

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947

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Filename: A27 - A29 Roundabout v02.j9

Path: J:\38848 - GH - Wandleys Lane, Fontwell\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 9

Report generation date: 28/11/2017 12:40:05

- »A27 / A29 Roundabout - 2017, AM
- »A27 / A29 Roundabout - 2017, PM
- »A27 / A29 Roundabout - 2031 Base, AM
- »A27 / A29 Roundabout - 2031 Base, PM
- »A27 / A29 Roundabout - 2031 Base + Dev, AM
- »A27 / A29 Roundabout - 2031 Base + Dev, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
A27 / A29 Roundabout - 2017								
1 - A29 East	1.2	6.68	0.56	A	1.3	5.92	0.56	A
2 - A27 South	3.9	8.39	0.80	A	1.4	4.17	0.59	A
3 - A27 West	8.7	12.94	0.90	B	2.3	3.98	0.70	A
A27 / A29 Roundabout - 2031 Base								
1 - A29 East	1.4	6.37	0.58	A	2.0	7.41	0.67	A
2 - A27 South	8.7	18.33	0.91	C	1.3	4.24	0.56	A
3 - A27 West	3.5	7.63	0.78	A	2.5	4.47	0.72	A
A27 / A29 Roundabout - 2031 Base + Dev								
1 - A29 East	1.4	6.46	0.59	A	2.0	7.50	0.67	A
2 - A27 South	9.3	19.49	0.91	C	1.3	4.27	0.57	A
3 - A27 West	3.6	7.81	0.79	A	2.5	4.49	0.72	A

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	30/08/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PBA\mbarney
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2017	AM	ONE HOUR	07:00	08:30	15
D2	2017	PM	ONE HOUR	16:15	17:45	15
D7	2031 Base	AM	ONE HOUR	07:00	08:30	15
D8	2031 Base	PM	ONE HOUR	16:15	17:45	15
D9	2031 Base + Dev	AM	ONE HOUR	07:00	08:30	15
D10	2031 Base + Dev	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	A27 / A28 Roundabout	100.000

A27 / A29 Roundabout - 2017, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3	10.50	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A29 East	
2	A27 South	Arundel Road
3	A27 West	

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 - A29 East	8.84	9.89	11.9	77.8	51.8	44.0	
2 - A27 South	8.00	11.23	12.7	58.4	51.8	54.0	
3 - A27 West	8.47	9.57	10.8	40.1	51.8	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A29 East	0.753	2531
2 - A27 South	0.795	2812
3 - A27 West	0.914	3179

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2017	AM	ONE HOUR	07:00	08:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A29 East		✓	617	100.000
2 - A27 South		✓	1548	100.000
3 - A27 West		✓	2307	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		1 - A29 East	2 - A27 South	3 - A27 West
1 - A29 East		0	28	589
2 - A27 South		133	49	1366
3 - A27 West		971	1335	1

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - A29 East	2 - A27 South	3 - A27 West
1 - A29 East		0	7	7
2 - A27 South		6	6	6
3 - A27 West		5	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
1 - A29 East	0.56	6.68	1.2	A
2 - A27 South	0.80	8.39	3.9	A
3 - A27 West	0.90	12.94	8.7	B

Main Results for each time segment

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	465	1039	1583	0.293	463	0.4	3.210	A
2 - A27 South	1165	443	2298	0.507	1161	1.0	3.155	A
3 - A27 West	1737	137	2870	0.605	1731	1.5	3.145	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	555	1242	1430	0.388	554	0.6	4.104	A
2 - A27 South	1392	530	2228	0.625	1389	1.6	4.278	A
3 - A27 West	2074	163	2845	0.729	2069	2.6	4.614	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	679	1512	1227	0.554	677	1.2	6.515	A
2 - A27 South	1704	647	2134	0.799	1696	3.8	8.065	A
3 - A27 West	2540	199	2812	0.903	2518	8.2	11.443	B

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	679	1524	1218	0.558	679	1.2	6.677	A
2 - A27 South	1704	650	2132	0.799	1704	3.9	8.394	A
3 - A27 West	2540	200	2811	0.904	2538	8.7	12.939	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	555	1259	1417	0.391	557	0.6	4.196	A
2 - A27 South	1392	533	2226	0.625	1400	1.7	4.408	A
3 - A27 West	2074	165	2844	0.729	2098	2.7	4.976	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	465	1046	1578	0.294	465	0.4	3.237	A
2 - A27 South	1165	445	2296	0.508	1168	1.0	3.198	A
3 - A27 West	1737	137	2869	0.605	1742	1.5	3.206	A

A27 / A29 Roundabout - 2017, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3	4.40	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)
D2	2017	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A29 East		✓	699	100.000
2 - A27 South		✓	1128	100.000
3 - A27 West		✓	1892	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - A29 East	2 - A27 South	3 - A27 West
From	1 - A29 East	0	24	675
	2 - A27 South	56	30	1042
	3 - A27 West	626	1265	1

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A29 East	2 - A27 South	3 - A27 West
From	1 - A29 East	0	21	2
	2 - A27 South	5	3	5
	3 - A27 West	2	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
1 - A29 East	0.56	5.92	1.3	A
2 - A27 South	0.59	4.17	1.4	A
3 - A27 West	0.70	3.98	2.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	526	973	1723	0.305	524	0.4	3.000	A
2 - A27 South	849	507	2288	0.371	847	0.6	2.494	A
3 - A27 West	1424	65	3016	0.472	1421	0.9	2.252	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	628	1164	1578	0.398	628	0.7	3.785	A
2 - A27 South	1014	607	2211	0.459	1013	0.8	3.002	A
3 - A27 West	1701	77	3005	0.566	1699	1.3	2.754	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	770	1424	1379	0.558	767	1.2	5.862	A
2 - A27 South	1242	742	2106	0.590	1240	1.4	4.143	A
3 - A27 West	2083	95	2989	0.697	2079	2.3	3.942	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	770	1427	1377	0.559	770	1.3	5.925	A
2 - A27 South	1242	744	2105	0.590	1242	1.4	4.172	A
3 - A27 West	2083	95	2989	0.697	2083	2.3	3.975	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	628	1168	1575	0.399	631	0.7	3.824	A
2 - A27 South	1014	610	2208	0.459	1016	0.9	3.027	A
3 - A27 West	1701	77	3004	0.566	1705	1.3	2.777	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	526	977	1720	0.306	527	0.4	3.020	A
2 - A27 South	849	510	2288	0.372	850	0.6	2.509	A
3 - A27 West	1424	65	3016	0.472	1426	0.9	2.266	A

A27 / A29 Roundabout - 2031 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3	11.92	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)
D7	2031 Base	AM	ONE HOUR	07:00	08:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A29 East		✓	722	100.000
2 - A27 South		✓	1643	100.000
3 - A27 West		✓	1525	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - A29 East	2 - A27 South	3 - A27 West
From	1 - A29 East	0	0	722
	2 - A27 South	619	188	826
	3 - A27 West	510	1015	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A29 East	2 - A27 South	3 - A27 West
From	1 - A29 East	7	7	7
	2 - A27 South	7	7	7
	3 - A27 West	7	7	7

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
1 - A29 East	0.58	6.37	1.4	A
2 - A27 South	0.91	18.33	8.7	C
3 - A27 West	0.78	7.63	3.5	A

Main Results for each time segment

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	544	910	1680	0.324	542	0.5	3.157	A
2 - A27 South	1237	542	2198	0.563	1232	1.3	3.708	A
3 - A27 West	1148	613	2411	0.476	1144	0.9	2.835	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	649	1089	1546	0.420	648	0.7	4.007	A
2 - A27 South	1477	648	2113	0.699	1473	2.3	5.591	A
3 - A27 West	1371	732	2301	0.596	1369	1.5	3.852	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	795	1328	1365	0.582	792	1.4	6.252	A
2 - A27 South	1809	792	1998	0.905	1786	8.0	15.513	C
3 - A27 West	1679	888	2159	0.778	1671	3.4	7.274	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	795	1335	1360	0.585	795	1.4	6.367	A
2 - A27 South	1809	795	1998	0.906	1806	8.7	18.333	C
3 - A27 West	1679	898	2150	0.781	1679	3.5	7.630	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	649	1099	1538	0.422	652	0.7	4.074	A
2 - A27 South	1477	652	2110	0.700	1502	2.4	6.164	A
3 - A27 West	1371	747	2288	0.599	1379	1.5	3.994	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	544	915	1676	0.324	545	0.5	3.186	A
2 - A27 South	1237	545	2195	0.563	1241	1.3	3.789	A
3 - A27 West	1148	617	2406	0.477	1150	0.9	2.873	A

A27 / A29 Roundabout - 2031 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3	5.11	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)
D8	2031 Base	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A29 East		✓	892	100.000
2 - A27 South		✓	999	100.000
3 - A27 West		✓	1860	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - A29 East	2 - A27 South	3 - A27 West
From	1 - A29 East	0	0	892
	2 - A27 South	215	16	768
	3 - A27 West	682	1178	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A29 East	2 - A27 South	3 - A27 West
From	1 - A29 East	3	3	3
	2 - A27 South	3	3	3
	3 - A27 West	3	3	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
1 - A29 East	0.67	7.41	2.0	A
2 - A27 South	0.56	4.24	1.3	A
3 - A27 West	0.72	4.47	2.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	672	897	1782	0.377	669	0.6	3.228	A
2 - A27 South	752	669	2198	0.342	750	0.5	2.482	A
3 - A27 West	1400	173	2927	0.478	1397	0.9	2.345	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	802	1072	1650	0.486	801	0.9	4.232	A
2 - A27 South	898	801	2094	0.429	897	0.7	3.007	A
3 - A27 West	1672	207	2896	0.577	1670	1.4	2.933	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	982	1312	1469	0.668	978	2.0	7.266	A
2 - A27 South	1100	978	1953	0.563	1098	1.3	4.200	A
3 - A27 West	2048	254	2854	0.718	2043	2.5	4.417	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	982	1315	1467	0.669	982	2.0	7.414	A
2 - A27 South	1100	982	1950	0.564	1100	1.3	4.235	A
3 - A27 West	2048	254	2853	0.718	2048	2.5	4.466	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	802	1076	1647	0.487	806	1.0	4.303	A
2 - A27 South	898	806	2090	0.430	900	0.8	3.031	A
3 - A27 West	1672	208	2896	0.577	1677	1.4	2.965	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	672	900	1779	0.377	673	0.6	3.257	A
2 - A27 South	752	673	2195	0.343	753	0.5	2.497	A
3 - A27 West	1400	174	2927	0.478	1402	0.9	2.365	A

A27 / A29 Roundabout - 2031 Base + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3	12.51	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)
D9	2031 Base + Dev	AM	ONE HOUR	07:00	08:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A29 East		✓	723	100.000
2 - A27 South		✓	1654	100.000
3 - A27 West		✓	1525	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - A29 East	2 - A27 South	3 - A27 West
From	1 - A29 East	0	0	723
	2 - A27 South	621	207	826
	3 - A27 West	510	1015	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A29 East	2 - A27 South	3 - A27 West
From	1 - A29 East	7	7	7
	2 - A27 South	7	7	7
	3 - A27 West	7	7	7

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
1 - A29 East	0.59	6.46	1.4	A
2 - A27 South	0.91	19.49	9.3	C
3 - A27 West	0.79	7.81	3.6	A

Main Results for each time segment

07:00 - 07:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	544	917	1675	0.325	542	0.5	3.173	A
2 - A27 South	1245	542	2197	0.567	1240	1.3	3.742	A
3 - A27 West	1148	621	2403	0.478	1144	0.9	2.852	A

07:15 - 07:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	650	1097	1540	0.422	649	0.7	4.038	A
2 - A27 South	1487	649	2112	0.704	1483	2.3	5.681	A
3 - A27 West	1371	742	2292	0.598	1369	1.5	3.889	A

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	796	1337	1358	0.586	793	1.4	6.341	A
2 - A27 South	1821	793	1998	0.912	1796	8.5	16.226	C
3 - A27 West	1679	899	2149	0.781	1671	3.4	7.421	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	796	1345	1353	0.589	796	1.4	6.464	A
2 - A27 South	1821	796	1996	0.913	1818	9.3	19.492	C
3 - A27 West	1679	910	2139	0.785	1679	3.6	7.808	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	650	1107	1531	0.424	653	0.7	4.110	A
2 - A27 South	1487	653	2109	0.705	1514	2.4	6.320	A
3 - A27 West	1371	758	2278	0.602	1379	1.5	4.042	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	544	922	1671	0.326	545	0.5	3.203	A
2 - A27 South	1245	545	2195	0.567	1250	1.3	3.826	A
3 - A27 West	1148	626	2399	0.479	1151	0.9	2.889	A

A27 / A29 Roundabout - 2031 Base + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3	5.15	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2031 Base + Dev	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A29 East		✓	894	100.000
2 - A27 South		✓	1004	100.000
3 - A27 West		✓	1860	100.000

Origin-Destination Data

Demand (Veh/hr)

	To		
	1 - A29 East	2 - A27 South	3 - A27 West
From			
1 - A29 East	0	0	894
2 - A27 South	216	20	768
3 - A27 West	682	1178	0

Vehicle Mix

Heavy Vehicle Percentages

	To		
	1 - A29 East	2 - A27 South	3 - A27 West
From			
1 - A29 East	3	3	3
2 - A27 South	3	3	3
3 - A27 West	3	3	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
1 - A29 East	0.67	7.50	2.0	A
2 - A27 South	0.57	4.27	1.3	A
3 - A27 West	0.72	4.49	2.5	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	673	900	1780	0.378	671	0.6	3.239	A
2 - A27 South	756	671	2197	0.344	754	0.5	2.491	A
3 - A27 West	1400	177	2924	0.479	1397	0.9	2.351	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	804	1076	1647	0.488	802	0.9	4.255	A
2 - A27 South	903	802	2092	0.431	902	0.8	3.018	A
3 - A27 West	1672	212	2892	0.578	1670	1.4	2.943	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	984	1316	1466	0.671	980	2.0	7.346	A
2 - A27 South	1105	980	1951	0.567	1103	1.3	4.234	A
3 - A27 West	2048	259	2849	0.719	2043	2.5	4.443	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	984	1319	1464	0.672	984	2.0	7.499	A
2 - A27 South	1105	984	1948	0.567	1105	1.3	4.272	A
3 - A27 West	2048	260	2848	0.719	2048	2.5	4.494	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	804	1080	1644	0.489	808	1.0	4.329	A
2 - A27 South	903	808	2088	0.432	905	0.8	3.049	A
3 - A27 West	1672	213	2892	0.578	1677	1.4	2.976	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
1 - A29 East	673	903	1777	0.379	674	0.6	3.270	A
2 - A27 South	756	674	2194	0.345	757	0.5	2.505	A
3 - A27 West	1400	178	2923	0.479	1402	0.9	2.370	A