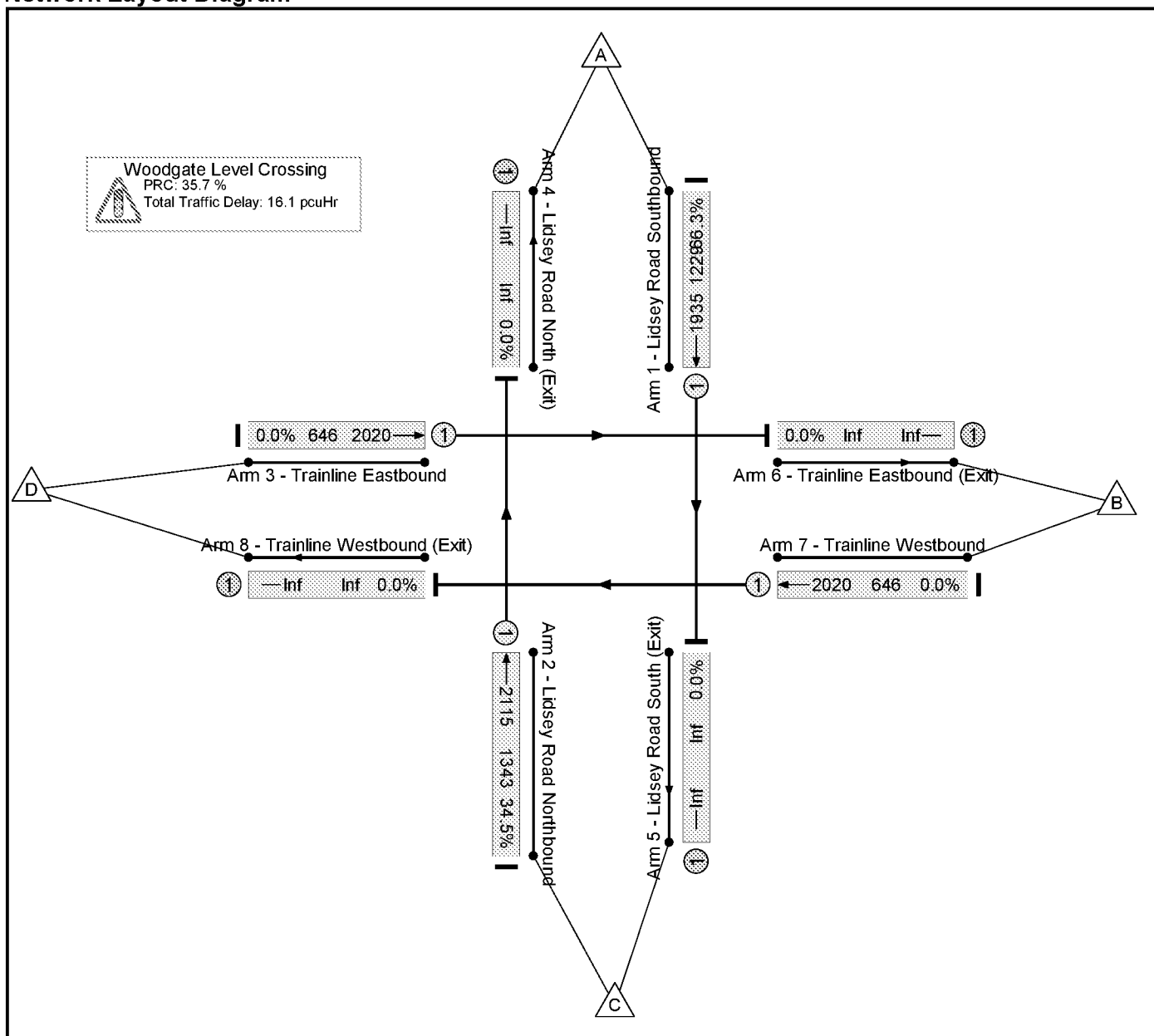


Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	40.9%	0	0	0	9.9	-	-
Woodgate Level Crossing	-	-	-		-	-	-	-	-	-	40.9%	0	0	0	9.9	-	-
1/1	Lidsey Road Southbound Ahead	U	B		1	266	-	517	1935	1292	40.0%	-	-	-	4.7	32.5	26.3
2/1	Lidsey Road Northbound Ahead	U	A		1	266	-	578	2115	1412	40.9%	-	-	-	5.2	32.6	29.7
3/1	Trainline Eastbound Ahead	U	C		1	114	-	0	2020	581	0.0%	-	-	-	0.0	0.0	0.0
7/1	Trainline Westbound Ahead	U	D		1	114	-	0	2020	581	0.0%	-	-	-	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 119.8 Total Delay for Signalled Lanes (pcuHr): 9.90 Cycle Time (s): 400 PRC Over All Lanes (%): 119.8 Total Delay Over All Lanes(pcuHr): 9.90																	

Network Layout Diagram

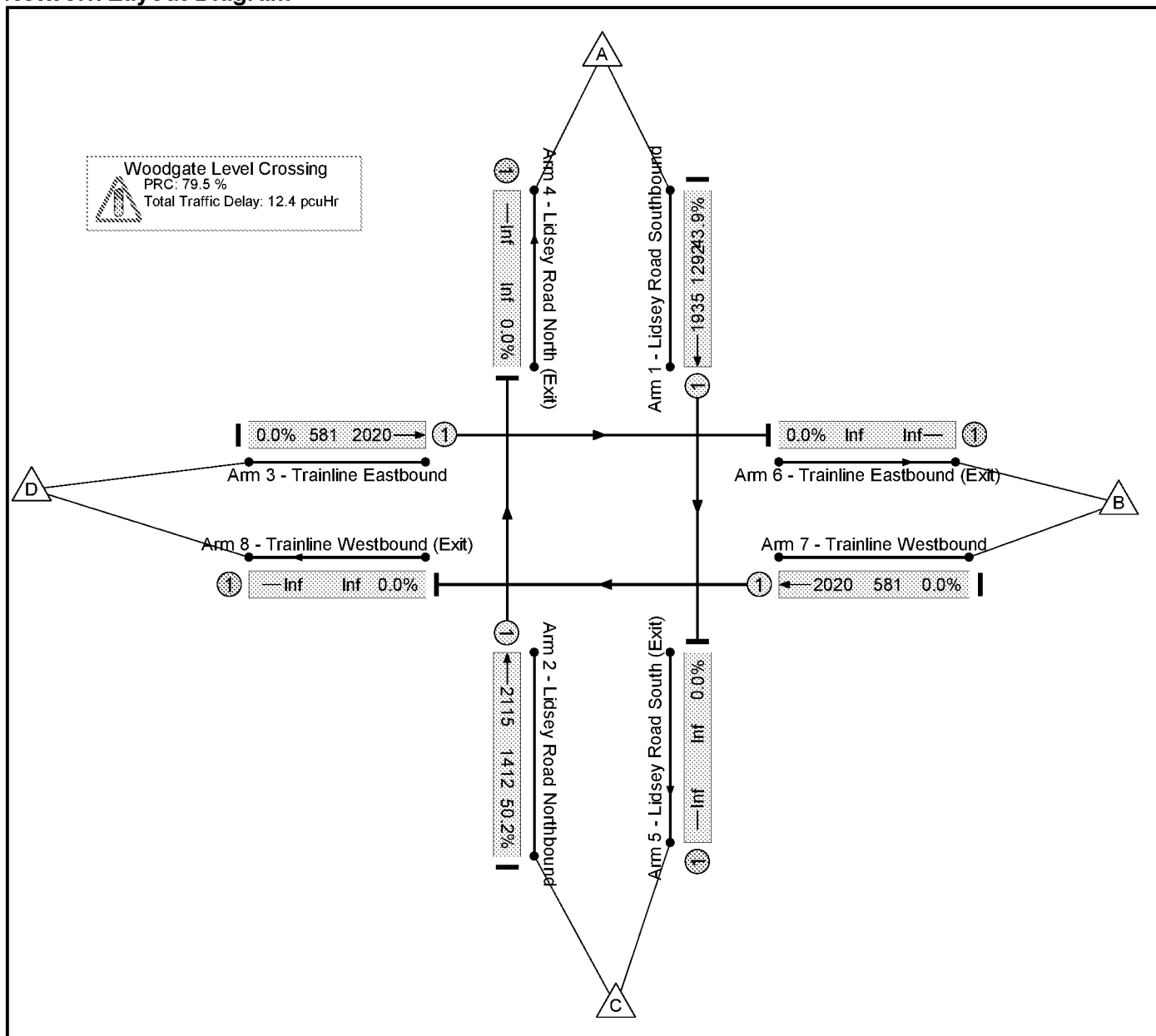


Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	66.3%	0	0	0	16.1	-	-
Woodgate Level Crossing	-	-	-		-	-	-	-	-	-	66.3%	0	0	0	16.1	-	-
1/1	Lidsey Road Southbound Ahead	U	B		1	253	-	815	1935	1229	66.3%	-	-	-	11.4	50.4	58.0
2/1	Lidsey Road Northbound Ahead	U	A		1	253	-	463	2115	1343	34.5%	-	-	-	4.7	36.2	24.2
3/1	Trainline Eastbound Ahead	U	C		1	127	-	0	2020	646	0.0%	-	-	-	0.0	0.0	0.0
7/1	Trainline Westbound Ahead	U	D		1	127	-	0	2020	646	0.0%	-	-	-	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 35.7 Total Delay for Signalled Lanes (pcuHr): 16.05 Cycle Time (s): 400 PRC Over All Lanes (%): 35.7 Total Delay Over All Lanes(pcuHr): 16.05																	

Network Layout Diagram



Basic Results Summary

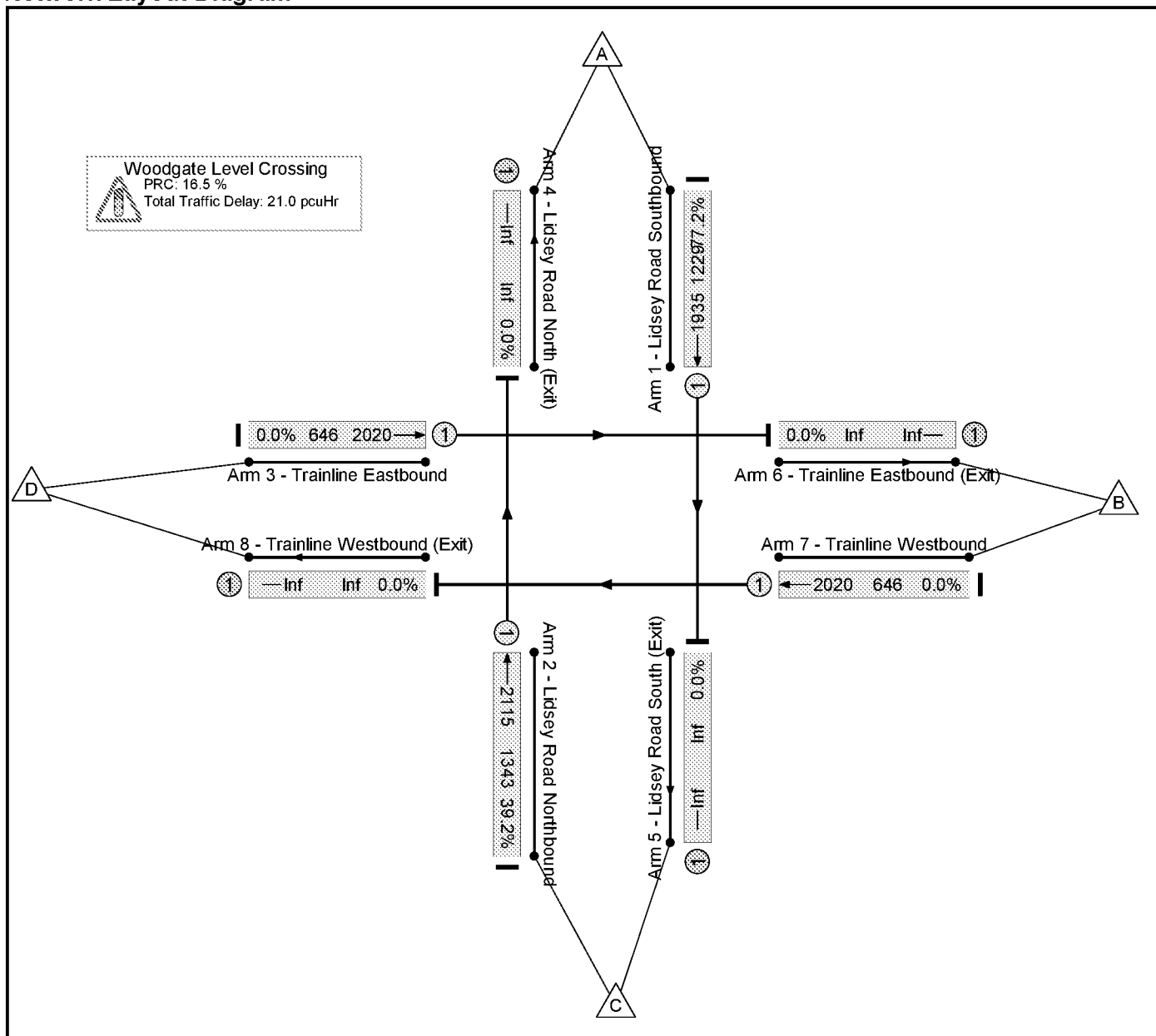
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	50.2%	0	0	0	12.4	-	-
Woodgate Level Crossing	-	-	-		-	-	-	-	-	-	50.2%	0	0	0	12.4	-	-
1/1	Lidsey Road Southbound Ahead	U	B		1	266	-	567	1935	1292	43.9%	-	-	-	5.3	33.8	30.0
2/1	Lidsey Road Northbound Ahead	U	A		1	266	-	708	2115	1412	50.2%	-	-	-	7.0	35.8	39.6
3/1	Trainline Eastbound Ahead	U	C		1	114	-	0	2020	581	0.0%	-	-	-	0.0	0.0	0.0
7/1	Trainline Westbound Ahead	U	D		1	114	-	0	2020	581	0.0%	-	-	-	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 79.5 Total Delay for Signalled Lanes (pcuHr): 12.36 Cycle Time (s): 400 																	

Basic Results Summary

Scenario 20: '2031 Base + Committed Development PM' (FG20: '2031 Base + Committed Development PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

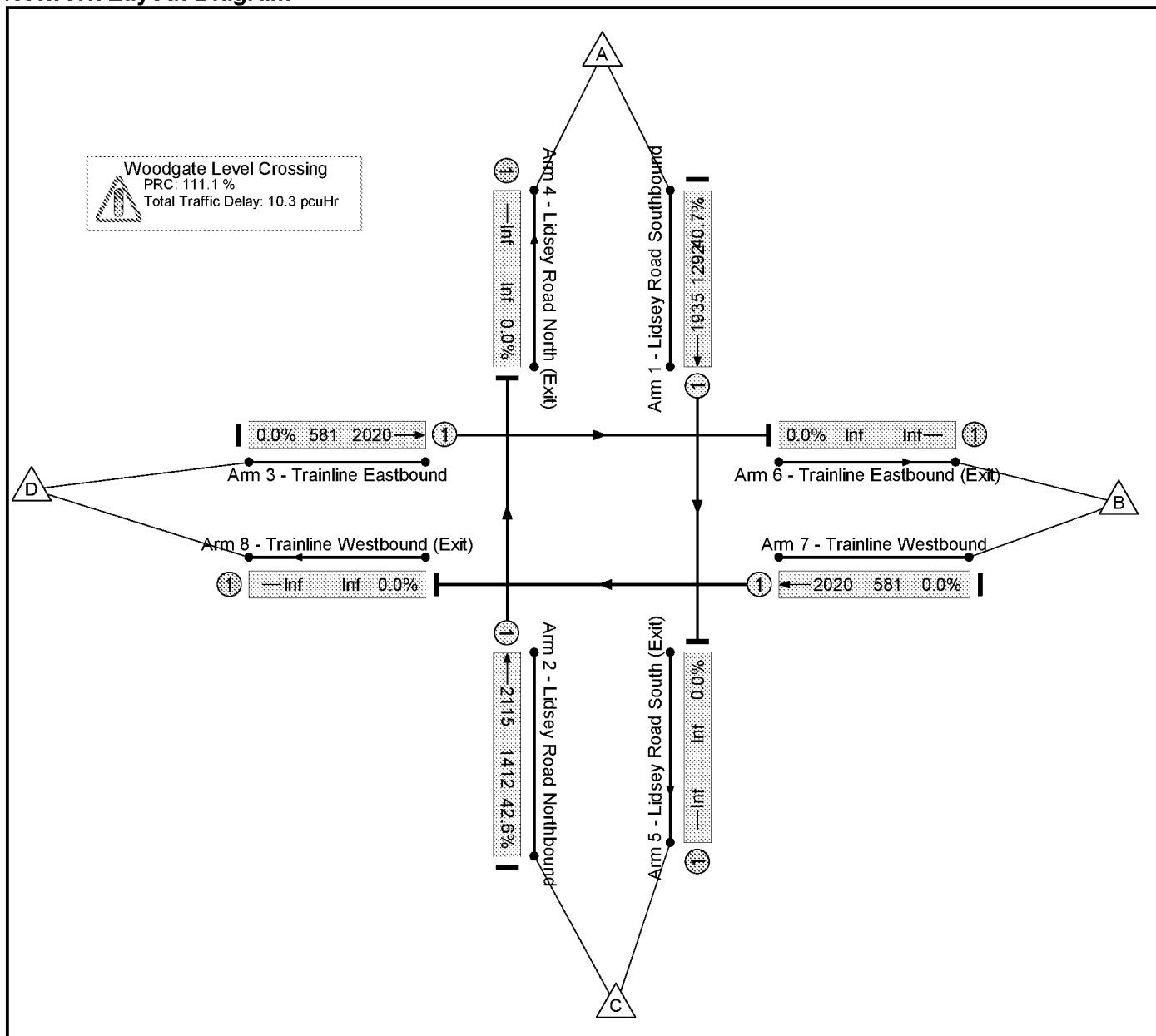
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	77.2%	0	0	0	21.0	-	-
Woodgate Level Crossing	-	-	-		-	-	-	-	-	-	77.2%	0	0	0	21.0	-	-
1/1	Lidsey Road Southbound Ahead	U	B		1	253	-	949	1935	1229	77.2%	-	-	-	15.5	58.6	77.1
2/1	Lidsey Road Northbound Ahead	U	A		1	253	-	526	2115	1343	39.2%	-	-	-	5.5	37.7	28.7
3/1	Trainline Eastbound Ahead	U	C		1	127	-	0	2020	646	0.0%	-	-	-	0.0	0.0	0.0
7/1	Trainline Westbound Ahead	U	D		1	127	-	0	2020	646	0.0%	-	-	-	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 16.5 Total Delay for Signalled Lanes (pcuHr): 20.96 Cycle Time (s): 400 PRC Over All Lanes (%): 16.5 Total Delay Over All Lanes(pcuHr): 20.96																	

Basic Results Summary

Scenario 21: '2031 Base + Proposed Development AM' (FG21: '2031 Base + Proposed Development AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

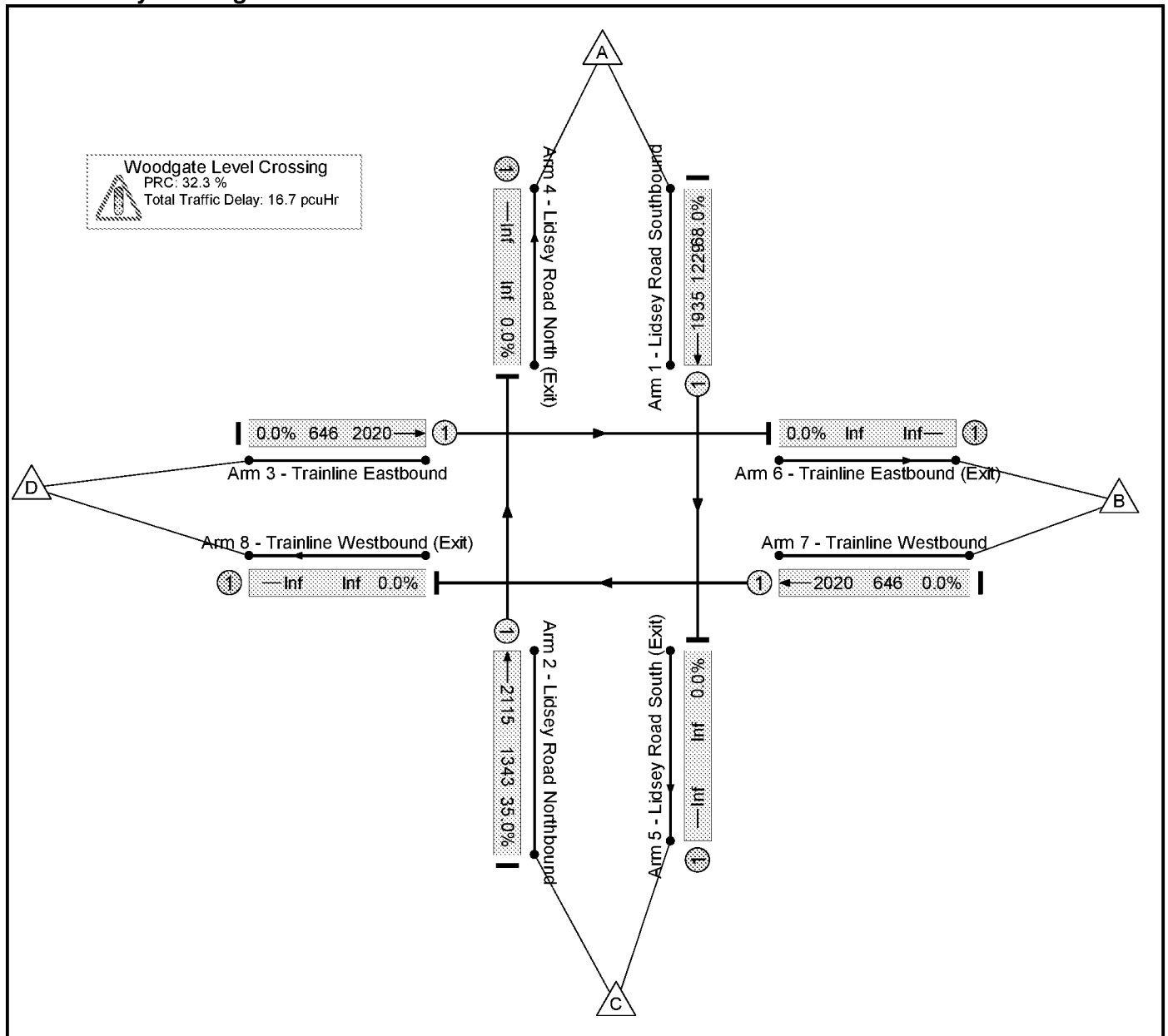


Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	42.6%	0	0	0	10.3	-	-
Woodgate Level Crossing	-	-	-		-	-	-	-	-	-	42.6%	0	0	0	10.3	-	-
1/1	Lidsey Road Southbound Ahead	U	B		1	266	-	526	1935	1292	40.7%	-	-	-	4.8	32.7	26.9
2/1	Lidsey Road Northbound Ahead	U	A		1	266	-	602	2115	1412	42.6%	-	-	-	5.5	33.1	31.3
3/1	Trainline Eastbound Ahead	U	C		1	114	-	0	2020	581	0.0%	-	-	-	0.0	0.0	0.0
7/1	Trainline Westbound Ahead	U	D		1	114	-	0	2020	581	0.0%	-	-	-	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 111.1 Total Delay for Signalled Lanes (pcuHr): 10.32 Cycle Time (s): 400 PRC Over All Lanes (%): 111.1 Total Delay Over All Lanes(pcuHr): 10.32																	

Network Layout Diagram



Basic Results Summary

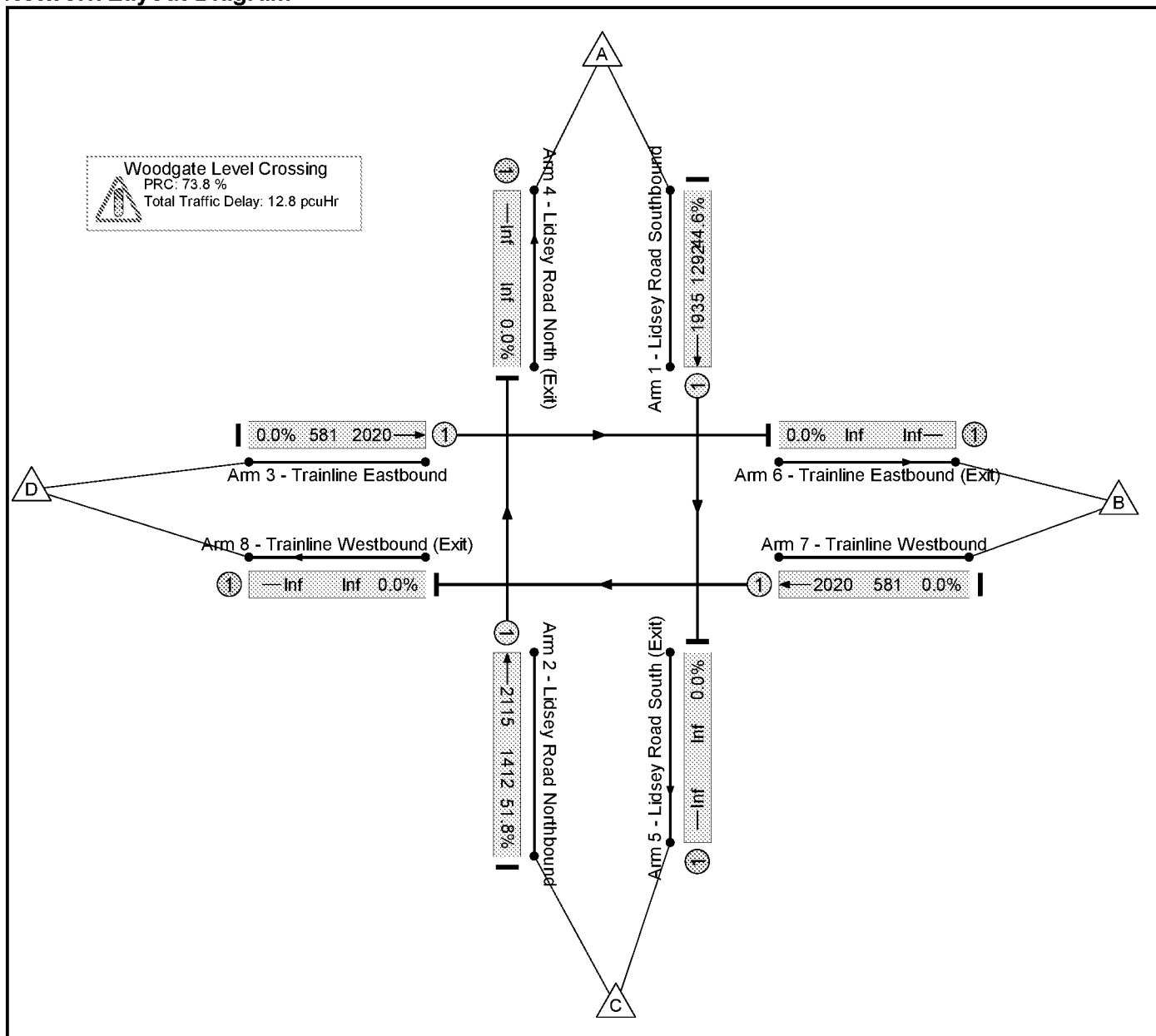
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	68.0%	0	0	0	16.7	-	-
Woodgate Level Crossing	-	-	-		-	-	-	-	-	-	68.0%	0	0	0	16.7	-	-
1/1	Lidsey Road Southbound Ahead	U	B		1	253	-	836	1935	1229	68.0%	-	-	-	12.0	51.5	85.7
2/1	Lidsey Road Northbound Ahead	U	A		1	253	-	470	2115	1343	35.0%	-	-	-	4.7	36.3	24.7
3/1	Trainline Eastbound Ahead	U	C		1	127	-	0	2020	646	0.0%	-	-	-	0.0	0.0	0.0
7/1	Trainline Westbound Ahead	U	D		1	127	-	0	2020	646	0.0%	-	-	-	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 32.3 Total Delay for Signalled Lanes (pcuHr): 16.69 Cycle Time (s): 400 																	

Basic Results Summary

Scenario 23: '2031 Base + Committed Development + Proposed Development AM' (FG23: '2031 Base + Committed Development + Proposed Development AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

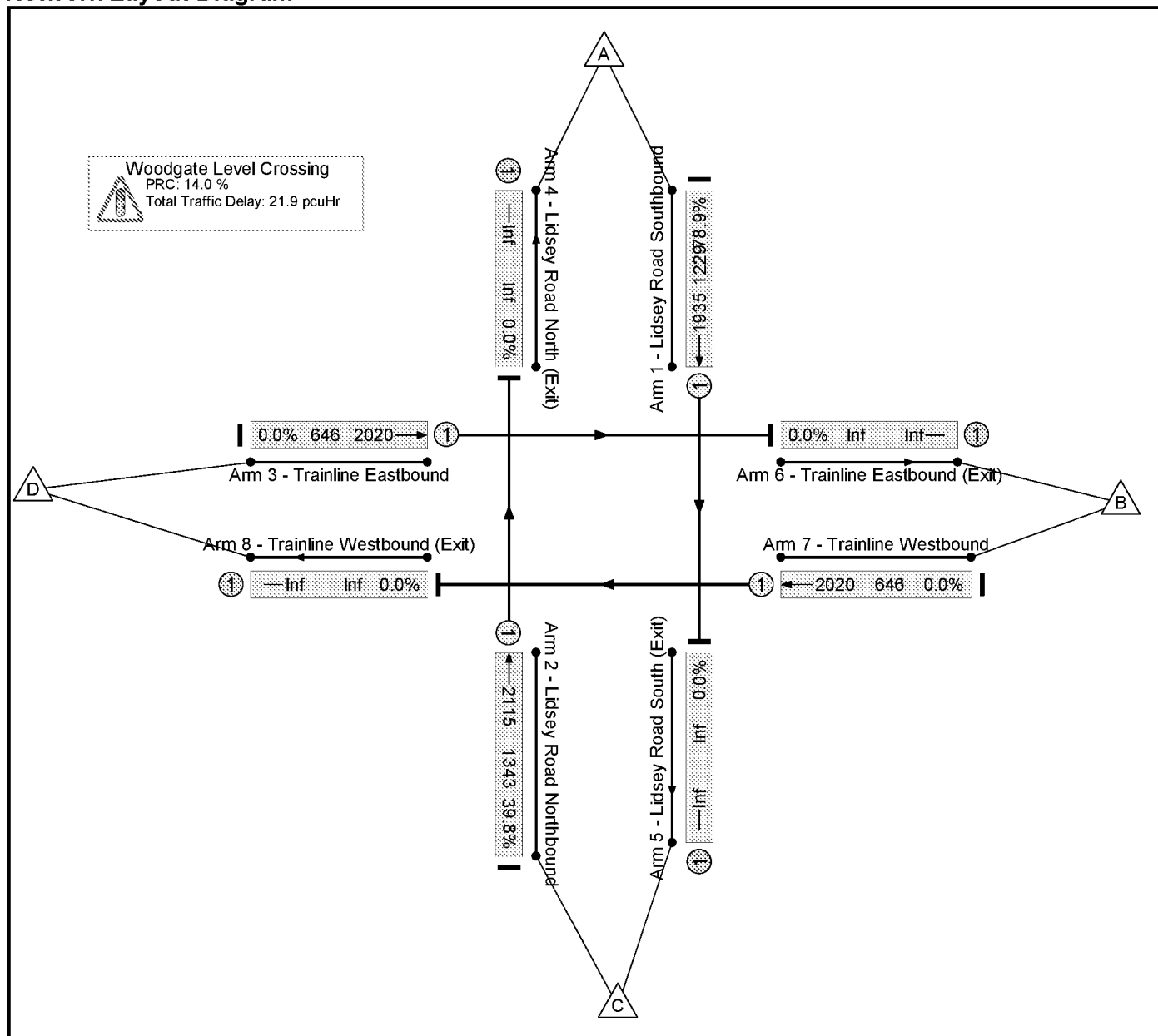
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	51.8%	0	0	0	12.8	-	-
Woodgate Level Crossing	-	-	-		-	-	-	-	-	-	51.8%	0	0	0	12.8	-	-
1/1	Lidsey Road Southbound Ahead	U	B		1	266	-	576	1935	1292	44.6%	-	-	-	5.4	34.0	30.6
2/1	Lidsey Road Northbound Ahead	U	A		1	266	-	731	2115	1412	51.8%	-	-	-	7.4	36.4	41.8
3/1	Trainline Eastbound Ahead	U	C		1	114	-	0	2020	581	0.0%	-	-	-	0.0	0.0	0.0
7/1	Trainline Westbound Ahead	U	D		1	114	-	0	2020	581	0.0%	-	-	-	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 73.8 Total Delay for Signalled Lanes (pcuHr): 12.84 Cycle Time (s): 400 PRC Over All Lanes (%): 73.8 Total Delay Over All Lanes(pcuHr): 12.84																	

Basic Results Summary

Scenario 24: '2031 Base + Committed Development + Proposed Development PM' (FG24: '2031 Base + Committed Development + Proposed Development PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	78.9%	0	0	0	21.9	-	-
Woodgate Level Crossing	-	-	-		-	-	-	-	-	-	78.9%	0	0	0	21.9	-	-
1/1	Lidsey Road Southbound Ahead	U	B		1	253	-	970	1935	1229	78.9%	-	-	-	16.2	60.3	86.5
2/1	Lidsey Road Northbound Ahead	U	A		1	253	-	534	2115	1343	39.8%	-	-	-	5.6	37.9	29.3
3/1	Trainline Eastbound Ahead	U	C		1	127	-	0	2020	646	0.0%	-	-	-	0.0	0.0	0.0
7/1	Trainline Westbound Ahead	U	D		1	127	-	0	2020	646	0.0%	-	-	-	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 14.0 Total Delay for Signalled Lanes (pcuHr): 21.86 Cycle Time (s): 400 PRC Over All Lanes (%): 14.0 Total Delay Over All Lanes(pcuHr): 21.86																	

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.2.1013 © Copyright TRL Limited, 2019
For sales and distribution information, program advice and maintenance, contact TRL:
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: WMR

Path: C:\Users\JosephTucker\OneDrive - Highgate Transportation\Shared Documents - HTp\2400 - Projects\2401 - Woodgate QW3\Modelling\Junctions 9\War Memorial

Report generation date: 03/07/2024 15:23:24

»2024 Base, AM
 »2024 Base, PM
 »2024 Base + Committed Development, AM
 »2024 Base + Committed Development, PM
 »2024 Base + Proposed Development, AM
 »2024 Base + Proposed Development, PM
 »2024 Base + Committed Development + Proposed Development, AM
 »2024 Base + Committed Development + Proposed Development, PM
 »2028 Base, AM
 »2028 Base, PM
 »2028 Base + Committed Development, AM
 »2028 Base + Committed Development, PM
 »2028 Base + Proposed Development, AM
 »2028 Base + Proposed Development, PM
 »2028 Base + Committed Development + Proposed Development, AM
 »2028 Base + Committed Development + Proposed Development, PM
 »2028 Base + Committed Development + Phase 1 A29 Scheme, AM
 »2028 Base + Committed Development + Phase 1 A29 Scheme, PM
 »2028 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme, AM
 »2028 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme, PM
 »2031 Base, AM
 »2031 Base, PM
 »2031 Base + Committed Development, AM
 »2031 Base + Committed Development, PM
 »2031 Base + Proposed Development, AM
 »2031 Base + Proposed Development, PM
 »2031 Base + Committed Development + Proposed Development, AM
 »2031 Base + Committed Development + Proposed Development, PM
 »2031 Base + Committed Development + Phase 1 A29 Scheme, AM
 »2031 Base + Committed Development + Phase 1 A29 Scheme, PM
 »2031 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme, AM
 »2031 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Base									
Arm A	D1	1.8	8.35	0.64	A	D2	1.1	7.33	0.52	A
Arm B		1.0	3.75	0.50	A		0.9	3.84	0.47	A
Arm C		1.1	6.97	0.52	A		4.5	19.24	0.82	C
	2024 Base + Committed Development									
Arm A	D3	2.4	10.13	0.70	B	D4	1.4	8.72	0.58	A
Arm B		1.3	4.15	0.55	A		1.0	4.09	0.50	A
Arm C		1.2	7.39	0.54	A		9.1	36.57	0.92	E
	2024 Base + Proposed Development									
Arm A	D5	1.8	8.46	0.64	A	D6	1.1	7.53	0.53	A
Arm B		1.1	3.79	0.51	A		0.9	3.86	0.47	A
Arm C		1.1	7.04	0.52	A		5.0	21.14	0.84	C
	2024 Base + Committed Development + Proposed Development									

Arm A	D7	2.4	10.27	0.71	B	D8	1.4	9.00	0.59	A
Arm B		1.3	4.22	0.56	A		1.0	4.12	0.50	A
Arm C		1.2	7.47	0.54	A		10.9	43.93	0.53	E
2028 Base										
Arm A	D9	2.0	9.04	0.66	A	D10	1.2	7.85	0.55	A
Arm B		1.1	3.89	0.52	A		0.9	4.00	0.48	A
Arm C		1.2	7.33	0.54	A		5.6	23.57	0.54	C
2028 Base + Committed Development										
Arm A	D11	2.7	11.18	0.73	B	D12	1.5	9.42	0.61	A
Arm B		1.4	4.33	0.57	A		1.1	4.28	0.52	A
Arm C		1.3	7.81	0.56	A		13.1	50.91	0.55	F
2028 Base + Proposed Development										
Arm A	D13	2.1	9.17	0.67	A	D14	1.3	8.10	0.56	A
Arm B		1.2	3.95	0.53	A		1.0	4.04	0.49	A
Arm C		1.2	7.41	0.54	A		6.4	26.54	0.57	C
2028 Base + Committed Development + Proposed Development										
Arm A	D15	2.8	11.38	0.73	B	D16	1.6	9.72	0.62	A
Arm B		1.4	4.41	0.58	A		1.1	4.32	0.52	A
Arm C		1.3	7.89	0.57	A		16.1	60.23	0.57	F
2028 Base + Committed Development + Phase 1 A29 Scheme										
Arm A	D17	2.1	9.33	0.67	A	D18	0.3	4.94	0.25	A
Arm B		1.3	4.08	0.55	A		0.8	3.21	0.45	A
Arm C		0.7	5.85	0.42	A		4.0	17.98	0.80	C
2028 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme										
Arm A	D19	2.1	9.47	0.68	A	D20	0.3	5.03	0.25	A
Arm B		1.3	4.16	0.56	A		0.8	3.24	0.45	A
Arm C		0.7	5.90	0.42	A		4.5	19.70	0.82	C
2031 Base										
Arm A	D21	2.2	9.76	0.69	A	D22	1.3	8.40	0.57	A
Arm B		1.2	4.02	0.53	A		1.0	4.17	0.50	A
Arm C		1.3	7.66	0.56	A		7.1	29.31	0.58	D
2031 Base + Committed Development										
Arm A	D23	3.0	12.31	0.75	B	D24	1.7	10.07	0.63	B
Arm B		1.4	4.49	0.58	A		1.2	4.47	0.53	A
Arm C		1.4	8.19	0.58	A		18.8	68.74	0.38	F
2031 Base + Proposed Development										
Arm A	D25	2.3	9.92	0.69	A	D26	1.4	8.65	0.58	A
Arm B		1.2	4.09	0.54	A		1.0	4.19	0.50	A
Arm C		1.3	7.74	0.56	A		8.2	33.43	0.50	D
2031 Base + Committed Development + Proposed Development										
Arm A	D27	3.1	12.51	0.76	B	D28	1.7	10.35	0.64	B
Arm B		1.5	4.59	0.59	A		1.2	4.50	0.54	A
Arm C		1.4	8.29	0.58	A		25.4	82.58	1.00	F
2031 Base + Committed Development + Phase 1 A29 Scheme										
Arm A	D29	2.3	10.05	0.70	B	D30	0.3	5.08	0.26	A
Arm B		1.4	4.22	0.57	A		0.9	3.29	0.46	A
Arm C		0.8	6.02	0.43	A		4.8	21.15	0.83	C
2031 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme										
Arm A	D31	2.4	10.18	0.70	B	D32	0.4	5.18	0.26	A
Arm B		1.4	4.31	0.58	A		0.9	3.31	0.46	A
Arm C		0.8	6.08	0.43	A		5.4	23.58	0.65	C

There are warnings associated with one or more model runs - see the "Data Errors and Warnings" table(s) for each Analysis or Demand Set.

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

File summary

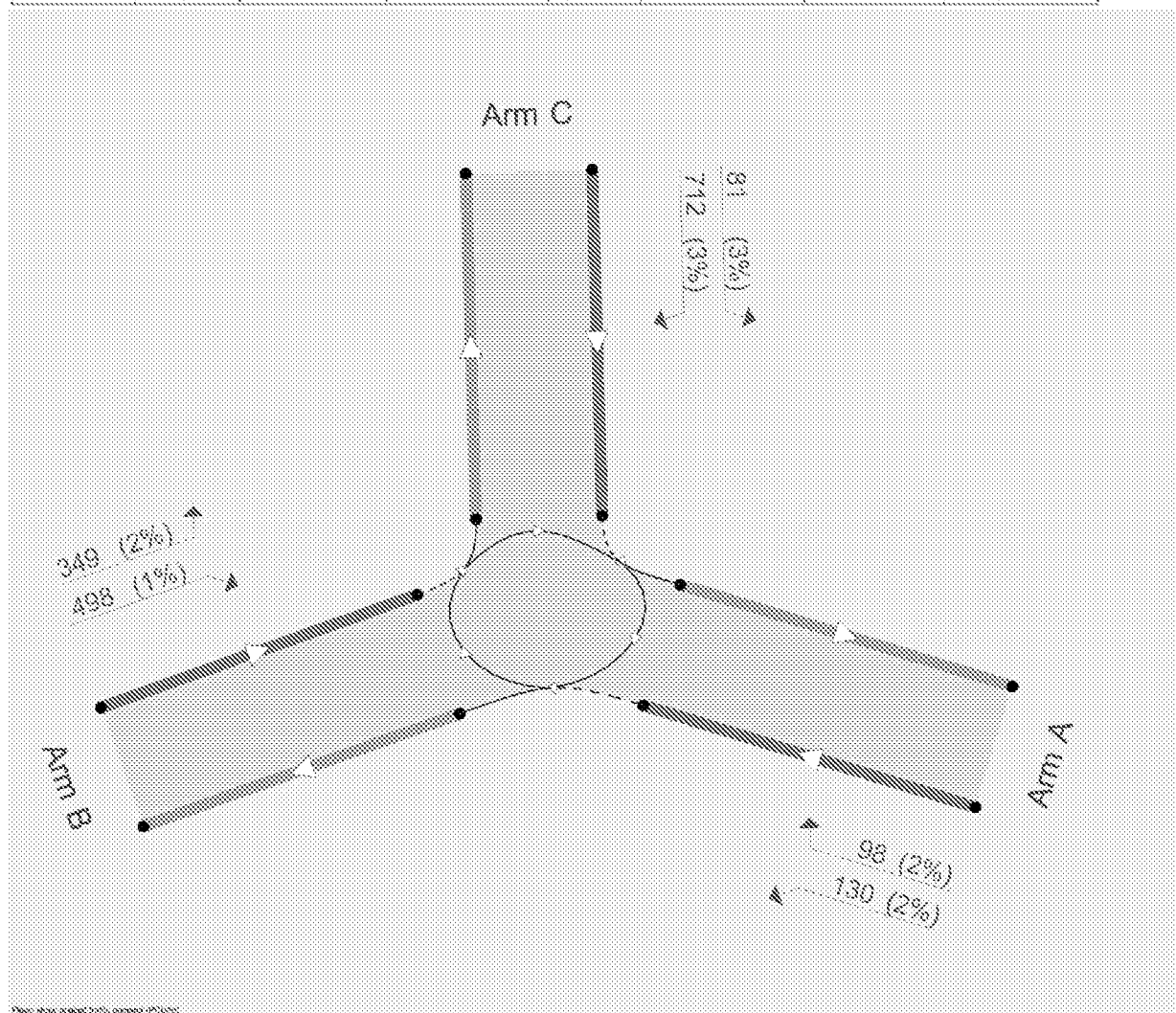
File Description

Title	
Location	
Site number	
Date	06/06/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	

Enumerator	AzureAD\JosephTucker
Description	

Units

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



Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2024 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2024 Base + Committed Development	AM	ONE HOUR	07:45	09:15	15	✓
D4	2024 Base + Committed Development	PM	ONE HOUR	15:45	17:15	15	✓
D5	2024 Base + Proposed Development	AM	ONE HOUR	07:45	09:15	15	✓
D6	2024 Base + Proposed Development	PM	ONE HOUR	15:45	17:15	15	✓
D7	2024 Base + Committed Development + Proposed Development	AM	ONE HOUR	07:45	09:15	15	✓
D8	2024 Base + Committed Development + Proposed Development	PM	ONE	15:45	17:15	15	✓

			HOUR				
D9	2028 Base	AM	ONE HOUR	07:45	09:15	15	✓
D10	2028 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2028 Base + Committed Development	AM	ONE HOUR	07:45	09:15	15	✓
D12	2028 Base + Committed Development	PM	ONE HOUR	15:45	17:15	15	✓
D13	2028 Base + Proposed Development	AM	ONE HOUR	07:45	09:15	15	✓
D14	2028 Base + Proposed Development	PM	ONE HOUR	15:45	17:15	15	✓
D15	2028 Base + Committed Development + Proposed Development	AM	ONE HOUR	07:45	09:15	15	✓
D16	2028 Base + Committed Development + Proposed Development	PM	ONE HOUR	15:45	17:15	15	✓
D17	2028 Base + Committed Development + Phase 1 A29 Scheme	AM	ONE HOUR	07:45	09:15	15	✓
D18	2028 Base + Committed Development + Phase 1 A29 Scheme	PM	ONE HOUR	15:45	17:15	15	✓
D19	2028 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme	AM	ONE HOUR	07:45	09:15	15	✓
D20	2028 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme	PM	ONE HOUR	15:45	17:15	15	✓
D21	2031 Base	AM	ONE HOUR	07:45	09:15	15	✓
D22	2031 Base	PM	ONE HOUR	15:45	17:15	15	✓
D23	2031 Base + Committed Development	AM	ONE HOUR	07:45	09:15	15	✓
D24	2031 Base + Committed Development	PM	ONE HOUR	15:45	17:15	15	✓
D25	2031 Base + Proposed Development	AM	ONE HOUR	07:45	09:15	15	✓
D26	2031 Base + Proposed Development	PM	ONE HOUR	15:45	17:15	15	✓
D27	2031 Base + Committed Development + Proposed Development	AM	ONE HOUR	07:45	09:15	15	✓
D28	2031 Base + Committed Development + Proposed Development	PM	ONE HOUR	15:45	17:15	15	✓
D29	2031 Base + Committed Development + Phase 1 A29 Scheme	AM	ONE HOUR	07:45	09:15	15	✓
D30	2031 Base + Committed Development + Phase 1 A29 Scheme	PM	ONE HOUR	15:45	17:15	15	✓
D31	2031 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme	AM	ONE HOUR	07:45	09:15	15	✓
D32	2031 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

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

2024 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	6.06	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Barnham Road B2233	
B	Nyton Road A29	
C	Fontwell Avenue A29	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	3.42	5.28	16.0	300.0	25.0	7.5	
B	4.78	6.50	38.0	999.0	25.0	9.5	
C	4.00	4.50	1.2	6.8	25.0	47.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	Direct	ARCADY 6 CT10 Import	-396
B	Direct	ARCADY 6 CT10 Import	0
C	Direct	ARCADY 6 CT10 Import	-120

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.685	1230
B	0.788	2130
C	0.485	958

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
A	Direct		275
B	Direct		0
C	Direct		340

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
------------------------------	-------------------------------	--------------------	---------------------------

✓	✓	HV Percentages	2.00
---	---	----------------	------

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	716	100.000
B		ONE HOUR	✓	914	100.000
C		ONE HOUR	✓	518	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	575	141
	B	361	5	548
	C	166	351	1

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	4	3
	B	6	0	3
	C	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.64	8.35	1.8	A	657	986
B	0.50	3.75	1.0	A	839	1258
C	0.52	6.97	1.1	A	475	713

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	539	135	267	1322	0.408	536	395	0.0	0.7	4.740	A
B	688	172	106	2046	0.336	686	697	0.0	0.5	2.753	A
C	390	97	275	1165	0.335	388	518	0.0	0.5	4.760	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	644	161	321	1285	0.501	642	473	0.7	1.0	5.799	A
B	822	205	127	2030	0.405	821	835	0.5	0.7	3.100	A
C	466	116	329	1139	0.409	465	620	0.5	0.7	5.498	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	788	197	392	1236	0.638	785	579	1.0	1.8	8.230	A
B	1006	252	156	2008	0.501	1005	1022	0.7	1.0	3.735	A
C	570	143	403	1103	0.517	569	758	0.7	1.1	6.924	A

08:30 - 08:45

Arm	Total Demand	Junction Arrivals	Circulating flow	Capacity	RFC	Throughput	Throughput (exit side)	Start queue	End queue	Delay (s)	Unsignalised level of
-----	--------------	-------------------	------------------	----------	-----	------------	------------------------	-------------	-----------	-----------	-----------------------

	(PCU/hr)	(PCU)	(PCU/hr)	(PCU/hr)		(PCU/hr)	(PCU/hr)	(PCU)	(PCU)		service
A	788	197	393	1236	0.638	788	580	1.8	1.8	8.347	A
B	1006	252	156	2007	0.501	1006	1025	1.0	1.0	3.745	A
C	570	143	403	1103	0.517	570	760	1.1	1.1	6.966	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	644	161	322	1284	0.501	647	475	1.8	1.1	5.888	A
B	822	205	128	2029	0.405	823	840	1.0	0.7	3.111	A
C	466	116	330	1138	0.409	467	622	1.1	0.7	5.539	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	539	135	269	1320	0.408	540	397	1.1	0.7	4.798	A
B	688	172	107	2046	0.336	689	703	0.7	0.5	2.764	A
C	390	97	276	1164	0.335	391	520	0.7	0.5	4.798	A

2024 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	10.67	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2024 Base	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	500	100.000
B		ONE HOUR	✓	752	100.000
C		ONE HOUR	✓	795	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0	96	404
	B	429	9	314
	C	202	592	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	2
	B	1	0	2
	C	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.52	7.33	1.1	A	459	688
B	0.47	3.84	0.9	A	690	1035
C	0.82	19.24	4.5	C	730	1094

Main Results for each time segment

16:45 - 16:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	376	94	450	1197	0.315	375	473	0.0	0.5	4.456	A
B	566	142	303	1891	0.299	564	521	0.0	0.4	2.748	A
C	599	150	329	1139	0.526	594	539	0.0	1.1	6.721	A

16:50 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	449	112	539	1136	0.396	449	566	0.5	0.7	5.341	A
B	676	169	363	1844	0.367	676	624	0.4	0.6	3.122	A
C	715	179	393	1107	0.646	712	645	1.1	1.8	9.266	A

16:55 - 16:59

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	551	138	656	1056	0.521	549	692	0.7	1.1	7.217	A
B	828	207	445	1780	0.465	827	760	0.6	0.9	3.824	A
C	875	219	482	1064	0.822	865	790	1.8	4.3	17.714	C

16:59 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	551	138	662	1051	0.524	550	695	1.1	1.1	7.330	A
B	828	207	446	1779	0.465	828	767	0.9	0.9	3.837	A
C	875	219	482	1064	0.823	874	792	4.3	4.5	19.235	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	449	112	549	1129	0.398	451	571	1.1	0.7	5.431	A
B	676	169	365	1842	0.367	677	635	0.9	0.6	3.135	A
C	715	179	395	1107	0.646	725	648	4.5	1.9	9.912	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	376	94	456	1193	0.316	377	476	0.7	0.5	4.506	A
B	566	142	306	1890	0.300	567	527	0.6	0.4	2.760	A
C	599	150	330	1138	0.526	602	542	1.9	1.2	6.919	A

2024 Base + Committed Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	6.92	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 Base + Committed Development	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	783	100.000
B		ONE HOUR	✓	996	100.000
C		ONE HOUR	✓	532	100.000

Origin-Destination Data

Demand (PCU/hr)

	To		
	A	B	C
From	A	0	631
	B	396	5
	C	169	362

Vehicle Mix

Heavy Vehicle Percentages

	To		
	A	B	C
From	A	0	3
	B	5	0
	C	3	2

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.70	10.13	2.4	B	718	1078
B	0.55	4.15	1.3	A	914	1371

C	0.54	7.39	1.2	A	488	732
---	------	------	-----	---	-----	-----

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	589	147	276	1316	0.448	586	424	0.0	0.8	5.058	A
B	750	187	115	2040	0.368	748	747	0.0	0.6	2.886	A
C	401	100	301	1152	0.348	398	561	0.0	0.5	4.873	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	704	176	330	1279	0.550	702	507	0.8	1.2	6.415	A
B	895	224	137	2022	0.443	895	895	0.6	0.8	3.308	A
C	478	120	360	1123	0.426	477	672	0.5	0.8	5.695	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	862	216	404	1228	0.702	858	621	1.2	2.3	9.892	A
B	1097	274	168	1998	0.549	1095	1094	0.8	1.2	4.129	A
C	586	146	441	1084	0.540	584	822	0.8	1.2	7.339	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	862	216	405	1227	0.702	862	622	2.3	2.4	10.134	B
B	1097	274	168	1998	0.549	1097	1099	1.2	1.3	4.146	A
C	586	146	442	1084	0.540	586	824	1.2	1.2	7.393	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	704	176	332	1277	0.551	708	509	2.4	1.3	6.563	A
B	895	224	138	2021	0.443	897	902	1.3	0.8	3.330	A
C	478	120	361	1123	0.426	480	674	1.2	0.8	5.743	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	589	147	278	1315	0.448	591	426	1.3	0.8	5.137	A
B	750	187	116	2039	0.368	751	753	0.8	0.6	2.903	A
C	401	100	302	1151	0.348	401	564	0.8	0.6	4.915	A

2024 Base + Committed Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	18.02	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 Base + Committed Development	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	529	100.000
B		ONE HOUR	✓	802	100.000
C		ONE HOUR	✓	868	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	122	407
	B	467	9	326
	C	209	658	1

Vehicle Mix

Heavy Vehicle Percentages

	To			
From	A	B	C	
	A	0	2	2
	B	1	0	2
	C	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.58	8.72	1.4	A	485	728
B	0.50	4.09	1.0	A	736	1104

C	0.92	35.57	9.1	61	796	1195
---	------	-------	-----	----	-----	------

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	398	100	499	1163	0.342	396	506	0.0	0.5	4.775	A
B	604	151	306	1890	0.320	602	589	0.0	0.5	2.831	A
C	653	163	357	1125	0.581	648	550	0.0	1.4	7.650	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	476	119	597	1096	0.434	475	606	0.5	0.8	5.902	A
B	721	180	366	1842	0.391	720	706	0.5	0.6	3.253	A
C	780	195	428	1091	0.715	776	659	1.4	2.5	11.568	B

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	582	146	719	1012	0.575	580	738	0.8	1.4	8.449	A
B	883	221	447	1778	0.497	882	852	0.6	1.0	4.068	A
C	956	239	523	1044	0.915	934	806	2.5	8.0	28.918	D

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	582	146	732	1003	0.581	582	743	1.4	1.4	8.717	A
B	883	221	449	1776	0.497	883	865	1.0	1.0	4.085	A
C	956	239	524	1044	0.918	951	808	8.0	9.1	36.587	E

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	476	119	620	1080	0.440	478	615	1.4	0.8	6.119	A
B	721	180	369	1840	0.392	722	729	1.0	0.7	3.272	A
C	780	195	429	1090	0.716	806	662	9.1	2.7	14.034	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	398	100	507	1158	0.344	399	511	0.8	0.5	4.850	A
B	604	151	308	1888	0.320	605	598	0.7	0.5	2.848	A
C	653	163	359	1124	0.581	658	554	2.7	1.5	8.011	A

2024 Base + Proposed Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	6.12	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 Base + Proposed Development	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	720	100.000
B		ONE HOUR	✓	929	100.000
C		ONE HOUR	✓	520	100.000

Origin-Destination Data

Demand (PCU/hr)

	To		
	A	B	C
From	A	0	579
	B	367	5
	C	166	353

Vehicle Mix

Heavy Vehicle Percentages

	To		
	A	B	C
From	A	0	4
	B	5	0
	C	3	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.64	8.46	1.8	A	661	991
B	0.51	3.79	1.1	A	853	1279

C	0.52	7.04	1.1	A	477	716
---	------	------	-----	---	-----	-----

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	542	136	269	1321	0.410	539	400	0.0	0.7	4.764	A
B	699	175	106	2046	0.342	697	702	0.0	0.5	2.764	A
C	391	98	279	1163	0.337	389	524	0.0	0.5	4.783	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	647	162	322	1284	0.504	646	479	0.7	1.0	5.843	A
B	835	209	127	2030	0.411	834	841	0.5	0.7	3.123	A
C	467	117	334	1136	0.412	467	628	0.5	0.7	5.532	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	793	198	394	1235	0.642	790	586	1.0	1.8	8.335	A
B	1023	256	156	2008	0.510	1022	1028	0.7	1.1	3.784	A
C	573	143	409	1100	0.521	571	768	0.7	1.1	6.992	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	793	198	395	1234	0.642	793	587	1.8	1.8	8.459	A
B	1023	256	156	2007	0.510	1023	1032	1.1	1.1	3.794	A
C	573	143	410	1099	0.521	573	770	1.1	1.1	7.037	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	647	162	324	1283	0.504	650	480	1.8	1.1	5.935	A
B	835	209	128	2029	0.412	837	846	1.1	0.7	3.137	A
C	467	117	335	1136	0.412	469	630	1.1	0.7	5.577	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	542	136	271	1319	0.411	543	402	1.1	0.7	4.823	A
B	699	175	107	2046	0.342	700	707	0.7	0.5	2.777	A
C	391	98	280	1162	0.337	392	527	0.7	0.5	4.821	A

2024 Base + Proposed Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	11.52	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 Base + Proposed Development	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	502	100.000
B		ONE HOUR	✓	757	100.000
C		ONE HOUR	✓	810	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	98	404
	B	432	9	316
	C	202	607	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A	B	C
	A	0	2	2
	B	1	0	2
	C	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.53	7.53	1.1	A	461	691
B	0.47	3.86	0.9	A	695	1042

C	0.84	21.14	5.0	C	743	1115
---	------	-------	-----	---	-----	------

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	378	94	461	1189	0.318	376	475	0.0	0.5	4.507	A
B	570	142	303	1891	0.301	568	534	0.0	0.4	2.755	A
C	610	152	331	1137	0.536	605	541	0.0	1.2	6.873	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	451	113	552	1126	0.401	450	569	0.5	0.7	5.425	A
B	681	170	363	1844	0.369	680	640	0.4	0.6	3.134	A
C	728	182	396	1106	0.658	725	647	1.2	1.9	9.613	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	553	138	671	1045	0.529	551	695	0.7	1.1	7.402	A
B	834	208	444	1780	0.468	832	777	0.6	0.9	3.847	A
C	892	223	485	1063	0.839	881	792	1.9	4.7	19.152	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	553	138	679	1040	0.531	553	698	1.1	1.1	7.531	A
B	834	208	446	1779	0.469	834	785	0.9	0.9	3.860	A
C	892	223	486	1062	0.839	891	794	4.7	5.0	21.145	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	451	113	564	1119	0.403	453	574	1.1	0.7	5.532	A
B	681	170	366	1842	0.369	682	651	0.9	0.6	3.150	A
C	728	182	397	1105	0.659	740	650	5.0	2.0	10.406	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	378	94	467	1185	0.319	379	479	0.7	0.5	4.559	A
B	570	142	306	1889	0.302	571	540	0.6	0.4	2.768	A
C	610	152	332	1137	0.536	613	544	2.0	1.2	7.089	A

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.71	10.27	2.4	B	721	1082
B	0.56	4.22	1.3	A	928	1392
C	0.54	7.47	1.2	A	490	735

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	592	148	277	1315	0.450	588	428	0.0	0.8	5.079	A
B	761	190	115	2040	0.373	759	751	0.0	0.6	2.911	A
C	402	101	305	1150	0.350	400	568	0.0	0.5	4.897	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	707	177	332	1277	0.553	705	513	0.8	1.3	6.456	A
B	909	227	137	2022	0.450	908	900	0.6	0.8	3.349	A
C	480	120	366	1121	0.428	479	680	0.5	0.8	5.734	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	865	216	406	1227	0.706	861	627	1.3	2.4	10.015	B
B	1113	278	168	1998	0.557	1111	1100	0.8	1.3	4.204	A
C	588	147	447	1081	0.544	586	832	0.8	1.2	7.417	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	865	216	407	1226	0.706	865	629	2.4	2.4	10.269	B
B	1113	278	168	1998	0.557	1113	1104	1.3	1.3	4.224	A
C	588	147	448	1081	0.544	588	833	1.2	1.2	7.474	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	707	177	334	1276	0.554	711	515	2.4	1.3	6.614	A
B	909	227	138	2021	0.450	911	907	1.3	0.9	3.368	A
C	480	120	367	1120	0.429	482	682	1.2	0.8	5.786	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	592	148	279	1314	0.450	594	431	1.3	0.9	5.161	A
B	761	190	116	2039	0.373	762	757	0.9	0.6	2.926	A
C	402	101	307	1149	0.350	403	571	0.8	0.6	4.942	A

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.59	9.00	1.4	A	487	731
B	0.50	4.12	1.0	A	742	1114
C	0.93	43.03	10.9	B	811	1217

Main Results for each time segment

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	400	100	511	1155	0.346	398	509	0.0	0.5	4.833	A
B	609	152	306	1890	0.322	607	603	0.0	0.5	2.843	A
C	666	166	360	1123	0.592	660	552	0.0	1.5	7.866	A

16:55 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	477	119	611	1086	0.440	476	610	0.5	0.8	6.012	A
B	727	182	366	1842	0.395	727	722	0.5	0.7	3.271	A
C	795	199	431	1089	0.730	790	661	1.5	2.6	12.151	B

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	585	146	733	1003	0.583	582	742	0.8	1.4	8.683	A
B	891	223	447	1778	0.501	889	868	0.7	1.0	4.101	A
C	973	243	528	1042	0.934	947	809	2.6	9.2	32.314	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	585	146	748	992	0.589	584	747	1.4	1.4	8.996	A
B	891	223	449	1776	0.501	891	884	1.0	1.0	4.121	A
C	973	243	529	1042	0.934	967	811	9.2	10.9	43.601	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	477	119	639	1067	0.447	480	620	1.4	0.8	6.281	A
B	727	182	369	1840	0.395	729	750	1.0	0.7	3.291	A
C	795	199	432	1088	0.730	827	665	10.9	2.9	15.629	C

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	400	100	519	1149	0.348	401	514	0.8	0.5	4.914	A
B	609	152	308	1888	0.323	610	612	0.7	0.5	2.857	A
C	666	166	362	1123	0.593	671	556	2.9	1.5	8.274	A

2028 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	6.44	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2028 Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	739	100.000
B		ONE HOUR	✓	944	100.000
C		ONE HOUR	✓	536	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	594	145
	B	373	5	566
	C	172	363	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	4	3
	B	6	0	3
	C	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.66	9.04	2.0	A	678	1017
B	0.52	3.89	1.1	A	866	1300
C	0.54	7.33	1.2	A	492	738

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	556	139	277	1316	0.423	553	409	0.0	0.8	4.888	A
B	711	178	109	2044	0.348	709	721	0.0	0.6	2.802	A
C	404	101	284	1160	0.348	401	534	0.0	0.5	4.871	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	664	166	331	1278	0.520	663	489	0.8	1.1	6.063	A
B	849	212	131	2027	0.419	848	863	0.6	0.7	3.179	A
C	482	120	340	1133	0.425	481	639	0.5	0.8	5.677	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	814	203	405	1227	0.663	810	599	1.1	2.0	8.885	A
B	1040	260	160	2004	0.519	1038	1055	0.7	1.1	3.876	A
C	590	148	416	1096	0.538	588	782	0.8	1.2	7.275	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	814	203	407	1226	0.663	814	600	2.0	2.0	9.043	A
B	1040	260	161	2004	0.519	1040	1059	1.1	1.1	3.889	A
C	590	148	416	1096	0.538	590	784	1.2	1.2	7.328	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	664	166	333	1277	0.520	668	491	2.0	1.1	6.170	A
B	849	212	132	2026	0.419	850	869	1.1	0.8	3.191	A
C	482	120	341	1133	0.425	484	642	1.2	0.8	5.724	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	556	139	279	1314	0.423	558	411	1.1	0.8	4.952	A
B	711	178	110	2043	0.348	712	726	0.8	0.6	2.816	A
C	404	101	285	1160	0.348	404	537	0.8	0.6	4.913	A

2028 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	12.55	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2028 Base	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	517	100.000
B		ONE HOUR	✓	776	100.000
C		ONE HOUR	✓	822	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0	99	418
	B	443	9	324
	C	209	612	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	2
	B	1	0	2
	C	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.55	7.85	1.2	A	474	712
B	0.48	4.00	0.9	A	712	1068
C	0.88	23.57	5.6	C	754	1131

Main Results for each time segment

16:45 - 16:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	389	97	465	1187	0.328	387	489	0.0	0.5	4.583	A
B	584	146	314	1883	0.310	582	538	0.0	0.5	2.803	A
C	619	155	339	1133	0.546	614	557	0.0	1.2	7.038	A

16:50 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	465	116	557	1123	0.414	464	585	0.5	0.7	5.561	A
B	698	174	376	1834	0.380	697	645	0.5	0.6	3.209	A
C	739	185	406	1101	0.671	736	667	1.2	2.0	10.005	B

16:55 - 16:59

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	569	142	675	1042	0.546	567	714	0.7	1.2	7.698	A
B	855	214	460	1768	0.483	853	783	0.6	0.9	3.984	A
C	905	226	497	1057	0.856	892	816	2.0	5.3	20.894	C

16:59 - 16:59

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	569	142	684	1036	0.549	569	717	1.2	1.2	7.855	A
B	855	214	461	1767	0.484	854	792	0.9	0.9	4.000	A
C	905	226	498	1057	0.857	904	818	5.3	5.6	23.566	C

16:59 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	465	116	570	1115	0.417	467	590	1.2	0.7	5.683	A
B	698	174	378	1832	0.381	699	658	0.9	0.6	3.226	A
C	739	185	407	1101	0.671	753	670	5.6	2.2	11.003	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	389	97	471	1182	0.329	390	492	0.7	0.5	4.642	A
B	584	146	316	1881	0.311	585	545	0.6	0.5	2.819	A
C	619	155	341	1133	0.546	622	560	2.2	1.3	7.282	A

2028 Base + Committed Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	7.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2028 Base + Committed Development	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	806	100.000
B		ONE HOUR	✓	1027	100.000
C		ONE HOUR	✓	550	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	650	156
	B	409	5	613
	C	175	374	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	3
	B	5	0	3
	C	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.73	11.18	2.7	B	740	1109
B	0.57	4.33	1.4	A	943	1414

C	0.56	7.81	1.3	A	505	757
---	------	------	-----	---	-----	-----

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	607	152	285	1310	0.463	603	438	0.0	0.9	5.221	A
B	773	193	118	2038	0.380	771	770	0.0	0.6	2.942	A
C	414	104	311	1147	0.361	412	578	0.0	0.6	4.993	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	725	181	341	1271	0.570	723	524	0.9	1.3	6.737	A
B	923	231	141	2019	0.457	923	923	0.6	0.9	3.402	A
C	494	124	372	1118	0.442	494	691	0.6	0.8	5.893	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	887	222	417	1219	0.728	882	642	1.3	2.6	10.842	S
B	1131	283	172	1995	0.567	1129	1128	0.9	1.3	4.305	A
C	606	151	455	1077	0.562	604	846	0.8	1.3	7.745	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	887	222	419	1218	0.729	887	643	2.6	2.7	11.182	S
B	1131	283	173	1994	0.567	1131	1133	1.3	1.4	4.328	A
C	606	151	456	1077	0.562	606	848	1.3	1.3	7.812	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	725	181	343	1270	0.571	730	526	2.7	1.4	6.929	A
B	923	231	142	2018	0.458	925	931	1.4	0.9	3.423	A
C	494	124	373	1117	0.443	496	694	1.3	0.8	5.951	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	607	152	287	1308	0.464	609	440	1.4	0.9	5.316	A
B	773	193	119	2037	0.380	774	777	0.9	0.6	2.960	A
C	414	104	312	1147	0.361	415	581	0.8	0.6	5.040	A

2028 Base + Committed Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	23.92	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2028 Base + Committed Development	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	546	100.000
B		ONE HOUR	✓	828	100.000
C		ONE HOUR	✓	896	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	125	421
	B	482	9	337
	C	216	679	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	2
	B	1	0	2
	C	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.61	9.42	1.5	A	501	752
B	0.52	4.28	1.1	A	760	1140

C	0.95	55.91	13.1	F	822	1233
---	------	-------	------	---	-----	------

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	411	103	514	1153	0.357	409	523	0.0	0.6	4.921	A
B	623	156	316	1881	0.331	621	607	0.0	0.5	2.892	A
C	675	169	369	1119	0.603	668	569	0.0	1.5	8.081	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	491	123	616	1083	0.453	490	626	0.6	0.8	6.176	A
B	744	186	379	1832	0.406	744	727	0.5	0.7	3.352	A
C	805	201	441	1084	0.743	800	681	1.5	2.8	12.767	B

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	601	150	735	1002	0.600	599	760	0.8	1.5	9.052	A
B	912	228	463	1766	0.516	910	871	0.7	1.1	4.258	A
C	987	247	540	1036	0.952	955	833	2.8	10.7	35.124	E

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	601	150	751	990	0.607	601	766	1.5	1.5	9.424	A
B	912	228	464	1764	0.517	912	888	1.1	1.1	4.280	A
C	987	247	541	1036	0.952	977	835	10.7	13.1	36.358	F

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	491	123	650	1060	0.463	493	638	1.5	0.9	6.516	A
B	744	186	381	1830	0.407	746	762	1.1	0.7	3.371	A
C	805	201	442	1083	0.743	845	685	13.1	3.1	17.782	C

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	411	103	524	1146	0.359	412	527	0.9	0.6	5.013	A
B	623	156	319	1879	0.332	624	617	0.7	0.5	2.909	A
C	675	169	370	1119	0.603	681	573	3.1	1.6	8.546	A

2028 Base + Proposed Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	6.51	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2028 Base + Proposed Development	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	743	100.000
B		ONE HOUR	✓	960	100.000
C		ONE HOUR	✓	538	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	598	145
	B	379	5	576
	C	172	365	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	4	3
	B	5	0	3
	C	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.67	9.17	2.1	A	682	1023
B	0.53	3.95	1.2	A	881	1322

C	0.54	7.41	1.2	A	494	741
---	------	------	-----	---	-----	-----

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	559	140	278	1315	0.426	556	413	0.0	0.8	4.909	A
B	723	181	109	2044	0.354	721	725	0.0	0.6	2.817	A
C	405	101	288	1158	0.350	403	542	0.0	0.5	4.895	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	668	167	333	1277	0.523	666	495	0.8	1.1	6.108	A
B	863	216	131	2027	0.426	862	869	0.6	0.8	3.206	A
C	484	121	345	1131	0.428	483	648	0.5	0.8	5.716	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	818	205	408	1226	0.667	814	606	1.1	2.0	9.006	A
B	1057	264	160	2004	0.528	1056	1062	0.8	1.1	3.932	A
C	592	148	422	1093	0.542	591	793	0.8	1.2	7.354	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	818	205	409	1225	0.668	818	607	2.0	2.1	9.172	A
B	1057	264	161	2004	0.528	1057	1066	1.1	1.2	3.947	A
C	592	148	423	1093	0.542	592	795	1.2	1.2	7.407	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	668	167	335	1276	0.524	672	496	2.1	1.2	6.222	A
B	863	216	132	2026	0.426	865	875	1.2	0.8	3.222	A
C	484	121	346	1130	0.428	485	651	1.2	0.8	5.766	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	559	140	280	1313	0.426	561	415	1.2	0.8	4.977	A
B	723	181	110	2043	0.354	724	731	0.8	0.6	2.834	A
C	405	101	290	1158	0.350	406	544	0.8	0.6	4.939	A

2028 Base + Proposed Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	13.82	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2028 Base + Proposed Development	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	519	100.000
B		ONE HOUR	✓	784	100.000
C		ONE HOUR	✓	837	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	101	418
	B	447	10	327
	C	209	627	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	2
	B	1	0	2
	C	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.56	8.10	1.3	A	476	714
B	0.49	4.04	1.0	A	719	1079

C	0.87	26.54	6.4	0	768	1152
---	------	-------	-----	---	-----	------

Main Results for each time segment

16:45 - 16:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	391	98	477	1179	0.332	389	492	0.0	0.5	4.638	A
B	590	148	314	1883	0.313	588	551	0.0	0.5	2.816	A
C	630	158	343	1132	0.557	625	559	0.0	1.3	7.214	A

16:50 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	467	117	571	1114	0.419	466	588	0.5	0.7	5.657	A
B	705	176	376	1834	0.384	704	661	0.5	0.6	3.229	A
C	752	188	410	1099	0.685	749	670	1.3	2.1	10.432	B

16:55 - 16:59

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	571	143	691	1031	0.554	569	718	0.7	1.2	7.912	A
B	863	216	460	1768	0.488	862	801	0.6	1.0	4.022	A
C	922	230	502	1054	0.574	906	819	2.1	5.9	22.906	C

16:59 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	571	143	701	1025	0.558	571	722	1.2	1.3	8.096	A
B	863	216	461	1767	0.489	863	811	1.0	1.0	4.039	A
C	922	230	503	1054	0.574	920	821	5.9	6.4	26.544	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	467	117	586	1104	0.423	469	595	1.3	0.8	5.801	A
B	705	176	378	1832	0.385	706	676	1.0	0.6	3.244	A
C	752	188	412	1098	0.685	769	673	6.4	2.3	11.712	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	391	98	483	1174	0.333	392	495	0.8	0.5	4.700	A
B	590	148	316	1881	0.314	591	559	0.6	0.5	2.830	A
C	630	158	344	1131	0.557	634	563	2.3	1.3	7.483	A

2028 Base + Committed Development + Proposed Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	7.56	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2028 Base + Committed Development + Proposed Development	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	810	100.000
B		ONE HOUR	✓	1042	100.000
C		ONE HOUR	✓	552	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	654	156
	B	414	5	623
	C	175	376	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	3
	B	5	0	3
	C	3	2	0

Results

Results Summary for whole modelled period

--	--	--	--	--	--	--

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.73	11.38	2.8	B	743	1115
B	0.58	4.41	1.4	A	956	1435
C	0.57	7.89	1.3	A	507	760

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	610	152	286	1309	0.466	606	442	0.0	0.9	5.251	A
B	785	196	118	2038	0.385	782	775	0.0	0.6	2.969	A
C	416	104	315	1145	0.363	413	585	0.0	0.6	5.016	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	728	182	343	1270	0.573	726	529	0.9	1.4	6.797	A
B	937	234	141	2019	0.464	936	929	0.6	0.9	3.445	A
C	496	124	377	1115	0.445	495	700	0.6	0.8	5.931	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	892	223	420	1218	0.732	886	647	1.4	2.7	11.022	B
B	1148	287	172	1995	0.575	1146	1134	0.9	1.4	4.387	A
C	608	152	461	1075	0.566	606	857	0.8	1.3	7.824	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	892	223	421	1217	0.733	892	648	2.7	2.8	11.383	B
B	1148	287	173	1994	0.575	1148	1140	1.4	1.4	4.412	A
C	608	152	462	1074	0.566	608	859	1.3	1.3	7.894	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	728	182	345	1269	0.574	734	531	2.8	1.4	7.000	A
B	937	234	142	2018	0.464	939	936	1.4	0.9	3.469	A
C	496	124	378	1115	0.445	498	703	1.3	0.8	5.993	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	610	152	288	1307	0.466	612	444	1.4	0.9	5.345	A
B	785	196	119	2037	0.385	786	782	0.9	0.7	2.987	A
C	416	104	316	1145	0.363	417	588	0.8	0.6	5.064	A

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.62	9.72	1.6	A	503	754
B	0.52	4.32	1.1	A	766	1149
C	0.97	68.23	16.1	F	836	1254

Main Results for each time segment

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	413	103	526	1145	0.360	410	525	0.0	0.6	4.985	A
B	629	157	316	1881	0.334	627	620	0.0	0.5	2.904	A
C	686	171	371	1118	0.614	679	571	0.0	1.6	8.303	A

16:55 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	493	123	629	1074	0.459	492	628	0.6	0.9	6.294	A
B	751	188	378	1832	0.410	750	742	0.5	0.7	3.371	A
C	819	205	445	1082	0.757	813	684	1.6	3.0	13.427	B

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	603	151	747	993	0.608	601	762	0.9	1.5	9.294	A
B	919	230	462	1766	0.521	918	885	0.7	1.1	4.296	A
C	1003	251	544	1034	0.979	965	836	3.0	12.5	48.537	E

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	603	151	765	981	0.615	603	768	1.5	1.6	9.716	A
B	919	230	464	1764	0.521	919	904	1.1	1.1	4.319	A
C	1003	251	545	1034	0.979	989	839	12.5	16.1	68.204	F

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	493	123	672	1044	0.472	495	643	1.6	0.9	6.720	A
B	751	188	382	1830	0.410	752	786	1.1	0.7	3.391	A
C	819	205	446	1082	0.757	869	688	16.1	3.4	20.917	C

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	413	103	536	1138	0.363	414	530	0.9	0.6	5.082	A
B	629	157	319	1879	0.335	629	631	0.7	0.5	2.922	A
C	686	171	373	1117	0.614	693	575	3.4	1.7	8.837	A

2028 Base + Committed Development + Phase 1 A29 Scheme, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	6.21	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2028 Base + Committed Development + Phase 1 A29 Scheme	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	746	100.000
B		ONE HOUR	✓	1027	100.000
C		ONE HOUR	✓	408	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	650	96
	B	409	5	613
	C	33	374	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	3
	B	5	0	3
	C	3	2	0

Results

Results Summary for whole modelled period

--	--	--	--	--	--	--

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.67	9.33	2.1	A	685	1027
B	0.55	4.08	1.3	A	943	1414
C	0.42	5.85	0.7	A	374	562

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	562	140	285	1310	0.429	559	332	0.0	0.8	4.916	A
B	773	193	73	2073	0.373	771	771	0.0	0.6	2.864	A
C	307	77	311	1147	0.268	306	533	0.0	0.4	4.360	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	671	168	341	1271	0.528	669	397	0.8	1.1	6.145	A
B	923	231	87	2062	0.448	923	924	0.6	0.8	3.276	A
C	367	92	372	1118	0.328	366	638	0.4	0.5	4.888	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	821	205	418	1219	0.674	818	486	1.1	2.1	9.160	A
B	1131	283	106	2046	0.553	1129	1129	0.8	1.3	4.066	A
C	449	112	455	1077	0.417	448	780	0.5	0.7	5.835	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	821	205	419	1218	0.674	821	487	2.1	2.1	9.333	A
B	1131	283	107	2046	0.553	1131	1133	1.3	1.3	4.082	A
C	449	112	456	1077	0.417	449	782	0.7	0.7	5.854	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	671	168	343	1270	0.528	674	398	2.1	1.2	6.262	A
B	923	231	88	2061	0.448	925	929	1.3	0.8	3.292	A
C	367	92	373	1117	0.328	368	640	0.7	0.5	4.908	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	562	140	287	1309	0.429	563	333	1.2	0.8	4.984	A
B	773	193	73	2073	0.373	774	777	0.8	0.6	2.878	A
C	307	77	312	1147	0.268	308	535	0.5	0.4	4.384	A

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.25	4.94	0.3	A	202	303
B	0.45	3.21	0.8	A	760	1140
C	0.80	17.98	4.0	C	694	1041

Main Results for each time segment

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	166	41	515	1152	0.144	165	419	0.0	0.2	3.718	A
B	623	156	72	2074	0.301	622	608	0.0	0.4	2.510	A
C	569	142	369	1119	0.509	565	325	0.0	1.0	6.629	A

16:55 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	198	49	617	1082	0.183	198	501	0.2	0.2	4.150	A
B	744	186	86	2062	0.361	744	729	0.4	0.6	2.767	A
C	680	170	441	1084	0.627	677	389	1.0	1.7	9.035	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	242	61	751	990	0.245	242	613	0.2	0.3	4.903	A
B	912	228	106	2047	0.445	911	887	0.6	0.8	3.209	A
C	832	208	540	1036	0.803	824	476	1.7	3.8	16.776	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	242	61	758	986	0.246	242	614	0.3	0.3	4.939	A
B	912	228	106	2047	0.445	912	895	0.8	0.8	3.214	A
C	832	208	541	1036	0.804	832	477	3.8	4.0	17.984	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	198	49	628	1075	0.184	198	503	0.3	0.2	4.189	A
B	744	186	86	2062	0.361	745	739	0.8	0.6	2.773	A
C	680	170	442	1084	0.627	689	390	4.0	1.8	9.568	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	166	41	521	1148	0.144	166	421	0.2	0.2	3.739	A
B	623	156	72	2073	0.301	624	615	0.6	0.4	2.521	A
C	569	142	370	1119	0.509	572	326	1.8	1.1	6.802	A

2028 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	6.29	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 segment length (min)	Run automatically
D19	2028 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	750	100.000
B		ONE HOUR	✓	1042	100.000
C		ONE HOUR	✓	410	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0	654	96
	B	414	5	623
	C	33	376	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A	B	C
	A	0	3	3
	B	5	0	3
	C	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.68	9.47	2.1	A	688	1032
B	0.56	4.16	1.3	A	956	1435
C	0.42	5.90	0.7	A	376	564

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	565	141	286	1309	0.431	562	335	0.0	0.8	4.943	A
B	785	196	73	2073	0.379	782	775	0.0	0.6	2.889	A
C	309	77	315	1145	0.269	307	540	0.0	0.4	4.375	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	674	169	343	1270	0.531	673	401	0.8	1.1	6.192	A
B	937	234	87	2062	0.454	936	929	0.6	0.9	3.315	A
C	369	92	377	1115	0.330	368	647	0.4	0.5	4.914	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	826	206	420	1217	0.678	822	491	1.1	2.1	9.290	A
B	1148	287	106	2046	0.561	1146	1136	0.9	1.3	4.139	A
C	451	113	461	1074	0.420	451	791	0.5	0.7	5.881	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	826	206	421	1217	0.679	826	492	2.1	2.1	9.475	A
B	1148	287	107	2046	0.561	1148	1140	1.3	1.3	4.157	A
C	451	113	462	1074	0.420	451	793	0.7	0.7	5.900	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	674	169	344	1269	0.531	678	403	2.1	1.2	6.316	A
B	937	234	88	2061	0.455	939	935	1.3	0.9	3.335	A
C	369	92	378	1115	0.331	370	649	0.7	0.5	4.937	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	565	141	288	1307	0.432	566	337	1.2	0.8	5.014	A
B	785	196	73	2073	0.379	786	781	0.9	0.6	2.906	A
C	309	77	316	1145	0.270	309	543	0.5	0.4	4.400	A

2028 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	10.40	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 segment length (min)	Run automatically
D20	2028 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	222	100.000
B		ONE HOUR	✓	835	100.000
C		ONE HOUR	✓	771	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	127	95
	B	485	10	340
	C	76	694	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	2
	B	1	0	2
	C	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.25	5.03	0.3	A	204	306
B	0.45	3.24	0.8	A	766	1149
C	0.82	19.70	4.5	C	707	1061

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	167	42	527	1144	0.146	166	421	0.0	0.2	3.754	A
B	629	157	72	2074	0.303	627	621	0.0	0.4	2.519	A
C	580	145	372	1118	0.519	576	327	0.0	1.1	6.778	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	200	50	631	1072	0.186	199	504	0.2	0.2	4.204	A
B	751	188	86	2062	0.364	750	744	0.4	0.6	2.780	A
C	693	173	445	1082	0.640	690	392	1.1	1.8	9.373	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	244	61	767	979	0.250	244	616	0.2	0.3	4.992	A
B	919	230	106	2047	0.449	918	906	0.6	0.8	3.230	A
C	849	212	544	1034	0.821	839	479	1.8	4.2	18.121	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	244	61	775	974	0.251	244	618	0.3	0.3	5.035	A
B	919	230	106	2047	0.449	919	914	0.8	0.8	3.236	A
C	849	212	545	1034	0.821	848	480	4.2	4.5	19.703	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	200	50	643	1064	0.188	200	506	0.3	0.2	4.251	A
B	751	188	86	2062	0.364	752	757	0.8	0.6	2.786	A
C	693	173	446	1082	0.641	703	393	4.5	1.9	10.028	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	167	42	533	1139	0.147	167	423	0.2	0.2	3.780	A
B	629	157	72	2073	0.303	629	628	0.6	0.4	2.528	A
C	580	145	373	1117	0.520	583	329	1.9	1.1	6.974	A

2031 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	6.81	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2031 Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	760	100.000
B		ONE HOUR	✓	970	100.000
C		ONE HOUR	✓	551	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0	611	149
	B	383	5	582
	C	177	373	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A	B	C
	A	0	4	3
	B	6	0	3
	C	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.69	9.76	2.2	A	697	1046
B	0.53	4.02	1.2	A	890	1335
C	0.56	7.66	1.3	A	506	758

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	572	143	284	1310	0.437	569	420	0.0	0.8	5.019	A
B	730	183	112	2042	0.358	728	741	0.0	0.6	2.849	A
C	415	104	291	1157	0.359	413	549	0.0	0.6	4.967	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	683	171	340	1272	0.537	682	503	0.8	1.2	6.315	A
B	872	218	135	2024	0.431	871	887	0.6	0.8	3.251	A
C	495	124	349	1129	0.439	494	657	0.6	0.8	5.835	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	837	209	416	1220	0.686	833	615	1.2	2.2	9.553	A
B	1068	267	164	2001	0.534	1067	1085	0.8	1.2	4.008	A
C	607	152	427	1091	0.556	605	804	0.8	1.3	7.597	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	837	209	418	1219	0.687	837	617	2.2	2.2	9.765	A
B	1068	267	165	2000	0.534	1068	1089	1.2	1.2	4.023	A
C	607	152	427	1091	0.556	607	806	1.3	1.3	7.659	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	683	171	342	1271	0.538	687	505	2.2	1.2	6.452	A
B	872	218	136	2023	0.431	874	894	1.2	0.8	3.265	A
C	495	124	350	1128	0.439	497	660	1.3	0.8	5.892	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	572	143	286	1309	0.437	574	422	1.2	0.8	5.096	A
B	730	183	113	2041	0.358	731	747	0.8	0.6	2.863	A
C	415	104	293	1156	0.359	416	552	0.8	0.6	5.013	A

2031 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	14.97	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2031 Base	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	532	100.000
B		ONE HOUR	✓	800	100.000
C		ONE HOUR	✓	846	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0	102	430
	B	456	10	334
	C	215	630	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	2
	B	1	0	2
	C	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.57	8.40	1.3	A	488	732
B	0.50	4.17	1.0	A	734	1101
C	0.89	29.31	7.1	C	776	1164

Main Results for each time segment

16:45 - 16:50

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	401	100	479	1177	0.340	398	503	0.0	0.5	4.704	A
B	602	151	323	1876	0.321	600	554	0.0	0.5	2.858	A
C	637	159	350	1128	0.564	632	573	0.0	1.3	7.352	A

16:50 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	478	120	573	1112	0.430	477	602	0.5	0.8	5.776	A
B	719	180	387	1826	0.394	718	664	0.5	0.7	3.295	A
C	761	190	419	1095	0.695	757	687	1.3	2.2	10.786	B

16:55 - 16:59

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	586	146	693	1030	0.569	584	734	0.8	1.3	8.180	A
B	881	220	473	1758	0.501	879	804	0.7	1.0	4.148	A
C	931	233	512	1050	0.837	914	840	2.2	6.5	24.681	C

16:59 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	586	146	704	1023	0.573	586	738	1.3	1.3	8.396	A
B	881	220	474	1757	0.501	881	815	1.0	1.0	4.168	A
C	931	233	513	1049	0.838	929	842	6.5	7.1	29.312	D

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	478	120	590	1101	0.435	480	609	1.3	0.8	5.942	A
B	719	180	389	1824	0.394	721	682	1.0	0.7	3.313	A
C	761	190	420	1094	0.695	779	690	7.1	2.4	12.351	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	401	100	486	1172	0.342	402	507	0.8	0.5	4.771	A
B	602	151	325	1874	0.321	603	562	0.7	0.5	2.873	A
C	637	159	351	1128	0.565	641	577	2.4	1.4	7.647	A

2031 Base + Committed Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	7.99	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D23	2031 Base + Committed Development	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	827	100.000
B		ONE HOUR	✓	1053	100.000
C		ONE HOUR	✓	565	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	667	160
	B	419	5	629
	C	180	384	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	3
	B	5	0	3
	C	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.75	12.31	3.0	B	759	1138
B	0.58	4.49	1.4	A	966	1450

C	0.58	8.19	1.4	A	518	778
---	------	------	-----	---	-----	-----

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	623	156	292	1305	0.477	619	449	0.0	0.9	5.377	A
B	793	198	121	2035	0.390	790	791	0.0	0.7	2.994	A
C	425	106	318	1144	0.372	423	592	0.0	0.6	5.095	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	743	186	350	1265	0.588	741	538	0.9	1.4	7.052	A
B	947	237	144	2016	0.470	946	947	0.7	0.9	3.486	A
C	508	127	381	1113	0.456	507	709	0.6	0.8	6.065	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	911	228	428	1212	0.752	904	658	1.4	3.0	11.843	S
B	1160	290	176	1991	0.582	1158	1157	0.9	1.4	4.469	A
C	622	156	466	1072	0.580	620	867	0.8	1.4	8.110	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	911	228	430	1211	0.752	910	659	3.0	3.0	12.310	S
B	1160	290	177	1991	0.583	1160	1163	1.4	1.4	4.495	A
C	622	156	467	1071	0.581	622	870	1.4	1.4	8.193	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	743	186	352	1264	0.588	750	540	3.0	1.5	7.299	A
B	947	237	146	2015	0.470	949	956	1.4	0.9	3.511	A
C	508	127	382	1113	0.457	510	713	1.4	0.9	6.133	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	623	156	295	1303	0.478	625	452	1.5	1.0	5.484	A
B	793	198	122	2034	0.390	794	798	0.9	0.7	3.013	A
C	425	106	320	1143	0.372	426	596	0.9	0.6	5.147	A

2031 Base + Committed Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	31.16	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D24	2031 Base + Committed Development	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	561	100.000
B		ONE HOUR	✓	851	100.000
C		ONE HOUR	✓	919	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	128	433
	B	495	10	346
	C	222	696	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	2
	B	1	0	2
	C	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.63	10.07	1.7	B	515	772
B	0.53	4.47	1.2	A	781	1171

C	0.98	55.74	18.8	F	843	1265
---	------	-------	------	---	-----	------

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	422	106	527	1144	0.369	420	537	0.0	0.6	5.058	A
B	641	160	325	1874	0.342	639	622	0.0	0.5	2.948	A
C	692	173	379	1114	0.621	685	585	0.0	1.6	8.480	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	504	126	631	1073	0.470	503	643	0.6	0.9	6.434	A
B	765	191	389	1824	0.420	764	745	0.5	0.7	3.445	A
C	826	207	454	1078	0.766	820	700	1.6	3.2	13.973	B

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	618	154	745	994	0.621	615	778	0.9	1.6	9.602	A
B	937	234	476	1756	0.534	935	885	0.7	1.1	4.440	A
C	1012	253	555	1029	0.904	968	856	3.2	14.0	43.853	E

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	618	154	764	982	0.629	617	785	1.6	1.7	10.071	B
B	937	234	478	1754	0.534	937	904	1.1	1.2	4.467	A
C	1012	253	556	1028	0.904	993	859	14.0	18.8	50.742	F

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	504	126	682	1038	0.486	507	660	1.7	1.0	6.953	A
B	765	191	392	1821	0.420	767	796	1.2	0.7	3.469	A
C	826	207	455	1077	0.767	887	704	18.8	3.6	24.410	C

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	422	106	538	1136	0.372	424	542	1.0	0.6	5.166	A
B	641	160	328	1872	0.342	642	634	0.7	0.5	2.970	A
C	692	173	381	1113	0.621	700	589	3.6	1.7	9.074	A

2031 Base + Proposed Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	6.90	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D25	2031 Base + Proposed Development	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	764	100.000
B		ONE HOUR	✓	986	100.000
C		ONE HOUR	✓	553	100.000

Origin-Destination Data

Demand (PCU/hr)

	To		
	A	B	C
From	A	0	615
	B	389	5
	C	177	375

Vehicle Mix

Heavy Vehicle Percentages

	To		
	A	B	C
From	A	0	4
	B	5	0
	C	3	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.69	9.92	2.3	A	701	1052
B	0.54	4.09	1.2	A	905	1358

C	0.56	7.74	1.3	A	507	761
---	------	------	-----	---	-----	-----

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	575	144	285	1309	0.439	572	424	0.0	0.8	5.045	A
B	743	186	112	2042	0.364	740	745	0.0	0.6	2.865	A
C	416	104	296	1155	0.361	414	557	0.0	0.6	4.992	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	687	172	342	1271	0.541	685	508	0.8	1.2	6.365	A
B	887	222	135	2024	0.438	886	893	0.6	0.8	3.280	A
C	497	124	354	1126	0.441	496	666	0.6	0.8	5.876	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	841	210	418	1218	0.690	837	622	1.2	2.2	9.696	A
B	1086	271	164	2001	0.543	1084	1091	0.8	1.2	4.068	A
C	609	152	433	1088	0.560	607	815	0.8	1.3	7.679	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	841	210	420	1217	0.691	841	623	2.2	2.3	9.916	A
B	1086	271	165	2000	0.543	1086	1096	1.2	1.2	4.085	A
C	609	152	434	1087	0.560	609	817	1.3	1.3	7.743	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	687	172	344	1269	0.541	691	510	2.3	1.2	6.506	A
B	887	222	136	2023	0.438	888	899	1.2	0.8	3.297	A
C	497	124	355	1126	0.442	499	669	1.3	0.8	5.935	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	575	144	288	1308	0.440	577	427	1.2	0.8	5.125	A
B	743	186	113	2041	0.364	743	751	0.8	0.6	2.882	A
C	416	104	297	1154	0.361	417	559	0.8	0.6	5.041	A

2031 Base + Proposed Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	16.72	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D26	2031 Base + Proposed Development	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	534	100.000
B		ONE HOUR	✓	805	100.000
C		ONE HOUR	✓	861	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	104	430
	B	459	10	336
	C	215	645	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	2
	B	1	0	2
	C	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.58	8.65	1.4	A	490	735
B	0.50	4.19	1.0	A	739	1108

C	0.00	33.43	8.2	0	790	1185
---	------	-------	-----	---	-----	------

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	402	101	490	1169	0.344	400	505	0.0	0.5	4.760	A
B	606	152	323	1876	0.323	604	567	0.0	0.5	2.867	A
C	648	162	352	1127	0.575	643	575	0.0	1.4	7.533	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	480	120	587	1103	0.435	479	604	0.5	0.8	5.875	A
B	724	181	387	1826	0.396	723	679	0.5	0.7	3.309	A
C	774	194	421	1094	0.708	770	688	1.4	2.4	11.248	B

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	588	147	707	1020	0.576	586	736	0.8	1.4	8.402	A
B	886	222	473	1758	0.504	885	820	0.7	1.0	4.174	A
C	948	237	516	1048	0.955	928	842	2.4	7.4	27.145	D

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	588	147	720	1012	0.581	588	741	1.4	1.4	8.652	A
B	886	222	474	1757	0.505	886	833	1.0	1.0	4.194	A
C	948	237	516	1048	0.965	944	844	7.4	8.2	33.434	D

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	480	120	607	1089	0.441	482	612	1.4	0.8	6.072	A
B	724	181	389	1824	0.397	725	700	1.0	0.7	3.326	A
C	774	194	422	1093	0.708	797	692	8.2	2.6	13.305	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	402	101	497	1164	0.345	403	509	0.8	0.5	4.831	A
B	606	152	325	1874	0.323	607	575	0.7	0.5	2.881	A
C	648	162	354	1127	0.575	653	579	2.6	1.4	7.864	A

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.76	12.51	3.1	B	762	1142
B	0.59	4.59	1.5	A	981	1472
C	0.58	8.29	1.4	A	520	780

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	625	156	294	1304	0.479	621	454	0.0	0.9	5.403	A
B	805	201	120	2035	0.396	802	794	0.0	0.7	3.023	A
C	427	107	323	1141	0.374	424	600	0.0	0.6	5.119	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	746	187	352	1264	0.590	744	543	0.9	1.5	7.105	A
B	961	240	144	2016	0.477	960	952	0.7	0.9	3.533	A
C	510	127	386	1111	0.459	509	718	0.6	0.9	6.109	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	914	228	430	1210	0.755	908	665	1.5	3.0	12.014	B
B	1177	294	176	1992	0.591	1175	1162	0.9	1.5	4.564	A
C	624	156	473	1069	0.584	622	878	0.9	1.4	8.207	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	914	228	432	1209	0.756	914	666	3.0	3.1	12.506	B
B	1177	294	177	1991	0.591	1177	1168	1.5	1.5	4.592	A
C	624	156	474	1068	0.584	624	881	1.4	1.4	8.292	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	746	187	354	1262	0.591	752	545	3.1	1.5	7.358	A
B	961	240	146	2015	0.477	963	961	1.5	1.0	3.558	A
C	510	127	388	1110	0.459	512	722	1.4	0.9	6.181	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	625	156	296	1302	0.480	627	456	1.5	1.0	5.512	A
B	805	201	122	2034	0.396	806	801	1.0	0.7	3.045	A
C	427	107	324	1141	0.374	428	603	0.9	0.6	5.176	A

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.64	10.35	1.7	B	517	775
B	0.54	4.50	1.2	A	786	1180
C	1.60	32.05	23.4	F	858	1287

Main Results for each time segment

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	424	106	539	1136	0.373	421	539	0.0	0.6	5.124	A
B	645	161	325	1874	0.344	643	636	0.0	0.5	2.959	A
C	704	176	381	1113	0.632	697	587	0.0	1.7	8.732	A

16:55 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	506	127	645	1063	0.476	505	645	0.6	0.9	6.562	A
B	770	193	389	1824	0.422	770	760	0.5	0.7	3.459	A
C	841	210	456	1077	0.781	834	703	1.7	3.4	14.782	B

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	620	155	756	987	0.628	617	779	0.9	1.7	9.842	A
B	944	236	475	1756	0.537	942	898	0.7	1.2	4.476	A
C	1029	257	558	1027	1.002	977	859	3.4	16.5	49.560	E

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	620	155	775	974	0.636	620	786	1.7	1.7	10.347	B
B	944	236	478	1754	0.538	944	917	1.2	1.2	4.503	A
C	1029	257	559	1027	1.003	1002	862	16.5	20.4	82.647	F

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	506	127	709	1019	0.497	509	667	1.7	1.0	7.242	A
B	770	193	392	1821	0.423	772	826	1.2	0.7	3.487	A
C	841	210	458	1076	0.781	918	707	23.4	4.0	31.842	D

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	424	106	551	1127	0.376	425	545	1.0	0.6	5.242	A
B	645	161	328	1872	0.345	646	649	0.7	0.5	2.981	A
C	704	176	383	1112	0.633	713	591	4.0	1.8	9.430	A

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.70	10.05	2.3	C	702	1053
B	0.57	4.22	1.4	A	966	1450
C	0.43	6.02	0.8	A	385	577

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	576	144	292	1305	0.441	573	340	0.0	0.8	5.043	A
B	793	198	74	2072	0.383	790	791	0.0	0.6	2.909	A
C	315	79	318	1144	0.276	314	546	0.0	0.4	4.421	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	688	172	350	1265	0.544	686	407	0.8	1.2	6.387	A
B	947	237	89	2060	0.460	946	948	0.6	0.9	3.349	A
C	377	94	381	1113	0.338	376	654	0.4	0.5	4.982	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	842	211	429	1211	0.695	838	498	1.2	2.3	9.824	A
B	1160	290	108	2045	0.567	1158	1158	0.9	1.3	4.203	A
C	461	115	466	1072	0.430	460	800	0.5	0.8	5.999	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	842	211	430	1211	0.696	842	499	2.3	2.3	10.051	B
B	1160	290	109	2044	0.567	1160	1163	1.3	1.4	4.222	A
C	461	115	467	1071	0.431	461	802	0.8	0.8	6.022	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	688	172	352	1264	0.544	692	408	2.3	1.2	6.531	A
B	947	237	90	2060	0.460	949	954	1.4	0.9	3.367	A
C	377	94	382	1113	0.339	378	656	0.8	0.5	5.005	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	576	144	294	1303	0.442	578	341	1.2	0.8	5.122	A
B	793	198	75	2071	0.383	794	797	0.9	0.6	2.926	A
C	315	79	320	1143	0.276	316	549	0.5	0.4	4.447	A

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.26	5.08	0.3	A	207	311
B	0.46	3.29	0.9	A	781	1171
C	0.83	21.15	4.8	C	714	1071

Main Results for each time segment

16:45 - 16:55

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	170	43	528	1143	0.149	169	432	0.0	0.2	3.770	A
B	641	160	74	2072	0.309	639	623	0.0	0.5	2.544	A
C	586	146	379	1114	0.526	581	334	0.0	1.1	6.900	A

16:55 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	203	51	633	1071	0.190	203	517	0.2	0.2	4.227	A
B	765	191	89	2060	0.371	764	747	0.5	0.6	2.815	A
C	699	175	454	1078	0.649	697	400	1.1	1.8	9.644	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	249	62	769	978	0.254	248	632	0.2	0.3	5.027	A
B	937	234	109	2045	0.458	936	908	0.6	0.9	3.289	A
C	857	214	555	1029	0.833	846	489	1.8	4.6	19.220	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	249	62	778	972	0.256	249	634	0.3	0.3	5.075	A
B	937	234	109	2044	0.458	937	917	0.9	0.9	3.295	A
C	857	214	556	1028	0.833	856	490	4.6	4.8	21.147	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	203	51	646	1062	0.191	204	520	0.3	0.2	4.277	A
B	765	191	89	2060	0.371	766	760	0.9	0.6	2.822	A
C	699	175	455	1078	0.649	711	401	4.8	2.0	10.406	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	170	43	535	1138	0.149	170	434	0.2	0.2	3.796	A
B	641	160	75	2071	0.309	641	631	0.6	0.5	2.554	A
C	586	146	381	1113	0.526	589	335	2.0	1.2	7.110	A

2031 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	6.63	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D31	2031 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	768	100.000
B		ONE HOUR	✓	1069	100.000
C		ONE HOUR	✓	421	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0	670	98
	B	425	5	639
	C	34	386	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A	B	C
	A	0	3	3
	B	5	0	3
	C	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.70	10.18	2.4	B	705	1057
B	0.58	4.31	1.4	A	981	1472
C	0.43	6.08	0.8	A	386	580

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	578	145	294	1304	0.444	575	344	0.0	0.8	5.066	A
B	805	201	74	2072	0.389	802	795	0.0	0.7	2.936	A
C	317	79	323	1141	0.278	315	554	0.0	0.4	4.440	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	690	173	352	1264	0.546	689	412	0.8	1.2	6.431	A
B	961	240	89	2060	0.467	960	952	0.7	0.9	3.393	A
C	378	95	386	1111	0.341	378	663	0.4	0.5	5.012	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	846	211	431	1210	0.699	841	505	1.2	2.3	9.946	A
B	1177	294	108	2045	0.576	1175	1164	0.9	1.4	4.287	A
C	464	116	473	1069	0.434	463	811	0.5	0.8	6.053	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	846	211	432	1209	0.699	845	505	2.3	2.4	10.182	B
B	1177	294	109	2044	0.576	1177	1168	1.4	1.4	4.308	A
C	464	116	474	1068	0.434	464	813	0.8	0.8	6.076	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	690	173	354	1263	0.547	695	413	2.4	1.3	6.579	A
B	961	240	90	2060	0.467	963	959	1.4	0.9	3.414	A
C	378	95	388	1110	0.341	379	665	0.8	0.5	5.037	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	578	145	296	1302	0.444	580	346	1.3	0.8	5.144	A
B	805	201	75	2071	0.389	806	801	0.9	0.7	2.954	A
C	317	79	324	1141	0.278	318	556	0.5	0.4	4.466	A

2031 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	12.10	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 segment length (min)	Run automatically
D32	2031 Base + Committed Development + Proposed Development + Phase 1 A29 Scheme	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	228	100.000
B		ONE HOUR	✓	857	100.000
C		ONE HOUR	✓	794	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0	130	98
	B	498	10	349
	C	81	712	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A	B	C
	A	0	2	2
	B	1	0	2
	C	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A	0.26	5.18	0.4	A	209	314
B	0.46	3.31	0.9	A	786	1180
C	0.53	23.58	5.4	C	729	1093

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	172	43	540	1135	0.151	171	434	0.0	0.2	3.807	A
B	645	161	74	2072	0.311	643	637	0.0	0.5	2.552	A
C	598	149	381	1113	0.537	593	336	0.0	1.2	7.067	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	205	51	647	1062	0.193	205	520	0.2	0.2	4.284	A
B	770	193	89	2060	0.374	770	763	0.5	0.6	2.827	A
C	714	178	456	1077	0.663	711	402	1.2	2.0	10.041	B

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	251	63	785	967	0.260	251	636	0.2	0.4	5.120	A
B	944	236	109	2045	0.462	943	927	0.6	0.9	3.309	A
C	874	219	559	1027	0.851	862	493	2.0	5.1	20.981	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	251	63	795	960	0.261	251	637	0.4	0.4	5.176	A
B	944	236	109	2044	0.462	944	937	0.9	0.9	3.315	A
C	874	219	559	1027	0.851	873	493	5.1	5.4	23.582	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	205	51	662	1051	0.195	205	522	0.4	0.2	4.342	A
B	770	193	89	2060	0.374	771	778	0.9	0.6	2.836	A
C	714	178	457	1076	0.663	727	403	5.4	2.1	11.004	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	172	43	547	1130	0.152	172	437	0.2	0.2	3.836	A
B	645	161	75	2071	0.311	646	645	0.6	0.5	2.562	A
C	598	149	383	1112	0.537	601	338	2.1	1.2	7.302	A

Junctions 9									
ARCADY 9 - Roundabout Module									
Version: 9.5.2.1013 © Copyright TRL Limited, 2019									
For sales and distribution information, program advice and maintenance, contact TRL: + [REDACTED]									
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution									

Filename: Saltbox (No Systra Mitigation).j9

Path: C:\Users\JosephTucker\OneDrive - Highgate Transportation\Shared Documents - HTp\2400 - Projects\2401 - Woodgate QW3\Modelling\Junctions 9\Saltbox

Report generation date: 02/07/2024 12:25:14

»2024 Base, AM
 »2024 Base, PM
 »2024 Base + Com Dev, AM
 »2024 Base + Com Dev, PM
 »2024 Base + Prop Dev, AM
 »2024 Base + Prop Dev, PM
 »2024 Base + Com Dev + Prop Dev, AM
 »2024 Base + Com Dev + Prop Dev, PM
 »2028 Base, AM
 »2028 Base, PM
 »2028 Base + Com Dev, AM
 »2028 Base + Com Dev, PM
 »2028 Base + Prop Dev, AM
 »2028 Base + Prop Dev, PM
 »2028 Base + Com Dev + Prop Dev, AM
 »2028 Base + Com Dev + Prop Dev, PM
 »2031 Base, AM
 »2031 Base, PM
 »2031 Base + Com Dev, AM
 »2031 Base + Com Dev, PM
 »2031 Base + Prop Dev, AM
 »2031 Base + Prop Dev, PM
 »2031 Base + Com Dev + Prop Dev, AM
 »2031 Base + Com Dev + Prop Dev, PM

Summary of junction performance

	AM						PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS		Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Base										
Arm 1	D1	0.6	3.44	0.37	A		D2	1.0	4.40	0.49	A
Arm 2		5.5	17.70	0.85	C			3.8	13.12	0.79	B
Arm 3		0.3	7.69	0.17	A			0.4	8.25	0.29	A
Arm 4		2.7	6.34	0.72	A			3.8	8.15	0.79	A
Arm 5		0.7	10.52	0.39	B			0.9	14.71	0.48	B
	2024 Base + Com Dev										
Arm 1	D3	0.8	3.73	0.42	A		D4	1.1	4.68	0.52	A
Arm 2		7.1	22.97	0.88	C			4.4	15.04	0.81	C
Arm 3		0.3	8.30	0.19	A			0.5	8.81	0.31	A
Arm 4		2.9	6.75	0.74	A			4.5	9.46	0.82	A
Arm 5		0.7	11.15	0.41	B			1.1	17.11	0.51	C
	2024 Base + Prop Dev										
Arm 1	D5	0.7	3.52	0.39	A		D6	1.0	4.48	0.50	A
Arm 2		5.9	18.98	0.88	C			3.9	13.55	0.80	B
Arm 3		0.3	7.85	0.18	A			0.5	8.38	0.30	A
Arm 4		2.7	6.44	0.72	A			3.9	8.37	0.79	A
Arm 5		0.7	10.70	0.40	B			0.9	14.97	0.48	B
	2024 Base + Com Dev + Prop Dev										
Arm 1		0.8	3.80	0.44	A			1.1	4.76	0.53	A
Arm 2		7.8	25.16	0.89	C			4.5	15.53	0.82	C

Arm 3	D7	0.3	8.53	0.20	A	D8	0.5	8.94	0.31	A
Arm 4		3.0	6.87	0.74	A		4.7	9.74	0.82	A
Arm 5		0.7	11.36	0.41	B		1.1	17.61	0.52	C
2028 Base										
Arm 1	D9	0.7	3.61	0.39	A	D10	1.1	4.75	0.52	A
Arm 2		7.5	23.58	0.88	C		4.8	16.15	0.83	C
Arm 3		0.3	8.25	0.19	A		0.5	9.06	0.32	A
Arm 4		3.1	7.04	0.75	A		4.5	9.46	0.82	A
Arm 5		0.8	11.69	0.42	B		1.1	17.05	0.52	C
2028 Base + Com Dev										
Arm 1	D11	0.8	3.93	0.44	A	D12	1.2	5.06	0.54	A
Arm 2		10.3	32.72	0.92	C		5.6	18.95	0.88	C
Arm 3		0.3	8.94	0.21	A		0.6	9.69	0.34	A
Arm 4		3.3	7.52	0.76	A		5.5	11.28	0.85	B
Arm 5		0.8	12.48	0.44	B		1.3	20.72	0.57	C
2028 Base + Prop Dev										
Arm 1	D13	0.7	3.69	0.41	A	D14	1.1	4.83	0.52	A
Arm 2		8.1	25.60	0.90	D		4.9	16.72	0.83	C
Arm 3		0.3	8.42	0.19	A		0.5	9.20	0.33	A
Arm 4		3.1	7.15	0.75	A		4.7	9.74	0.82	A
Arm 5		0.8	11.88	0.43	B		1.1	17.64	0.53	C
2028 Base + Com Dev + Prop Dev										
Arm 1	D15	0.9	4.01	0.46	A	D16	1.3	5.17	0.55	A
Arm 2		11.5	36.56	0.95	E		5.9	19.84	0.86	C
Arm 3		0.3	9.14	0.21	A		0.6	9.89	0.35	A
Arm 4		3.4	7.65	0.77	A		5.7	11.70	0.88	B
Arm 5		0.8	12.66	0.45	B		1.4	21.66	0.58	C
2031 Base										
Arm 1	D17	0.7	3.76	0.41	A	D18	1.2	5.09	0.54	A
Arm 2		10.1	31.41	0.92	D		6.0	20.13	0.88	C
Arm 3		0.3	8.75	0.20	A		0.6	9.87	0.35	A
Arm 4		3.5	7.72	0.77	A		5.4	11.05	0.84	B
Arm 5		0.9	12.84	0.45	B		1.3	20.26	0.57	C
2031 Base + Com Dev										
Arm 1	D19	0.9	4.11	0.46	A	D20	1.3	5.46	0.57	A
Arm 2		15.2	48.41	0.96	E		7.4	24.54	0.89	C
Arm 3		0.3	9.49	0.22	A		0.6	10.61	0.37	B
Arm 4		3.8	8.29	0.78	A		6.8	13.54	0.87	B
Arm 5		0.9	13.80	0.47	B		1.6	25.38	0.63	C
2031 Base + Prop Dev										
Arm 1	D21	0.8	3.85	0.42	A	D22	1.2	5.18	0.55	A
Arm 2		11.2	34.77	0.90	D		6.3	21.11	0.87	C
Arm 3		0.3	8.93	0.21	A		0.6	10.05	0.35	B
Arm 4		3.5	7.85	0.77	A		5.6	11.45	0.85	B
Arm 5		0.9	13.09	0.46	B		1.4	21.02	0.58	C
2031 Base + Com Dev + Prop Dev										
Arm 1	D23	0.9	4.20	0.48	A	D24	1.4	5.57	0.58	A
Arm 2		17.5	52.64	0.97	F		7.8	25.86	0.89	D
Arm 3		0.3	9.71	0.23	A		0.6	10.82	0.37	B
Arm 4		3.9	8.47	0.79	A		7.1	14.14	0.88	B
Arm 5		0.9	14.05	0.48	B		1.7	26.68	0.64	D

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

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

File summary

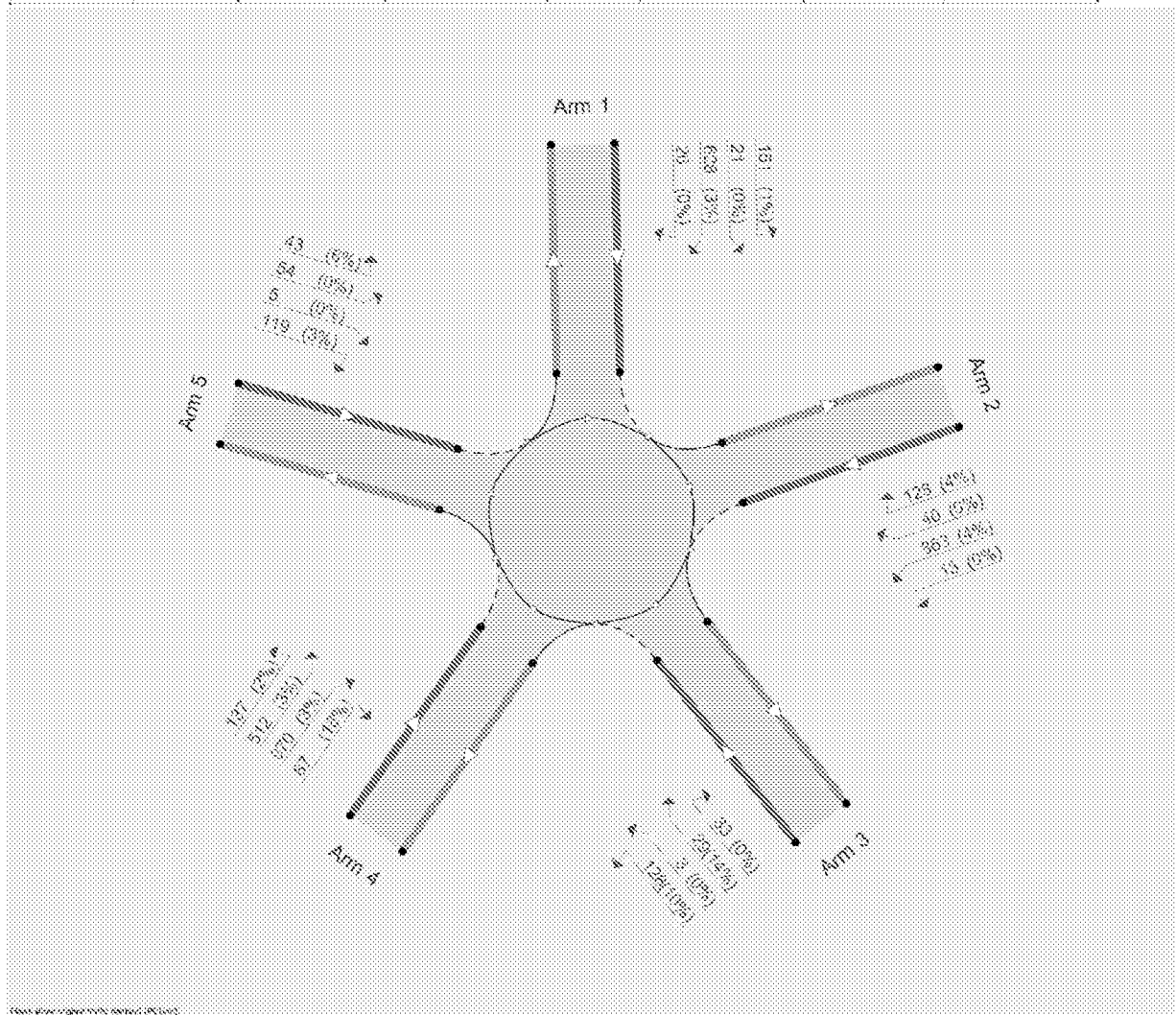
File Description

Title	
Location	
Site number	
Date	07/06/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\AliceHowse

Description

Units

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



Click above legend to view legend PCU Unit.

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 segment length (min)	Run automatically
D1	2024 Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2024 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2024 Base + Com Dev	AM	ONE HOUR	07:45	09:15	15	✓
D4	2024 Base + Com Dev	PM	ONE HOUR	15:45	17:15	15	✓
D5	2024 Base + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2024 Base + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓
D7	2024 Base + Com Dev + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓
D8	2024 Base + Com Dev + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓
D9	2028 Base	AM	ONE HOUR	07:45	09:15	15	✓
D10	2028 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2028 Base + Com Dev	AM	ONE HOUR	07:45	09:15	15	✓
D12	2028 Base + Com Dev	PM	ONE HOUR	15:45	17:15	15	✓
D13	2028 Base + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓

D14	2028 Base + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓
D15	2028 Base + Com Dev + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓
D16	2028 Base + Com Dev + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓
D17	2031 Base	AM	ONE HOUR	07:45	09:15	15	✓
D18	2031 Base	PM	ONE HOUR	15:45	17:15	15	✓
D19	2031 Base + Com Dev	AM	ONE HOUR	07:45	09:15	15	✓
D20	2031 Base + Com Dev	PM	ONE HOUR	15:45	17:15	15	✓
D21	2031 Base + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓
D22	2031 Base + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓
D23	2031 Base + Com Dev + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓
D24	2031 Base + Com Dev + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

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

2024 Base, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	9.70	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A29 (N)	A29 (N)
2	A259 (E)	A259 (E)
3	Newlands Road	Newlands Road
4	A29 (S)	A29 (S)
5	Saltbox	Saltbox

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	7.23	9.28	4.4	34.5	59.8	18.5	
2	4.71	6.27	21.5	16.1	59.8	18.0	
3	4.97	6.21	3.1	14.0	59.8	24.0	
4	7.20	7.20	0.0	19.8	59.8	10.0	
5	3.61	4.91	5.4	15.4	59.8	13.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.728	2588
2	0.595	1865
3	0.553	1670
4	0.686	2332
5	0.513	1372

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	593	100.000
2		ONE HOUR	✓	1059	100.000

3	ONE HOUR	✓	109	100.000
4	ONE HOUR	✓	1405	100.000
5	ONE HOUR	✓	207	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	84	34	446	29
	2	122	0	30	845	62
	3	14	11	0	83	1
	4	389	742	121	0	153
	5	36	58	5	108	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	7	15	4	0
	2	10	0	8	6	2
	3	67	11	0	18	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.37	3.44	0.6	2.9	A	544	816
2	0.85	17.70	5.5	28.4	C	972	1458
3	0.17	7.69	0.3	0.6	A	100	150
4	0.72	6.34	2.7	5.4	A	1289	1934
5	0.39	10.52	0.7	3.1	B	190	285

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	446	112	784	2017	0.221	445	421	0.0	0.3	2.399	A
2	797	199	557	1533	0.520	793	671	0.0	1.1	5.137	A
3	82	21	1208	1002	0.082	82	142	0.0	0.1	4.753	A
4	1058	264	179	2209	0.479	1054	1110	0.0	1.0	3.310	A
5	156	39	1049	834	0.187	155	184	0.0	0.2	5.486	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	533	133	938	1905	0.280	533	503	0.3	0.4	2.750	A
2	952	238	667	1468	0.649	949	803	1.1	1.9	7.328	A
3	98	24	1446	871	0.113	98	171	0.1	0.2	5.662	A
4	1263	316	214	2185	0.578	1261	1329	1.0	1.4	4.145	A
5	186	47	1256	729	0.255	186	220	0.2	0.4	6.870	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service

1	653	163	1147	1753	0.373	652	615	0.4	0.6	3.428	A
2	1166	291	816	1379	0.845	1153	982	1.9	5.2	16.040	C
3	120	30	1761	696	0.172	120	208	0.2	0.3	7.585	A
4	1547	387	261	2153	0.718	1542	1620	1.4	2.7	6.229	A
5	228	57	1534	586	0.389	227	268	0.4	0.6	10.367	B

08:38 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	653	163	1150	1750	0.373	653	617	0.6	0.6	3.438	A
2	1166	291	818	1378	0.846	1165	985	5.2	5.5	17.699	C
3	120	30	1774	689	0.174	120	209	0.3	0.3	7.691	A
4	1547	387	263	2152	0.719	1547	1631	2.7	2.7	6.339	A
5	228	57	1540	583	0.391	228	270	0.6	0.7	10.518	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	533	133	943	1900	0.281	534	508	0.6	0.4	2.763	A
2	952	238	670	1466	0.649	966	808	5.5	2.0	7.848	A
3	98	24	1464	860	0.114	98	172	0.3	0.2	5.748	A
4	1263	316	217	2183	0.579	1268	1345	2.7	1.5	4.215	A
5	186	47	1264	725	0.257	187	222	0.7	0.4	6.967	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	446	112	788	2013	0.222	447	423	0.4	0.3	2.408	A
2	797	199	560	1531	0.521	801	675	2.0	1.2	5.257	A
3	82	21	1217	997	0.082	82	143	0.2	0.1	4.789	A
4	1058	264	181	2208	0.479	1060	1119	1.5	1.0	3.345	A
5	156	39	1055	831	0.187	156	185	0.4	0.2	5.538	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2	1.14	0.58	1.06	1.49	1.54			N/A	N/A
3	0.11	0.00	0.00	0.11	0.11			N/A	N/A
4	0.97	0.59	1.07	1.49	1.55			N/A	N/A
5	0.24	0.00	0.00	0.24	0.24			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2	1.92	0.05	0.52	5.06	8.01			N/A	N/A
3	0.15	0.00	0.00	0.15	0.15			N/A	N/A
4	1.44	0.05	0.53	3.57	5.43			N/A	N/A
5	0.35	0.00	0.00	0.35	0.35			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.62	0.03	0.26	0.62	0.62			N/A	N/A
2	5.21	0.04	0.37	11.46	28.42			N/A	N/A
3	0.25	0.03	0.31	0.56	0.59			N/A	N/A
4	2.66	0.03	0.29	2.66	3.34			N/A	N/A
5	0.65	0.03	0.27	0.65	0.65			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.62	0.03	0.31	1.48	2.93			N/A	N/A
2	5.50	0.03	0.32	5.50	23.43			N/A	N/A
3	0.25	0.03	0.31	0.56	0.59			N/A	N/A
4	2.69	0.03	0.28	2.69	2.69			N/A	N/A

5	0.66	0.03	0.32	1.16	3.08			N/A	N/A
---	------	------	------	------	------	--	--	-----	-----

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2	2.01	0.05	0.49	5.39	8.88			N/A	N/A
3	0.16	0.00	0.00	0.16	0.16			N/A	N/A
4	1.48	0.11	1.20	2.79	3.66			N/A	N/A
5	0.36	0.00	0.00	0.36	0.36			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2	1.17	0.04	0.35	2.65	5.87			N/A	N/A
3	0.11	0.00	0.00	0.11	0.11			N/A	N/A
4	0.99	0.06	0.59	2.01	2.93			N/A	N/A
5	0.24	0.00	0.00	0.24	0.24			N/A	N/A

2024 Base, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	9.11	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2024 Base	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	724	100.000
2		ONE HOUR	✓	968	100.000
3		ONE HOUR	✓	179	100.000
4		ONE HOUR	✓	1546	100.000
5		ONE HOUR	✓	207	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1	2	3	4	5	
From	1	0	133	17	551	23
	2	109	0	12	810	37
	3	26	30	0	120	3
	4	426	911	81	0	128
	5	40	51	5	111	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	15	0	0	10	0
	4	4	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.49	4.40	1.0	2.5	A	664	997
2	0.79	13.12	3.8	17.3	B	888	1332
3	0.29	8.25	0.4	1.5	A	164	246
4	0.79	8.15	3.8	12.3	A	1419	2128
5	0.48	14.71	0.9	4.5	B	190	285

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	545	136	891	1938	0.281	543	450	0.0	0.4	2.642	A
2	729	182	591	1513	0.482	725	844	0.0	1.0	4.719	A
3	135	34	1230	990	0.136	134	86	0.0	0.2	4.564	A
4	1164	291	171	2215	0.526	1159	1193	0.0	1.1	3.527	A
5	156	39	1187	764	0.204	155	143	0.0	0.3	6.062	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	651	163	1067	1811	0.359	650	539	0.4	0.6	3.177	A
2	870	218	707	1444	0.603	868	1010	1.0	1.5	6.458	A
3	161	40	1472	856	0.188	161	103	0.2	0.2	5.623	A
4	1390	347	204	2192	0.634	1387	1428	1.1	1.8	4.630	A
5	186	47	1420	644	0.289	185	171	0.3	0.4	8.051	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	797	199	1302	1639	0.486	796	658	0.6	1.0	4.365	A
2	1066	266	865	1350	0.789	1057	1233	1.5	3.7	12.413	B
3	197	49	1796	677	0.291	196	126	0.2	0.4	8.130	A
4	1702	426	249	2161	0.788	1694	1743	1.8	3.7	7.885	A
5	228	57	1735	483	0.472	226	209	0.4	0.9	14.278	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	797	199	1309	1634	0.488	797	662	1.0	1.0	4.405	A
2	1066	266	868	1349	0.790	1065	1238	3.7	3.8	13.124	B
3	197	49	1806	671	0.294	197	127	0.4	0.4	8.251	A
4	1702	426	251	2160	0.788	1702	1752	3.7	3.8	8.145	A
5	228	57	1743	479	0.476	228	210	0.9	0.9	14.707	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	651	163	1076	1804	0.361	652	544	1.0	0.6	3.208	A
2	870	218	711	1442	0.604	879	1017	3.8	1.6	6.740	A
3	161	40	1486	848	0.190	162	104	0.4	0.3	5.706	A
4	1390	347	207	2190	0.635	1398	1441	3.8	1.8	4.759	A
5	186	47	1431	639	0.291	188	173	0.9	0.4	8.243	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	545	136	897	1934	0.282	546	454	0.6	0.4	2.659	A
2	729	182	594	1511	0.482	731	849	1.6	1.0	4.808	A
3	135	34	1239	985	0.137	135	87	0.3	0.2	4.604	A
4	1164	291	172	2214	0.526	1167	1202	1.8	1.2	3.576	A

5	156	39	1195	760	0.205	156	144	0.4	0.3	6.134	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2	0.95	0.57	1.04	1.45	1.50			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	1.14	0.57	1.04	1.45	1.51			N/A	N/A
5	0.26	0.00	0.00	0.26	0.26			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.57	0.07	0.70	1.37	1.45			N/A	N/A
2	1.55	0.05	0.55	3.87	5.92			N/A	N/A
3	0.25	0.00	0.00	0.25	0.25			N/A	N/A
4	1.77	0.05	0.46	4.73	7.79			N/A	N/A
5	0.41	0.00	0.00	0.41	0.41			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.96	0.03	0.26	0.96	0.96			N/A	N/A
2	3.65	0.03	0.32	4.29	17.29			N/A	N/A
3	0.44	0.03	0.28	0.50	0.53			N/A	N/A
4	3.70	0.03	0.30	3.70	12.30			N/A	N/A
5	0.89	0.03	0.27	0.89	0.89			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.97	0.03	0.28	0.97	2.46			N/A	N/A
2	3.78	0.03	0.29	3.78	9.92			N/A	N/A
3	0.45	0.04	0.36	1.43	1.51			N/A	N/A
4	3.78	0.03	0.28	3.78	3.78			N/A	N/A
5	0.92	0.03	0.31	1.43	4.50			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.58	0.56	1.02	1.43	1.49			N/A	N/A
2	1.61	0.06	0.66	3.99	6.02			N/A	N/A
3	0.26	0.00	0.00	0.26	0.26			N/A	N/A
4	1.83	0.07	1.01	4.32	6.20			N/A	N/A
5	0.43	0.03	0.33	1.08	1.31			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2	0.98	0.04	0.38	2.39	4.36			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	1.16	0.04	0.43	2.91	4.80			N/A	N/A
5	0.27	0.03	0.26	0.48	0.50			N/A	N/A

2024 Base + Com Dev, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	11.44	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 Base + Com Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	671	100.000
2		ONE HOUR	✓	1066	100.000
3		ONE HOUR	✓	111	100.000
4		ONE HOUR	✓	1432	100.000
5		ONE HOUR	✓	208	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	93	36	510	32
	2	129	0	30	845	62
	3	14	11	0	85	1
	4	413	745	121	0	153
	5	37	58	5	108	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	6	14	4	0
	2	9	0	8	6	2
	3	64	11	0	17	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.42	3.73	0.8	3.1	A	616	924
2	0.88	22.97	7.1	35.8	C	978	1467
3	0.19	8.30	0.3	0.8	A	102	153
4	0.74	6.75	2.9	6.0	A	1314	1971
5	0.41	11.15	0.7	3.4	B	191	286

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	505	126	786	2015	0.251	504	444	0.0	0.3	2.488	A
2	803	201	609	1502	0.534	798	680	0.0	1.2	5.389	A
3	84	21	1263	972	0.086	83	144	0.0	0.1	4.881	A
4	1078	270	186	2204	0.489	1074	1160	0.0	1.0	3.381	A
5	157	39	1075	821	0.191	156	186	0.0	0.2	5.600	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	603	151	940	1903	0.317	603	532	0.3	0.5	2.894	A
2	958	240	729	1431	0.670	955	814	1.2	2.1	7.965	A
3	100	25	1512	834	0.120	100	172	0.1	0.2	5.904	A
4	1287	322	223	2179	0.591	1285	1388	1.0	1.5	4.283	A
5	187	47	1286	713	0.262	186	222	0.2	0.4	7.086	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	739	185	1149	1750	0.422	738	649	0.5	0.8	3.714	A
2	1174	293	892	1334	0.885	1156	995	2.1	6.6	19.732	C
3	122	31	1837	654	0.187	122	210	0.2	0.3	8.146	A
4	1577	394	271	2146	0.735	1571	1688	1.5	2.9	6.610	A
5	229	57	1571	567	0.404	228	271	0.4	0.7	10.961	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	739	185	1154	1747	0.423	739	653	0.8	0.8	3.731	A
2	1174	293	894	1333	0.881	1172	999	6.6	7.1	22.974	C
3	122	31	1854	645	0.190	122	211	0.3	0.3	8.304	A
4	1577	394	274	2144	0.735	1576	1703	2.9	2.9	6.750	A
5	229	57	1577	564	0.406	229	273	0.7	0.7	11.151	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	603	151	947	1898	0.318	604	537	0.8	0.5	2.913	A
2	958	240	732	1429	0.671	978	819	7.1	2.2	8.814	A
3	100	25	1536	821	0.122	100	174	0.3	0.2	6.028	A
4	1287	322	227	2176	0.592	1293	1409	2.9	1.6	4.369	A
5	187	47	1296	708	0.264	188	225	0.7	0.4	7.199	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	505	126	791	2012	0.251	506	448	0.5	0.4	2.500	A
2	803	201	612	1500	0.535	806	684	2.2	1.2	5.537	A
3	84	21	1274	966	0.087	84	145	0.2	0.1	4.920	A
4	1078	270	188	2203	0.489	1080	1169	1.6	1.0	3.425	A

5	157	39	1081	818	0.191	157	187	0.4	0.2	5.656	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.35	0.00	0.00	0.35	0.35			N/A	N/A
2	1.20	0.59	1.11	1.54	1.54			N/A	N/A
3	0.11	0.00	0.00	0.11	0.11			N/A	N/A
4	1.01	0.59	1.07	1.49	1.54			N/A	N/A
5	0.24	0.00	0.00	0.24	0.24			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.48	0.00	0.00	0.48	0.48			N/A	N/A
2	2.10	0.05	0.51	5.63	9.06			N/A	N/A
3	0.16	0.00	0.00	0.16	0.16			N/A	N/A
4	1.52	0.05	0.51	3.85	5.98			N/A	N/A
5	0.36	0.00	0.00	0.36	0.36			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.76	0.03	0.26	0.76	0.76			N/A	N/A
2	6.56	0.04	0.44	17.66	35.33			N/A	N/A
3	0.27	0.03	0.31	0.56	0.59			N/A	N/A
4	2.87	0.03	0.29	2.87	4.96			N/A	N/A
5	0.69	0.03	0.27	0.69	0.69			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.76	0.03	0.30	1.02	3.07			N/A	N/A
2	7.09	0.04	0.35	11.74	36.85			N/A	N/A
3	0.28	0.03	0.32	0.58	0.79			N/A	N/A
4	2.92	0.03	0.28	2.92	2.92			N/A	N/A
5	0.70	0.03	0.32	1.21	3.37			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.49	0.00	0.00	0.49	0.49			N/A	N/A
2	2.22	0.05	0.45	6.04	10.46			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	1.56	0.09	1.18	3.09	4.16			N/A	N/A
5	0.38	0.00	0.00	0.38	0.38			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.35	0.00	0.00	0.35	0.35			N/A	N/A
2	1.24	0.03	0.34	2.38	6.30			N/A	N/A
3	0.11	0.00	0.00	0.11	0.11			N/A	N/A
4	1.03	0.05	0.52	2.21	3.29			N/A	N/A
5	0.25	0.03	0.26	0.47	0.49			N/A	N/A

2024 Base + Com Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	10.33	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 Base + Com Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	768	100.000
2		ONE HOUR	✓	979	100.000
3		ONE HOUR	✓	182	100.000
4		ONE HOUR	✓	1596	100.000
5		ONE HOUR	✓	207	100.000

Origin-Destination Data

Demand (PCU/hr)

		To					
From		1	2	3	4	5	
	1	0	140	20	584	24	
	2	119	0	12	811	37	
	3	28	31	0	120	3	
	4	475	911	82	0	128	
	5	40	51	5	111	0	

Vehicle Mix

Heavy Vehicle Percentages

		To					
From		1	2	3	4	5	
	1	0	1	0	3	0	
	2	4	0	0	4	0	
	3	14	0	0	10	0	
	4	3	3	16	0	2	
	5	6	0	0	3	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.52	4.68	1.1	2.0	A	705	1057
2	0.81	15.04	4.4	21.6	C	898	1348
3	0.31	8.81	0.5	1.8	A	167	251
4	0.82	9.46	4.5	18.7	A	1465	2197
5	0.51	17.11	1.1	5.2	C	190	285

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	578	145	893	1937	0.298	576	496	0.0	0.4	2.706	A
2	737	184	620	1496	0.493	733	849	0.0	1.0	4.871	A
3	137	34	1263	971	0.141	136	89	0.0	0.2	4.675	A
4	1202	300	181	2208	0.544	1197	1218	0.0	1.2	3.668	A
5	156	39	1234	740	0.211	155	144	0.0	0.3	6.310	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	690	173	1068	1810	0.382	690	594	0.4	0.6	3.292	A
2	880	220	741	1424	0.618	877	1017	1.0	1.6	6.808	A
3	164	41	1512	834	0.196	163	107	0.2	0.3	5.825	A
4	1435	359	217	2183	0.657	1432	1458	1.2	2.0	4.945	A
5	186	47	1477	615	0.302	185	172	0.3	0.4	8.574	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	846	211	1303	1638	0.516	844	724	0.6	1.1	4.631	A
2	1078	269	906	1326	0.813	1068	1241	1.6	4.2	13.970	B
3	200	50	1844	651	0.308	200	130	0.3	0.5	8.649	A
4	1757	439	264	2150	0.817	1747	1779	2.0	4.4	9.034	A
5	228	57	1802	449	0.508	226	210	0.4	1.0	16.407	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	846	211	1311	1633	0.518	846	729	1.1	1.1	4.684	A
2	1078	269	909	1324	0.814	1077	1247	4.2	4.4	15.038	C
3	200	50	1855	644	0.311	200	131	0.5	0.5	8.808	A
4	1757	439	266	2149	0.818	1757	1790	4.4	4.5	9.464	A
5	228	57	1812	444	0.514	228	211	1.0	1.1	17.111	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	690	173	1079	1802	0.383	692	600	1.1	0.6	3.328	A
2	880	220	746	1421	0.619	891	1025	4.4	1.7	7.178	A
3	164	41	1529	825	0.198	164	108	0.5	0.3	5.926	A
4	1435	359	220	2181	0.658	1445	1474	4.5	2.0	5.125	A
5	186	47	1490	608	0.306	188	174	1.1	0.5	8.859	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	578	145	899	1933	0.299	579	500	0.6	0.4	2.727	A
2	737	184	623	1494	0.493	740	855	1.7	1.0	4.972	A
3	137	34	1273	966	0.142	137	90	0.3	0.2	4.719	A
4	1202	300	183	2207	0.545	1205	1228	2.0	1.2	3.730	A

5	156	39	1242	735	0.212	157	145	0.5	0.3	6.398	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2	1.00	0.57	1.04	1.45	1.50			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	1.23	0.57	1.04	1.45	1.50			N/A	N/A
5	0.27	0.00	0.00	0.27	0.27			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.63	0.07	0.75	1.38	1.46			N/A	N/A
2	1.65	0.05	0.51	4.18	6.54			N/A	N/A
3	0.26	0.00	0.00	0.26	0.26			N/A	N/A
4	1.95	0.05	0.45	5.26	8.93			N/A	N/A
5	0.44	0.00	0.00	0.44	0.44			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.08	0.03	0.26	1.08	1.08			N/A	N/A
2	4.17	0.03	0.34	6.89	21.58			N/A	N/A
3	0.48	0.03	0.28	0.50	0.53			N/A	N/A
4	4.39	0.03	0.31	4.39	18.66			N/A	N/A
5	1.02	0.03	0.27	1.02	1.30			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.09	0.03	0.28	1.09	1.97			N/A	N/A
2	4.35	0.03	0.30	4.35	14.73			N/A	N/A
3	0.49	0.04	0.36	1.51	1.80			N/A	N/A
4	4.51	0.03	0.28	4.51	6.66			N/A	N/A
5	1.06	0.03	0.31	1.64	5.22			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.64	0.56	1.02	1.43	1.49			N/A	N/A
2	1.72	0.05	0.51	4.45	6.96			N/A	N/A
3	0.27	0.00	0.00	0.27	0.27			N/A	N/A
4	2.02	0.06	0.85	5.12	7.73			N/A	N/A
5	0.46	0.04	0.39	1.24	1.39			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.44	0.03	0.32	1.03	1.29			N/A	N/A
2	1.02	0.04	0.36	2.45	4.85			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	1.25	0.04	0.39	3.16	5.69			N/A	N/A
5	0.28	0.03	0.28	0.51	0.98			N/A	N/A

2024 Base + Prop Dev, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	10.12	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 Base + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	617	100.000
2		ONE HOUR	✓	1061	100.000
3		ONE HOUR	✓	109	100.000
4		ONE HOUR	✓	1412	100.000
5		ONE HOUR	✓	208	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1	2	3	4	5
From	1	0	88	35	464	30
	2	124	0	30	845	62
	3	14	11	0	83	1
	4	396	742	121	0	153
	5	37	58	5	108	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1	2	3	4	5
From	1	0	6	15	4	0
	2	10	0	8	6	2
	3	63	11	0	18	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.39	3.52	0.7	3.1	A	566	849
2	0.86	18.98	5.9	30.0	C	974	1460
3	0.18	7.85	0.3	0.6	A	100	150
4	0.72	6.44	2.7	5.6	A	1296	1944
5	0.40	10.70	0.7	3.2	B	191	286

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	465	116	783	2017	0.230	463	428	0.0	0.3	2.422	A
2	799	200	573	1524	0.524	794	674	0.0	1.2	5.209	A
3	82	21	1223	994	0.083	82	143	0.0	0.1	4.787	A
4	1063	266	181	2208	0.482	1059	1124	0.0	1.0	3.329	A
5	157	39	1056	831	0.188	156	184	0.0	0.2	5.521	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	555	139	938	1905	0.291	554	512	0.3	0.4	2.790	A
2	954	238	685	1457	0.655	951	807	1.2	2.0	7.504	A
3	98	24	1464	860	0.114	98	171	0.1	0.2	5.726	A
4	1269	317	217	2183	0.581	1267	1345	1.0	1.5	4.181	A
5	187	47	1264	725	0.258	187	221	0.2	0.4	6.935	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	679	170	1146	1753	0.388	678	625	0.4	0.7	3.503	A
2	1168	292	838	1366	0.855	1154	987	2.0	5.6	16.984	C
3	120	30	1783	684	0.175	120	209	0.2	0.3	7.730	A
4	1555	389	264	2151	0.723	1550	1638	1.5	2.7	6.327	A
5	229	57	1544	581	0.394	228	269	0.4	0.7	10.542	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	679	170	1150	1750	0.388	679	628	0.7	0.7	3.518	A
2	1168	292	840	1365	0.856	1167	990	5.6	5.9	18.984	C
3	120	30	1797	677	0.177	120	210	0.3	0.3	7.848	A
4	1555	389	266	2149	0.723	1554	1650	2.7	2.7	6.445	A
5	229	57	1550	578	0.396	229	271	0.7	0.7	10.702	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	555	139	944	1900	0.292	556	517	0.7	0.4	2.802	A
2	954	238	688	1456	0.655	969	811	5.9	2.1	8.098	A
3	98	24	1484	849	0.115	98	173	0.3	0.2	5.819	A
4	1269	317	220	2181	0.582	1274	1362	2.7	1.5	4.255	A
5	187	47	1272	720	0.260	188	223	0.7	0.4	7.037	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	465	116	788	2013	0.231	465	431	0.4	0.3	2.433	A
2	799	200	575	1522	0.525	802	678	2.1	1.2	5.339	A
3	82	21	1233	988	0.083	82	144	0.2	0.1	4.823	A
4	1063	266	183	2206	0.482	1065	1133	1.5	1.0	3.365	A

5	157	39	1062	828	0.189	157	186	0.4	0.2	5.571	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2	1.16	0.59	1.08	1.52	1.57			N/A	N/A
3	0.11	0.00	0.00	0.11	0.11			N/A	N/A
4	0.98	0.59	1.07	1.49	1.55			N/A	N/A
5	0.24	0.00	0.00	0.24	0.24			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2	1.97	0.05	0.52	5.19	8.28			N/A	N/A
3	0.15	0.00	0.00	0.15	0.15			N/A	N/A
4	1.46	0.05	0.52	3.65	5.59			N/A	N/A
5	0.36	0.00	0.00	0.36	0.36			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.66	0.03	0.26	0.66	0.66			N/A	N/A
2	5.55	0.04	0.39	13.08	30.29			N/A	N/A
3	0.26	0.03	0.31	0.56	0.59			N/A	N/A
4	2.71	0.03	0.29	2.71	3.75			N/A	N/A
5	0.66	0.03	0.27	0.66	0.66			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.66	0.03	0.31	1.39	3.06			N/A	N/A
2	5.89	0.03	0.33	6.02	26.85			N/A	N/A
3	0.26	0.03	0.31	0.56	0.59			N/A	N/A
4	2.75	0.03	0.28	2.75	2.75			N/A	N/A
5	0.67	0.03	0.32	1.18	3.18			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2	2.07	0.05	0.48	5.59	9.31			N/A	N/A
3	0.16	0.00	0.00	0.16	0.16			N/A	N/A
4	1.50	0.10	1.19	2.87	3.79			N/A	N/A
5	0.37	0.00	0.00	0.37	0.37			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2	1.19	0.03	0.35	2.58	5.99			N/A	N/A
3	0.11	0.00	0.00	0.11	0.11			N/A	N/A
4	1.00	0.05	0.57	2.05	3.02			N/A	N/A
5	0.24	0.00	0.00	0.24	0.24			N/A	N/A

2024 Base + Prop Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	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 segment length (min)	Run automatically
D6	2024 Base + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	736	100.000
2		ONE HOUR	✓	971	100.000
3		ONE HOUR	✓	179	100.000
4		ONE HOUR	✓	1555	100.000
5		ONE HOUR	✓	205	100.000

Origin-Destination Data

Demand (PCU/hr)

		To					
From		1	2	3	4	5	
	1	0	136	17	560	23	
	2	112	0	12	810	37	
	3	26	30	0	120	3	
	4	435	911	81	0	128	
	5	38	51	5	111	0	

Vehicle Mix

Heavy Vehicle Percentages

		To					
From		1	2	3	4	5	
	1	0	1	0	3	0	
	2	4	0	0	4	0	
	3	15	0	0	10	0	
	4	4	3	16	0	2	
	5	6	0	0	3	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.50	4.48	1.0	2.3	A	675	1013
2	0.80	13.55	3.9	18.2	B	891	1337
3	0.30	8.38	0.5	1.6	A	164	246
4	0.79	8.37	3.9	13.4	A	1427	2140
5	0.48	14.97	0.9	4.5	B	188	282

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	554	139	891	1938	0.286	552	458	0.0	0.4	2.657	A
2	731	183	598	1509	0.484	727	846	0.0	1.0	4.757	A
3	135	34	1239	985	0.137	134	86	0.0	0.2	4.593	A
4	1171	293	173	2213	0.529	1166	1200	0.0	1.2	3.552	A
5	154	39	1196	759	0.203	153	143	0.0	0.3	6.091	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	662	165	1067	1811	0.365	661	548	0.4	0.6	3.206	A
2	873	218	715	1439	0.607	870	1012	1.0	1.6	6.544	A
3	161	40	1483	850	0.189	161	103	0.2	0.3	5.671	A
4	1398	349	207	2190	0.638	1395	1436	1.2	1.8	4.689	A
5	184	46	1431	639	0.289	184	171	0.3	0.4	8.114	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	810	203	1302	1639	0.494	809	669	0.6	1.0	4.431	A
2	1069	267	875	1344	0.795	1060	1236	1.6	3.8	12.769	B
3	197	49	1809	670	0.294	196	126	0.3	0.4	8.252	A
4	1712	428	253	2159	0.793	1704	1753	1.8	3.8	8.080	A
5	226	56	1747	477	0.474	224	209	0.4	0.9	14.517	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	810	203	1309	1634	0.496	810	673	1.0	1.0	4.475	A
2	1069	267	877	1343	0.796	1069	1242	3.8	3.9	13.554	B
3	197	49	1819	664	0.297	197	127	0.4	0.5	8.380	A
4	1712	428	254	2157	0.794	1712	1762	3.8	3.9	8.366	A
5	226	56	1756	472	0.478	226	210	0.9	0.9	14.974	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	662	165	1076	1804	0.367	663	553	1.0	0.6	3.237	A
2	873	218	719	1437	0.608	882	1020	3.9	1.6	6.840	A
3	161	40	1497	842	0.191	162	104	0.5	0.3	5.756	A
4	1398	349	209	2188	0.639	1406	1450	3.9	1.9	4.825	A
5	184	46	1443	633	0.291	186	173	0.9	0.4	8.316	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	554	139	897	1934	0.287	555	461	0.6	0.4	2.677	A
2	731	183	601	1507	0.485	734	851	1.6	1.0	4.848	A
3	135	34	1248	980	0.138	135	87	0.3	0.2	4.632	A
4	1171	293	174	2212	0.529	1173	1209	1.9	1.2	3.608	A

5	154	39	1204	755	0.204	155	144	0.4	0.3	6.167	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2	0.97	0.57	1.04	1.45	1.50			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	1.16	0.57	1.04	1.45	1.51			N/A	N/A
5	0.26	0.00	0.00	0.26	0.26			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.59	0.07	0.72	1.37	1.46			N/A	N/A
2	1.57	0.05	0.54	3.95	6.07			N/A	N/A
3	0.25	0.00	0.00	0.25	0.25			N/A	N/A
4	1.81	0.05	0.46	4.82	7.98			N/A	N/A
5	0.41	0.00	0.00	0.41	0.41			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.99	0.03	0.26	0.99	0.99			N/A	N/A
2	3.77	0.03	0.32	4.86	18.25			N/A	N/A
3	0.45	0.03	0.28	0.50	0.53			N/A	N/A
4	3.82	0.03	0.30	3.82	13.38			N/A	N/A
5	0.90	0.03	0.27	0.90	0.90			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.00	0.03	0.28	1.00	2.32			N/A	N/A
2	3.91	0.03	0.29	3.91	10.97			N/A	N/A
3	0.45	0.04	0.36	1.45	1.57			N/A	N/A
4	3.90	0.03	0.28	3.90	3.90			N/A	N/A
5	0.92	0.03	0.31	1.46	4.54			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.60	0.56	1.02	1.43	1.49			N/A	N/A
2	1.64	0.05	0.62	4.08	6.21			N/A	N/A
3	0.26	0.00	0.00	0.26	0.26			N/A	N/A
4	1.86	0.07	0.99	4.49	6.49			N/A	N/A
5	0.43	0.03	0.33	1.09	1.32			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2	0.99	0.04	0.37	2.42	4.51			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	1.18	0.04	0.42	2.96	4.96			N/A	N/A
5	0.27	0.03	0.27	0.48	0.50			N/A	N/A

2024 Base + Com Dev + Prop Dev, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	12.13	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 segment length (min)	Run automatically
D7	2024 Base + Com Dev + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	695	100.000
2		ONE HOUR	✓	1068	100.000
3		ONE HOUR	✓	112	100.000
4		ONE HOUR	✓	1438	100.000
5		ONE HOUR	✓	209	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1	2	3	4	5
From	1	0	96	38	528	33
	2	131	0	30	845	62
	3	15	11	0	85	1
	4	419	745	121	0	153
	5	38	58	5	108	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1	2	3	4	5
From	1	0	6	14	3	0
	2	9	0	8	6	2
	3	61	11	0	17	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.44	3.80	0.8	3.0	A	638	957
2	0.88	25.16	7.8	41.9	D	980	1470
3	0.20	8.53	0.3	1.0	A	103	154
4	0.74	6.87	3.0	6.1	A	1320	1979
5	0.41	11.36	0.7	3.5	B	192	288

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	523	131	786	2015	0.260	522	452	0.0	0.4	2.500	A
2	804	201	625	1493	0.539	799	682	0.0	1.2	5.472	A
3	84	21	1279	963	0.088	84	145	0.0	0.1	4.936	A
4	1083	271	189	2202	0.492	1079	1173	0.0	1.0	3.401	A
5	157	39	1081	818	0.192	156	187	0.0	0.2	5.637	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	625	156	940	1903	0.328	624	541	0.4	0.5	2.921	A
2	960	240	748	1420	0.676	956	817	1.2	2.2	8.181	A
3	101	25	1530	824	0.122	100	174	0.1	0.2	5.999	A
4	1293	323	227	2176	0.594	1291	1404	1.0	1.5	4.319	A
5	188	47	1294	709	0.265	187	223	0.2	0.4	7.155	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	765	191	1149	1750	0.437	764	660	0.5	0.8	3.783	A
2	1176	294	915	1320	0.831	1156	998	2.2	7.1	21.135	C
3	123	31	1859	642	0.192	123	212	0.2	0.3	8.351	A
4	1583	396	275	2143	0.739	1578	1707	1.5	2.9	6.715	A
5	230	58	1580	562	0.409	229	272	0.4	0.7	11.155	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	765	191	1154	1747	0.438	765	664	0.8	0.8	3.804	A
2	1176	294	917	1319	0.831	1173	1002	7.1	7.8	25.162	D
3	123	31	1877	632	0.195	123	214	0.3	0.3	8.530	A
4	1583	396	278	2141	0.739	1583	1722	2.9	3.0	6.865	A
5	230	58	1567	559	0.412	230	274	0.7	0.7	11.361	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	625	156	947	1898	0.329	626	547	0.8	0.5	2.941	A
2	960	240	751	1418	0.677	982	822	7.8	2.3	9.184	A
3	101	25	1557	809	0.124	101	176	0.3	0.2	6.137	A
4	1293	323	232	2173	0.595	1298	1427	3.0	1.6	4.411	A
5	188	47	1304	704	0.267	189	226	0.7	0.4	7.275	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	523	131	791	2012	0.260	524	455	0.5	0.4	2.512	A
2	804	201	628	1491	0.539	808	686	2.3	1.3	5.631	A
3	84	21	1290	957	0.088	85	146	0.2	0.1	4.979	A
4	1083	271	191	2201	0.492	1085	1183	1.6	1.0	3.442	A

5	157	39	1088	815	0.193	158	188	0.4	0.3	5.694	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2	1.22	0.59	1.13	1.26	1.70			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	1.02	0.59	1.07	1.49	1.54			N/A	N/A
5	0.25	0.00	0.00	0.25	0.25			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.51	0.00	0.00	0.51	0.51			N/A	N/A
2	2.16	0.05	0.51	5.83	9.40			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	1.54	0.05	0.51	3.91	6.10			N/A	N/A
5	0.37	0.00	0.00	0.37	0.37			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.80	0.03	0.26	0.80	0.80			N/A	N/A
2	7.08	0.05	0.47	19.75	37.36			N/A	N/A
3	0.28	0.03	0.31	0.56	0.59			N/A	N/A
4	2.93	0.03	0.29	2.93	5.41			N/A	N/A
5	0.70	0.03	0.27	0.70	0.70			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.81	0.03	0.29	0.81	2.95			N/A	N/A
2	7.75	0.04	0.37	15.16	41.85			N/A	N/A
3	0.29	0.03	0.33	0.59	1.03			N/A	N/A
4	2.98	0.03	0.28	2.98	2.98			N/A	N/A
5	0.72	0.03	0.32	1.22	3.47			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.51	0.00	0.00	0.51	0.51			N/A	N/A
2	2.29	0.04	0.44	6.23	11.01			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	1.58	0.09	1.18	3.16	4.26			N/A	N/A
5	0.38	0.00	0.00	0.38	0.38			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2	1.26	0.03	0.33	2.25	6.39			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	1.04	0.05	0.51	2.29	3.44			N/A	N/A
5	0.25	0.03	0.26	0.47	0.49			N/A	N/A

2024 Base + Com Dev + Prop Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	10.61	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 Base + Com Dev + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	779	100.000
2		ONE HOUR	✓	981	100.000
3		ONE HOUR	✓	182	100.000
4		ONE HOUR	✓	1605	100.000
5		ONE HOUR	✓	207	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1	2	3	4	5
From	1	0	142	20	593	24
	2	121	0	12	811	37
	3	28	31	0	120	3
	4	484	911	82	0	128
	5	40	51	5	111	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1	2	3	4	5
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	14	0	0	10	0
	4	3	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.53	4.76	1.1	1.9	A	715	1072
2	0.82	15.53	4.5	22.6	C	900	1350
3	0.31	8.94	0.5	1.8	A	167	251
4	0.82	9.74	4.7	19.9	A	1473	2209
5	0.52	17.61	1.1	5.4	C	190	285

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	586	147	893	1938	0.303	585	504	0.0	0.4	2.723	A
2	739	185	626	1492	0.495	735	851	0.0	1.0	4.907	A
3	137	34	1272	967	0.142	136	89	0.0	0.2	4.701	A
4	1208	302	183	2207	0.548	1203	1225	0.0	1.2	3.697	A
5	156	39	1242	736	0.212	155	144	0.0	0.3	6.356	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	700	175	1068	1810	0.387	700	604	0.4	0.6	3.321	A
2	882	220	749	1419	0.622	879	1018	1.0	1.7	6.889	A
3	164	41	1522	828	0.197	163	107	0.2	0.3	5.873	A
4	1443	361	219	2182	0.661	1440	1466	1.2	2.0	5.002	A
5	186	47	1486	610	0.305	185	172	0.3	0.4	8.689	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	858	214	1303	1639	0.523	856	736	0.6	1.1	4.700	A
2	1080	270	916	1320	0.818	1070	1243	1.7	4.3	14.359	B
3	200	50	1855	644	0.311	200	130	0.3	0.5	8.772	A
4	1767	442	267	2149	0.822	1757	1788	2.0	4.5	9.272	A
5	228	57	1813	443	0.515	225	210	0.4	1.1	16.840	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	858	214	1311	1633	0.525	858	741	1.1	1.1	4.757	A
2	1080	270	919	1318	0.820	1079	1249	4.3	4.5	15.530	C
3	200	50	1868	637	0.314	200	131	0.5	0.5	8.942	A
4	1767	442	269	2148	0.823	1767	1799	4.5	4.7	9.741	A
5	228	57	1824	437	0.521	228	211	1.1	1.1	17.610	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	700	175	1079	1802	0.389	702	610	1.1	0.7	3.362	A
2	882	220	754	1416	0.623	893	1027	4.5	1.7	7.287	A
3	164	41	1539	819	0.200	164	108	0.5	0.3	5.981	A
4	1443	361	221	2180	0.662	1453	1482	4.7	2.1	5.201	A
5	186	47	1501	603	0.309	189	174	1.1	0.5	8.976	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	586	147	899	1933	0.303	587	508	0.7	0.4	2.742	A
2	739	185	630	1490	0.496	741	857	1.7	1.0	5.009	A
3	137	34	1281	961	0.143	137	90	0.3	0.2	4.744	A
4	1208	302	184	2205	0.548	1212	1235	2.1	1.3	3.760	A

5	156	39	1251	731	0.213	157	145	0.5	0.3	6.447	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.44	0.00	0.00	0.44	0.44			N/A	N/A
2	1.01	0.57	1.04	1.45	1.50			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	1.24	0.57	1.08	1.47	1.47			N/A	N/A
5	0.27	0.00	0.00	0.27	0.27			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.64	0.07	0.75	1.39	1.47			N/A	N/A
2	1.67	0.05	0.51	4.28	6.70			N/A	N/A
3	0.27	0.00	0.00	0.27	0.27			N/A	N/A
4	1.99	0.05	0.45	5.38	9.13			N/A	N/A
5	0.44	0.00	0.00	0.44	0.44			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.11	0.03	0.26	1.11	1.11			N/A	N/A
2	4.30	0.03	0.34	7.56	22.58			N/A	N/A
3	0.48	0.03	0.28	0.50	0.53			N/A	N/A
4	4.53	0.03	0.31	4.53	19.93			N/A	N/A
5	1.05	0.03	0.27	1.05	1.47			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.13	0.03	0.28	1.13	1.88			N/A	N/A
2	4.50	0.03	0.30	4.50	16.01			N/A	N/A
3	0.49	0.04	0.36	1.52	1.84			N/A	N/A
4	4.66	0.03	0.29	4.66	7.66			N/A	N/A
5	1.09	0.03	0.31	1.68	5.39			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.66	0.56	1.02	1.43	1.49			N/A	N/A
2	1.75	0.05	0.50	4.56	7.16			N/A	N/A
3	0.27	0.00	0.00	0.27	0.27			N/A	N/A
4	2.06	0.06	0.82	5.27	7.99			N/A	N/A
5	0.47	0.04	0.40	1.25	1.40			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.45	0.03	0.34	1.12	1.33			N/A	N/A
2	1.03	0.04	0.36	2.45	4.96			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	1.27	0.04	0.39	3.21	5.87			N/A	N/A
5	0.28	0.03	0.29	0.54	1.04			N/A	N/A

2028 Base, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	11.96	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 segment length (min)	Run automatically
D9	2028 Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	613	100.000
2		ONE HOUR	✓	1096	100.000
3		ONE HOUR	✓	113	100.000
4		ONE HOUR	✓	1454	100.000
5		ONE HOUR	✓	214	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1	2	3	4	5	
From	1	0	87	35	461	30
	2	127	0	31	874	64
	3	15	11	0	86	1
	4	403	767	126	0	158
	5	37	60	5	112	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	0	7	15	4	0
	2	10	0	8	6	2
	3	67	11	0	18	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.39	3.61	0.7	3.1	A	562	844
2	0.88	23.58	7.5	39.8	C	1006	1509
3	0.19	8.25	0.3	0.8	A	104	156
4	0.75	7.04	3.1	6.3	A	1334	2001
5	0.42	11.69	0.8	3.7	B	196	295

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	461	115	810	1997	0.231	460	436	0.0	0.3	2.451	A
2	825	206	577	1521	0.542	820	694	0.0	1.2	5.417	A
3	85	21	1249	979	0.087	85	148	0.0	0.1	4.899	A
4	1095	274	186	2205	0.497	1090	1148	0.0	1.0	3.431	A
5	161	40	1086	815	0.198	160	190	0.0	0.3	5.691	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	551	138	970	1881	0.293	551	522	0.3	0.4	2.835	A
2	985	246	690	1454	0.678	982	830	1.2	2.2	8.033	A
3	102	25	1495	843	0.120	101	177	0.1	0.2	5.909	A
4	1307	327	222	2179	0.600	1305	1374	1.0	1.6	4.377	A
5	192	48	1300	706	0.273	192	227	0.3	0.4	7.258	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	675	169	1185	1724	0.391	674	637	0.4	0.7	3.588	A
2	1207	302	845	1362	0.885	1188	1015	2.2	6.9	20.083	C
3	124	31	1817	665	0.187	124	216	0.2	0.3	8.092	A
4	1601	400	270	2147	0.746	1595	1671	1.6	3.0	6.879	A
5	236	59	1588	558	0.422	234	277	0.4	0.7	11.470	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	675	169	1190	1721	0.392	675	640	0.7	0.7	3.605	A
2	1207	302	847	1361	0.887	1204	1018	6.9	7.5	23.584	C
3	124	31	1834	656	0.190	124	217	0.3	0.3	8.251	A
4	1601	400	273	2145	0.746	1601	1686	3.0	3.1	7.043	A
5	236	59	1595	555	0.425	236	278	0.7	0.8	11.693	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	551	138	977	1876	0.294	552	528	0.7	0.4	2.852	A
2	985	246	693	1452	0.678	1006	835	7.5	2.3	8.949	A
3	102	25	1521	829	0.123	102	178	0.3	0.2	6.035	A
4	1307	327	227	2176	0.601	1313	1396	3.1	1.6	4.474	A
5	192	48	1310	701	0.275	194	229	0.8	0.4	7.390	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	461	115	816	1993	0.232	462	439	0.4	0.3	2.463	A
2	825	206	580	1520	0.543	829	698	2.3	1.3	5.573	A
3	85	21	1260	973	0.087	85	149	0.2	0.1	4.939	A
4	1095	274	187	2203	0.497	1097	1158	1.6	1.1	3.476	A

5	161	40	1093	812	0.198	162	191	0.4	0.3	5.747	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2	1.24	0.59	1.14	1.32	1.72			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	1.04	0.59	1.07	1.49	1.55			N/A	N/A
5	0.25	0.00	0.00	0.25	0.25			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2	2.18	0.05	0.51	5.88	9.46			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	1.58	0.05	0.50	4.04	6.34			N/A	N/A
5	0.38	0.00	0.00	0.38	0.38			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.67	0.03	0.26	0.67	0.67			N/A	N/A
2	6.88	0.05	0.45	18.83	36.82			N/A	N/A
3	0.28	0.03	0.31	0.56	0.59			N/A	N/A
4	3.04	0.03	0.29	3.04	6.25			N/A	N/A
5	0.74	0.03	0.27	0.74	0.74			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.67	0.03	0.31	1.37	3.09			N/A	N/A
2	7.48	0.04	0.36	13.27	39.51			N/A	N/A
3	0.28	0.03	0.32	0.58	0.82			N/A	N/A
4	3.09	0.03	0.28	3.09	3.09			N/A	N/A
5	0.76	0.03	0.31	1.22	3.68			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.44	0.00	0.00	0.44	0.44			N/A	N/A
2	2.31	0.05	0.45	6.27	10.96			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	1.62	0.09	1.16	3.34	4.59			N/A	N/A
5	0.40	0.00	0.00	0.40	0.40			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.32	0.00	0.00	0.32	0.32			N/A	N/A
2	1.28	0.03	0.33	2.42	6.53			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	1.06	0.05	0.50	2.41	3.67			N/A	N/A
5	0.26	0.03	0.26	0.47	0.49			N/A	N/A

2028 Base, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	10.71	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2028 Base	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	750	100.000
2		ONE HOUR	✓	1001	100.000
3		ONE HOUR	✓	186	100.000
4		ONE HOUR	✓	1599	100.000
5		ONE HOUR	✓	211	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	138	18	570	24
	2	113	0	12	838	38
	3	27	31	0	125	3
	4	440	942	84	0	133
	5	38	53	5	115	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	15	0	0	10	0
	4	4	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.52	4.75	1.1	2.1	A	688	1032
2	0.83	16.15	4.8	24.2	C	919	1378
3	0.32	9.06	0.5	2.0	A	171	256
4	0.82	9.46	4.5	18.7	A	1467	2201
5	0.52	17.05	1.1	5.3	C	194	290

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	565	141	922	1916	0.295	563	463	0.0	0.4	2.722	A
2	754	188	612	1501	0.502	749	873	0.0	1.0	4.948	A
3	140	35	1272	967	0.145	139	89	0.0	0.2	4.726	A
4	1204	301	177	2211	0.545	1199	1235	0.0	1.2	3.675	A
5	159	40	1227	743	0.214	158	148	0.0	0.3	6.302	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	674	169	1103	1784	0.378	673	554	0.4	0.6	3.319	A
2	900	225	732	1429	0.630	897	1044	1.0	1.7	6.988	A
3	167	42	1523	828	0.202	167	107	0.2	0.3	5.916	A
4	1437	359	212	2187	0.657	1435	1478	1.2	2.0	4.944	A
5	190	47	1469	620	0.306	189	178	0.3	0.4	8.572	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	826	206	1346	1607	0.514	824	676	0.6	1.1	4.698	A
2	1102	276	895	1332	0.827	1091	1275	1.7	4.5	14.833	B
3	205	51	1856	644	0.318	204	130	0.3	0.5	8.875	A
4	1761	440	258	2155	0.817	1751	1802	2.0	4.4	9.031	A
5	232	58	1792	454	0.512	230	217	0.4	1.0	16.345	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	826	206	1354	1602	0.516	826	680	1.1	1.1	4.753	A
2	1102	276	898	1330	0.828	1101	1281	4.5	4.8	16.150	C
3	205	51	1869	637	0.322	205	131	0.5	0.5	9.056	A
4	1761	440	260	2154	0.817	1760	1814	4.4	4.5	9.460	A
5	232	58	1802	449	0.518	232	218	1.0	1.1	17.046	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	674	169	1114	1776	0.380	676	560	1.1	0.6	3.360	A
2	900	225	737	1426	0.631	912	1053	4.8	1.8	7.419	A
3	167	42	1541	818	0.204	168	108	0.5	0.3	6.029	A
4	1437	359	214	2185	0.658	1447	1495	4.5	2.0	5.135	A
5	190	47	1482	612	0.310	192	179	1.1	0.5	8.843	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	565	141	929	1911	0.295	565	467	0.6	0.4	2.743	A
2	754	188	616	1499	0.503	757	879	1.8	1.1	5.056	A
3	140	35	1282	961	0.146	140	90	0.3	0.2	4.772	A
4	1204	301	178	2210	0.545	1207	1244	2.0	1.3	3.740	A

5	159	40	1236	739	0.215	160	149	0.5	0.3	6.388	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2	1.04	0.57	1.04	1.45	1.50			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	1.23	0.57	1.04	1.45	1.51			N/A	N/A
5	0.28	0.00	0.00	0.28	0.28			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.62	0.07	0.74	1.38	1.46			N/A	N/A
2	1.73	0.05	0.51	4.50	7.05			N/A	N/A
3	0.27	0.00	0.00	0.27	0.27			N/A	N/A
4	1.96	0.05	0.45	5.28	8.95			N/A	N/A
5	0.45	0.00	0.00	0.45	0.45			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.07	0.03	0.26	1.07	1.07			N/A	N/A
2	4.54	0.03	0.35	8.65	24.25			N/A	N/A
3	0.50	0.03	0.28	0.50	0.53			N/A	N/A
4	4.40	0.03	0.31	4.40	18.67			N/A	N/A
5	1.04	0.03	0.27	1.04	1.37			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.08	0.03	0.28	1.08	2.09			N/A	N/A
2	4.76	0.03	0.30	4.76	18.04			N/A	N/A
3	0.51	0.04	0.36	1.55	1.95			N/A	N/A
4	4.52	0.03	0.29	4.52	6.65			N/A	N/A
5	1.08	0.03	0.31	1.61	5.28			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.63	0.56	1.02	1.43	1.49			N/A	N/A
2	1.81	0.05	0.49	4.77	7.60			N/A	N/A
3	0.28	0.00	0.00	0.28	0.28			N/A	N/A
4	2.03	0.06	0.86	5.14	7.75			N/A	N/A
5	0.47	0.04	0.40	1.25	1.40			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.43	0.03	0.31	0.96	1.25			N/A	N/A
2	1.06	0.04	0.35	2.50	5.17			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	1.25	0.04	0.40	3.17	5.71			N/A	N/A
5	0.28	0.03	0.29	0.52	1.03			N/A	N/A

2028 Base + Com Dev, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	14.88	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2028 Base + Com Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	692	100.000
2		ONE HOUR	✓	1102	100.000
3		ONE HOUR	✓	115	100.000
4		ONE HOUR	✓	1480	100.000
5		ONE HOUR	✓	216	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1	2	3	4	5	
From	1	0	96	38	525	33
	2	133	0	31	874	64
	3	15	11	0	88	1
	4	426	770	126	0	158
	5	39	60	5	112	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	0	6	14	4	0
	2	9	0	8	6	2
	3	64	11	0	17	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.44	3.93	0.8	3.0	A	635	952
2	0.82	32.72	10.3	56.8	D	1011	1517
3	0.21	8.94	0.3	1.3	A	106	158
4	0.76	7.52	3.3	8.4	A	1358	2037
5	0.44	12.48	0.8	4.0	B	198	297

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	521	130	813	1996	0.261	520	459	0.0	0.4	2.548	A
2	830	207	629	1490	0.557	824	703	0.0	1.3	5.696	A
3	87	22	1304	949	0.091	86	150	0.0	0.1	5.034	A
4	1114	279	192	2200	0.506	1110	1198	0.0	1.1	3.504	A
5	163	41	1110	803	0.202	162	192	0.0	0.3	5.812	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	622	156	973	1879	0.331	622	550	0.4	0.5	2.991	A
2	991	248	753	1417	0.699	986	841	1.3	2.4	8.793	A
3	103	26	1560	807	0.128	103	179	0.1	0.2	6.170	A
4	1330	333	230	2174	0.612	1328	1433	1.1	1.7	4.522	A
5	194	49	1329	691	0.281	194	230	0.3	0.4	7.499	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	762	190	1188	1722	0.442	761	669	0.5	0.8	3.911	A
2	1213	303	921	1317	0.821	1187	1028	2.4	9.0	25.447	D
3	127	32	1889	625	0.202	126	219	0.2	0.3	8.696	A
4	1630	407	278	2141	0.761	1623	1737	1.7	3.3	7.311	A
5	238	59	1621	541	0.440	236	280	0.4	0.8	12.188	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	762	190	1193	1718	0.443	762	674	0.8	0.8	3.935	A
2	1213	303	924	1315	0.822	1208	1031	9.0	10.3	32.722	D
3	127	32	1912	613	0.207	127	220	0.3	0.3	8.937	A
4	1630	407	282	2138	0.762	1629	1756	3.3	3.3	7.524	A
5	238	59	1630	537	0.443	238	282	0.8	0.8	12.484	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	622	156	980	1874	0.332	623	557	0.8	0.5	3.014	A
2	991	248	757	1415	0.700	1022	846	10.3	2.6	10.453	B
3	103	26	1597	787	0.131	104	181	0.3	0.2	6.366	A
4	1330	333	237	2169	0.613	1337	1464	3.3	1.7	4.643	A
5	194	49	1341	685	0.284	196	233	0.8	0.4	7.662	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	521	130	818	1992	0.262	522	463	0.5	0.4	2.563	A
2	830	207	633	1488	0.557	834	707	2.6	1.4	5.889	A
3	87	22	1316	942	0.092	87	151	0.2	0.1	5.083	A
4	1114	279	194	2199	0.507	1117	1209	1.7	1.1	3.552	A

5	163	41	1118	799	0.203	163	193	0.4	0.3	5.878	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2	1.31	0.58	1.22	1.70	1.93			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	1.08	0.59	1.07	1.49	1.54			N/A	N/A
5	0.26	0.00	0.00	0.26	0.26			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.51	0.00	0.00	0.51	0.51			N/A	N/A
2	2.39	0.05	0.51	6.52	10.63			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	1.66	0.05	0.49	4.28	6.89			N/A	N/A
5	0.40	0.00	0.00	0.40	0.40			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.82	0.03	0.27	0.82	0.82			N/A	N/A
2	9.04	0.06	1.26	26.37	44.01			N/A	N/A
3	0.30	0.03	0.31	0.56	0.59			N/A	N/A
4	3.28	0.03	0.30	3.28	8.43			N/A	N/A
5	0.79	0.03	0.27	0.79	0.79			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.83	0.03	0.29	0.83	2.96			N/A	N/A
2	10.32	0.04	0.45	27.25	56.51			N/A	N/A
3	0.31	0.03	0.34	0.76	1.29			N/A	N/A
4	3.35	0.03	0.28	3.35	3.35			N/A	N/A
5	0.81	0.03	0.31	1.26	3.95			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.52	0.00	0.00	0.52	0.52			N/A	N/A
2	2.57	0.04	0.43	6.95	12.83			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	1.71	0.08	1.13	3.77	5.20			N/A	N/A
5	0.42	0.03	0.29	0.65	1.10			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2	1.36	0.03	0.32	1.95	6.68			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	1.10	0.05	0.47	2.65	4.09			N/A	N/A
5	0.27	0.03	0.26	0.47	0.49			N/A	N/A

2028 Base + Com Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	12.46	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2028 Base + Com Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	792	100.000
2		ONE HOUR	✓	1012	100.000
3		ONE HOUR	✓	188	100.000
4		ONE HOUR	✓	1650	100.000
5		ONE HOUR	✓	214	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1	2	3	4	5
From	1	0	145	20	602	25
	2	123	0	12	839	38
	3	28	32	0	125	3
	4	490	942	85	0	133
	5	41	53	5	115	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1	2	3	4	5
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	14	0	0	10	0
	4	3	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.54	5.06	1.2	1.7	A	727	1090
2	0.85	18.95	5.6	25.8	C	929	1393
3	0.34	9.69	0.6	2.2	A	173	259
4	0.85	11.28	5.5	38.4	B	1514	2271
5	0.57	20.72	1.3	6.6	C	196	295

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	596	149	923	1915	0.311	594	511	0.0	0.5	2.789	A
2	762	190	639	1485	0.513	758	879	0.0	1.1	5.111	A
3	142	35	1305	948	0.149	141	91	0.0	0.2	4.835	A
4	1242	311	186	2204	0.564	1237	1259	0.0	1.3	3.833	A
5	161	40	1274	719	0.224	160	149	0.0	0.3	6.600	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	712	178	1105	1783	0.399	711	612	0.5	0.7	3.437	A
2	910	227	765	1410	0.645	907	1051	1.1	1.8	7.380	A
3	169	42	1562	806	0.210	169	109	0.2	0.3	6.123	A
4	1483	371	223	2179	0.681	1480	1507	1.3	2.2	5.307	A
5	192	48	1525	591	0.326	192	178	0.3	0.5	9.246	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	872	218	1346	1607	0.543	870	745	0.7	1.2	4.988	A
2	1114	279	934	1309	0.851	1101	1282	1.8	5.3	16.907	C
3	207	52	1901	619	0.335	206	133	0.3	0.5	9.445	A
4	1817	454	272	2146	0.847	1804	1836	2.2	5.3	10.541	B
5	236	59	1858	420	0.561	233	217	0.5	1.3	19.444	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	872	218	1356	1600	0.545	872	750	1.2	1.2	5.064	A
2	1114	279	938	1307	0.853	1113	1290	5.3	5.6	18.948	C
3	207	52	1916	610	0.339	207	134	0.5	0.6	9.688	A
4	1817	454	274	2144	0.847	1816	1849	5.3	5.5	11.285	B
5	236	59	1871	413	0.570	235	219	1.3	1.3	20.717	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	712	178	1118	1773	0.402	714	620	1.2	0.7	3.489	A
2	910	227	770	1407	0.647	924	1062	5.6	1.9	7.975	A
3	169	42	1584	794	0.213	170	111	0.6	0.3	6.272	A
4	1483	371	227	2176	0.682	1496	1527	5.5	2.3	5.582	A
5	192	48	1542	582	0.331	196	181	1.3	0.5	9.656	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	596	149	931	1910	0.312	597	515	0.7	0.5	2.813	A
2	762	190	643	1482	0.514	765	885	1.9	1.1	5.236	A
3	142	35	1316	942	0.150	142	92	0.3	0.2	4.884	A
4	1242	311	188	2203	0.564	1246	1270	2.3	1.4	3.908	A

5	161	40	1284	714	0.226	162	150	0.5	0.3	6.707	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2	1.08	0.57	1.04	1.46	1.52			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	1.32	0.58	1.18	1.59	1.83			N/A	N/A
5	0.29	0.00	0.00	0.29	0.29			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.68	0.07	0.76	1.40	1.48			N/A	N/A
2	1.85	0.05	0.50	4.87	7.74			N/A	N/A
3	0.29	0.00	0.00	0.29	0.29			N/A	N/A
4	2.17	0.04	0.45	5.91	10.17			N/A	N/A
5	0.49	0.04	0.42	1.27	1.41			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.20	0.03	0.26	1.20	1.20			N/A	N/A
2	5.27	0.04	0.38	12.24	28.76			N/A	N/A
3	0.54	0.03	0.28	0.54	0.54			N/A	N/A
4	5.32	0.03	0.33	7.49	26.39			N/A	N/A
5	1.25	0.03	0.28	1.25	3.04			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.22	0.03	0.28	1.22	1.74			N/A	N/A
2	5.61	0.03	0.32	5.62	25.43			N/A	N/A
3	0.55	0.04	0.35	1.62	2.16			N/A	N/A
4	5.52	0.03	0.29	5.52	14.25			N/A	N/A
5	1.32	0.03	0.31	2.00	6.57			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.69	0.28	0.97	1.42	1.48			N/A	N/A
2	1.95	0.05	0.47	5.20	8.64			N/A	N/A
3	0.30	0.00	0.00	0.30	0.30			N/A	N/A
4	2.26	0.05	0.64	6.03	9.45			N/A	N/A
5	0.52	0.04	0.45	1.31	1.43			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.47	0.04	0.39	1.23	1.38			N/A	N/A
2	1.11	0.03	0.34	2.41	5.58			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	1.35	0.04	0.37	3.36	6.62			N/A	N/A
5	0.30	0.03	0.31	0.97	1.26			N/A	N/A

2028 Base + Prop Dev, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	12.60	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2028 Base + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	636	100.000
2		ONE HOUR	✓	1097	100.000
3		ONE HOUR	✓	113	100.000
4		ONE HOUR	✓	1460	100.000
5		ONE HOUR	✓	215	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1	2	3	4	5	
From	1	0	90	36	479	31
	2	128	0	31	874	64
	3	15	11	0	86	1
	4	409	767	126	0	158
	5	38	60	5	112	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	0	6	14	4	0
	2	10	0	8	6	2
	3	63	11	0	18	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.41	3.69	0.7	3.1	A	584	875
2	0.35	25.60	8.1	44.0	D	1007	1510
3	0.19	8.42	0.3	1.0	A	104	156
4	0.75	7.15	3.1	6.7	A	1340	2010
5	0.43	11.88	0.8	3.8	B	197	296

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	479	120	810	1997	0.240	477	442	0.0	0.3	2.475	A
2	826	206	592	1513	0.546	821	696	0.0	1.3	5.492	A
3	85	21	1264	971	0.088	85	148	0.0	0.1	4.933	A
4	1099	275	187	2204	0.499	1095	1162	0.0	1.1	3.448	A
5	162	40	1092	813	0.199	161	190	0.0	0.3	5.729	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	572	143	970	1881	0.304	571	529	0.3	0.5	2.875	A
2	986	247	708	1443	0.683	982	833	1.3	2.2	8.229	A
3	102	25	1513	833	0.122	101	178	0.1	0.2	5.974	A
4	1313	328	224	2178	0.603	1310	1390	1.1	1.6	4.410	A
5	193	48	1306	703	0.275	193	228	0.3	0.4	7.317	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	700	175	1185	1724	0.406	699	645	0.5	0.7	3.670	A
2	1208	302	867	1349	0.835	1187	1018	2.2	7.4	21.354	C
3	124	31	1837	654	0.190	124	217	0.2	0.3	8.243	A
4	1607	402	271	2146	0.749	1602	1689	1.6	3.1	6.974	A
5	237	59	1595	555	0.427	235	278	0.4	0.8	11.643	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	700	175	1190	1721	0.407	700	649	0.7	0.7	3.688	A
2	1208	302	869	1348	0.836	1205	1022	7.4	8.1	25.600	C
3	124	31	1856	644	0.193	124	218	0.3	0.3	8.420	A
4	1607	402	275	2143	0.750	1607	1705	3.1	3.1	7.149	A
5	237	59	1603	551	0.430	237	279	0.8	0.8	11.881	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	572	143	977	1876	0.305	573	535	0.7	0.5	2.892	A
2	986	247	711	1441	0.684	1009	838	8.1	2.4	9.289	A
3	102	25	1541	818	0.124	102	179	0.3	0.2	6.117	A
4	1313	328	229	2175	0.603	1319	1414	3.1	1.6	4.512	A
5	193	48	1317	697	0.277	195	230	0.8	0.4	7.456	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	479	120	816	1993	0.240	479	445	0.5	0.3	2.489	A
2	826	206	595	1511	0.547	830	700	2.4	1.3	5.657	A
3	85	21	1276	965	0.088	85	149	0.2	0.1	4.977	A
4	1099	275	189	2202	0.499	1101	1172	1.6	1.1	3.494	A

5	162	40	1099	809	0.200	162	192	0.4	0.3	5.779	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2	1.26	0.59	1.16	1.47	1.80			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	1.05	0.59	1.07	1.49	1.55			N/A	N/A
5	0.26	0.00	0.00	0.26	0.26			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2	2.23	0.05	0.51	6.04	9.77			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	1.60	0.05	0.50	4.10	6.46			N/A	N/A
5	0.39	0.00	0.00	0.39	0.39			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.71	0.03	0.26	0.71	0.71			N/A	N/A
2	7.37	0.05	0.49	20.68	38.52			N/A	N/A
3	0.28	0.03	0.31	0.56	0.59			N/A	N/A
4	3.09	0.03	0.30	3.09	6.72			N/A	N/A
5	0.76	0.03	0.27	0.76	0.76			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.71	0.03	0.30	1.23	3.10			N/A	N/A
2	8.09	0.04	0.37	16.49	44.02			N/A	N/A
3	0.29	0.03	0.33	0.59	0.97			N/A	N/A
4	3.14	0.03	0.28	3.14	3.14			N/A	N/A
5	0.77	0.03	0.31	1.23	3.76			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2	2.37	0.04	0.44	6.45	11.47			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	1.64	0.09	1.16	3.45	4.74			N/A	N/A
5	0.40	0.03	0.28	0.50	0.69			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2	1.30	0.03	0.33	2.30	6.61			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	1.07	0.05	0.49	2.47	3.76			N/A	N/A
5	0.26	0.03	0.26	0.47	0.49			N/A	N/A

2028 Base + Prop Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	11.02	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2028 Base + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	761	100.000
2		ONE HOUR	✓	1003	100.000
3		ONE HOUR	✓	186	100.000
4		ONE HOUR	✓	1608	100.000
5		ONE HOUR	✓	212	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1	2	3	4	5	
From	1	0	140	18	579	24
	2	115	0	12	838	38
	3	27	31	0	125	3
	4	449	942	84	0	133
	5	39	53	5	115	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	15	0	0	10	0
	4	4	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.52	4.83	1.1	2.0	A	698	1047
2	0.83	16.72	4.9	25.0	C	920	1381
3	0.33	9.20	0.5	2.0	A	171	256
4	0.82	9.74	4.7	19.9	A	1476	2213
5	0.53	17.64	1.1	5.5	C	195	292

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	573	143	922	1916	0.299	571	472	0.0	0.4	2.738	A
2	755	189	619	1497	0.505	751	874	0.0	1.0	4.983	A
3	140	35	1281	962	0.146	139	89	0.0	0.2	4.753	A
4	1211	303	178	2210	0.548	1206	1242	0.0	1.2	3.704	A
5	160	40	1235	739	0.216	158	148	0.0	0.3	6.357	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	684	171	1103	1784	0.383	683	565	0.4	0.6	3.349	A
2	902	225	740	1424	0.633	899	1046	1.0	1.8	7.074	A
3	167	42	1533	823	0.203	167	107	0.2	0.3	5.965	A
4	1446	361	213	2186	0.661	1443	1486	1.2	2.0	5.010	A
5	191	48	1478	615	0.310	190	178	0.3	0.5	8.693	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	838	209	1346	1608	0.521	836	689	0.6	1.1	4.769	A
2	1104	276	905	1326	0.833	1093	1277	1.8	4.7	15.264	C
3	205	51	1867	637	0.321	204	130	0.3	0.5	9.006	A
4	1770	443	260	2154	0.822	1760	1811	2.0	4.5	9.268	A
5	233	58	1804	448	0.521	231	217	0.5	1.1	16.857	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	838	209	1354	1602	0.523	838	693	1.1	1.1	4.829	A
2	1104	276	908	1324	0.834	1103	1283	4.7	4.9	16.715	C
3	205	51	1881	630	0.325	205	131	0.5	0.5	9.198	A
4	1770	443	262	2152	0.823	1770	1823	4.5	4.7	9.737	A
5	233	58	1814	443	0.527	233	218	1.1	1.1	17.637	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	684	171	1115	1776	0.385	686	571	1.1	0.6	3.389	A
2	902	225	745	1421	0.634	914	1055	4.9	1.8	7.535	A
3	167	42	1551	812	0.206	168	108	0.5	0.3	6.084	A
4	1446	361	216	2184	0.662	1456	1503	4.7	2.1	5.208	A
5	191	48	1493	607	0.314	193	179	1.1	0.5	8.986	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	573	143	929	1911	0.300	574	476	0.6	0.4	2.758	A
2	755	189	622	1494	0.505	758	880	1.8	1.1	5.095	A
3	140	35	1291	956	0.146	140	90	0.3	0.2	4.799	A
4	1211	303	180	2209	0.548	1214	1251	2.1	1.3	3.770	A

5	160	40	1244	735	0.217	160	149	0.5	0.3	6.445	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.44	0.00	0.00	0.44	0.44			N/A	N/A
2	1.05	0.57	1.04	1.45	1.51			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	1.25	0.58	1.09	1.48	1.48			N/A	N/A
5	0.28	0.00	0.00	0.28	0.28			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.63	0.07	0.75	1.38	1.46			N/A	N/A
2	1.75	0.05	0.51	4.58	7.18			N/A	N/A
3	0.28	0.00	0.00	0.28	0.28			N/A	N/A
4	2.00	0.05	0.45	5.40	9.15			N/A	N/A
5	0.46	0.00	0.00	0.46	0.46			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.10	0.03	0.26	1.10	1.10			N/A	N/A
2	4.69	0.04	0.35	9.39	25.27			N/A	N/A
3	0.51	0.03	0.28	0.51	0.53			N/A	N/A
4	4.54	0.03	0.31	4.54	19.93			N/A	N/A
5	1.08	0.03	0.28	1.08	1.11			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.12	0.03	0.28	1.12	1.99			N/A	N/A
2	4.93	0.03	0.31	4.93	19.55			N/A	N/A
3	0.52	0.04	0.36	1.57	2.00			N/A	N/A
4	4.67	0.03	0.29	4.67	7.64			N/A	N/A
5	1.12	0.03	0.31	1.67	5.50			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.65	0.56	1.02	1.43	1.49			N/A	N/A
2	1.84	0.05	0.49	4.88	7.84			N/A	N/A
3	0.28	0.00	0.00	0.28	0.28			N/A	N/A
4	2.07	0.06	0.82	5.29	8.02			N/A	N/A
5	0.48	0.04	0.41	1.27	1.40			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.44	0.03	0.33	1.08	1.31			N/A	N/A
2	1.07	0.03	0.35	2.49	5.28			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	1.27	0.04	0.39	3.23	5.89			N/A	N/A
5	0.29	0.03	0.29	0.67	1.11			N/A	N/A

2028 Base + Com Dev + Prop Dev, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	16.04	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2028 Base + Com Dev + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	715	100.000
2		ONE HOUR	✓	1104	100.000
3		ONE HOUR	✓	115	100.000
4		ONE HOUR	✓	1486	100.000
5		ONE HOUR	✓	216	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1	2	3	4	5	
From	1	0	99	39	543	34
	2	135	0	31	874	64
	3	15	11	0	88	1
	4	432	770	126	0	158
	5	39	60	5	112	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	0	6	14	3	0
	2	9	0	8	6	2
	3	61	11	0	17	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.46	4.01	0.9	2.8	A	656	984
2	0.83	35.60	11.5	61.7	B	1013	1520
3	0.21	9.14	0.3	1.3	A	106	158
4	0.77	7.65	3.4	9.0	A	1364	2045
5	0.45	12.66	0.8	4.0	B	198	297

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	538	135	813	1996	0.270	537	465	0.0	0.4	2.559	A
2	831	208	644	1481	0.561	826	705	0.0	1.3	5.786	A
3	87	22	1320	940	0.092	86	151	0.0	0.1	5.076	A
4	1119	280	195	2198	0.509	1114	1211	0.0	1.1	3.523	A
5	163	41	1116	800	0.203	162	193	0.0	0.3	5.840	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	643	161	973	1879	0.342	642	557	0.4	0.5	3.019	A
2	992	248	771	1406	0.706	988	844	1.3	2.5	9.046	A
3	103	26	1579	797	0.130	103	180	0.1	0.2	6.250	A
4	1336	334	233	2172	0.615	1334	1449	1.1	1.7	4.560	A
5	194	49	1336	688	0.282	194	230	0.3	0.4	7.554	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	787	197	1188	1722	0.457	786	678	0.5	0.9	3.985	A
2	1216	304	943	1304	0.832	1186	1031	2.5	9.9	27.424	D
3	127	32	1909	614	0.206	126	220	0.2	0.3	8.876	A
4	1636	409	281	2139	0.765	1629	1755	1.7	3.3	7.424	A
5	238	59	1630	537	0.443	236	280	0.4	0.8	12.355	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	787	197	1193	1719	0.458	787	683	0.9	0.9	4.012	A
2	1216	304	946	1302	0.833	1209	1035	9.9	11.5	28.560	E
3	127	32	1934	601	0.211	127	221	0.3	0.3	9.145	A
4	1636	409	285	2136	0.766	1636	1775	3.3	3.4	7.651	A
5	238	59	1638	532	0.447	238	283	0.8	0.8	12.664	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	643	161	980	1874	0.343	644	565	0.9	0.5	3.041	A
2	992	248	775	1404	0.707	1028	849	11.5	2.7	11.076	B
3	103	26	1620	774	0.134	104	182	0.3	0.2	6.480	A
4	1336	334	240	2167	0.616	1343	1484	3.4	1.7	4.691	A
5	194	49	1349	681	0.285	196	234	0.8	0.4	7.726	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	538	135	818	1992	0.270	539	469	0.5	0.4	2.574	A
2	831	208	648	1479	0.562	836	709	2.7	1.4	5.991	A
3	87	22	1332	933	0.093	87	152	0.2	0.1	5.127	A
4	1119	280	197	2197	0.509	1121	1222	1.7	1.1	3.572	A

5	163	41	1124	796	0.204	163	194	0.4	0.3	5.905	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2	1.34	0.58	1.25	1.76	1.97			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	1.10	0.59	1.07	1.49	1.54			N/A	N/A
5	0.26	0.00	0.00	0.26	0.26			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.54	0.06	0.59	1.36	1.46			N/A	N/A
2	2.47	0.05	0.51	6.75	11.03			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	1.68	0.05	0.49	4.35	7.01			N/A	N/A
5	0.40	0.00	0.00	0.40	0.40			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.87	0.03	0.26	0.87	0.87			N/A	N/A
2	9.89	0.07	1.33	28.71	46.07			N/A	N/A
3	0.31	0.03	0.31	0.56	0.59			N/A	N/A
4	3.35	0.03	0.30	3.35	9.03			N/A	N/A
5	0.81	0.03	0.27	0.81	0.81			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.87	0.03	0.29	0.87	2.77			N/A	N/A
2	11.53	0.05	0.50	32.37	61.72			N/A	N/A
3	0.32	0.03	0.35	0.86	1.34			N/A	N/A
4	3.42	0.03	0.29	3.42	3.42			N/A	N/A
5	0.82	0.03	0.31	1.27	4.00			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.54	0.54	1.04	1.45	1.51			N/A	N/A
2	2.65	0.04	0.42	7.14	13.41			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	1.73	0.08	1.12	3.87	5.34			N/A	N/A
5	0.42	0.03	0.30	0.76	1.16			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2	1.38	0.03	0.32	1.81	6.64			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	1.11	0.05	0.47	2.70	4.18			N/A	N/A
5	0.27	0.03	0.26	0.47	0.50			N/A	N/A

2028 Base + Com Dev + Prop Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	12.94	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 segment length (min)	Run automatically
D16	2028 Base + Com Dev + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	805	100.000
2		ONE HOUR	✓	1014	100.000
3		ONE HOUR	✓	189	100.000
4		ONE HOUR	✓	1659	100.000
5		ONE HOUR	✓	215	100.000

Origin-Destination Data

Demand (PCU/hr)

		To					
From		1	2	3	4	5	
	1	0	147	21	612	25	
	2	125	0	12	839	38	
	3	29	32	0	125	3	
	4	499	942	85	0	133	
	5	42	53	5	115	0	

Vehicle Mix

Heavy Vehicle Percentages

		To					
From		1	2	3	4	5	
	1	0	1	0	3	0	
	2	4	0	0	4	0	
	3	14	0	0	10	0	
	4	3	3	16	0	2	
	5	6	0	0	3	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.55	5.17	1.3	1.6	A	739	1108
2	0.86	19.84	5.9	29.9	C	930	1396
3	0.35	9.89	0.6	2.3	A	173	260
4	0.85	11.70	5.7	38.1	B	1522	2283
5	0.58	21.66	1.4	6.9	C	197	296

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	606	152	923	1915	0.316	604	521	0.0	0.5	2.809	A
2	763	191	647	1480	0.516	759	880	0.0	1.1	5.155	A
3	142	36	1314	943	0.151	142	92	0.0	0.2	4.870	A
4	1249	312	189	2202	0.567	1244	1267	0.0	1.3	3.865	A
5	162	40	1283	715	0.227	161	149	0.0	0.3	6.665	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	724	181	1105	1783	0.406	723	623	0.5	0.7	3.475	A
2	912	228	774	1404	0.649	908	1053	1.1	1.9	7.492	A
3	170	42	1573	800	0.212	170	110	0.2	0.3	6.190	A
4	1491	373	226	2177	0.685	1488	1516	1.3	2.2	5.382	A
5	193	48	1535	585	0.330	192	178	0.3	0.5	9.395	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	886	222	1345	1608	0.551	884	759	0.7	1.2	5.082	A
2	1116	279	946	1302	0.857	1102	1284	1.9	5.5	17.538	C
3	208	52	1913	612	0.340	207	134	0.3	0.6	9.629	A
4	1827	457	275	2143	0.562	1813	1846	2.2	5.5	10.876	B
5	237	59	1871	413	0.573	233	217	0.5	1.3	20.206	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	886	222	1356	1600	0.554	886	765	1.2	1.3	5.165	A
2	1116	279	950	1300	0.859	1115	1292	5.5	5.9	19.841	C
3	208	52	1929	603	0.345	208	135	0.6	0.6	9.892	A
4	1827	457	277	2142	0.563	1826	1860	5.5	5.7	11.704	B
5	237	59	1884	407	0.582	236	219	1.3	1.4	21.659	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	724	181	1119	1773	0.408	726	632	1.3	0.7	3.532	A
2	912	228	780	1401	0.651	927	1065	5.9	2.0	8.140	A
3	170	42	1596	788	0.216	171	112	0.6	0.3	6.348	A
4	1491	373	229	2174	0.686	1505	1537	5.7	2.3	5.680	A
5	193	48	1554	576	0.336	197	181	1.4	0.5	9.844	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	606	152	931	1910	0.317	607	525	0.7	0.5	2.832	A
2	763	191	651	1477	0.517	767	886	2.0	1.1	5.283	A
3	142	36	1325	937	0.152	143	93	0.3	0.2	4.923	A
4	1249	312	190	2201	0.567	1253	1277	2.3	1.4	3.945	A

5	162	40	1293	710	0.228	163	150	0.5	0.3	6.773	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.47	0.00	0.00	0.47	0.47			N/A	N/A
2	1.09	0.57	1.05	1.47	1.52			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	1.34	0.59	1.20	1.65	1.86			N/A	N/A
5	0.30	0.00	0.00	0.30	0.30			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.70	0.07	0.76	1.42	1.50			N/A	N/A
2	1.88	0.05	0.50	4.96	7.91			N/A	N/A
3	0.29	0.00	0.00	0.29	0.29			N/A	N/A
4	2.21	0.04	0.45	6.03	10.39			N/A	N/A
5	0.50	0.04	0.44	1.30	1.42			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.24	0.03	0.26	1.24	1.24			N/A	N/A
2	5.49	0.04	0.39	13.26	29.88			N/A	N/A
3	0.55	0.03	0.28	0.55	0.55			N/A	N/A
4	5.52	0.03	0.33	8.50	28.10			N/A	N/A
5	1.31	0.03	0.29	1.31	3.71			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.26	0.03	0.28	1.26	1.65			N/A	N/A
2	5.87	0.03	0.32	6.74	27.63			N/A	N/A
3	0.57	0.04	0.35	1.12	2.30			N/A	N/A
4	5.75	0.03	0.30	5.75	16.24			N/A	N/A
5	1.38	0.03	0.31	2.13	6.92			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.71	0.27	0.97	1.42	1.48			N/A	N/A
2	1.98	0.05	0.46	5.34	8.95			N/A	N/A
3	0.30	0.00	0.00	0.30	0.30			N/A	N/A
4	2.30	0.05	0.59	6.17	9.79			N/A	N/A
5	0.53	0.05	0.45	1.33	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.48	0.04	0.41	1.26	1.40			N/A	N/A
2	1.12	0.03	0.34	2.36	5.65			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	1.37	0.04	0.37	3.39	6.81			N/A	N/A
5	0.31	0.03	0.32	1.01	1.29			N/A	N/A

2031 Base, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	14.81	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2031 Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	631	100.000
2		ONE HOUR	✓	1126	100.000
3		ONE HOUR	✓	117	100.000
4		ONE HOUR	✓	1493	100.000
5		ONE HOUR	✓	220	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1	2	3	4	5	
From	1	0	90	36	474	31
	2	130	0	32	896	66
	3	15	12	0	89	1
	4	414	788	129	0	162
	5	38	62	5	115	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	0	7	15	4	0
	2	10	0	8	6	2
	3	67	11	0	18	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.41	3.76	0.7	3.1	A	579	869
2	0.82	31.41	10.1	55.8	D	1033	1550
3	0.20	8.75	0.3	1.3	A	107	161
4	0.77	7.72	3.5	9.4	A	1370	2055
5	0.45	12.84	0.9	4.1	B	202	303

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	475	119	833	1981	0.240	474	447	0.0	0.3	2.500	A
2	848	212	593	1512	0.561	842	714	0.0	1.3	5.676	A
3	88	22	1284	960	0.092	88	151	0.0	0.1	5.014	A
4	1124	281	191	2201	0.511	1120	1180	0.0	1.1	3.533	A
5	166	41	1116	800	0.207	165	195	0.0	0.3	5.863	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	567	142	997	1862	0.305	567	535	0.3	0.5	2.911	A
2	1012	253	709	1443	0.702	1008	854	1.3	2.4	8.708	A
3	105	26	1536	821	0.128	105	181	0.1	0.2	6.114	A
4	1342	336	228	2175	0.617	1340	1412	1.1	1.7	4.579	A
5	198	49	1335	688	0.287	197	233	0.3	0.4	7.599	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	695	174	1218	1701	0.408	694	652	0.5	0.7	3.742	A
2	1240	310	867	1349	0.819	1214	1044	2.4	8.9	24.671	C
3	129	32	1860	641	0.201	128	221	0.2	0.3	8.526	A
4	1644	411	276	2143	0.767	1637	1712	1.7	3.4	7.490	A
5	242	61	1629	537	0.451	241	284	0.4	0.8	12.518	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	695	174	1223	1697	0.409	695	657	0.7	0.7	3.763	A
2	1240	310	870	1347	0.830	1235	1048	8.9	10.1	31.408	C
3	129	32	1882	629	0.205	129	222	0.3	0.3	8.750	A
4	1644	411	280	2140	0.768	1644	1731	3.4	3.5	7.718	A
5	242	61	1638	533	0.455	242	286	0.8	0.9	12.835	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	567	142	1004	1856	0.306	568	542	0.7	0.5	2.933	A
2	1012	253	713	1441	0.703	1042	860	10.1	2.6	10.286	B
3	105	26	1572	801	0.131	106	183	0.3	0.2	6.301	A
4	1342	336	235	2171	0.618	1349	1443	3.5	1.7	4.707	A
5	198	49	1347	682	0.290	199	236	0.9	0.4	7.771	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	475	119	838	1977	0.240	476	451	0.5	0.3	2.514	A
2	848	212	596	1510	0.561	853	718	2.6	1.4	5.857	A
3	88	22	1296	953	0.092	88	152	0.2	0.1	5.062	A
4	1124	281	193	2200	0.511	1127	1191	1.7	1.1	3.582	A

5	166	41	1123	797	0.208	166	196	0.4	0.3	5.929	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2	1.34	0.59	1.24	1.73	1.94			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	1.10	0.59	1.07	1.49	1.55			N/A	N/A
5	0.27	0.00	0.00	0.27	0.27			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2	2.42	0.05	0.51	6.61	10.78			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	1.70	0.05	0.49	4.41	7.11			N/A	N/A
5	0.41	0.00	0.00	0.41	0.41			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.72	0.03	0.26	0.72	0.72			N/A	N/A
2	8.92	0.06	1.12	25.98	43.88			N/A	N/A
3	0.30	0.03	0.31	0.56	0.59			N/A	N/A
4	3.39	0.03	0.30	3.39	9.41			N/A	N/A
5	0.83	0.03	0.27	0.83	0.83			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.72	0.03	0.30	1.22	3.12			N/A	N/A
2	10.13	0.04	0.43	26.04	55.52			N/A	N/A
3	0.31	0.03	0.34	0.71	1.27			N/A	N/A
4	3.46	0.03	0.29	3.46	3.46			N/A	N/A
5	0.85	0.03	0.31	1.25	4.11			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2	2.59	0.04	0.43	7.06	12.95			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	1.75	0.08	1.11	3.93	5.47			N/A	N/A
5	0.43	0.03	0.31	0.96	1.26			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2	1.38	0.03	0.32	2.06	6.86			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	1.12	0.05	0.46	2.73	4.24			N/A	N/A
5	0.27	0.03	0.26	0.47	0.50			N/A	N/A

2031 Base, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	12.75	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2031 Base	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	771	100.000
2		ONE HOUR	✓	1031	100.000
3		ONE HOUR	✓	191	100.000
4		ONE HOUR	✓	1646	100.000
5		ONE HOUR	✓	218	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1	2	3	4	5	
From	1	0	142	18	586	25
	2	116	0	13	862	40
	3	28	32	0	128	3
	4	453	970	86	0	137
	5	40	54	5	119	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	15	0	0	10	0
	4	4	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.54	5.09	1.2	1.9	A	707	1061
2	0.86	20.13	6.0	30.7	C	946	1419
3	0.35	9.87	0.6	2.4	A	175	263
4	0.84	11.05	5.4	30.4	B	1510	2266
5	0.57	20.26	1.3	6.5	C	200	300

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	580	145	949	1897	0.306	579	477	0.0	0.4	2.795	A
2	776	194	629	1490	0.521	772	898	0.0	1.1	5.167	A
3	144	36	1310	946	0.152	143	91	0.0	0.2	4.870	A
4	1239	310	183	2207	0.562	1234	1270	0.0	1.3	3.821	A
5	164	41	1263	725	0.226	163	154	0.0	0.3	6.566	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	693	173	1135	1761	0.394	692	571	0.4	0.7	3.448	A
2	927	232	753	1417	0.654	924	1075	1.1	1.9	7.526	A
3	172	43	1567	803	0.214	171	109	0.2	0.3	6.186	A
4	1480	370	219	2182	0.678	1476	1520	1.3	2.1	5.271	A
5	196	49	1511	598	0.328	195	184	0.3	0.5	9.165	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	849	212	1383	1580	0.537	847	696	0.7	1.2	5.016	A
2	1135	284	920	1318	0.862	1120	1311	1.9	5.7	17.729	C
3	210	53	1907	616	0.342	209	133	0.3	0.6	9.602	A
4	1812	453	266	2149	0.843	1800	1850	2.1	5.2	10.348	B
5	240	60	1842	428	0.561	237	224	0.5	1.3	19.056	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	849	212	1393	1573	0.540	849	701	1.2	1.2	5.093	A
2	1135	284	924	1315	0.863	1134	1318	5.7	6.0	20.134	C
3	210	53	1923	607	0.347	210	134	0.6	0.6	9.866	A
4	1812	453	268	2148	0.844	1812	1865	5.2	5.4	11.045	B
5	240	60	1854	422	0.569	240	226	1.3	1.3	20.257	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	693	173	1149	1751	0.396	695	579	1.2	0.7	3.502	A
2	927	232	758	1414	0.656	943	1086	6.0	2.0	8.198	A
3	172	43	1591	790	0.217	173	111	0.6	0.3	6.345	A
4	1480	370	222	2179	0.679	1492	1541	5.4	2.2	5.534	A
5	196	49	1529	589	0.333	199	186	1.3	0.5	9.565	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	580	145	956	1891	0.307	581	481	0.7	0.5	2.819	A
2	776	194	633	1488	0.522	780	904	2.0	1.1	5.299	A
3	144	36	1321	940	0.153	144	92	0.3	0.2	4.922	A
4	1239	310	184	2205	0.562	1243	1280	2.2	1.3	3.895	A

5	164	41	1272	720	0.228	165	155	0.5	0.3	6.669	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2	1.11	0.57	1.05	1.48	1.54			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	1.32	0.58	1.17	1.55	1.82			N/A	N/A
5	0.30	0.00	0.00	0.30	0.30			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.66	0.07	0.75	1.39	1.47			N/A	N/A
2	1.92	0.05	0.50	5.08	8.14			N/A	N/A
3	0.29	0.00	0.00	0.29	0.29			N/A	N/A
4	2.15	0.04	0.45	5.86	10.05			N/A	N/A
5	0.49	0.04	0.43	1.29	1.41			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.18	0.03	0.26	1.18	1.18			N/A	N/A
2	5.65	0.04	0.39	13.87	30.67			N/A	N/A
3	0.55	0.03	0.28	0.55	0.55			N/A	N/A
4	5.20	0.03	0.33	6.92	25.41			N/A	N/A
5	1.25	0.03	0.28	1.25	2.95			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.19	0.03	0.28	1.19	1.88			N/A	N/A
2	6.05	0.03	0.33	7.31	28.87			N/A	N/A
3	0.57	0.04	0.35	1.13	2.35			N/A	N/A
4	5.40	0.03	0.29	5.40	13.13			N/A	N/A
5	1.31	0.03	0.31	1.94	6.51			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.68	0.26	0.97	1.42	1.48			N/A	N/A
2	2.02	0.05	0.46	5.49	9.22			N/A	N/A
3	0.30	0.00	0.00	0.30	0.30			N/A	N/A
4	2.23	0.05	0.67	5.95	9.27			N/A	N/A
5	0.52	0.05	0.45	1.32	1.44			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.46	0.04	0.37	1.19	1.37			N/A	N/A
2	1.15	0.03	0.33	2.39	5.79			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	1.34	0.04	0.37	3.36	6.53			N/A	N/A
5	0.31	0.03	0.31	0.98	1.27			N/A	N/A

2031 Base + Com Dev, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	19.53	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2031 Base + Com Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	708	100.000
2		ONE HOUR	✓	1133	100.000
3		ONE HOUR	✓	119	100.000
4		ONE HOUR	✓	1519	100.000
5		ONE HOUR	✓	222	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1	2	3	4	5
From	1	0	98	39	538	33
	2	137	0	32	898	66
	3	15	12	0	91	1
	4	437	791	129	0	162
	5	40	62	5	115	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1	2	3	4	5
From	1	0	6	14	4	0
	2	9	0	8	6	2
	3	64	11	0	17	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.46	4.11	0.9	2.8	A	650	975
2	0.86	66.41	15.2	73.7	B	1040	1559
3	0.22	9.49	0.3	1.5	A	109	164
4	0.78	8.29	3.8	12.1	A	1394	2091
5	0.47	13.80	0.9	4.5	B	204	306

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	533	133	835	1979	0.269	531	471	0.0	0.4	2.598	A
2	853	213	644	1481	0.576	847	722	0.0	1.4	5.976	A
3	90	22	1338	930	0.096	89	154	0.0	0.1	5.155	A
4	1144	286	198	2196	0.521	1139	1230	0.0	1.1	3.613	A
5	167	42	1140	788	0.212	166	196	0.0	0.3	5.995	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	636	159	999	1860	0.342	636	564	0.4	0.5	3.074	A
2	1019	255	771	1406	0.724	1013	864	1.4	2.7	9.611	A
3	107	27	1601	785	0.136	107	184	0.1	0.2	6.397	A
4	1366	341	236	2170	0.629	1363	1471	1.1	1.8	4.739	A
5	200	50	1364	673	0.297	199	235	0.3	0.4	7.870	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	780	195	1220	1699	0.459	778	685	0.5	0.9	4.084	A
2	1247	312	943	1304	0.957	1209	1056	2.7	12.3	32.057	D
3	131	33	1928	604	0.217	130	224	0.2	0.3	9.156	A
4	1672	418	284	2137	0.782	1665	1775	1.8	3.7	7.991	A
5	244	61	1663	520	0.470	243	285	0.4	0.9	13.385	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	780	195	1226	1695	0.460	779	691	0.9	0.9	4.114	A
2	1247	312	946	1302	0.956	1236	1060	12.3	15.2	48.657	E
3	131	33	1956	588	0.223	131	225	0.3	0.3	9.485	A
4	1672	418	289	2134	0.784	1672	1799	3.7	3.8	8.288	A
5	244	61	1673	515	0.475	244	288	0.9	0.9	13.803	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	636	159	1008	1854	0.343	638	574	0.9	0.5	3.101	A
2	1019	255	775	1404	0.726	1068	870	15.2	2.9	12.934	B
3	107	27	1656	754	0.142	108	186	0.3	0.2	6.714	A
4	1366	341	246	2163	0.631	1373	1517	3.8	1.9	4.905	A
5	200	50	1380	665	0.300	201	239	0.9	0.5	8.095	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	533	133	841	1975	0.270	534	475	0.5	0.4	2.614	A
2	853	213	648	1479	0.577	859	727	2.9	1.5	6.217	A
3	90	22	1352	922	0.097	90	155	0.2	0.1	5.214	A
4	1144	286	200	2195	0.521	1146	1242	1.9	1.2	3.666	A

5	167	42	1148	784	0.213	168	198	0.5	0.3	6.072	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2	1.42	0.55	1.32	1.91	2.09			N/A	N/A
3	0.13	0.00	0.00	0.13	0.13			N/A	N/A
4	1.15	0.59	1.07	1.49	1.54			N/A	N/A
5	0.28	0.00	0.00	0.28	0.28			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.54	0.06	0.60	1.38	1.47			N/A	N/A
2	2.69	0.05	0.51	7.39	12.14			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	1.78	0.05	0.48	4.73	7.69			N/A	N/A
5	0.43	0.00	0.00	0.43	0.43			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.88	0.03	0.27	0.88	0.88			N/A	N/A
2	12.27	0.11	3.63	34.37	51.25			N/A	N/A
3	0.33	0.03	0.31	0.56	0.59			N/A	N/A
4	3.69	0.03	0.31	3.69	12.12			N/A	N/A
5	0.90	0.03	0.27	0.90	0.90			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.89	0.03	0.29	0.89	2.82			N/A	N/A
2	15.19	0.07	1.69	44.74	73.66			N/A	N/A
3	0.34	0.04	0.36	1.08	1.46			N/A	N/A
4	3.78	0.03	0.29	3.78	3.78			N/A	N/A
5	0.92	0.03	0.31	1.30	4.46			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.55	0.55	1.05	1.46	1.52			N/A	N/A
2	2.93	0.04	0.42	7.81	15.11			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	1.85	0.07	1.06	4.31	6.21			N/A	N/A
5	0.45	0.04	0.35	1.17	1.36			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2	1.47	0.03	0.31	1.52	6.69			N/A	N/A
3	0.13	0.00	0.00	0.13	0.13			N/A	N/A
4	1.17	0.04	0.44	2.92	4.77			N/A	N/A
5	0.28	0.03	0.27	0.48	0.51			N/A	N/A

2031 Base + Com Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	15.29	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2031 Base + Com Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	814	100.000
2		ONE HOUR	✓	1042	100.000
3		ONE HOUR	✓	193	100.000
4		ONE HOUR	✓	1697	100.000
5		ONE HOUR	✓	220	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1	2	3	4	5
From	1	0	149	21	619	25
	2	126	0	13	863	40
	3	29	33	0	128	3
	4	503	970	87	0	137
	5	42	54	5	119	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		1	2	3	4	5
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	14	0	0	10	0
	4	3	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.57	5.46	1.3	1.6	A	747	1120
2	0.89	24.54	7.4	39.8	C	956	1434
3	0.37	10.61	0.6	2.7	B	177	266
4	0.87	13.54	6.8	34.8	B	1557	2336
5	0.63	25.38	1.6	8.4	D	202	303

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	613	153	950	1896	0.323	611	524	0.0	0.5	2.867	A
2	784	196	657	1474	0.532	780	904	0.0	1.2	5.348	A
3	145	36	1342	928	0.157	144	94	0.0	0.2	4.983	A
4	1278	319	192	2200	0.581	1272	1295	0.0	1.4	3.990	A
5	166	41	1310	701	0.236	164	154	0.0	0.3	6.879	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	732	183	1137	1760	0.416	731	627	0.5	0.7	3.581	A
2	937	234	786	1397	0.670	933	1081	1.2	2.1	7.991	A
3	174	43	1606	782	0.222	173	113	0.2	0.3	6.415	A
4	1526	381	229	2175	0.702	1522	1550	1.4	2.4	5.674	A
5	198	49	1567	569	0.348	197	184	0.3	0.5	9.917	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	896	224	1383	1581	0.567	894	763	0.7	1.3	5.353	A
2	1147	287	959	1294	0.887	1129	1317	2.1	6.7	20.615	C
3	212	53	1951	591	0.359	211	138	0.3	0.6	10.249	B
4	1868	467	278	2141	0.873	1852	1883	2.4	6.4	12.279	B
5	242	61	1907	395	0.614	238	224	0.5	1.5	23.085	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	896	224	1395	1572	0.570	896	770	1.3	1.3	5.457	A
2	1147	287	964	1291	0.889	1145	1327	6.7	7.4	24.541	C
3	212	53	1970	581	0.366	212	139	0.6	0.6	10.609	B
4	1868	467	281	2139	0.874	1867	1901	6.4	6.8	13.543	B
5	242	61	1923	387	0.627	242	225	1.5	1.6	25.384	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	732	183	1154	1747	0.419	734	638	1.3	0.7	3.649	A
2	937	234	793	1393	0.672	958	1096	7.4	2.2	8.966	A
3	174	43	1636	766	0.227	175	115	0.6	0.3	6.628	A
4	1526	381	234	2171	0.703	1543	1576	6.8	2.5	6.079	A
5	198	49	1590	557	0.355	202	187	1.6	0.6	10.533	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	613	153	958	1890	0.324	614	529	0.7	0.5	2.894	A
2	784	196	661	1471	0.533	788	911	2.2	1.2	5.503	A
3	145	36	1354	921	0.158	146	95	0.3	0.2	5.042	A
4	1278	319	194	2199	0.581	1282	1307	2.5	1.5	4.081	A

5	166	41	1320	695	0.238	167	155	0.6	0.3	7.005	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.49	0.00	0.00	0.49	0.49			N/A	N/A
2	1.17	0.57	1.09	1.53	1.53			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	1.42	0.59	1.30	1.79	1.94			N/A	N/A
5	0.31	0.00	0.00	0.31	0.31			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.72	0.07	0.76	1.45	1.54			N/A	N/A
2	2.06	0.05	0.49	5.54	8.97			N/A	N/A
3	0.31	0.00	0.00	0.31	0.31			N/A	N/A
4	2.38	0.04	0.45	6.52	11.34			N/A	N/A
5	0.54	0.05	0.53	1.34	1.44			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.32	0.03	0.27	1.32	1.32			N/A	N/A
2	6.73	0.05	0.45	18.57	35.82			N/A	N/A
3	0.60	0.03	0.28	0.60	0.60			N/A	N/A
4	6.41	0.04	0.36	12.95	34.76			N/A	N/A
5	1.53	0.03	0.30	1.53	6.15			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.35	0.03	0.28	1.35	1.60			N/A	N/A
2	7.38	0.04	0.36	13.87	39.52			N/A	N/A
3	0.62	0.04	0.35	1.29	2.73			N/A	N/A
4	6.75	0.03	0.31	6.75	25.49			N/A	N/A
5	1.65	0.03	0.32	2.79	8.42			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.74	0.24	0.96	1.42	1.48			N/A	N/A
2	2.19	0.04	0.44	5.95	10.38			N/A	N/A
3	0.32	0.00	0.00	0.32	0.32			N/A	N/A
4	2.50	0.05	0.50	6.85	11.17			N/A	N/A
5	0.58	0.05	0.46	1.40	1.53			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.49	0.04	0.44	1.29	1.41			N/A	N/A
2	1.20	0.03	0.32	2.16	6.10			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	1.45	0.04	0.35	3.40	7.41			N/A	N/A
5	0.32	0.03	0.32	1.12	1.39			N/A	N/A

2031 Base + Prop Dev, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	15.88	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2031 Base + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	653	100.000
2		ONE HOUR	✓	1128	100.000
3		ONE HOUR	✓	117	100.000
4		ONE HOUR	✓	1499	100.000
5		ONE HOUR	✓	221	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1	2	3	4	5	
From	1	0	93	37	491	32
	2	132	0	32	898	66
	3	15	12	0	89	1
	4	420	788	129	0	162
	5	39	62	5	115	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	0	6	15	4	0
	2	10	0	8	6	2
	3	63	11	0	18	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.42	3.85	0.8	3.1	A	599	899
2	0.83	34.77	11.2	80.8	D	1035	1553
3	0.21	8.93	0.3	1.3	A	107	161
4	0.77	7.85	3.5	10.0	A	1376	2063
5	0.46	13.09	0.9	4.2	B	203	304

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	492	123	833	1981	0.248	490	454	0.0	0.3	2.524	A
2	849	212	607	1504	0.565	844	716	0.0	1.4	5.751	A
3	88	22	1298	952	0.093	88	152	0.0	0.1	5.051	A
4	1129	282	193	2199	0.513	1124	1193	0.0	1.1	3.553	A
5	166	42	1122	797	0.209	165	196	0.0	0.3	5.899	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	587	147	997	1862	0.315	586	543	0.3	0.5	2.952	A
2	1014	254	726	1433	0.708	1010	857	1.4	2.5	8.945	A
3	105	26	1554	811	0.130	105	182	0.1	0.2	6.185	A
4	1348	337	231	2173	0.620	1345	1428	1.1	1.7	4.617	A
5	199	50	1342	684	0.290	198	234	0.3	0.4	7.672	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	719	180	1217	1701	0.423	718	662	0.5	0.8	3.829	A
2	1242	310	888	1336	0.839	1213	1047	2.5	9.7	26.462	D
3	129	32	1879	631	0.204	128	222	0.2	0.3	8.683	A
4	1650	413	279	2141	0.771	1643	1729	1.7	3.5	7.610	A
5	243	61	1637	533	0.457	242	285	0.4	0.8	12.738	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	719	180	1223	1697	0.424	719	666	0.8	0.8	3.852	A
2	1242	310	891	1335	0.839	1236	1051	9.7	11.2	34.768	D
3	129	32	1903	618	0.209	129	223	0.3	0.3	8.935	A
4	1650	413	283	2138	0.772	1650	1749	3.5	3.5	7.854	A
5	243	61	1646	528	0.460	243	287	0.8	0.9	13.085	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	587	147	1005	1856	0.316	588	551	0.8	0.5	2.975	A
2	1014	254	730	1431	0.709	1048	863	11.2	2.7	10.847	B
3	105	26	1594	789	0.133	106	184	0.3	0.2	6.401	A
4	1348	337	238	2169	0.621	1355	1461	3.5	1.8	4.754	A
5	199	50	1355	678	0.293	200	237	0.9	0.4	7.854	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	492	123	839	1977	0.249	492	458	0.5	0.3	2.537	A
2	849	212	610	1502	0.565	854	721	2.7	1.4	5.955	A
3	88	22	1311	945	0.093	88	153	0.2	0.1	5.101	A
4	1129	282	195	2198	0.513	1131	1204	1.8	1.1	3.603	A

5	166	42	1129	793	0.210	167	197	0.4	0.3	5.969	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2	1.36	0.58	1.26	1.78	1.98			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	1.11	0.59	1.07	1.49	1.55			N/A	N/A
5	0.27	0.00	0.00	0.27	0.27			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.48	0.00	0.00	0.48	0.48			N/A	N/A
2	2.49	0.05	0.51	6.83	11.15			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	1.72	0.05	0.49	4.49	7.25			N/A	N/A
5	0.42	0.00	0.00	0.42	0.42			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.76	0.03	0.26	0.76	0.76			N/A	N/A
2	9.70	0.07	1.58	28.24	45.93			N/A	N/A
3	0.31	0.03	0.31	0.56	0.59			N/A	N/A
4	3.46	0.03	0.30	3.46	10.05			N/A	N/A
5	0.85	0.03	0.27	0.85	0.85			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.77	0.03	0.30	1.06	3.11			N/A	N/A
2	11.23	0.05	0.48	30.94	60.80			N/A	N/A
3	0.32	0.03	0.35	0.82	1.32			N/A	N/A
4	3.54	0.03	0.29	3.54	3.54			N/A	N/A
5	0.87	0.03	0.31	1.26	4.20			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.49	0.00	0.00	0.49	0.49			N/A	N/A
2	2.68	0.04	0.43	7.24	13.50			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	1.77	0.08	1.10	4.02	5.67			N/A	N/A
5	0.44	0.03	0.33	1.05	1.30			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.35	0.00	0.00	0.35	0.35			N/A	N/A
2	1.40	0.03	0.32	1.93	6.84			N/A	N/A
3	0.13	0.00	0.00	0.13	0.13			N/A	N/A
4	1.13	0.05	0.46	2.78	4.38			N/A	N/A
5	0.28	0.03	0.26	0.47	0.50			N/A	N/A

2031 Base + Prop Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	13.23	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 segment length (min)	Run automatically
D22	2031 Base + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	782	100.000
2		ONE HOUR	✓	1034	100.000
3		ONE HOUR	✓	191	100.000
4		ONE HOUR	✓	1655	100.000
5		ONE HOUR	✓	218	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	144	18	595	25
	2	119	0	13	862	40
	3	28	32	0	128	3
	4	462	970	86	0	137
	5	40	54	5	119	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	15	0	0	10	0
	4	4	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.55	5.18	1.2	1.8	A	718	1076
2	0.87	21.11	6.3	32.6	C	949	1423
3	0.35	10.05	0.6	2.4	B	175	263
4	0.85	11.45	5.6	27.1	B	1519	2278
5	0.58	21.02	1.4	6.8	C	200	300

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	589	147	949	1897	0.310	587	486	0.0	0.5	2.812	A
2	778	195	636	1486	0.524	774	900	0.0	1.1	5.213	A
3	144	36	1318	941	0.153	143	91	0.0	0.2	4.900	A
4	1246	311	185	2205	0.565	1241	1277	0.0	1.3	3.854	A
5	164	41	1272	720	0.228	163	154	0.0	0.3	6.620	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	703	176	1135	1761	0.399	702	582	0.5	0.7	3.480	A
2	930	232	761	1412	0.658	926	1076	1.1	2.0	7.639	A
3	172	43	1578	798	0.215	171	109	0.2	0.3	6.244	A
4	1488	372	221	2180	0.682	1484	1528	1.3	2.2	5.344	A
5	196	49	1522	592	0.331	195	184	0.3	0.5	9.295	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	861	215	1383	1580	0.545	859	708	0.7	1.2	5.096	A
2	1138	285	929	1312	0.863	1123	1312	2.0	5.9	18.398	C
3	210	53	1919	609	0.345	209	133	0.3	0.6	9.763	A
4	1822	456	269	2147	0.849	1809	1859	2.2	5.4	10.672	B
5	240	60	1855	422	0.569	237	224	0.5	1.3	19.678	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	861	215	1393	1573	0.547	861	714	1.2	1.2	5.180	A
2	1138	285	933	1309	0.863	1137	1321	5.9	6.3	21.110	C
3	210	53	1936	600	0.351	210	134	0.6	0.6	10.048	B
4	1822	456	272	2146	0.849	1821	1874	5.4	5.6	11.447	B
5	240	60	1867	415	0.578	240	226	1.3	1.4	21.023	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	703	176	1150	1750	0.402	705	590	1.2	0.7	3.535	A
2	930	232	767	1409	0.660	947	1088	6.3	2.1	8.372	A
3	172	43	1603	784	0.219	173	111	0.6	0.3	6.417	A
4	1488	372	225	2177	0.683	1501	1550	5.6	2.3	5.631	A
5	196	49	1540	583	0.336	199	186	1.4	0.5	9.722	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	589	147	956	1891	0.311	590	490	0.7	0.5	2.835	A
2	778	195	640	1484	0.525	782	906	2.1	1.2	5.348	A
3	144	36	1330	935	0.154	144	92	0.3	0.2	4.952	A
4	1246	311	187	2204	0.565	1250	1287	2.3	1.4	3.932	A

5	164	41	1282	715	0.229	165	155	0.5	0.3	6.729	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.46	0.00	0.00	0.46	0.46			N/A	N/A
2	1.13	0.57	1.06	1.50	1.55			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	1.34	0.59	1.19	1.62	1.85			N/A	N/A
5	0.30	0.00	0.00	0.30	0.30			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.68	0.07	0.75	1.40	1.48			N/A	N/A
2	1.95	0.05	0.50	5.18	8.33			N/A	N/A
3	0.30	0.00	0.00	0.30	0.30			N/A	N/A
4	2.19	0.04	0.45	5.97	10.28			N/A	N/A
5	0.50	0.04	0.45	1.30	1.42			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.21	0.03	0.26	1.21	1.21			N/A	N/A
2	5.90	0.04	0.40	15.02	32.02			N/A	N/A
3	0.56	0.03	0.28	0.56	0.56			N/A	N/A
4	5.40	0.03	0.33	7.87	27.06			N/A	N/A
5	1.29	0.03	0.28	1.29	3.46			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.23	0.03	0.28	1.23	1.80			N/A	N/A
2	6.35	0.03	0.33	8.66	31.21			N/A	N/A
3	0.58	0.04	0.35	1.17	2.44			N/A	N/A
4	5.61	0.03	0.30	5.61	15.00			N/A	N/A
5	1.36	0.03	0.31	2.03	6.78			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.69	0.26	0.97	1.42	1.48			N/A	N/A
2	2.06	0.05	0.45	5.61	9.52			N/A	N/A
3	0.31	0.00	0.00	0.31	0.31			N/A	N/A
4	2.28	0.05	0.62	6.10	9.61			N/A	N/A
5	0.53	0.05	0.46	1.33	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.47	0.04	0.38	1.23	1.38			N/A	N/A
2	1.16	0.03	0.33	2.34	5.89			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	1.36	0.04	0.37	3.38	6.72			N/A	N/A
5	0.31	0.03	0.32	1.01	1.29			N/A	N/A

2031 Base + Com Dev + Prop Dev, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	21.45	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D23	2031 Base + Com Dev + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	732	100.000
2		ONE HOUR	✓	1135	100.000
3		ONE HOUR	✓	119	100.000
4		ONE HOUR	✓	1526	100.000
5		ONE HOUR	✓	222	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0	101	40	556	35
	2	139	0	32	898	66
	3	15	12	0	91	1
	4	444	791	129	0	162
	5	40	62	5	115	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1	2	3	4	5
	1	0	6	14	3	0
	2	9	0	8	6	2
	3	61	11	0	17	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.48	4.20	0.9	2.6	A	672	1008
2	0.97	52.69	17.5	78.8	F	1041	1562
3	0.23	9.71	0.3	1.5	A	109	164
4	0.79	8.47	3.9	13.0	A	1400	2100
5	0.48	14.05	0.9	4.5	B	204	306

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	551	138	835	1980	0.278	549	478	0.0	0.4	2.611	A
2	854	214	660	1472	0.580	849	724	0.0	1.4	6.077	A
3	90	22	1354	921	0.097	89	154	0.0	0.1	5.202	A
4	1149	287	201	2194	0.524	1144	1243	0.0	1.2	3.636	A
5	167	42	1147	784	0.213	166	198	0.0	0.3	6.029	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	658	165	999	1860	0.354	657	572	0.4	0.6	3.106	A
2	1020	255	790	1395	0.732	1015	867	1.4	2.8	9.923	A
3	107	27	1620	774	0.138	107	185	0.1	0.2	6.489	A
4	1372	343	240	2167	0.633	1369	1487	1.2	1.8	4.790	A
5	200	50	1372	669	0.298	199	237	0.3	0.4	7.939	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	806	201	1220	1699	0.474	804	694	0.6	0.9	4.171	A
2	1250	312	966	1290	0.989	1206	1059	2.8	13.6	34.856	D
3	131	33	1947	593	0.221	130	225	0.2	0.3	9.350	A
4	1680	420	287	2135	0.787	1672	1791	1.8	3.8	8.152	A
5	244	61	1672	515	0.474	243	287	0.4	0.9	13.605	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	806	201	1226	1695	0.476	806	700	0.9	0.9	4.205	A
2	1250	312	969	1288	0.979	1234	1063	13.6	17.5	52.951	F
3	131	33	1977	577	0.227	131	226	0.3	0.3	9.710	A
4	1680	420	292	2131	0.788	1680	1815	3.8	3.9	8.474	A
5	244	61	1682	510	0.479	244	290	0.9	0.9	14.049	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	658	165	1008	1854	0.355	660	583	0.9	0.6	3.132	A
2	1020	255	794	1392	0.733	1078	873	17.5	3.0	14.276	B
3	107	27	1685	738	0.145	108	188	0.3	0.2	6.870	A
4	1372	343	252	2159	0.635	1380	1541	3.9	1.9	4.968	A
5	200	50	1390	660	0.302	202	242	0.9	0.5	8.181	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	551	138	841	1975	0.279	552	482	0.6	0.4	2.628	A
2	854	214	664	1470	0.581	861	729	3.0	1.5	6.335	A
3	90	22	1369	913	0.098	90	156	0.2	0.1	5.262	A
4	1149	287	203	2193	0.524	1152	1256	1.9	1.2	3.696	A

5	167	42	1155	780	0.214	168	199	0.5	0.3	6.108	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2	1.45	0.54	1.34	1.97	2.25			N/A	N/A
3	0.13	0.00	0.00	0.13	0.13			N/A	N/A
4	1.16	0.59	1.07	1.49	1.54			N/A	N/A
5	0.28	0.00	0.00	0.28	0.28			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.57	0.06	0.69	1.38	1.47			N/A	N/A
2	2.78	0.05	0.52	7.67	12.58			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	1.81	0.05	0.48	4.82	7.87			N/A	N/A
5	0.44	0.00	0.00	0.44	0.44			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.93	0.03	0.26	0.93	0.93			N/A	N/A
2	13.64	0.15	5.21	36.94	53.31			N/A	N/A
3	0.34	0.03	0.31	0.56	0.59			N/A	N/A
4	3.78	0.03	0.31	3.78	12.99			N/A	N/A
5	0.91	0.03	0.27	0.91	0.91			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.94	0.03	0.29	0.94	2.56			N/A	N/A
2	17.50	0.10	3.75	50.64	78.50			N/A	N/A
3	0.35	0.04	0.36	1.13	1.48			N/A	N/A
4	3.88	0.03	0.29	3.88	3.88			N/A	N/A
5	0.94	0.03	0.31	1.32	4.54			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.57	0.57	1.04	1.45	1.51			N/A	N/A
2	3.05	0.04	0.41	8.09	15.87			N/A	N/A
3	0.21	0.00	0.00	0.21	0.21			N/A	N/A
4	1.88	0.07	1.04	4.46	6.39			N/A	N/A
5	0.46	0.04	0.36	1.20	1.38			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2	1.50	0.03	0.31	1.50	6.61			N/A	N/A
3	0.13	0.00	0.00	0.13	0.13			N/A	N/A
4	1.18	0.04	0.44	2.97	4.92			N/A	N/A
5	0.29	0.03	0.27	0.49	0.51			N/A	N/A

2031 Base + Com Dev + Prop Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	15.96	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D24	2031 Base + Com Dev + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	826	100.000
2		ONE HOUR	✓	1044	100.000
3		ONE HOUR	✓	193	100.000
4		ONE HOUR	✓	1706	100.000
5		ONE HOUR	✓	221	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	151	21	628	26
	2	128	0	13	863	40
	3	29	33	0	128	3
	4	512	970	87	0	137
	5	43	54	5	119	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	14	0	0	10	0
	4	3	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.58	5.57	1.4	1.5	A	758	1137
2	0.88	25.86	7.8	82.0	D	958	1437
3	0.37	10.82	0.6	2.8	B	177	266
4	0.88	14.14	7.1	38.8	B	1565	2348
5	0.64	26.68	1.7	8.9	D	203	304

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	622	155	950	1896	0.328	620	533	0.0	0.5	2.887	A
2	786	196	664	1469	0.535	781	905	0.0	1.2	5.393	A
3	145	36	1351	923	0.157	144	94	0.0	0.2	5.015	A
4	1284	321	194	2199	0.584	1279	1302	0.0	1.4	4.025	A
5	166	42	1318	697	0.239	165	154	0.0	0.3	6.942	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	743	186	1137	1760	0.422	742	638	0.5	0.7	3.619	A
2	939	235	795	1392	0.674	935	1083	1.2	2.1	8.112	A
3	174	43	1617	776	0.224	173	113	0.2	0.3	6.478	A
4	1534	383	232	2173	0.706	1530	1558	1.4	2.4	5.760	A
5	199	50	1577	564	0.352	198	185	0.3	0.5	10.077	B

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	909	227	1382	1581	0.575	907	775	0.7	1.4	5.452	A
2	1149	287	970	1288	0.833	1130	1319	2.1	7.0	21.425	C
3	212	53	1962	585	0.363	211	137	0.3	0.6	10.429	B
4	1878	470	281	2139	0.878	1861	1892	2.4	6.7	12.714	B
5	243	61	1918	389	0.625	239	225	0.5	1.6	24.040	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	909	227	1395	1572	0.579	909	783	1.4	1.4	5.565	A
2	1149	287	975	1285	0.835	1147	1329	7.0	7.8	25.861	C
3	212	53	1983	573	0.371	212	139	0.6	0.6	10.818	B
4	1878	470	285	2137	0.879	1877	1911	6.7	7.1	14.136	B
5	243	61	1935	380	0.640	243	227	1.6	1.7	26.676	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	743	186	1155	1746	0.425	745	649	1.4	0.8	3.694	A
2	939	235	802	1388	0.676	961	1098	7.8	2.2	9.184	A
3	174	43	1648	759	0.229	175	115	0.6	0.3	6.707	A
4	1534	383	237	2169	0.707	1552	1586	7.1	2.6	6.204	A
5	199	50	1601	552	0.360	203	188	1.7	0.6	10.753	B

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	622	155	958	1890	0.329	623	538	0.8	0.5	2.915	A
2	786	196	669	1467	0.536	790	912	2.2	1.2	5.552	A
3	145	36	1364	916	0.159	146	95	0.3	0.2	5.077	A
4	1284	321	196	2198	0.584	1289	1313	2.6	1.5	4.120	A

5	166	42	1329	691	0.241	167	156	0.6	0.3	7.075	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.50	0.00	0.00	0.50	0.50			N/A	N/A
2	1.18	0.57	1.10	1.18	1.62			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	1.44	0.59	1.33	1.81	1.96			N/A	N/A
5	0.32	0.00	0.00	0.32	0.32			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.74	0.07	0.76	1.26	1.26			N/A	N/A
2	2.09	0.05	0.49	5.65	9.15			N/A	N/A
3	0.31	0.00	0.00	0.31	0.31			N/A	N/A
4	2.43	0.04	0.45	6.67	11.62			N/A	N/A
5	0.55	0.05	0.56	1.35	1.44			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.37	0.03	0.27	1.37	1.37			N/A	N/A
2	7.04	0.05	0.47	19.70	36.87			N/A	N/A
3	0.61	0.03	0.28	0.61	0.61			N/A	N/A
4	6.69	0.04	0.37	14.32	36.56			N/A	N/A
5	1.60	0.03	0.30	1.60	6.89			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	1.39	0.03	0.28	1.39	1.54			N/A	N/A
2	7.78	0.04	0.37	15.89	42.31			N/A	N/A
3	0.63	0.03	0.35	1.32	2.80			N/A	N/A
4	7.07	0.03	0.31	7.07	28.47			N/A	N/A
5	1.73	0.03	0.32	3.02	8.94			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.76	0.23	0.96	1.42	1.48			N/A	N/A
2	2.23	0.04	0.43	6.07	10.72			N/A	N/A
3	0.32	0.00	0.00	0.32	0.32			N/A	N/A
4	2.55	0.05	0.50	7.01	11.52			N/A	N/A
5	0.59	0.05	0.46	1.17	1.17			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.50	0.05	0.45	1.30	1.42			N/A	N/A
2	1.21	0.03	0.32	2.09	6.14			N/A	N/A
3	0.21	0.00	0.00	0.21	0.21			N/A	N/A
4	1.47	0.03	0.35	3.38	7.55			N/A	N/A
5	0.33	0.03	0.32	1.14	1.42			N/A	N/A

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.2.1013 © Copyright TRL Limited, 2019
For sales and distribution information, program advice and maintenance, contact TRL:
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Saltbox (With Systra Mitigation).j9

Path: C:\Users\JosephTucker\OneDrive - Highgate Transportation\Shared Documents - HTp\2400 - Projects\2401 - Woodgate QW3\Modelling\Junctions 9\Saltbox

Report generation date: 02/07/2024 14:21:35

»2024 Base, AM
 »2024 Base, PM
 »2024 Base + Com Dev, AM
 »2024 Base + Com Dev, PM
 »2024 Base + Prop Dev, AM
 »2024 Base + Prop Dev, PM
 »2024 Base + Com Dev + Prop Dev, AM
 »2024 Base + Com Dev + Prop Dev, PM
 »2028 Base, AM
 »2028 Base, PM
 »2028 Base + Com Dev, AM
 »2028 Base + Com Dev, PM
 »2028 Base + Prop Dev, AM
 »2028 Base + Prop Dev, PM
 »2028 Base + Com Dev + Prop Dev, AM
 »2028 Base + Com Dev + Prop Dev, PM
 »2031 Base, AM
 »2031 Base, PM
 »2031 Base + Com Dev, AM
 »2031 Base + Com Dev, PM
 »2031 Base + Prop Dev, AM
 »2031 Base + Prop Dev, PM
 »2031 Base + Com Dev + Prop Dev, AM
 »2031 Base + Com Dev + Prop Dev, PM

Summary of junction performance

AM					PM				
Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2024 Base									
Arm 1	0.4	2.04	0.26	A	D2	0.5	2.35	0.34	A
Arm 2	1.8	5.66	0.63	A		1.5	5.02	0.59	A
Arm 3	0.3	7.75	0.18	A		0.5	8.31	0.30	A
Arm 4	0.9	2.03	0.45	A		1.0	2.15	0.49	A
Arm 5	0.6	9.70	0.37	A		0.8	13.03	0.45	B
2024 Base + Com Dev									
Arm 1	0.4	2.14	0.30	A	D4	0.6	2.43	0.36	A
Arm 2	2.0	6.18	0.65	A		1.6	5.30	0.60	A
Arm 3	0.3	8.35	0.19	A		0.5	8.85	0.31	A
Arm 4	0.9	2.08	0.46	A		1.1	2.23	0.51	A
Arm 5	0.6	10.23	0.39	B		0.9	14.83	0.48	B
2024 Base + Prop Dev									
Arm 1	0.4	2.07	0.27	A	D6	0.5	2.37	0.34	A
Arm 2	1.9	5.80	0.64	A		1.5	5.09	0.59	A
Arm 3	0.3	7.90	0.18	A		0.5	8.43	0.30	A
Arm 4	0.9	2.05	0.45	A		1.0	2.16	0.50	A
Arm 5	0.6	9.86	0.38	A		0.8	13.23	0.45	B
2024 Base + Com Dev + Prop Dev									
Arm 1	0.5	2.15	0.31	A		0.6	2.45	0.36	A
Arm 2	2.1	6.35	0.66	A		1.6	5.37	0.61	A

Arm 3	D7	0.3	8.57	0.20	A	D8	0.5	8.98	0.32	A
Arm 4		0.9	2.09	0.46	A		1.1	2.24	0.52	A
Arm 5		0.7	10.40	0.39	B		0.9	15.20	0.48	C
2028 Base										
Arm 1	D9	0.4	2.10	0.27	A	D10	0.6	2.46	0.36	A
Arm 2		2.1	6.20	0.66	A		1.7	5.44	0.62	A
Arm 3		0.3	8.30	0.19	A		0.5	9.09	0.32	A
Arm 4		0.9	2.10	0.47	A		1.1	2.23	0.51	A
Arm 5		0.7	10.68	0.40	B		0.9	14.79	0.48	B
2028 Base + Com Dev										
Arm 1	D11	0.5	2.21	0.31	A	D12	0.6	2.54	0.38	A
Arm 2		2.3	6.83	0.68	A		1.8	5.75	0.63	A
Arm 3		0.3	8.99	0.21	A		0.6	9.70	0.34	A
Arm 4		1.0	2.15	0.48	A		1.2	2.32	0.53	A
Arm 5		0.7	11.32	0.42	B		1.1	17.44	0.53	C
2028 Base + Prop Dev										
Arm 1	D13	0.4	2.13	0.28	A	D14	0.6	2.48	0.36	A
Arm 2		2.1	6.36	0.67	A		1.7	5.51	0.62	A
Arm 3		0.3	8.47	0.19	A		0.5	9.23	0.33	A
Arm 4		0.9	2.11	0.47	A		1.1	2.25	0.52	A
Arm 5		0.7	10.83	0.41	B		1.0	15.23	0.49	C
2028 Base + Com Dev + Prop Dev										
Arm 1	D15	0.5	2.23	0.32	A	D16	0.6	2.56	0.38	A
Arm 2		2.3	7.04	0.69	A		1.8	5.84	0.64	A
Arm 3		0.3	9.20	0.21	A		0.6	9.90	0.35	A
Arm 4		1.0	2.16	0.48	A		1.2	2.34	0.53	A
Arm 5		0.7	11.47	0.42	B		1.2	18.09	0.54	C
2031 Base										
Arm 1	D17	0.4	2.16	0.28	A	D18	0.6	2.56	0.37	A
Arm 2		2.3	6.73	0.69	A		1.8	5.86	0.64	A
Arm 3		0.3	8.81	0.21	A		0.6	9.88	0.35	A
Arm 4		1.0	2.16	0.48	A		1.2	2.31	0.53	A
Arm 5		0.8	11.61	0.43	B		1.1	17.12	0.53	C
2031 Base + Com Dev										
Arm 1	D19	0.5	2.27	0.32	A	D20	0.7	2.65	0.39	A
Arm 2		2.6	7.48	0.71	A		2.0	6.24	0.66	A
Arm 3		0.3	9.59	0.22	A		0.6	10.61	0.37	B
Arm 4		1.0	2.21	0.49	A		1.2	2.41	0.55	A
Arm 5		0.8	12.39	0.45	B		1.4	20.62	0.58	C
2031 Base + Prop Dev										
Arm 1	D21	0.4	2.19	0.29	A	D22	0.6	2.58	0.38	A
Arm 2		2.4	6.92	0.69	A		1.9	5.95	0.64	A
Arm 3		0.3	9.00	0.21	A		0.6	10.06	0.35	B
Arm 4		1.0	2.18	0.48	A		1.2	2.33	0.53	A
Arm 5		0.8	11.81	0.43	B		1.2	17.66	0.53	C
2031 Base + Com Dev + Prop Dev										
Arm 1	D23	0.5	2.29	0.33	A	D24	0.7	2.67	0.40	A
Arm 2		2.6	7.74	0.72	A		2.0	6.34	0.66	A
Arm 3		0.4	9.85	0.23	A		0.6	10.82	0.37	B
Arm 4		1.0	2.22	0.49	A		1.3	2.43	0.55	A
Arm 5		0.8	12.60	0.45	B		1.4	21.48	0.59	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.

File summary

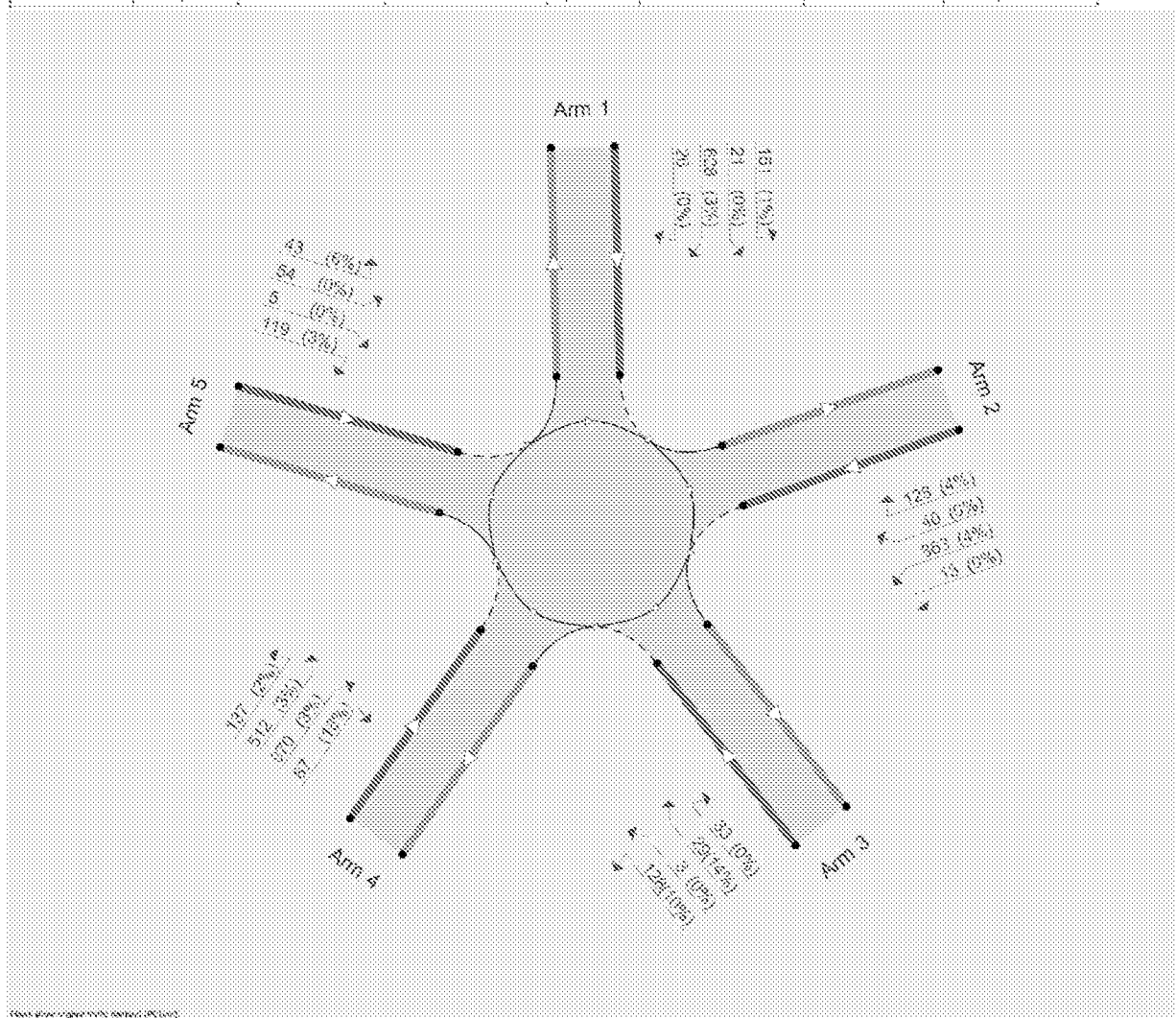
File Description

Title	
Location	
Site number	
Date	07/06/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureADVAliceHowse

Description

Units

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



Flow above origin with red PCU Unit

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 segment length (min)	Run automatically
D1	2024 Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2024 Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2024 Base + Com Dev	AM	ONE HOUR	07:45	09:15	15	✓
D4	2024 Base + Com Dev	PM	ONE HOUR	15:45	17:15	15	✓
D5	2024 Base + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2024 Base + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓
D7	2024 Base + Com Dev + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓
D8	2024 Base + Com Dev + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓
D9	2028 Base	AM	ONE HOUR	07:45	09:15	15	✓
D10	2028 Base	PM	ONE HOUR	15:45	17:15	15	✓
D11	2028 Base + Com Dev	AM	ONE HOUR	07:45	09:15	15	✓
D12	2028 Base + Com Dev	PM	ONE HOUR	15:45	17:15	15	✓
D13	2028 Base + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓

D14	2028 Base + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓
D15	2028 Base + Com Dev + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓
D16	2028 Base + Com Dev + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓
D17	2031 Base	AM	ONE HOUR	07:45	09:15	15	✓
D18	2031 Base	PM	ONE HOUR	15:45	17:15	15	✓
D19	2031 Base + Com Dev	AM	ONE HOUR	07:45	09:15	15	✓
D20	2031 Base + Com Dev	PM	ONE HOUR	15:45	17:15	15	✓
D21	2031 Base + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓
D22	2031 Base + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓
D23	2031 Base + Com Dev + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓
D24	2031 Base + Com Dev + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

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

2024 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	3.83	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A29 (N)	A29 (N)
2	A259 (E)	A259 (E)
3	Newlands Road	Newlands Road
4	A29 (S)	A29 (S)
5	Saltbox	Saltbox

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	F - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	9.84	11.77	3.6	47.7	63.1	11.0	
2	4.71	9.68	25.0	13.7	63.1	19.5	
3	4.97	5.64	2.7	14.0	63.1	24.0	
4	7.40	13.40	36.7	30.2	63.1	15.5	
5	3.61	4.91	5.4	15.4	63.1	11.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.866	3498
2	0.658	2380
3	0.526	1619
4	0.887	3665
5	0.499	1381

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	593	100.000

2		ONE HOUR	✓	1059	100.000
3		ONE HOUR	✓	109	100.000
4		ONE HOUR	✓	1405	100.000
5		ONE HOUR	✓	207	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	84	34	446	29
	2	122	0	30	845	62
	3	14	11	0	83	1
	4	389	742	121	0	153
	5	36	58	5	108	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	7	15	4	0
	2	10	0	8	6	2
	3	67	11	0	18	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.26	2.04	0.4	1.4	A	544	816
2	0.63	5.66	1.8	2.6	A	972	1458
3	0.18	7.75	0.3	0.6	A	100	150
4	0.45	2.03	0.9	1.8	A	1289	1934
5	0.37	9.70	0.6	2.8	A	190	285

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	446	112	785	2819	0.158	446	421	0.0	0.2	1.589	A
2	797	199	558	2013	0.396	794	672	0.0	0.7	3.132	A
3	82	21	1210	982	0.084	82	143	0.0	0.1	4.859	A
4	1058	264	179	3506	0.302	1056	1112	0.0	0.5	1.566	A
5	156	39	1051	857	0.182	155	184	0.0	0.2	5.314	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	533	133	939	2686	0.199	533	504	0.2	0.3	1.751	A
2	952	238	667	1941	0.490	951	804	0.7	1.0	3.857	A
3	98	24	1447	857	0.114	98	171	0.1	0.2	5.764	A
4	1263	316	215	3475	0.363	1262	1331	0.5	0.6	1.733	A
5	186	47	1257	754	0.247	186	220	0.2	0.3	6.565	A

08:15 - 08:30

Arm	Total Demand	Junction Arrivals	Circulating flow	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side)	Start queue	End queue	Delay (s)	Unsignalised level of
-----	--------------	-------------------	------------------	-------------------	-----	---------------------	------------------------	-------------	-----------	-----------	-----------------------

	(PCU/hr)	(PCU)	(PCU/hr)				(PCU/hr)	(PCU)	(PCU)		service
1	653	163	1149	2503	0.261	652	617	0.3	0.4	2.038	A
2	1166	291	817	1843	0.633	1163	984	1.0	1.8	5.599	A
3	120	30	1771	687	0.175	120	209	0.2	0.3	7.711	A
4	1547	387	262	3433	0.451	1546	1628	0.6	0.9	2.032	A
5	228	57	1539	613	0.372	227	269	0.3	0.6	9.632	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	653	163	1151	2502	0.261	653	618	0.4	0.4	2.039	A
2	1166	291	818	1842	0.633	1166	985	1.8	1.8	5.655	A
3	120	30	1775	685	0.175	120	209	0.3	0.3	7.750	A
4	1547	387	263	3432	0.451	1547	1632	0.9	0.9	2.034	A
5	228	57	1540	613	0.372	228	270	0.6	0.6	9.701	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	533	133	941	2684	0.199	534	505	0.4	0.3	1.756	A
2	952	238	669	1940	0.491	955	806	1.8	1.0	3.896	A
3	98	24	1453	854	0.115	98	171	0.3	0.2	5.797	A
4	1263	316	216	3474	0.364	1264	1336	0.9	0.6	1.735	A
5	186	47	1259	753	0.247	187	221	0.6	0.3	6.612	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	446	112	787	2816	0.159	447	423	0.3	0.2	1.593	A
2	797	199	560	2012	0.396	799	674	1.0	0.7	3.157	A
3	82	21	1215	979	0.084	82	143	0.2	0.1	4.882	A
4	1058	264	180	3506	0.302	1058	1117	0.6	0.5	1.567	A
5	156	39	1054	855	0.182	156	185	0.3	0.2	5.343	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.20	0.00	0.00	0.20	0.20			N/A	N/A
2	0.69	0.58	1.06	1.49	1.54			N/A	N/A
3	0.11	0.00	0.00	0.11	0.11			N/A	N/A
4	0.46	0.00	0.00	0.46	0.46			N/A	N/A
5	0.23	0.00	0.00	0.23	0.23			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.26	0.00	0.00	0.26	0.26			N/A	N/A
2	1.01	0.07	0.79	1.91	2.63			N/A	N/A
3	0.16	0.00	0.00	0.16	0.16			N/A	N/A
4	0.61	0.07	0.74	1.43	1.51			N/A	N/A
5	0.34	0.00	0.00	0.34	0.34			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.37	0.03	0.26	0.47	0.50			N/A	N/A
2	1.80	0.03	0.28	1.80	1.80			N/A	N/A
3	0.25	0.03	0.31	0.56	0.59			N/A	N/A
4	0.87	0.03	0.27	0.87	0.87			N/A	N/A
5	0.60	0.03	0.27	0.60	0.60			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.37	0.03	0.35	1.17	1.40			N/A	N/A
2	1.82	0.03	0.28	1.82	1.82			N/A	N/A
3	0.26	0.03	0.31	0.56	0.59			N/A	N/A

4	0.87	0.03	0.29	0.87	1.84			N/A	N/A
5	0.61	0.03	0.32	1.10	2.84			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.26	0.00	0.00	0.26	0.26			N/A	N/A
2	1.03	0.18	1.05	1.33	1.76			N/A	N/A
3	0.16	0.00	0.00	0.16	0.16			N/A	N/A
4	0.61	0.59	1.07	1.49	1.55			N/A	N/A
5	0.34	0.00	0.00	0.34	0.34			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.20	0.00	0.00	0.20	0.20			N/A	N/A
2	0.70	0.06	0.68	1.49	1.59			N/A	N/A
3	0.11	0.00	0.00	0.11	0.11			N/A	N/A
4	0.46	0.00	0.00	0.46	0.46			N/A	N/A
5	0.23	0.00	0.00	0.23	0.23			N/A	N/A

2024 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	3.88	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2024 Base	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	724	100.000
2		ONE HOUR	✓	968	100.000
3		ONE HOUR	✓	179	100.000
4		ONE HOUR	✓	1546	100.000
5		ONE HOUR	✓	207	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	133	17	551	23
	2	109	0	12	810	37
	3	26	30	0	120	3
	4	426	911	81	0	128
	5	40	51	5	111	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	15	0	0	10	0
	4	4	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.34	2.35	0.5	2.1	A	664	997
2	0.59	5.02	1.5	1.8	A	888	1332
3	0.30	8.31	0.5	1.6	A	164	246
4	0.49	2.15	1.0	1.5	A	1419	2128
5	0.45	13.03	0.8	4.0	B	190	285

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	545	136	893	2725	0.200	544	451	0.0	0.3	1.691	A
2	729	182	592	1991	0.366	726	845	0.0	0.6	2.950	A
3	135	34	1232	971	0.139	134	86	0.0	0.2	4.673	A
4	1164	291	171	3514	0.331	1162	1195	0.0	0.5	1.587	A
5	156	39	1189	788	0.198	155	143	0.0	0.3	5.832	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	651	163	1068	2574	0.253	651	540	0.3	0.3	1.917	A
2	870	218	708	1915	0.454	869	1011	0.6	0.9	3.570	A
3	161	40	1474	843	0.191	161	103	0.2	0.3	5.728	A
4	1390	347	205	3484	0.399	1389	1430	0.5	0.7	1.783	A
5	186	47	1422	672	0.277	186	172	0.3	0.4	7.600	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	797	199	1307	2367	0.337	796	661	0.3	0.5	2.347	A
2	1066	266	866	1811	0.589	1063	1237	0.9	1.5	4.984	A
3	197	49	1803	670	0.294	196	126	0.3	0.4	8.246	A
4	1702	426	250	3443	0.494	1701	1749	0.7	1.0	2.144	A
5	228	57	1741	512	0.445	226	210	0.4	0.8	12.848	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	797	199	1309	2365	0.337	797	662	0.5	0.5	2.352	A
2	1066	266	868	1810	0.589	1066	1239	1.5	1.5	5.022	A
3	197	49	1807	668	0.295	197	127	0.4	0.5	8.307	A
4	1702	426	251	3443	0.494	1702	1753	1.0	1.0	2.146	A
5	228	57	1743	512	0.445	228	210	0.8	0.8	13.026	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	651	163	1071	2571	0.253	652	541	0.5	0.3	1.922	A
2	870	218	710	1913	0.455	873	1013	1.5	0.9	3.597	A
3	161	40	1479	840	0.191	162	104	0.5	0.3	5.772	A
4	1390	347	206	3483	0.399	1391	1435	1.0	0.7	1.786	A
5	186	47	1425	670	0.278	188	172	0.8	0.4	7.689	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	545	136	896	2722	0.200	545	453	0.3	0.3	1.696	A
2	729	182	594	1990	0.366	730	848	0.9	0.6	2.970	A
3	135	34	1237	968	0.139	135	87	0.3	0.2	4.701	A
4	1164	291	172	3513	0.331	1165	1200	0.7	0.5	1.591	A

5	156	39	1193	786	0.198	156	144	0.4	0.3	5.878	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.26	0.00	0.00	0.26	0.26			N/A	N/A
2	0.60	0.57	1.04	1.45	1.50			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	0.51	0.00	0.00	0.51	0.51			N/A	N/A
5	0.25	0.00	0.00	0.25	0.25			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.35	0.00	0.00	0.35	0.35			N/A	N/A
2	0.86	0.07	0.80	1.34	1.81			N/A	N/A
3	0.25	0.00	0.00	0.25	0.25			N/A	N/A
4	0.69	0.07	0.75	1.42	1.51			N/A	N/A
5	0.39	0.00	0.00	0.39	0.39			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.52	0.03	0.26	0.52	0.52			N/A	N/A
2	1.47	0.03	0.27	1.47	1.47			N/A	N/A
3	0.45	0.03	0.28	0.50	0.53			N/A	N/A
4	1.01	0.03	0.26	1.01	1.01			N/A	N/A
5	0.80	0.03	0.27	0.80	0.80			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.52	0.03	0.33	1.52	2.15			N/A	N/A
2	1.48	0.03	0.28	1.48	1.48			N/A	N/A
3	0.45	0.04	0.36	1.44	1.57			N/A	N/A
4	1.01	0.03	0.28	1.01	1.11			N/A	N/A
5	0.81	0.03	0.31	1.30	3.97			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.35	0.00	0.00	0.35	0.35			N/A	N/A
2	0.87	0.30	1.00	1.46	1.52			N/A	N/A
3	0.26	0.00	0.00	0.26	0.26			N/A	N/A
4	0.69	0.57	1.04	1.45	1.51			N/A	N/A
5	0.40	0.03	0.29	0.52	1.03			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.26	0.00	0.00	0.26	0.26			N/A	N/A
2	0.60	0.06	0.66	1.38	1.47			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	0.52	0.00	0.00	0.52	0.52			N/A	N/A
5	0.26	0.03	0.26	0.46	0.49			N/A	N/A

2024 Base + Com Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.03	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 Base + Com Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	671	100.000
2		ONE HOUR	✓	1066	100.000
3		ONE HOUR	✓	111	100.000
4		ONE HOUR	✓	1432	100.000
5		ONE HOUR	✓	208	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0	93	36	510	32
	2	129	0	30	845	62
	3	14	11	0	85	1
	4	413	745	121	0	153
	5	37	58	5	108	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1	2	3	4	5
	1	0	6	14	4	0
	2	9	0	8	6	2
	3	64	11	0	17	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.30	2.14	0.4	1.3	A	616	924
2	0.65	6.18	2.0	3.0	A	978	1467
3	0.19	8.35	0.3	0.9	A	102	153
4	0.46	2.08	0.9	1.5	A	1314	1971
5	0.39	10.23	0.6	3.0	B	191	286

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	505	126	787	2817	0.179	504	445	0.0	0.2	1.627	A
2	803	201	610	1979	0.406	800	681	0.0	0.7	3.232	A
3	84	21	1265	953	0.088	83	144	0.0	0.1	4.986	A
4	1078	270	187	3500	0.308	1076	1162	0.0	0.5	1.583	A
5	157	39	1077	844	0.186	156	186	0.0	0.2	5.418	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	603	151	941	2683	0.225	603	533	0.2	0.3	1.808	A
2	958	240	729	1901	0.504	957	815	0.7	1.1	4.045	A
3	100	25	1514	822	0.121	100	172	0.1	0.2	6.003	A
4	1287	322	224	3467	0.371	1287	1390	0.5	0.6	1.758	A
5	187	47	1287	739	0.253	187	223	0.2	0.3	6.755	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	739	185	1152	2501	0.295	738	652	0.3	0.4	2.136	A
2	1174	293	893	1793	0.655	1170	998	1.1	2.0	6.100	A
3	122	31	1852	644	0.190	122	211	0.2	0.3	8.296	A
4	1577	394	273	3423	0.461	1576	1700	0.6	0.9	2.075	A
5	229	57	1576	595	0.385	228	273	0.3	0.6	10.145	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	739	185	1154	2499	0.296	739	653	0.4	0.4	2.137	A
2	1174	293	894	1792	0.655	1174	999	2.0	2.0	6.175	A
3	122	31	1856	642	0.190	122	211	0.3	0.3	8.347	A
4	1577	394	274	3422	0.461	1577	1704	0.9	0.9	2.077	A
5	229	57	1578	594	0.386	229	273	0.6	0.6	10.227	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	603	151	944	2681	0.225	604	534	0.4	0.3	1.814	A
2	958	240	731	1899	0.505	962	816	2.0	1.1	4.093	A
3	100	25	1520	819	0.122	100	173	0.3	0.2	6.043	A
4	1287	322	225	3466	0.371	1288	1396	0.9	0.6	1.761	A
5	187	47	1290	738	0.253	188	223	0.6	0.4	6.808	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	505	126	790	2815	0.179	505	447	0.3	0.2	1.632	A
2	803	201	612	1978	0.406	804	683	1.1	0.7	3.259	A
3	84	21	1271	950	0.088	84	145	0.2	0.1	5.010	A
4	1078	270	188	3499	0.308	1079	1167	0.6	0.5	1.584	A
5	157	39	1080	843	0.186	157	187	0.4	0.2	5.450	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.23	0.00	0.00	0.23	0.23			N/A	N/A
2	0.72	0.58	1.06	1.49	1.54			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	0.47	0.00	0.00	0.47	0.47			N/A	N/A
5	0.23	0.00	0.00	0.23	0.23			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2	1.07	0.06	0.75	2.08	2.99			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	0.63	0.07	0.76	1.43	1.52			N/A	N/A
5	0.35	0.00	0.00	0.35	0.35			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.44	0.03	0.26	0.47	0.50			N/A	N/A
2	1.97	0.03	0.28	1.97	1.97			N/A	N/A
3	0.28	0.03	0.31	0.56	0.59			N/A	N/A
4	0.91	0.03	0.27	0.91	0.91			N/A	N/A
5	0.64	0.03	0.27	0.64	0.64			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.44	0.04	0.35	1.34	1.34			N/A	N/A
2	1.99	0.03	0.28	1.99	1.99			N/A	N/A
3	0.28	0.03	0.32	0.58	0.92			N/A	N/A
4	0.91	0.03	0.29	0.91	1.53			N/A	N/A
5	0.64	0.03	0.32	1.13	3.01			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2	1.09	0.14	1.06	1.64	1.96			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	0.63	0.59	1.07	1.49	1.54			N/A	N/A
5	0.36	0.00	0.00	0.36	0.36			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.23	0.00	0.00	0.23	0.23			N/A	N/A
2	0.73	0.06	0.62	1.56	1.58			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	0.48	0.00	0.00	0.48	0.48			N/A	N/A
5	0.24	0.00	0.00	0.24	0.24			N/A	N/A

2024 Base + Com Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.10	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 Base + Com Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	768	100.000
2		ONE HOUR	✓	979	100.000
3		ONE HOUR	✓	182	100.000
4		ONE HOUR	✓	1596	100.000
5		ONE HOUR	✓	207	100.000

Origin-Destination Data

Demand (PCU/hr)

		To					
From		1	2	3	4	5	
	1	0	140	20	584	24	
	2	119	0	12	811	37	
	3	28	31	0	120	3	
	4	475	911	82	0	128	
	5	40	51	5	111	0	

Vehicle Mix

Heavy Vehicle Percentages

		To					
From		1	2	3	4	5	
	1	0	1	0	3	0	
	2	4	0	0	4	0	
	3	14	0	0	10	0	
	4	3	3	16	0	2	
	5	6	0	0	3	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.36	2.43	0.6	2.6	A	705	1057
2	0.60	5.30	1.6	2.0	A	898	1348
3	0.31	8.85	0.5	1.8	A	167	251
4	0.51	2.23	1.1	1.5	A	1465	2197
5	0.48	14.83	0.9	4.5	B	190	285

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	578	145	894	2724	0.212	577	497	0.0	0.3	1.718	A
2	737	184	620	1972	0.374	735	851	0.0	0.6	3.012	A
3	137	34	1265	953	0.144	136	89	0.0	0.2	4.782	A
4	1202	300	182	3504	0.343	1199	1220	0.0	0.5	1.614	A
5	156	39	1237	764	0.204	155	144	0.0	0.3	6.058	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	690	173	1070	2572	0.268	690	595	0.3	0.4	1.959	A
2	880	220	742	1892	0.465	879	1018	0.6	0.9	3.684	A
3	164	41	1514	822	0.199	163	107	0.2	0.3	5.929	A
4	1435	359	217	3473	0.413	1434	1460	0.5	0.7	1.827	A
5	186	47	1479	643	0.289	185	172	0.3	0.4	8.065	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	846	211	1309	2365	0.358	845	728	0.4	0.6	2.424	A
2	1078	269	908	1783	0.604	1075	1246	0.9	1.6	5.257	A
3	200	50	1852	644	0.311	200	131	0.3	0.5	8.772	A
4	1757	439	266	3430	0.512	1756	1786	0.7	1.1	2.224	A
5	228	57	1810	478	0.477	226	211	0.4	0.9	14.560	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	846	211	1311	2363	0.358	846	729	0.6	0.6	2.430	A
2	1078	269	909	1782	0.605	1078	1247	1.6	1.6	5.305	A
3	200	50	1856	642	0.312	200	131	0.5	0.5	8.849	A
4	1757	439	266	3429	0.512	1757	1790	1.1	1.1	2.228	A
5	228	57	1812	477	0.478	228	211	0.9	0.9	14.832	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	690	173	1073	2569	0.269	691	596	0.6	0.4	1.964	A
2	880	220	744	1891	0.465	883	1020	1.6	0.9	3.715	A
3	164	41	1520	819	0.200	164	107	0.5	0.3	5.978	A
4	1435	359	218	3472	0.413	1436	1466	1.1	0.7	1.831	A
5	186	47	1482	642	0.290	188	173	0.9	0.4	8.183	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	578	145	898	2721	0.212	579	499	0.4	0.3	1.723	A
2	737	184	623	1971	0.374	738	854	0.9	0.6	3.035	A
3	137	34	1271	950	0.144	137	90	0.3	0.2	4.813	A
4	1202	300	183	3504	0.343	1202	1226	0.7	0.5	1.621	A
5	156	39	1240	763	0.204	156	145	0.4	0.3	6.107	A

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2	0.62	0.57	1.04	1.45	1.50			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	0.54	0.54	1.04	1.45	1.50			N/A	N/A
5	0.26	0.00	0.00	0.26	0.26			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2	0.90	0.07	0.79	1.53	1.95			N/A	N/A
3	0.27	0.00	0.00	0.27	0.27			N/A	N/A
4	0.73	0.07	0.75	1.06	1.06			N/A	N/A
5	0.41	0.00	0.00	0.41	0.41			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.57	0.03	0.26	0.57	0.57			N/A	N/A
2	1.56	0.03	0.27	1.56	1.56			N/A	N/A
3	0.48	0.03	0.28	0.50	0.53			N/A	N/A
4	1.08	0.03	0.26	1.08	1.08			N/A	N/A
5	0.91	0.03	0.27	0.91	0.91			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.57	0.03	0.32	1.03	2.63			N/A	N/A
2	1.58	0.03	0.28	1.58	1.58			N/A	N/A
3	0.49	0.04	0.36	1.51	1.84			N/A	N/A
4	1.09	0.03	0.27	1.09	1.09			N/A	N/A
5	0.92	0.03	0.31	1.42	4.53			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2	0.91	0.24	1.00	1.49	1.55			N/A	N/A
3	0.27	0.00	0.00	0.27	0.27			N/A	N/A
4	0.73	0.57	1.04	1.45	1.50			N/A	N/A
5	0.42	0.03	0.33	1.08	1.31			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2	0.62	0.06	0.65	1.39	1.49			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	0.54	0.54	1.04	1.45	1.50			N/A	N/A
5	0.27	0.03	0.27	0.48	0.51			N/A	N/A

2024 Base + Prop Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	3.88	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 Base + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	617	100.000
2		ONE HOUR	✓	1061	100.000
3		ONE HOUR	✓	109	100.000
4		ONE HOUR	✓	1412	100.000
5		ONE HOUR	✓	208	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0	88	35	464	30
	2	124	0	30	845	62
	3	14	11	0	83	1
	4	396	742	121	0	153
	5	37	58	5	108	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1	2	3	4	5
	1	0	6	15	4	0
	2	10	0	8	6	2
	3	63	11	0	18	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.27	2.07	0.4	1.5	A	566	849
2	0.64	5.80	1.9	2.7	A	974	1460
3	0.18	7.90	0.3	0.6	A	100	150
4	0.45	2.05	0.9	1.8	A	1296	1944
5	0.38	9.86	0.6	2.9	A	191	286

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	465	116	785	2819	0.165	464	429	0.0	0.2	1.599	A
2	799	200	573	2003	0.399	796	675	0.0	0.7	3.162	A
3	82	21	1226	974	0.084	82	143	0.0	0.1	4.893	A
4	1063	266	182	3504	0.303	1061	1126	0.0	0.5	1.570	A
5	157	39	1058	853	0.183	156	185	0.0	0.2	5.345	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	555	139	939	2686	0.207	554	513	0.2	0.3	1.767	A
2	954	238	685	1929	0.494	952	808	0.7	1.0	3.911	A
3	98	24	1466	847	0.116	98	172	0.1	0.2	5.827	A
4	1269	317	217	3473	0.366	1269	1347	0.5	0.6	1.740	A
5	187	47	1265	750	0.249	187	221	0.2	0.3	6.616	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	679	170	1149	2503	0.271	679	628	0.3	0.4	2.064	A
2	1168	292	839	1828	0.639	1165	989	1.0	1.8	5.736	A
3	120	30	1794	675	0.178	120	210	0.2	0.3	7.861	A
4	1555	389	266	3430	0.453	1554	1648	0.6	0.9	2.044	A
5	229	57	1549	608	0.376	228	271	0.3	0.6	9.784	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	679	170	1151	2502	0.272	679	629	0.4	0.4	2.066	A
2	1168	292	840	1828	0.639	1168	990	1.8	1.9	5.797	A
3	120	30	1798	673	0.178	120	210	0.3	0.3	7.902	A
4	1555	389	266	3429	0.453	1555	1651	0.9	0.9	2.046	A
5	229	57	1550	608	0.377	229	271	0.6	0.6	9.857	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	555	139	941	2684	0.207	555	514	0.4	0.3	1.772	A
2	954	238	687	1928	0.495	957	809	1.9	1.0	3.952	A
3	98	24	1472	844	0.116	98	172	0.3	0.2	5.859	A
4	1269	317	218	3472	0.366	1270	1352	0.9	0.6	1.745	A
5	187	47	1267	749	0.250	188	221	0.6	0.3	6.669	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	465	116	787	2816	0.165	465	430	0.3	0.2	1.601	A
2	799	200	575	2002	0.399	800	677	1.0	0.7	3.188	A
3	82	21	1231	971	0.085	82	144	0.2	0.1	4.917	A
4	1063	266	182	3504	0.303	1064	1131	0.6	0.5	1.574	A
5	157	39	1061	852	0.184	157	185	0.3	0.2	5.376	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.21	0.00	0.00	0.21	0.21			N/A	N/A
2	0.70	0.58	1.06	1.49	1.54			N/A	N/A
3	0.11	0.00	0.00	0.11	0.11			N/A	N/A
4	0.46	0.00	0.00	0.46	0.46			N/A	N/A
5	0.23	0.00	0.00	0.23	0.23			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2	1.03	0.06	0.78	1.96	2.74			N/A	N/A
3	0.16	0.00	0.00	0.16	0.16			N/A	N/A
4	0.61	0.07	0.75	1.43	1.51			N/A	N/A
5	0.34	0.00	0.00	0.34	0.34			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.39	0.03	0.26	0.47	0.50			N/A	N/A
2	1.85	0.03	0.28	1.85	1.85			N/A	N/A
3	0.26	0.03	0.31	0.56	0.59			N/A	N/A
4	0.88	0.03	0.27	0.88	0.88			N/A	N/A
5	0.62	0.03	0.27	0.62	0.62			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.39	0.04	0.35	1.24	1.46			N/A	N/A
2	1.87	0.03	0.28	1.87	1.87			N/A	N/A
3	0.26	0.03	0.31	0.56	0.60			N/A	N/A
4	0.88	0.03	0.29	0.88	1.76			N/A	N/A
5	0.62	0.03	0.32	1.11	2.91			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2	1.05	0.17	1.06	1.44	1.82			N/A	N/A
3	0.16	0.00	0.00	0.16	0.16			N/A	N/A
4	0.62	0.59	1.07	1.49	1.55			N/A	N/A
5	0.35	0.00	0.00	0.35	0.35			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.21	0.00	0.00	0.21	0.21			N/A	N/A
2	0.71	0.06	0.66	1.25	1.25			N/A	N/A
3	0.11	0.00	0.00	0.11	0.11			N/A	N/A
4	0.47	0.00	0.00	0.47	0.47			N/A	N/A
5	0.24	0.00	0.00	0.24	0.24			N/A	N/A

2024 Base + Prop Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	3.91	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 Base + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	736	100.000
2		ONE HOUR	✓	971	100.000
3		ONE HOUR	✓	179	100.000
4		ONE HOUR	✓	1555	100.000
5		ONE HOUR	✓	205	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	136	17	560	23
	2	112	0	12	810	37
	3	26	30	0	120	3
	4	435	911	81	0	128
	5	38	51	5	111	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	15	0	0	10	0
	4	4	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.34	2.37	0.5	2.3	A	675	1013
2	0.59	5.09	1.5	1.8	A	891	1337
3	0.30	8.43	0.5	1.6	A	164	246
4	0.50	2.16	1.0	1.5	A	1427	2140
5	0.45	13.23	0.8	4.0	B	188	282

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	554	139	893	2725	0.203	553	459	0.0	0.3	1.698	A
2	731	183	598	1987	0.368	729	847	0.0	0.6	2.955	A
3	135	34	1241	966	0.140	134	86	0.0	0.2	4.699	A
4	1171	293	173	3512	0.333	1169	1202	0.0	0.5	1.593	A
5	154	39	1198	783	0.197	153	143	0.0	0.2	5.858	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	662	165	1068	2574	0.257	661	549	0.3	0.4	1.928	A
2	873	218	716	1909	0.457	872	1013	0.6	0.9	3.598	A
3	161	40	1484	838	0.192	161	103	0.2	0.3	5.776	A
4	1398	349	207	3481	0.402	1397	1438	0.5	0.7	1.792	A
5	184	46	1433	666	0.277	184	172	0.2	0.4	7.654	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	810	203	1307	2367	0.342	810	672	0.4	0.5	2.367	A
2	1069	267	876	1804	0.593	1067	1240	0.9	1.5	5.048	A
3	197	49	1816	663	0.297	196	126	0.3	0.5	8.367	A
4	1712	428	254	3440	0.498	1711	1759	0.7	1.0	2.160	A
5	226	56	1754	506	0.446	224	210	0.4	0.8	13.039	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	810	203	1309	2365	0.343	810	673	0.5	0.5	2.372	A
2	1069	267	877	1803	0.593	1069	1242	1.5	1.5	5.089	A
3	197	49	1820	661	0.298	197	127	0.5	0.5	8.431	A
4	1712	428	254	3440	0.498	1712	1763	1.0	1.0	2.162	A
5	226	56	1756	505	0.447	226	210	0.8	0.8	13.226	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	662	165	1071	2571	0.257	662	550	0.5	0.4	1.934	A
2	873	218	718	1908	0.458	875	1015	1.5	0.9	3.626	A
3	161	40	1490	835	0.193	162	104	0.5	0.3	5.821	A
4	1398	349	208	3481	0.402	1399	1443	1.0	0.7	1.795	A
5	184	46	1436	665	0.277	186	172	0.8	0.4	7.745	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	554	139	896	2722	0.204	554	460	0.4	0.3	1.703	A
2	731	183	601	1985	0.368	732	850	0.9	0.6	2.986	A
3	135	34	1246	963	0.140	135	87	0.3	0.2	4.728	A
4	1171	293	174	3511	0.333	1171	1207	0.7	0.5	1.599	A
5	154	39	1202	782	0.197	155	144	0.4	0.3	5.905	A

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.26	0.00	0.00	0.26	0.26			N/A	N/A
2	0.60	0.57	1.04	1.45	1.50			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	0.52	0.00	0.00	0.52	0.52			N/A	N/A
5	0.25	0.00	0.00	0.25	0.25			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.35	0.00	0.00	0.35	0.35			N/A	N/A
2	0.87	0.07	0.80	1.40	1.85			N/A	N/A
3	0.26	0.00	0.00	0.26	0.26			N/A	N/A
4	0.69	0.07	0.75	1.43	1.52			N/A	N/A
5	0.39	0.00	0.00	0.39	0.39			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.53	0.03	0.26	0.53	0.53			N/A	N/A
2	1.49	0.03	0.27	1.49	1.49			N/A	N/A
3	0.45	0.03	0.28	0.50	0.53			N/A	N/A
4	1.02	0.03	0.26	1.02	1.02			N/A	N/A
5	0.81	0.03	0.27	0.81	0.81			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.53	0.03	0.33	1.53	2.29			N/A	N/A
2	1.50	0.03	0.28	1.50	1.50			N/A	N/A
3	0.46	0.04	0.36	1.46	1.62			N/A	N/A
4	1.03	0.03	0.28	1.03	1.04			N/A	N/A
5	0.82	0.03	0.31	1.32	3.99			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2	0.88	0.28	1.00	1.47	1.53			N/A	N/A
3	0.26	0.00	0.00	0.26	0.26			N/A	N/A
4	0.70	0.57	1.04	1.45	1.51			N/A	N/A
5	0.40	0.03	0.29	0.54	1.04			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.26	0.00	0.00	0.26	0.26			N/A	N/A
2	0.61	0.06	0.66	1.38	1.47			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	0.52	0.52	1.04	1.45	1.51			N/A	N/A
5	0.25	0.03	0.26	0.46	0.49			N/A	N/A

2024 Base + Com Dev + Prop Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.09	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 segment length (min)	Run automatically
D7	2024 Base + Com Dev + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	695	100.000
2		ONE HOUR	✓	1068	100.000
3		ONE HOUR	✓	112	100.000
4		ONE HOUR	✓	1438	100.000
5		ONE HOUR	✓	209	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	96	38	528	33
	2	131	0	30	845	62
	3	15	11	0	85	1
	4	419	745	121	0	153
	5	38	58	5	108	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	6	14	3	0
	2	9	0	8	6	2
	3	61	11	0	17	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.31	2.15	0.5	1.6	A	638	957
2	0.66	6.35	2.1	3.1	A	980	1470
3	0.20	8.57	0.3	1.1	A	103	154
4	0.46	2.09	0.9	1.5	A	1320	1979
5	0.39	10.40	0.7	3.1	B	192	288

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	523	131	787	2817	0.186	522	453	0.0	0.2	1.628	A
2	804	201	626	1969	0.408	801	684	0.0	0.7	3.265	A
3	84	21	1281	945	0.089	84	146	0.0	0.1	5.041	A
4	1083	271	190	3497	0.310	1081	1175	0.0	0.5	1.585	A
5	157	39	1083	841	0.187	156	187	0.0	0.2	5.449	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	625	156	941	2683	0.233	624	542	0.2	0.3	1.814	A
2	960	240	748	1888	0.509	959	818	0.7	1.1	4.112	A
3	101	25	1533	812	0.124	100	174	0.1	0.2	6.097	A
4	1293	323	227	3464	0.373	1292	1406	0.5	0.6	1.765	A
5	188	47	1296	735	0.256	187	224	0.2	0.4	6.816	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	765	191	1152	2501	0.306	765	663	0.3	0.5	2.152	A
2	1176	294	916	1778	0.661	1172	1001	1.1	2.0	6.271	A
3	123	31	1875	632	0.195	123	213	0.2	0.3	8.514	A
4	1583	396	278	3419	0.463	1582	1720	0.6	0.9	2.087	A
5	230	58	1586	590	0.390	229	274	0.4	0.7	10.313	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	765	191	1154	2499	0.306	765	664	0.5	0.5	2.154	A
2	1176	294	917	1777	0.662	1176	1002	2.0	2.1	6.354	A
3	123	31	1879	630	0.196	123	214	0.3	0.3	8.570	A
4	1583	396	279	3418	0.463	1583	1724	0.9	0.9	2.089	A
5	230	58	1588	589	0.391	230	274	0.7	0.7	10.401	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	625	156	944	2681	0.233	625	543	0.5	0.3	1.820	A
2	960	240	750	1887	0.509	964	819	2.1	1.1	4.157	A
3	101	25	1539	809	0.124	101	175	0.3	0.2	6.138	A
4	1293	323	228	3463	0.373	1294	1412	0.9	0.6	1.770	A
5	188	47	1298	734	0.256	189	224	0.7	0.4	6.871	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	523	131	790	2815	0.186	524	454	0.3	0.2	1.630	A
2	804	201	628	1967	0.409	806	686	1.1	0.7	3.295	A
3	84	21	1287	942	0.090	85	146	0.2	0.1	5.068	A
4	1083	271	191	3496	0.310	1083	1181	0.6	0.5	1.591	A
5	157	39	1086	839	0.187	158	188	0.4	0.2	5.486	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.24	0.00	0.00	0.24	0.24			N/A	N/A
2	0.73	0.58	1.06	1.49	1.54			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	0.48	0.00	0.00	0.48	0.48			N/A	N/A
5	0.24	0.00	0.00	0.24	0.24			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2	1.09	0.06	0.74	2.14	3.09			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	0.63	0.07	0.76	1.43	1.52			N/A	N/A
5	0.35	0.00	0.00	0.35	0.35			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.46	0.03	0.26	0.47	0.50			N/A	N/A
2	2.03	0.03	0.28	2.03	2.03			N/A	N/A
3	0.29	0.03	0.31	0.56	0.59			N/A	N/A
4	0.91	0.03	0.27	0.91	0.91			N/A	N/A
5	0.65	0.03	0.27	0.65	0.65			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.46	0.03	0.35	1.42	1.59			N/A	N/A
2	2.05	0.03	0.28	2.05	2.05			N/A	N/A
3	0.29	0.03	0.33	0.59	1.11			N/A	N/A
4	0.92	0.03	0.29	0.92	1.45			N/A	N/A
5	0.66	0.03	0.32	1.15	3.09			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.32	0.00	0.00	0.32	0.32			N/A	N/A
2	1.11	0.13	1.07	1.71	2.02			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	0.64	0.59	1.07	1.49	1.54			N/A	N/A
5	0.36	0.00	0.00	0.36	0.36			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.24	0.00	0.00	0.24	0.24			N/A	N/A
2	0.74	0.06	0.60	1.59	1.68			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	0.48	0.00	0.00	0.48	0.48			N/A	N/A
5	0.24	0.00	0.00	0.24	0.24			N/A	N/A

2024 Base + Com Dev + Prop Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.14	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2024 Base + Com Dev + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	779	100.000
2		ONE HOUR	✓	981	100.000
3		ONE HOUR	✓	182	100.000
4		ONE HOUR	✓	1605	100.000
5		ONE HOUR	✓	207	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	142	20	593	24
	2	121	0	12	811	37
	3	28	31	0	120	3
	4	484	911	82	0	128
	5	40	51	5	111	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	14	0	0	10	0
	4	3	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.36	2.45	0.6	2.7	A	715	1072
2	0.61	5.37	1.6	2.0	A	900	1350
3	0.32	8.98	0.5	1.9	A	167	251
4	0.52	2.24	1.1	1.5	A	1473	2209
5	0.48	15.20	0.9	4.6	C	190	285

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	586	147	894	2724	0.215	585	505	0.0	0.3	1.724	A
2	739	185	627	1968	0.375	736	853	0.0	0.6	3.026	A
3	137	34	1274	949	0.144	136	89	0.0	0.2	4.807	A
4	1208	302	183	3503	0.345	1206	1227	0.0	0.5	1.620	A
5	156	39	1245	760	0.205	155	144	0.0	0.3	6.100	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	700	175	1070	2572	0.272	700	604	0.3	0.4	1.970	A
2	882	220	750	1887	0.467	881	1020	0.6	0.9	3.710	A
3	164	41	1524	817	0.200	163	107	0.2	0.3	5.976	A
4	1443	361	219	3471	0.416	1442	1468	0.5	0.7	1.836	A
5	186	47	1489	639	0.291	185	172	0.3	0.4	8.150	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	858	214	1309	2365	0.363	857	740	0.4	0.6	2.444	A
2	1080	270	917	1777	0.608	1077	1248	0.9	1.6	5.322	A
3	200	50	1864	638	0.314	200	131	0.3	0.5	8.897	A
4	1767	442	268	3428	0.516	1766	1796	0.7	1.1	2.240	A
5	228	57	1822	472	0.483	226	211	0.4	0.9	14.904	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	858	214	1311	2363	0.363	858	741	0.6	0.6	2.449	A
2	1080	270	919	1776	0.608	1080	1250	1.6	1.6	5.371	A
3	200	50	1868	636	0.315	200	131	0.5	0.5	8.979	A
4	1767	442	269	3427	0.516	1767	1800	1.1	1.1	2.244	A
5	228	57	1824	471	0.484	228	211	0.9	0.9	15.198	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	700	175	1073	2569	0.273	701	606	0.6	0.4	1.975	A
2	882	220	753	1885	0.468	885	1022	1.6	0.9	3.745	A
3	164	41	1530	814	0.201	164	107	0.5	0.3	6.027	A
4	1443	361	220	3470	0.416	1444	1474	1.1	0.7	1.842	A
5	186	47	1492	637	0.292	188	173	0.9	0.4	8.274	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	586	147	898	2721	0.216	587	507	0.4	0.3	1.727	A
2	739	185	629	1966	0.376	740	855	0.9	0.6	3.048	A
3	137	34	1279	946	0.145	137	90	0.3	0.2	4.837	A
4	1208	302	184	3502	0.345	1209	1233	0.7	0.5	1.624	A
5	156	39	1248	758	0.205	156	145	0.4	0.3	6.150	A

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2	0.62	0.57	1.04	1.45	1.50			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	0.54	0.54	1.04	1.45	1.50			N/A	N/A
5	0.26	0.00	0.00	0.26	0.26			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2	0.90	0.07	0.79	1.57	1.98			N/A	N/A
3	0.27	0.00	0.00	0.27	0.27			N/A	N/A
4	0.73	0.07	0.75	1.18	1.18			N/A	N/A
5	0.42	0.00	0.00	0.42	0.42			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.58	0.03	0.26	0.58	0.58			N/A	N/A
2	1.59	0.03	0.27	1.59	1.59			N/A	N/A
3	0.49	0.03	0.28	0.50	0.53			N/A	N/A
4	1.10	0.03	0.26	1.10	1.10			N/A	N/A
5	0.93	0.03	0.27	0.93	0.93			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.58	0.03	0.31	1.53	2.71			N/A	N/A
2	1.60	0.03	0.28	1.60	1.60			N/A	N/A
3	0.50	0.04	0.36	1.53	1.89			N/A	N/A
4	1.10	0.03	0.27	1.10	1.10			N/A	N/A
5	0.95	0.03	0.31	1.45	4.65			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2	0.92	0.23	1.00	1.12	1.12			N/A	N/A
3	0.28	0.00	0.00	0.28	0.28			N/A	N/A
4	0.74	0.57	1.04	1.45	1.50			N/A	N/A
5	0.43	0.03	0.34	1.12	1.33			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2	0.63	0.06	0.65	1.40	1.49			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	0.55	0.55	1.04	1.45	1.50			N/A	N/A
5	0.27	0.03	0.27	0.48	0.51			N/A	N/A

2028 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.12	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2028 Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	613	100.000
2		ONE HOUR	✓	1096	100.000
3		ONE HOUR	✓	113	100.000
4		ONE HOUR	✓	1454	100.000
5		ONE HOUR	✓	214	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	87	35	461	30
	2	127	0	31	874	84
	3	15	11	0	86	1
	4	403	767	126	0	158
	5	37	60	5	112	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	7	15	4	0
	2	10	0	8	6	2
	3	67	11	0	18	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.27	2.10	0.4	1.5	A	562	844
2	0.66	6.20	2.1	3.1	A	1006	1509
3	0.19	8.30	0.3	1.0	A	104	156
4	0.47	2.10	0.9	1.5	A	1334	2001
5	0.40	10.68	0.7	3.3	B	196	295

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	461	115	812	2795	0.165	461	437	0.0	0.2	1.615	A
2	825	206	578	2000	0.412	822	695	0.0	0.7	3.238	A
3	85	21	1252	960	0.089	85	148	0.0	0.1	5.006	A
4	1095	274	186	3500	0.313	1093	1150	0.0	0.5	1.591	A
5	161	40	1089	838	0.192	160	190	0.0	0.2	5.500	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	551	138	971	2658	0.207	551	523	0.2	0.3	1.789	A
2	985	246	691	1926	0.512	984	831	0.7	1.1	4.055	A
3	102	25	1498	831	0.122	101	177	0.1	0.2	6.010	A
4	1307	327	223	3468	0.377	1306	1376	0.5	0.6	1.774	A
5	192	48	1302	732	0.263	192	227	0.2	0.4	6.911	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	675	169	1188	2469	0.273	674	640	0.3	0.4	2.101	A
2	1207	302	845	1824	0.662	1203	1017	1.1	2.0	6.121	A
3	124	31	1832	655	0.190	124	217	0.2	0.3	8.253	A
4	1601	400	272	3424	0.468	1600	1684	0.6	0.9	2.102	A
5	236	59	1594	586	0.402	234	278	0.4	0.7	10.580	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	675	169	1190	2468	0.273	675	641	0.4	0.4	2.103	A
2	1207	302	847	1823	0.662	1207	1018	2.0	2.1	6.199	A
3	124	31	1836	652	0.191	124	217	0.3	0.3	8.304	A
4	1601	400	273	3423	0.468	1601	1688	0.9	0.9	2.105	A
5	236	59	1595	585	0.403	236	279	0.7	0.7	10.677	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	551	138	974	2655	0.208	552	524	0.4	0.3	1.792	A
2	985	246	693	1925	0.512	989	833	2.1	1.1	4.103	A
3	102	25	1504	827	0.123	102	177	0.3	0.2	6.051	A
4	1307	327	224	3467	0.377	1308	1382	0.9	0.6	1.780	A
5	192	48	1304	731	0.263	194	228	0.7	0.4	6.970	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	461	115	815	2793	0.165	462	439	0.3	0.2	1.617	A
2	825	206	580	1999	0.413	827	697	1.1	0.8	3.265	A
3	85	21	1258	957	0.089	85	148	0.2	0.1	5.033	A
4	1095	274	187	3499	0.313	1095	1156	0.6	0.5	1.597	A

5	161	40	1092	837	0.193	162	191	0.4	0.2	5.535	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.21	0.00	0.00	0.21	0.21			N/A	N/A
2	0.74	0.58	1.06	1.49	1.54			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	0.48	0.00	0.00	0.48	0.48			N/A	N/A
5	0.24	0.00	0.00	0.24	0.24			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2	1.10	0.06	0.74	2.21	3.14			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	0.64	0.07	0.77	1.43	1.52			N/A	N/A
5	0.37	0.00	0.00	0.37	0.37			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.39	0.03	0.26	0.47	0.50			N/A	N/A
2	2.04	0.03	0.28	2.04	2.04			N/A	N/A
3	0.28	0.03	0.31	0.56	0.59			N/A	N/A
4	0.93	0.03	0.27	0.93	0.93			N/A	N/A
5	0.68	0.03	0.27	0.68	0.68			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.39	0.04	0.35	1.25	1.47			N/A	N/A
2	2.06	0.03	0.28	2.06	2.06			N/A	N/A
3	0.29	0.03	0.33	0.59	0.96			N/A	N/A
4	0.93	0.03	0.29	0.93	1.29			N/A	N/A
5	0.69	0.03	0.32	1.16	3.31			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2	1.12	0.14	1.08	1.73	2.03			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	0.65	0.59	1.07	1.49	1.55			N/A	N/A
5	0.37	0.00	0.00	0.37	0.37			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.21	0.00	0.00	0.21	0.21			N/A	N/A
2	0.75	0.06	0.62	1.59	1.70			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	0.49	0.00	0.00	0.49	0.49			N/A	N/A
5	0.25	0.03	0.26	0.47	0.49			N/A	N/A

2028 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.18	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2028 Base	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	750	100.000
2		ONE HOUR	✓	1001	100.000
3		ONE HOUR	✓	186	100.000
4		ONE HOUR	✓	1599	100.000
5		ONE HOUR	✓	211	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0	138	18	570	24
	2	113	0	12	838	38
	3	27	31	0	125	3
	4	440	942	84	0	133
	5	38	53	5	115	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1	2	3	4	5
	1	0	1	0	3	0
	2	4	0	0	4	0
	3	15	0	0	10	0
	4	4	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.36	2.46	0.6	2.6	A	688	1032
2	0.62	5.44	1.7	2.1	A	919	1378
3	0.32	9.09	0.5	2.0	A	171	256
4	0.51	2.23	1.1	1.5	A	1467	2201
5	0.48	14.79	0.9	4.6	B	194	290

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	565	141	924	2699	0.209	564	464	0.0	0.3	1.727	A
2	754	188	613	1977	0.381	751	874	0.0	0.6	3.040	A
3	140	35	1274	948	0.148	139	89	0.0	0.2	4.834	A
4	1204	301	177	3508	0.343	1202	1237	0.0	0.5	1.618	A
5	159	40	1230	768	0.207	158	149	0.0	0.3	6.052	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	674	169	1105	2542	0.265	674	555	0.3	0.4	1.974	A
2	900	225	733	1898	0.474	899	1046	0.6	0.9	3.732	A
3	167	42	1525	816	0.205	167	107	0.2	0.3	6.021	A
4	1437	359	212	3477	0.413	1437	1480	0.5	0.7	1.830	A
5	190	47	1471	647	0.293	189	178	0.3	0.4	8.053	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	826	206	1352	2328	0.355	825	679	0.4	0.6	2.452	A
2	1102	276	897	1791	0.616	1099	1280	0.9	1.6	5.384	A
3	205	51	1865	637	0.321	204	131	0.3	0.5	9.008	A
4	1761	440	259	3436	0.512	1759	1810	0.7	1.1	2.227	A
5	232	58	1800	483	0.481	230	218	0.4	0.9	14.518	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	826	206	1354	2326	0.355	826	680	0.6	0.6	2.458	A
2	1102	276	898	1789	0.616	1102	1282	1.6	1.7	5.436	A
3	205	51	1869	635	0.322	205	131	0.5	0.5	9.094	A
4	1761	440	260	3435	0.513	1761	1814	1.1	1.1	2.231	A
5	232	58	1802	482	0.482	232	218	0.9	0.9	14.793	B

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	674	169	1108	2539	0.266	675	557	0.6	0.4	1.981	A
2	900	225	735	1897	0.474	903	1048	1.7	0.9	3.769	A
3	167	42	1531	813	0.206	168	107	0.5	0.3	6.076	A
4	1437	359	213	3477	0.413	1439	1486	1.1	0.7	1.837	A
5	190	47	1474	646	0.294	192	178	0.9	0.4	8.172	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	565	141	927	2696	0.209	565	466	0.4	0.3	1.733	A
2	754	188	615	1976	0.381	755	877	0.9	0.6	3.065	A
3	140	35	1280	945	0.148	140	90	0.3	0.2	4.864	A
4	1204	301	178	3508	0.343	1205	1243	0.7	0.5	1.622	A

5	159	40	1233	766	0.207	159	149	0.4	0.3	6.101	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2	0.64	0.57	1.04	1.45	1.50			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	0.54	0.54	1.04	1.45	1.51			N/A	N/A
5	0.27	0.00	0.00	0.27	0.27			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2	0.93	0.07	0.78	1.67	2.06			N/A	N/A
3	0.28	0.00	0.00	0.28	0.28			N/A	N/A
4	0.73	0.07	0.75	1.07	1.07			N/A	N/A
5	0.42	0.00	0.00	0.42	0.42			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.56	0.03	0.26	0.56	0.56			N/A	N/A
2	1.64	0.03	0.27	1.64	1.64			N/A	N/A
3	0.51	0.03	0.28	0.51	0.53			N/A	N/A
4	1.09	0.03	0.26	1.09	1.09			N/A	N/A
5	0.92	0.03	0.27	0.92	0.92			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.56	0.03	0.32	1.04	2.58			N/A	N/A
2	1.65	0.03	0.28	1.65	1.65			N/A	N/A
3	0.51	0.04	0.35	1.56	2.00			N/A	N/A
4	1.09	0.03	0.27	1.09	1.09			N/A	N/A
5	0.94	0.03	0.31	1.40	4.59			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2	0.94	0.21	1.01	1.38	1.38			N/A	N/A
3	0.28	0.00	0.00	0.28	0.28			N/A	N/A
4	0.73	0.57	1.04	1.45	1.51			N/A	N/A
5	0.43	0.03	0.34	1.13	1.33			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2	0.64	0.06	0.65	1.41	1.50			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	0.54	0.54	1.04	1.45	1.51			N/A	N/A
5	0.27	0.03	0.27	0.48	0.51			N/A	N/A

2028 Base + Com Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.36	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2028 Base + Com Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	692	100.000
2		ONE HOUR	✓	1102	100.000
3		ONE HOUR	✓	115	100.000
4		ONE HOUR	✓	1480	100.000
5		ONE HOUR	✓	216	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1	2	3	4	5	
From	1	0	96	38	525	33
	2	133	0	31	874	64
	3	15	11	0	88	1
	4	426	770	126	0	158
	5	39	60	5	112	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	0	6	14	4	0
	2	9	0	8	6	2
	3	64	11	0	17	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.31	2.21	0.5	1.7	A	635	952
2	0.68	6.83	2.3	3.7	A	1011	1517
3	0.21	8.99	0.3	1.3	A	106	158
4	0.48	2.15	1.0	1.5	A	1358	2037
5	0.42	11.32	0.7	3.6	B	198	297

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	521	130	814	2794	0.186	520	460	0.0	0.2	1.655	A
2	830	207	630	1966	0.422	827	704	0.0	0.8	3.347	A
3	87	22	1306	931	0.093	86	150	0.0	0.1	5.139	A
4	1114	279	193	3494	0.319	1112	1200	0.0	0.5	1.608	A
5	163	41	1113	826	0.197	162	192	0.0	0.3	5.612	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	622	156	974	2655	0.234	622	551	0.2	0.3	1.850	A
2	991	248	754	1885	0.526	989	842	0.8	1.2	4.260	A
3	103	26	1563	796	0.130	103	180	0.1	0.2	6.268	A
4	1330	333	231	3461	0.384	1330	1436	0.5	0.7	1.799	A
5	194	49	1331	717	0.271	194	230	0.3	0.4	7.123	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	762	190	1192	2467	0.309	761	674	0.3	0.5	2.208	A
2	1213	303	922	1774	0.684	1209	1031	1.2	2.2	6.719	A
3	127	32	1911	613	0.207	126	220	0.2	0.3	8.916	A
4	1630	407	282	3415	0.477	1628	1756	0.7	1.0	2.145	A
5	238	59	1629	569	0.418	236	281	0.4	0.7	11.200	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	762	190	1193	2465	0.309	762	675	0.5	0.5	2.210	A
2	1213	303	924	1773	0.684	1213	1032	2.2	2.3	6.828	A
3	127	32	1917	610	0.208	127	220	0.3	0.3	8.986	A
4	1630	407	283	3414	0.477	1630	1760	1.0	1.0	2.148	A
5	238	59	1631	568	0.419	238	282	0.7	0.7	11.316	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	622	156	976	2653	0.235	623	552	0.5	0.3	1.853	A
2	991	248	756	1883	0.526	995	843	2.3	1.2	4.324	A
3	103	26	1571	792	0.130	104	180	0.3	0.2	6.318	A
4	1330	333	232	3460	0.385	1332	1442	1.0	0.7	1.805	A
5	194	49	1333	716	0.271	196	231	0.7	0.4	7.192	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	521	130	817	2791	0.187	521	462	0.3	0.2	1.658	A
2	830	207	632	1964	0.422	831	706	1.2	0.8	3.379	A
3	87	22	1313	928	0.093	87	151	0.2	0.1	5.169	A
4	1114	279	194	3493	0.319	1115	1206	0.7	0.5	1.612	A
5	163	41	1116	825	0.197	163	193	0.4	0.3	5.650	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.24	0.00	0.00	0.24	0.24			N/A	N/A
2	0.77	0.58	1.06	1.49	1.54			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	0.50	0.00	0.00	0.50	0.50			N/A	N/A
5	0.25	0.00	0.00	0.25	0.25			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.32	0.00	0.00	0.32	0.32			N/A	N/A
2	1.17	0.06	0.68	2.55	3.67			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	0.66	0.08	0.77	1.44	1.52			N/A	N/A
5	0.38	0.00	0.00	0.38	0.38			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.47	0.03	0.26	0.47	0.50			N/A	N/A
2	2.25	0.03	0.29	2.25	2.33			N/A	N/A
3	0.31	0.03	0.31	0.56	0.59			N/A	N/A
4	0.97	0.03	0.27	0.97	0.97			N/A	N/A
5	0.73	0.03	0.27	0.73	0.73			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.47	0.04	0.35	1.45	1.66			N/A	N/A
2	2.27	0.03	0.28	2.27	2.27			N/A	N/A
3	0.31	0.03	0.34	0.85	1.34			N/A	N/A
4	0.97	0.03	0.29	0.97	1.53			N/A	N/A
5	0.74	0.03	0.31	1.18	3.59			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.32	0.00	0.00	0.32	0.32			N/A	N/A
2	1.19	0.11	1.08	1.94	2.50			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	0.67	0.59	1.07	1.49	1.54			N/A	N/A
5	0.39	0.00	0.00	0.39	0.39			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.24	0.00	0.00	0.24	0.24			N/A	N/A
2	0.78	0.05	0.53	1.42	1.97			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	0.50	0.00	0.00	0.50	0.50			N/A	N/A
5	0.26	0.03	0.26	0.47	0.49			N/A	N/A

2028 Base + Com Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	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 segment length (min)	Run automatically
D12	2028 Base + Com Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	792	100.000
2		ONE HOUR	✓	1012	100.000
3		ONE HOUR	✓	188	100.000
4		ONE HOUR	✓	1650	100.000
5		ONE HOUR	✓	214	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	145	20	602	25
	2	123	0	12	839	38
	3	28	32	0	125	3
	4	490	942	85	0	133
	5	41	53	5	115	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	14	0	0	10	0
	4	3	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.38	2.54	0.6	2.9	A	727	1090
2	0.63	5.75	1.8	2.4	A	929	1393
3	0.34	9.70	0.6	2.2	A	173	259
4	0.53	2.32	1.2	1.5	A	1514	2271
5	0.53	17.44	1.1	5.5	C	196	295

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	596	149	925	2697	0.221	595	512	0.0	0.3	1.754	A
2	762	190	640	1960	0.389	759	880	0.0	0.7	3.107	A
3	142	35	1307	931	0.152	141	92	0.0	0.2	4.942	A
4	1242	311	187	3500	0.355	1240	1261	0.0	0.6	1.647	A
5	161	40	1277	744	0.217	160	149	0.0	0.3	6.320	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	712	178	1106	2540	0.280	712	613	0.3	0.4	2.017	A
2	910	227	765	1877	0.485	909	1053	0.7	1.0	3.853	A
3	169	42	1564	796	0.212	169	110	0.2	0.3	6.227	A
4	1483	371	224	3467	0.428	1483	1509	0.6	0.8	1.877	A
5	192	48	1527	619	0.311	192	179	0.3	0.5	8.635	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	872	218	1353	2327	0.375	871	749	0.4	0.6	2.533	A
2	1114	279	936	1765	0.631	1111	1289	1.0	1.7	5.689	A
3	207	52	1913	612	0.338	206	134	0.3	0.5	9.596	A
4	1817	454	273	3423	0.531	1815	1846	0.8	1.2	2.315	A
5	236	59	1870	448	0.525	233	219	0.5	1.1	16.975	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	872	218	1356	2324	0.375	872	751	0.6	0.6	2.539	A
2	1114	279	938	1763	0.632	1114	1290	1.7	1.8	5.753	A
3	207	52	1918	610	0.340	207	134	0.5	0.6	9.704	A
4	1817	454	274	3422	0.531	1817	1851	1.2	1.2	2.320	A
5	236	59	1872	447	0.527	236	219	1.1	1.1	17.435	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	712	178	1111	2537	0.281	713	615	0.6	0.4	2.023	A
2	910	227	768	1875	0.485	913	1055	1.8	1.0	3.895	A
3	169	42	1571	792	0.213	170	110	0.6	0.3	6.294	A
4	1483	371	225	3466	0.428	1485	1516	1.2	0.8	1.881	A
5	192	48	1530	618	0.311	195	179	1.1	0.5	8.800	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	596	149	929	2694	0.221	597	514	0.4	0.3	1.757	A
2	762	190	642	1958	0.389	763	883	1.0	0.7	3.132	A
3	142	35	1313	928	0.153	142	92	0.3	0.2	4.977	A
4	1242	311	188	3499	0.355	1243	1268	0.8	0.6	1.654	A
5	161	40	1281	742	0.217	162	150	0.5	0.3	6.379	A

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2	0.66	0.57	1.04	1.45	1.51			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	0.57	0.57	1.04	1.45	1.50			N/A	N/A
5	0.28	0.00	0.00	0.28	0.28			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2	0.97	0.06	0.77	1.81	2.45			N/A	N/A
3	0.29	0.00	0.00	0.29	0.29			N/A	N/A
4	0.77	0.07	0.74	1.53	1.55			N/A	N/A
5	0.46	0.00	0.00	0.46	0.46			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.61	0.03	0.26	0.61	0.61			N/A	N/A
2	1.75	0.03	0.27	1.75	1.75			N/A	N/A
3	0.55	0.03	0.28	0.55	0.55			N/A	N/A
4	1.16	0.03	0.26	1.16	1.16			N/A	N/A
5	1.09	0.03	0.28	1.09	1.27			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.61	0.03	0.31	1.50	2.89			N/A	N/A
2	1.77	0.03	0.28	1.77	1.77			N/A	N/A
3	0.55	0.04	0.35	1.62	2.24			N/A	N/A
4	1.17	0.03	0.27	1.17	1.17			N/A	N/A
5	1.12	0.03	0.31	1.61	5.46			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2	0.99	0.17	1.02	1.21	1.67			N/A	N/A
3	0.30	0.00	0.00	0.30	0.30			N/A	N/A
4	0.78	0.57	1.04	1.45	1.50			N/A	N/A
5	0.47	0.04	0.40	1.26	1.40			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2	0.66	0.06	0.63	1.44	1.54			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	0.57	0.57	1.04	1.45	1.50			N/A	N/A
5	0.29	0.03	0.29	0.70	1.12			N/A	N/A

2028 Base + Prop Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.18	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2028 Base + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	636	100.000
2		ONE HOUR	✓	1097	100.000
3		ONE HOUR	✓	113	100.000
4		ONE HOUR	✓	1460	100.000
5		ONE HOUR	✓	215	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0	90	36	479	31
	2	128	0	31	874	64
	3	15	11	0	86	1
	4	409	767	126	0	158
	5	38	60	5	112	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1	2	3	4	5
	1	0	6	14	4	0
	2	10	0	8	6	2
	3	63	11	0	18	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.28	2.13	0.4	1.5	A	584	875
2	0.67	6.36	2.1	3.3	A	1007	1510
3	0.19	8.47	0.3	1.1	A	104	156
4	0.47	2.11	0.9	1.5	A	1340	2010
5	0.41	10.83	0.7	3.4	B	197	296

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	479	120	812	2795	0.171	478	443	0.0	0.2	1.624	A
2	826	206	593	1991	0.415	823	697	0.0	0.7	3.268	A
3	85	21	1267	952	0.089	85	149	0.0	0.1	5.040	A
4	1099	275	188	3499	0.314	1097	1164	0.0	0.5	1.595	A
5	162	40	1094	835	0.194	161	191	0.0	0.2	5.528	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	572	143	971	2658	0.215	571	530	0.2	0.3	1.804	A
2	986	247	709	1914	0.515	985	834	0.7	1.1	4.109	A
3	102	25	1516	821	0.124	101	178	0.1	0.2	6.075	A
4	1313	328	224	3466	0.379	1312	1393	0.5	0.6	1.780	A
5	193	48	1308	729	0.265	193	228	0.2	0.4	6.964	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	700	175	1188	2469	0.284	700	649	0.3	0.4	2.128	A
2	1208	302	867	1810	0.667	1204	1021	1.1	2.1	6.275	A
3	124	31	1854	643	0.193	124	218	0.2	0.3	8.414	A
4	1607	402	274	3422	0.470	1606	1703	0.6	0.9	2.112	A
5	237	59	1601	582	0.407	235	279	0.4	0.7	10.728	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	700	175	1190	2468	0.284	700	650	0.4	0.4	2.129	A
2	1208	302	869	1809	0.668	1208	1022	2.1	2.1	6.360	A
3	124	31	1858	641	0.194	124	218	0.3	0.3	8.470	A
4	1607	402	275	3421	0.470	1607	1708	0.9	0.9	2.114	A
5	237	59	1603	581	0.407	237	280	0.7	0.7	10.831	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	572	143	974	2655	0.215	572	531	0.4	0.3	1.809	A
2	986	247	711	1913	0.516	990	835	2.1	1.1	4.163	A
3	102	25	1522	818	0.124	102	178	0.3	0.2	6.115	A
4	1313	328	226	3465	0.379	1314	1399	0.9	0.7	1.783	A
5	193	48	1311	727	0.266	195	229	0.7	0.4	7.027	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	479	120	815	2793	0.171	479	445	0.3	0.2	1.629	A
2	826	206	595	1989	0.415	827	699	1.1	0.8	3.298	A
3	85	21	1273	949	0.090	85	149	0.2	0.1	5.065	A
4	1099	275	189	3498	0.314	1100	1170	0.7	0.5	1.601	A
5	162	40	1097	834	0.194	162	191	0.4	0.3	5.564	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.22	0.00	0.00	0.22	0.22			N/A	N/A
2	0.75	0.58	1.06	1.49	1.54			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	0.49	0.00	0.00	0.49	0.49			N/A	N/A
5	0.25	0.00	0.00	0.25	0.25			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2	1.12	0.06	0.73	2.31	3.26			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	0.65	0.07	0.77	1.44	1.52			N/A	N/A
5	0.37	0.00	0.00	0.37	0.37			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.41	0.03	0.26	0.47	0.50			N/A	N/A
2	2.09	0.03	0.28	2.09	2.09			N/A	N/A
3	0.29	0.03	0.31	0.56	0.59			N/A	N/A
4	0.94	0.03	0.27	0.94	0.94			N/A	N/A
5	0.70	0.03	0.27	0.70	0.70			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.41	0.04	0.36	1.31	1.54			N/A	N/A
2	2.11	0.03	0.28	2.11	2.11			N/A	N/A
3	0.29	0.03	0.33	0.60	1.08			N/A	N/A
4	0.94	0.03	0.29	0.94	1.21			N/A	N/A
5	0.70	0.03	0.31	1.16	3.39			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2	1.14	0.13	1.08	1.79	2.08			N/A	N/A
3	0.17	0.00	0.00	0.17	0.17			N/A	N/A
4	0.65	0.59	1.07	1.49	1.55			N/A	N/A
5	0.38	0.00	0.00	0.38	0.38			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.22	0.00	0.00	0.22	0.22			N/A	N/A
2	0.76	0.06	0.60	1.18	1.78			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	0.49	0.00	0.00	0.49	0.49			N/A	N/A
5	0.25	0.03	0.26	0.47	0.49			N/A	N/A

2028 Base + Prop Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.24	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2028 Base + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	761	100.000
2		ONE HOUR	✓	1003	100.000
3		ONE HOUR	✓	186	100.000
4		ONE HOUR	✓	1608	100.000
5		ONE HOUR	✓	212	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	140	18	579	24
	2	115	0	12	838	38
	3	27	31	0	125	3
	4	449	942	84	0	133
	5	39	53	5	115	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	15	0	0	10	0
	4	4	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.36	2.48	0.6	2.7	A	698	1047
2	0.62	5.51	1.7	2.1	A	920	1381
3	0.33	9.23	0.5	2.0	A	171	256
4	0.52	2.25	1.1	1.5	A	1476	2213
5	0.49	15.23	1.0	4.7	C	195	292

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	573	143	924	2699	0.212	572	473	0.0	0.3	1.734	A
2	755	189	619	1973	0.383	753	876	0.0	0.6	3.055	A
3	140	35	1283	944	0.148	139	89	0.0	0.2	4.860	A
4	1211	303	179	3507	0.345	1208	1243	0.0	0.5	1.623	A
5	160	40	1238	764	0.209	159	149	0.0	0.3	6.099	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	684	171	1105	2542	0.269	684	566	0.3	0.4	1.985	A
2	902	225	741	1893	0.476	900	1047	0.6	0.9	3.759	A
3	167	42	1535	811	0.206	167	107	0.2	0.3	6.070	A
4	1446	361	214	3476	0.416	1445	1488	0.5	0.7	1.839	A
5	191	48	1481	643	0.297	190	178	0.3	0.4	8.156	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	838	209	1351	2328	0.360	837	692	0.4	0.6	2.472	A
2	1104	276	906	1784	0.619	1101	1282	0.9	1.7	5.451	A
3	205	51	1877	631	0.325	204	131	0.3	0.5	9.140	A
4	1770	443	261	3434	0.516	1769	1820	0.7	1.1	2.242	A
5	233	58	1813	477	0.489	231	218	0.4	1.0	14.928	B

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	838	209	1354	2326	0.360	838	694	0.6	0.6	2.478	A
2	1104	276	908	1783	0.619	1104	1284	1.7	1.7	5.506	A
3	205	51	1882	629	0.326	205	131	0.5	0.5	9.231	A
4	1770	443	262	3433	0.516	1770	1824	1.1	1.1	2.247	A
5	233	58	1814	476	0.490	233	218	1.0	1.0	15.228	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	684	171	1109	2538	0.270	685	568	0.6	0.4	1.992	A
2	902	225	744	1891	0.477	905	1050	1.7	1.0	3.800	A
3	167	42	1541	808	0.207	168	107	0.5	0.3	6.127	A
4	1446	361	215	3475	0.416	1447	1494	1.1	0.7	1.843	A
5	191	48	1483	641	0.297	193	178	1.0	0.4	8.282	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	573	143	927	2696	0.213	573	475	0.4	0.3	1.737	A
2	755	189	622	1971	0.383	756	879	1.0	0.6	3.080	A
3	140	35	1289	941	0.149	140	90	0.3	0.2	4.893	A
4	1211	303	180	3506	0.345	1211	1249	0.7	0.5	1.628	A
5	160	40	1242	762	0.210	160	149	0.4	0.3	6.154	A

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2	0.64	0.57	1.04	1.45	1.51			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	0.55	0.55	1.04	1.45	1.51			N/A	N/A
5	0.27	0.00	0.00	0.27	0.27			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2	0.94	0.07	0.78	1.70	2.14			N/A	N/A
3	0.28	0.00	0.00	0.28	0.28			N/A	N/A
4	0.74	0.07	0.75	1.19	1.19			N/A	N/A
5	0.43	0.00	0.00	0.43	0.43			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.57	0.03	0.26	0.57	0.57			N/A	N/A
2	1.66	0.03	0.27	1.66	1.66			N/A	N/A
3	0.51	0.03	0.28	0.51	0.53			N/A	N/A
4	1.10	0.03	0.26	1.10	1.10			N/A	N/A
5	0.95	0.03	0.27	0.95	0.95			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.58	0.03	0.32	1.03	2.67			N/A	N/A
2	1.68	0.03	0.28	1.68	1.68			N/A	N/A
3	0.52	0.04	0.35	1.57	2.04			N/A	N/A
4	1.10	0.03	0.27	1.10	1.10			N/A	N/A
5	0.97	0.03	0.31	1.42	4.74			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.38	0.00	0.00	0.38	0.38			N/A	N/A
2	0.95	0.20	1.01	1.47	1.47			N/A	N/A
3	0.29	0.00	0.00	0.29	0.29			N/A	N/A
4	0.74	0.57	1.04	1.45	1.51			N/A	N/A
5	0.44	0.04	0.36	1.17	1.36			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2	0.65	0.06	0.65	1.42	1.51			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	0.55	0.55	1.04	1.45	1.51			N/A	N/A
5	0.27	0.03	0.27	0.49	0.64			N/A	N/A

2028 Base + Com Dev + Prop Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2028 Base + Com Dev + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	715	100.000
2		ONE HOUR	✓	1104	100.000
3		ONE HOUR	✓	115	100.000
4		ONE HOUR	✓	1486	100.000
5		ONE HOUR	✓	216	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0	99	39	543	34
	2	135	0	31	874	64
	3	15	11	0	88	1
	4	432	770	126	0	158
	5	39	60	5	112	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1	2	3	4	5
	1	0	6	14	3	0
	2	9	0	8	6	2
	3	61	11	0	17	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.32	2.23	0.5	1.8	A	656	984
2	0.69	7.04	2.3	3.8	A	1013	1520
3	0.21	9.20	0.3	1.4	A	106	158
4	0.48	2.16	1.0	1.5	A	1364	2045
5	0.42	11.47	0.7	3.6	B	198	297

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	538	135	814	2794	0.193	537	466	0.0	0.2	1.656	A
2	831	208	645	1956	0.425	828	706	0.0	0.8	3.378	A
3	87	22	1322	923	0.094	86	151	0.0	0.1	5.179	A
4	1119	280	195	3492	0.320	1117	1213	0.0	0.5	1.612	A
5	163	41	1119	823	0.198	162	193	0.0	0.3	5.638	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	643	161	974	2655	0.242	642	558	0.2	0.3	1.855	A
2	992	248	772	1873	0.530	991	844	0.8	1.2	4.326	A
3	103	26	1582	786	0.131	103	181	0.1	0.2	6.348	A
4	1336	334	233	3458	0.386	1335	1452	0.5	0.7	1.806	A
5	194	49	1338	714	0.272	194	231	0.3	0.4	7.172	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	787	197	1192	2467	0.319	787	682	0.3	0.5	2.224	A
2	1216	304	944	1759	0.691	1211	1034	1.2	2.3	6.917	A
3	127	32	1934	601	0.211	126	221	0.2	0.3	9.126	A
4	1636	409	285	3412	0.479	1635	1775	0.7	1.0	2.157	A
5	238	59	1638	564	0.422	236	283	0.4	0.7	11.345	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	787	197	1193	2465	0.319	787	684	0.5	0.5	2.227	A
2	1216	304	946	1758	0.691	1215	1035	2.3	2.3	7.036	A
3	127	32	1940	598	0.212	127	221	0.3	0.3	9.202	A
4	1636	409	286	3411	0.480	1636	1780	1.0	1.0	2.160	A
5	238	59	1639	563	0.422	238	283	0.7	0.7	11.470	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	643	161	976	2653	0.242	643	560	0.5	0.3	1.859	A
2	992	248	774	1871	0.530	997	846	2.3	1.2	4.393	A
3	103	26	1590	782	0.132	104	181	0.3	0.2	6.399	A
4	1336	334	235	3457	0.386	1337	1459	1.0	0.7	1.812	A
5	194	49	1340	713	0.273	196	231	0.7	0.4	7.243	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	538	135	817	2791	0.193	539	468	0.3	0.2	1.658	A
2	831	208	647	1955	0.425	833	708	1.2	0.8	3.414	A
3	87	22	1329	920	0.094	87	151	0.2	0.1	5.209	A
4	1119	280	196	3491	0.320	1119	1219	0.7	0.5	1.616	A
5	163	41	1122	822	0.198	163	194	0.4	0.3	5.676	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.25	0.00	0.00	0.25	0.25			N/A	N/A
2	0.78	0.58	1.06	1.49	1.54			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	0.50	0.00	0.00	0.50	0.50			N/A	N/A
5	0.25	0.00	0.00	0.25	0.25			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2	1.19	0.06	0.67	2.64	3.81			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	0.67	0.08	0.78	1.44	1.52			N/A	N/A
5	0.38	0.00	0.00	0.38	0.38			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.48	0.03	0.26	0.48	0.50			N/A	N/A
2	2.32	0.03	0.29	2.32	2.88			N/A	N/A
3	0.32	0.03	0.31	0.56	0.59			N/A	N/A
4	0.98	0.03	0.27	0.98	0.98			N/A	N/A
5	0.74	0.03	0.27	0.74	0.74			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.49	0.03	0.34	1.48	1.84			N/A	N/A
2	2.35	0.03	0.28	2.35	2.35			N/A	N/A
3	0.32	0.03	0.35	0.94	1.38			N/A	N/A
4	0.98	0.03	0.28	0.98	1.49			N/A	N/A
5	0.75	0.03	0.31	1.19	3.64			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2	1.21	0.10	1.08	2.01	2.67			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	0.67	0.59	1.07	1.49	1.54			N/A	N/A
5	0.39	0.00	0.00	0.39	0.39			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.25	0.00	0.00	0.25	0.25			N/A	N/A
2	0.79	0.05	0.52	1.50	2.04			N/A	N/A
3	0.13	0.00	0.00	0.13	0.13			N/A	N/A
4	0.50	0.00	0.00	0.50	0.50			N/A	N/A
5	0.26	0.03	0.26	0.47	0.49			N/A	N/A

2028 Base + Com Dev + Prop Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.54	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2028 Base + Com Dev + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	805	100.000
2		ONE HOUR	✓	1014	100.000
3		ONE HOUR	✓	189	100.000
4		ONE HOUR	✓	1659	100.000
5		ONE HOUR	✓	215	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	147	21	612	25
	2	125	0	12	839	38
	3	29	32	0	125	3
	4	499	942	85	0	133
	5	42	53	5	115	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	14	0	0	10	0
	4	3	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.38	2.56	0.6	3.0	A	739	1108
2	0.64	5.84	1.8	2.5	A	930	1396
3	0.35	9.90	0.6	2.4	A	173	260
4	0.53	2.34	1.2	1.6	A	1522	2283
5	0.54	18.09	1.2	5.7	C	197	296

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	606	152	925	2697	0.225	605	522	0.0	0.3	1.762	A
2	763	191	648	1954	0.391	761	882	0.0	0.7	3.125	A
3	142	36	1316	926	0.154	142	92	0.0	0.2	4.976	A
4	1249	312	189	3498	0.357	1247	1269	0.0	0.6	1.653	A
5	162	40	1286	740	0.219	161	149	0.0	0.3	6.380	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	724	181	1106	2540	0.285	723	624	0.3	0.4	2.029	A
2	912	228	775	1871	0.487	910	1055	0.7	1.0	3.887	A
3	170	42	1575	790	0.215	170	110	0.2	0.3	6.294	A
4	1491	373	226	3465	0.430	1491	1518	0.6	0.8	1.887	A
5	193	48	1538	614	0.315	193	179	0.3	0.5	8.763	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	886	222	1353	2327	0.381	885	764	0.4	0.6	2.558	A
2	1116	279	948	1757	0.635	1113	1291	1.0	1.8	5.777	A
3	208	52	1926	605	0.344	207	135	0.3	0.6	9.787	A
4	1827	457	277	3420	0.534	1825	1856	0.8	1.2	2.334	A
5	237	59	1883	442	0.536	234	219	0.5	1.1	17.575	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	886	222	1356	2324	0.381	886	765	0.6	0.6	2.565	A
2	1116	279	950	1755	0.636	1116	1293	1.8	1.8	5.845	A
3	208	52	1931	603	0.345	208	135	0.6	0.6	9.905	A
4	1827	457	277	3419	0.534	1827	1862	1.2	1.2	2.339	A
5	237	59	1885	441	0.537	237	219	1.1	1.2	18.091	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	724	181	1111	2536	0.285	725	626	0.6	0.4	2.036	A
2	912	228	778	1868	0.488	915	1057	1.8	1.0	3.930	A
3	170	42	1582	786	0.216	171	111	0.6	0.3	6.365	A
4	1491	373	227	3464	0.431	1493	1526	1.2	0.8	1.891	A
5	193	48	1541	612	0.316	196	179	1.2	0.5	8.943	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	606	152	929	2694	0.225	606	524	0.4	0.3	1.766	A
2	763	191	651	1952	0.391	765	885	1.0	0.7	3.151	A
3	142	36	1323	923	0.154	143	93	0.3	0.2	5.012	A
4	1249	312	190	3497	0.357	1250	1275	0.8	0.6	1.658	A
5	162	40	1290	738	0.219	163	150	0.5	0.3	6.439	A

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2	0.66	0.57	1.04	1.45	1.51			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	0.57	0.57	1.04	1.45	1.50			N/A	N/A
5	0.29	0.00	0.00	0.29	0.29			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2	0.98	0.06	0.76	1.84	2.53			N/A	N/A
3	0.29	0.00	0.00	0.29	0.29			N/A	N/A
4	0.78	0.07	0.74	1.55	1.61			N/A	N/A
5	0.47	0.04	0.35	1.16	1.35			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.63	0.03	0.26	0.63	0.63			N/A	N/A
2	1.78	0.03	0.27	1.78	1.78			N/A	N/A
3	0.56	0.03	0.28	0.56	0.56			N/A	N/A
4	1.18	0.03	0.26	1.18	1.18			N/A	N/A
5	1.14	0.03	0.28	1.14	1.72			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.63	0.03	0.31	1.47	2.97			N/A	N/A
2	1.80	0.03	0.28	1.80	1.80			N/A	N/A
3	0.57	0.04	0.35	1.11	2.38			N/A	N/A
4	1.18	0.03	0.27	1.18	1.18			N/A	N/A
5	1.17	0.03	0.31	1.67	5.70			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2	1.00	0.17	1.02	1.29	1.71			N/A	N/A
3	0.30	0.00	0.00	0.30	0.30			N/A	N/A
4	0.79	0.57	1.04	1.45	1.50			N/A	N/A
5	0.48	0.04	0.42	1.27	1.41			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2	0.67	0.06	0.62	1.45	1.56			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	0.58	0.57	1.04	1.45	1.50			N/A	N/A
5	0.29	0.03	0.30	0.80	1.18			N/A	N/A

2031 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.39	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2031 Base	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	631	100.000
2		ONE HOUR	✓	1126	100.000
3		ONE HOUR	✓	117	100.000
4		ONE HOUR	✓	1493	100.000
5		ONE HOUR	✓	220	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	90	36	474	31
	2	130	0	32	898	66
	3	15	12	0	89	1
	4	414	788	129	0	162
	5	38	62	5	115	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	7	15	4	0
	2	10	0	8	6	2
	3	67	11	0	18	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.28	2.16	0.4	1.6	A	579	869
2	0.69	6.73	2.3	3.8	A	1033	1550
3	0.21	8.81	0.3	1.3	A	107	161
4	0.48	2.16	1.0	1.5	A	1370	2055
5	0.43	11.61	0.8	3.7	B	202	303

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	475	119	834	2776	0.171	474	448	0.0	0.2	1.638	A
2	848	212	593	1990	0.426	845	715	0.0	0.8	3.332	A
3	88	22	1286	942	0.094	88	152	0.0	0.1	5.121	A
4	1124	281	191	3496	0.322	1122	1182	0.0	0.5	1.614	A
5	166	41	1118	823	0.201	165	195	0.0	0.3	5.668	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	567	142	998	2634	0.215	567	536	0.2	0.3	1.824	A
2	1012	253	710	1914	0.529	1011	855	0.8	1.2	4.228	A
3	105	26	1539	809	0.130	105	181	0.1	0.2	6.216	A
4	1342	336	229	3462	0.388	1342	1415	0.5	0.7	1.808	A
5	198	49	1337	714	0.277	197	234	0.3	0.4	7.215	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	695	174	1221	2441	0.285	694	656	0.3	0.4	2.159	A
2	1240	310	868	1809	0.685	1235	1047	1.2	2.3	6.618	A
3	129	32	1882	629	0.205	128	222	0.2	0.3	8.742	A
4	1644	411	280	3417	0.481	1643	1730	0.7	1.0	2.161	A
5	242	61	1637	565	0.429	241	286	0.4	0.8	11.476	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	695	174	1223	2439	0.285	695	657	0.4	0.4	2.162	A
2	1240	310	870	1808	0.686	1240	1048	2.3	2.3	6.725	A
3	129	32	1887	626	0.206	129	222	0.3	0.3	8.808	A
4	1644	411	281	3416	0.481	1644	1735	1.0	1.0	2.164	A
5	242	61	1638	564	0.430	242	286	0.8	0.8	11.606	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	567	142	1001	2632	0.216	568	538	0.4	0.3	1.827	A
2	1012	253	712	1912	0.529	1017	857	2.3	1.2	4.290	A
3	105	26	1546	805	0.131	106	182	0.3	0.2	6.262	A
4	1342	336	230	3461	0.388	1343	1422	1.0	0.7	1.814	A
5	198	49	1339	713	0.277	199	234	0.8	0.4	7.288	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	475	119	837	2773	0.171	475	450	0.3	0.2	1.643	A
2	848	212	595	1989	0.426	849	717	1.2	0.8	3.364	A
3	88	22	1293	939	0.094	88	152	0.2	0.1	5.149	A
4	1124	281	192	3495	0.322	1125	1188	0.7	0.5	1.618	A

5	166	41	1121	822	0.202	166	196	0.4	0.3	5.701	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.22	0.00	0.00	0.22	0.22			N/A	N/A
2	0.78	0.58	1.06	1.49	1.54			N/A	N/A
3	0.12	0.00	0.00	0.12	0.12			N/A	N/A
4	0.50	0.00	0.00	0.50	0.50			N/A	N/A
5	0.26	0.00	0.00	0.26	0.26			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2	1.18	0.06	0.68	2.61	3.77			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	0.67	0.08	0.78	1.44	1.53			N/A	N/A
5	0.39	0.00	0.00	0.39	0.39			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.42	0.03	0.26	0.47	0.50			N/A	N/A
2	2.26	0.03	0.29	2.26	2.26			N/A	N/A
3	0.31	0.03	0.31	0.56	0.59			N/A	N/A
4	0.98	0.03	0.27	0.98	0.98			N/A	N/A
5	0.76	0.03	0.27	0.76	0.76			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.42	0.04	0.36	1.31	1.55			N/A	N/A
2	2.29	0.03	0.28	2.29	2.29			N/A	N/A
3	0.31	0.03	0.35	0.82	1.32			N/A	N/A
4	0.99	0.03	0.28	0.99	1.46			N/A	N/A
5	0.77	0.03	0.31	1.18	3.75			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2	1.21	0.11	1.09	1.97	2.56			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	0.68	0.59	1.07	1.49	1.55			N/A	N/A
5	0.40	0.03	0.28	0.50	0.73			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.22	0.00	0.00	0.22	0.22			N/A	N/A
2	0.79	0.05	0.55	1.46	1.99			N/A	N/A
3	0.13	0.00	0.00	0.13	0.13			N/A	N/A
4	0.51	0.00	0.00	0.51	0.51			N/A	N/A
5	0.26	0.03	0.26	0.47	0.49			N/A	N/A

2031 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.52	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2031 Base	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	771	100.000
2		ONE HOUR	✓	1031	100.000
3		ONE HOUR	✓	191	100.000
4		ONE HOUR	✓	1646	100.000
5		ONE HOUR	✓	218	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	142	18	586	25
	2	116	0	13	862	40
	3	28	32	0	128	3
	4	453	970	86	0	137
	5	40	54	5	119	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	15	0	0	10	0
	4	4	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.37	2.56	0.6	2.8	A	707	1061
2	0.64	5.86	1.8	2.6	A	946	1419
3	0.35	9.88	0.6	2.4	A	175	263
4	0.53	2.31	1.2	1.5	A	1510	2266
5	0.53	17.12	1.1	5.4	C	200	300

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	580	145	951	2675	0.217	579	478	0.0	0.3	1.759	A
2	776	194	630	1966	0.395	773	900	0.0	0.7	3.127	A
3	144	36	1312	928	0.155	143	92	0.0	0.2	4.976	A
4	1239	310	183	3503	0.354	1237	1272	0.0	0.6	1.647	A
5	164	41	1266	750	0.219	163	154	0.0	0.3	6.291	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	693	173	1137	2514	0.276	693	572	0.3	0.4	2.025	A
2	927	232	753	1885	0.492	926	1076	0.7	1.0	3.891	A
3	172	43	1569	793	0.217	171	110	0.2	0.3	6.291	A
4	1480	370	219	3471	0.426	1479	1522	0.6	0.8	1.875	A
5	196	49	1514	626	0.313	195	184	0.3	0.5	8.570	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	849	212	1391	2294	0.370	848	700	0.4	0.6	2.549	A
2	1135	284	922	1774	0.640	1132	1317	1.0	1.8	5.789	A
3	210	53	1919	609	0.345	209	134	0.3	0.6	9.767	A
4	1812	453	268	3428	0.529	1811	1861	0.8	1.2	2.308	A
5	240	60	1853	457	0.526	237	225	0.5	1.1	16.681	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	849	212	1394	2291	0.370	849	701	0.6	0.6	2.556	A
2	1135	284	924	1773	0.640	1135	1319	1.8	1.8	5.857	A
3	210	53	1924	606	0.347	210	134	0.6	0.6	9.884	A
4	1812	453	269	3427	0.529	1812	1866	1.2	1.2	2.313	A
5	240	60	1855	456	0.527	240	226	1.1	1.1	17.123	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	693	173	1141	2510	0.276	694	574	0.6	0.4	2.031	A
2	927	232	756	1883	0.492	930	1079	1.8	1.0	3.936	A
3	172	43	1577	789	0.218	173	110	0.6	0.3	6.359	A
4	1480	370	220	3470	0.426	1481	1529	1.2	0.8	1.882	A
5	196	49	1517	624	0.314	199	185	1.1	0.5	8.732	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	580	145	954	2672	0.217	581	480	0.4	0.3	1.766	A
2	776	194	632	1964	0.395	778	903	1.0	0.7	3.151	A
3	144	36	1318	925	0.155	144	92	0.3	0.2	5.014	A
4	1239	310	184	3502	0.354	1240	1278	0.8	0.6	1.654	A

5	164	41	1270	748	0.219	165	154	0.5	0.3	6.349	A
---	-----	----	------	-----	-------	-----	-----	-----	-----	-------	---

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2	0.67	0.57	1.04	1.45	1.50			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	0.57	0.57	1.04	1.45	1.51			N/A	N/A
5	0.29	0.00	0.00	0.29	0.29			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2	1.00	0.06	0.75	1.89	2.65			N/A	N/A
3	0.30	0.00	0.00	0.30	0.30			N/A	N/A
4	0.77	0.07	0.74	1.52	1.52			N/A	N/A
5	0.46	0.00	0.00	0.46	0.46			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.60	0.03	0.26	0.60	0.60			N/A	N/A
2	1.81	0.03	0.27	1.81	1.81			N/A	N/A
3	0.56	0.03	0.28	0.56	0.56			N/A	N/A
4	1.16	0.03	0.26	1.16	1.16			N/A	N/A
5	1.10	0.03	0.28	1.10	1.21			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.60	0.03	0.31	1.52	2.82			N/A	N/A
2	1.83	0.03	0.28	1.83	1.83			N/A	N/A
3	0.57	0.04	0.35	1.13	2.42			N/A	N/A
4	1.16	0.03	0.27	1.16	1.16			N/A	N/A
5	1.12	0.03	0.31	1.56	5.43			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2	1.01	0.16	1.03	1.38	1.77			N/A	N/A
3	0.31	0.00	0.00	0.31	0.31			N/A	N/A
4	0.77	0.57	1.04	1.45	1.51			N/A	N/A
5	0.48	0.04	0.41	1.27	1.41			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2	0.68	0.06	0.63	1.19	1.19			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	0.57	0.57	1.04	1.45	1.51			N/A	N/A
5	0.29	0.03	0.29	0.73	1.14			N/A	N/A

2031 Base + Com Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.68	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2031 Base + Com Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	708	100.000
2		ONE HOUR	✓	1133	100.000
3		ONE HOUR	✓	119	100.000
4		ONE HOUR	✓	1519	100.000
5		ONE HOUR	✓	222	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0	98	39	538	33
	2	137	0	32	898	66
	3	15	12	0	91	1
	4	437	791	129	0	162
	5	40	62	5	115	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1	2	3	4	5
	1	0	6	14	4	0
	2	9	0	8	6	2
	3	64	11	0	17	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.32	2.27	0.5	1.9	A	650	975
2	0.71	7.48	2.6	4.3	A	1040	1559
3	0.22	9.59	0.3	1.5	A	109	164
4	0.49	2.21	1.0	1.5	A	1394	2091
5	0.45	12.39	0.8	4.0	B	204	306

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	533	133	836	2774	0.192	532	472	0.0	0.2	1.679	A
2	853	213	645	1956	0.436	850	723	0.0	0.8	3.445	A
3	90	22	1341	913	0.098	89	154	0.0	0.1	5.261	A
4	1144	286	198	3490	0.328	1142	1232	0.0	0.5	1.631	A
5	167	42	1143	811	0.206	166	197	0.0	0.3	5.780	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	636	159	1001	2632	0.242	636	565	0.2	0.3	1.885	A
2	1019	255	772	1873	0.544	1017	865	0.8	1.3	4.456	A
3	107	27	1604	775	0.138	107	184	0.1	0.2	6.495	A
4	1366	341	237	3455	0.395	1365	1474	0.5	0.7	1.834	A
5	200	50	1366	699	0.285	199	235	0.3	0.4	7.455	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	780	195	1224	2438	0.320	779	691	0.3	0.5	2.269	A
2	1247	312	944	1759	0.709	1242	1059	1.3	2.5	7.324	A
3	131	33	1961	587	0.223	130	225	0.2	0.3	9.496	A
4	1672	418	290	3409	0.491	1671	1802	0.7	1.0	2.207	A
5	244	61	1673	547	0.447	243	288	0.4	0.8	12.227	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	780	195	1226	2436	0.320	780	693	0.5	0.5	2.272	A
2	1247	312	946	1758	0.709	1247	1060	2.5	2.6	7.475	A
3	131	33	1967	584	0.225	131	226	0.3	0.3	9.588	A
4	1672	418	291	3408	0.491	1672	1808	1.0	1.0	2.210	A
5	244	61	1675	546	0.448	244	288	0.8	0.8	12.391	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	636	159	1004	2629	0.242	637	567	0.5	0.3	1.889	A
2	1019	255	774	1871	0.544	1024	867	2.6	1.3	4.536	A
3	107	27	1613	770	0.139	108	185	0.3	0.2	6.556	A
4	1366	341	238	3454	0.395	1367	1482	1.0	0.7	1.840	A
5	200	50	1369	698	0.286	201	236	0.8	0.4	7.540	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	533	133	840	2771	0.192	533	474	0.3	0.2	1.684	A
2	853	213	647	1954	0.436	855	726	1.3	0.8	3.483	A
3	90	22	1348	910	0.098	90	154	0.2	0.1	5.293	A
4	1144	286	199	3489	0.328	1144	1238	0.7	0.5	1.635	A
5	167	42	1146	810	0.206	168	197	0.4	0.3	5.826	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.25	0.00	0.00	0.25	0.25			N/A	N/A
2	0.82	0.58	1.06	1.49	1.54			N/A	N/A
3	0.13	0.00	0.00	0.13	0.13			N/A	N/A
4	0.52	0.00	0.00	0.52	0.52			N/A	N/A
5	0.27	0.00	0.00	0.27	0.27			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2	1.25	0.06	0.61	2.90	4.22			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	0.69	0.07	0.78	1.45	1.54			N/A	N/A
5	0.41	0.00	0.00	0.41	0.41			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.49	0.03	0.26	0.49	0.50			N/A	N/A
2	2.52	0.03	0.29	2.52	4.35			N/A	N/A
3	0.34	0.03	0.31	0.56	0.59			N/A	N/A
4	1.02	0.03	0.27	1.02	1.02			N/A	N/A
5	0.82	0.03	0.27	0.82	0.82			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.49	0.03	0.34	1.49	1.86			N/A	N/A
2	2.56	0.03	0.28	2.56	2.56			N/A	N/A
3	0.35	0.04	0.36	1.13	1.49			N/A	N/A
4	1.02	0.03	0.28	1.02	1.26			N/A	N/A
5	0.83	0.03	0.31	1.20	4.01			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2	1.28	0.09	1.07	2.29	3.05			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	0.70	0.59	1.07	1.49	1.54			N/A	N/A
5	0.42	0.03	0.30	0.82	1.19			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.25	0.00	0.00	0.25	0.25			N/A	N/A
2	0.83	0.05	0.49	1.71	2.44			N/A	N/A
3	0.13	0.00	0.00	0.13	0.13			N/A	N/A
4	0.52	0.00	0.00	0.52	0.52			N/A	N/A
5	0.27	0.03	0.26	0.47	0.50			N/A	N/A

2031 Base + Com Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	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 segment length (min)	Run automatically
D20	2031 Base + Com Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	814	100.000
2		ONE HOUR	✓	1042	100.000
3		ONE HOUR	✓	193	100.000
4		ONE HOUR	✓	1697	100.000
5		ONE HOUR	✓	220	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	149	21	619	25
	2	126	0	13	853	40
	3	29	33	0	128	3
	4	503	970	87	0	137
	5	42	54	5	119	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	14	0	0	10	0
	4	3	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.39	2.65	0.7	3.1	A	747	1120
2	0.66	6.24	2.0	2.9	A	956	1434
3	0.37	10.61	0.6	2.8	B	177	266
4	0.55	2.41	1.2	1.8	A	1557	2336
5	0.58	20.62	1.4	6.7	C	202	303

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	613	153	952	2674	0.229	612	526	0.0	0.3	1.788	A
2	784	196	658	1948	0.403	782	906	0.0	0.7	3.196	A
3	145	36	1345	911	0.159	144	95	0.0	0.2	5.091	A
4	1278	319	192	3495	0.366	1275	1297	0.0	0.6	1.677	A
5	166	41	1313	726	0.228	164	154	0.0	0.3	6.572	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	732	183	1139	2512	0.291	731	629	0.3	0.4	2.071	A
2	937	234	787	1863	0.503	935	1083	0.7	1.0	4.023	A
3	174	43	1609	772	0.225	173	113	0.2	0.3	6.518	A
4	1526	381	230	3462	0.441	1525	1552	0.6	0.8	1.923	A
5	198	49	1570	598	0.331	197	184	0.3	0.5	9.209	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	896	224	1392	2293	0.391	895	769	0.4	0.7	2.638	A
2	1147	287	962	1748	0.656	1144	1326	1.0	1.9	6.149	A
3	212	53	1967	584	0.364	211	138	0.3	0.6	10.460	B
4	1868	467	281	3416	0.547	1867	1897	0.8	1.2	2.403	A
5	242	61	1922	422	0.574	239	225	0.5	1.3	19.847	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	896	224	1396	2290	0.391	896	771	0.7	0.7	2.646	A
2	1147	287	964	1746	0.657	1147	1328	1.9	2.0	6.237	A
3	212	53	1973	581	0.366	212	139	0.6	0.6	10.612	B
4	1868	467	282	3415	0.547	1868	1903	1.2	1.2	2.408	A
5	242	61	1925	421	0.575	242	226	1.3	1.4	20.624	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	732	183	1144	2508	0.292	733	631	0.7	0.4	2.078	A
2	937	234	790	1861	0.503	940	1086	2.0	1.1	4.076	A
3	174	43	1617	768	0.226	175	114	0.6	0.3	6.600	A
4	1526	381	231	3460	0.441	1527	1561	1.2	0.8	1.930	A
5	198	49	1574	596	0.332	201	185	1.4	0.5	9.441	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	613	153	956	2671	0.229	613	528	0.4	0.3	1.792	A
2	784	196	660	1946	0.403	786	909	1.1	0.7	3.224	A
3	145	36	1351	908	0.160	146	95	0.3	0.2	5.131	A
4	1278	319	193	3494	0.366	1278	1304	0.8	0.6	1.684	A
5	166	41	1317	724	0.229	166	154	0.5	0.3	6.643	A

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2	0.70	0.57	1.04	1.45	1.50			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	0.59	0.57	1.04	1.45	1.50			N/A	N/A
5	0.30	0.00	0.00	0.30	0.30			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.42	0.00	0.00	0.42	0.42			N/A	N/A
2	1.04	0.06	0.73	2.03	2.92			N/A	N/A
3	0.31	0.00	0.00	0.31	0.31			N/A	N/A
4	0.81	0.06	0.73	1.28	1.79			N/A	N/A
5	0.50	0.04	0.45	1.30	1.42			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.65	0.03	0.26	0.65	0.65			N/A	N/A
2	1.95	0.03	0.28	1.95	1.95			N/A	N/A
3	0.61	0.03	0.28	0.61	0.61			N/A	N/A
4	1.24	0.03	0.26	1.24	1.24			N/A	N/A
5	1.32	0.03	0.28	1.32	3.67			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.66	0.03	0.30	1.41	3.06			N/A	N/A
2	1.97	0.03	0.28	1.97	1.97			N/A	N/A
3	0.62	0.03	0.35	1.26	2.77			N/A	N/A
4	1.25	0.03	0.27	1.25	1.25			N/A	N/A
5	1.35	0.03	0.31	1.93	6.67			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.42	0.00	0.00	0.42	0.42			N/A	N/A
2	1.06	0.14	1.04	1.60	1.92			N/A	N/A
3	0.32	0.00	0.00	0.32	0.32			N/A	N/A
4	0.82	0.57	1.04	1.45	1.50			N/A	N/A
5	0.52	0.04	0.44	1.32	1.44			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2	0.71	0.06	0.59	1.52	1.53			N/A	N/A
3	0.21	0.00	0.00	0.21	0.21			N/A	N/A
4	0.60	0.57	1.04	1.45	1.50			N/A	N/A
5	0.31	0.03	0.32	1.01	1.30			N/A	N/A

2031 Base + Prop Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	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 segment length (min)	Run automatically
D21	2031 Base + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	653	100.000
2		ONE HOUR	✓	1128	100.000
3		ONE HOUR	✓	117	100.000
4		ONE HOUR	✓	1499	100.000
5		ONE HOUR	✓	221	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0	93	37	491	32
	2	132	0	32	898	66
	3	15	12	0	89	1
	4	420	788	129	0	162
	5	39	62	5	115	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1	2	3	4	5
	1	0	6	15	4	0
	2	10	0	8	6	2
	3	63	11	0	18	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.29	2.19	0.4	1.3	A	599	899
2	0.69	6.92	2.4	3.9	A	1035	1553
3	0.21	9.00	0.3	1.4	A	107	161
4	0.48	2.18	1.0	1.5	A	1376	2063
5	0.43	11.81	0.8	3.8	B	203	304

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	492	123	834	2776	0.177	491	455	0.0	0.2	1.648	A
2	849	212	608	1981	0.429	846	717	0.0	0.8	3.361	A
3	88	22	1301	934	0.094	88	152	0.0	0.1	5.155	A
4	1129	282	194	3494	0.323	1126	1195	0.0	0.5	1.618	A
5	166	42	1124	821	0.203	165	196	0.0	0.3	5.691	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	587	147	998	2634	0.223	587	544	0.2	0.3	1.839	A
2	1014	254	727	1902	0.533	1012	858	0.8	1.2	4.291	A
3	105	26	1557	800	0.132	105	182	0.1	0.2	6.286	A
4	1348	337	232	3460	0.389	1347	1430	0.5	0.7	1.815	A
5	199	50	1344	711	0.280	198	234	0.3	0.4	7.278	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	719	180	1221	2441	0.295	718	666	0.3	0.4	2.187	A
2	1242	310	889	1795	0.692	1237	1050	1.2	2.3	6.801	A
3	129	32	1904	617	0.209	128	223	0.2	0.3	8.925	A
4	1650	413	283	3414	0.483	1649	1749	0.7	1.0	2.172	A
5	243	61	1645	560	0.434	242	287	0.4	0.8	11.670	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	719	180	1223	2439	0.295	719	667	0.4	0.4	2.189	A
2	1242	310	891	1794	0.692	1242	1051	2.3	2.4	6.917	A
3	129	32	1909	614	0.210	129	224	0.3	0.3	8.997	A
4	1650	413	284	3413	0.484	1650	1754	1.0	1.0	2.175	A
5	243	61	1647	559	0.435	243	287	0.8	0.8	11.809	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	587	147	1001	2632	0.223	588	546	0.4	0.3	1.845	A
2	1014	254	729	1901	0.533	1019	860	2.4	1.2	4.358	A
3	105	26	1564	796	0.132	106	183	0.3	0.2	6.338	A
4	1348	337	233	3459	0.390	1349	1437	1.0	0.7	1.821	A
5	199	50	1347	709	0.280	200	235	0.8	0.4	7.355	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	492	123	837	2773	0.177	492	457	0.3	0.2	1.653	A
2	849	212	610	1979	0.429	851	720	1.2	0.8	3.394	A
3	88	22	1308	931	0.095	88	153	0.2	0.1	5.185	A
4	1129	282	195	3493	0.323	1129	1201	0.7	0.5	1.622	A
5	166	42	1127	819	0.203	167	197	0.4	0.3	5.734	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.22	0.00	0.00	0.22	0.22			N/A	N/A
2	0.79	0.58	1.06	1.49	1.54			N/A	N/A
3	0.13	0.00	0.00	0.13	0.13			N/A	N/A
4	0.51	0.00	0.00	0.51	0.51			N/A	N/A
5	0.26	0.00	0.00	0.26	0.26			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2	1.20	0.06	0.66	2.70	3.91			N/A	N/A
3	0.18	0.00	0.00	0.18	0.18			N/A	N/A
4	0.68	0.08	0.78	1.45	1.53			N/A	N/A
5	0.40	0.00	0.00	0.40	0.40			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.44	0.03	0.26	0.47	0.50			N/A	N/A
2	2.33	0.03	0.29	2.33	2.79			N/A	N/A
3	0.32	0.03	0.31	0.56	0.59			N/A	N/A
4	0.99	0.03	0.27	0.99	0.99			N/A	N/A
5	0.78	0.03	0.27	0.78	0.78			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.44	0.04	0.36	1.31	1.31			N/A	N/A
2	2.36	0.03	0.28	2.36	2.36			N/A	N/A
3	0.32	0.03	0.35	0.91	1.37			N/A	N/A
4	1.00	0.03	0.28	1.00	1.41			N/A	N/A
5	0.79	0.03	0.31	1.18	3.83			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2	1.23	0.11	1.09	2.03	2.72			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	0.68	0.59	1.07	1.49	1.55			N/A	N/A
5	0.41	0.03	0.28	0.51	0.94			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.23	0.00	0.00	0.23	0.23			N/A	N/A
2	0.80	0.05	0.52	1.53	2.06			N/A	N/A
3	0.13	0.00	0.00	0.13	0.13			N/A	N/A
4	0.51	0.00	0.00	0.51	0.51			N/A	N/A
5	0.27	0.03	0.26	0.47	0.49			N/A	N/A

2031 Base + Prop Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.59	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 segment length (min)	Run automatically
D22	2031 Base + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	782	100.000
2		ONE HOUR	✓	1034	100.000
3		ONE HOUR	✓	191	100.000
4		ONE HOUR	✓	1655	100.000
5		ONE HOUR	✓	218	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0	144	18	595	25
	2	119	0	13	852	40
	3	28	32	0	128	3
	4	462	970	86	0	137
	5	40	54	5	119	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1	2	3	4	5
	1	0	1	0	3	0
	2	4	0	0	4	0
	3	15	0	0	10	0
	4	4	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.38	2.58	0.6	2.9	A	718	1076
2	0.64	5.95	1.9	2.7	A	949	1423
3	0.35	10.06	0.6	2.5	B	175	263
4	0.53	2.33	1.2	1.6	A	1519	2278
5	0.53	17.66	1.2	5.6	C	200	300

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	589	147	951	2675	0.220	588	487	0.0	0.3	1.766	A
2	778	195	637	1961	0.397	776	901	0.0	0.7	3.145	A
3	144	36	1321	924	0.156	143	92	0.0	0.2	5.006	A
4	1246	311	185	3501	0.356	1244	1279	0.0	0.6	1.653	A
5	164	41	1275	745	0.220	163	154	0.0	0.3	6.336	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	703	176	1137	2514	0.280	703	583	0.3	0.4	2.036	A
2	930	232	762	1879	0.495	928	1078	0.7	1.0	3.922	A
3	172	43	1580	787	0.218	171	110	0.2	0.3	6.349	A
4	1488	372	222	3469	0.429	1487	1530	0.6	0.8	1.885	A
5	196	49	1525	621	0.316	195	184	0.3	0.5	8.677	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	861	215	1391	2294	0.375	860	713	0.4	0.6	2.570	A
2	1138	285	931	1768	0.644	1135	1319	1.0	1.8	5.874	A
3	210	53	1932	602	0.349	209	134	0.3	0.6	9.937	A
4	1822	456	271	3425	0.532	1821	1871	0.8	1.2	2.327	A
5	240	60	1866	450	0.533	237	225	0.5	1.1	17.174	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	861	215	1394	2291	0.376	861	715	0.6	0.6	2.578	A
2	1138	285	934	1766	0.645	1138	1321	1.8	1.9	5.948	A
3	210	53	1938	599	0.351	210	134	0.6	0.6	10.061	B
4	1822	456	272	3424	0.532	1822	1876	1.2	1.2	2.332	A
5	240	60	1868	449	0.535	240	226	1.1	1.2	17.659	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	703	176	1141	2510	0.280	704	585	0.6	0.4	2.044	A
2	930	232	765	1877	0.495	933	1081	1.9	1.0	3.971	A
3	172	43	1588	783	0.219	173	110	0.6	0.3	6.420	A
4	1488	372	223	3468	0.429	1489	1538	1.2	0.8	1.889	A
5	196	49	1528	619	0.317	199	185	1.2	0.5	8.851	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	589	147	954	2672	0.220	589	489	0.4	0.3	1.770	A
2	778	195	639	1960	0.397	780	904	1.0	0.7	3.171	A
3	144	36	1327	920	0.156	144	92	0.3	0.2	5.043	A
4	1246	311	186	3500	0.356	1247	1285	0.8	0.6	1.658	A
5	164	41	1279	743	0.221	165	154	0.5	0.3	6.399	A

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2	0.68	0.57	1.04	1.45	1.50			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	0.57	0.57	1.04	1.45	1.51			N/A	N/A
5	0.29	0.00	0.00	0.29	0.29			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2	1.01	0.06	0.75	1.93	2.72			N/A	N/A
3	0.30	0.00	0.00	0.30	0.30			N/A	N/A
4	0.78	0.07	0.74	1.54	1.58			N/A	N/A
5	0.47	0.04	0.36	1.17	1.36			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.61	0.03	0.26	0.61	0.61			N/A	N/A
2	1.84	0.03	0.27	1.84	1.84			N/A	N/A
3	0.57	0.03	0.28	0.57	0.57			N/A	N/A
4	1.17	0.03	0.26	1.17	1.17			N/A	N/A
5	1.13	0.03	0.28	1.13	1.57			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.62	0.03	0.31	1.50	2.90			N/A	N/A
2	1.86	0.03	0.28	1.86	1.86			N/A	N/A
3	0.58	0.03	0.35	1.16	2.50			N/A	N/A
4	1.18	0.03	0.27	1.18	1.18			N/A	N/A
5	1.15	0.03	0.31	1.61	5.61			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2	1.03	0.16	1.03	1.44	1.81			N/A	N/A
3	0.31	0.00	0.00	0.31	0.31			N/A	N/A
4	0.78	0.57	1.04	1.45	1.51			N/A	N/A
5	0.48	0.04	0.42	1.28	1.41			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2	0.69	0.06	0.62	1.29	1.29			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	0.58	0.57	1.04	1.45	1.51			N/A	N/A
5	0.29	0.03	0.30	0.80	1.17			N/A	N/A

2031 Base + Com Dev + Prop Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.77	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D23	2031 Base + Com Dev + Prop Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	732	100.000
2		ONE HOUR	✓	1135	100.000
3		ONE HOUR	✓	119	100.000
4		ONE HOUR	✓	1526	100.000
5		ONE HOUR	✓	222	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0	101	40	556	35
	2	139	0	32	898	66
	3	15	12	0	91	1
	4	444	791	129	0	162
	5	40	62	5	115	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
From		1	2	3	4	5
	1	0	6	14	3	0
	2	9	0	8	6	2
	3	61	11	0	17	0
	4	5	6	20	0	4
	5	6	6	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.33	2.29	0.5	2.0	A	672	1008
2	0.72	7.74	2.6	5.2	A	1041	1562
3	0.23	9.85	0.4	1.5	A	109	164
4	0.49	2.22	1.0	1.5	A	1400	2100
5	0.45	12.60	0.8	4.1	B	204	306

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	551	138	836	2774	0.199	550	479	0.0	0.3	1.680	A
2	854	214	661	1946	0.439	851	726	0.0	0.8	3.482	A
3	90	22	1357	905	0.099	89	155	0.0	0.1	5.308	A
4	1149	287	201	3487	0.329	1147	1245	0.0	0.5	1.636	A
5	167	42	1149	808	0.207	166	198	0.0	0.3	5.811	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	658	165	1001	2632	0.250	658	573	0.3	0.3	1.892	A
2	1020	255	790	1860	0.548	1019	868	0.8	1.3	4.529	A
3	107	27	1624	764	0.140	107	185	0.1	0.2	6.588	A
4	1372	343	241	3452	0.397	1371	1490	0.5	0.7	1.842	A
5	200	50	1375	695	0.287	199	237	0.3	0.4	7.511	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	806	201	1224	2438	0.331	805	701	0.3	0.5	2.287	A
2	1250	312	967	1744	0.717	1244	1062	1.3	2.6	7.569	A
3	131	33	1985	574	0.228	130	226	0.2	0.4	9.747	A
4	1680	420	294	3405	0.493	1679	1822	0.7	1.0	2.221	A
5	244	61	1683	542	0.451	243	290	0.4	0.8	12.422	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	806	201	1226	2436	0.331	806	702	0.5	0.5	2.291	A
2	1250	312	969	1743	0.717	1249	1064	2.6	2.6	7.737	A
3	131	33	1992	571	0.230	131	227	0.4	0.4	9.849	A
4	1680	420	295	3404	0.494	1680	1828	1.0	1.0	2.224	A
5	244	61	1685	541	0.452	244	291	0.8	0.8	12.595	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	658	165	1004	2629	0.250	659	575	0.5	0.3	1.899	A
2	1020	255	793	1859	0.549	1026	870	2.6	1.3	4.617	A
3	107	27	1633	760	0.141	108	186	0.4	0.2	6.652	A
4	1372	343	242	3451	0.398	1373	1498	1.0	0.7	1.849	A
5	200	50	1377	694	0.288	201	238	0.8	0.4	7.604	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	551	138	840	2771	0.199	551	481	0.3	0.3	1.682	A
2	854	214	663	1944	0.440	856	728	1.3	0.8	3.519	A
3	90	22	1364	901	0.099	90	155	0.2	0.1	5.341	A
4	1149	287	202	3486	0.330	1150	1252	0.7	0.5	1.641	A
5	167	42	1153	806	0.207	168	199	0.4	0.3	5.855	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.26	0.00	0.00	0.26	0.26			N/A	N/A
2	0.83	0.58	1.06	1.49	1.54			N/A	N/A
3	0.13	0.00	0.00	0.13	0.13			N/A	N/A
4	0.52	0.00	0.00	0.52	0.52			N/A	N/A
5	0.27	0.00	0.00	0.27	0.27			N/A	N/A

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.35	0.00	0.00	0.35	0.35			N/A	N/A
2	1.28	0.05	0.58	2.98	4.42			N/A	N/A
3	0.19	0.00	0.00	0.19	0.19			N/A	N/A
4	0.70	0.07	0.78	1.46	1.54			N/A	N/A
5	0.41	0.00	0.00	0.41	0.41			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.51	0.03	0.26	0.51	0.51			N/A	N/A
2	2.61	0.03	0.29	2.61	5.16			N/A	N/A
3	0.35	0.03	0.31	0.56	0.59			N/A	N/A
4	1.03	0.03	0.27	1.03	1.03			N/A	N/A
5	0.83	0.03	0.27	0.83	0.83			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.51	0.03	0.34	1.52	2.03			N/A	N/A
2	2.65	0.03	0.28	2.65	2.65			N/A	N/A
3	0.36	0.04	0.37	1.18	1.51			N/A	N/A
4	1.04	0.03	0.28	1.04	1.21			N/A	N/A
5	0.84	0.03	0.31	1.21	4.07			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.35	0.00	0.00	0.35	0.35			N/A	N/A
2	1.31	0.09	1.06	2.45	3.18			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	0.71	0.59	1.07	1.49	1.54			N/A	N/A
5	0.42	0.03	0.31	0.90	1.23			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.26	0.00	0.00	0.26	0.26			N/A	N/A
2	0.84	0.05	0.48	1.78	2.62			N/A	N/A
3	0.13	0.00	0.00	0.13	0.13			N/A	N/A
4	0.53	0.00	0.00	0.53	0.53			N/A	N/A
5	0.27	0.03	0.26	0.47	0.50			N/A	N/A

2031 Base + Com Dev + Prop Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D24	2031 Base + Com Dev + Prop Dev	PM	ONE HOUR	15:45	17:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	826	100.000
2		ONE HOUR	✓	1044	100.000
3		ONE HOUR	✓	193	100.000
4		ONE HOUR	✓	1706	100.000
5		ONE HOUR	✓	221	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	151	21	628	26
	2	128	0	13	853	40
	3	29	33	0	128	3
	4	512	970	87	0	137
	5	43	54	5	119	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	0	3	0
	2	4	0	0	4	0
	3	14	0	0	10	0
	4	3	3	16	0	2
	5	6	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.40	2.67	0.7	3.1	A	758	1137
2	0.66	6.34	2.0	3.0	A	958	1437
3	0.37	10.82	0.6	2.9	B	177	266
4	0.55	2.43	1.3	1.8	A	1565	2348
5	0.59	21.48	1.4	7.0	C	203	304

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	622	155	952	2674	0.233	621	535	0.0	0.3	1.796	A
2	786	196	665	1943	0.405	783	907	0.0	0.7	3.214	A
3	145	36	1354	906	0.160	144	95	0.0	0.2	5.123	A
4	1284	321	194	3493	0.368	1282	1304	0.0	0.6	1.683	A
5	166	42	1321	722	0.230	165	155	0.0	0.3	6.628	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	743	186	1139	2512	0.296	742	639	0.3	0.4	2.083	A
2	939	235	796	1857	0.505	937	1085	0.7	1.1	4.056	A
3	174	43	1620	767	0.226	173	113	0.2	0.3	6.580	A
4	1534	383	232	3459	0.443	1533	1560	0.6	0.8	1.933	A
5	199	50	1580	593	0.335	198	185	0.3	0.5	9.344	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	909	227	1392	2293	0.397	908	782	0.4	0.7	2.663	A
2	1149	287	973	1741	0.660	1146	1328	1.1	2.0	6.244	A
3	212	53	1980	577	0.368	211	138	0.3	0.6	10.652	B
4	1878	470	284	3413	0.550	1877	1907	0.8	1.3	2.423	A
5	243	61	1934	416	0.585	240	226	0.5	1.4	20.598	C

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	909	227	1396	2290	0.397	909	784	0.7	0.7	2.671	A
2	1149	287	975	1739	0.661	1149	1330	2.0	2.0	6.337	A
3	212	53	1986	574	0.370	212	139	0.6	0.6	10.816	B
4	1878	470	285	3412	0.550	1878	1913	1.3	1.3	2.428	A
5	243	61	1937	415	0.586	243	227	1.4	1.4	21.475	C

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	743	186	1144	2508	0.296	744	642	0.7	0.4	2.091	A
2	939	235	799	1855	0.506	942	1088	2.0	1.1	4.113	A
3	174	43	1628	762	0.228	175	114	0.6	0.3	6.669	A
4	1534	383	234	3458	0.444	1535	1569	1.3	0.8	1.941	A
5	199	50	1584	591	0.336	202	186	1.4	0.5	9.597	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
-----	-----------------------	-------------------------	---------------------------	-------------------	-----	---------------------	---------------------------------	-------------------	-----------------	-----------	-------------------------------

1	622	155	956	2671	0.233	622	537	0.4	0.3	1.803	A
2	786	196	668	1941	0.405	787	910	1.1	0.7	3.242	A
3	145	36	1360	903	0.161	146	95	0.3	0.2	5.163	A
4	1284	321	195	3492	0.368	1285	1311	0.8	0.6	1.688	A
5	166	42	1325	720	0.231	167	155	0.5	0.3	6.701	A

Queue Variation Results for each time segment

15:45 - 16:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2	0.70	0.57	1.04	1.45	1.50			N/A	N/A
3	0.21	0.00	0.00	0.21	0.21			N/A	N/A
4	0.60	0.57	1.04	1.45	1.50			N/A	N/A
5	0.30	0.00	0.00	0.30	0.30			N/A	N/A

16:00 - 16:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2	1.05	0.06	0.72	2.06	2.98			N/A	N/A
3	0.31	0.00	0.00	0.31	0.31			N/A	N/A
4	0.82	0.06	0.72	1.34	1.83			N/A	N/A
5	0.51	0.05	0.47	1.32	1.43			N/A	N/A

16:15 - 16:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.67	0.03	0.26	0.67	0.67			N/A	N/A
2	1.98	0.03	0.28	1.98	1.98			N/A	N/A
3	0.62	0.03	0.28	0.62	0.62			N/A	N/A
4	1.26	0.03	0.26	1.26	1.26			N/A	N/A
5	1.37	0.03	0.29	1.37	4.30			N/A	N/A

16:30 - 16:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.67	0.03	0.30	1.37	3.09			N/A	N/A
2	2.00	0.03	0.28	2.00	2.00			N/A	N/A
3	0.63	0.03	0.35	1.29	2.85			N/A	N/A
4	1.26	0.03	0.27	1.26	1.26			N/A	N/A
5	1.41	0.03	0.31	2.03	6.99			N/A	N/A

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.43	0.00	0.00	0.43	0.43			N/A	N/A
2	1.07	0.13	1.04	1.64	1.95			N/A	N/A
3	0.32	0.00	0.00	0.32	0.32			N/A	N/A
4	0.83	0.57	1.04	1.45	1.50			N/A	N/A
5	0.53	0.04	0.45	1.33	1.46			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2	0.71	0.05	0.58	1.54	1.59			N/A	N/A
3	0.21	0.00	0.00	0.21	0.21			N/A	N/A
4	0.60	0.57	1.04	1.45	1.50			N/A	N/A
5	0.31	0.03	0.32	1.04	1.32			N/A	N/A