.37	1.1	1.2	13.201	B
			2	A227N	74.58	142.22	0.524	74.11	74.71	0.8	0.8	10.375	B
		2	1	(A227N, A2OFF, A227S, A2ON)	167.75			167.72	171.24	0.0	0.1	1.362	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	129.24	172.81	0.748	129.65	129.19	1.1	1.5	11.559	B
			2	A227N, A227S	98.08	175.57	0.558	98.39	99.30	0.6	0.9	9.006	A
		2	1	(A227N, A2OFF, A227S, A2ON)	227.67			227.32	229.28	0.0	0.5	1.864	A
	Exit	1	1		163.49			163.49	166.41	0.0	0.0	0.000	A
A2ON	Exit	1	1		242.81			242.81	254.58	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	67.01	295.90	0.227	66.86	65.37	0.4	0.2	3.615	A
			2	A227N, A227S, A2ON	169.25	281.59	0.602	168.95	180.38	2.1	1.5	6.715	A
	Exit	1	1		235.40			235.40	239.49	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	100.54	152.58	0.659	100.28	102.45	1.2	1.3	11.743	B
			2	A227N	75.51	153.87	0.491	75.33	76.67	0.8	0.9	9.112	A
		2	1	(A227N, A2OFF, A227S, A2ON)	176.05			176.05	179.34	0.1	0.1	0.971	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	107.85	178.97	0.602	107.88	111.76	1.5	0.9	9.039	A
			2	A227N, A227S	75.05	181.31	0.414	75.36	75.79	0.9	0.4	7.008	A
		2	1	(A227N, A2OFF, A227S, A2ON)	182.92			182.92	186.35	0.5	0.0	0.484	A
	Exit	1	1		145.78			145.78	146.13	0.0	0.0	0.000	A
A2ON	Exit	1	1		213.37			213.37	226.80	0.0	0.0	0.000	A

2025 Do Minimum, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	12.23	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 period length (min)	Time segment length (min)	Run automatically
D5	2025 Do Minimum	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

07:45 - 08:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	136.00	190.00
	A2OFF	133.00	0.00	41.00	1.00
	A227S	129.00	0.00	0.00	57.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	111.00	191.00
	A2OFF	141.00	0.00	43.00	2.00
	A227S	127.00	0.00	0.00	70.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:15 - 08:30

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	113.00	170.00
	A2OFF	150.00	0.00	46.00	0.00
	A227S	125.00	0.00	0.00	53.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:30 - 08:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	129.00	188.00
	A2OFF	124.00	0.00	42.00	1.00
	A227S	119.00	0.00	0.00	55.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:45 - 09:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	1.00	0.00	108.00	182.00
	A2OFF	126.00	0.00	51.00	1.00
	A227S	154.00	0.00	0.00	69.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

09:00 - 09:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	87.00	158.00
	A2OFF	126.00	0.00	55.00	0.00
	A227S	117.00	0.00	0.00	65.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	6	0	7	0
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:00 - 08:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	4	5
	A2OFF	2	0	5	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:15 - 08:30

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	3
	A2OFF	1	0	0	0
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	5
	A2OFF	2	0	0	0
	A227S	3	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	100	0	3	6
	A2OFF	2	0	4	0
	A227S	1	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	7
	A2OFF	3	0	4	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	9.07	3.5	A	295.06	1770.37
A2OFF	16.91	4.2	C	181.08	1086.46
A227S	12.72	3.1	B	190.48	1142.89
A2ON					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	326.66	326.66	0.00	326.59	331.27	266.78	0.0	2.9	7.857	A
A2OFF	177.06	177.06	326.59	176.66	182.09	0.00	0.0	4.0	16.907	C
A227S	189.56	189.56	326.37	189.89	192.36	176.87	0.0	2.4	11.224	B
A2ON			0.00			249.56				

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	301.66	301.66	0.00	301.59	314.51	268.09	2.9	3.4	9.070	A
A2OFF	183.72	183.72	301.59	184.53	190.53	0.00	4.0	3.1	15.766	C
A227S	198.47	198.47	331.25	198.66	201.20	154.78	2.4	2.9	12.545	B
A2ON			0.00			261.91				

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	283.47	283.47	0.00	283.00	294.19	280.59	3.4	2.3	6.862	A
A2OFF	199.28	199.28	283.00	198.28	198.47	0.00	3.1	3.0	14.092	B
A227S	180.53	180.53	321.47	180.31	187.24	159.81	2.9	2.3	10.336	B
A2ON			0.00			221.19				

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	316.34	316.34	0.00	316.28	328.38	242.37	2.3	2.5	7.928	A
A2OFF	168.00	168.00	316.28	167.62	167.07	0.00	3.0	2.9	13.216	B
A227S	169.88	169.88	310.59	169.55	175.97	173.31	2.3	1.6	8.987	A
A2ON			0.00			237.75				

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	293.63	293.63	0.00	292.47	304.89	283.94	2.5	2.8	7.798	A
A2OFF	178.50	178.50	292.47	179.13	182.77	0.00	2.9	2.8	14.641	B
A227S	223.84	223.84	311.06	225.06	226.24	160.53	1.6	3.1	12.716	B
A2ON			0.00			252.19				

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	248.75	248.75	0.00	247.34	259.72	245.19	2.8	2.2	6.844	A
A2OFF	180.06	180.06	247.34	181.57	187.10	0.00	2.8	2.0	12.230	B
A227S	180.63	180.63	285.81	181.78	188.03	143.12	3.1	1.8	10.108	B
A2ON			0.00			222.41				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	108.37	292.04	0.371	107.83	108.82	0.0	0.7	4.447	A
			2	A227N, A227S, A2ON	218.31	291.20	0.750	218.72	222.45	0.0	2.2	9.523	A
	Exit	1	1		266.78			266.78	272.41	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	96.03	126.22	0.762	95.84	99.23	0.0	1.9	15.002	C
			2	A227N	80.78	127.57	0.634	80.81	82.86	0.0	1.2	12.975	B
		2	1	(A227N, A2OFF, A227S, A2ON)	177.06			176.81	185.44	0.0	0.9	2.796	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	107.09	158.55	0.675	106.79	109.43	0.0	1.3	10.747	B
			2	A227N, A227S	82.91	159.14	0.521	83.19	82.94	0.0	0.8	8.812	A
		2	1	(A227N, A2OFF, A227S, A2ON)	189.56			190.00	194.68	0.0	0.1	1.305	A
	Exit	1	1		176.87			176.87	181.29	0.0	0.0	0.000	A
A2ON	Exit	1	1		249.56			249.56	252.03	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	91.41	286.71	0.319	91.47	92.86	0.7	0.6	4.326	A
			2	A227N, A227S, A2ON	210.25	283.18	0.743	210.13	221.65	2.2	2.8	11.070	B
	Exit	1	1		268.09			268.09	274.13	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	100.34	135.68	0.739	100.78	103.40	1.9	1.6	14.472	B
			2	A227N	83.53	136.13	0.613	83.75	87.14	1.2	1.2	12.871	B
		2	1	(A227N, A2OFF, A227S, A2ON)	183.72			183.88	190.03	0.9	0.4	2.059	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	115.16	159.30	0.723	115.25	117.08	1.3	1.6	12.080	B
			2	A227N, A227S	83.84	161.34	0.519	83.41	84.11	0.8	0.9	9.396	A
		2	1	(A227N, A2OFF, A227S, A2ON)	198.47			199.00	201.46	0.1	0.4	1.594	A
	Exit	1	1		154.78			154.78	158.91	0.0	0.0	0.000	A
A2ON	Exit	1	1		261.91			261.91	273.21	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	86.17	291.76	0.295	86.16	88.91	0.6	0.4	4.007	A
			2	A227N, A227S, A2ON	197.28	289.48	0.681	196.84	205.28	2.8	1.9	8.113	A
	Exit	1	1		280.59			280.59	284.57	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	107.41	145.41	0.739	106.91	107.07	1.6	1.6	13.347	B
			2	A227N	92.25	144.42	0.639	91.38	91.40	1.2	1.2	11.700	B
		2	1	(A227N, A2OFF, A227S, A2ON)	199.28			199.66	198.39	0.4	0.3	1.493	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	102.66	162.42	0.633	102.81	105.59	1.6	1.2	10.406	B
			2	A227N, A227S	78.03	160.47	0.486	77.50	81.65	0.9	0.9	8.253	A
		2	1	(A227N, A2OFF, A227S, A2ON)	180.53			180.69	186.95	0.4	0.2	0.873	A
	Exit	1	1		159.81			159.81	162.21	0.0	0.0	0.000	A
A2ON	Exit	1	1		221.19			221.19	233.11	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	102.72	289.42	0.355	102.85	104.26	0.4	0.4	4.272	A
			2	A227N, A227S, A2ON	213.62	285.12	0.750	213.34	224.11	1.9	2.1	9.654	A
	Exit	1	1		242.37			242.37	247.90	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	92.19	134.53	0.685	91.96	91.22	1.6	1.5	13.363	B
			2	A227N	75.66	132.63	0.570	75.63	75.85	1.2	1.0	11.036	B
		2	1	(A227N, A2OFF, A227S, A2ON)	168.00			167.87	166.93	0.3	0.3	0.894	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	97.44	167.35	0.583	96.88	100.95	1.2	1.1	9.487	A
			2	A227N, A227S	72.56	164.49	0.441	72.66	75.02	0.9	0.5	7.599	A
		2	1	(A227N, A2OFF, A227S, A2ON)	169.88			170.00	175.38	0.2	0.0	0.303	A
	Exit	1	1		173.31			173.31	173.41	0.0	0.0	0.000	A
A2ON	Exit	1	1		237.75			237.75	250.11	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	86.56	287.45	0.301	86.48	88.16	0.4	0.4	4.280	A
			2	A227N, A227S, A2ON	207.06	279.58	0.740	205.97	216.73	2.1	2.4	9.269	A
	Exit	1	1		283.94			283.94	285.43	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	99.56	136.97	0.727	99.94	102.29	1.5	1.5	13.773	B
			2	A227N	79.73	137.86	0.577	79.19	80.48	1.0	1.0	11.280	B
		2	1	(A227N, A2OFF, A227S, A2ON)	178.50			179.26	182.83	0.3	0.3	1.984	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	123.97	163.88	0.757	124.25	126.54	1.1	1.6	12.064	B
			2	A227N, A227S	100.97	166.42	0.606	100.81	99.70	0.5	1.1	9.683	A
		2	1	(A227N, A2OFF, A227S, A2ON)	223.84			224.94	227.42	0.0	0.3	1.700	A
	Exit	1	1		160.53			160.53	165.56	0.0	0.0	0.000	A
A2ON	Exit	1	1		252.19			252.19	262.91	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	67.16	294.59	0.228	66.88	67.27	0.4	0.3	3.700	A
			2	A227N, A227S, A2ON	181.59	280.33	0.647	180.47	192.45	2.4	1.9	8.004	A
	Exit	1	1		245.19			245.19	251.63	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	101.34	148.33	0.683	102.31	105.14	1.5	1.1	11.947	B
			2	A227N	79.53	150.58	0.528	79.25	81.97	1.0	0.9	10.002	B
		2	1	(A227N, A2OFF, A227S, A2ON)	180.06			180.87	186.48	0.3	0.1	1.144	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	104.97	172.79	0.607	105.78	110.28	1.6	1.1	10.239	B
			2	A227N, A227S	75.59	174.26	0.434	76.00	77.75	1.1	0.5	7.960	A
		2	1	(A227N, A2OFF, A227S, A2ON)	180.63			180.60	186.78	0.3	0.2	0.836	A
	Exit	1	1		143.12			143.12	144.13	0.0	0.0	0.000	A
A2ON	Exit	1	1		222.41			222.41	239.10	0.0	0.0	0.000	A

2025 Do Minimum Residual, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	12.05	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 period length (min)	Time segment length (min)	Run automatically
D7	2025 Do Minimum Residual	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	136.00	188.00
	A2OFF	132.00	0.00	41.00	1.00
	A227S	129.00	0.00	0.00	57.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:00 - 08:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	111.00	189.00
	A2OFF	140.00	0.00	43.00	2.00
	A227S	127.00	0.00	0.00	70.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:15 - 08:30

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	113.00	169.00
	A2OFF	149.00	0.00	46.00	1.00
	A227S	125.00	0.00	0.00	53.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:30 - 08:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	129.00	187.00
	A2OFF	124.00	0.00	42.00	1.00
	A227S	119.00	0.00	0.00	55.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:45 - 09:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	1.00	0.00	108.00	181.00
	A2OFF	126.00	0.00	51.00	1.00
	A227S	154.00	0.00	0.00	69.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

09:00 - 09:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	87.00	157.00
	A2OFF	125.00	0.00	55.00	0.00
	A227S	117.00	0.00	0.00	65.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	6	0	7	0
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:00 - 08:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	4	5
	A2OFF	2	0	5	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:15 - 08:30

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	3
	A2OFF	1	0	0	0
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	5
	A2OFF	2	0	0	0
	A227S	3	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	100	0	3	6
	A2OFF	2	0	4	0
	A227S	1	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	7
	A2OFF	3	0	4	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	8.42	3.0	A	292.20	1753.20
A2OFF	16.06	3.5	C	181.93	1091.56
A227S	13.86	3.1	B	187.82	1126.93
A2ON					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	324.53	324.53	0.00	326.24	330.46	259.77	0.0	2.6	7.530	A
A2OFF	176.29	176.29	326.24	177.87	183.23	0.00	0.0	3.2	16.058	C
A227S	182.32	182.32	325.71	181.08	189.75	178.40	0.0	2.7	10.761	B
A2ON			0.00			247.08				

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	300.82	300.82	0.00	300.21	312.28	264.55	2.6	3.0	8.419	A
A2OFF	186.87	186.87	300.21	186.68	191.86	0.00	3.2	3.5	15.799	C
A227S	191.39	191.39	331.40	191.64	198.93	155.50	2.7	2.6	11.651	B
A2ON			0.00			258.53				

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	283.63	283.63	0.00	285.34	290.90	275.55	3.0	2.1	6.962	A
A2OFF	195.29	195.29	285.34	196.50	197.34	0.00	3.5	2.9	15.007	C
A227S	177.58	177.58	322.24	178.18	187.18	159.58	2.6	1.6	10.090	B
A2ON			0.00			224.87				

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	312.08	312.08	0.00	311.97	327.11	241.71	2.1	2.7	8.318	A
A2OFF	167.89	167.89	311.97	167.63	169.51	0.00	2.9	2.7	13.587	B
A227S	174.16	174.16	308.26	174.29	178.25	171.34	1.6	2.0	9.051	A
A2ON			0.00			240.84				

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	288.97	288.97	0.00	289.29	306.74	283.42	2.7	2.6	8.086	A
A2OFF	179.53	179.53	289.29	178.26	182.39	0.00	2.7	3.1	14.900	B
A227S	221.31	221.31	312.79	224.34	225.48	154.71	2.0	3.1	13.862	B
A2ON			0.00			253.71				

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	243.29	243.29	0.00	243.16	253.83	244.76	2.6	1.7	6.820	A
A2OFF	185.50	185.50	243.16	184.13	189.08	0.00	3.1	2.9	12.511	B
A227S	180.17	180.17	286.76	179.76	184.86	140.53	3.1	1.8	9.476	A
A2ON			0.00			221.76				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	106.53	291.73	0.365	106.58	107.76	0.0	0.4	4.531	A
			2	A227N, A227S, A2ON	218.00	291.34	0.748	219.63	222.70	0.0	2.1	8.974	A
	Exit	1	1		259.77			259.77	270.17	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	95.31	126.21	0.756	95.50	99.58	0.0	1.6	14.568	B
			2	A227N	81.24	126.81	0.640	82.37	83.65	0.0	1.1	12.803	B
		2	1	(A227N, A2OFF, A227S, A2ON)	176.29			176.53	186.11	0.0	0.5	2.274	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	104.71	158.10	0.663	103.20	109.05	0.0	1.6	10.629	B
			2	A227N, A227S	77.87	158.42	0.492	77.92	80.70	0.0	0.8	8.799	A
		2	1	(A227N, A2OFF, A227S, A2ON)	182.32			182.58	192.39	0.0	0.2	0.899	A
	Exit	1	1		178.40			178.40	182.32	0.0	0.0	0.000	A
A2ON	Exit	1	1		247.08			247.08	250.96	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	90.58	285.77	0.317	90.55	93.06	0.4	0.4	4.150	A
			2	A227N, A227S, A2ON	210.24	283.57	0.741	209.66	219.22	2.1	2.6	10.239	B
	Exit	1	1		264.55			264.55	269.99	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	101.21	135.30	0.748	101.00	103.85	1.6	1.7	14.530	B
			2	A227N	86.16	136.87	0.629	85.68	88.01	1.1	1.3	12.191	B
		2	1	(A227N, A2OFF, A227S, A2ON)	186.87			187.39	192.14	0.5	0.4	2.343	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	111.18	158.51	0.700	111.05	116.00	1.6	1.5	11.550	B
			2	A227N, A227S	80.63	161.37	0.500	80.63	82.93	0.8	1.0	8.834	A
		2	1	(A227N, A2OFF, A227S, A2ON)	191.39			191.79	198.82	0.2	0.1	1.248	A
	Exit	1	1		155.50			155.50	162.41	0.0	0.0	0.000	A
A2ON	Exit	1	1		258.53			258.53	270.67	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	85.89	291.98	0.294	86.04	87.46	0.4	0.4	4.098	A
			2	A227N, A227S, A2ON	197.74	290.53	0.681	199.31	203.44	2.6	1.7	8.209	A
	Exit	1	1		275.55			275.55	281.07	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	107.08	145.12	0.738	107.42	107.29	1.7	1.5	13.983	B
			2	A227N	88.71	144.55	0.614	89.08	90.05	1.3	1.1	12.258	B
		2	1	(A227N, A2OFF, A227S, A2ON)	195.29			195.76	196.82	0.4	0.3	1.813	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	101.40	161.73	0.627	101.50	106.54	1.5	1.0	10.183	B
			2	A227N, A227S	76.24	161.05	0.473	76.66	80.64	1.0	0.6	8.471	A
		2	1	(A227N, A2OFF, A227S, A2ON)	177.58			177.73	186.32	0.1	0.1	0.646	A
	Exit	1	1		159.58			159.58	161.48	0.0	0.0	0.000	A
A2ON	Exit	1	1		224.87			224.87	232.87	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	101.03	289.28	0.349	100.90	104.36	0.4	0.4	4.414	A
			2	A227N, A227S, A2ON	211.05	283.55	0.743	211.05	222.75	1.7	2.2	10.180	B
	Exit	1	1		241.71			241.71	248.99	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	91.42	135.01	0.677	91.24	92.95	1.5	1.4	13.349	B
			2	A227N	76.34	134.40	0.568	76.40	76.56	1.1	1.0	11.401	B
		2	1	(A227N, A2OFF, A227S, A2ON)	167.89			167.76	169.32	0.3	0.2	1.125	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	101.32	167.88	0.603	101.21	102.56	1.0	1.2	9.542	A
			2	A227N, A227S	73.03	165.95	0.441	73.05	75.68	0.6	0.8	7.680	A
		2	1	(A227N, A2OFF, A227S, A2ON)	174.16			174.34	178.60	0.1	0.1	0.295	A
	Exit	1	1		171.34			171.34	174.30	0.0	0.0	0.000	A
A2ON	Exit	1	1		240.84			240.84	251.57	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	84.24	286.97	0.294	84.05	88.39	0.4	0.4	4.109	A
			2	A227N, A227S, A2ON	204.66	281.18	0.728	205.24	218.35	2.2	2.1	9.742	A
	Exit	1	1		283.42			283.42	285.38	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	100.21	138.37	0.725	99.50	101.29	1.4	1.7	14.127	B
			2	A227N	79.00	139.48	0.567	78.76	81.11	1.0	1.0	11.529	B
		2	1	(A227N, A2OFF, A227S, A2ON)	179.53			179.21	182.78	0.2	0.4	1.933	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	123.66	163.81	0.755	124.66	126.53	1.2	1.5	12.338	B
			2	A227N, A227S	99.95	166.47	0.600	99.68	98.96	0.8	1.1	9.809	A
		2	1	(A227N, A2OFF, A227S, A2ON)	221.31			223.60	226.18	0.1	0.5	2.628	A
	Exit	1	1		154.71			154.71	164.13	0.0	0.0	0.000	A
A2ON	Exit	1	1		253.71			253.71	265.11	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	64.26	295.16	0.218	64.32	65.29	0.4	0.2	3.595	A
			2	A227N, A227S, A2ON	179.03	279.89	0.640	178.84	188.54	2.1	1.6	8.000	A
	Exit	1	1		244.76			244.76	249.26	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	104.42	150.56	0.693	104.16	107.28	1.7	1.5	12.024	B
			2	A227N	80.66	152.00	0.531	79.97	81.80	1.0	1.0	10.003	B
		2	1	(A227N, A2OFF, A227S, A2ON)	185.50			185.08	188.82	0.4	0.4	1.388	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	105.47	172.01	0.613	105.05	109.32	1.5	1.1	9.687	A
			2	A227N, A227S	75.11	173.82	0.432	74.74	75.54	1.1	0.6	7.321	A
		2	1	(A227N, A2OFF, A227S, A2ON)	180.17			180.59	183.91	0.5	0.0	0.790	A
	Exit	1	1		140.53			140.53	144.02	0.0	0.0	0.000	A
A2ON	Exit	1	1		221.76			221.76	234.49	0.0	0.0	0.000	A

2028 Do Nothing, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	13.13	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 period length (min)	Time segment length (min)	Run automatically
D9	2028 Do Nothing	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.25	0.00	141.00	195.00
	A2OFF	127.00	0.00	42.00	1.00
	A227S	131.00	0.00	0.00	61.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:00 - 08:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	116.00	197.00
	A2OFF	136.00	0.00	44.00	2.00
	A227S	129.00	0.00	0.00	74.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:15 - 08:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	118.00	175.00
	A2OFF	145.00	0.00	47.00	1.00
	A227S	127.00	0.00	0.00	57.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	133.00	194.00
	A2OFF	119.00	0.00	43.00	1.00
	A227S	121.00	0.00	0.00	59.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	1.00	0.00	113.00	188.00
	A2OFF	121.00	0.00	53.00	1.00
	A227S	157.00	0.00	0.00	73.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	91.00	163.00
	A2OFF	122.00	0.00	57.00	0.00
	A227S	120.00	0.00	0.00	69.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

07:45 - 08:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	7	0	7	0
	A227S	4	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	4	5
	A2OFF	2	0	5	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:15 - 08:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	1	0	0	0
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	5
	A2OFF	2	0	0	0
	A227S	3	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	100	0	3	5
	A2OFF	2	0	4	0
	A227S	1	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	7
	A2OFF	3	0	4	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	9.49	3.7	A	303.56	1821.34
A2OFF	17.19	4.0	C	176.77	1060.62
A227S	15.17	3.7	C	195.55	1173.32
A2ON					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	340.89	340.89	0.00	342.29	342.97	256.93	0.0	2.9	8.338	A
A2OFF	170.83	170.83	342.29	169.44	180.16	0.00	0.0	3.7	17.192	C
A227S	188.57	188.57	329.92	187.73	194.88	181.81	0.0	2.2	10.458	B
A2ON			0.00			260.71				

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	313.07	313.07	0.00	313.07	325.37	263.18	2.9	3.5	9.489	A
A2OFF	178.03	178.03	313.07	177.12	186.99	0.00	3.7	3.2	16.767	C
A227S	202.73	202.73	331.77	202.89	203.73	158.42	2.2	3.4	13.247	B
A2ON			0.00			271.48				

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	288.00	288.00	0.00	288.95	299.27	272.67	3.5	2.1	6.921	A
A2OFF	193.60	193.60	288.95	195.49	196.88	0.00	3.2	2.3	14.983	B
A227S	182.84	182.84	318.33	182.26	193.59	166.11	3.4	2.0	10.511	B
A2ON			0.00			227.92				

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	325.81	325.81	0.00	326.51	336.88	238.97	2.1	3.0	8.548	A
A2OFF	162.29	162.29	326.51	162.53	163.92	0.00	2.3	2.3	13.153	B
A227S	179.46	179.46	316.36	179.51	180.59	172.68	2.0	2.0	9.523	A
A2ON			0.00			256.89				

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	301.93	301.93	0.00	301.07	315.16	284.75	3.0	3.2	8.569	A
A2OFF	173.06	173.06	301.07	172.97	180.36	0.00	2.3	2.7	15.947	C
A227S	234.12	234.12	308.55	237.37	233.26	165.49	2.0	3.7	15.170	C
A2ON			0.00			261.16				

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	250.85	250.85	0.00	251.27	266.07	241.36	3.2	1.7	6.767	A
A2OFF	181.19	181.19	251.27	179.59	184.77	0.00	2.7	2.8	12.954	B
A227S	185.59	185.59	282.20	185.55	192.10	148.68	3.7	2.0	9.893	A
A2ON			0.00			226.40				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	113.14	291.54	0.388	112.89	113.74	0.0	0.7	4.455	A
			2	A227N, A227S, A2ON	227.75	292.09	0.780	229.40	229.23	0.0	2.3	10.254	B
	Exit	1	1		256.93			256.93	269.53	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	92.26	120.94	0.766	93.11	99.15	0.0	1.5	15.248	C
			2	A227N	76.64	120.92	0.636	76.44	81.01	0.0	1.3	13.446	B
		2	1	(A227N, A2OFF, A227S, A2ON)	170.83			168.90	183.34	0.0	0.9	2.731	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	108.08	157.73	0.685	107.67	111.53	0.0	1.2	10.688	B
			2	A227N, A227S	80.14	156.75	0.512	80.05	83.34	0.0	0.8	8.613	A
		2	1	(A227N, A2OFF, A227S, A2ON)	188.57			188.22	197.04	0.0	0.2	0.650	A
	Exit	1	1		181.81			181.81	187.49	0.0	0.0	0.000	A
A2ON	Exit	1	1		260.71			260.71	260.99	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	94.40	286.76	0.329	94.64	96.77	0.7	0.4	4.280	A
			2	A227N, A227S, A2ON	218.67	283.20	0.773	218.38	228.60	2.3	3.1	11.703	B
	Exit	1	1		263.18			263.18	269.26	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	95.46	131.31	0.727	95.67	101.86	1.5	1.5	15.033	C
			2	A227N	81.78	133.50	0.613	81.45	85.12	1.3	1.1	13.037	B
		2	1	(A227N, A2OFF, A227S, A2ON)	178.03			177.25	186.53	0.9	0.7	2.642	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	115.93	158.64	0.731	115.64	117.67	1.2	1.9	12.546	B
			2	A227N, A227S	86.92	161.12	0.539	87.25	86.05	0.8	1.1	9.836	A
		2	1	(A227N, A2OFF, A227S, A2ON)	202.73			202.85	204.66	0.2	0.4	1.844	A
	Exit	1	1		158.42			158.42	163.32	0.0	0.0	0.000	A
A2ON	Exit	1	1		271.48			271.48	283.51	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	88.85	291.55	0.305	88.85	92.10	0.4	0.4	4.100	A
			2	A227N, A227S, A2ON	199.15	291.41	0.684	200.08	207.18	3.1	1.7	8.185	A
	Exit	1	1		272.67			272.67	281.21	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	105.41	144.39	0.731	105.70	106.15	1.5	1.3	14.123	B
			2	A227N	88.97	143.38	0.621	89.79	90.73	1.1	0.8	11.873	B
		2	1	(A227N, A2OFF, A227S, A2ON)	193.60			194.38	196.30	0.7	0.2	1.926	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	103.97	162.94	0.638	103.73	110.12	1.9	1.3	10.625	B
			2	A227N, A227S	78.84	164.46	0.480	78.53	83.47	1.1	0.6	8.564	A
		2	1	(A227N, A2OFF, A227S, A2ON)	182.84			182.75	192.49	0.4	0.1	0.794	A
	Exit	1	1		166.11			166.11	167.99	0.0	0.0	0.000	A
A2ON	Exit	1	1		227.92			227.92	240.55	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	105.33	288.34	0.365	104.96	107.75	0.4	0.5	4.267	A
			2	A227N, A227S, A2ON	220.48	283.09	0.779	221.55	229.12	1.7	2.4	10.591	B
	Exit	1	1		238.97			238.97	242.48	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	88.89	130.61	0.680	89.14	90.16	1.3	1.3	13.332	B
			2	A227N	73.40	129.41	0.568	73.40	73.75	0.8	0.8	10.769	B
		2	1	(A227N, A2OFF, A227S, A2ON)	162.29			162.29	163.89	0.2	0.2	0.938	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	104.18	164.95	0.631	104.88	105.01	1.3	1.0	9.744	A
			2	A227N, A227S	75.04	162.53	0.461	74.63	75.58	0.6	0.9	8.028	A
		2	1	(A227N, A2OFF, A227S, A2ON)	179.46			179.22	180.48	0.1	0.1	0.488	A
	Exit	1	1		172.68			172.68	177.62	0.0	0.0	0.000	A
A2ON	Exit	1	1		256.89			256.89	261.29	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	91.48	289.96	0.316	91.89	92.41	0.5	0.5	4.258	A
			2	A227N, A227S, A2ON	210.45	282.76	0.745	209.18	222.75	2.4	2.7	10.394	B
	Exit	1	1		284.75			284.75	283.38	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	97.77	136.14	0.720	98.05	101.62	1.3	1.3	14.851	B
			2	A227N	75.21	137.20	0.548	74.92	78.74	0.8	1.1	11.522	B
		2	1	(A227N, A2OFF, A227S, A2ON)	173.06			172.97	180.74	0.2	0.3	2.579	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	131.22	165.70	0.792	132.70	130.60	1.0	1.7	13.100	B
			2	A227N, A227S	104.10	167.97	0.619	104.70	102.66	0.9	1.2	10.184	B
		2	1	(A227N, A2OFF, A227S, A2ON)	234.12			235.27	234.34	0.1	0.8	3.346	A
	Exit	1	1		165.49			165.49	171.51	0.0	0.0	0.000	A
A2ON	Exit	1	1		261.16			261.16	273.89	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	68.65	294.34	0.233	69.37	70.15	0.5	0.2	3.709	A
			2	A227N, A227S, A2ON	182.22	280.56	0.650	181.93	195.92	2.7	1.5	7.927	A
	Exit	1	1		241.36			241.36	245.70	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	101.75	149.06	0.684	100.64	105.08	1.3	1.5	12.477	B
			2	A227N	79.77	149.75	0.533	78.99	79.68	1.1	1.0	10.033	B
		2	1	(A227N, A2OFF, A227S, A2ON)	181.19			181.52	184.96	0.3	0.2	1.543	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	109.48	173.66	0.631	109.25	114.45	1.7	1.2	9.774	A
			2	A227N, A227S	75.99	176.14	0.431	76.27	77.64	1.2	0.7	7.728	A
		2	1	(A227N, A2OFF, A227S, A2ON)	185.59			185.43	191.08	0.8	0.1	0.983	A
	Exit	1	1		148.68			148.68	152.04	0.0	0.0	0.000	A
A2ON	Exit	1	1		226.40			226.40	245.19	0.0	0.0	0.000	A

2028 Do Minimum, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	15.49	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 period length (min)	Time segment length (min)	Run automatically
D11	2028 Do Minimum	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

07:45 - 08:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	141.00	206.00
	A2OFF	138.00	0.00	42.00	1.00
	A227S	133.00	0.00	0.00	59.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	116.00	208.00
	A2OFF	147.00	0.00	44.00	2.00
	A227S	131.00	0.00	0.00	73.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:15 - 08:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	118.00	187.00
	A2OFF	156.00	0.00	47.00	0.00
	A227S	128.00	0.00	0.00	55.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	133.00	205.00
	A2OFF	130.00	0.00	43.00	1.00
	A227S	122.00	0.00	0.00	57.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	1.00	0.00	113.00	199.00
	A2OFF	132.00	0.00	53.00	1.00
	A227S	158.00	0.00	0.00	72.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	91.00	172.00
	A2OFF	131.00	0.00	57.00	0.00
	A227S	121.00	0.00	0.00	68.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

07:45 - 08:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	6	0	7	0
	A227S	4	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	4	5
	A2OFF	2	0	5	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:15 - 08:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	1	0	0	0
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	5
	A2OFF	2	0	0	0
	A227S	3	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	100	0	3	5
	A2OFF	2	0	4	0
	A227S	1	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	7
	A2OFF	3	0	4	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	10.37	4.1	B	315.54	1893.25
A2OFF	23.00	4.9	C	187.05	1122.31
A227S	16.63	4.6	C	197.38	1184.25
A2ON					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	342.70	342.70	0.00	344.33	350.30	271.68	0.0	3.1	8.772	A
A2OFF	179.46	179.46	344.33	178.53	187.72	0.00	0.0	4.4	21.047	C
A227S	196.78	196.78	342.36	194.34	197.66	180.47	0.0	3.1	12.425	B
A2ON			0.00			265.06				

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	327.83	327.83	0.00	328.44	338.39	275.43	3.1	4.1	10.372	B
A2OFF	193.86	193.86	328.44	191.38	196.94	0.00	4.4	4.9	22.998	C
A227S	203.01	203.01	356.90	203.85	207.93	162.84	3.1	3.2	15.265	C
A2ON			0.00			285.44				

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	305.48	305.48	0.00	306.08	313.07	290.35	4.1	2.6	7.839	A
A2OFF	203.59	203.59	306.08	204.03	207.68	0.00	4.9	4.2	21.021	C
A227S	186.57	186.57	344.30	187.73	192.72	165.80	3.2	2.4	12.371	B
A2ON			0.00			241.68				

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	341.17	341.17	0.00	340.65	352.03	251.59	2.6	3.4	9.633	A
A2OFF	176.30	176.30	340.65	176.02	178.55	0.00	4.2	3.4	16.746	C
A227S	176.20	176.20	340.42	175.89	182.10	176.25	2.4	2.1	10.489	B
A2ON			0.00			264.72				

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	311.92	311.92	0.00	314.02	326.59	295.47	3.4	3.0	9.416	A
A2OFF	186.49	186.49	314.02	187.94	191.89	0.00	3.4	3.6	18.970	C
A227S	233.07	233.07	334.89	232.68	232.42	166.99	2.1	4.6	16.626	C
A2ON			0.00			272.10				

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	264.03	264.03	0.00	264.75	277.64	248.64	3.0	2.1	7.634	A
A2OFF	183.13	183.13	264.75	183.06	191.84	0.00	3.6	3.2	14.771	B
A227S	188.48	188.48	300.21	188.15	195.14	147.62	4.6	2.4	10.712	B
A2ON			0.00			239.72				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	112.71	290.64	0.388	113.02	114.71	0.0	0.6	4.610	A
			2	A227N, A227S, A2ON	229.99	291.56	0.789	231.35	235.59	0.0	2.6	10.787	B
	Exit	1	1		271.68			271.68	281.46	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	97.27	122.15	0.795	97.03	101.14	0.0	1.9	17.053	C
			2	A227N	81.23	122.17	0.664	81.50	86.58	0.0	1.4	14.758	B
		2	1	(A227N, A2OFF, A227S, A2ON)	179.46			178.50	191.23	0.0	1.1	4.990	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	110.28	154.67	0.712	109.40	111.97	0.0	1.6	11.609	B
			2	A227N, A227S	85.43	152.84	0.558	84.98	85.69	0.0	1.0	9.522	A
		2	1	(A227N, A2OFF, A227S, A2ON)	196.78			195.65	200.31	0.0	0.6	1.696	A
	Exit	1	1		180.47			180.47	186.43	0.0	0.0	0.000	A
A2ON	Exit	1	1		265.06			265.06	267.79	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	99.54	285.43	0.348	99.49	99.60	0.6	0.6	4.652	A
			2	A227N, A227S, A2ON	228.28	284.40	0.802	228.88	238.78	2.6	3.5	12.764	B
	Exit	1	1		275.43			275.43	280.32	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	101.20	127.61	0.793	100.86	105.80	1.9	2.0	17.573	C
			2	A227N	90.40	129.28	0.699	90.51	91.14	1.4	1.5	14.846	B
		2	1	(A227N, A2OFF, A227S, A2ON)	193.86			191.59	197.00	1.1	1.4	6.690	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	113.92	151.05	0.754	114.80	118.71	1.6	1.6	13.645	B
			2	A227N, A227S	89.35	153.68	0.582	89.04	89.22	1.0	1.1	10.259	B
		2	1	(A227N, A2OFF, A227S, A2ON)	203.01			203.25	208.02	0.6	0.5	3.093	A
	Exit	1	1		162.84			162.84	166.94	0.0	0.0	0.000	A
A2ON	Exit	1	1		285.44			285.44	296.00	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	91.40	291.31	0.314	91.81	94.16	0.6	0.4	4.210	A
			2	A227N, A227S, A2ON	214.04	291.81	0.733	214.29	218.91	3.5	2.2	9.409	A
	Exit	1	1		290.35			290.35	294.69	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	108.15	139.23	0.777	107.81	109.99	2.0	1.9	16.629	C
			2	A227N	96.39	138.88	0.694	96.23	97.69	1.5	1.4	14.029	B
		2	1	(A227N, A2OFF, A227S, A2ON)	203.59			204.49	207.49	1.4	0.9	5.653	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	106.50	154.47	0.690	106.89	109.02	1.6	1.4	11.930	B
			2	A227N, A227S	80.53	154.29	0.523	80.85	83.71	1.1	0.8	9.739	A
		2	1	(A227N, A2OFF, A227S, A2ON)	186.57			187.03	192.44	0.5	0.2	1.400	A
	Exit	1	1		165.80			165.80	168.56	0.0	0.0	0.000	A
A2ON	Exit	1	1		241.68			241.68	250.22	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	109.52	288.45	0.380	109.86	113.28	0.4	0.5	4.594	A
			2	A227N, A227S, A2ON	231.65	284.47	0.815	230.79	238.75	2.2	3.0	12.060	B
	Exit	1	1		251.59			251.59	258.99	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	95.87	127.39	0.753	95.71	97.71	1.9	1.8	15.508	C
			2	A227N	80.00	126.05	0.635	80.30	80.84	1.4	1.3	13.585	B
		2	1	(A227N, A2OFF, A227S, A2ON)	176.30			175.89	178.25	0.9	0.4	2.115	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	101.46	157.40	0.645	101.12	104.09	1.4	1.3	10.814	B
			2	A227N, A227S	74.48	155.99	0.477	74.77	78.01	0.8	0.7	8.574	A
		2	1	(A227N, A2OFF, A227S, A2ON)	176.20			175.94	181.79	0.2	0.1	0.630	A
	Exit	1	1		176.25			176.25	180.62	0.0	0.0	0.000	A
A2ON	Exit	1	1		264.72			264.72	273.08	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	92.56	288.05	0.321	93.26	95.34	0.5	0.3	4.321	A
			2	A227N, A227S, A2ON	219.36	282.39	0.777	220.68	231.24	3.0	2.6	11.558	B
	Exit	1	1		295.47			295.47	296.10	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	103.09	132.10	0.780	103.09	105.64	1.8	1.8	16.441	C
			2	A227N	84.85	132.40	0.641	84.85	86.25	1.3	1.2	13.375	B
		2	1	(A227N, A2OFF, A227S, A2ON)	186.49			187.91	191.94	0.4	0.6	3.915	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	127.71	156.95	0.815	127.89	128.59	1.3	1.9	14.088	B
			2	A227N, A227S	105.33	159.51	0.660	104.79	103.84	0.7	1.4	10.942	B
		2	1	(A227N, A2OFF, A227S, A2ON)	233.07			233.09	233.72	0.1	1.3	3.927	A
	Exit	1	1		166.99			166.99	171.75	0.0	0.0	0.000	A
A2ON	Exit	1	1		272.10			272.10	283.04	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	70.84	294.87	0.240	71.12	72.05	0.3	0.3	3.816	A
			2	A227N, A227S, A2ON	193.19	280.19	0.690	193.63	205.59	2.6	1.9	9.053	A
	Exit	1	1		248.64			248.64	257.28	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	102.36	144.32	0.709	101.92	107.86	1.8	1.6	13.489	B
			2	A227N	81.03	144.94	0.559	81.16	83.98	1.2	1.0	10.998	B
		2	1	(A227N, A2OFF, A227S, A2ON)	183.13			183.34	191.45	0.6	0.6	2.407	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	110.56	168.45	0.657	110.18	114.48	1.9	1.5	10.628	B
			2	A227N, A227S	77.61	169.62	0.458	77.95	80.66	1.4	0.8	8.372	A
		2	1	(A227N, A2OFF, A227S, A2ON)	188.48			188.17	194.01	1.3	0.2	1.085	A
	Exit	1	1		147.62			147.62	151.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		239.72			239.72	256.34	0.0	0.0	0.000	A

2028 Do Minimum Residual, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	14.86	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 period length (min)	Time segment length (min)	Run automatically
D13	2028 Do Minimum Residual	AM	DIRECT	07:45	09:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

07:45 - 08:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	141.00	205.00
	A2OFF	138.00	0.00	42.00	1.00
	A227S	133.00	0.00	0.00	59.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:00 - 08:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	116.00	206.00
	A2OFF	146.00	0.00	44.00	2.00
	A227S	131.00	0.00	0.00	73.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:15 - 08:30

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	118.00	185.00
	A2OFF	155.00	0.00	47.00	1.00
	A227S	128.00	0.00	0.00	55.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:30 - 08:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	133.00	204.00
	A2OFF	129.00	0.00	43.00	1.00
	A227S	122.00	0.00	0.00	57.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

08:45 - 09:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	1.00	0.00	113.00	197.00
	A2OFF	131.00	0.00	53.00	1.00
	A227S	158.00	0.00	0.00	72.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

09:00 - 09:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	91.00	171.00
	A2OFF	130.00	0.00	57.00	0.00
	A227S	121.00	0.00	0.00	68.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

07:45 - 08:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	6	0	7	0
	A227S	4	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:00 - 08:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	4	5
	A2OFF	2	0	5	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

08:15 - 08:30

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	2	2
	A2OFF	1	0	0	2
	A227S	4	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:30 - 08:45

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	3	5
	A2OFF	2	0	0	0
	A227S	3	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

08:45 - 09:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	100	0	3	5
	A2OFF	2	0	4	0
	A227S	1	0	0	4
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

09:00 - 09:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	7
	A2OFF	3	0	4	0
	A227S	1	0	0	3
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	10.04	3.9	B	312.83	1876.99
A2OFF	21.68	4.9	C	186.95	1121.70
A227S	16.13	4.1	C	195.96	1175.77
A2ON					

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	344.84	344.84	0.00	344.03	348.41	270.64	0.0	3.5	8.652	A
A2OFF	182.24	182.24	344.03	180.80	186.92	0.00	0.0	4.6	19.525	C
A227S	190.96	190.96	343.45	191.98	196.57	181.37	0.0	2.4	11.404	B
A2ON			0.00			264.78				

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	323.52	323.52	0.00	321.85	336.59	274.75	3.5	3.8	10.044	B
A2OFF	192.95	192.95	321.85	191.98	198.02	0.00	4.6	4.7	21.681	C
A227S	203.17	203.17	351.84	203.72	206.94	161.99	2.4	3.5	15.472	C
A2ON			0.00			280.82				

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	303.02	303.02	0.00	303.59	311.39	281.39	3.8	2.4	7.671	A
A2OFF	202.78	202.78	303.59	203.51	205.93	0.00	4.7	4.0	18.953	C
A227S	182.40	182.40	342.34	181.39	192.48	164.76	3.5	2.7	12.409	B
A2ON			0.00			242.31				

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	334.06	334.06	0.00	332.87	348.44	250.71	2.4	3.7	9.503	A
A2OFF	172.24	172.24	332.87	172.35	175.92	0.00	4.0	3.1	15.509	C
A227S	180.41	180.41	328.69	181.37	183.65	176.53	2.7	1.9	10.896	B
A2ON			0.00			259.35				

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	312.26	312.26	0.00	311.59	327.42	289.44	3.7	3.6	9.559	A
A2OFF	184.29	184.29	311.59	184.56	187.48	0.00	3.1	3.6	17.646	C
A227S	230.27	230.27	330.47	229.01	232.19	165.68	1.9	4.1	16.126	C
A2ON			0.00			270.04				

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	259.04	259.04	0.00	259.68	276.25	251.34	3.6	1.9	7.514	A
A2OFF	186.79	186.79	259.68	186.57	193.62	0.00	3.6	2.8	15.914	C
A227S	188.60	188.60	299.16	188.88	193.82	147.12	4.1	2.2	10.921	B
A2ON			0.00			236.67				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	112.88	292.38	0.386	112.69	113.14	0.0	0.6	4.603	A
			2	A227N, A227S, A2ON	231.96	291.88	0.795	231.39	235.27	0.0	2.9	10.586	B
	Exit	1	1		270.64			270.64	278.74	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	97.02	121.67	0.797	96.87	100.73	0.0	1.9	16.449	C
			2	A227N	84.35	122.46	0.689	83.93	86.19	0.0	1.4	14.121	B
		2	1	(A227N, A2OFF, A227S, A2ON)	182.24			181.32	190.57	0.0	1.2	4.076	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	108.80	154.09	0.706	109.27	111.95	0.0	1.4	11.188	B
			2	A227N, A227S	82.50	152.47	0.541	82.70	84.63	0.0	0.9	9.227	A
		2	1	(A227N, A2OFF, A227S, A2ON)	190.96			191.30	198.94	0.0	0.1	1.051	A
	Exit	1	1		181.37			181.37	184.12	0.0	0.0	0.000	A
A2ON	Exit	1	1		264.78			264.78	269.04	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	97.16	286.79	0.339	97.10	100.40	0.6	0.5	4.406	A
			2	A227N, A227S, A2ON	226.38	282.96	0.800	224.78	236.19	2.9	3.3	12.455	B
	Exit	1	1		274.75			274.75	281.47	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	104.29	129.62	0.805	104.00	106.34	1.9	2.0	17.386	C
			2	A227N	87.88	130.96	0.671	87.97	91.68	1.4	1.5	14.769	B
		2	1	(A227N, A2OFF, A227S, A2ON)	192.95			192.16	198.01	1.2	1.2	5.534	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	115.57	152.64	0.757	116.05	118.66	1.4	1.7	13.855	B
			2	A227N, A227S	87.42	154.90	0.565	87.67	88.28	0.9	1.0	10.466	B
		2	1	(A227N, A2OFF, A227S, A2ON)	203.17			202.99	207.43	0.1	0.7	3.048	A
	Exit	1	1		161.99			161.99	167.69	0.0	0.0	0.000	A
A2ON	Exit	1	1		280.82			280.82	292.39	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	91.14	291.88	0.312	90.84	94.43	0.5	0.4	4.090	A
			2	A227N, A227S, A2ON	211.90	291.48	0.727	212.75	216.96	3.3	2.0	9.243	A
	Exit	1	1		281.39			281.39	291.03	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	109.58	140.07	0.783	109.68	110.48	2.0	1.8	15.858	C
			2	A227N	93.11	139.59	0.667	93.83	95.46	1.5	1.2	13.748	B
		2	1	(A227N, A2OFF, A227S, A2ON)	202.78			202.69	205.35	1.2	0.9	4.084	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	102.73	154.83	0.663	102.29	109.25	1.7	1.4	11.671	B
			2	A227N, A227S	79.29	155.74	0.509	79.10	83.23	1.0	0.9	9.600	A
		2	1	(A227N, A2OFF, A227S, A2ON)	182.40			182.02	192.04	0.7	0.4	1.643	A
	Exit	1	1		164.76			164.76	168.27	0.0	0.0	0.000	A
A2ON	Exit	1	1		242.31			242.31	250.50	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	108.25	288.98	0.375	108.28	111.84	0.4	0.6	4.570	A
			2	A227N, A227S, A2ON	225.81	284.31	0.795	224.59	236.60	2.0	3.1	11.861	B
	Exit	1	1		250.71			250.71	257.68	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	94.68	129.31	0.732	94.90	96.12	1.8	1.6	14.614	B
			2	A227N	77.52	128.18	0.604	77.45	79.80	1.2	1.2	12.575	B
		2	1	(A227N, A2OFF, A227S, A2ON)	172.24			172.20	175.74	0.9	0.3	1.847	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	104.66	161.66	0.648	104.85	104.97	1.4	1.2	10.854	B
			2	A227N, A227S	76.18	158.85	0.480	76.52	78.68	0.9	0.7	8.801	A
		2	1	(A227N, A2OFF, A227S, A2ON)	180.41			180.84	183.16	0.4	0.0	0.943	A
	Exit	1	1		176.53			176.53	179.99	0.0	0.0	0.000	A
A2ON	Exit	1	1		259.35			259.35	270.35	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	93.47	288.63	0.324	92.92	96.37	0.6	0.6	4.325	A
			2	A227N, A227S, A2ON	218.79	282.76	0.774	218.67	231.05	3.1	3.0	11.791	B
	Exit	1	1		289.44			289.44	292.46	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	101.20	132.36	0.765	101.20	103.72	1.6	1.7	15.407	C
			2	A227N	82.83	133.90	0.619	83.36	83.76	1.2	1.0	12.612	B
		2	1	(A227N, A2OFF, A227S, A2ON)	184.29			184.03	187.46	0.3	0.9	3.472	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	126.76	158.94	0.797	125.92	129.11	1.2	2.0	13.836	B
			2	A227N, A227S	103.15	161.06	0.640	103.09	103.08	0.7	1.2	10.906	B
		2	1	(A227N, A2OFF, A227S, A2ON)	230.27			229.93	233.55	0.0	0.9	3.580	A
	Exit	1	1		165.68			165.68	172.20	0.0	0.0	0.000	A
A2ON	Exit	1	1		270.04			270.04	282.43	0.0	0.0	0.000	A

09:00 - 09:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	70.31	294.24	0.239	70.25	72.41	0.6	0.3	3.791	A
			2	A227N, A227S, A2ON	188.73	280.53	0.673	189.42	203.83	3.0	1.6	8.910	A
	Exit	1	1		251.34			251.34	257.61	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	104.68	145.96	0.717	104.75	108.65	1.7	1.4	14.005	B
			2	A227N	81.78	146.78	0.557	81.82	84.96	1.0	0.9	11.332	B
		2	1	(A227N, A2OFF, A227S, A2ON)	186.79			186.44	193.22	0.9	0.5	3.137	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	109.70	168.08	0.653	109.76	112.87	2.0	1.3	10.836	B
			2	A227N, A227S	78.96	170.25	0.464	79.11	80.96	1.2	0.6	8.235	A
		2	1	(A227N, A2OFF, A227S, A2ON)	188.60			188.66	192.55	0.9	0.3	1.223	A
	Exit	1	1		147.12			147.12	152.32	0.0	0.0	0.000	A
A2ON	Exit	1	1		236.67			236.67	253.76	0.0	0.0	0.000	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: A227_A2 WB Slips RB PM Lane Sim Mit.j9
Path: M:\Projects\2022\22052 - BP Tollgate, Gravesend\07. Technical\07.02 Modelling\ARCADY\Direct Assessment
Report generation date: 06/03/2025 12:04:17

»2023, PM
»2025 Do Nothing, PM
»2025 Do Minimum, PM
»2025 Do Minimum Residual, PM
»2028 Do Nothing, PM
»2028 Do Minimum, PM
»2028 Do Minimum Residual, PM

Summary of junction performance

	PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	[Lane Simulation] - 2023				
Arm A227N	D2	2.2	5.53		A
Arm A2OFF		2.3	12.94		B
Arm A227S		2.1	7.92		A
	[Lane Simulation] - 2025 Do Nothing				
Arm A227N	D4	2.6	5.78		A
Arm A2OFF		3.1	14.03		B
Arm A227S		2.0	8.44		A
	[Lane Simulation] - 2025 Do Minimum				
Arm A227N	D6	2.2	6.40		A
Arm A2OFF		3.0	15.13		C
Arm A227S		1.9	8.93		A
	[Lane Simulation] - 2025 Do Minimum Residual				
Arm A227N	D8	2.1	6.18		A
Arm A2OFF		3.2	15.08		C
Arm A227S		2.1	8.67		A
	[Lane Simulation] - 2028 Do Nothing				
Arm A227N	D10	2.6	6.60		A
Arm A2OFF		3.6	15.97		C
Arm A227S		2.8	9.79		A
	[Lane Simulation] - 2028 Do Minimum				
Arm A227N	D12	2.5	6.66		A
Arm A2OFF		4.7	18.93		C
Arm A227S		2.5	10.07		B
	[Lane Simulation] - 2028 Do Minimum Residual				
Arm A227N	D14	2.5	6.58		A
Arm A2OFF		4.7	20.33		C
Arm A227S		2.4	9.81		A

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

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

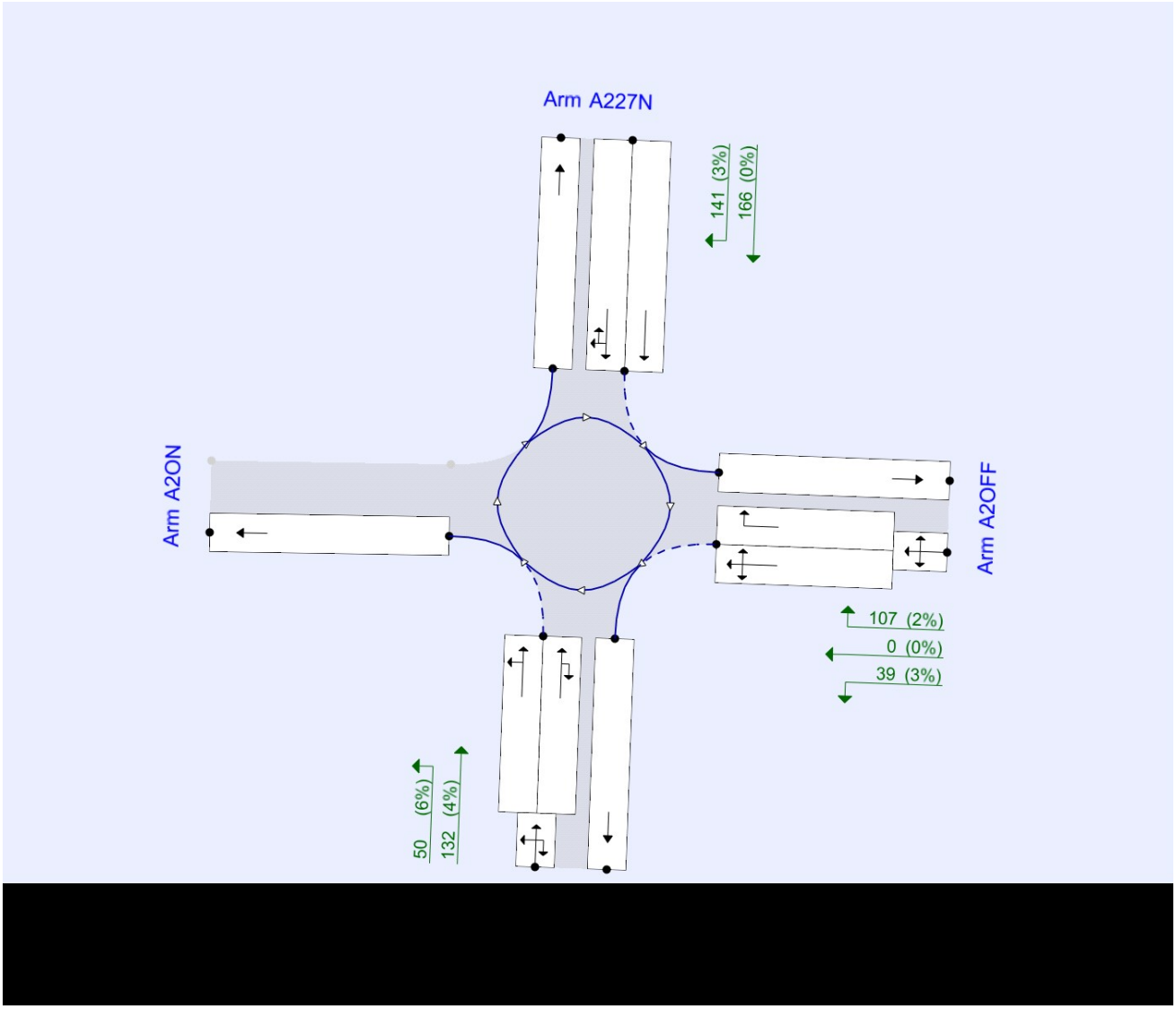
File summary

File Description

Title	
Location	
Site number	
Date	28/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MARKIDES\Markides Associates
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perTimeSegment	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

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

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	✓			1809253106	53	5.70

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2023	PM	DIRECT	16:45	18:15	90	15	✓
D4	2025 Do Nothing	PM	DIRECT	16:45	18:15	90	15	✓
D6	2025 Do Minimum	PM	DIRECT	16:45	18:15	90	15	✓
D8	2025 Do Minimum Residual	PM	DIRECT	16:45	18:15	90	15	✓
D10	2028 Do Nothing	PM	DIRECT	16:45	18:15	90	15	✓
D12	2028 Do Minimum	PM	DIRECT	16:45	18:15	90	15	✓
D14	2028 Do Minimum Residual	PM	DIRECT	16:45	18:15	90	15	✓

Analysis Set Details

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

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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	8.05	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A227N	A227 Wrotham Road (N)	
A2OFF	A2 WB Off Slip	
A227S	A227 Wrotham Road (S)	
A2ON	A2 WB On Slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A227N	7.60	8.10	6.9	20.8	59.9	36.0	
A2OFF	5.00	8.50	10.2	19.1	59.9	60.0	
A227S	4.90	9.20	22.2	24.1	59.9	49.0	
A2ON							✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
A227N	0.671	594.960
A2OFF	0.548	451.371
A227S	0.622	539.294
A2ON		

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
A227N	Evenly split	10.00
A2OFF	Evenly split	10.00
A227S	Evenly split	10.00
A2ON	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/TS)	Maximum capacity (PCU/TS)	Signalised
A227N	Entry	1	1	A227S		Infinity		0.00	24999.75	
			2	A227N, A227S, A2ON		Infinity		0.00	24999.75	
	Exit	1	1			Infinity				
A2OFF	Entry	1	1	A227N, A227S, A2ON	✓	4.00		0.00	24999.75	
			2	A227N	✓	4.00		0.00	24999.75	
		2	1	(A227N, A227S, A2ON)		Infinity				
	Exit	1	1			Infinity				
A227S	Entry	1	1	A227N, A2ON	✓	4.00		0.00	24999.75	
			2	A227N, A227S	✓	4.00		0.00	24999.75	
		2	1	(A227N, A227S, A2ON)		Infinity				
	Exit	1	1			Infinity				
A2ON	Exit	1	1			Infinity				

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/TS)
A227N	Entry	1	1	0.335	297.480
			2	0.335	297.480
A2OFF	Entry	1	1	0.274	225.686
			2	0.274	225.686
A227S	Entry	1	1	0.311	269.647
			2	0.311	269.647

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm			
			A227N	A2OFF	A227S	A2ON
A227N	1	1			✓	
		2	✓		✓	✓
A2OFF	1	1	✓		✓	✓
		2	✓			
	2	1	✓		✓	✓
A227S	1	1	✓			✓
		2	✓		✓	
	2	1	✓		✓	✓

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2023	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

16:45 - 17:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	166.00	141.00
	A2OFF	107.00	0.00	39.00	0.00
	A227S	132.00	0.00	0.00	50.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	164.00	131.00
	A2OFF	122.00	0.00	52.00	0.00
	A227S	124.00	0.00	1.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	166.00	129.00
	A2OFF	131.00	0.00	42.00	0.00
	A227S	150.00	0.00	1.00	47.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:30 - 17:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	163.00	114.00
	A2OFF	98.00	0.00	45.00	1.00
	A227S	134.00	0.00	0.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:45 - 18:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	142.00	109.00
	A2OFF	96.00	0.00	30.00	0.00
	A227S	144.00	0.00	0.00	43.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

18:00 - 18:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	147.00	109.00
	A2OFF	87.00	0.00	38.00	0.00
	A227S	103.00	0.00	0.00	45.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	3
	A2OFF	2	0	3	0
	A227S	4	0	0	6
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	0
	A2OFF	0	0	0	0
	A227S	0	0	0	5
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	2	0	5	0
	A227S	1	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:30 - 17:45

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	2	0
	A227S	2	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:45 - 18:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	4
	A2OFF	0	0	0	0
	A227S	0	0	0	2
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

18:00 - 18:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	0
	A2OFF	2	0	0	0
	A227S	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	5.53	2.2	A	281.62	1689.72
A2OFF	12.94	2.3	B	149.66	897.95
A227S	7.92	2.1	A	180.84	1085.04
A2ON					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	309.45	309.45	0.00	309.06	309.87	239.38	0.0	1.9	5.528	A
A2OFF	150.68	150.68	309.06	150.00	149.64	0.00	0.0	2.0	10.664	B
A227S	177.00	177.00	251.55	175.34	184.81	207.51	0.0	2.0	7.536	A
A2ON			0.00			187.36				

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	298.19	298.19	0.96	296.66	294.94	239.72	1.9	2.2	5.287	A
A2OFF	172.42	172.42	297.62	171.28	171.00	0.00	2.0	2.2	11.031	B
A227S	180.62	180.62	249.85	182.55	187.51	219.06	2.0	1.4	7.919	A
A2ON			0.00			191.85				

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	293.38	293.38	0.79	293.49	301.64	286.59	2.2	1.7	5.295	A
A2OFF	176.60	176.60	294.28	177.06	180.92	0.00	2.2	2.3	12.936	B
A227S	201.74	201.74	262.07	202.53	203.34	209.32	1.4	1.6	7.877	A
A2ON			0.00			177.28				

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	274.87	274.87	0.00	277.08	278.77	235.81	1.7	1.3	4.971	A
A2OFF	150.74	150.74	277.08	151.92	153.00	0.00	2.3	1.4	10.601	B
A227S	194.60	194.60	216.79	193.53	197.85	212.21	1.6	1.6	7.478	A
A2ON			0.00			174.51				

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	253.30	253.30	0.00	254.15	255.98	235.70	1.3	1.2	5.008	A
A2OFF	123.11	123.11	254.15	124.19	124.79	0.00	1.4	0.9	7.882	A
A227S	186.85	186.85	201.40	186.23	186.66	177.13	1.6	1.3	6.193	A
A2ON			0.00			151.93				

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	260.26	260.26	0.00	260.15	258.66	187.36	1.2	1.5	4.711	A
A2OFF	124.75	124.75	260.15	124.47	125.96	0.00	0.9	1.4	8.116	A
A227S	144.34	144.34	196.64	143.83	147.77	187.92	1.3	1.0	5.518	A
A2ON			0.00			153.11				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	116.89	297.48	0.393	116.09	115.87	0.0	0.6	4.171	A
			2	A227N, A227S, A2ON	192.57	291.91	0.660	192.96	194.00	0.0	1.4	6.353	A
	Exit	1	1		239.38			239.38	245.17	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	83.73	137.38	0.609	83.04	83.83	0.0	1.3	10.985	B
			2	A227N	66.68	136.77	0.487	66.96	65.81	0.0	0.7	9.595	A
		2	1	(A227N, A227S, A2ON)	150.68			150.40	151.62	0.0	0.1	0.282	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	101.02	182.72	0.553	99.79	105.55	0.0	1.2	7.777	A
			2	A227N, A227S	75.68	181.53	0.418	75.51	79.26	0.0	0.7	6.609	A
		2	1	(A227N, A227S, A2ON)	177.00			176.77	186.91	0.0	0.1	0.257	A
	Exit	1	1		207.51			207.51	205.55	0.0	0.0	0.000	A
A2ON	Exit	1	1		187.36			187.36	193.60	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	113.52	294.60	0.385	112.29	110.85	0.6	0.8	4.142	A
			2	A227N, A227S, A2ON	184.81	296.31	0.624	184.36	184.09	1.4	1.4	5.974	A
	Exit	1	1		239.72			239.72	239.96	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	98.15	143.74	0.683	97.36	97.23	1.3	1.3	11.157	B
			2	A227N	74.21	143.74	0.516	73.92	73.77	0.7	0.9	9.743	A
		2	1	(A227N, A227S, A2ON)	172.42			172.36	171.23	0.1	0.0	0.487	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	107.49	186.01	0.576	108.45	110.85	1.2	0.9	8.322	A
			2	A227N, A227S	73.30	191.97	0.382	74.09	76.66	0.7	0.5	6.477	A
		2	1	(A227N, A227S, A2ON)	180.62			180.79	186.85	0.1	0.0	0.368	A
	Exit	1	1		219.06			219.06	218.17	0.0	0.0	0.000	A
A2ON	Exit	1	1		191.85			191.85	195.32	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	109.75	294.93	0.372	109.87	113.66	0.8	0.5	4.322	A
			2	A227N, A227S, A2ON	183.62	294.25	0.624	183.62	187.98	1.4	1.2	5.883	A
	Exit	1	1		286.59			286.59	290.23	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	97.36	139.17	0.698	97.75	99.47	1.3	1.2	12.550	B
			2	A227N	79.53	141.40	0.563	79.41	81.45	0.9	0.8	10.995	B
		2	1	(A227N, A227S, A2ON)	176.60			176.89	180.87	0.0	0.2	1.093	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	112.19	185.53	0.605	112.81	112.26	0.9	0.9	8.090	A
			2	A227N, A227S	89.60	185.29	0.483	89.72	91.08	0.5	0.7	7.142	A
		2	1	(A227N, A227S, A2ON)	201.74			201.79	203.55	0.0	0.0	0.212	A
	Exit	1	1		209.32			209.32	215.32	0.0	0.0	0.000	A
A2ON	Exit	1	1		177.28			177.28	180.36	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	106.08	294.21	0.360	107.04	106.28	0.5	0.3	4.124	A
			2	A227N, A227S, A2ON	168.79	294.73	0.573	170.04	172.49	1.2	1.0	5.493	A
	Exit	1	1		235.81			235.81	238.23	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	87.34	147.49	0.592	87.74	89.26	1.2	0.9	11.067	B
			2	A227N	63.62	147.97	0.430	64.19	63.74	0.8	0.5	8.843	A
		2	1	(A227N, A227S, A2ON)	150.74			150.96	152.25	0.2	0.0	0.466	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	112.87	199.87	0.565	112.30	114.51	0.9	0.9	7.891	A
			2	A227N, A227S	81.74	196.82	0.415	81.18	83.34	0.7	0.7	6.400	A
		2	1	(A227N, A227S, A2ON)	194.60			194.60	197.79	0.0	0.0	0.211	A
	Exit	1	1		212.21			212.21	213.02	0.0	0.0	0.000	A
A2ON	Exit	1	1		174.51			174.51	178.38	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	95.09	295.22	0.322	95.89	95.19	0.3	0.3	3.916	A
			2	A227N, A227S, A2ON	158.58	288.71	0.547	158.32	160.79	1.0	0.9	5.670	A
	Exit	1	1		235.70			235.70	237.13	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	71.15	154.52	0.460	71.77	71.15	0.9	0.6	8.214	A
			2	A227N	51.96	154.52	0.336	52.42	53.64	0.5	0.4	7.402	A
		2	1	(A227N, A227S, A2ON)	123.11			123.11	124.34	0.0	0.0	0.018	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	104.09	203.97	0.510	104.12	104.13	0.9	0.7	6.599	A
			2	A227N, A227S	82.75	205.70	0.402	82.13	82.53	0.7	0.6	5.563	A
		2	1	(A227N, A227S, A2ON)	186.85			186.91	186.36	0.0	0.0	0.054	A
	Exit	1	1		177.13			177.13	174.34	0.0	0.0	0.000	A
A2ON	Exit	1	1		151.93			151.93	155.96	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	97.13	297.48	0.327	97.13	97.19	0.3	0.5	3.741	A
			2	A227N, A227S, A2ON	163.13	297.48	0.548	163.02	161.47	0.9	1.1	5.296	A
	Exit	1	1		187.36			187.36	191.92	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	73.98	152.65	0.485	73.58	74.28	0.6	0.9	8.488	A
			2	A227N	50.77	150.72	0.336	50.83	51.68	0.4	0.5	7.415	A
		2	1	(A227N, A227S, A2ON)	124.75			124.75	126.43	0.0	0.0	0.063	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	85.13	207.86	0.410	84.79	87.55	0.7	0.6	5.915	A
			2	A227N, A227S	59.21	207.86	0.285	59.04	60.23	0.6	0.4	4.909	A
		2	1	(A227N, A227S, A2ON)	144.34			144.34	147.47	0.0	0.0	0.012	A
	Exit	1	1		187.92			187.92	187.91	0.0	0.0	0.000	A
A2ON	Exit	1	1		153.11			153.11	152.57	0.0	0.0	0.000	A

2025 Do Nothing, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	8.59	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 period length (min)	Time segment length (min)	Run automatically
D4	2025 Do Nothing	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	168.00	145.00
	A2OFF	110.00	0.00	40.00	0.00
	A227S	133.00	0.00	0.00	50.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

17:00 - 17:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	166.00	135.00
	A2OFF	126.00	0.00	53.00	0.25
	A227S	125.00	0.00	1.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	168.00	133.00
	A2OFF	135.00	0.00	43.00	0.00
	A227S	152.00	0.00	1.00	47.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:30 - 17:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	165.00	117.00
	A2OFF	101.00	0.00	46.00	0.25
	A227S	135.00	0.00	0.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:45 - 18:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	143.00	112.00
	A2OFF	99.00	0.00	30.00	0.00
	A227S	145.00	0.00	0.00	43.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

18:00 - 18:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	148.00	112.00
	A2OFF	90.00	0.00	39.00	0.00
	A227S	104.00	0.00	0.00	45.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	3
	A2OFF	2	0	3	0
	A227S	4	0	0	6
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	0
	A2OFF	0	0	0	0
	A227S	0	0	0	5
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	2	0	5	0
	A227S	1	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:30 - 17:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	2	0
	A227S	2	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:45 - 18:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	4
	A2OFF	0	0	0	0
	A227S	1	0	0	2
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

18:00 - 18:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	1
	A2OFF	2	0	0	0
	A227S	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	5.78	2.6	A	284.80	1708.82
A2OFF	14.03	3.1	B	151.62	909.73
A227S	8.44	2.0	A	184.69	1108.11
A2ON					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	316.64	316.64	0.00	315.59	317.21	242.59	0.0	2.5	5.783	A
A2OFF	148.09	148.09	315.59	147.68	151.08	0.00	0.0	1.7	11.379	B
A227S	181.32	181.32	256.50	181.14	189.23	206.77	0.0	1.6	7.787	A
A2ON			0.00			195.05				

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	310.13	310.13	0.59	310.54	306.58	251.23	2.5	1.8	5.540	A
A2OFF	180.05	180.05	311.14	178.09	177.42	0.00	1.7	3.1	14.034	B
A227S	188.00	188.00	266.36	186.86	189.97	222.86	1.6	1.8	7.929	A
A2ON			0.00			201.41				

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	288.91	288.91	0.86	288.05	299.00	291.32	1.8	1.8	5.442	A
A2OFF	176.50	176.50	288.86	178.27	180.15	0.00	3.1	2.4	13.148	B
A227S	202.81	202.81	263.73	204.50	204.11	203.41	1.8	2.0	8.441	A
A2ON			0.00			176.05				

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	288.68	288.68	0.00	287.96	285.86	235.85	1.8	1.7	4.910	A
A2OFF	147.05	147.05	287.96	147.09	149.62	0.00	2.4	1.4	10.089	B
A227S	198.55	198.55	218.73	198.91	201.44	216.32	2.0	1.3	7.716	A
A2ON			0.00			181.73				

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	248.77	248.77	0.00	247.18	258.36	248.64	1.7	1.8	4.812	A
A2OFF	129.50	129.50	247.18	130.14	131.11	0.00	1.4	1.0	8.130	A
A227S	190.00	190.00	206.23	189.96	190.59	171.05	1.3	1.0	6.414	A
A2ON			0.00			147.64				

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	255.45	255.45	0.00	255.55	259.48	193.64	1.8	1.2	4.772	A
A2OFF	128.55	128.55	255.55	128.68	129.97	0.00	1.0	1.3	8.261	A
A227S	147.68	147.68	201.54	148.05	149.71	182.64	1.0	0.9	5.736	A
A2ON			0.00			155.97				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	117.59	297.48	0.395	117.09	117.47	0.0	0.7	4.235	A
			2	A227N, A227S, A2ON	199.04	290.43	0.686	198.50	199.74	0.0	1.8	6.712	A
	Exit	1	1		242.59			242.59	248.74	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	82.41	134.06	0.616	82.36	85.26	0.0	0.9	11.414	B
			2	A227N	65.59	135.08	0.486	65.32	65.82	0.0	0.7	10.037	B
		2	1	(A227N, A227S, A2ON)	148.09			147.94	152.79	0.0	0.1	0.560	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	104.68	180.44	0.581	104.09	108.27	0.0	1.0	7.889	A
			2	A227N, A227S	76.82	180.84	0.424	77.05	80.95	0.0	0.5	6.765	A
		2	1	(A227N, A227S, A2ON)	181.32			181.50	190.92	0.0	0.0	0.379	A
	Exit	1	1		206.77			206.77	208.59	0.0	0.0	0.000	A
A2ON	Exit	1	1		195.05			195.05	200.18	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	116.95	294.53	0.397	116.73	114.89	0.7	0.6	4.388	A
			2	A227N, A227S, A2ON	193.18	296.58	0.651	193.82	191.68	1.8	1.2	6.227	A
	Exit	1	1		251.23			251.23	249.68	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	99.14	140.02	0.708	98.18	98.33	0.9	1.6	13.417	B
			2	A227N	79.91	140.02	0.571	79.91	79.09	0.7	1.0	10.874	B
		2	1	(A227N, A227S, A2ON)	180.05			179.05	178.30	0.1	0.5	1.693	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	108.50	181.44	0.597	108.01	110.88	1.0	1.2	8.333	A
			2	A227N, A227S	79.41	186.84	0.425	78.86	79.09	0.5	0.5	6.677	A
		2	1	(A227N, A227S, A2ON)	188.00			187.91	190.02	0.0	0.1	0.297	A
	Exit	1	1		222.86			222.86	221.55	0.0	0.0	0.000	A
A2ON	Exit	1	1		201.41			201.41	202.74	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	107.59	295.02	0.365	107.41	112.71	0.6	0.5	4.221	A
			2	A227N, A227S, A2ON	181.36	294.27	0.616	180.57	186.29	1.2	1.3	6.179	A
	Exit	1	1		291.32			291.32	290.98	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	95.60	140.91	0.678	96.05	98.05	1.6	1.3	12.797	B
			2	A227N	81.19	142.77	0.569	82.23	82.11	1.0	0.9	10.984	B
		2	1	(A227N, A227S, A2ON)	176.50			176.77	179.85	0.5	0.2	1.239	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	112.09	185.55	0.604	112.77	112.59	1.2	1.1	8.724	A
			2	A227N, A227S	90.91	183.53	0.496	91.73	91.52	0.5	0.8	7.504	A
		2	1	(A227N, A227S, A2ON)	202.81			202.90	204.29	0.1	0.1	0.260	A
	Exit	1	1		203.41			203.41	211.24	0.0	0.0	0.000	A
A2ON	Exit	1	1		176.05			176.05	181.03	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	112.00	294.44	0.380	111.98	110.11	0.5	0.5	4.026	A
			2	A227N, A227S, A2ON	176.69	294.29	0.601	176.00	175.76	1.3	1.1	5.465	A
	Exit	1	1		235.85			235.85	240.97	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	84.84	143.50	0.591	85.09	86.98	1.3	0.9	10.372	B
			2	A227N	62.09	145.20	0.428	62.00	62.64	0.9	0.5	8.956	A
		2	1	(A227N, A227S, A2ON)	147.05			146.96	148.74	0.2	0.0	0.322	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	113.58	199.47	0.569	113.64	115.11	1.1	0.9	8.139	A
			2	A227N, A227S	84.91	197.30	0.430	85.27	86.33	0.8	0.4	6.251	A
		2	1	(A227N, A227S, A2ON)	198.55			198.50	200.86	0.1	0.0	0.380	A
	Exit	1	1		216.32			216.32	214.48	0.0	0.0	0.000	A
A2ON	Exit	1	1		181.73			181.73	181.47	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	92.59	293.97	0.315	92.40	92.44	0.5	0.5	3.731	A
			2	A227N, A227S, A2ON	156.18	288.17	0.542	154.77	165.92	1.1	1.3	5.424	A
	Exit	1	1		248.64			248.64	247.33	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	73.09	156.30	0.468	73.36	73.55	0.9	0.6	8.551	A
			2	A227N	56.41	156.30	0.361	56.77	57.56	0.5	0.4	7.420	A
		2	1	(A227N, A227S, A2ON)	129.50			129.50	130.71	0.0	0.0	0.080	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	104.41	200.89	0.520	104.36	105.47	0.9	0.7	6.815	A
			2	A227N, A227S	85.59	201.77	0.424	85.64	85.12	0.4	0.4	5.815	A
		2	1	(A227N, A227S, A2ON)	190.00			190.00	190.33	0.0	0.0	0.050	A
	Exit	1	1		171.05			171.05	173.12	0.0	0.0	0.000	A
A2ON	Exit	1	1		147.64			147.64	159.61	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	92.77	297.48	0.312	92.77	94.73	0.5	0.3	3.930	A
			2	A227N, A227S, A2ON	162.68	295.91	0.550	162.73	164.76	1.3	0.9	5.259	A
	Exit	1	1		193.64			193.64	196.35	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	74.92	153.89	0.487	74.79	75.91	0.6	0.8	8.671	A
			2	A227N	53.55	152.49	0.351	53.86	54.06	0.4	0.5	7.484	A
		2	1	(A227N, A227S, A2ON)	128.55			128.50	130.23	0.0	0.0	0.083	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	88.41	206.18	0.429	88.64	89.18	0.7	0.6	6.021	A
			2	A227N, A227S	59.27	206.18	0.287	59.41	60.53	0.4	0.3	5.275	A
		2	1	(A227N, A227S, A2ON)	147.68			147.68	149.48	0.0	0.0	0.016	A
	Exit	1	1		182.64			182.64	185.42	0.0	0.0	0.000	A
A2ON	Exit	1	1		155.97			155.97	157.39	0.0	0.0	0.000	A

2025 Do Minimum, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	9.33	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 period length (min)	Time segment length (min)	Run automatically
D6	2025 Do Minimum	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

16:45 - 17:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	168.00	153.00
	A2OFF	120.00	0.00	39.00	0.00
	A227S	133.00	0.00	0.00	50.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	166.00	143.00
	A2OFF	135.00	0.00	52.00	0.00
	A227S	125.00	0.00	1.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	169.00	141.00
	A2OFF	144.00	0.00	42.00	0.00
	A227S	152.00	0.00	1.00	47.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:30 - 17:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	165.00	125.00
	A2OFF	110.00	0.00	45.00	1.00
	A227S	135.00	0.00	0.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:45 - 18:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	144.00	120.00
	A2OFF	108.00	0.00	30.00	0.00
	A227S	145.00	0.00	0.00	43.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

18:00 - 18:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	149.00	119.00
	A2OFF	98.00	0.00	38.00	0.00
	A227S	104.00	0.00	0.00	45.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	3
	A2OFF	2	0	3	0
	A227S	4	0	0	6
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	0
	A2OFF	0	0	0	0
	A227S	0	0	0	5
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	2	0	5	0
	A227S	1	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:30 - 17:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	2	0
	A227S	2	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:45 - 18:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	3
	A2OFF	0	0	0	0
	A227S	0	0	0	2
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

18:00 - 18:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	1
	A2OFF	2	0	0	0
	A227S	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	6.40	2.2	A	291.70	1750.18
A2OFF	15.13	3.0	C	159.99	959.95
A227S	8.93	1.9	A	185.36	1112.14
A2ON					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	320.87	320.87	0.00	320.33	324.87	251.91	0.0	2.1	6.398	A
A2OFF	157.25	157.25	320.33	157.70	158.01	0.00	0.0	1.9	12.138	B
A227S	185.88	185.88	270.27	187.88	190.88	207.67	0.0	1.7	8.763	A
A2ON			0.00			206.24				

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	308.48	308.48	0.54	307.52	307.99	260.73	2.1	2.0	5.726	A
A2OFF	188.60	188.60	308.06	189.45	183.69	0.00	1.9	2.8	14.771	B
A227S	187.75	187.75	278.82	186.90	191.33	218.69	1.7	1.9	8.930	A
A2ON			0.00			204.45				

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	305.19	305.19	0.76	305.33	312.61	291.85	2.0	1.8	5.734	A
A2OFF	179.37	179.37	306.09	181.16	189.06	0.00	2.8	2.9	15.130	C
A227S	201.13	201.13	279.48	200.64	201.18	207.76	1.9	1.8	8.623	A
A2ON			0.00			187.52				

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	288.81	288.81	0.00	288.49	291.49	246.22	1.8	1.5	5.282	A
A2OFF	153.93	153.93	288.49	152.64	157.19	0.00	2.9	2.2	10.926	B
A227S	202.43	202.43	230.92	202.55	203.45	210.22	1.8	1.4	7.766	A
A2ON			0.00			187.16				

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	261.05	261.05	0.00	260.73	266.28	251.78	1.5	1.4	5.122	A
A2OFF	139.61	139.61	260.73	139.79	138.09	0.00	2.2	1.3	8.690	A
A227S	186.22	186.22	225.13	187.61	190.39	175.39	1.4	1.2	7.020	A
A2ON			0.00			161.02				

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	266.24	266.24	0.00	266.64	268.66	204.81	1.4	1.1	4.900	A
A2OFF	141.27	141.27	266.64	140.55	138.87	0.00	1.3	1.5	8.698	A
A227S	148.84	148.84	217.21	147.94	150.28	189.99	1.2	1.1	5.958	A
A2ON			0.00			160.34				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	120.85	297.48	0.406	120.72	119.87	0.0	0.6	4.594	A
			2	A227N, A227S, A2ON	200.01	290.73	0.688	199.61	205.00	0.0	1.5	7.476	A
	Exit	1	1		251.91			251.91	256.93	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	86.10	133.20	0.646	86.07	86.72	0.0	1.1	12.313	B
			2	A227N	70.97	134.26	0.529	71.55	71.30	0.0	0.7	10.224	B
		2	1	(A227N, A227S, A2ON)	157.25			157.08	159.87	0.0	0.2	0.759	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	105.90	173.60	0.611	106.61	108.78	0.0	1.1	8.791	A
			2	A227N, A227S	80.60	175.16	0.459	81.24	82.10	0.0	0.6	7.408	A
		2	1	(A227N, A227S, A2ON)	185.88			186.37	192.75	0.0	0.0	0.569	A
	Exit	1	1		207.67			207.67	206.82	0.0	0.0	0.000	A
A2ON	Exit	1	1		206.24			206.24	210.01	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	115.93	294.20	0.394	115.57	115.21	0.6	0.6	4.279	A
			2	A227N, A227S, A2ON	192.54	296.25	0.650	191.95	192.78	1.5	1.4	6.585	A
	Exit	1	1		260.73			260.73	258.18	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	105.00	140.76	0.746	104.96	101.13	1.1	1.6	14.233	B
			2	A227N	83.82	140.76	0.595	84.49	82.55	0.7	1.0	12.009	B
		2	1	(A227N, A227S, A2ON)	188.60			188.82	184.40	0.2	0.2	1.539	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	108.58	177.40	0.612	108.58	112.00	1.1	1.0	9.154	A
			2	A227N, A227S	79.16	182.97	0.433	78.31	79.33	0.6	0.7	7.157	A
		2	1	(A227N, A227S, A2ON)	187.75			187.75	191.27	0.0	0.1	0.619	A
	Exit	1	1		218.69			218.69	217.58	0.0	0.0	0.000	A
A2ON	Exit	1	1		204.45			204.45	207.24	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	116.06	294.27	0.394	115.88	119.07	0.6	0.5	4.340	A
			2	A227N, A227S, A2ON	189.13	294.79	0.642	189.45	193.54	1.4	1.3	6.592	A
	Exit	1	1		291.85			291.85	297.69	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	97.72	137.57	0.709	98.37	102.13	1.6	1.4	14.324	B
			2	A227N	82.61	138.66	0.596	82.88	86.93	1.0	1.2	12.474	B
		2	1	(A227N, A227S, A2ON)	179.37			180.36	189.16	0.2	0.3	1.656	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	110.46	180.51	0.612	109.70	110.09	1.0	1.0	8.945	A
			2	A227N, A227S	90.65	178.63	0.507	90.94	91.09	0.7	0.7	7.725	A
		2	1	(A227N, A227S, A2ON)	201.13			201.04	201.12	0.1	0.0	0.231	A
	Exit	1	1		207.76			207.76	215.63	0.0	0.0	0.000	A
A2ON	Exit	1	1		187.52			187.52	189.54	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	108.21	294.51	0.367	108.30	110.07	0.5	0.4	4.210	A
			2	A227N, A227S, A2ON	180.72	294.63	0.613	180.31	181.42	1.3	1.2	5.932	A
	Exit	1	1		246.22			246.22	250.15	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	88.08	144.65	0.609	87.13	89.52	1.4	1.2	11.317	B
			2	A227N	66.00	144.36	0.458	65.55	67.67	1.2	0.8	9.232	A
		2	1	(A227N, A227S, A2ON)	153.93			154.07	156.61	0.3	0.1	0.516	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	115.93	195.99	0.591	115.75	117.72	1.0	0.9	7.954	A
			2	A227N, A227S	86.51	192.19	0.450	86.84	85.73	0.7	0.5	6.729	A
		2	1	(A227N, A227S, A2ON)	202.43			202.25	203.07	0.0	0.1	0.320	A
	Exit	1	1		210.22			210.22	212.09	0.0	0.0	0.000	A
A2ON	Exit	1	1		187.16			187.16	189.90	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	95.82	294.72	0.325	95.82	95.36	0.4	0.4	3.947	A
			2	A227N, A227S, A2ON	165.22	291.46	0.566	164.95	170.93	1.2	1.1	5.788	A
	Exit	1	1		251.78			251.78	253.24	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	78.22	153.06	0.511	78.09	76.66	1.2	0.8	9.151	A
			2	A227N	61.39	153.06	0.401	61.70	61.43	0.8	0.5	7.839	A
		2	1	(A227N, A227S, A2ON)	139.61			139.61	137.30	0.1	0.0	0.137	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	104.73	197.25	0.531	106.03	106.81	0.9	0.6	7.343	A
			2	A227N, A227S	81.40	198.75	0.410	81.63	83.58	0.5	0.6	6.330	A
		2	1	(A227N, A227S, A2ON)	186.22			186.13	190.21	0.1	0.1	0.130	A
	Exit	1	1		175.39			175.39	174.57	0.0	0.0	0.000	A
A2ON	Exit	1	1		161.02			161.02	166.96	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	99.63	297.48	0.335	100.21	98.10	0.4	0.3	3.961	A
			2	A227N, A227S, A2ON	166.61	295.49	0.564	166.43	170.55	1.1	0.9	5.445	A
	Exit	1	1		204.81			204.81	207.00	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	79.52	151.13	0.526	79.39	78.24	0.8	0.9	9.378	A
			2	A227N	61.70	149.91	0.412	61.16	60.63	0.5	0.6	7.604	A
		2	1	(A227N, A227S, A2ON)	141.27			141.22	139.07	0.0	0.0	0.092	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	87.81	201.27	0.436	87.09	88.54	0.6	0.7	6.297	A
			2	A227N, A227S	61.03	201.27	0.303	60.85	61.75	0.6	0.4	5.373	A
		2	1	(A227N, A227S, A2ON)	148.84			148.84	150.24	0.1	0.0	0.039	A
	Exit	1	1		189.99			189.99	186.88	0.0	0.0	0.000	A
A2ON	Exit	1	1		160.34			160.34	163.93	0.0	0.0	0.000	A

2025 Do Minimum Residual, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	9.15	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 period length (min)	Time segment length (min)	Run automatically
D8	2025 Do Minimum Residual	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

16:45 - 17:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	168.00	152.00
	A2OFF	119.00	0.00	39.00	0.00
	A227S	133.00	0.00	0.00	50.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	166.00	142.00
	A2OFF	134.00	0.00	52.00	0.00
	A227S	125.00	0.00	1.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	169.00	140.00
	A2OFF	143.00	0.00	42.00	0.00
	A227S	152.00	0.00	1.00	47.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:30 - 17:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	165.00	124.00
	A2OFF	109.00	0.00	45.00	1.00
	A227S	135.00	0.00	0.00	62.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:45 - 18:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	144.00	119.00
	A2OFF	107.00	0.00	30.00	0.00
	A227S	145.00	0.00	0.00	43.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

18:00 - 18:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	149.00	118.00
	A2OFF	97.00	0.00	38.00	0.00
	A227S	104.00	0.00	0.00	45.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	3
	A2OFF	2	0	3	0
	A227S	4	0	0	6
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	0
	A2OFF	0	0	0	0
	A227S	0	0	0	5
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	2	0	5	0
	A227S	1	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:30 - 17:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	2	0
	A227S	2	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:45 - 18:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	3
	A2OFF	0	0	0	0
	A227S	0	0	0	2
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

18:00 - 18:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	1
	A2OFF	2	0	0	0
	A227S	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	6.18	2.1	A	291.11	1746.69
A2OFF	15.08	3.2	C	160.17	961.01
A227S	8.67	2.1	A	185.31	1111.88
A2ON					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	316.93	316.93	0.00	317.74	321.36	251.31	0.0	2.1	6.180	A
A2OFF	157.50	157.50	317.74	157.59	159.66	0.00	0.0	2.1	11.700	B
A227S	182.27	182.27	267.73	181.59	189.77	207.51	0.0	1.8	8.565	A
A2ON			0.00			198.00				

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	305.36	305.36	1.07	307.37	308.71	264.39	2.1	1.5	5.703	A
A2OFF	187.24	187.24	308.44	189.51	185.64	0.00	2.1	2.4	14.646	B
A227S	187.71	187.71	278.96	187.11	190.69	219.00	1.8	2.0	8.674	A
A2ON			0.00			200.62				

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	307.89	307.89	0.99	307.84	311.96	301.76	1.5	1.7	5.578	A
A2OFF	190.20	190.20	308.83	189.51	189.83	0.00	2.4	3.1	15.080	C
A227S	206.01	206.01	283.74	206.31	203.03	214.54	2.0	1.9	8.569	A
A2ON			0.00			187.37				

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	287.96	287.96	0.00	288.60	292.56	245.27	1.7	1.8	5.328	A
A2OFF	154.76	154.76	288.60	155.00	159.20	0.00	3.1	1.7	11.624	B
A227S	201.56	201.56	230.57	199.54	201.90	213.04	1.9	2.1	7.910	A
A2ON			0.00			184.84				

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	265.24	265.24	0.00	265.33	269.06	250.54	1.8	1.4	5.013	A
A2OFF	137.91	137.91	265.33	137.87	135.61	0.00	1.7	1.3	8.419	A
A227S	186.69	186.69	226.29	187.93	187.21	176.91	2.1	1.2	6.844	A
A2ON			0.00			163.67				

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	263.74	263.74	0.00	263.27	264.87	198.08	1.4	1.3	5.032	A
A2OFF	133.50	133.50	263.27	134.66	136.66	0.00	1.3	1.2	8.834	A
A227S	148.03	148.03	213.21	146.49	147.70	184.71	1.2	1.3	5.893	A
A2ON			0.00			161.62				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	120.21	297.48	0.404	120.60	119.29	0.0	0.6	4.399	A
			2	A227N, A227S, A2ON	196.67	291.39	0.675	197.14	202.07	0.0	1.5	7.251	A
	Exit	1	1		251.31			251.31	258.64	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	87.13	134.41	0.649	87.56	87.97	0.0	1.2	11.956	B
			2	A227N	70.24	134.30	0.523	69.94	71.69	0.0	0.8	10.366	B
		2	1	(A227N, A227S, A2ON)	157.50			157.37	161.70	0.0	0.2	0.439	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	102.26	175.32	0.583	101.74	106.91	0.0	1.0	8.774	A
			2	A227N, A227S	80.01	176.04	0.453	79.84	82.86	0.0	0.7	7.324	A
		2	1	(A227N, A227S, A2ON)	182.27			182.27	191.51	0.0	0.1	0.428	A
	Exit	1	1		207.51			207.51	205.74	0.0	0.0	0.000	A
A2ON	Exit	1	1		198.00			198.00	206.40	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	114.60	295.14	0.388	115.03	115.50	0.6	0.5	4.413	A
			2	A227N, A227S, A2ON	190.75	296.39	0.644	192.34	193.21	1.5	1.0	6.470	A
	Exit	1	1		264.39			264.39	258.71	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	103.71	140.84	0.736	104.53	103.63	1.2	1.5	13.794	B
			2	A227N	83.83	140.84	0.595	84.99	82.01	0.8	0.8	12.025	B
		2	1	(A227N, A227S, A2ON)	187.24			187.54	185.84	0.2	0.2	1.640	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	108.51	177.78	0.610	108.04	110.84	1.0	1.2	9.000	A
			2	A227N, A227S	79.37	182.92	0.434	79.07	79.84	0.7	0.7	7.080	A
		2	1	(A227N, A227S, A2ON)	187.71			187.84	190.93	0.1	0.1	0.485	A
	Exit	1	1		219.00			219.00	221.61	0.0	0.0	0.000	A
A2ON	Exit	1	1		200.62			200.62	204.71	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	116.12	294.11	0.395	116.14	117.13	0.5	0.5	4.278	A
			2	A227N, A227S, A2ON	191.71	294.25	0.652	191.70	194.83	1.0	1.3	6.360	A
	Exit	1	1		301.76			301.76	299.59	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	100.97	136.00	0.741	100.46	102.19	1.5	1.7	14.194	B
			2	A227N	89.36	137.48	0.650	89.06	87.64	0.8	1.2	12.298	B
		2	1	(A227N, A227S, A2ON)	190.20			190.40	190.60	0.2	0.2	1.766	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	113.84	178.97	0.637	113.74	111.97	1.2	1.1	8.731	A
			2	A227N, A227S	92.36	177.97	0.519	92.57	91.06	0.7	0.7	7.706	A
		2	1	(A227N, A227S, A2ON)	206.01			206.23	202.93	0.1	0.1	0.292	A
	Exit	1	1		214.54			214.54	216.41	0.0	0.0	0.000	A
A2ON	Exit	1	1		187.37			187.37	188.81	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	110.87	294.74	0.376	110.87	111.50	0.5	0.5	4.191	A
			2	A227N, A227S, A2ON	177.09	294.31	0.601	177.70	181.06	1.3	1.3	6.028	A
	Exit	1	1		245.27			245.27	250.53	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	88.63	144.63	0.613	88.84	90.76	1.7	1.0	11.973	B
			2	A227N	66.13	144.23	0.458	66.17	68.44	1.2	0.6	9.537	A
		2	1	(A227N, A227S, A2ON)	154.76			154.76	157.83	0.2	0.1	0.720	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	117.43	195.73	0.600	115.97	115.97	1.1	1.4	8.177	A
			2	A227N, A227S	83.96	192.50	0.436	83.61	85.93	0.7	0.6	6.828	A
		2	1	(A227N, A227S, A2ON)	201.56			201.39	202.00	0.1	0.1	0.306	A
	Exit	1	1		213.04			213.04	216.00	0.0	0.0	0.000	A
A2ON	Exit	1	1		184.84			184.84	187.13	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	97.16	293.46	0.331	97.41	97.59	0.5	0.4	3.873	A
			2	A227N, A227S, A2ON	167.87	290.80	0.577	167.91	171.47	1.3	1.0	5.669	A
	Exit	1	1		250.54			250.54	247.94	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	75.69	151.57	0.499	75.73	75.46	1.0	0.7	8.793	A
			2	A227N	62.23	151.57	0.411	62.14	60.16	0.6	0.5	7.869	A
		2	1	(A227N, A227S, A2ON)	137.91			137.91	135.26	0.1	0.0	0.034	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	105.99	196.43	0.539	107.10	105.19	1.4	0.6	7.098	A
			2	A227N, A227S	80.87	198.23	0.408	80.83	82.03	0.6	0.6	6.294	A
		2	1	(A227N, A227S, A2ON)	186.69			186.86	186.40	0.1	0.0	0.101	A
	Exit	1	1		176.91			176.91	177.47	0.0	0.0	0.000	A
A2ON	Exit	1	1		163.67			163.67	166.47	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	96.90	297.48	0.326	97.29	97.64	0.4	0.3	3.938	A
			2	A227N, A227S, A2ON	166.84	295.50	0.565	165.99	167.23	1.0	1.0	5.675	A
	Exit	1	1		198.08			198.08	202.17	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	76.20	151.56	0.503	76.67	77.79	0.7	0.8	9.469	A
			2	A227N	57.30	150.43	0.380	57.97	58.87	0.5	0.4	7.699	A
		2	1	(A227N, A227S, A2ON)	133.50			133.50	136.56	0.0	0.0	0.124	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	87.43	202.42	0.432	86.27	88.03	0.6	0.8	6.229	A
			2	A227N, A227S	60.60	202.42	0.299	60.21	59.67	0.6	0.5	5.366	A
		2	1	(A227N, A227S, A2ON)	148.03			148.03	147.83	0.0	0.0	0.015	A
	Exit	1	1		184.71			184.71	184.51	0.0	0.0	0.000	A
A2ON	Exit	1	1		161.62			161.62	162.54	0.0	0.0	0.000	A

2028 Do Nothing, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	9.82	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 period length (min)	Time segment length (min)	Run automatically
D10	2028 Do Nothing	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

Demand (Veh/TS)

16:45 - 17:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	173.00	157.00
	A2OFF	117.00	0.00	41.00	0.00
	A227S	139.00	0.00	0.00	52.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Demand (Veh/TS)

17:00 - 17:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	171.00	147.00
	A2OFF	133.00	0.00	55.00	0.00
	A227S	131.00	0.00	1.00	65.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	173.00	145.00
	A2OFF	142.00	0.00	44.00	0.00
	A227S	158.00	0.00	0.00	49.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:30 - 17:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	170.00	129.00
	A2OFF	107.00	0.00	47.00	1.00
	A227S	141.00	0.00	0.00	65.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:45 - 18:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	148.00	123.00
	A2OFF	105.00	0.00	31.00	0.00
	A227S	151.00	0.00	0.00	45.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

18:00 - 18:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	153.00	122.00
	A2OFF	95.00	0.00	40.00	0.00
	A227S	109.00	0.00	0.00	47.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	3
	A2OFF	2	0	3	0
	A227S	4	0	0	6
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	0
	A2OFF	0	0	0	0
	A227S	0	0	0	5
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	5	0
	A227S	1	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:30 - 17:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	2	0
	A227S	2	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:45 - 18:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	2	0
	A227S	1	0	0	2
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

18:00 - 18:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	1
	A2OFF	2	0	0	0
	A227S	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	6.60	2.6	A	301.87	1811.25
A2OFF	15.97	3.6	C	159.54	957.25
A227S	9.79	2.8	A	194.22	1165.34
A2ON					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	331.79	331.79	0.00	331.52	335.04	258.63	0.0	2.4	6.596	A
A2OFF	157.85	157.85	331.52	157.93	160.27	0.00	0.0	2.2	12.399	B
A227S	197.24	197.24	272.33	194.28	200.18	217.19	0.0	2.7	9.529	A
A2ON			0.00			207.98				

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	320.01	320.01	0.76	321.22	321.25	267.45	2.4	1.6	6.023	A
A2OFF	190.21	190.21	321.99	187.84	188.76	0.00	2.2	3.7	15.518	C
A227S	197.69	197.69	279.76	197.37	202.99	230.06	2.7	2.1	9.785	A
A2ON			0.00			208.93				

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	317.51	317.51	0.00	317.33	323.22	295.34	1.6	2.6	5.826	A
A2OFF	182.78	182.78	317.33	182.24	187.82	0.00	3.7	3.4	15.969	C
A227S	208.09	208.09	285.63	206.24	209.55	213.85	2.1	2.3	9.282	A
A2ON			0.00			196.61				

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	297.09	297.09	0.00	297.04	301.43	249.99	2.6	1.8	5.493	A
A2OFF	155.87	155.87	297.04	156.07	158.99	0.00	3.4	1.9	11.923	B
A227S	209.82	209.82	233.82	211.16	210.40	219.22	2.3	1.9	8.347	A
A2ON			0.00			195.00				

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	277.16	277.16	0.00	276.63	275.24	259.84	1.8	1.6	5.064	A
A2OFF	139.30	139.30	276.63	138.40	137.90	0.00	1.9	1.5	8.897	A
A227S	196.97	196.97	234.18	197.60	200.09	180.85	1.9	1.5	7.351	A
A2ON			0.00			171.94				

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	267.96	267.96	0.00	268.70	273.39	199.84	1.6	1.4	4.995	A
A2OFF	131.10	131.10	268.70	131.06	133.96	0.00	1.5	1.1	8.635	A
A227S	155.37	155.37	209.91	156.40	159.21	189.85	1.5	1.0	5.978	A
A2ON			0.00			166.48				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	126.27	297.48	0.424	126.49	126.04	0.0	0.6	4.540	A
			2	A227N, A227S, A2ON	205.52	291.18	0.706	205.03	209.00	0.0	1.8	7.858	A
	Exit	1	1		258.63			258.63	264.55	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	86.42	130.77	0.661	86.57	87.31	0.0	1.1	12.776	B
			2	A227N	71.64	130.21	0.550	71.37	72.96	0.0	0.9	10.434	B
		2	1	(A227N, A227S, A2ON)	157.85			158.06	162.37	0.0	0.1	0.685	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	109.49	174.49	0.626	108.25	112.43	0.0	1.4	9.431	A
			2	A227N, A227S	86.55	175.96	0.493	85.93	87.75	0.0	0.8	7.940	A
		2	1	(A227N, A227S, A2ON)	197.24			195.99	202.55	0.0	0.4	0.738	A
	Exit	1	1		217.19			217.19	216.31	0.0	0.0	0.000	A
A2ON	Exit	1	1		207.98			207.98	214.63	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	118.07	294.10	0.401	117.98	120.34	0.6	0.5	4.484	A
			2	A227N, A227S, A2ON	201.94	296.46	0.681	203.25	200.91	1.8	1.1	6.941	A
	Exit	1	1		267.45			267.45	267.52	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	104.64	136.98	0.764	104.64	103.96	1.1	1.8	14.886	B
			2	A227N	84.45	136.98	0.616	83.19	84.81	0.9	1.4	12.304	B
		2	1	(A227N, A227S, A2ON)	190.21			189.09	189.79	0.1	0.5	1.758	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	111.81	178.29	0.628	111.13	116.55	1.4	1.3	9.968	A
			2	A227N, A227S	85.75	182.67	0.469	86.24	86.43	0.8	0.6	7.860	A
		2	1	(A227N, A227S, A2ON)	197.69			197.55	202.63	0.4	0.1	0.740	A
	Exit	1	1		230.06			230.06	229.34	0.0	0.0	0.000	A
A2ON	Exit	1	1		208.93			208.93	216.13	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	118.61	294.55	0.402	118.60	122.19	0.5	0.7	4.401	A
			2	A227N, A227S, A2ON	198.94	293.84	0.677	198.72	201.03	1.1	1.9	6.692	A
	Exit	1	1		295.34			295.34	302.45	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	99.31	135.20	0.735	99.49	101.55	1.8	1.5	14.507	B
			2	A227N	83.33	136.40	0.610	82.73	86.27	1.4	1.3	12.489	B
		2	1	(A227N, A227S, A2ON)	182.78			182.60	187.57	0.5	0.6	2.407	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	114.27	178.40	0.641	113.22	115.37	1.3	1.3	9.258	A
			2	A227N, A227S	93.63	178.19	0.525	93.00	94.18	0.6	0.9	7.923	A
		2	1	(A227N, A227S, A2ON)	208.09			207.90	209.78	0.1	0.1	0.628	A
	Exit	1	1		213.85			213.85	221.30	0.0	0.0	0.000	A
A2ON	Exit	1	1		196.61			196.61	196.85	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	114.45	294.32	0.389	114.13	114.46	0.7	0.6	4.274	A
			2	A227N, A227S, A2ON	182.64	294.67	0.620	182.91	186.97	1.9	1.2	6.242	A
	Exit	1	1		249.99			249.99	254.27	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	89.96	141.10	0.637	89.65	90.87	1.5	1.2	12.351	B
			2	A227N	65.73	142.10	0.462	66.30	68.12	1.3	0.6	9.729	A
		2	1	(A227N, A227S, A2ON)	155.87			155.69	157.96	0.6	0.1	0.729	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	123.13	194.49	0.633	123.31	121.58	1.3	1.1	8.658	A
			2	A227N, A227S	86.92	192.70	0.451	87.85	88.82	0.9	0.7	7.120	A
		2	1	(A227N, A227S, A2ON)	209.82			209.95	210.01	0.1	0.0	0.336	A
	Exit	1	1		219.22			219.22	220.13	0.0	0.0	0.000	A
A2ON	Exit	1	1		195.00			195.00	196.42	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	103.90	293.62	0.354	103.77	101.01	0.6	0.4	3.889	A
			2	A227N, A227S, A2ON	173.32	294.85	0.587	172.82	174.22	1.2	1.3	5.742	A
	Exit	1	1		259.84			259.84	259.10	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	77.92	147.57	0.528	76.93	77.73	1.2	0.9	9.189	A
			2	A227N	61.33	148.02	0.415	61.52	60.16	0.6	0.6	8.378	A
		2	1	(A227N, A227S, A2ON)	139.30			139.30	137.54	0.1	0.0	0.074	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	110.60	193.41	0.572	111.31	112.52	1.1	0.9	7.447	A
			2	A227N, A227S	86.24	194.47	0.443	86.37	87.57	0.7	0.6	6.732	A
		2	1	(A227N, A227S, A2ON)	196.97			196.84	199.70	0.0	0.0	0.218	A
	Exit	1	1		180.85			180.85	181.22	0.0	0.0	0.000	A
A2ON	Exit	1	1		171.94			171.94	172.90	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	98.01	297.48	0.329	98.06	99.96	0.4	0.3	4.006	A
			2	A227N, A227S, A2ON	169.92	293.93	0.578	170.64	173.43	1.3	1.1	5.571	A
	Exit	1	1		199.84			199.84	205.45	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	76.66	150.35	0.510	76.75	77.13	0.9	0.7	9.218	A
			2	A227N	54.58	148.45	0.368	54.31	56.82	0.6	0.5	7.534	A
		2	1	(A227N, A227S, A2ON)	131.10			131.19	133.64	0.0	0.0	0.127	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	93.18	203.22	0.459	93.45	94.24	0.9	0.7	6.295	A
			2	A227N, A227S	62.19	203.22	0.306	62.96	64.97	0.6	0.3	5.451	A
		2	1	(A227N, A227S, A2ON)	155.37			155.37	158.73	0.0	0.0	0.029	A
	Exit	1	1		189.85			189.85	190.91	0.0	0.0	0.000	A
A2ON	Exit	1	1		166.48			166.48	170.19	0.0	0.0	0.000	A

2028 Do Minimum, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	10.70	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 period length (min)	Time segment length (min)	Run automatically
D12	2028 Do Minimum	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

16:45 - 17:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	174.00	165.00
	A2OFF	126.00	0.00	40.00	0.00
	A227S	139.00	0.00	0.00	52.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	172.00	155.00
	A2OFF	142.00	0.00	54.00	0.00
	A227S	131.00	0.00	1.00	65.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	174.00	153.00
	A2OFF	152.00	0.00	43.00	0.00
	A227S	158.00	0.00	1.00	49.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:30 - 17:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	171.00	137.00
	A2OFF	116.00	0.00	46.00	1.00
	A227S	141.00	0.00	0.00	65.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:45 - 18:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	149.00	131.00
	A2OFF	114.00	0.00	31.00	0.00
	A227S	151.00	0.00	0.00	45.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

18:00 - 18:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	154.00	129.00
	A2OFF	103.00	0.00	39.00	0.00
	A227S	109.00	0.00	0.00	47.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	3
	A2OFF	2	0	3	0
	A227S	4	0	0	6
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	0
	A2OFF	0	0	0	0
	A227S	0	0	0	5
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	5	0
	A227S	1	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:30 - 17:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	2	0
	A227S	2	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:45 - 18:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	3
	A2OFF	0	0	0	0
	A227S	0	0	0	2
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

18:00 - 18:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	1
	A2OFF	2	0	0	0
	A227S	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	6.66	2.5	A	311.71	1870.27
A2OFF	18.93	4.7	C	168.15	1008.87
A227S	10.07	2.5	B	192.91	1157.49
A2ON					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	341.08	341.08	0.00	341.59	342.65	263.20	0.0	2.5	6.656	A
A2OFF	162.21	162.21	341.59	162.56	167.33	0.00	0.0	2.7	14.221	B
A227S	191.08	191.08	287.36	192.09	197.43	216.65	0.0	1.8	9.354	A
A2ON			0.00			216.36				

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	326.05	326.05	1.16	326.58	327.37	274.16	2.5	2.3	6.162	A
A2OFF	196.93	196.93	327.74	196.16	193.48	0.00	2.7	3.9	16.864	C
A227S	198.15	198.15	298.25	197.50	198.33	225.65	1.8	2.4	9.725	A
A2ON			0.00			220.46				

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	331.48	331.48	0.68	331.22	332.02	309.30	2.3	2.2	6.145	A
A2OFF	197.91	197.91	331.90	195.89	197.74	0.00	3.9	4.7	18.929	C
A227S	207.83	207.83	309.31	206.67	209.39	218.46	2.4	2.5	10.073	B
A2ON			0.00			206.05				

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	305.82	305.82	0.00	306.36	309.21	257.23	2.2	1.8	5.595	A
A2OFF	161.02	161.02	306.36	162.18	166.43	0.00	4.7	1.9	12.735	B
A227S	208.40	208.40	251.05	209.67	211.16	217.49	2.5	1.9	9.502	A
A2ON			0.00			203.52				

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	279.00	279.00	0.00	279.03	284.68	264.27	1.8	1.8	5.357	A
A2OFF	147.56	147.56	279.03	147.89	145.59	0.00	1.9	1.6	9.472	A
A227S	194.94	194.94	248.70	194.88	196.27	178.22	1.9	1.6	7.554	A
A2ON			0.00			179.32				

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	287.26	287.26	0.00	288.15	287.55	214.31	1.8	1.4	5.440	A
A2OFF	143.61	143.61	288.15	143.44	144.38	0.00	1.6	1.8	9.740	A
A227S	157.25	157.25	239.05	157.28	158.21	192.56	1.6	0.9	6.379	A
A2ON			0.00			182.02				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	129.12	297.48	0.434	129.53	126.93	0.0	0.6	4.634	A
			2	A227N, A227S, A2ON	211.96	291.05	0.728	212.05	215.72	0.0	1.9	7.867	A
	Exit	1	1		263.20			263.20	271.05	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	88.96	127.76	0.695	88.66	91.53	0.0	1.5	13.716	B
			2	A227N	73.66	127.52	0.577	73.87	75.79	0.0	1.0	12.157	B
		2	1	(A227N, A227S, A2ON)	162.21			162.56	169.92	0.0	0.1	1.207	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	107.52	169.36	0.635	108.15	111.86	0.0	1.0	9.207	A
			2	A227N, A227S	84.36	172.02	0.490	83.94	85.56	0.0	0.7	8.172	A
		2	1	(A227N, A227S, A2ON)	191.08			191.88	199.29	0.0	0.0	0.598	A
	Exit	1	1		216.65			216.65	215.16	0.0	0.0	0.000	A
A2ON	Exit	1	1		216.36			216.36	221.20	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	121.22	293.83	0.412	121.59	122.60	0.6	0.5	4.538	A
			2	A227N, A227S, A2ON	204.82	296.29	0.691	204.99	204.76	1.9	1.8	7.128	A
	Exit	1	1		274.16			274.16	271.54	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	106.75	135.37	0.789	106.22	104.81	1.5	1.9	15.579	C
			2	A227N	90.21	135.37	0.666	89.94	88.66	1.0	1.2	12.703	B
		2	1	(A227N, A227S, A2ON)	196.93			196.96	194.01	0.1	0.8	2.557	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	114.24	172.40	0.663	113.98	114.90	1.0	1.3	9.836	A
			2	A227N, A227S	84.06	176.93	0.475	83.52	83.43	0.7	0.9	7.543	A
		2	1	(A227N, A227S, A2ON)	198.15			198.30	198.70	0.0	0.2	0.858	A
	Exit	1	1		225.65			225.65	226.72	0.0	0.0	0.000	A
A2ON	Exit	1	1		220.46			220.46	220.90	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	123.77	294.83	0.420	123.79	124.07	0.5	0.6	4.554	A
			2	A227N, A227S, A2ON	207.71	294.08	0.706	207.45	207.95	1.8	1.6	7.097	A
	Exit	1	1		309.30			309.30	310.80	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	105.33	130.39	0.808	104.32	106.01	1.9	2.0	15.956	C
			2	A227N	91.93	132.85	0.692	91.57	91.73	1.2	1.7	13.561	B
		2	1	(A227N, A227S, A2ON)	197.91			197.29	198.37	0.8	1.0	4.100	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	113.67	171.64	0.662	113.40	114.92	1.3	1.2	9.926	A
			2	A227N, A227S	93.89	170.60	0.550	93.30	94.47	0.9	1.0	8.994	A
		2	1	(A227N, A227S, A2ON)	207.83			207.57	209.37	0.2	0.3	0.557	A
	Exit	1	1		218.46			218.46	221.31	0.0	0.0	0.000	A
A2ON	Exit	1	1		206.05			206.05	207.04	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	117.27	295.46	0.397	117.24	117.12	0.6	0.5	4.366	A
			2	A227N, A227S, A2ON	188.54	294.61	0.640	189.12	192.09	1.6	1.3	6.345	A
	Exit	1	1		257.23			257.23	263.46	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	90.21	139.12	0.648	90.71	93.50	2.0	1.1	12.584	B
			2	A227N	71.23	139.97	0.509	71.47	72.93	1.7	0.8	10.540	B
		2	1	(A227N, A227S, A2ON)	161.02			161.44	164.57	1.0	0.0	1.117	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	120.80	189.39	0.638	121.66	120.36	1.2	1.0	9.570	A
			2	A227N, A227S	88.04	187.49	0.470	88.01	90.80	1.0	0.8	7.792	A
		2	1	(A227N, A227S, A2ON)	208.40			208.84	210.82	0.3	0.0	0.708	A
	Exit	1	1		217.49			217.49	219.43	0.0	0.0	0.000	A
A2ON	Exit	1	1		203.52			203.52	203.91	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	99.76	294.83	0.338	99.94	101.24	0.5	0.5	4.069	A
			2	A227N, A227S, A2ON	179.32	290.12	0.618	179.17	183.45	1.3	1.3	6.078	A
	Exit	1	1		264.27			264.27	264.37	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	80.70	147.73	0.546	80.47	80.26	1.1	1.0	9.879	A
			2	A227N	66.98	147.73	0.453	67.43	65.34	0.8	0.6	8.802	A
		2	1	(A227N, A227S, A2ON)	147.56			147.68	145.25	0.0	0.0	0.078	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	108.65	189.41	0.573	108.42	108.76	1.0	1.0	7.893	A
			2	A227N, A227S	86.52	191.07	0.453	86.47	87.50	0.8	0.7	6.840	A
		2	1	(A227N, A227S, A2ON)	194.94			195.18	196.05	0.0	0.0	0.137	A
	Exit	1	1		178.22			178.22	180.18	0.0	0.0	0.000	A
A2ON	Exit	1	1		179.32			179.32	182.00	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	105.98	297.48	0.356	106.31	105.89	0.5	0.4	4.005	A
			2	A227N, A227S, A2ON	181.31	295.21	0.614	181.84	181.66	1.3	1.0	6.284	A
	Exit	1	1		214.31			214.31	216.02	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	81.95	145.04	0.565	82.21	82.85	1.0	0.9	10.164	B
			2	A227N	61.57	143.71	0.428	61.25	61.52	0.6	0.8	8.641	A
		2	1	(A227N, A227S, A2ON)	143.61			143.53	144.51	0.0	0.1	0.223	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	91.40	194.32	0.470	91.37	92.74	1.0	0.5	6.720	A
			2	A227N, A227S	65.76	194.32	0.338	65.91	65.47	0.7	0.4	5.768	A
		2	1	(A227N, A227S, A2ON)	157.25			157.16	157.45	0.0	0.0	0.055	A
	Exit	1	1		192.56			192.56	194.12	0.0	0.0	0.000	A
A2ON	Exit	1	1		182.02			182.02	180.00	0.0	0.0	0.000	A

2028 Do Minimum Residual, 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.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A227 / A2 WB Slip Roads RB	Standard Roundabout		A227N, A2OFF, A227S, A2ON	10.94	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 period length (min)	Time segment length (min)	Run automatically
D14	2028 Do Minimum Residual	PM	DIRECT	16:45	18:15	90	15	✓

Vehicle mix varies over time	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A227N		DIRECT	✓	100.000
A2OFF		DIRECT	✓	100.000
A227S		DIRECT	✓	100.000
A2ON				

Origin-Destination Data

16:45 - 17:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	174.00	164.00
	A2OFF	125.00	0.00	40.00	0.00
	A227S	139.00	0.00	0.00	52.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	172.00	154.00
	A2OFF	141.00	0.00	54.00	0.00
	A227S	131.00	0.00	1.00	65.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	174.00	152.00
	A2OFF	151.00	0.00	43.00	0.00
	A227S	158.00	0.00	1.00	49.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:30 - 17:45

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	171.00	135.00
	A2OFF	115.00	0.00	46.00	1.00
	A227S	141.00	0.00	0.00	65.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:45 - 18:00

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	149.00	130.00
	A2OFF	113.00	0.00	31.00	0.00
	A227S	151.00	0.00	0.00	45.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

18:00 - 18:15

Demand (Veh/TS)

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0.00	0.00	154.00	128.00
	A2OFF	102.00	0.00	39.00	0.00
	A227S	109.00	0.00	0.00	47.00
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

16:45 - 17:00

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	3
	A2OFF	2	0	3	0
	A227S	4	0	0	6
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:00 - 17:15

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	0
	A2OFF	0	0	0	0
	A227S	0	0	0	5
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

17:15 - 17:30

Heavy Vehicle Percentages

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	5	0
	A227S	1	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:30 - 17:45

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	1
	A2OFF	1	0	2	0
	A227S	2	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

17:45 - 18:00

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	1	3
	A2OFF	0	0	0	0
	A227S	0	0	0	2
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Heavy Vehicle Percentages

18:00 - 18:15

		To			
		A227N	A2OFF	A227S	A2ON
From	A227N	0	0	0	1
	A2OFF	2	0	0	0
	A227S	0	0	0	0
	A2ON	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
A227N	6.58	2.5	A	308.40	1850.39
A2OFF	20.33	4.7	C	166.71	1000.23
A227S	9.81	2.4	A	193.10	1158.60
A2ON					

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	334.64	334.64	0.00	334.71	340.52	261.23	0.0	2.5	6.575	A
A2OFF	165.51	165.51	334.71	165.27	167.03	0.00	0.0	2.7	13.440	B
A227S	185.30	185.30	287.72	185.69	195.58	212.38	0.0	1.7	8.910	A
A2ON			0.00			212.07				

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	321.20	321.20	1.21	322.40	327.08	268.17	2.5	2.0	6.148	A
A2OFF	194.77	194.77	323.61	191.84	190.36	0.00	2.7	4.3	17.454	C
A227S	198.47	198.47	290.77	198.39	200.30	224.65	1.7	2.4	9.814	A
A2ON			0.00			219.78				

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	324.39	324.39	0.74	323.65	328.29	310.68	2.0	2.4	5.992	A
A2OFF	196.32	196.32	324.39	194.10	197.82	0.00	4.3	4.6	20.328	C
A227S	209.42	209.42	301.01	208.09	209.56	217.48	2.4	2.4	9.633	A
A2ON			0.00			197.69				

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	307.21	307.21	0.00	305.65	311.64	259.01	2.4	1.8	5.584	A
A2OFF	160.52	160.52	305.65	161.53	167.03	0.00	4.6	1.8	12.815	B
A227S	207.58	207.58	253.25	206.22	209.56	213.93	2.4	2.2	9.333	A
A2ON			0.00			200.45				

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	283.44	283.44	0.00	283.52	289.65	265.32	1.8	1.5	5.432	A
A2OFF	143.22	143.22	283.52	143.77	143.19	0.00	1.8	1.4	8.998	A
A227S	198.70	198.70	246.04	198.93	196.97	181.25	2.2	1.5	7.443	A
A2ON			0.00			179.70				

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Throughput (Veh/TS)	Average throughput (PCU/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	279.70	279.70	0.00	280.40	279.38	212.77	1.5	1.5	5.237	A
A2OFF	139.99	139.99	280.40	138.58	142.58	0.00	1.4	1.7	9.459	A
A227S	159.55	159.55	232.33	160.40	157.26	186.66	1.5	0.8	6.199	A
A2ON			0.00			179.96				

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 (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	126.04	297.48	0.424	125.61	126.81	0.0	0.7	4.528	A
			2	A227N, A227S, A2ON	208.60	290.55	0.718	209.10	213.71	0.0	1.8	7.813	A
	Exit	1	1		261.23			261.23	269.26	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	91.32	128.93	0.709	91.21	91.61	0.0	1.4	13.091	B
			2	A227N	74.30	130.49	0.569	74.06	75.42	0.0	1.2	11.568	B
		2	1	(A227N, A227S, A2ON)	165.51			165.62	169.64	0.0	0.2	1.036	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	101.96	169.31	0.601	102.12	110.17	0.0	1.0	9.049	A
			2	A227N, A227S	83.34	170.95	0.487	83.53	85.42	0.0	0.7	7.644	A
		2	1	(A227N, A227S, A2ON)	185.30			185.34	197.29	0.0	0.0	0.476	A
	Exit	1	1		212.38			212.38	214.53	0.0	0.0	0.000	A
A2ON	Exit	1	1		212.07			212.07	219.34	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	118.09	294.47	0.401	118.68	122.27	0.7	0.5	4.574	A
			2	A227N, A227S, A2ON	203.10	296.04	0.686	203.72	204.81	1.8	1.5	7.083	A
	Exit	1	1		268.17			268.17	269.21	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	105.86	136.55	0.775	104.73	103.06	1.4	2.1	15.868	C
			2	A227N	88.01	136.55	0.645	87.12	87.30	1.2	1.4	13.115	B
		2	1	(A227N, A227S, A2ON)	194.77			193.87	191.17	0.2	0.9	2.803	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	113.34	175.22	0.647	113.42	116.47	1.0	1.2	9.957	A
			2	A227N, A227S	84.16	179.25	0.469	84.97	83.83	0.7	0.6	7.802	A
		2	1	(A227N, A227S, A2ON)	198.47			197.49	200.51	0.0	0.5	0.748	A
	Exit	1	1		224.65			224.65	226.21	0.0	0.0	0.000	A
A2ON	Exit	1	1		219.78			219.78	222.32	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	122.56	294.52	0.416	122.57	123.62	0.5	0.5	4.426	A
			2	A227N, A227S, A2ON	201.87	293.81	0.687	201.08	204.66	1.5	1.8	6.937	A
	Exit	1	1		310.68			310.68	313.66	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	105.45	132.61	0.794	104.84	105.34	2.1	2.0	16.473	C
			2	A227N	89.65	134.40	0.667	89.30	92.48	1.4	1.5	14.330	B
		2	1	(A227N, A227S, A2ON)	196.32			195.08	198.03	0.9	1.1	4.876	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	114.47	174.08	0.658	113.77	114.84	1.2	1.4	9.655	A
			2	A227N, A227S	94.83	173.93	0.545	94.32	94.71	0.6	1.0	8.413	A
		2	1	(A227N, A227S, A2ON)	209.42			209.30	210.00	0.5	0.1	0.563	A
	Exit	1	1		217.48			217.48	220.82	0.0	0.0	0.000	A
A2ON	Exit	1	1		197.69			197.69	201.18	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	116.10	294.69	0.394	115.32	118.81	0.5	0.6	4.197	A
			2	A227N, A227S, A2ON	191.10	294.53	0.649	190.32	192.83	1.8	1.2	6.442	A
	Exit	1	1		259.01			259.01	263.34	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	90.04	139.45	0.646	90.82	93.97	2.0	0.9	12.709	B
			2	A227N	70.36	139.81	0.504	70.71	73.05	1.5	0.8	10.600	B
		2	1	(A227N, A227S, A2ON)	160.52			160.40	165.14	1.1	0.1	1.077	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	116.49	188.72	0.617	115.40	118.84	1.4	1.3	9.424	A
			2	A227N, A227S	90.82	185.28	0.490	90.82	90.71	1.0	0.8	7.796	A
		2	1	(A227N, A227S, A2ON)	207.58			207.31	209.35	0.1	0.1	0.608	A
	Exit	1	1		213.93			213.93	219.74	0.0	0.0	0.000	A
A2ON	Exit	1	1		200.45			200.45	205.14	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	100.52	293.84	0.342	100.68	102.31	0.6	0.4	4.048	A
			2	A227N, A227S, A2ON	182.86	290.06	0.630	182.84	187.34	1.2	1.1	6.199	A
	Exit	1	1		265.32			265.32	262.74	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	80.65	146.39	0.551	81.12	79.92	0.9	0.7	9.344	A
			2	A227N	62.57	146.39	0.427	62.65	63.27	0.8	0.6	8.427	A
		2	1	(A227N, A227S, A2ON)	143.22			143.22	142.81	0.1	0.0	0.075	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	108.62	190.88	0.569	108.81	108.62	1.3	0.8	7.800	A
			2	A227N, A227S	90.08	191.85	0.470	90.16	88.35	0.8	0.6	6.775	A
		2	1	(A227N, A227S, A2ON)	198.70			198.70	196.32	0.1	0.0	0.107	A
	Exit	1	1		181.25			181.25	182.61	0.0	0.0	0.000	A
A2ON	Exit	1	1		179.70			179.70	184.47	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Average throughput (PCU/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A227N	Entry	1	1	A227S	101.34	297.48	0.341	101.45	102.29	0.4	0.5	3.996	A
			2	A227N, A227S, A2ON	178.36	295.49	0.603	178.95	177.09	1.1	1.1	5.960	A
	Exit	1	1		212.77			212.77	215.10	0.0	0.0	0.000	A
A2OFF	Entry	1	1	A227N, A227S, A2ON	80.53	146.88	0.548	79.52	81.74	0.7	1.1	9.840	A
			2	A227N	59.57	145.40	0.410	59.04	60.84	0.6	0.6	8.326	A
		2	1	(A227N, A227S, A2ON)	139.99			140.08	143.00	0.0	0.0	0.259	A
	Exit	1	1		0.00			0.00	0.00	0.0	0.0	0.000	A
A227S	Entry	1	1	A227N, A2ON	95.14	196.38	0.484	95.81	92.74	0.8	0.5	6.643	A
			2	A227N, A227S	64.40	196.38	0.328	64.60	64.52	0.6	0.3	5.406	A
		2	1	(A227N, A227S, A2ON)	159.55			159.55	156.61	0.0	0.0	0.063	A
	Exit	1	1		186.66			186.66	189.19	0.0	0.0	0.000	A
A2ON	Exit	1	1		179.96			179.96	174.92	0.0	0.0	0.000	A

APPENDIX M - A227 WROTHAM ROAD / A2 WESTBOUND SLIP ROAD ROUNDABOUT – LINSIG REPORT

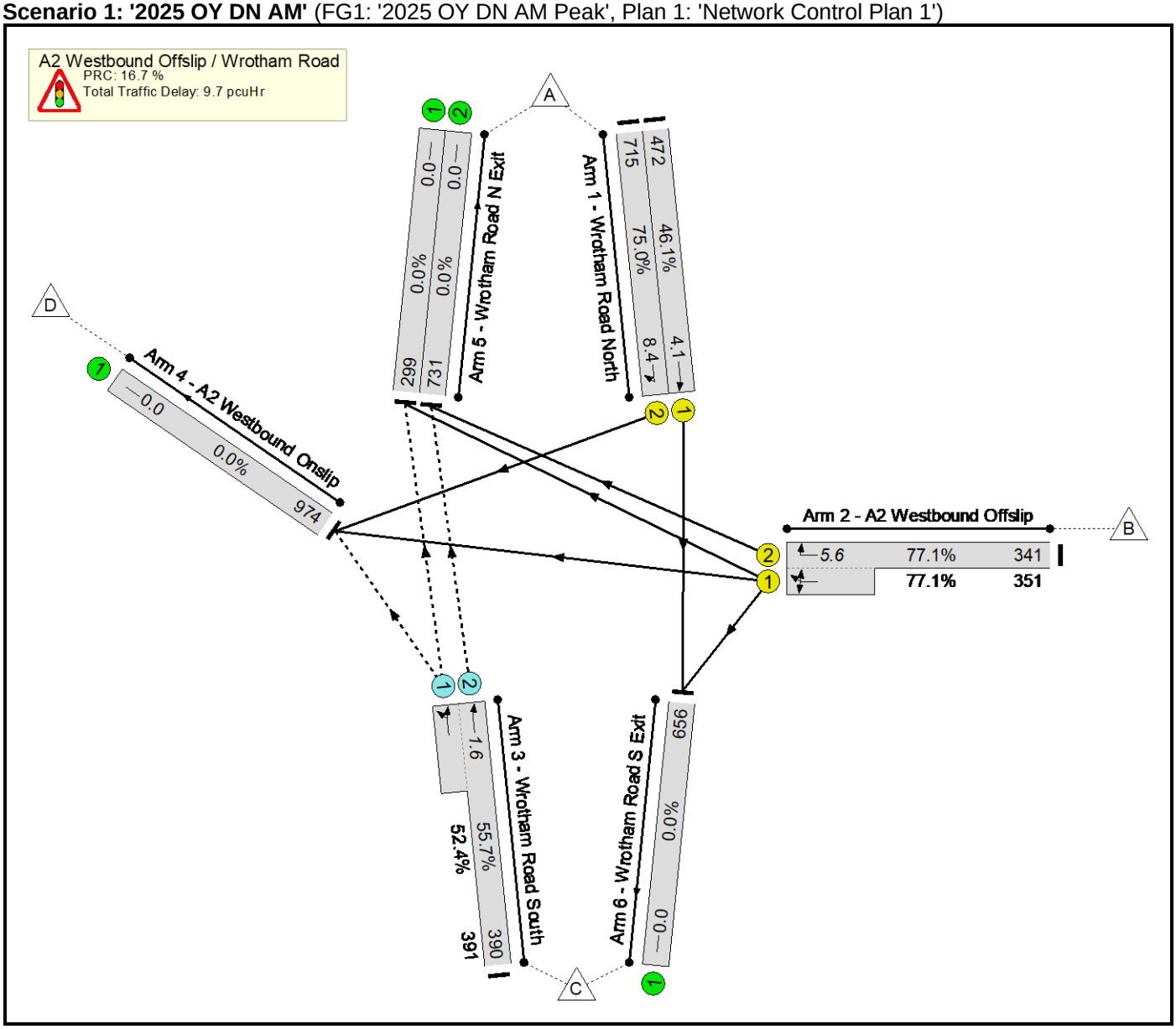
Full Input Data And Results

User and Project Details

Project:	**22052 BP Tollgate, Gravesend**
Title:	
Location:	
Design Layout Ref:	Mayer Brown Drawing PHCOLDHARBOURRD.1/01
Additional detail:	
File name:	22052 A2 WB Offslip jw Wrotham Road Potential Signal Scheme with Arcady Geometry.lsg3x
Author:	
Company:	
Address:	

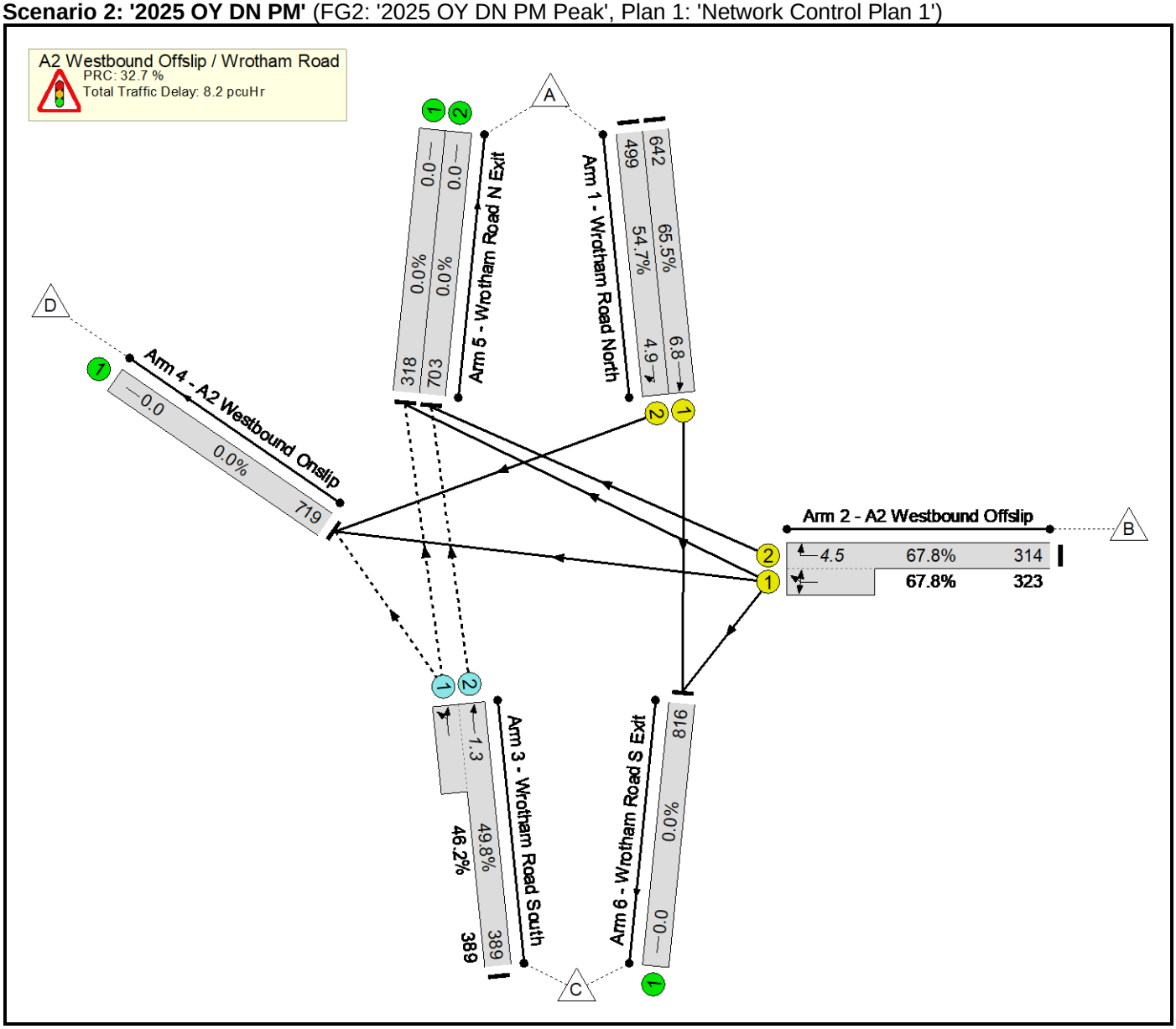
Network Layout Diagram

Scenario 1: '2025 OY DN AM' (FG1: '2025 OY DN AM Peak', Plan 1: 'Network Control Plan 1')

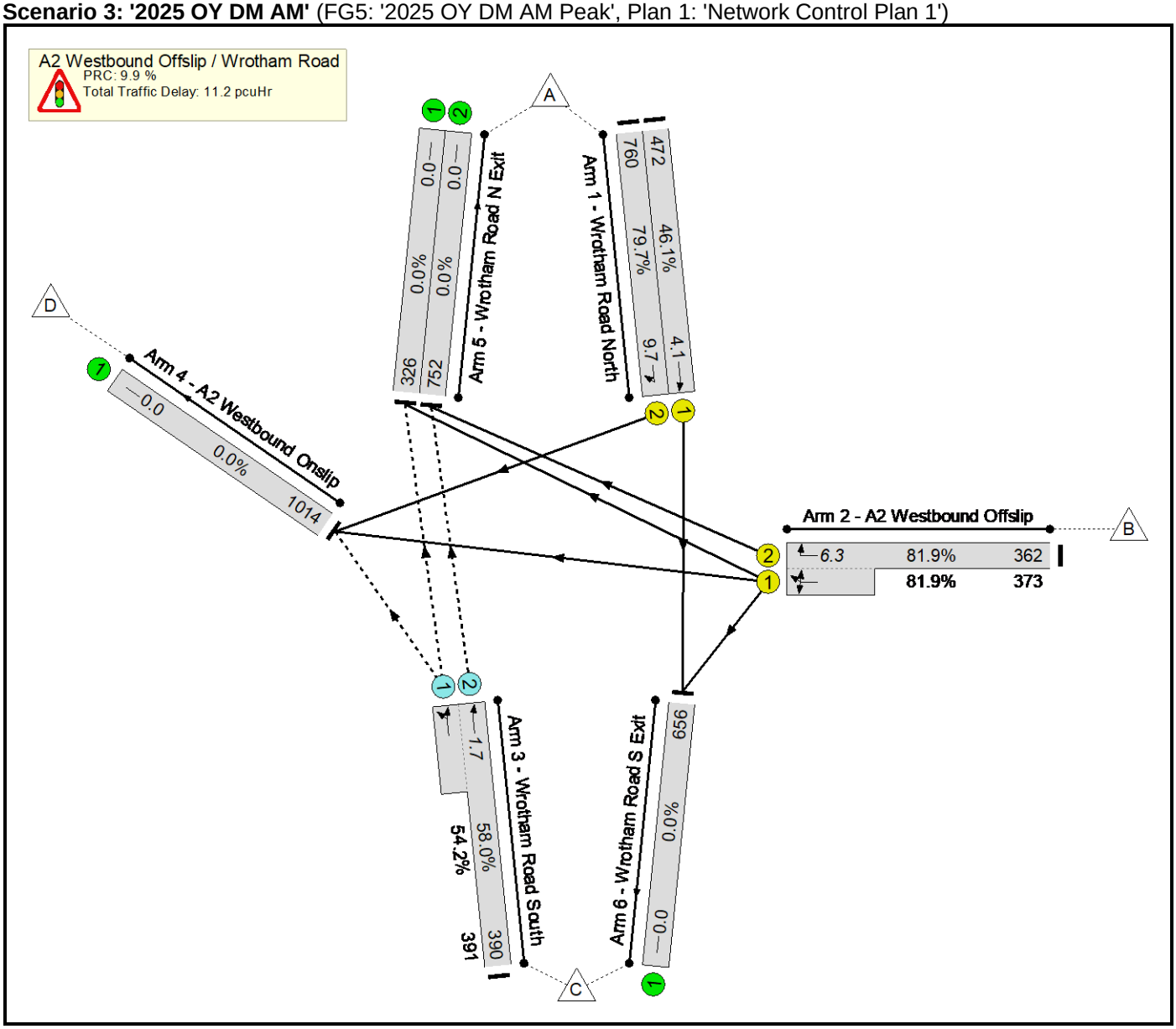


Full Input Data And Results

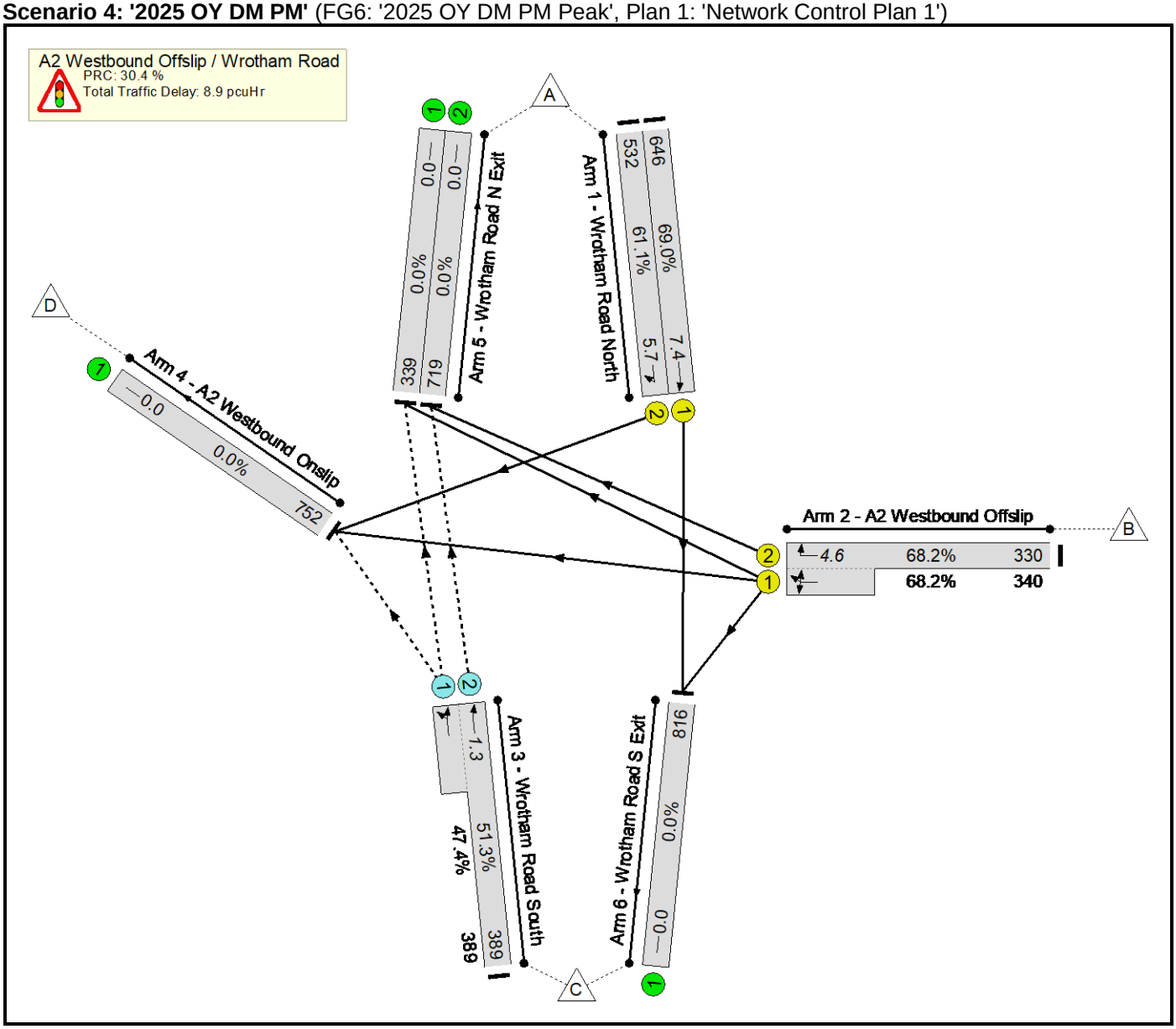
Scenario 2: '2025 OY DN PM' (FG2: '2025 OY DN PM Peak', Plan 1: 'Network Control Plan 1')



Scenario 3: '2025 OY DM AM' (FG5: '2025 OY DM AM Peak', Plan 1: 'Network Control Plan 1')

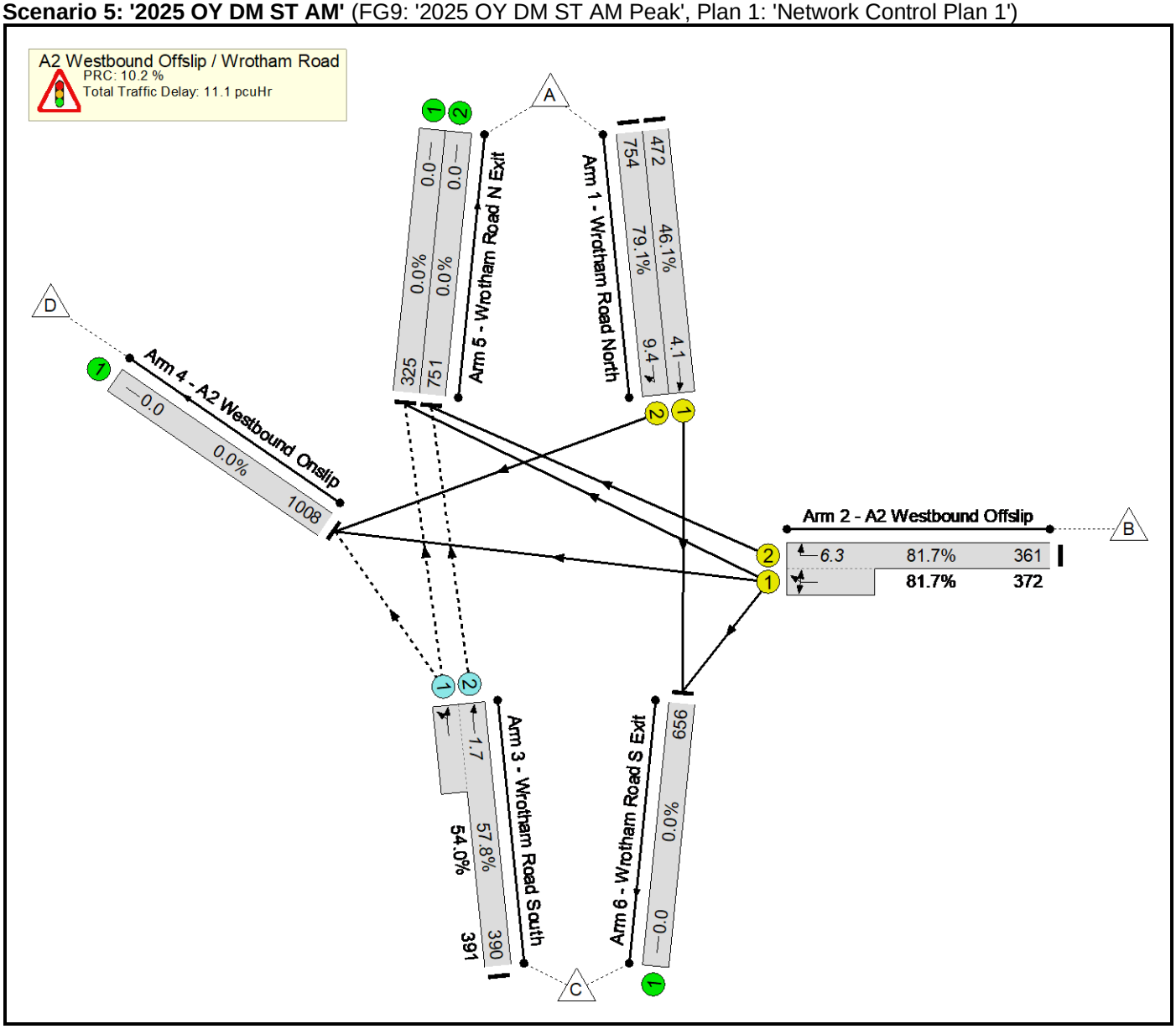


Scenario 4: '2025 OY DM PM' (FG6: '2025 OY DM PM Peak', Plan 1: 'Network Control Plan 1')

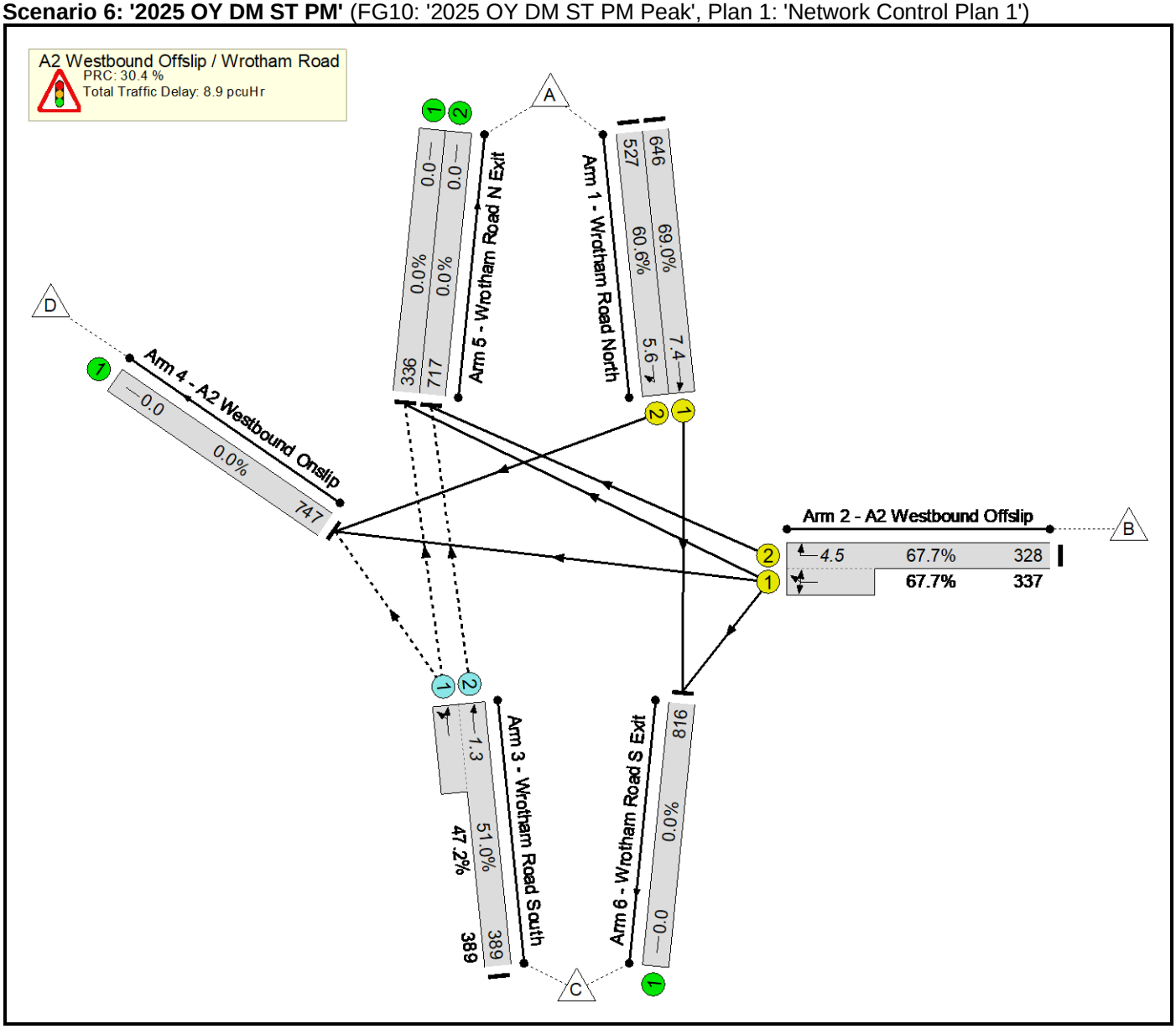


Full Input Data And Results

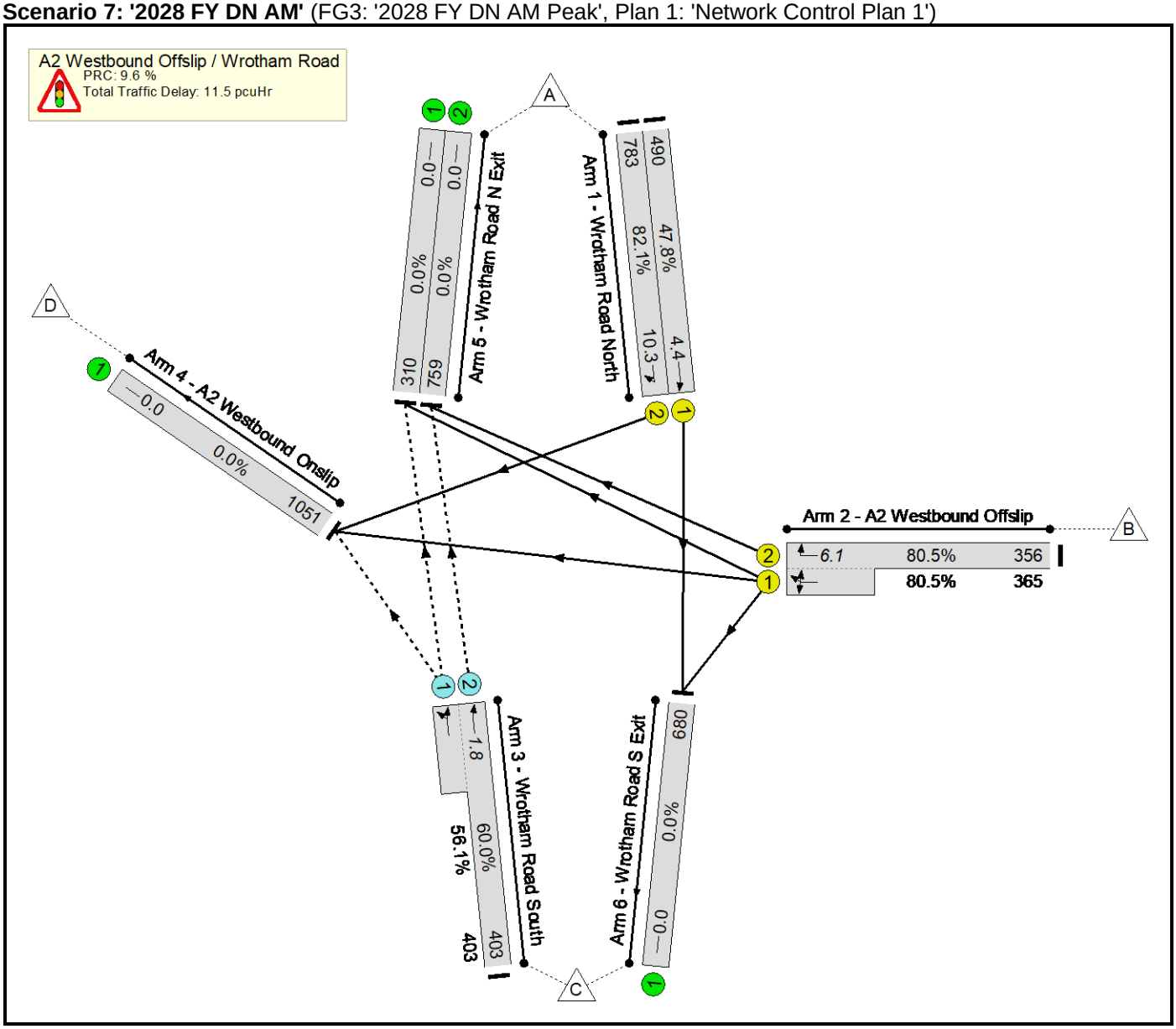
Scenario 5: '2025 OY DM ST AM' (FG9: '2025 OY DM ST AM Peak', Plan 1: 'Network Control Plan 1')



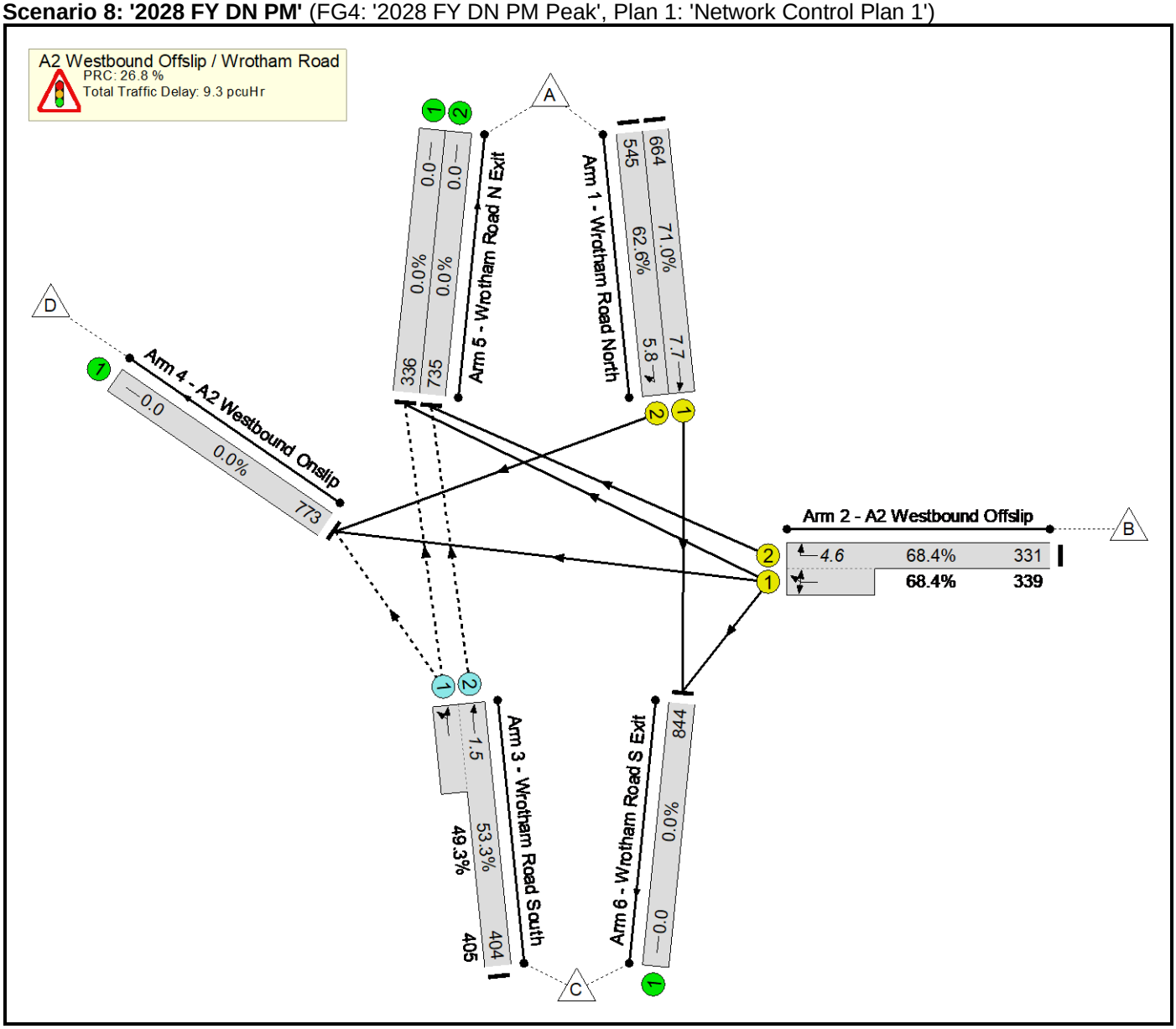
Scenario 6: '2025 OY DM ST PM' (FG10: '2025 OY DM ST PM Peak', Plan 1: 'Network Control Plan 1')



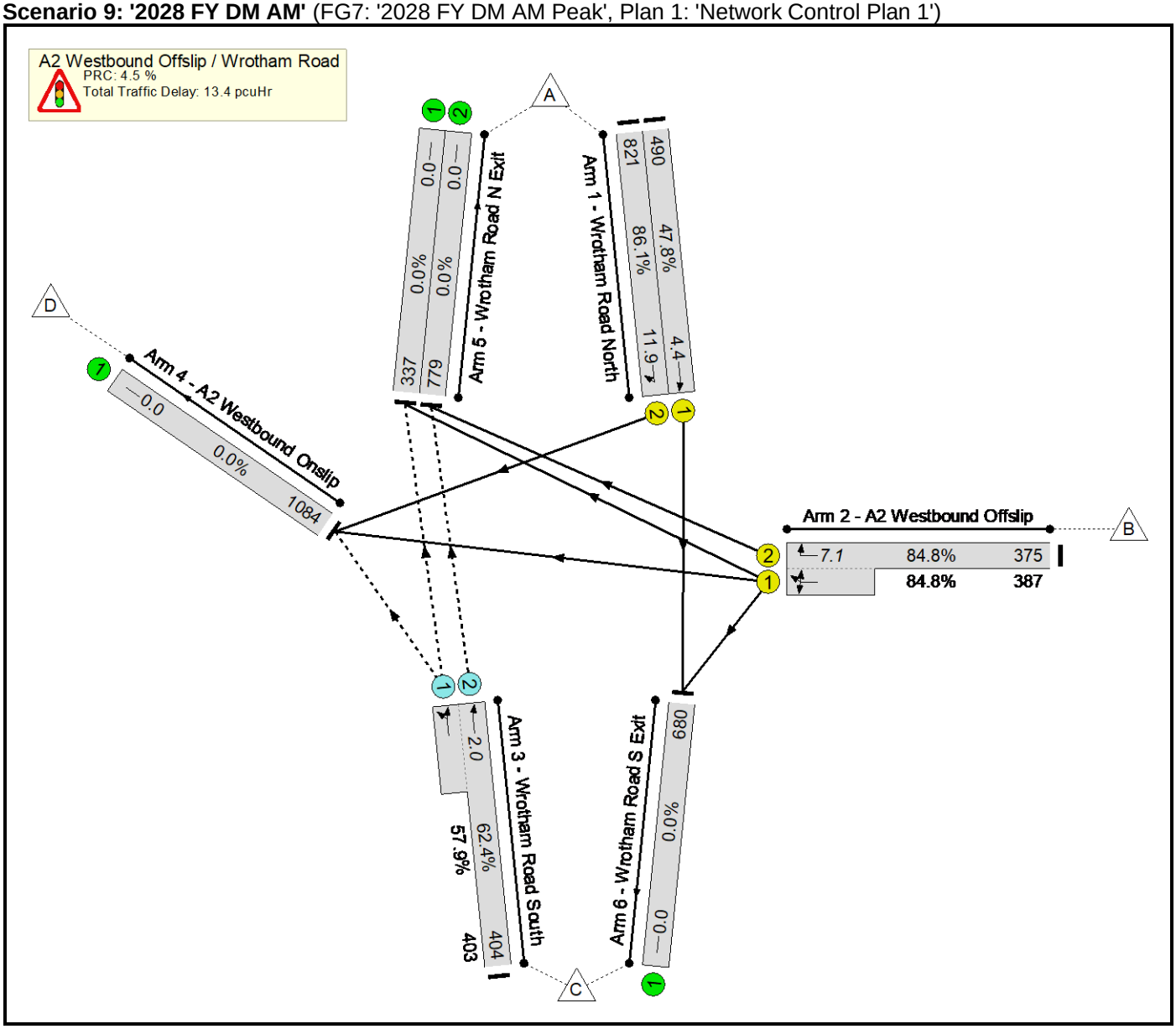
Scenario 7: '2028 FY DN AM' (FG3: '2028 FY DN AM Peak', Plan 1: 'Network Control Plan 1')



Scenario 8: '2028 FY DN PM' (FG4: '2028 FY DN PM Peak', Plan 1: 'Network Control Plan 1')

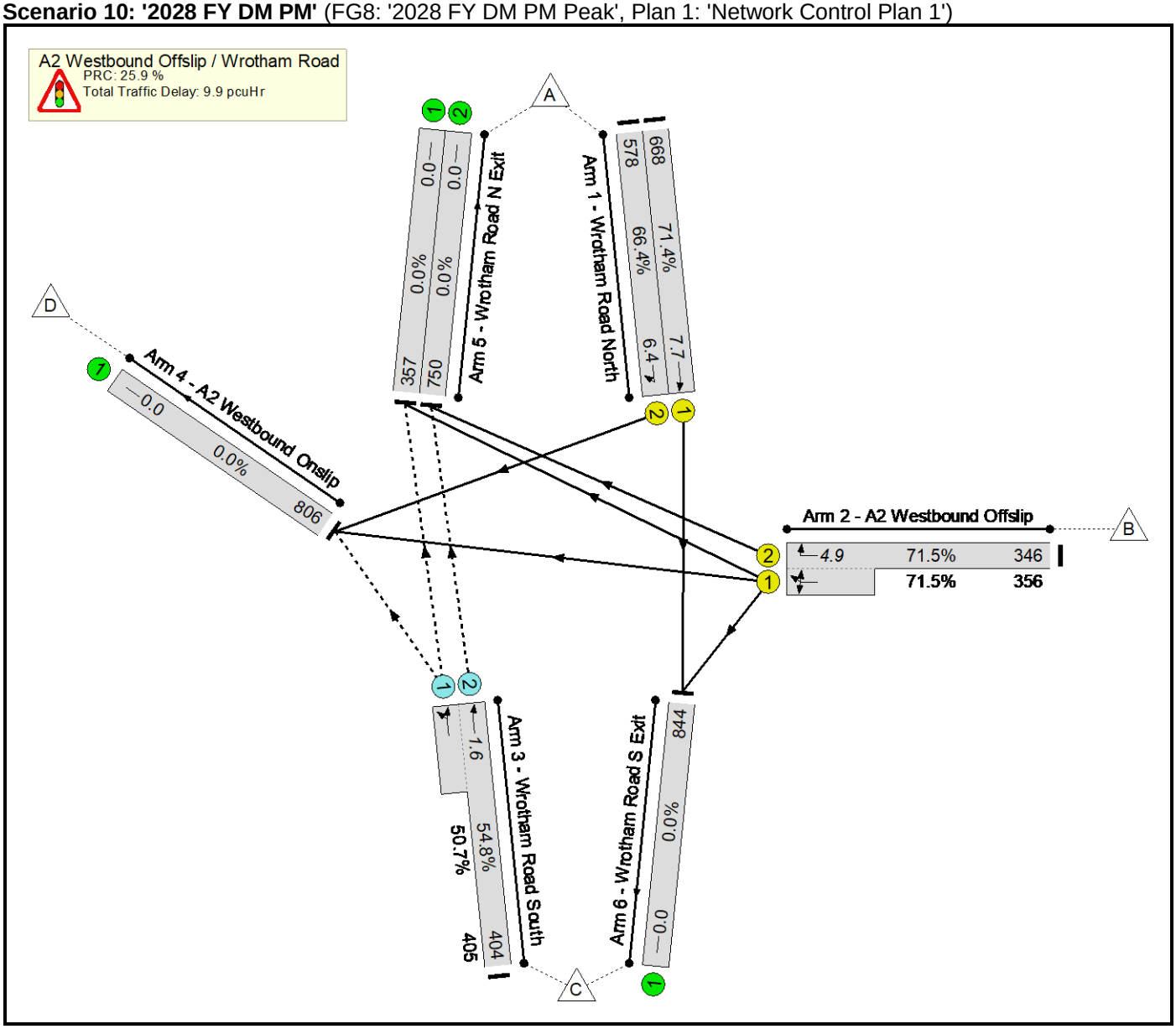


Scenario 9: '2028 FY DM AM' (FG7: '2028 FY DM AM Peak', Plan 1: 'Network Control Plan 1')

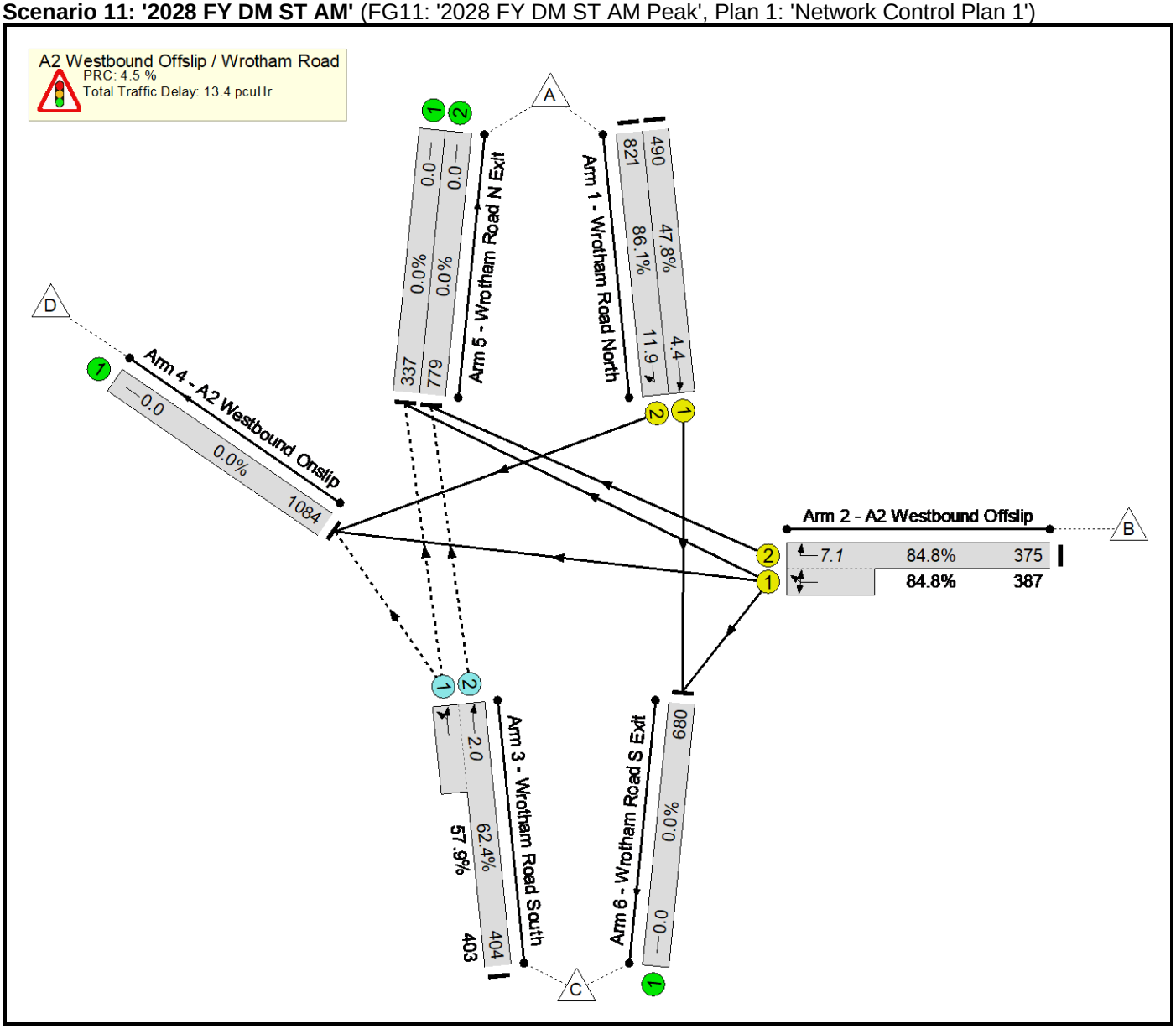


Full Input Data And Results

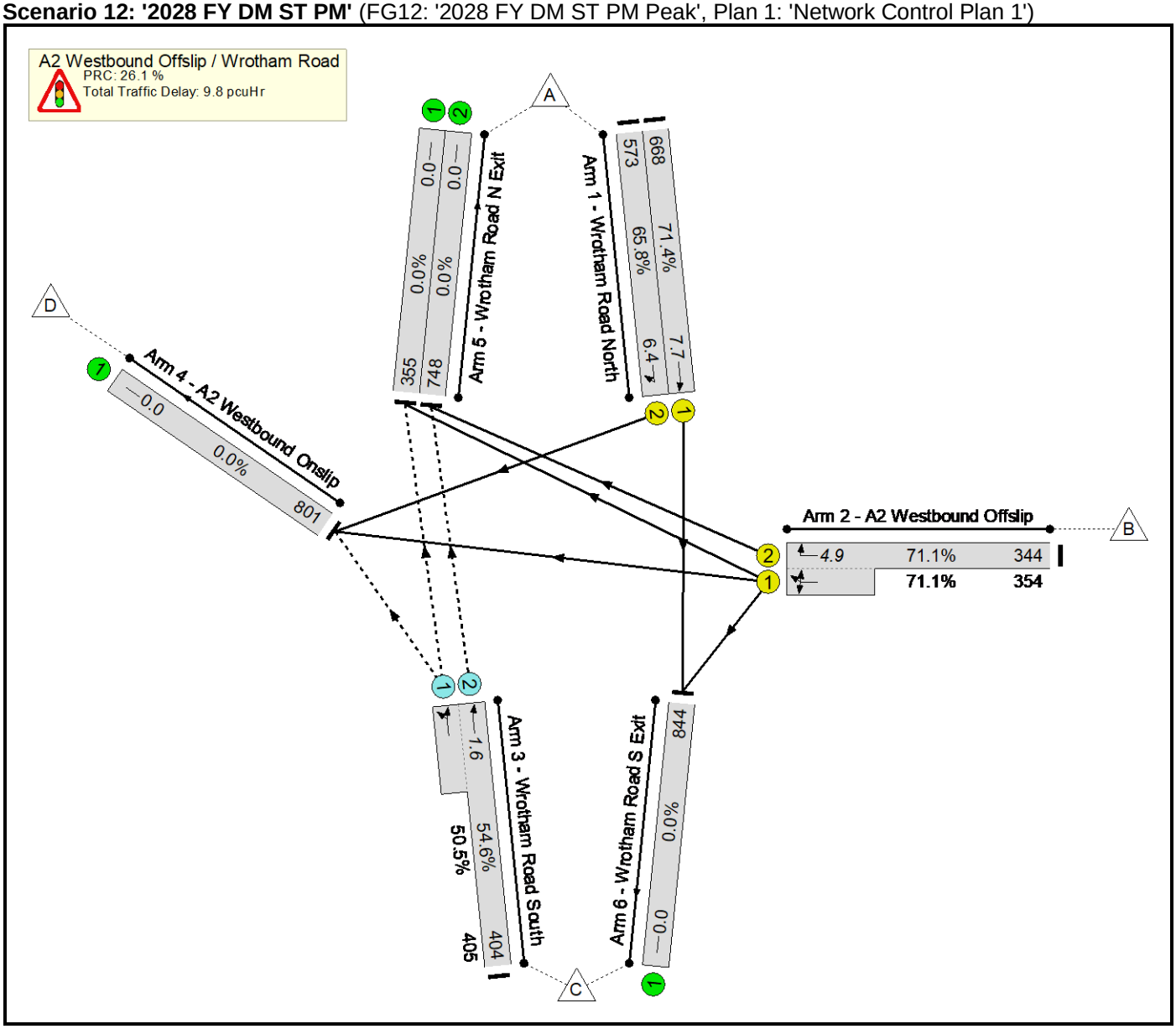
Scenario 10: '2028 FY DM PM' (FG8: '2028 FY DM PM Peak', Plan 1: 'Network Control Plan 1')



Scenario 11: '2028 FY DM ST AM' (FG11: '2028 FY DM ST AM Peak', Plan 1: 'Network Control Plan 1')

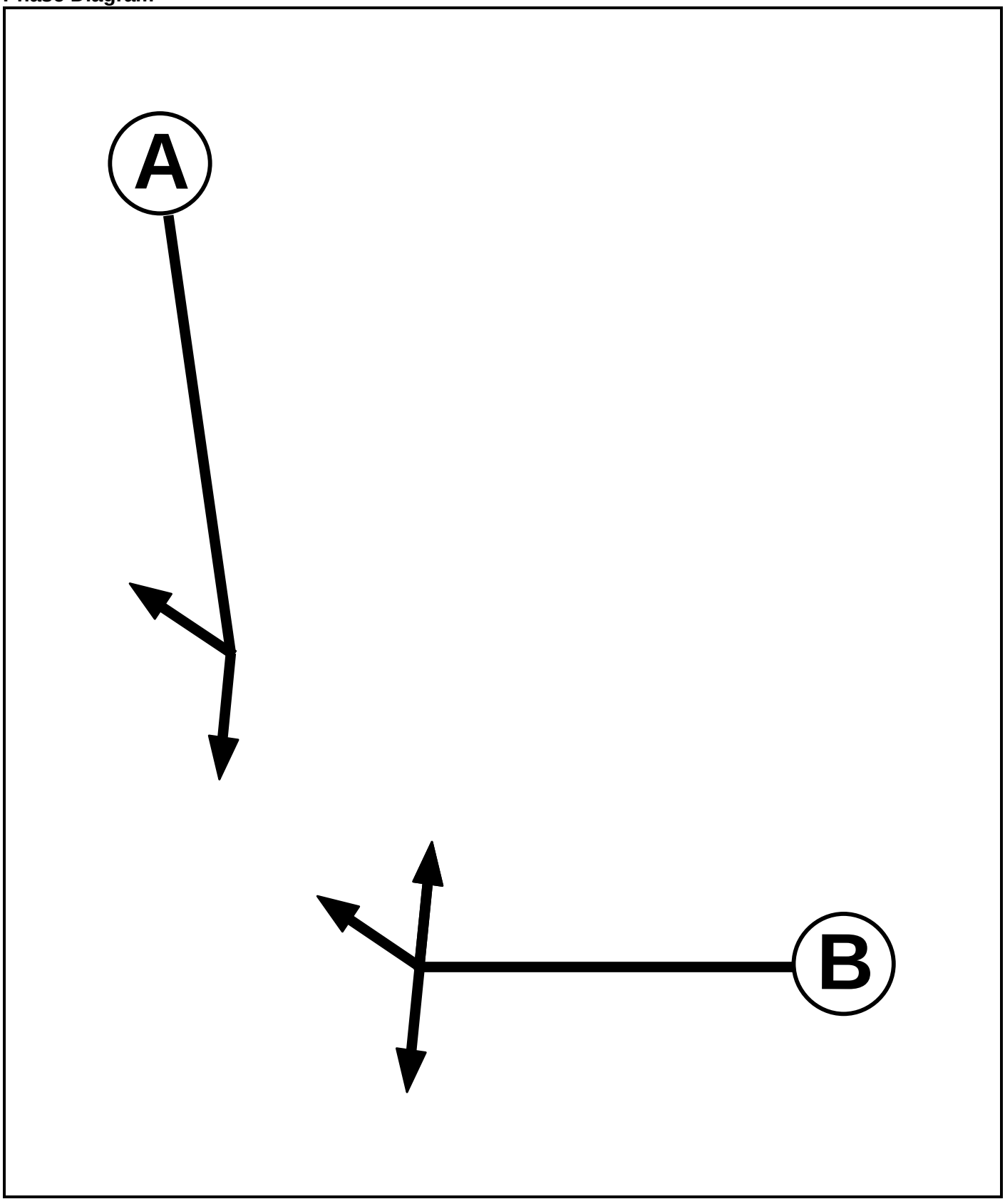


Scenario 12: '2028 FY DM ST PM' (FG12: '2028 FY DM ST PM Peak', Plan 1: 'Network Control Plan 1')



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7

Full Input Data And Results

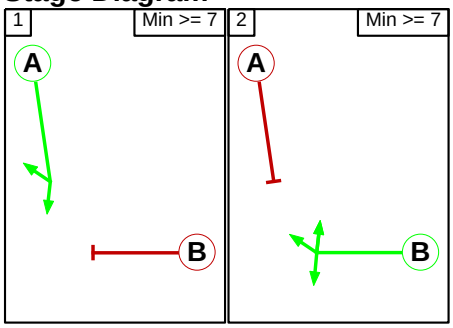
Phase Intergreens Matrix

	Starting Phase		
Terminating Phase		A	B
	A		6
	B	6	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

	To Stage		
		1	2
From Stage	1		6
	2	6	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A2 Westbound Offslip / Wrotham Road

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
3/1 (Wrotham Road South)	4/1 (Left)	1079	0	1/2	0.31	All	-	-	-	-	-
				2/1	0.31	To 4/1 (Ahead) To 5/1 (Right)					
				2/2	0.31	All					
	5/1 (Ahead)	1079	0	1/2	0.31	All					
				2/1	0.31	To 4/1 (Ahead) To 5/1 (Right)					
				2/2	0.31	All					
3/2 (Wrotham Road South)	5/2 (Ahead)	1079	0	1/2	0.31	All	-	-	-	-	-
				2/1	0.31	To 4/1 (Ahead) To 5/1 (Right)					
				2/2	0.31	All					

Full Input Data And Results

Lane Input Data

Junction: A2 Westbound Offslip / Wrotham Road

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Wrotham Road North)	U	A	2	3	60.0	Geom	-	3.90	0.00	Y	Arm 6 Ahead	Inf
1/2 (Wrotham Road North)	U	A	2	3	60.0	Geom	-	3.90	0.00	Y	Arm 4 Right	20.00
2/1 (A2 Westbound Offslip)	U	B	2	3	5.0	Geom	-	3.90	0.00	Y	Arm 4 Ahead Arm 5 Right Arm 6 Left	Inf Inf 25.00
2/2 (A2 Westbound Offslip)	U	B	2	3	60.0	Geom	-	3.90	0.00	Y	Arm 5 Right	25.00
3/1 (Wrotham Road South)	O		2	3	5.0	Geom	-	4.25	0.00	Y	Arm 4 Left Arm 5 Ahead	Inf Inf
3/2 (Wrotham Road South)	O		2	3	60.0	Geom	-	4.25	0.00	Y	Arm 5 Ahead	Inf
4/1 (A2 Westbound Onslip)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Wrotham Road N Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2 (Wrotham Road N Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Wrotham Road S Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2025 OY DN AM Peak'	08:00	09:00	01:00	
2: '2025 OY DN PM Peak'	17:00	18:00	01:00	
3: '2028 FY DN AM Peak'	08:00	09:00	01:00	
4: '2028 FY DN PM Peak'	17:00	18:00	01:00	
5: '2025 OY DM AM Peak'	08:00	09:00	01:00	
6: '2025 OY DM PM Peak'	17:00	18:00	01:00	
7: '2028 FY DM AM Peak'	08:00	09:00	01:00	
8: '2028 FY DM PM Peak'	17:00	18:00	01:00	
9: '2025 OY DM ST AM Peak'	08:00	09:00	01:00	
10: '2025 OY DM ST PM Peak'	17:00	18:00	01:00	
11: '2028 FY DM ST AM Peak'	08:00	09:00	01:00	
12: '2028 FY DM ST PM Peak'	17:00	18:00	01:00	

Scenario 1: '2025 OY DN AM' (FG1: '2025 OY DN AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	2	0	472	715	1189
	B	504	0	184	4	692
	C	526	0	0	255	781
	D	0	0	0	0	0
	Tot.	1032	0	656	974	2662

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2025 OY DN AM
Junction: A2 Westbound Offslip / Wrotham Road	
1/1	472
1/2	715
2/1 (short)	351
2/2 (with short)	692(In) 341(Out)
3/1 (short)	391
3/2 (with short)	781(In) 390(Out)
4/1	974
5/1	299
5/2	731
6/1	656

Lane Saturation Flows

Junction: A2 Westbound Offslip / Wrotham Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Wrotham Road North)	3.90	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2005	2005
1/2 (Wrotham Road North)	3.90	0.00	Y	Arm 4 Right	20.00	100.0 %	1865	1865
2/1 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 4 Ahead	Inf	1.1 %	1944	1944
				Arm 5 Right	Inf	46.4 %		
				Arm 6 Left	25.00	52.4 %		
2/2 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1892	1892
3/1 (Wrotham Road South)	4.25	0.00	Y	Arm 4 Left	Inf	65.2 %	2040	2040
				Arm 5 Ahead	Inf	34.8 %		
3/2 (Wrotham Road South)	4.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2040	2040
4/1 (A2 Westbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Wrotham Road N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Wrotham Road N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Wrotham Road S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 2: '2025 OY DN PM' (FG2: '2025 OY DN PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	642	499	1141
	B	462	0	174	1	637
	C	559	0	2	219	780
	D	0	0	0	0	0
	Tot.	1021	0	818	719	2558

Traffic Lane Flows

Lane	Scenario 2: 2025 OY DN PM
Junction: A2 Westbound Offslip / Wrotham Road	
1/1	642
1/2	499
2/1 (short)	323
2/2 (with short)	637(In) 314(Out)
3/1 (short)	389
3/2 (with short)	778(In) 389(Out)
4/1	719
5/1	318
5/2	703
6/1	816

Lane Saturation Flows

Junction: A2 Westbound Offslip / Wrotham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Wrotham Road North)	3.90	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2005	2005
1/2 (Wrotham Road North)	3.90	0.00	Y	Arm 4 Right	20.00	100.0 %	1865	1865
2/1 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 4 Ahead	Inf	0.3 %	1942	1942
				Arm 5 Right	Inf	45.8 %		
				Arm 6 Left	25.00	53.9 %		
2/2 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1892	1892
3/1 (Wrotham Road South)	4.25	0.00	Y	Arm 4 Left	Inf	56.3 %	2040	2040
				Arm 5 Ahead	Inf	43.7 %		
3/2 (Wrotham Road South)	4.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2040	2040
4/1 (A2 Westbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Wrotham Road N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Wrotham Road N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Wrotham Road S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2025 OY DM AM' (FG5: '2025 OY DM AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	2	0	472	760	1234
	B	547	0	184	4	735
	C	531	0	0	250	781
	D	0	0	0	0	0
	Tot.	1080	0	656	1014	2750

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2025 OY DM AM
Junction: A2 Westbound Offslip / Wrotham Road	
1/1	472
1/2	760
2/1 (short)	373
2/2 (with short)	735(In) 362(Out)
3/1 (short)	391
3/2 (with short)	781(In) 390(Out)
4/1	1014
5/1	326
5/2	752
6/1	656

Lane Saturation Flows

Junction: A2 Westbound Offslip / Wrotham Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Wrotham Road North)	3.90	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2005	2005
1/2 (Wrotham Road North)	3.90	0.00	Y	Arm 4 Right	20.00	100.0 %	1865	1865
2/1 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 4 Ahead	Inf	1.1 %	1947	1947
				Arm 5 Right	Inf	49.6 %		
				Arm 6 Left	25.00	49.3 %		
2/2 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1892	1892
3/1 (Wrotham Road South)	4.25	0.00	Y	Arm 4 Left	Inf	63.9 %	2040	2040
				Arm 5 Ahead	Inf	36.1 %		
3/2 (Wrotham Road South)	4.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2040	2040
4/1 (A2 Westbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Wrotham Road N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Wrotham Road N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Wrotham Road S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 4: '2025 OY DM PM' (FG6: '2025 OY DM PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	646	532	1178
	B	499	0	170	1	670
	C	559	0	2	219	780
	D	0	0	0	0	0
	Tot.	1058	0	818	752	2628

Traffic Lane Flows

Lane	Scenario 4: 2025 OY DM PM
Junction: A2 Westbound Offslip / Wrotham Road	
1/1	646
1/2	532
2/1 (short)	340
2/2 (with short)	670(In) 330(Out)
3/1 (short)	389
3/2 (with short)	778(In) 389(Out)
4/1	752
5/1	339
5/2	719
6/1	816

Full Input Data And Results

Lane Saturation Flows

Junction: A2 Westbound Offslip / Wrotham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Wrotham Road North)	3.90	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2005	2005
1/2 (Wrotham Road North)	3.90	0.00	Y	Arm 4 Right	20.00	100.0 %	1865	1865
2/1 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 4 Ahead	Inf	0.3 %	1947	1947
				Arm 5 Right	Inf	49.7 %		
				Arm 6 Left	25.00	50.0 %		
2/2 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1892	1892
3/1 (Wrotham Road South)	4.25	0.00	Y	Arm 4 Left	Inf	56.3 %	2040	2040
				Arm 5 Ahead	Inf	43.7 %		
3/2 (Wrotham Road South)	4.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2040	2040
4/1 (A2 Westbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Wrotham Road N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Wrotham Road N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Wrotham Road S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2025 OY DM ST AM' (FG9: '2025 OY DM ST AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	2	0	472	754	1228
	B	545	0	184	4	733
	C	531	0	0	250	781
	D	0	0	0	0	0
	Tot.	1078	0	656	1008	2742

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2025 OY DM ST AM
Junction: A2 Westbound Offslip / Wrotham Road	
1/1	472
1/2	754
2/1 (short)	372
2/2 (with short)	733(In) 361(Out)
3/1 (short)	391
3/2 (with short)	781(In) 390(Out)
4/1	1008
5/1	325
5/2	751
6/1	656

Lane Saturation Flows

Junction: A2 Westbound Offslip / Wrotham Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Wrotham Road North)	3.90	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2005	2005
1/2 (Wrotham Road North)	3.90	0.00	Y	Arm 4 Right	20.00	100.0 %	1865	1865
2/1 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 4 Ahead	Inf	1.1 %	1947	1947
				Arm 5 Right	Inf	49.5 %		
				Arm 6 Left	25.00	49.5 %		
2/2 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1892	1892
3/1 (Wrotham Road South)	4.25	0.00	Y	Arm 4 Left	Inf	63.9 %	2040	2040
				Arm 5 Ahead	Inf	36.1 %		
3/2 (Wrotham Road South)	4.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2040	2040
4/1 (A2 Westbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Wrotham Road N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Wrotham Road N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Wrotham Road S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 6: '2025 OY DM ST PM' (FG10: '2025 OY DM ST PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	646	527	1173
	B	494	0	170	1	665
	C	559	0	2	219	780
	D	0	0	0	0	0
	Tot.	1053	0	818	747	2618

Traffic Lane Flows

Lane	Scenario 6: 2025 OY DM ST PM
Junction: A2 Westbound Offslip / Wrotham Road	
1/1	646
1/2	527
2/1 (short)	337
2/2 (with short)	665(In) 328(Out)
3/1 (short)	389
3/2 (with short)	778(In) 389(Out)
4/1	747
5/1	336
5/2	717
6/1	816

Full Input Data And Results

Lane Saturation Flows

Junction: A2 Westbound Offslip / Wrotham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Wrotham Road North)	3.90	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2005	2005
1/2 (Wrotham Road North)	3.90	0.00	Y	Arm 4 Right	20.00	100.0 %	1865	1865
2/1 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 4 Ahead	Inf	0.3 %	1946	1946
				Arm 5 Right	Inf	49.3 %		
				Arm 6 Left	25.00	50.4 %		
2/2 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1892	1892
3/1 (Wrotham Road South)	4.25	0.00	Y	Arm 4 Left	Inf	56.3 %	2040	2040
				Arm 5 Ahead	Inf	43.7 %		
3/2 (Wrotham Road South)	4.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2040	2040
4/1 (A2 Westbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Wrotham Road N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Wrotham Road N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Wrotham Road S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2028 FY DN AM' (FG3: '2028 FY DN AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	2	0	490	783	1275
	B	527	0	190	4	721
	C	542	0	0	264	806
	D	0	0	0	0	0
	Tot.	1071	0	680	1051	2802

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: 2028 FY DN AM
Junction: A2 Westbound Offslip / Wrotham Road	
1/1	490
1/2	783
2/1 (short)	365
2/2 (with short)	721(In) 356(Out)
3/1 (short)	403
3/2 (with short)	806(In) 403(Out)
4/1	1051
5/1	310
5/2	759
6/1	680

Lane Saturation Flows

Junction: A2 Westbound Offslip / Wrotham Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Wrotham Road North)	3.90	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2005	2005
1/2 (Wrotham Road North)	3.90	0.00	Y	Arm 4 Right	20.00	100.0 %	1865	1865
2/1 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 4 Ahead	Inf	1.1 %	1944	1944
				Arm 5 Right	Inf	46.8 %		
				Arm 6 Left	25.00	52.1 %		
2/2 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1892	1892
3/1 (Wrotham Road South)	4.25	0.00	Y	Arm 4 Left	Inf	65.5 %	2040	2040
				Arm 5 Ahead	Inf	34.5 %		
3/2 (Wrotham Road South)	4.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2040	2040
4/1 (A2 Westbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Wrotham Road N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Wrotham Road N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Wrotham Road S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 8: '2028 FY DN PM' (FG4: '2028 FY DN PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	664	545	1209
	B	489	0	180	1	670
	C	582	0	2	227	811
	D	0	0	0	0	0
	Tot.	1071	0	846	773	2690

Traffic Lane Flows

Lane	Scenario 8: 2028 FY DN PM
Junction: A2 Westbound Offslip / Wrotham Road	
1/1	664
1/2	545
2/1 (short)	339
2/2 (with short)	670(In) 331(Out)
3/1 (short)	405
3/2 (with short)	809(In) 404(Out)
4/1	773
5/1	336
5/2	735
6/1	844

Full Input Data And Results

Lane Saturation Flows

Junction: A2 Westbound Offslip / Wrotham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Wrotham Road North)	3.90	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2005	2005
1/2 (Wrotham Road North)	3.90	0.00	Y	Arm 4 Right	20.00	100.0 %	1865	1865
2/1 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 4 Ahead	Inf	0.3 %	1943	1943
				Arm 5 Right	Inf	46.6 %		
				Arm 6 Left	25.00	53.1 %		
2/2 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1892	1892
3/1 (Wrotham Road South)	4.25	0.00	Y	Arm 4 Left	Inf	56.0 %	2040	2040
				Arm 5 Ahead	Inf	44.0 %		
3/2 (Wrotham Road South)	4.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2040	2040
4/1 (A2 Westbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Wrotham Road N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Wrotham Road N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Wrotham Road S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 9: '2028 FY DM AM' (FG7: '2028 FY DM AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	2	0	490	821	1313
	B	568	0	190	4	762
	C	548	0	0	259	807
	D	0	0	0	0	0
	Tot.	1118	0	680	1084	2882

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 9: 2028 FY DM AM
Junction: A2 Westbound Offslip / Wrotham Road	
1/1	490
1/2	821
2/1 (short)	387
2/2 (with short)	762(In) 375(Out)
3/1 (short)	403
3/2 (with short)	807(In) 404(Out)
4/1	1084
5/1	337
5/2	779
6/1	680

Lane Saturation Flows

Junction: A2 Westbound Offslip / Wrotham Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Wrotham Road North)	3.90	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2005	2005
1/2 (Wrotham Road North)	3.90	0.00	Y	Arm 4 Right	20.00	100.0 %	1865	1865
2/1 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 4 Ahead	Inf	1.0 %	1948	1948
				Arm 5 Right	Inf	49.9 %		
				Arm 6 Left	25.00	49.1 %		
2/2 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1892	1892
3/1 (Wrotham Road South)	4.25	0.00	Y	Arm 4 Left	Inf	64.3 %	2040	2040
				Arm 5 Ahead	Inf	35.7 %		
3/2 (Wrotham Road South)	4.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2040	2040
4/1 (A2 Westbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Wrotham Road N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Wrotham Road N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Wrotham Road S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 10: '2028 FY DM PM' (FG8: '2028 FY DM PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	668	578	1246
	B	525	0	176	1	702
	C	582	0	2	227	811
	D	0	0	0	0	0
	Tot.	1107	0	846	806	2759

Traffic Lane Flows

Lane	Scenario 10: 2028 FY DM PM
Junction: A2 Westbound Offslip / Wrotham Road	
1/1	668
1/2	578
2/1 (short)	356
2/2 (with short)	702(In) 346(Out)
3/1 (short)	405
3/2 (with short)	809(In) 404(Out)
4/1	806
5/1	357
5/2	750
6/1	844

Full Input Data And Results

Lane Saturation Flows

Junction: A2 Westbound Offslip / Wrotham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Wrotham Road North)	3.90	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2005	2005
1/2 (Wrotham Road North)	3.90	0.00	Y	Arm 4 Right	20.00	100.0 %	1865	1865
2/1 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 4 Ahead	Inf	0.3 %	1947	1947
				Arm 5 Right	Inf	50.3 %		
				Arm 6 Left	25.00	49.4 %		
2/2 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1892	1892
3/1 (Wrotham Road South)	4.25	0.00	Y	Arm 4 Left	Inf	56.0 %	2040	2040
				Arm 5 Ahead	Inf	44.0 %		
3/2 (Wrotham Road South)	4.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2040	2040
4/1 (A2 Westbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Wrotham Road N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Wrotham Road N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Wrotham Road S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 11: '2028 FY DM ST AM' (FG11: '2028 FY DM ST AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	2	0	490	821	1313
	B	568	0	190	4	762
	C	548	0	0	259	807
	D	0	0	0	0	0
	Tot.	1118	0	680	1084	2882

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 11: 2028 FY DM ST AM
Junction: A2 Westbound Offslip / Wrotham Road	
1/1	490
1/2	821
2/1 (short)	387
2/2 (with short)	762(In) 375(Out)
3/1 (short)	403
3/2 (with short)	807(In) 404(Out)
4/1	1084
5/1	337
5/2	779
6/1	680

Lane Saturation Flows

Junction: A2 Westbound Offslip / Wrotham Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Wrotham Road North)	3.90	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2005	2005
1/2 (Wrotham Road North)	3.90	0.00	Y	Arm 4 Right	20.00	100.0 %	1865	1865
2/1 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 4 Ahead	Inf	1.0 %	1948	1948
				Arm 5 Right	Inf	49.9 %		
				Arm 6 Left	25.00	49.1 %		
2/2 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1892	1892
3/1 (Wrotham Road South)	4.25	0.00	Y	Arm 4 Left	Inf	64.3 %	2040	2040
				Arm 5 Ahead	Inf	35.7 %		
3/2 (Wrotham Road South)	4.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2040	2040
4/1 (A2 Westbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Wrotham Road N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Wrotham Road N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Wrotham Road S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 12: '2028 FY DM ST PM' (FG12: '2028 FY DM ST PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	668	573	1241
	B	521	0	176	1	698
	C	582	0	2	227	811
	D	0	0	0	0	0
	Tot.	1103	0	846	801	2750

Traffic Lane Flows

Lane	Scenario 12: 2028 FY DM ST PM
Junction: A2 Westbound Offslip / Wrotham Road	
1/1	668
1/2	573
2/1 (short)	354
2/2 (with short)	698(In) 344(Out)
3/1 (short)	405
3/2 (with short)	809(In) 404(Out)
4/1	801
5/1	355
5/2	748
6/1	844

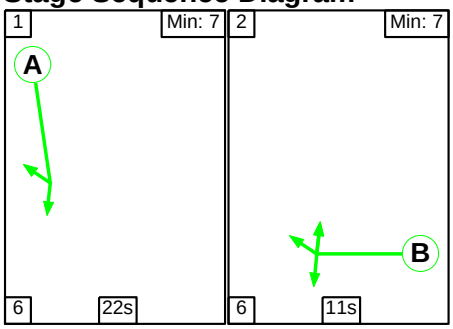
Full Input Data And Results

Lane Saturation Flows

Junction: A2 Westbound Offslip / Wrotham Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Wrotham Road North)	3.90	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2005	2005
1/2 (Wrotham Road North)	3.90	0.00	Y	Arm 4 Right	20.00	100.0 %	1865	1865
2/1 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 4 Ahead	Inf	0.3 %	1947	1947
				Arm 5 Right	Inf	50.0 %		
				Arm 6 Left	25.00	49.7 %		
2/2 (A2 Westbound Offslip)	3.90	0.00	Y	Arm 5 Right	25.00	100.0 %	1892	1892
3/1 (Wrotham Road South)	4.25	0.00	Y	Arm 4 Left	Inf	56.0 %	2040	2040
				Arm 5 Ahead	Inf	44.0 %		
3/2 (Wrotham Road South)	4.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2040	2040
4/1 (A2 Westbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Wrotham Road N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Wrotham Road N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Wrotham Road S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 1: '2025 OY DN AM' (FG1: '2025 OY DN AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

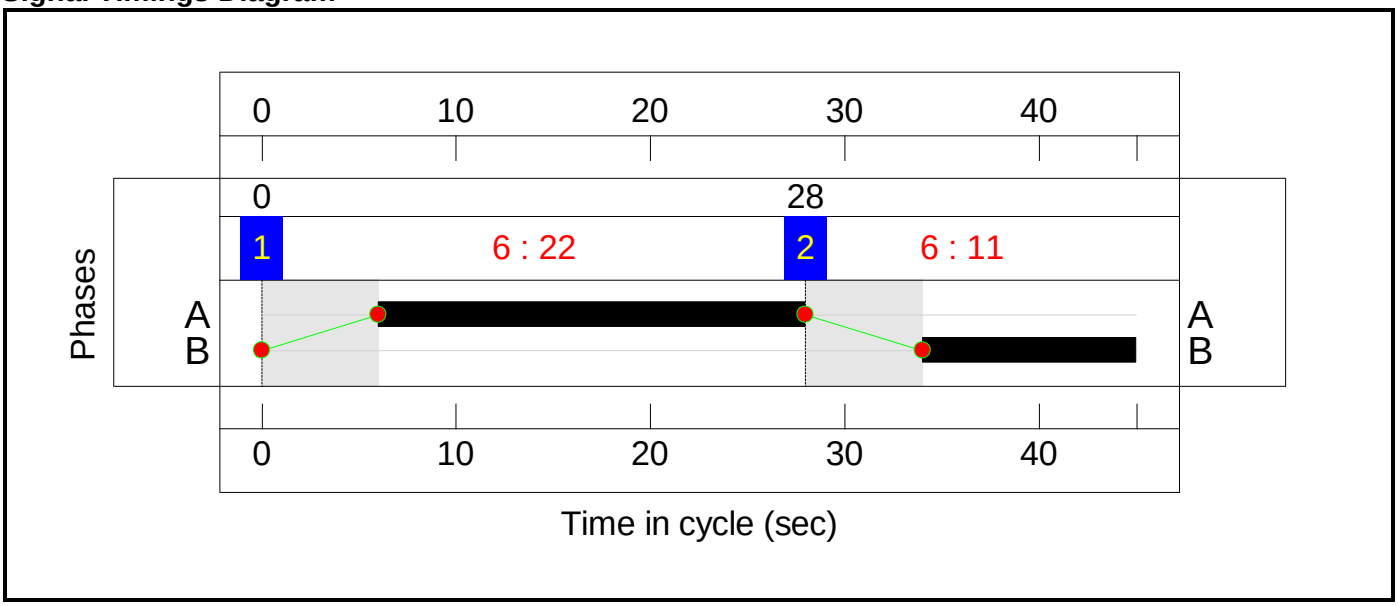


Stage Timings

Stage	1	2
Duration	22	11
Change Point	0	28

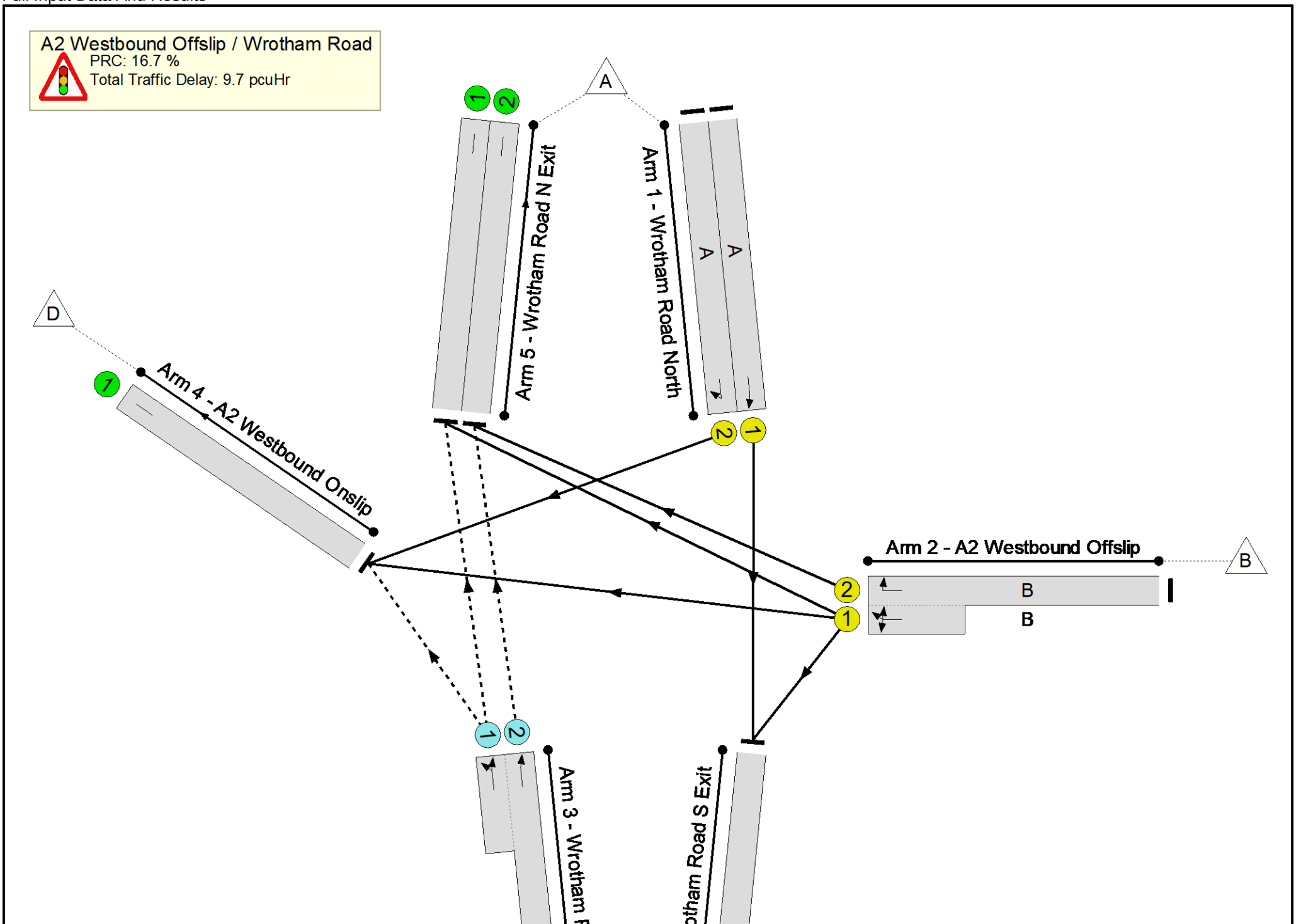
Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


A2 Westbound Offslip / Wrotham Road
PRC: 16.7 %
Total Traffic Delay: 9.7 pcuHr
A
D
B
Arm 1 - Wrotham Road North
Arm 2 - A2 Westbound Offslip
Arm 3 - Wrotham Road S Exit
Arm 4 - A2 Westbound Onslip
Arm 5 - Wrotham Road N Exit

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**77.1%**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**77.1%**
1/1	Wrotham Road North Ahead	U	N/A	N/A	A		1	22	-	472	2005	1025	46.1%
1/2	Wrotham Road North Right	U	N/A	N/A	A		1	22	-	715	1865	953	75.0%
2/2+2/1	A2 Westbound Offslip Ahead Right Left	U	N/A	N/A	B		1	11	-	692	1892:1944	442+455	77.1 : 77.1%
3/2+3/1	Wrotham Road South Left Ahead	O	N/A	N/A	-		-	-	-	781	2040:2040	700+747	55.7 : 52.4%
4/1	A2 Westbound Onslip	U	N/A	N/A	-		-	-	-	974	Inf	Inf	0.0%
5/1	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	299	Inf	Inf	0.0%
5/2	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	731	Inf	Inf	0.0%
6/1	Wrotham Road S Exit	U	N/A	N/A	-		-	-	-	656	Inf	Inf	0.0%

Full Input Data And Results

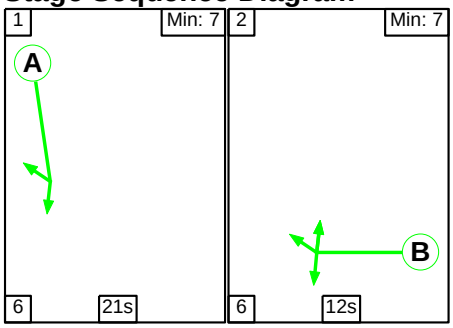
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1215**	**347**	**0**	**5.6**	**4.2**	**0.0**	**9.7**	**-**	**-**	**-**	**-**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**1215**	**347**	**0**	**5.6**	**4.2**	**0.0**	**9.7**	**-**	**-**	**-**	**-**
1/1	472	472	-	-	-	0.9	0.4	-	1.3	10.3	3.7	0.4	4.1
1/2	715	715	-	-	-	1.7	1.5	-	3.2	16.2	7.0	1.5	8.4
2/2+2/1	692	692	-	-	-	2.8	1.7	-	4.5	23.4	3.9	1.7	5.6
3/2+3/1	781	781	1215	347	0	0.1	0.6	-	0.7	3.1	1.0	0.6	1.6
4/1	974	974	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	299	299	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	731	731	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	656	656	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 16.7 Total Delay for Signalled Lanes (pcuHr): 9.07 Cycle Time (s): 45
PRC Over All Lanes (%): 16.7 Total Delay Over All Lanes(pcuHr): 9.73

Full Input Data And Results

Scenario 2: '2025 OY DN PM' (FG2: '2025 OY DN PM Peak', Plan 1: 'Network Control Plan 1')

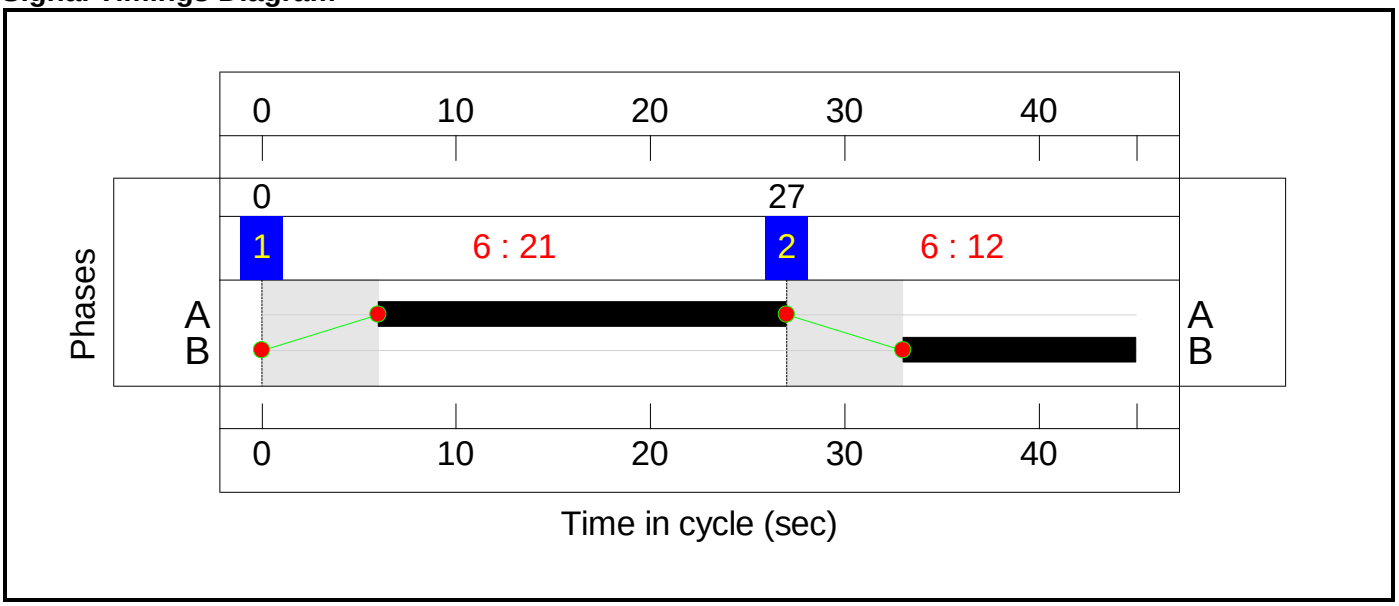
Stage Sequence Diagram



Stage Timings

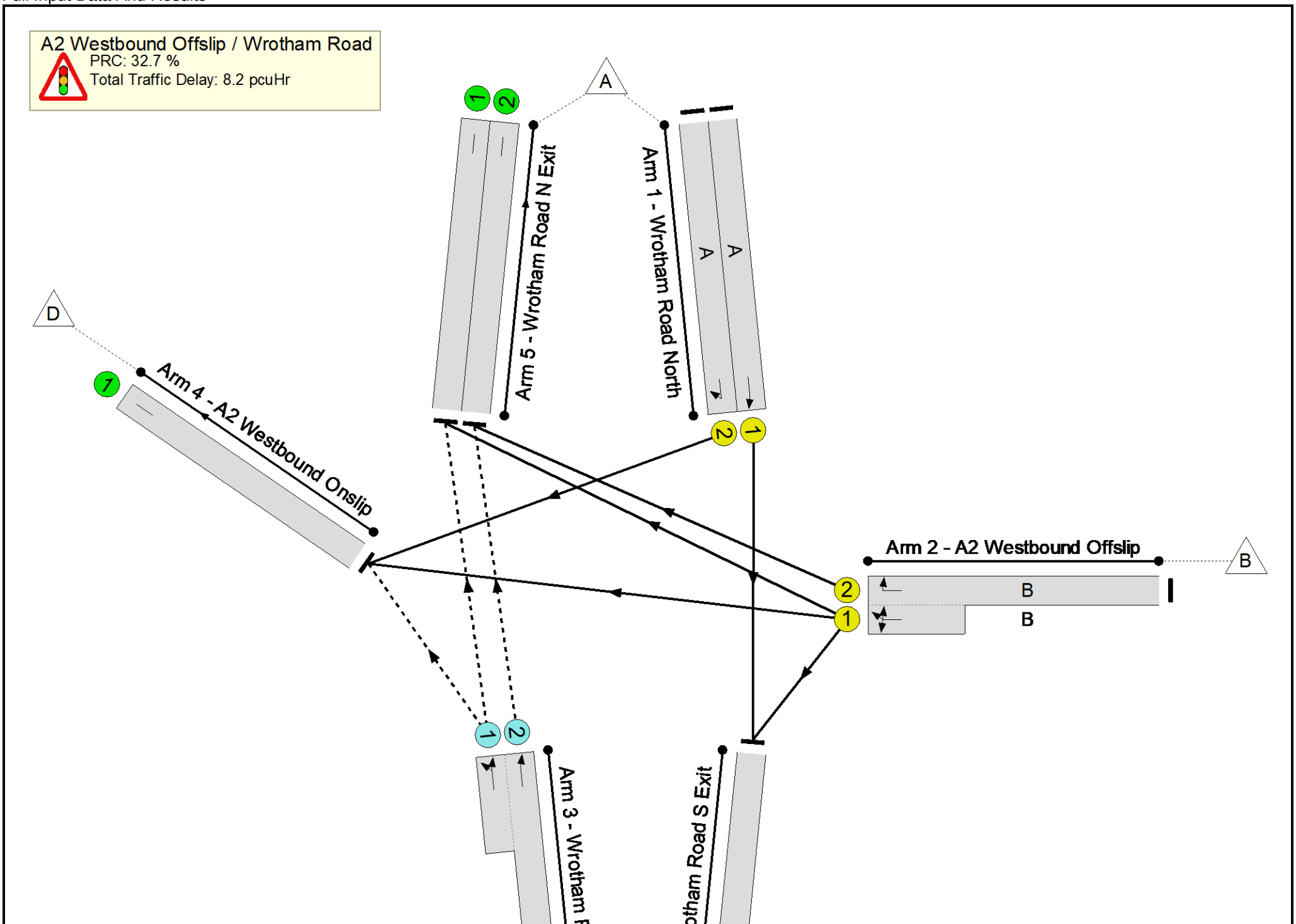
Stage	1	2
Duration	21	12
Change Point	0	27

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


A2 Westbound Offslip / Wrotham Road
PRC: 32.7 %
Total Traffic Delay: 8.2 pcuHr
A
D
B
Arm 1 - Wrotham Road North
Arm 2 - A2 Westbound Offslip
Arm 3 - Wrotham Road S Exit
Arm 4 - A2 Westbound Onslip
Arm 5 - Wrotham Road N Exit
A
A
B
B

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**67.8%**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**67.8%**
1/1	Wrotham Road North Ahead	U	N/A	N/A	A		1	21	-	642	2005	980	65.5%
1/2	Wrotham Road North Right	U	N/A	N/A	A		1	21	-	499	1865	912	54.7%
2/2+2/1	A2 Westbound Offslip Ahead Right Left	U	N/A	N/A	B		1	12	-	637	1892:1942	463+476	67.8 : 67.8%
3/2+3/1	Wrotham Road South Left Ahead	O	N/A	N/A	-		-	-	-	778	2040:2040	781+843	49.8 : 46.2%
4/1	A2 Westbound Onslip	U	N/A	N/A	-		-	-	-	719	Inf	Inf	0.0%
5/1	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	318	Inf	Inf	0.0%
5/2	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	703	Inf	Inf	0.0%
6/1	Wrotham Road S Exit	U	N/A	N/A	-		-	-	-	816	Inf	Inf	0.0%

Full Input Data And Results

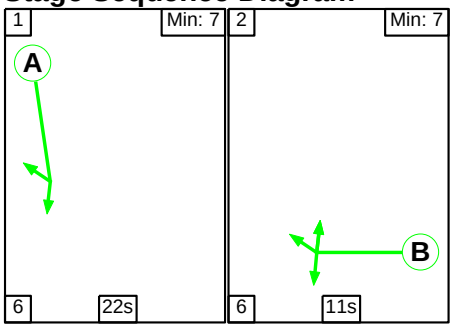
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1210**	**346**	**0**	**5.1**	**3.1**	**0.0**	**8.2**	**-**	**-**	**-**	**-**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**1210**	**346**	**0**	**5.1**	**3.1**	**0.0**	**8.2**	**-**	**-**	**-**	**-**
1/1	642	642	-	-	-	1.5	0.9	-	2.5	13.9	5.9	0.9	6.8
1/2	499	499	-	-	-	1.1	0.6	-	1.7	12.4	4.3	0.6	4.9
2/2+2/1	637	637	-	-	-	2.4	1.0	-	3.5	19.6	3.4	1.0	4.5
3/2+3/1	778	778	1210	346	0	0.1	0.5	-	0.5	2.4	0.9	0.5	1.3
4/1	719	719	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	318	318	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	703	703	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	816	816	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 32.7 Total Delay for Signalled Lanes (pcuHr): 7.67 Cycle Time (s): 45
PRC Over All Lanes (%): 32.7 Total Delay Over All Lanes(pcuHr): 8.18

Full Input Data And Results

Scenario 3: '2025 OY DM AM' (FG5: '2025 OY DM AM Peak', Plan 1: 'Network Control Plan 1')

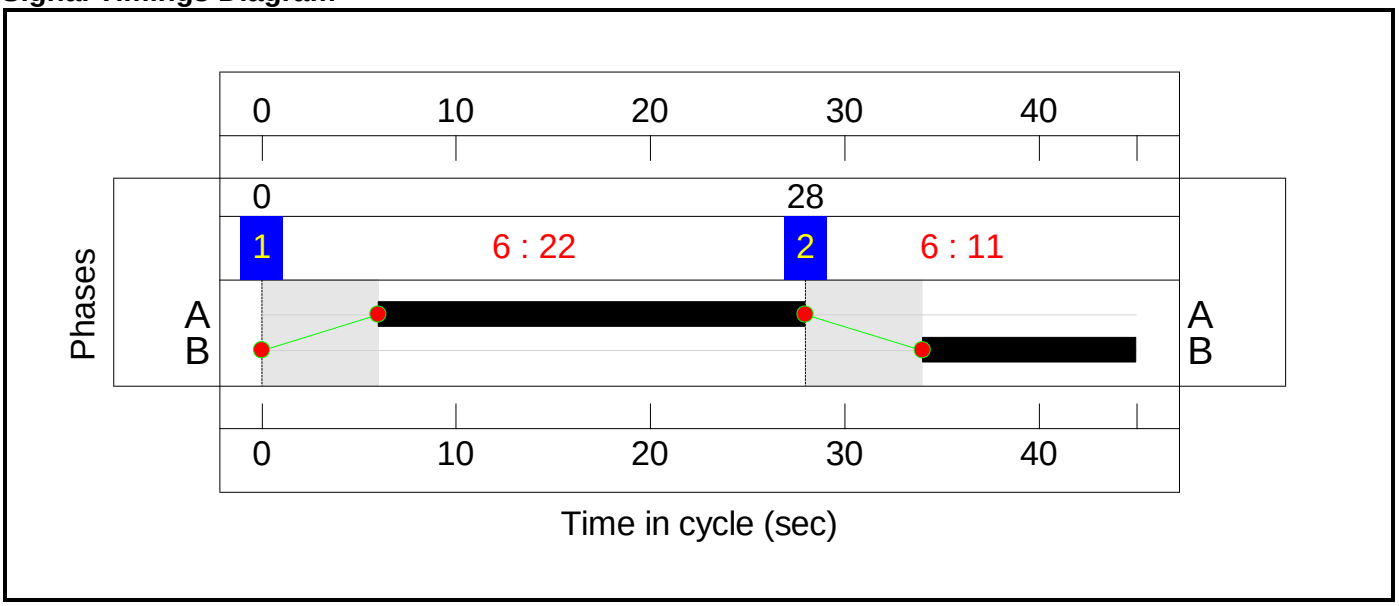
Stage Sequence Diagram



Stage Timings

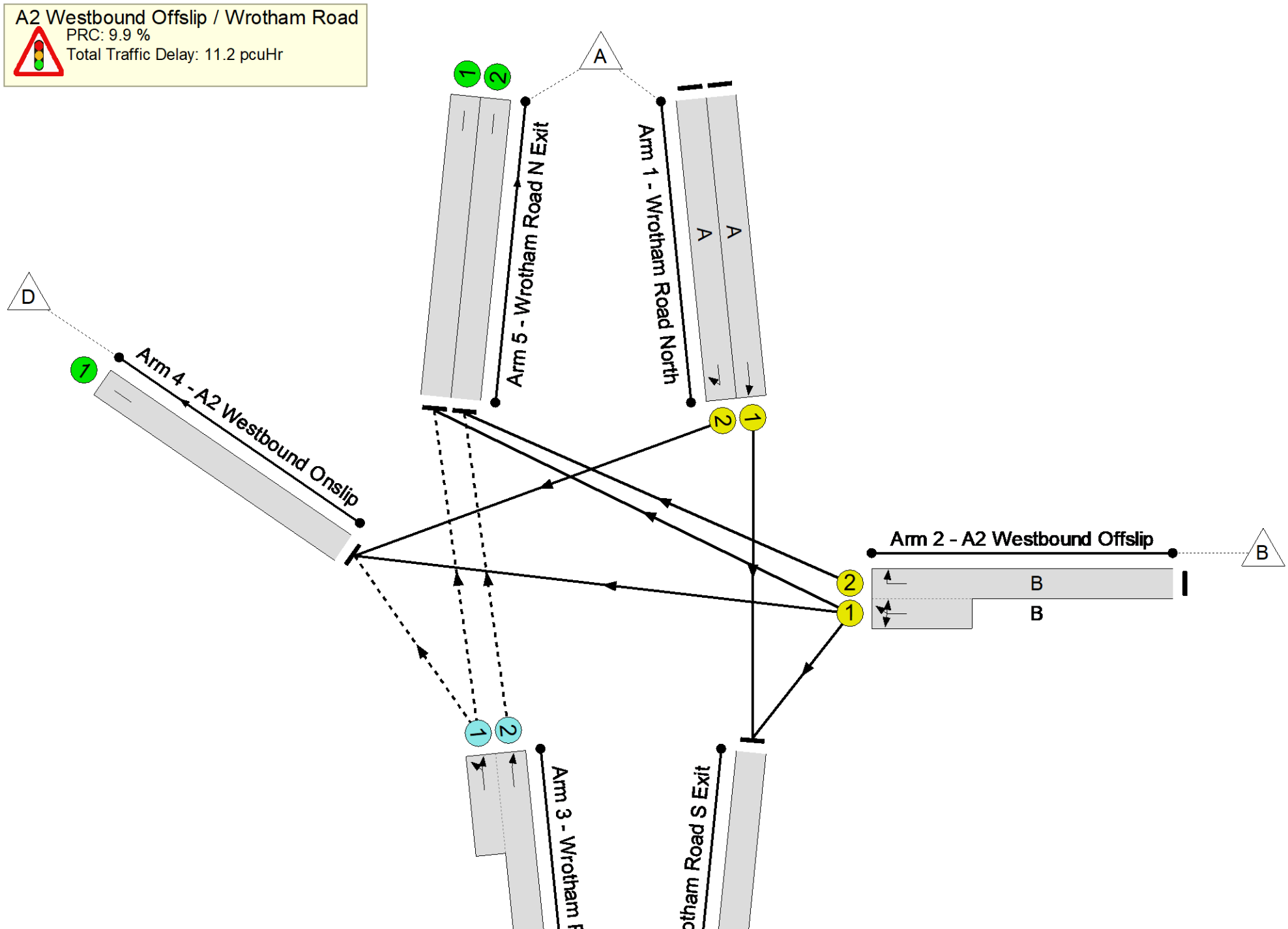
Stage	1	2
Duration	22	11
Change Point	0	28

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


A2 Westbound Offslip / Wrotham Road
PRC: 9.9 %
Total Traffic Delay: 11.2 pcuHr
A
D
B
Arm 1 - Wrotham Road North
Arm 2 - A2 Westbound Offslip
Arm 3 - Wrotham Road S Exit
Arm 4 - A2 Westbound Onslip
Arm 5 - Wrotham Road N Exit
A
A
B
B

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**81.9%**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**81.9%**
1/1	Wrotham Road North Ahead	U	N/A	N/A	A		1	22	-	472	2005	1025	46.1%
1/2	Wrotham Road North Right	U	N/A	N/A	A		1	22	-	760	1865	953	79.7%
2/2+2/1	A2 Westbound Offslip Ahead Right Left	U	N/A	N/A	B		1	11	-	735	1892:1947	442+455	81.9 : 81.9%
3/2+3/1	Wrotham Road South Left Ahead	O	N/A	N/A	-		-	-	-	781	2040:2040	673+722	58.0 : 54.2%
4/1	A2 Westbound Onslip	U	N/A	N/A	-		-	-	-	1014	Inf	Inf	0.0%
5/1	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	326	Inf	Inf	0.0%
5/2	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	752	Inf	Inf	0.0%
6/1	Wrotham Road S Exit	U	N/A	N/A	-		-	-	-	656	Inf	Inf	0.0%

Full Input Data And Results

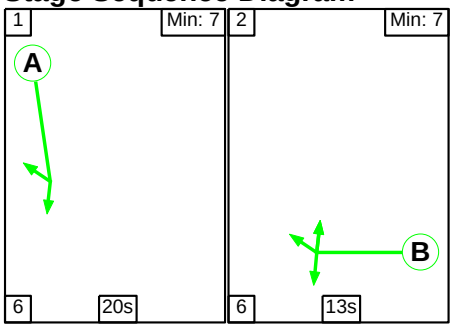
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1215**	**347**	**0**	**6.0**	**5.2**	**0.0**	**11.2**	**-**	**-**	**-**	**-**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**1215**	**347**	**0**	**6.0**	**5.2**	**0.0**	**11.2**	**-**	**-**	**-**	**-**
1/1	472	472	-	-	-	0.9	0.4	-	1.3	10.3	3.7	0.4	4.1
1/2	760	760	-	-	-	1.9	1.9	-	3.8	18.2	7.8	1.9	9.7
2/2+2/1	735	735	-	-	-	3.1	2.2	-	5.3	25.8	4.1	2.2	6.3
3/2+3/1	781	781	1215	347	0	0.1	0.6	-	0.7	3.4	1.1	0.6	1.7
4/1	1014	1014	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	326	326	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	752	752	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	656	656	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 9.9 Total Delay for Signalled Lanes (pcuHr): 10.45 Cycle Time (s): 45
PRC Over All Lanes (%): 9.9 Total Delay Over All Lanes(pcuHr): 11.20

Full Input Data And Results

Scenario 4: '2025 OY DM PM' (FG6: '2025 OY DM PM Peak', Plan 1: 'Network Control Plan 1')

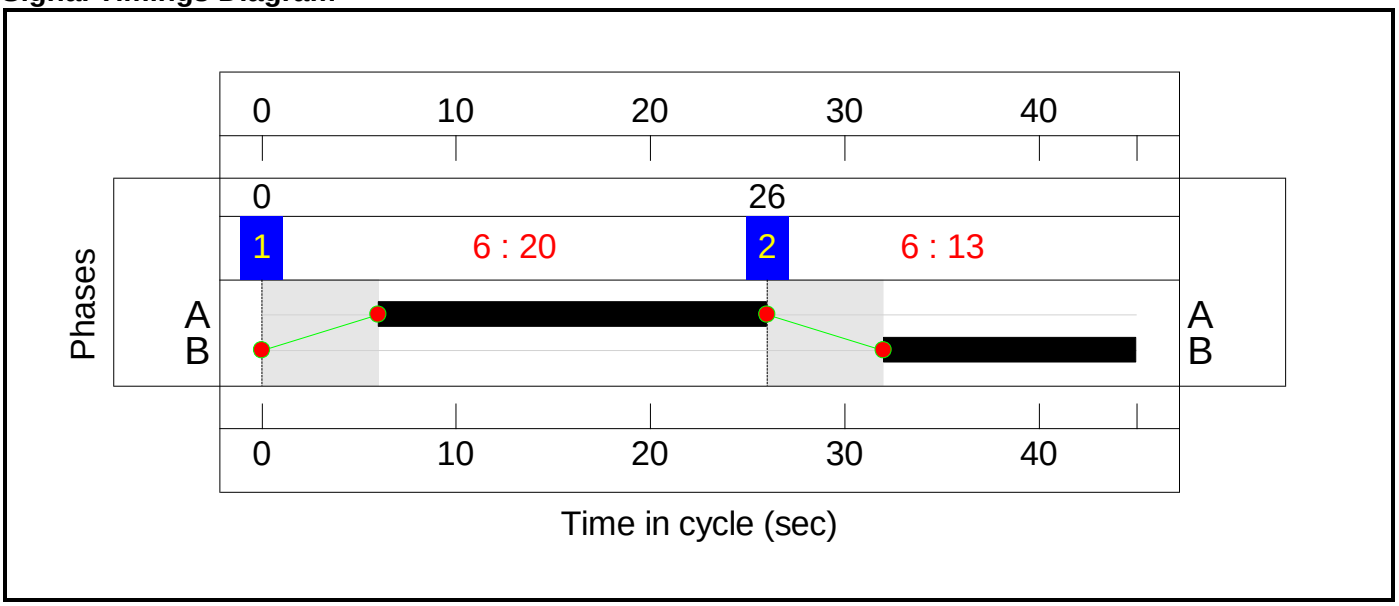
Stage Sequence Diagram



Stage Timings

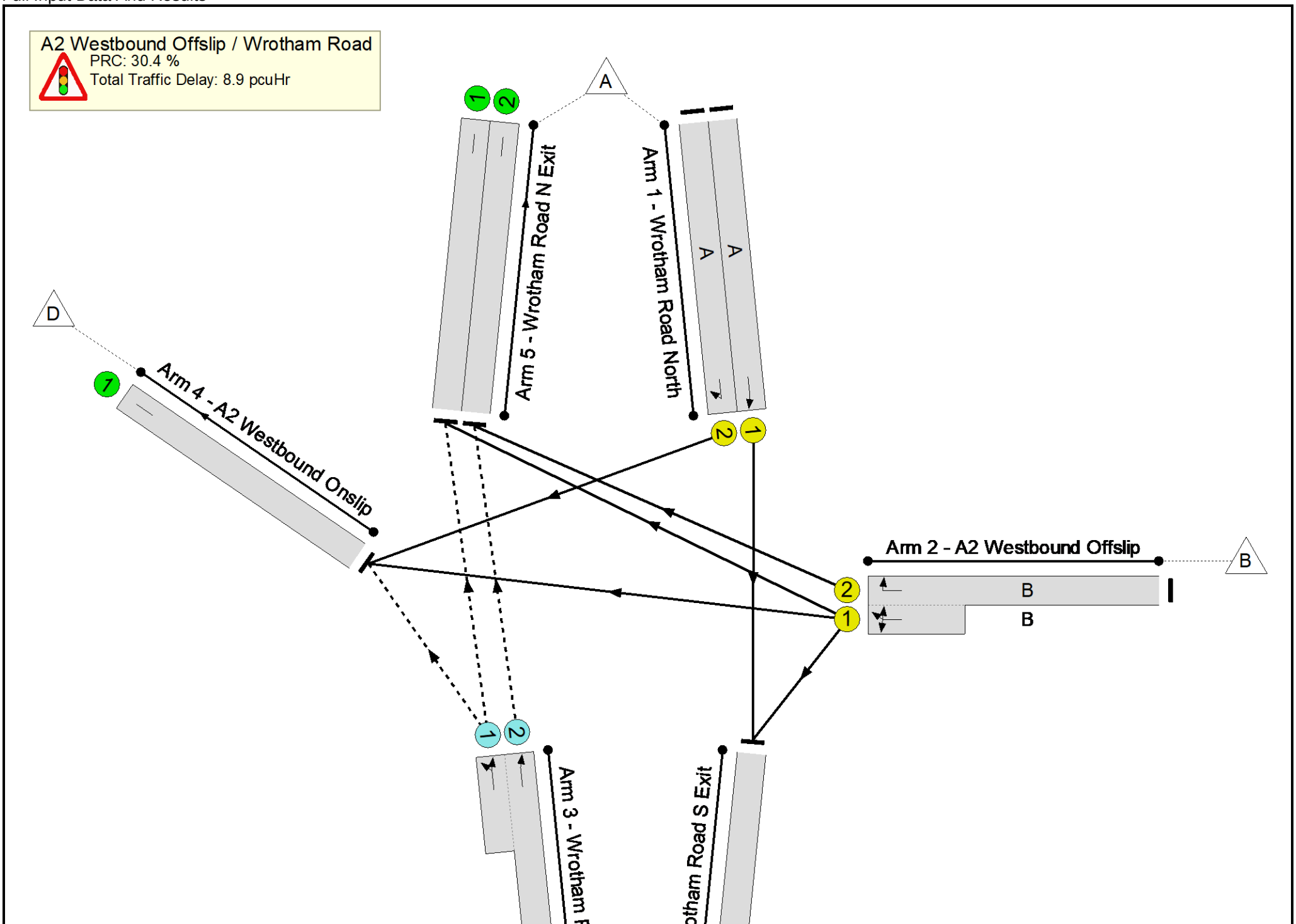
Stage	1	2
Duration	20	13
Change Point	0	26

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


A2 Westbound Offslip / Wrotham Road
PRC: 30.4 %
Total Traffic Delay: 8.9 pcuHr
A
D
B
Arm 1 - Wrotham Road North
Arm 2 - A2 Westbound Offslip
Arm 3 - Wrotham Road S Exit
Arm 4 - A2 Westbound Onslip
Arm 5 - Wrotham Road N Exit

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.0%**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.0%**
1/1	Wrotham Road North Ahead	U	N/A	N/A	A		1	20	-	646	2005	936	69.0%
1/2	Wrotham Road North Right	U	N/A	N/A	A		1	20	-	532	1865	870	61.1%
2/2+2/1	A2 Westbound Offslip Ahead Right Left	U	N/A	N/A	B		1	13	-	670	1892:1947	484+499	68.2 : 68.2%
3/2+3/1	Wrotham Road South Left Ahead	O	N/A	N/A	-		-	-	-	778	2040:2040	759+821	51.3 : 47.4%
4/1	A2 Westbound Onslip	U	N/A	N/A	-		-	-	-	752	Inf	Inf	0.0%
5/1	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	339	Inf	Inf	0.0%
5/2	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	719	Inf	Inf	0.0%
6/1	Wrotham Road S Exit	U	N/A	N/A	-		-	-	-	816	Inf	Inf	0.0%

Full Input Data And Results

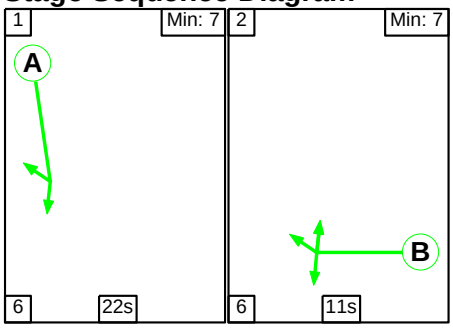
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1210**	**346**	**0**	**5.5**	**3.4**	**0.0**	**8.9**	**-**	**-**	**-**	**-**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**1210**	**346**	**0**	**5.5**	**3.4**	**0.0**	**8.9**	**-**	**-**	**-**	**-**
1/1	646	646	-	-	-	1.7	1.1	-	2.8	15.6	6.3	1.1	7.4
1/2	532	532	-	-	-	1.3	0.8	-	2.1	14.3	4.9	0.8	5.7
2/2+2/1	670	670	-	-	-	2.4	1.1	-	3.5	18.7	3.5	1.1	4.6
3/2+3/1	778	778	1210	346	0	0.1	0.5	-	0.6	2.6	0.9	0.5	1.3
4/1	752	752	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	339	339	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	719	719	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	816	816	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 30.4 Total Delay for Signalled Lanes (pcuHr): 8.38 Cycle Time (s): 45
PRC Over All Lanes (%): 30.4 Total Delay Over All Lanes(pcuHr): 8.94

Full Input Data And Results

Scenario 5: '2025 OY DM ST AM' (FG9: '2025 OY DM ST AM Peak', Plan 1: 'Network Control Plan 1')

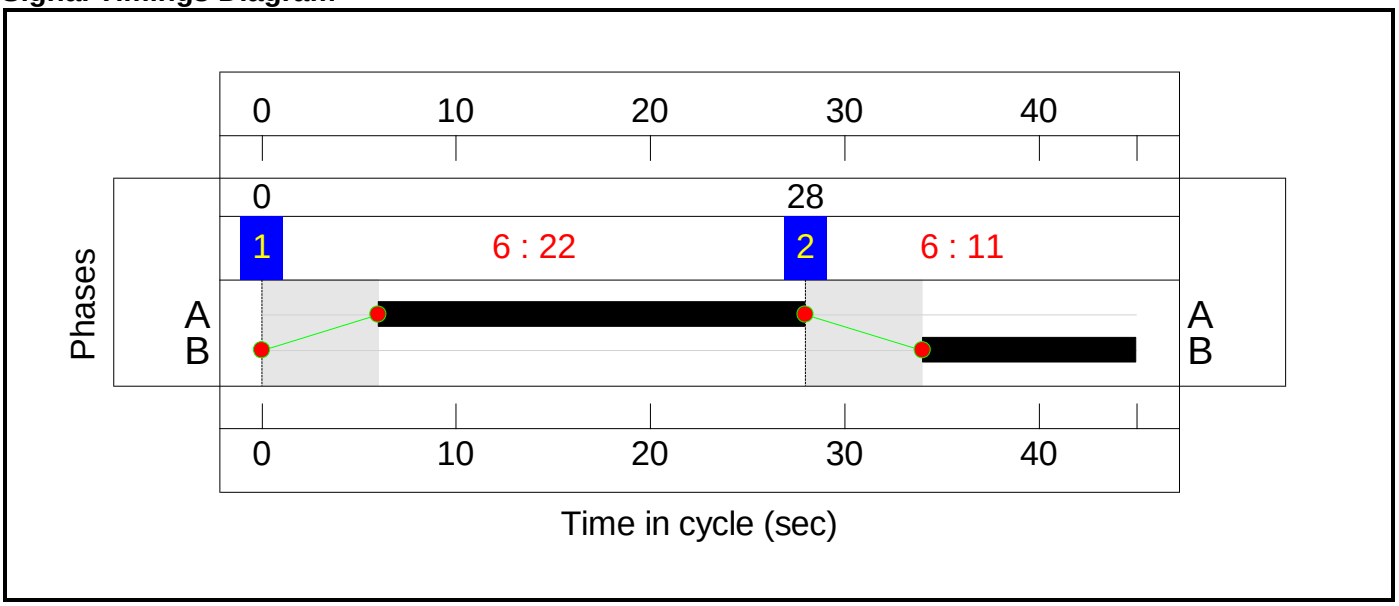
Stage Sequence Diagram



Stage Timings

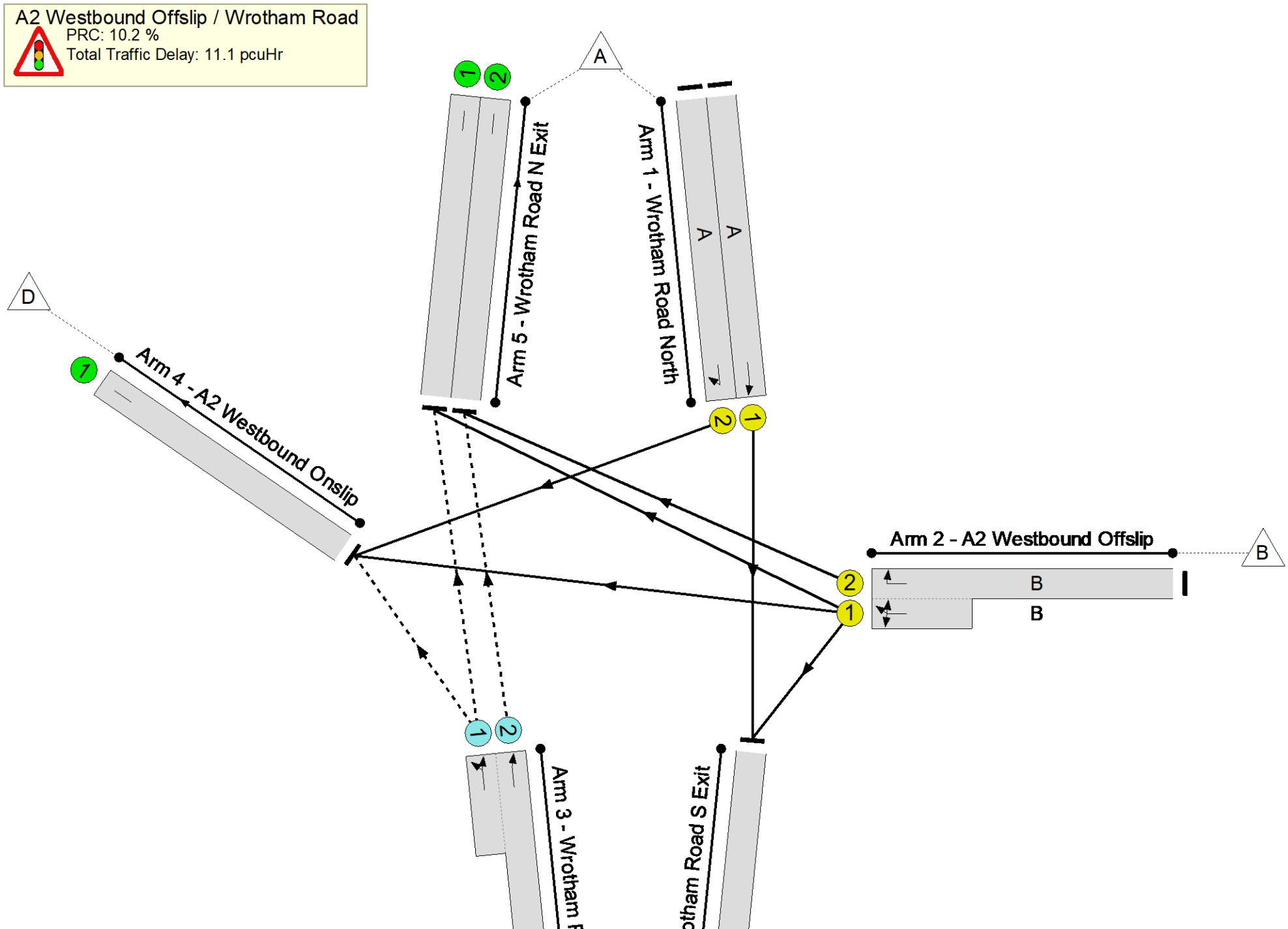
Stage	1	2
Duration	22	11
Change Point	0	28

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


A2 Westbound Offslip / Wrotham Road
PRC: 10.2 %
Total Traffic Delay: 11.1 pcuHr
A
D
B
Arm 1 - Wrotham Road North
Arm 2 - A2 Westbound Offslip
Arm 3 - Wrotham Road S Exit
Arm 4 - A2 Westbound Onslip
Arm 5 - Wrotham Road N Exit

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**81.7%**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**81.7%**
1/1	Wrotham Road North Ahead	U	N/A	N/A	A		1	22	-	472	2005	1025	46.1%
1/2	Wrotham Road North Right	U	N/A	N/A	A		1	22	-	754	1865	953	79.1%
2/2+2/1	A2 Westbound Offslip Ahead Right Left	U	N/A	N/A	B		1	11	-	733	1892:1947	442+455	81.7 : 81.7%
3/2+3/1	Wrotham Road South Left Ahead	O	N/A	N/A	-		-	-	-	781	2040:2040	675+724	57.8 : 54.0%
4/1	A2 Westbound Onslip	U	N/A	N/A	-		-	-	-	1008	Inf	Inf	0.0%
5/1	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	325	Inf	Inf	0.0%
5/2	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	751	Inf	Inf	0.0%
6/1	Wrotham Road S Exit	U	N/A	N/A	-		-	-	-	656	Inf	Inf	0.0%

Full Input Data And Results

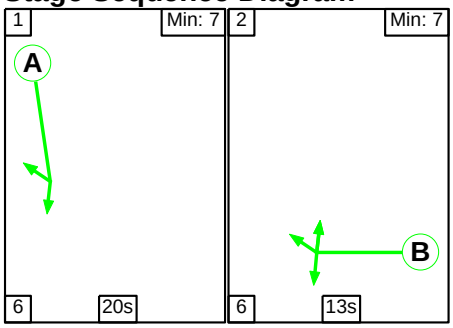
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1215**	**347**	**0**	**6.0**	**5.1**	**0.0**	**11.1**	**-**	**-**	**-**	**-**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**1215**	**347**	**0**	**6.0**	**5.1**	**0.0**	**11.1**	**-**	**-**	**-**	**-**
1/1	472	472	-	-	-	0.9	0.4	-	1.3	10.3	3.7	0.4	4.1
1/2	754	754	-	-	-	1.9	1.9	-	3.7	17.9	7.5	1.9	9.4
2/2+2/1	733	733	-	-	-	3.0	2.2	-	5.2	25.6	4.1	2.2	6.3
3/2+3/1	781	781	1215	347	0	0.1	0.6	-	0.7	3.4	1.1	0.6	1.7
4/1	1008	1008	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	325	325	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	751	751	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	656	656	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 10.2 Total Delay for Signalled Lanes (pcuHr): 10.32 Cycle Time (s): 45
PRC Over All Lanes (%): 10.2 Total Delay Over All Lanes(pcuHr): 11.05

Full Input Data And Results

Scenario 6: '2025 OY DM ST PM' (FG10: '2025 OY DM ST PM Peak', Plan 1: 'Network Control Plan 1')

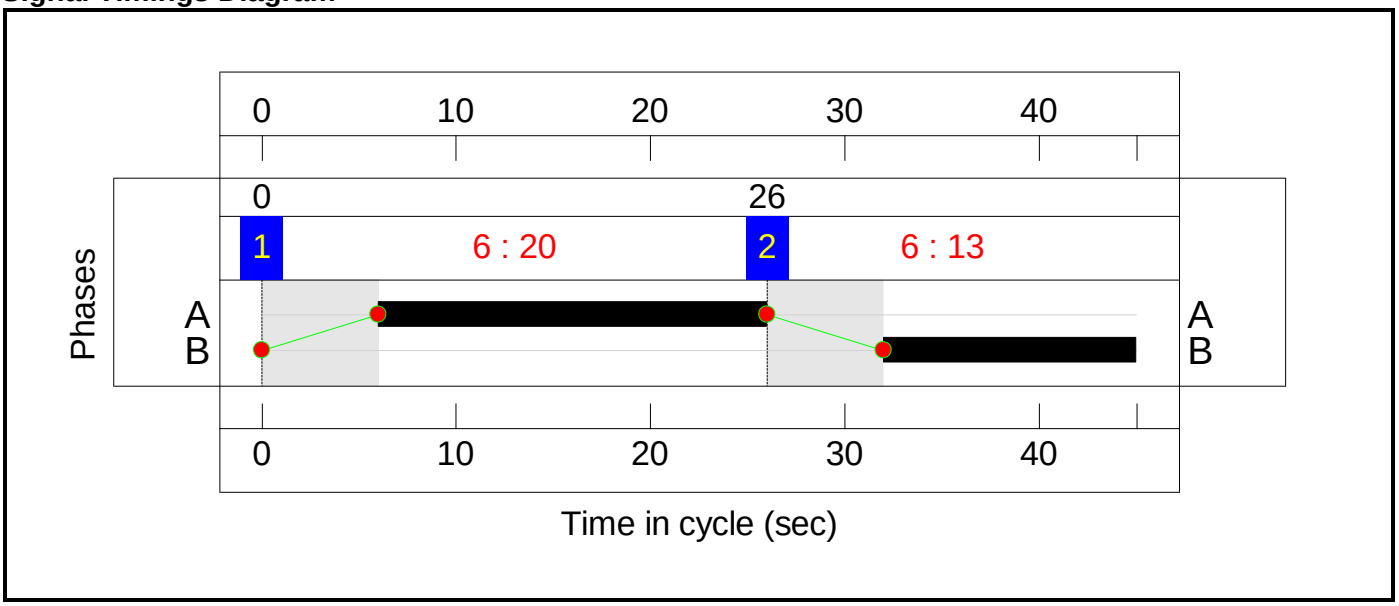
Stage Sequence Diagram



Stage Timings

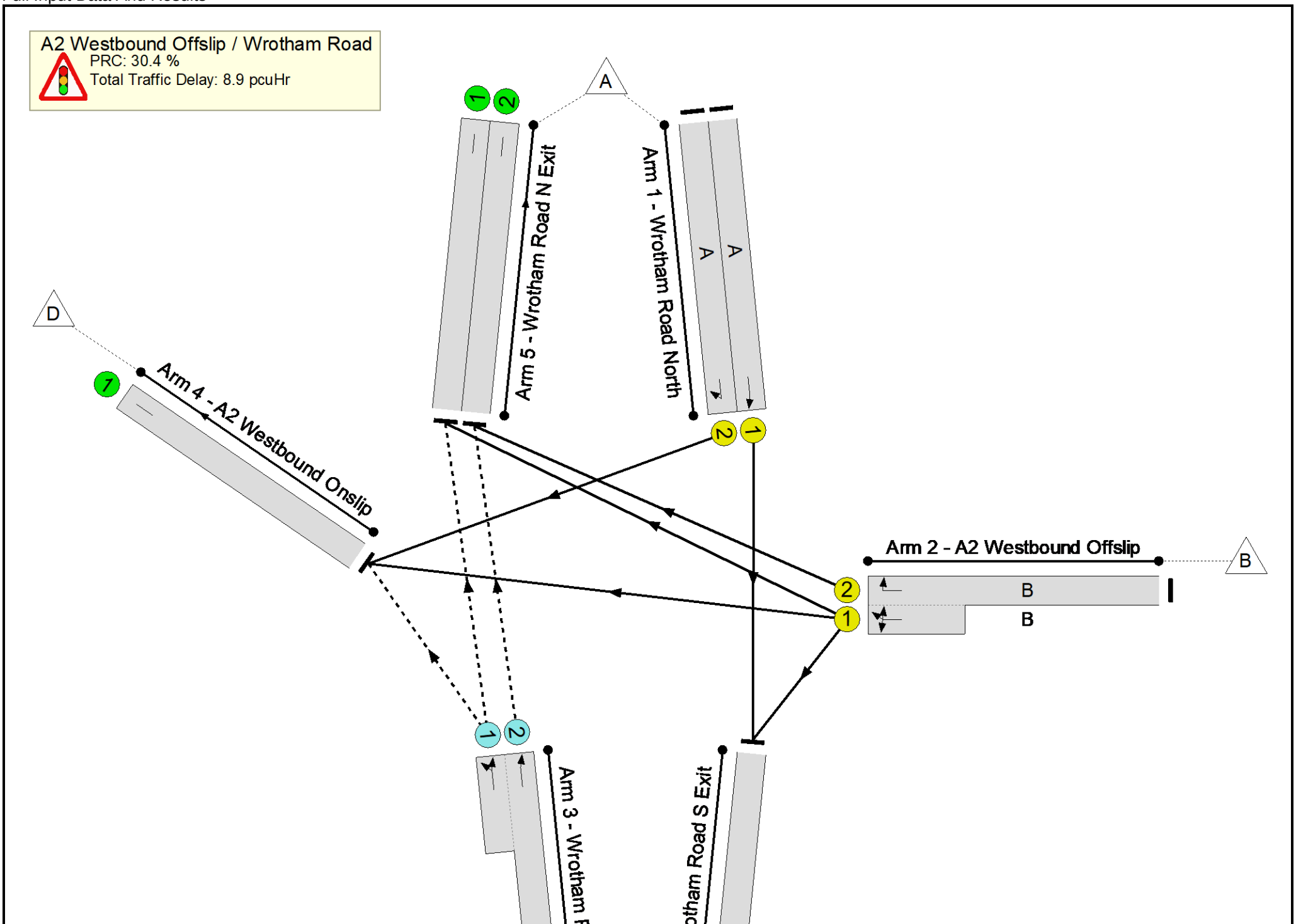
Stage	1	2
Duration	20	13
Change Point	0	26

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


A2 Westbound Offslip / Wrotham Road
PRC: 30.4 %
Total Traffic Delay: 8.9 pcuHr
A
D
B
Arm 1 - Wrotham Road North
Arm 2 - A2 Westbound Offslip
Arm 3 - Wrotham Road S Exit
Arm 4 - A2 Westbound Onslip
Arm 5 - Wrotham Road N Exit

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.0%**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.0%**
1/1	Wrotham Road North Ahead	U	N/A	N/A	A		1	20	-	646	2005	936	69.0%
1/2	Wrotham Road North Right	U	N/A	N/A	A		1	20	-	527	1865	870	60.6%
2/2+2/1	A2 Westbound Offslip Ahead Right Left	U	N/A	N/A	B		1	13	-	665	1892:1946	484+497	67.7 : 67.7%
3/2+3/1	Wrotham Road South Left Ahead	O	N/A	N/A	-		-	-	-	778	2040:2040	762+824	51.0 : 47.2%
4/1	A2 Westbound Onslip	U	N/A	N/A	-		-	-	-	747	Inf	Inf	0.0%
5/1	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	336	Inf	Inf	0.0%
5/2	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	717	Inf	Inf	0.0%
6/1	Wrotham Road S Exit	U	N/A	N/A	-		-	-	-	816	Inf	Inf	0.0%

Full Input Data And Results

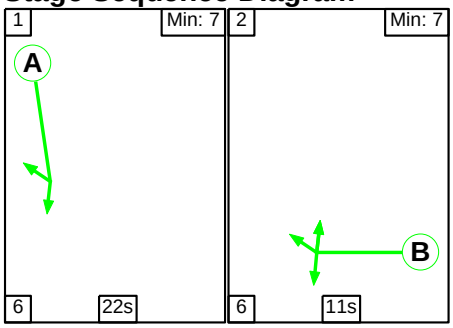
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1210**	**346**	**0**	**5.5**	**3.4**	**0.0**	**8.9**	**-**	**-**	**-**	**-**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**1210**	**346**	**0**	**5.5**	**3.4**	**0.0**	**8.9**	**-**	**-**	**-**	**-**
1/1	646	646	-	-	-	1.7	1.1	-	2.8	15.6	6.3	1.1	7.4
1/2	527	527	-	-	-	1.3	0.8	-	2.1	14.1	4.8	0.8	5.6
2/2+2/1	665	665	-	-	-	2.4	1.0	-	3.4	18.6	3.5	1.0	4.5
3/2+3/1	778	778	1210	346	0	0.1	0.5	-	0.5	2.5	0.9	0.5	1.3
4/1	747	747	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	336	336	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	717	717	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	816	816	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 30.4 Total Delay for Signalled Lanes (pcuHr): 8.30 Cycle Time (s): 45
PRC Over All Lanes (%): 30.4 Total Delay Over All Lanes(pcuHr): 8.85

Full Input Data And Results

Scenario 7: '2028 FY DN AM' (FG3: '2028 FY DN AM Peak', Plan 1: 'Network Control Plan 1')

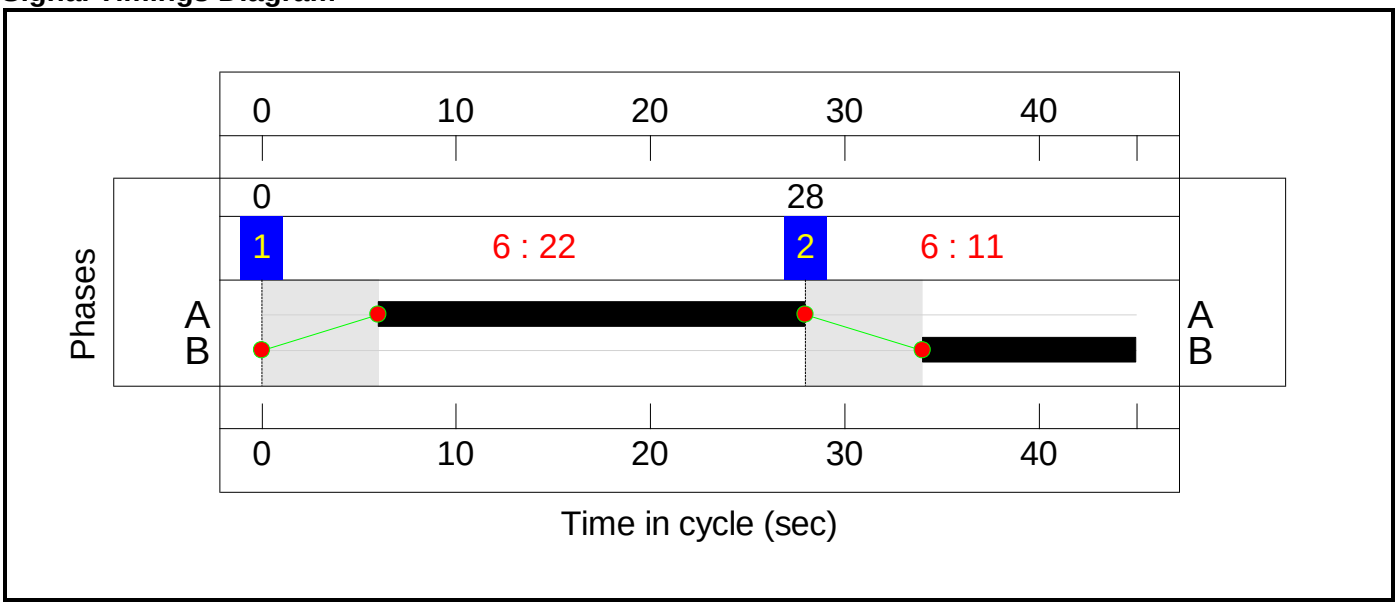
Stage Sequence Diagram



Stage Timings

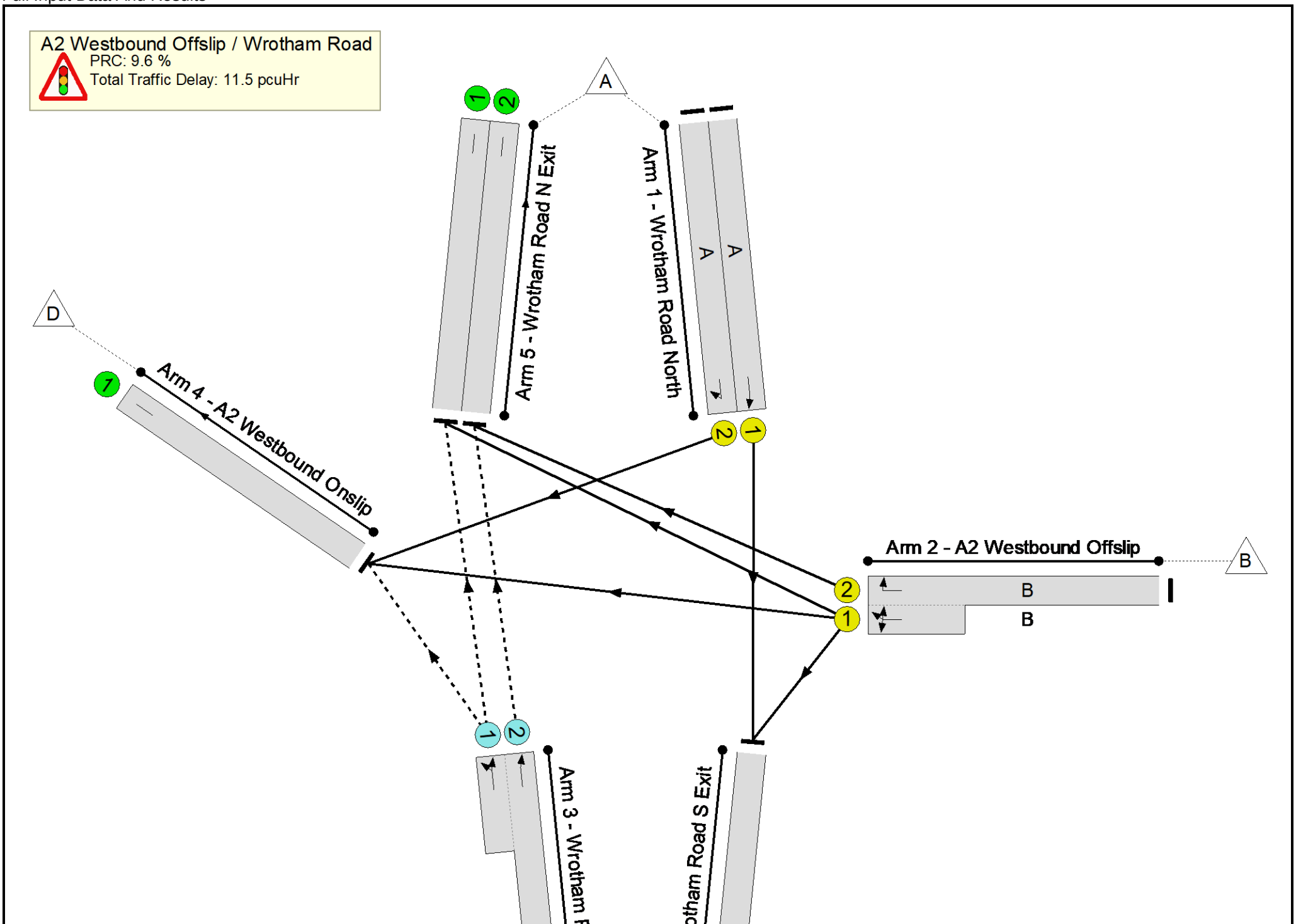
Stage	1	2
Duration	22	11
Change Point	0	28

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


A2 Westbound Offslip / Wrotham Road
PRC: 9.6 %
Total Traffic Delay: 11.5 pcuHr
A
D
B
Arm 1 - Wrotham Road North
Arm 2 - A2 Westbound Offslip
Arm 3 - Wrotham Road S Exit
Arm 4 - A2 Westbound Onslip
Arm 5 - Wrotham Road N Exit

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.1%**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.1%**
1/1	Wrotham Road North Ahead	U	N/A	N/A	A		1	22	-	490	2005	1025	47.8%
1/2	Wrotham Road North Right	U	N/A	N/A	A		1	22	-	783	1865	953	82.1%
2/2+2/1	A2 Westbound Offslip Ahead Right Left	U	N/A	N/A	B		1	11	-	721	1892:1944	442+453	80.5 : 80.5%
3/2+3/1	Wrotham Road South Left Ahead	O	N/A	N/A	-		-	-	-	806	2040:2040	672+718	60.0 : 56.1%
4/1	A2 Westbound Onslip	U	N/A	N/A	-		-	-	-	1051	Inf	Inf	0.0%
5/1	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	310	Inf	Inf	0.0%
5/2	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	759	Inf	Inf	0.0%
6/1	Wrotham Road S Exit	U	N/A	N/A	-		-	-	-	680	Inf	Inf	0.0%

Full Input Data And Results

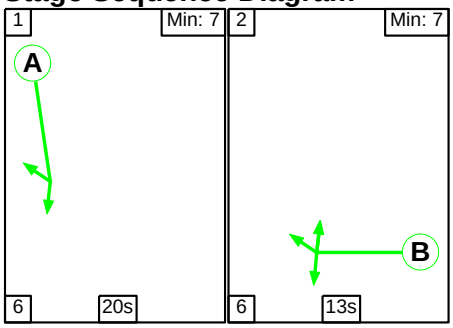
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1254**	**358**	**0**	**6.1**	**5.4**	**0.0**	**11.5**	**-**	**-**	**-**	**-**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**1254**	**358**	**0**	**6.1**	**5.4**	**0.0**	**11.5**	**-**	**-**	**-**	**-**
1/1	490	490	-	-	-	1.0	0.5	-	1.4	10.5	3.9	0.5	4.4
1/2	783	783	-	-	-	2.0	2.2	-	4.3	19.6	8.0	2.2	10.3
2/2+2/1	721	721	-	-	-	3.0	2.0	-	5.0	25.0	4.1	2.0	6.1
3/2+3/1	806	806	1254	358	0	0.1	0.7	-	0.8	3.5	1.1	0.7	1.8
4/1	1051	1051	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	310	310	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	759	759	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	680	680	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 9.6 Total Delay for Signalled Lanes (pcuHr): 10.69 Cycle Time (s): 45
PRC Over All Lanes (%): 9.6 Total Delay Over All Lanes(pcuHr): 11.48

Full Input Data And Results

Scenario 8: '2028 FY DN PM' (FG4: '2028 FY DN PM Peak', Plan 1: 'Network Control Plan 1')

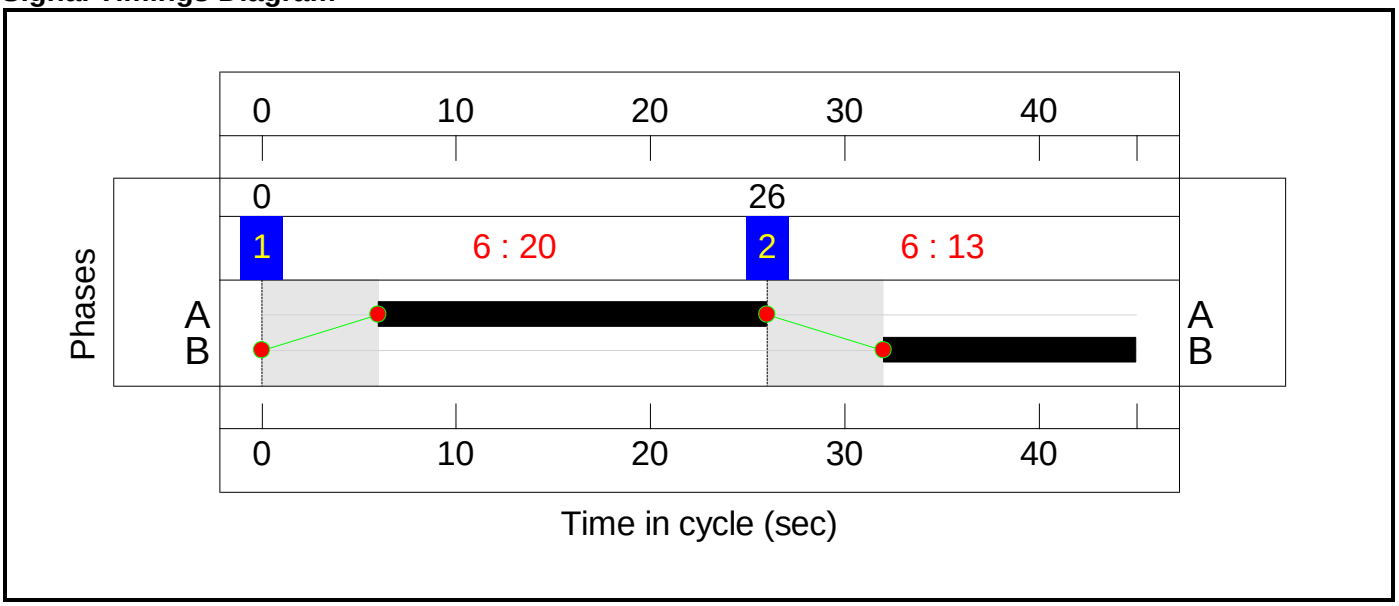
Stage Sequence Diagram



Stage Timings

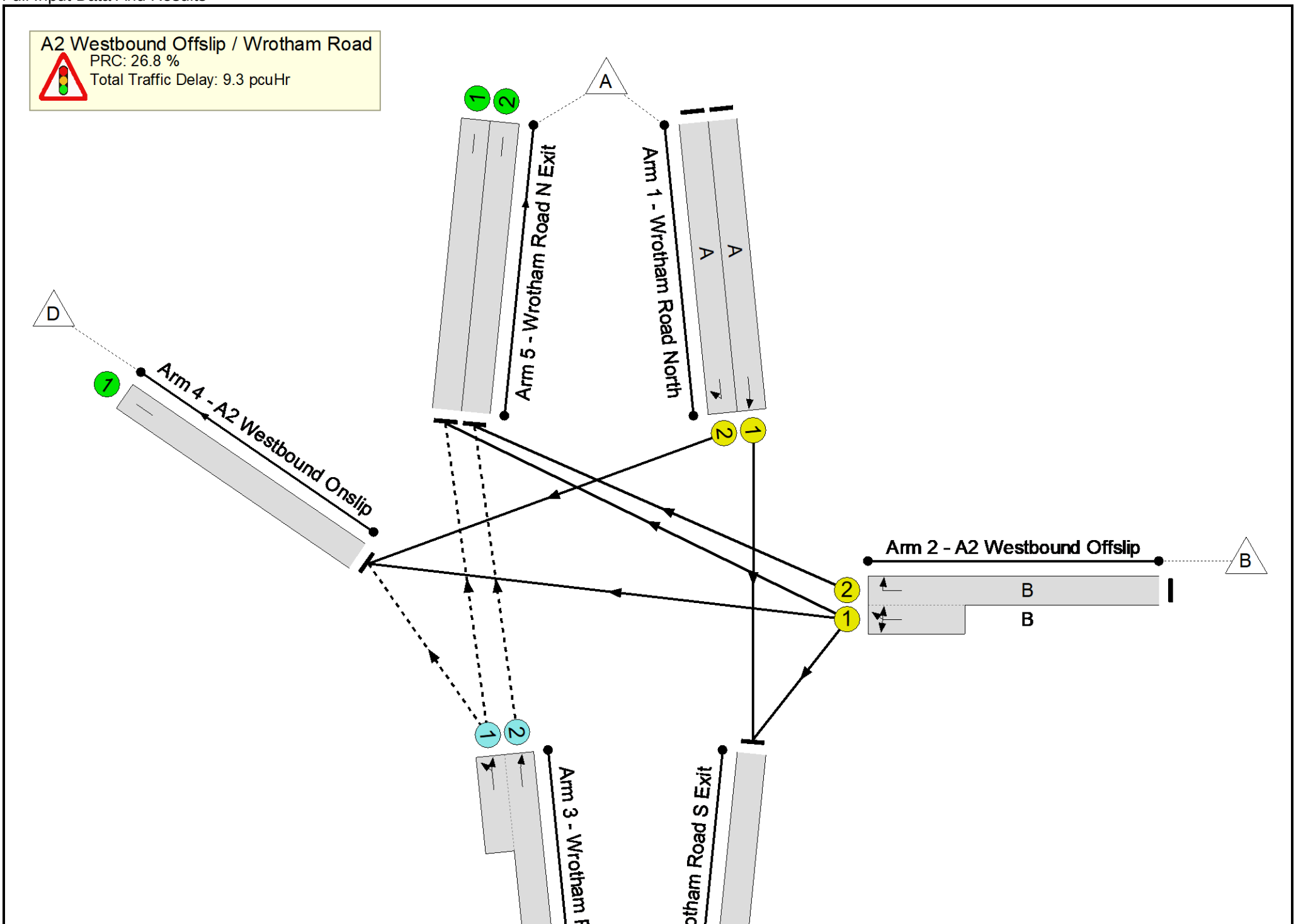
Stage	1	2
Duration	20	13
Change Point	0	26

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


A2 Westbound Offslip / Wrotham Road
PRC: 26.8 %
Total Traffic Delay: 9.3 pcuHr
A
D
B
Arm 1 - Wrotham Road North
Arm 2 - A2 Westbound Offslip
Arm 3 - Wrotham Road S Exit
Arm 4 - A2 Westbound Onslip
Arm 5 - Wrotham Road N Exit

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**71.0%**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**71.0%**
1/1	Wrotham Road North Ahead	U	N/A	N/A	A		1	20	-	664	2005	936	71.0%
1/2	Wrotham Road North Right	U	N/A	N/A	A		1	20	-	545	1865	870	62.6%
2/2+2/1	A2 Westbound Offslip Ahead Right Left	U	N/A	N/A	B		1	13	-	670	1892:1943	484+496	68.4 : 68.4%
3/2+3/1	Wrotham Road South Left Ahead	O	N/A	N/A	-		-	-	-	809	2040:2040	758+821	53.3 : 49.3%
4/1	A2 Westbound Onslip	U	N/A	N/A	-		-	-	-	773	Inf	Inf	0.0%
5/1	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	336	Inf	Inf	0.0%
5/2	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	735	Inf	Inf	0.0%
6/1	Wrotham Road S Exit	U	N/A	N/A	-		-	-	-	844	Inf	Inf	0.0%

Full Input Data And Results

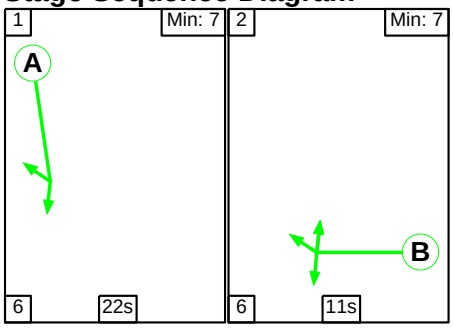
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1258**	**360**	**0**	**5.6**	**3.6**	**0.0**	**9.3**	**-**	**-**	**-**	**-**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**1258**	**360**	**0**	**5.6**	**3.6**	**0.0**	**9.3**	**-**	**-**	**-**	**-**
1/1	664	664	-	-	-	1.8	1.2	-	3.0	16.1	6.5	1.2	7.7
1/2	545	545	-	-	-	1.4	0.8	-	2.2	14.5	5.0	0.8	5.8
2/2+2/1	670	670	-	-	-	2.4	1.1	-	3.5	18.7	3.5	1.1	4.6
3/2+3/1	809	809	1258	360	0	0.1	0.5	-	0.6	2.6	1.0	0.5	1.5
4/1	773	773	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	336	336	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	735	735	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	844	844	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 26.8 Total Delay for Signalled Lanes (pcuHr): 8.66 Cycle Time (s): 45
PRC Over All Lanes (%): 26.8 Total Delay Over All Lanes(pcuHr): 9.26

Full Input Data And Results

Scenario 9: '2028 FY DM AM' (FG7: '2028 FY DM AM Peak', Plan 1: 'Network Control Plan 1')

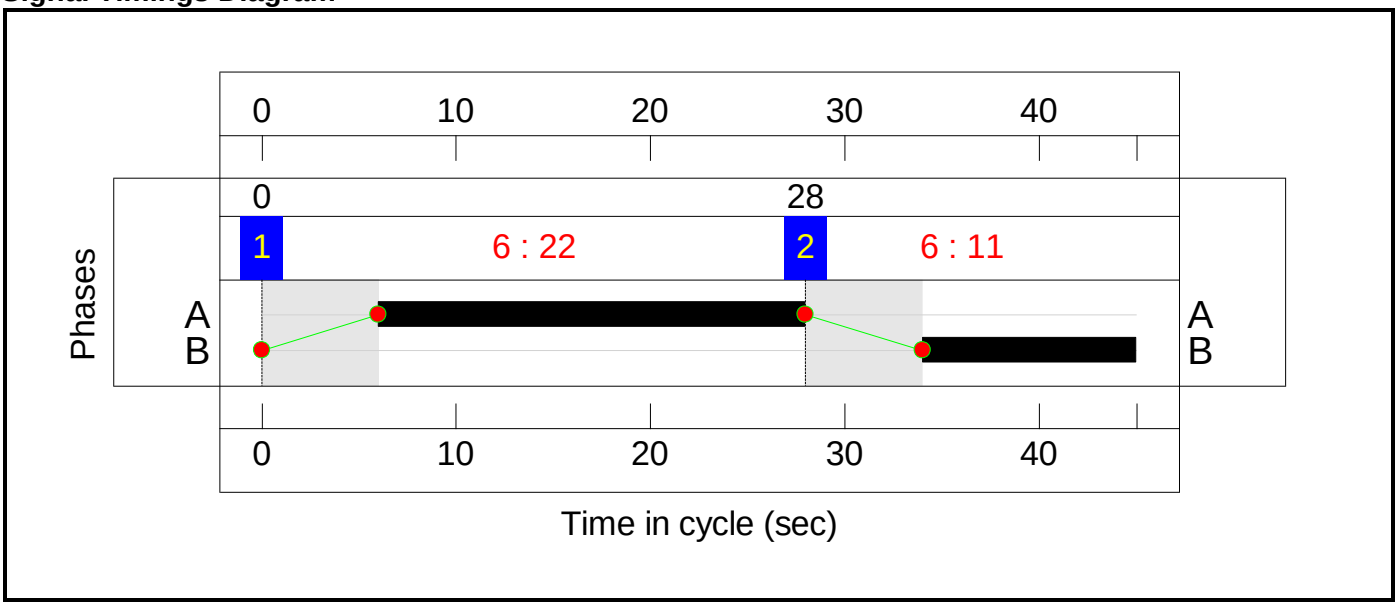
Stage Sequence Diagram



Stage Timings

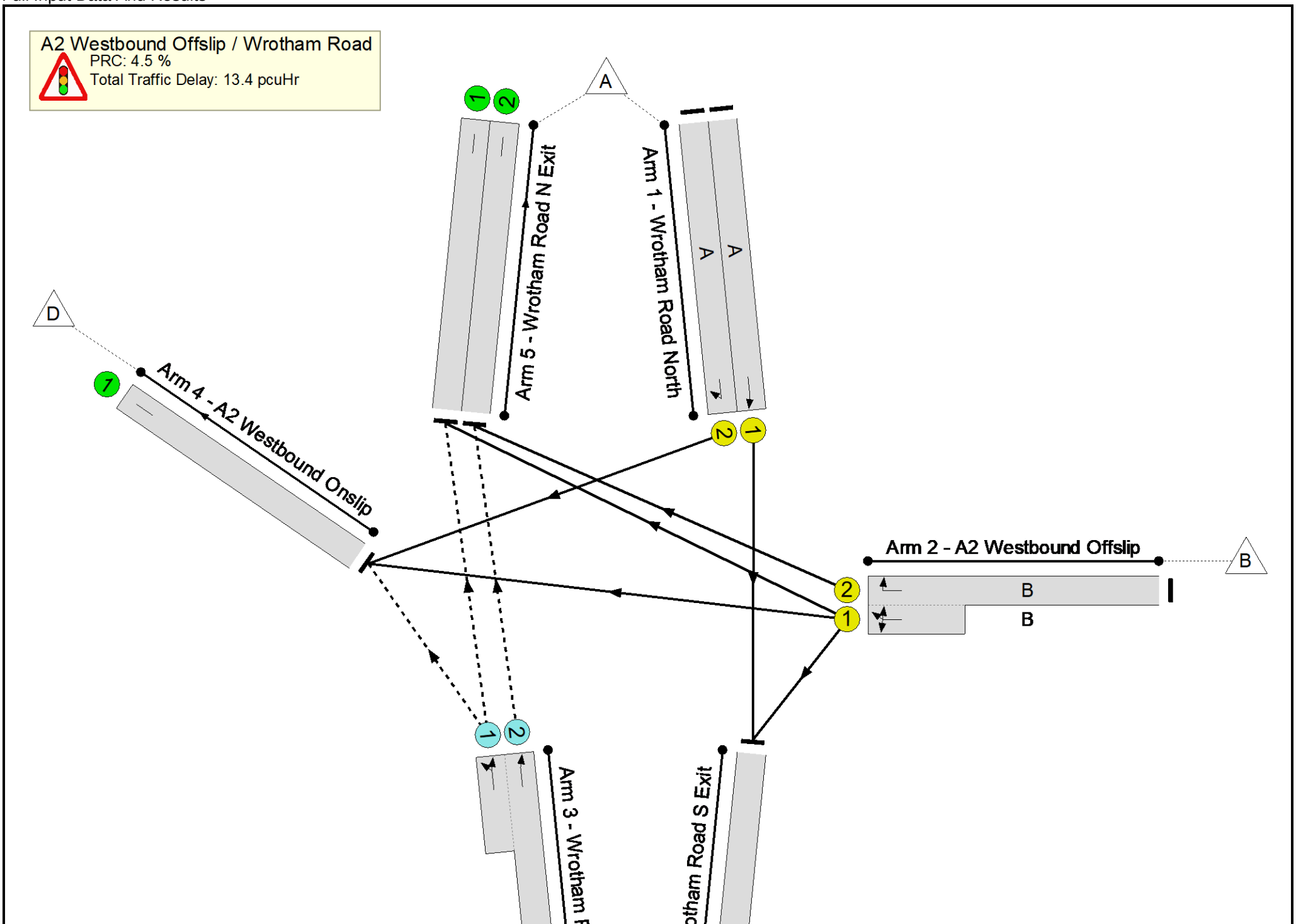
Stage	1	2
Duration	22	11
Change Point	0	28

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


A2 Westbound Offslip / Wrotham Road
PRC: 4.5 %
Total Traffic Delay: 13.4 pcuHr
A
D
B
Arm 1 - Wrotham Road North
Arm 2 - A2 Westbound Offslip
Arm 3 - Wrotham Road S Exit
Arm 4 - A2 Westbound Onslip
Arm 5 - Wrotham Road N Exit

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**86.1%**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**86.1%**
1/1	Wrotham Road North Ahead	U	N/A	N/A	A		1	22	-	490	2005	1025	47.8%
1/2	Wrotham Road North Right	U	N/A	N/A	A		1	22	-	821	1865	953	86.1%
2/2+2/1	A2 Westbound Offslip Ahead Right Left	U	N/A	N/A	B		1	11	-	762	1892:1948	442+456	84.8 : 84.8%
3/2+3/1	Wrotham Road South Left Ahead	O	N/A	N/A	-		-	-	-	807	2040:2040	647+696	62.4 : 57.9%
4/1	A2 Westbound Onslip	U	N/A	N/A	-		-	-	-	1084	Inf	Inf	0.0%
5/1	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%
5/2	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	779	Inf	Inf	0.0%
6/1	Wrotham Road S Exit	U	N/A	N/A	-		-	-	-	680	Inf	Inf	0.0%

Full Input Data And Results

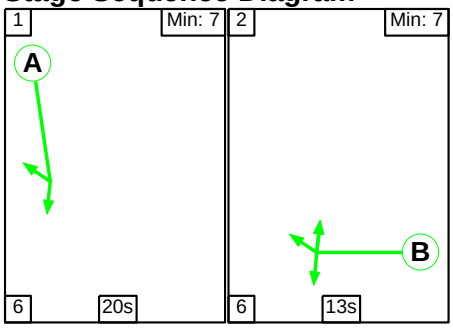
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1255**	**359**	**0**	**6.5**	**6.9**	**0.0**	**13.4**	**-**	**-**	**-**	**-**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**1255**	**359**	**0**	**6.5**	**6.9**	**0.0**	**13.4**	**-**	**-**	**-**	**-**
1/1	490	490	-	-	-	1.0	0.5	-	1.4	10.5	3.9	0.5	4.4
1/2	821	821	-	-	-	2.2	3.0	-	5.2	22.6	8.9	3.0	11.9
2/2+2/1	762	762	-	-	-	3.2	2.7	-	5.9	27.8	4.4	2.7	7.1
3/2+3/1	807	807	1255	359	0	0.1	0.8	-	0.9	3.9	1.2	0.8	2.0
4/1	1084	1084	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	337	337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	779	779	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	680	680	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 4.5 Total Delay for Signalled Lanes (pcuHr): 12.48 Cycle Time (s): 45
PRC Over All Lanes (%): 4.5 Total Delay Over All Lanes(pcuHr): 13.36

Full Input Data And Results

Scenario 10: '2028 FY DM PM' (FG8: '2028 FY DM PM Peak', Plan 1: 'Network Control Plan 1')

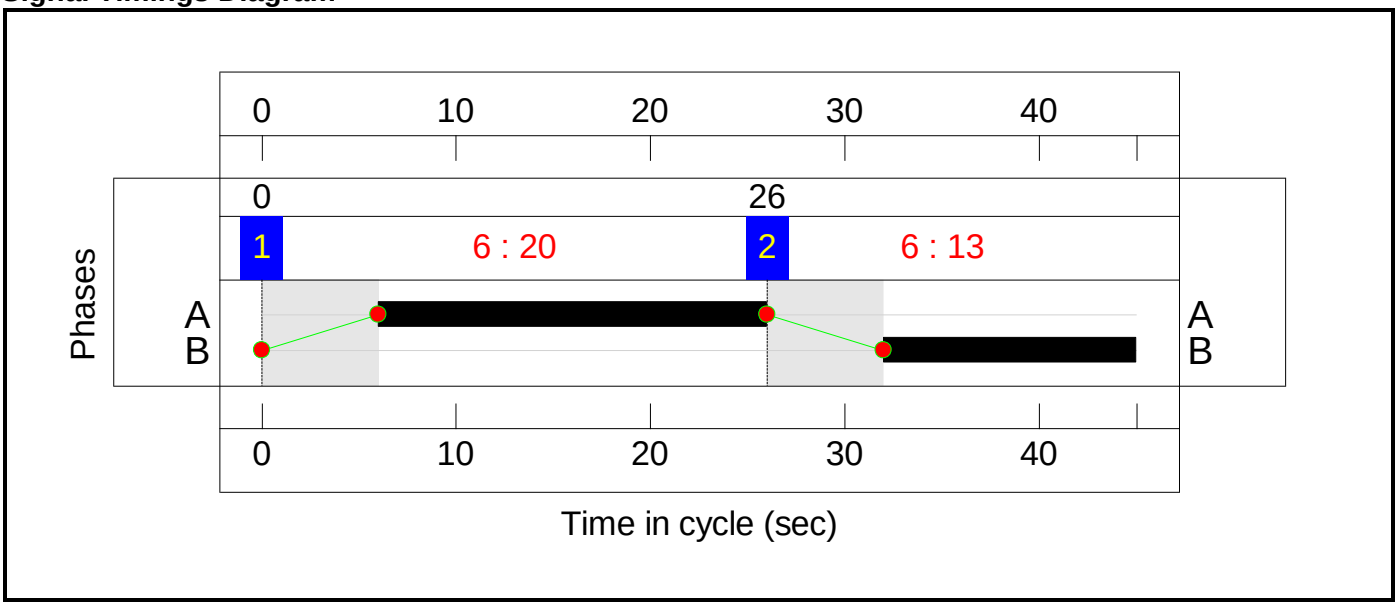
Stage Sequence Diagram



Stage Timings

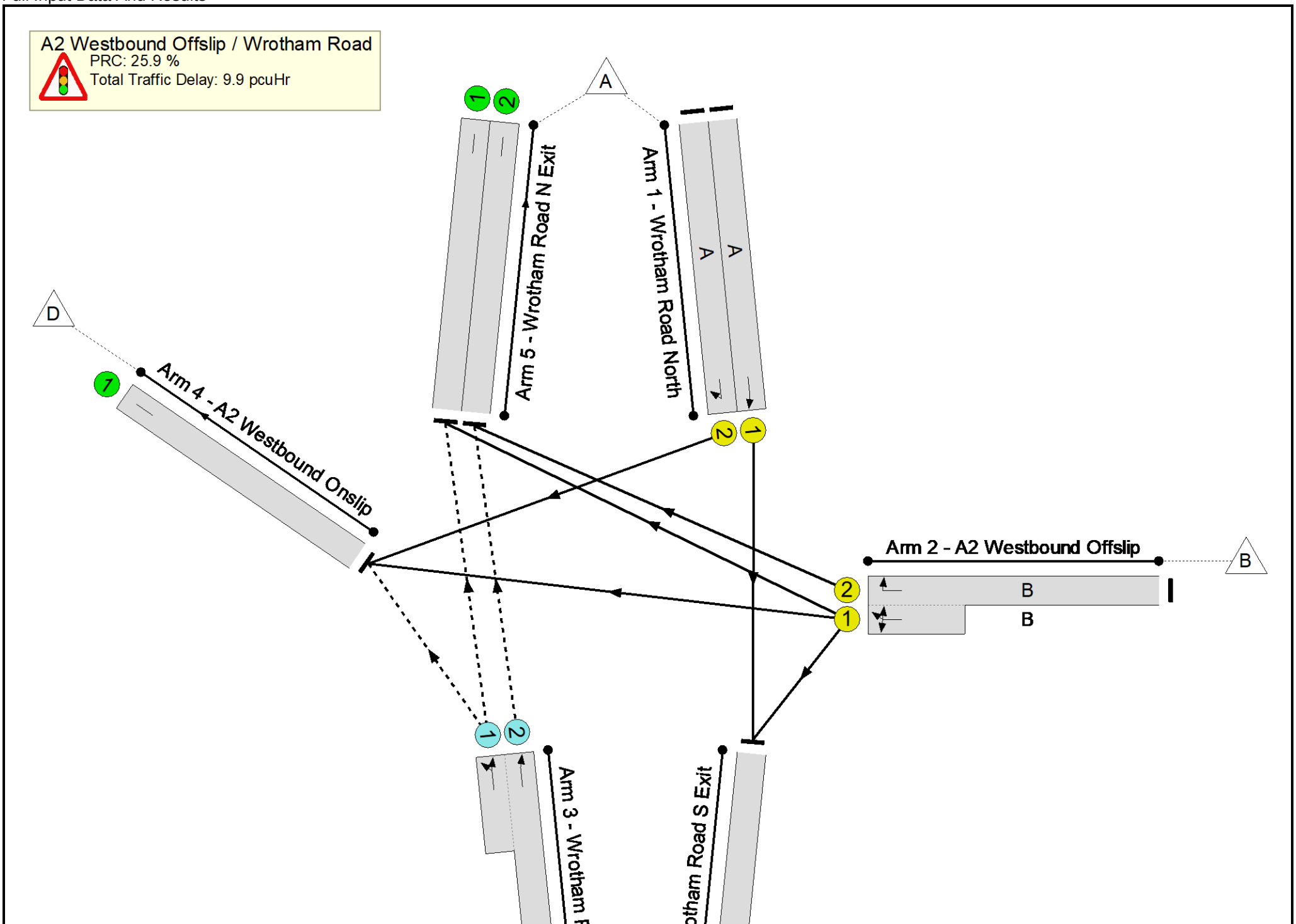
Stage	1	2
Duration	20	13
Change Point	0	26

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


A2 Westbound Offslip / Wrotham Road
PRC: 25.9 %
Total Traffic Delay: 9.9 pcuHr
A
D
B
Arm 1 - Wrotham Road North
Arm 2 - A2 Westbound Offslip
Arm 3 - Wrotham Road S Exit
Arm 4 - A2 Westbound Onslip
Arm 5 - Wrotham Road N Exit

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**71.5%**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**71.5%**
1/1	Wrotham Road North Ahead	U	N/A	N/A	A		1	20	-	668	2005	936	71.4%
1/2	Wrotham Road North Right	U	N/A	N/A	A		1	20	-	578	1865	870	66.4%
2/2+2/1	A2 Westbound Offslip Ahead Right Left	U	N/A	N/A	B		1	13	-	702	1892:1947	484+498	71.5 : 71.5%
3/2+3/1	Wrotham Road South Left Ahead	O	N/A	N/A	-		-	-	-	809	2040:2040	737+799	54.8 : 50.7%
4/1	A2 Westbound Onslip	U	N/A	N/A	-		-	-	-	806	Inf	Inf	0.0%
5/1	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	357	Inf	Inf	0.0%
5/2	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	750	Inf	Inf	0.0%
6/1	Wrotham Road S Exit	U	N/A	N/A	-		-	-	-	844	Inf	Inf	0.0%

Full Input Data And Results

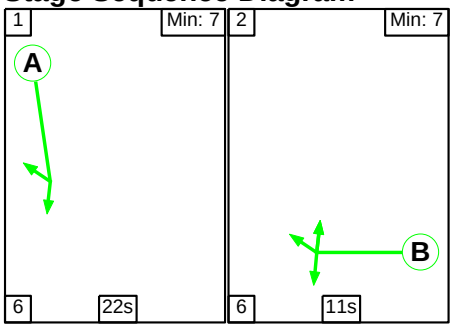
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1258**	**360**	**0**	**5.9**	**4.0**	**0.0**	**9.9**	**-**	**-**	**-**	**-**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**1258**	**360**	**0**	**5.9**	**4.0**	**0.0**	**9.9**	**-**	**-**	**-**	**-**
1/1	668	668	-	-	-	1.8	1.2	-	3.0	16.3	6.5	1.2	7.7
1/2	578	578	-	-	-	1.5	1.0	-	2.5	15.4	5.5	1.0	6.4
2/2+2/1	702	702	-	-	-	2.5	1.2	-	3.8	19.4	3.7	1.2	4.9
3/2+3/1	809	809	1258	360	0	0.1	0.6	-	0.6	2.9	1.0	0.6	1.6
4/1	806	806	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	357	357	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	750	750	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	844	844	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 25.9 Total Delay for Signalled Lanes (pcuHr): 9.28 Cycle Time (s): 45
PRC Over All Lanes (%): 25.9 Total Delay Over All Lanes(pcuHr): 9.93

Full Input Data And Results

Scenario 11: '2028 FY DM ST AM' (FG11: '2028 FY DM ST AM Peak', Plan 1: 'Network Control Plan 1')

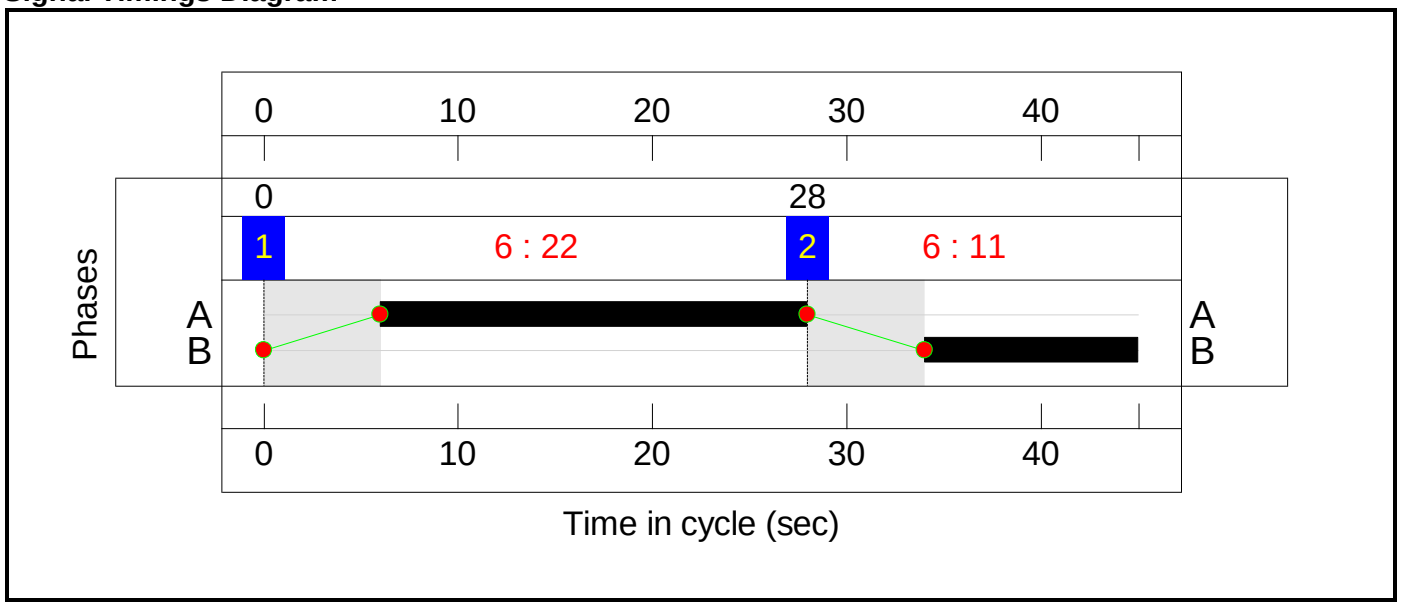
Stage Sequence Diagram



Stage Timings

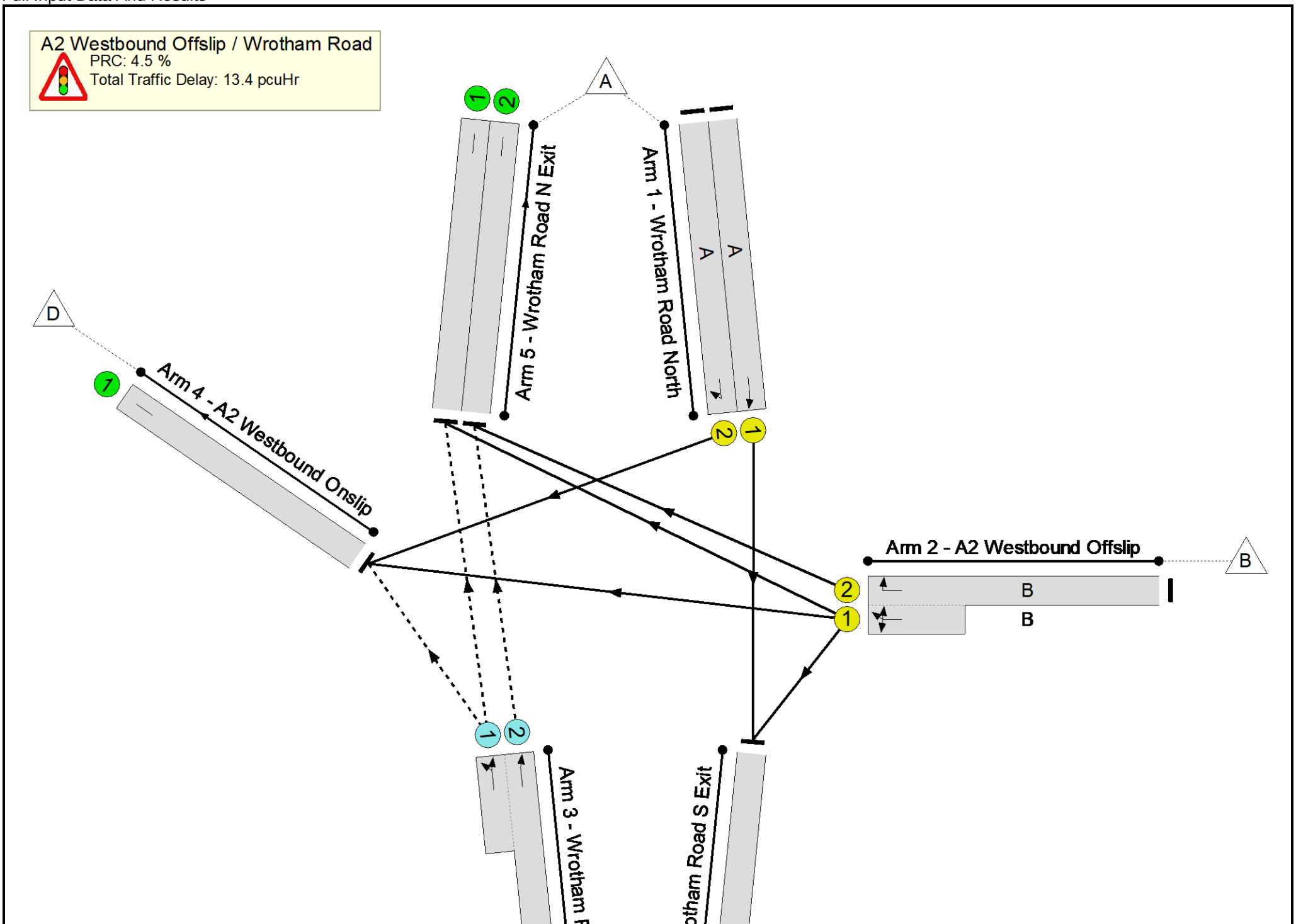
Stage	1	2
Duration	22	11
Change Point	0	28

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


A2 Westbound Offslip / Wrotham Road
PRC: 4.5 %
Total Traffic Delay: 13.4 pcuHr
A
D
B
Arm 1 - Wrotham Road North
Arm 2 - A2 Westbound Offslip
Arm 3 - Wrotham Road S Exit
Arm 4 - A2 Westbound Onslip
Arm 5 - Wrotham Road N Exit

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**86.1%**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**86.1%**
1/1	Wrotham Road North Ahead	U	N/A	N/A	A		1	22	-	490	2005	1025	47.8%
1/2	Wrotham Road North Right	U	N/A	N/A	A		1	22	-	821	1865	953	86.1%
2/2+2/1	A2 Westbound Offslip Ahead Right Left	U	N/A	N/A	B		1	11	-	762	1892:1948	442+456	84.8 : 84.8%
3/2+3/1	Wrotham Road South Left Ahead	O	N/A	N/A	-		-	-	-	807	2040:2040	647+696	62.4 : 57.9%
4/1	A2 Westbound Onslip	U	N/A	N/A	-		-	-	-	1084	Inf	Inf	0.0%
5/1	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%
5/2	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	779	Inf	Inf	0.0%
6/1	Wrotham Road S Exit	U	N/A	N/A	-		-	-	-	680	Inf	Inf	0.0%

Full Input Data And Results

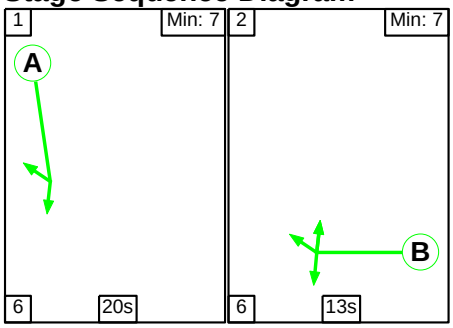
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1255**	**359**	**0**	**6.5**	**6.9**	**0.0**	**13.4**	**-**	**-**	**-**	**-**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**1255**	**359**	**0**	**6.5**	**6.9**	**0.0**	**13.4**	**-**	**-**	**-**	**-**
1/1	490	490	-	-	-	1.0	0.5	-	1.4	10.5	3.9	0.5	4.4
1/2	821	821	-	-	-	2.2	3.0	-	5.2	22.6	8.9	3.0	11.9
2/2+2/1	762	762	-	-	-	3.2	2.7	-	5.9	27.8	4.4	2.7	7.1
3/2+3/1	807	807	1255	359	0	0.1	0.8	-	0.9	3.9	1.2	0.8	2.0
4/1	1084	1084	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	337	337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	779	779	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	680	680	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 4.5 Total Delay for Signalled Lanes (pcuHr): 12.48 Cycle Time (s): 45
PRC Over All Lanes (%): 4.5 Total Delay Over All Lanes(pcuHr): 13.36

Full Input Data And Results

Scenario 12: '2028 FY DM ST PM' (FG12: '2028 FY DM ST PM Peak', Plan 1: 'Network Control Plan 1')

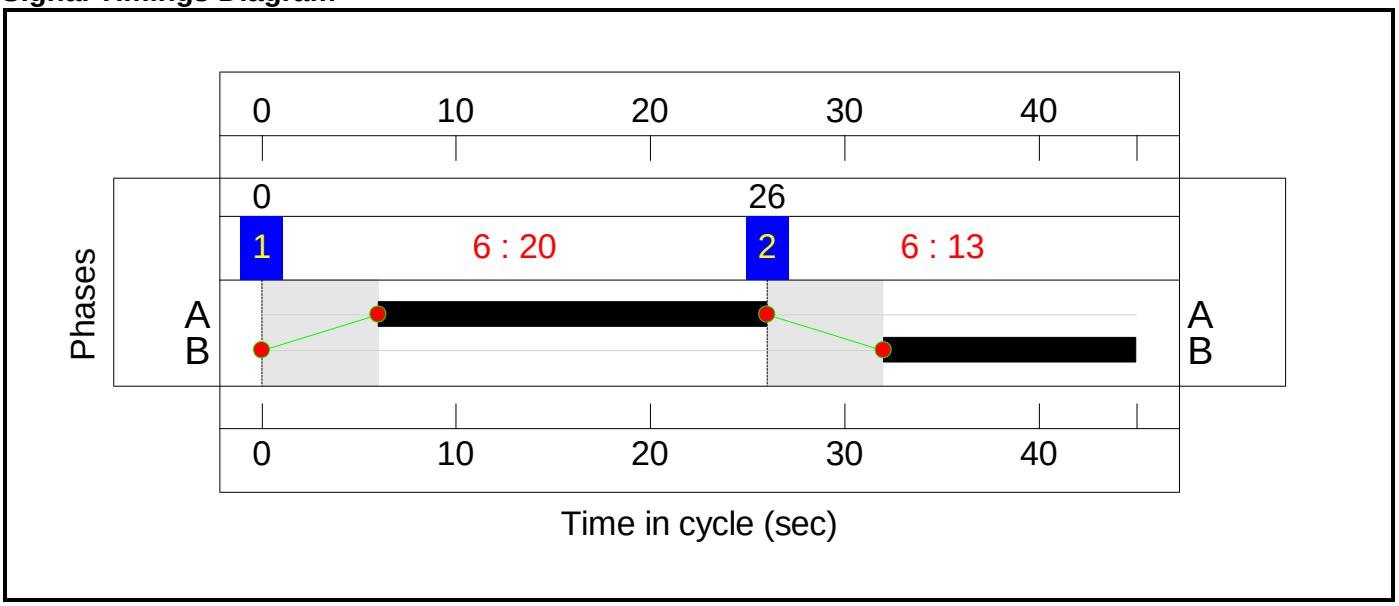
Stage Sequence Diagram



Stage Timings

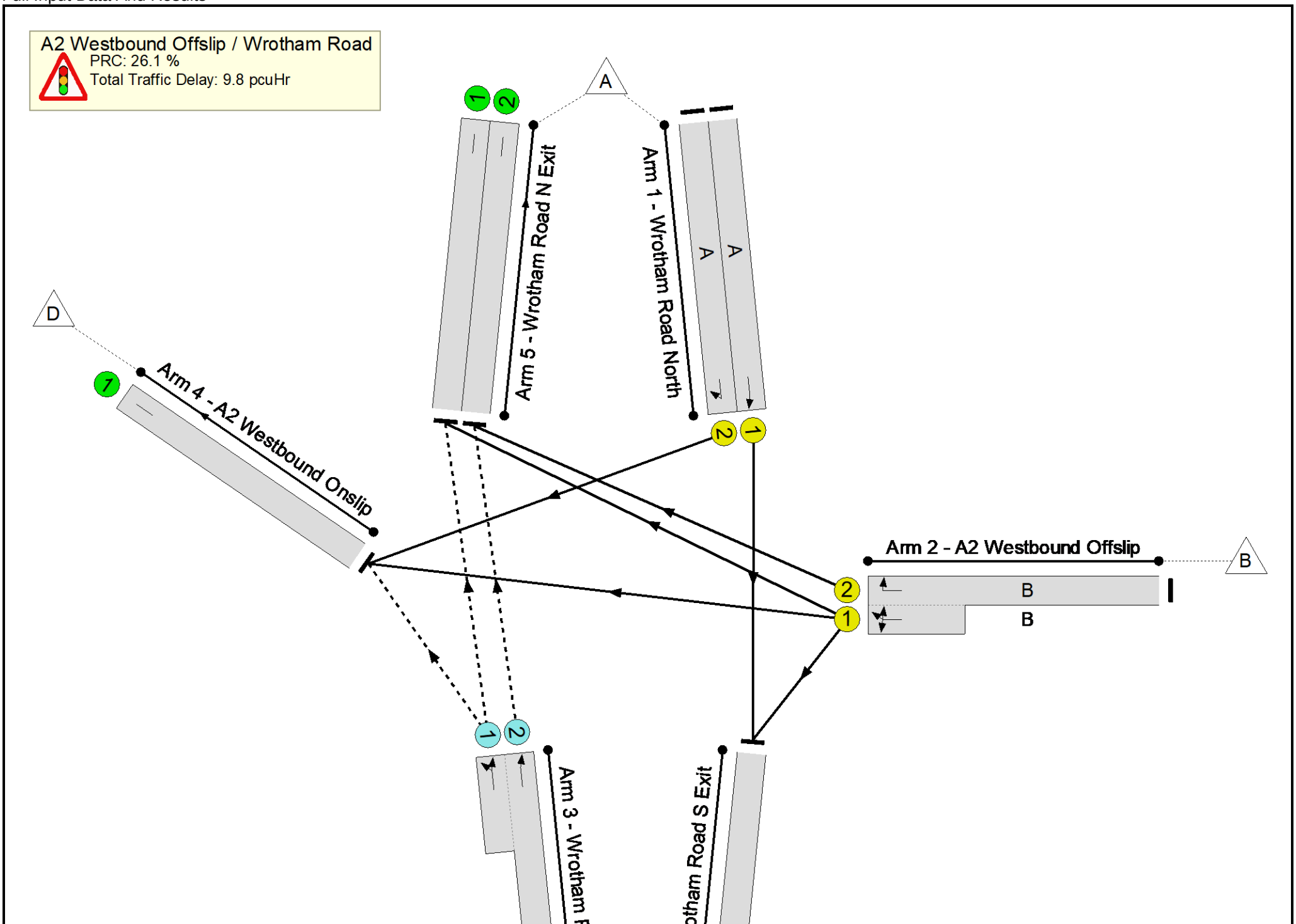
Stage	1	2
Duration	20	13
Change Point	0	26

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


A2 Westbound Offslip / Wrotham Road
PRC: 26.1 %
Total Traffic Delay: 9.8 pcuHr
A
D
B
Arm 5 - Wrotham Road N Exit
Arm 1 - Wrotham Road North
Arm 4 - A2 Westbound Onslip
Arm 2 - A2 Westbound Offslip
Arm 3 - Wrotham Road S Exit
A
A
B
B

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**71.4%**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**71.4%**
1/1	Wrotham Road North Ahead	U	N/A	N/A	A		1	20	-	668	2005	936	71.4%
1/2	Wrotham Road North Right	U	N/A	N/A	A		1	20	-	573	1865	870	65.8%
2/2+2/1	A2 Westbound Offslip Ahead Right Left	U	N/A	N/A	B		1	13	-	698	1892:1947	484+498	71.1 : 71.1%
3/2+3/1	Wrotham Road South Left Ahead	O	N/A	N/A	-		-	-	-	809	2040:2040	739+802	54.6 : 50.5%
4/1	A2 Westbound Onslip	U	N/A	N/A	-		-	-	-	801	Inf	Inf	0.0%
5/1	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	355	Inf	Inf	0.0%
5/2	Wrotham Road N Exit	U	N/A	N/A	-		-	-	-	748	Inf	Inf	0.0%
6/1	Wrotham Road S Exit	U	N/A	N/A	-		-	-	-	844	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1258**	**360**	**0**	**5.9**	**4.0**	**0.0**	**9.8**	**-**	**-**	**-**	**-**
A2 Westbound Offslip / Wrotham Road	**-**	**-**	**1258**	**360**	**0**	**5.9**	**4.0**	**0.0**	**9.8**	**-**	**-**	**-**	**-**
1/1	668	668	-	-	-	1.8	1.2	-	3.0	16.3	6.5	1.2	7.7
1/2	573	573	-	-	-	1.5	1.0	-	2.4	15.3	5.4	1.0	6.4
2/2+2/1	698	698	-	-	-	2.5	1.2	-	3.7	19.3	3.6	1.2	4.9
3/2+3/1	809	809	1258	360	0	0.1	0.6	-	0.6	2.9	1.0	0.6	1.6
4/1	801	801	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	355	355	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	748	748	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	844	844	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 26.1 Total Delay for Signalled Lanes (pcuHr): 9.19 Cycle Time (s): 45
PRC Over All Lanes (%): 26.1 Total Delay Over All Lanes(pcuHr): 9.84