

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
2 - Biggs Lane	0.37	4.02	0.6	A	431	647
3 - Langley Common Road (S)	0.53	5.56	1.1	A	614	921
1 - Langley Common Road (N)	0.47	6.50	0.9	A	413	619

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	354	88	264	1492	0.237	353	226	0.0	0.3	3.158	A
3 - Langley Common Road (S)	504	126	100	1412	0.357	501	516	0.0	0.6	3.945	A
1 - Langley Common Road (N)	339	85	153	1090	0.311	337	448	0.0	0.4	4.768	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	423	106	316	1458	0.290	422	271	0.3	0.4	3.475	A
3 - Langley Common Road (S)	601	150	119	1400	0.430	601	619	0.6	0.7	4.499	A
1 - Langley Common Road (N)	405	101	183	1073	0.377	404	537	0.4	0.6	5.377	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	517	129	387	1413	0.366	517	332	0.4	0.6	4.017	A
3 - Langley Common Road (S)	737	184	146	1384	0.532	735	757	0.7	1.1	5.533	A
1 - Langley Common Road (N)	495	124	224	1050	0.472	494	657	0.6	0.9	6.468	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	517	129	388	1412	0.366	517	332	0.6	0.6	4.024	A
3 - Langley Common Road (S)	737	184	146	1384	0.532	737	759	1.1	1.1	5.563	A
1 - Langley Common Road (N)	495	124	225	1049	0.472	495	658	0.9	0.9	6.497	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	423	106	317	1457	0.290	423	272	0.6	0.4	3.483	A
3 - Langley Common Road (S)	601	150	120	1400	0.430	603	621	1.1	0.8	4.526	A
1 - Langley Common Road (N)	405	101	184	1073	0.377	406	539	0.9	0.6	5.406	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	354	88	265	1490	0.237	354	228	0.4	0.3	3.169	A
3 - Langley Common Road (S)	504	126	100	1411	0.357	504	519	0.8	0.6	3.972	A
1 - Langley Common Road (N)	339	85	154	1090	0.311	339	451	0.6	0.5	4.804	A

D3 - 2040 | WSTM-SC2 | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		2, 3, 1	6.89	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	42	1 - Langley Common Road (N)	6.89	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2040	WSTM-SC2	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
2 - Biggs Lane		ONE HOUR	✓	528	100.000
3 - Langley Common Road (S)		ONE HOUR	✓	794	100.000
1 - Langley Common Road (N)		ONE HOUR	✓	559	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		2 - Biggs Lane	3 - Langley Common Road (S)	1 - Langley Common Road (N)
	2 - Biggs Lane	0	404	124
	3 - Langley Common Road (S)	234	0	560
	1 - Langley Common Road (N)	82	477	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
From		2 - Biggs Lane	3 - Langley Common Road (S)	1 - Langley Common Road (N)
	2 - Biggs Lane	0	2	0
	3 - Langley Common Road (S)	3	0	3
	1 - Langley Common Road (N)	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
2 - Biggs Lane	0.44	4.86	0.8	A	485	727
3 - Langley Common Road (S)	0.63	6.98	1.7	A	729	1093
1 - Langley Common Road (N)	0.60	8.68	1.5	A	513	769

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	398	99	357	1430	0.278	396	237	0.0	0.4	3.476	A
3 - Langley Common Road (S)	598	149	93	1416	0.422	595	660	0.0	0.7	4.371	A
1 - Langley Common Road (N)	421	105	175	1077	0.391	418	513	0.0	0.6	5.448	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	475	119	428	1385	0.343	474	284	0.4	0.5	3.950	A
3 - Langley Common Road (S)	714	178	111	1405	0.508	713	791	0.7	1.0	5.193	A
1 - Langley Common Road (N)	503	126	210	1057	0.475	501	614	0.6	0.9	6.469	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	581	145	523	1324	0.439	580	347	0.5	0.8	4.836	A
3 - Langley Common Road (S)	874	219	136	1390	0.629	872	967	1.0	1.7	6.914	A
1 - Langley Common Road (N)	615	154	257	1030	0.597	613	751	0.9	1.4	8.582	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	581	145	525	1322	0.440	581	348	0.8	0.8	4.857	A
3 - Langley Common Road (S)	874	219	137	1390	0.629	874	970	1.7	1.7	6.982	A
1 - Langley Common Road (N)	615	154	258	1030	0.598	615	753	1.4	1.5	8.677	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	475	119	431	1383	0.343	476	285	0.8	0.5	3.973	A
3 - Langley Common Road (S)	714	178	112	1405	0.508	716	795	1.7	1.0	5.249	A
1 - Langley Common Road (N)	503	126	211	1056	0.476	505	617	1.5	0.9	6.550	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	398	99	360	1428	0.278	398	238	0.5	0.4	3.495	A
3 - Langley Common Road (S)	598	149	93	1416	0.422	599	665	1.0	0.7	4.416	A
1 - Langley Common Road (N)	421	105	177	1076	0.391	422	516	0.9	0.6	5.515	A

D4 - 2040 | WSTM-SC3a | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		2, 3, 1	8.73	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	20	1 - Langley Common Road (N)	8.73	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2040	WSTM-SC3a	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
2 - Biggs Lane		ONE HOUR	✓	513	100.000
3 - Langley Common Road (S)		ONE HOUR	✓	799	100.000
1 - Langley Common Road (N)		ONE HOUR	✓	690	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		2 - Biggs Lane	3 - Langley Common Road (S)	1 - Langley Common Road (N)
	2 - Biggs Lane	0	369	144
	3 - Langley Common Road (S)	233	0	566
	1 - Langley Common Road (N)	150	540	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
From		2 - Biggs Lane	3 - Langley Common Road (S)	1 - Langley Common Road (N)
	2 - Biggs Lane	0	2	0
	3 - Langley Common Road (S)	3	0	3
	1 - Langley Common Road (N)	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
2 - Biggs Lane	0.44	5.04	0.8	A	471	706
3 - Langley Common Road (S)	0.64	7.25	1.8	A	733	1100
1 - Langley Common Road (N)	0.74	13.20	2.7	B	633	950

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	386	97	404	1402	0.276	385	287	0.0	0.4	3.536	A
3 - Langley Common Road (S)	602	150	108	1407	0.428	599	680	0.0	0.7	4.438	A
1 - Langley Common Road (N)	519	130	175	1078	0.482	516	532	0.0	0.9	6.366	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	461	115	484	1350	0.342	461	344	0.4	0.5	4.045	A
3 - Langley Common Road (S)	718	180	129	1394	0.515	717	815	0.7	1.1	5.309	A
1 - Langley Common Road (N)	620	155	209	1058	0.586	618	637	0.9	1.4	8.149	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	565	141	591	1282	0.441	564	420	0.5	0.8	5.008	A
3 - Langley Common Road (S)	880	220	158	1376	0.639	877	996	1.1	1.7	7.167	A
1 - Langley Common Road (N)	760	190	256	1032	0.736	755	779	1.4	2.7	12.752	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	565	141	594	1279	0.442	565	422	0.8	0.8	5.039	A
3 - Langley Common Road (S)	880	220	159	1376	0.639	880	1001	1.7	1.8	7.246	A
1 - Langley Common Road (N)	760	190	257	1031	0.737	759	782	2.7	2.7	13.200	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	461	115	489	1346	0.343	462	346	0.8	0.5	4.075	A
3 - Langley Common Road (S)	718	180	130	1394	0.515	721	822	1.8	1.1	5.372	A
1 - Langley Common Road (N)	620	155	210	1058	0.587	625	640	2.7	1.4	8.425	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	386	97	408	1399	0.276	387	289	0.5	0.4	3.558	A
3 - Langley Common Road (S)	602	150	109	1406	0.428	603	686	1.1	0.8	4.486	A
1 - Langley Common Road (N)	519	130	176	1077	0.482	521	536	1.4	0.9	6.501	A

D5 - 2040 | WSTM-SC3b | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		2, 3, 1	6.90	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	36	1 - Langley Common Road (N)	6.90	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2040	WSTM-SC3b	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
2 - Biggs Lane		ONE HOUR	✓	420	100.000
3 - Langley Common Road (S)		ONE HOUR	✓	788	100.000
1 - Langley Common Road (N)		ONE HOUR	✓	594	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		2 - Biggs Lane	3 - Langley Common Road (S)	1 - Langley Common Road (N)
From	2 - Biggs Lane	0	373	47
	3 - Langley Common Road (S)	226	0	562
	1 - Langley Common Road (N)	49	545	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		2 - Biggs Lane	3 - Langley Common Road (S)	1 - Langley Common Road (N)
From	2 - Biggs Lane	0	2	0
	3 - Langley Common Road (S)	3	0	3
	1 - Langley Common Road (N)	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
2 - Biggs Lane	0.36	4.45	0.6	A	385	578
3 - Langley Common Road (S)	0.60	6.28	1.5	A	723	1085
1 - Langley Common Road (N)	0.63	9.46	1.7	A	545	818

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	316	79	408	1394	0.227	315	206	0.0	0.3	3.333	A
3 - Langley Common Road (S)	593	148	35	1451	0.409	591	688	0.0	0.7	4.172	A
1 - Langley Common Road (N)	447	112	169	1079	0.414	444	456	0.0	0.7	5.645	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	378	94	489	1342	0.281	377	247	0.3	0.4	3.727	A
3 - Langley Common Road (S)	708	177	42	1446	0.490	707	824	0.7	0.9	4.863	A
1 - Langley Common Road (N)	534	133	203	1060	0.504	533	547	0.7	1.0	6.809	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	462	116	598	1273	0.363	462	302	0.4	0.6	4.435	A
3 - Langley Common Road (S)	868	217	52	1441	0.602	865	1008	0.9	1.5	6.233	A
1 - Langley Common Road (N)	654	164	248	1035	0.632	651	669	1.0	1.7	9.322	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	462	116	600	1271	0.364	462	303	0.6	0.6	4.450	A
3 - Langley Common Road (S)	868	217	52	1441	0.602	868	1011	1.5	1.5	6.280	A
1 - Langley Common Road (N)	654	164	249	1034	0.632	654	670	1.7	1.7	9.456	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	378	94	492	1340	0.282	378	248	0.6	0.4	3.747	A
3 - Langley Common Road (S)	708	177	42	1446	0.490	711	828	1.5	1.0	4.907	A
1 - Langley Common Road (N)	534	133	204	1060	0.504	537	549	1.7	1.0	6.917	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	316	79	411	1392	0.227	317	207	0.4	0.3	3.348	A
3 - Langley Common Road (S)	593	148	35	1451	0.409	594	693	1.0	0.7	4.209	A
1 - Langley Common Road (N)	447	112	170	1079	0.415	448	459	1.0	0.7	5.725	A

Junctions 11					
ARCADY 11 - Roundabout Module					
Version: 11.1.0.2307					
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Filename: Biggs Lane_B3349 Roundabout - PM Peak.j11

Path: L:\PROJECTS\11000 SERIES\11337 - Barkham Square Park\Tech\Junction Assessments\Arcady

Report generation date: 14/11/2025 17:19:22

»D2 - 2025 | Base | PM

»D3 - 2040 | WSTM-SC1 | PM

»D4 - 2040 | WSTM-SC2 | PM

»D5 - 2040 | WSTM-SC3a | PM

»D6 - 2040 | WSTM-SC3b | PM

Summary of junction performance

	PM					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	2025 - Base					
2 - Biggs Lane	D2	0.5	4.04	0.31	A	39 % [1 - Langley Common Road (N)]
3 - Langley Common Road (S)		1.0	5.14	0.51	A	
1 - Langley Common Road (N)		1.6	9.09	0.61	A	
	2040 - WSTM-SC1					
2 - Biggs Lane	D3	0.2	3.30	0.19	A	69 % [1 - Langley Common Road (N)]
3 - Langley Common Road (S)		1.2	5.40	0.55	A	
1 - Langley Common Road (N)		1.0	6.72	0.49	A	
	2040 - WSTM-SC2					
2 - Biggs Lane	D4	0.3	3.79	0.24	A	34 % [1 - Langley Common Road (N)]
3 - Langley Common Road (S)		1.7	6.60	0.63	A	
1 - Langley Common Road (N)		1.8	9.83	0.64	A	
	2040 - WSTM-SC3a					
2 - Biggs Lane	D5	0.4	3.99	0.27	A	26 % [1 - Langley Common Road (N)]
3 - Langley Common Road (S)		2.1	7.79	0.68	A	
1 - Langley Common Road (N)		2.2	11.27	0.69	B	
	2040 - WSTM-SC3b					
2 - Biggs Lane	D6	0.3	3.74	0.22	A	35 % [1 - Langley Common Road (N)]
3 - Langley Common Road (S)		1.9	7.15	0.66	A	
1 - Langley Common Road (N)		1.7	9.63	0.64	A	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Biggs Lane/ B3349 Roundabout
Location	Biggs Lane/B3349 roundabout
Site number	
Date	18/07/2025
Version	
Status	Existing Base
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\LM
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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75					✓	Delay	0.85	36.00	20.00		

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2025	Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2040	WSTM-SC1	PM	ONE HOUR	16:45	18:15	15	✓
D4	2040	WSTM-SC2	PM	ONE HOUR	16:45	18:15	15	✓
D5	2040	WSTM-SC3a	PM	ONE HOUR	16:45	18:15	15	✓
D6	2040	WSTM-SC3b	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

D2 - 2025 | Base | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		2, 3, 1	6.31	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	39	1 - Langley Common Road (N)	6.31	A

Arms

Arms

Arm	Name	Description	No give-way line
2	Biggs Lane		
3	Langley Common Road (S)		
1	Langley Common Road (N)		

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)	Entry only	Exit only
2 - Biggs Lane	3.38	7.25	24.6	18.1	24.4	47.5		
3 - Langley Common Road (S)	3.31	6.11	14.6	23.0	24.4	34.2		
1 - Langley Common Road (N)	2.91	6.56	4.6	15.8	24.4	25.6		

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
2 - Biggs Lane	Direct	Unequal Lane Usage	-75
3 - Langley Common Road (S)	None		
1 - Langley Common Road (N)	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
2 - Biggs Lane	0.639	1610
3 - Langley Common Road (S)	0.622	1516
1 - Langley Common Road (N)	0.560	1198

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2025	Base	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
2 - Biggs Lane		ONE HOUR	✓	367	100.000
3 - Langley Common Road (S)		ONE HOUR	✓	664	100.000
1 - Langley Common Road (N)		ONE HOUR	✓	568	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		2 - Biggs Lane	3 - Langley Common Road (S)	1 - Langley Common Road (N)
From	2 - Biggs Lane	1	255	111
	3 - Langley Common Road (S)	257	3	404
	1 - Langley Common Road (N)	131	437	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		2 - Biggs Lane	3 - Langley Common Road (S)	1 - Langley Common Road (N)
From	2 - Biggs Lane	0	0	0
	3 - Langley Common Road (S)	0	0	1
	1 - Langley Common Road (N)	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
2 - Biggs Lane	0.31	4.04	0.5	A	337	505
3 - Langley Common Road (S)	0.51	5.14	1.0	A	609	914
1 - Langley Common Road (N)	0.61	9.09	1.6	A	521	782

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	276	69	329	1395	0.198	275	291	0.0	0.2	3.211	A
3 - Langley Common Road (S)	500	125	84	1455	0.344	498	521	0.0	0.5	3.753	A
1 - Langley Common Road (N)	428	107	196	1072	0.399	425	386	0.0	0.7	5.545	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	330	82	395	1353	0.244	330	349	0.2	0.3	3.519	A
3 - Langley Common Road (S)	597	149	101	1445	0.413	596	624	0.5	0.7	4.239	A
1 - Langley Common Road (N)	511	128	234	1050	0.486	510	462	0.7	0.9	6.643	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	404	101	483	1295	0.312	404	427	0.3	0.5	4.035	A
3 - Langley Common Road (S)	731	183	123	1431	0.511	730	763	0.7	1.0	5.126	A
1 - Langley Common Road (N)	625	156	287	1021	0.612	623	566	0.9	1.5	8.979	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	404	101	484	1294	0.312	404	428	0.5	0.5	4.044	A
3 - Langley Common Road (S)	731	183	123	1431	0.511	731	765	1.0	1.0	5.144	A
1 - Langley Common Road (N)	625	156	287	1021	0.612	625	567	1.5	1.6	9.091	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	330	82	397	1351	0.244	330	351	0.5	0.3	3.531	A
3 - Langley Common Road (S)	597	149	101	1445	0.413	598	627	1.0	0.7	4.259	A
1 - Langley Common Road (N)	511	128	235	1050	0.486	513	464	1.6	1.0	6.734	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	276	69	332	1393	0.198	277	293	0.3	0.2	3.226	A
3 - Langley Common Road (S)	500	125	84	1455	0.344	501	524	0.7	0.5	3.777	A
1 - Langley Common Road (N)	428	107	197	1071	0.399	429	388	1.0	0.7	5.614	A

D3 - 2040 | WSTM-SC1 | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		2, 3, 1	5.50	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	69	1 - Langley Common Road (N)	5.50	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2040	WSTM-SC1	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
2 - Biggs Lane		ONE HOUR	✓	230	100.000
3 - Langley Common Road (S)		ONE HOUR	✓	732	100.000
1 - Langley Common Road (N)		ONE HOUR	✓	471	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		2 - Biggs Lane	3 - Langley Common Road (S)	1 - Langley Common Road (N)
	2 - Biggs Lane	0	182	48
	3 - Langley Common Road (S)	206	0	526
	1 - Langley Common Road (N)	99	372	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
From		2 - Biggs Lane	3 - Langley Common Road (S)	1 - Langley Common Road (N)
	2 - Biggs Lane	0	0	0
	3 - Langley Common Road (S)	0	0	1
	1 - Langley Common Road (N)	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
2 - Biggs Lane	0.19	3.30	0.2	A	211	317
3 - Langley Common Road (S)	0.55	5.40	1.2	A	672	1008
1 - Langley Common Road (N)	0.49	6.72	1.0	A	432	648

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	173	43	279	1428	0.121	173	229	0.0	0.1	2.865	A
3 - Langley Common Road (S)	551	138	36	1483	0.372	549	415	0.0	0.6	3.844	A
1 - Langley Common Road (N)	355	89	154	1094	0.324	353	430	0.0	0.5	4.844	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	207	52	334	1392	0.149	207	274	0.1	0.2	3.036	A
3 - Langley Common Road (S)	658	165	43	1479	0.445	657	497	0.6	0.8	4.377	A
1 - Langley Common Road (N)	423	106	185	1077	0.393	423	515	0.5	0.6	5.495	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	253	63	409	1344	0.188	253	335	0.2	0.2	3.301	A
3 - Langley Common Road (S)	806	201	53	1473	0.547	804	609	0.8	1.2	5.373	A
1 - Langley Common Road (N)	519	130	226	1054	0.492	517	631	0.6	1.0	6.687	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	253	63	410	1343	0.189	253	336	0.2	0.2	3.303	A
3 - Langley Common Road (S)	806	201	53	1473	0.547	806	610	1.2	1.2	5.398	A
1 - Langley Common Road (N)	519	130	227	1054	0.492	519	632	1.0	1.0	6.722	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	207	52	335	1391	0.149	207	275	0.2	0.2	3.042	A
3 - Langley Common Road (S)	658	165	43	1479	0.445	660	499	1.2	0.8	4.403	A
1 - Langley Common Road (N)	423	106	186	1077	0.393	425	517	1.0	0.7	5.532	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	173	43	281	1427	0.121	173	230	0.2	0.1	2.873	A
3 - Langley Common Road (S)	551	138	36	1483	0.372	552	418	0.8	0.6	3.870	A
1 - Langley Common Road (N)	355	89	155	1093	0.324	355	433	0.7	0.5	4.883	A

D4 - 2040 | WSTM-SC2 | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		2, 3, 1	7.31	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	34	1 - Langley Common Road (N)	7.31	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2040	WSTM-SC2	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
2 - Biggs Lane		ONE HOUR	✓	267	100.000
3 - Langley Common Road (S)		ONE HOUR	✓	848	100.000
1 - Langley Common Road (N)		ONE HOUR	✓	602	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		2 - Biggs Lane	3 - Langley Common Road (S)	1 - Langley Common Road (N)
From	2 - Biggs Lane	0	228	39
	3 - Langley Common Road (S)	246	0	602
	1 - Langley Common Road (N)	92	510	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		2 - Biggs Lane	3 - Langley Common Road (S)	1 - Langley Common Road (N)
From	2 - Biggs Lane	0	0	0
	3 - Langley Common Road (S)	0	0	1
	1 - Langley Common Road (N)	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
2 - Biggs Lane	0.24	3.79	0.3	A	245	368
3 - Langley Common Road (S)	0.63	6.60	1.7	A	778	1167
1 - Langley Common Road (N)	0.64	9.83	1.8	A	552	829

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	201	50	382	1361	0.148	200	253	0.0	0.2	3.099	A
3 - Langley Common Road (S)	638	160	29	1487	0.429	635	553	0.0	0.7	4.212	A
1 - Langley Common Road (N)	453	113	184	1076	0.421	450	480	0.0	0.7	5.725	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	240	60	457	1312	0.183	240	303	0.2	0.2	3.358	A
3 - Langley Common Road (S)	762	191	35	1484	0.514	761	662	0.7	1.0	4.973	A
1 - Langley Common Road (N)	541	135	221	1056	0.512	540	575	0.7	1.0	6.956	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	294	73	559	1246	0.236	294	371	0.2	0.3	3.782	A
3 - Langley Common Road (S)	934	233	43	1479	0.631	931	810	1.0	1.7	6.541	A
1 - Langley Common Road (N)	663	166	270	1029	0.644	660	704	1.0	1.8	9.675	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	294	73	561	1244	0.236	294	372	0.3	0.3	3.788	A
3 - Langley Common Road (S)	934	233	43	1479	0.631	934	812	1.7	1.7	6.599	A
1 - Langley Common Road (N)	663	166	271	1029	0.644	663	706	1.8	1.8	9.830	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	240	60	461	1309	0.183	240	305	0.3	0.2	3.370	A
3 - Langley Common Road (S)	762	191	35	1484	0.514	765	666	1.7	1.1	5.024	A
1 - Langley Common Road (N)	541	135	222	1056	0.513	544	578	1.8	1.1	7.078	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	201	50	385	1359	0.148	201	255	0.2	0.2	3.109	A
3 - Langley Common Road (S)	638	160	29	1487	0.429	640	557	1.1	0.8	4.253	A
1 - Langley Common Road (N)	453	113	186	1076	0.421	455	483	1.1	0.7	5.811	A

D5 - 2040 | WSTM-SC3a | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		2, 3, 1	8.40	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	26	1 - Langley Common Road (N)	8.40	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2040	WSTM-SC3a	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
2 - Biggs Lane		ONE HOUR	✓	301	100.000
3 - Langley Common Road (S)		ONE HOUR	✓	906	100.000
1 - Langley Common Road (N)		ONE HOUR	✓	643	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		2 - Biggs Lane	3 - Langley Common Road (S)	1 - Langley Common Road (N)
	2 - Biggs Lane	0	233	68
	3 - Langley Common Road (S)	250	0	656
	1 - Langley Common Road (N)	118	525	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
From		2 - Biggs Lane	3 - Langley Common Road (S)	1 - Langley Common Road (N)
	2 - Biggs Lane	0	0	0
	3 - Langley Common Road (S)	0	0	1
	1 - Langley Common Road (N)	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
2 - Biggs Lane	0.27	3.99	0.4	A	276	414
3 - Langley Common Road (S)	0.68	7.79	2.1	A	831	1247
1 - Langley Common Road (N)	0.69	11.27	2.2	B	590	885

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	227	57	393	1354	0.167	226	276	0.0	0.2	3.190	A
3 - Langley Common Road (S)	682	171	51	1474	0.463	679	567	0.0	0.9	4.509	A
1 - Langley Common Road (N)	484	121	187	1075	0.450	481	542	0.0	0.8	6.024	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	271	68	471	1303	0.208	270	330	0.2	0.3	3.485	A
3 - Langley Common Road (S)	814	204	61	1468	0.555	813	680	0.9	1.2	5.488	A
1 - Langley Common Road (N)	578	145	224	1055	0.548	577	650	0.8	1.2	7.501	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	331	83	575	1235	0.268	331	404	0.3	0.4	3.979	A
3 - Langley Common Road (S)	998	249	75	1459	0.684	994	831	1.2	2.1	7.682	A
1 - Langley Common Road (N)	708	177	274	1027	0.689	704	795	1.2	2.1	11.008	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	331	83	578	1233	0.269	331	405	0.4	0.4	3.991	A
3 - Langley Common Road (S)	998	249	75	1459	0.684	997	834	2.1	2.1	7.794	A
1 - Langley Common Road (N)	708	177	275	1027	0.689	708	797	2.1	2.2	11.266	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	271	68	475	1300	0.208	271	332	0.4	0.3	3.500	A
3 - Langley Common Road (S)	814	204	61	1467	0.555	818	685	2.1	1.3	5.571	A
1 - Langley Common Road (N)	578	145	226	1054	0.548	582	653	2.2	1.2	7.681	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	227	57	397	1351	0.168	227	278	0.3	0.2	3.203	A
3 - Langley Common Road (S)	682	171	51	1474	0.463	684	572	1.3	0.9	4.567	A
1 - Langley Common Road (N)	484	121	189	1075	0.451	486	546	1.2	0.8	6.130	A

D6 - 2040 | WSTM-SC3b | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		2, 3, 1	7.53	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	35	1 - Langley Common Road (N)	7.53	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2040	WSTM-SC3b	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
2 - Biggs Lane		ONE HOUR	✓	248	100.000
3 - Langley Common Road (S)		ONE HOUR	✓	898	100.000
1 - Langley Common Road (N)		ONE HOUR	✓	598	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		2 - Biggs Lane	3 - Langley Common Road (S)	1 - Langley Common Road (N)
	2 - Biggs Lane	0	229	19
	3 - Langley Common Road (S)	240	0	658
	1 - Langley Common Road (N)	76	522	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
From		2 - Biggs Lane	3 - Langley Common Road (S)	1 - Langley Common Road (N)
	2 - Biggs Lane	0	0	0
	3 - Langley Common Road (S)	0	0	1
	1 - Langley Common Road (N)	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
2 - Biggs Lane	0.22	3.74	0.3	A	228	341
3 - Langley Common Road (S)	0.66	7.15	1.9	A	824	1236
1 - Langley Common Road (N)	0.64	9.63	1.7	A	549	823

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	187	47	391	1355	0.138	186	237	0.0	0.2	3.077	A
3 - Langley Common Road (S)	676	169	14	1496	0.452	673	562	0.0	0.8	4.354	A
1 - Langley Common Road (N)	450	113	180	1078	0.418	447	507	0.0	0.7	5.682	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	223	56	468	1305	0.171	223	284	0.2	0.2	3.327	A
3 - Langley Common Road (S)	807	202	17	1495	0.540	806	674	0.8	1.2	5.217	A
1 - Langley Common Road (N)	538	134	215	1059	0.508	536	608	0.7	1.0	6.876	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	273	68	572	1237	0.221	273	347	0.2	0.3	3.734	A
3 - Langley Common Road (S)	989	247	21	1492	0.663	986	824	1.2	1.9	7.065	A
1 - Langley Common Road (N)	658	165	263	1032	0.638	656	743	1.0	1.7	9.492	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	273	68	575	1235	0.221	273	348	0.3	0.3	3.740	A
3 - Langley Common Road (S)	989	247	21	1492	0.663	989	827	1.9	1.9	7.146	A
1 - Langley Common Road (N)	658	165	264	1032	0.638	658	745	1.7	1.7	9.632	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	223	56	472	1302	0.171	223	285	0.3	0.2	3.338	A
3 - Langley Common Road (S)	807	202	17	1495	0.540	810	678	1.9	1.2	5.285	A
1 - Langley Common Road (N)	538	134	217	1058	0.508	540	611	1.7	1.0	6.993	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Biggs Lane	187	47	394	1353	0.138	187	238	0.2	0.2	3.089	A
3 - Langley Common Road (S)	676	169	14	1496	0.452	677	567	1.2	0.8	4.404	A
1 - Langley Common Road (N)	450	113	181	1077	0.418	451	511	1.0	0.7	5.764	A

Junctions 11					
ARCADY 11 - Roundabout Module					
Version: 11.1.0.2307					
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Filename: Barkham Street_barkham road mini roundabout - AM.j11

Path: L:\PROJECTS\11000 SERIES\11337 - Barkham Square Park\Tech\Junction Assessments\Arcady

Report generation date: 14/11/2025 17:17:29

»D1 - 2025 | Base | AM

»D3 - 2040 | WSTM-SC1 | AM

»D5 - 2040 | WSTM-SC2 | AM

»D7 - 2040 | WSTM-SC3a | AM

»D9 - 2040 | WSTM-SC3b | AM

Summary of junction performance

	AM					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	2025 - Base					
2 - Barkham Street	D1	3.0	21.48	0.76	C	8 % [2 - Barkham Street]
3 - B3349 Barkham Road (W)		3.4	17.57	0.78	C	
1 - B3349 Barkham Road (E)		2.7	15.10	0.74	C	
	2040 - WSTM-SC1					
2 - Barkham Street	D3	4.5	29.13	0.83	D	3 % [2 - Barkham Street]
3 - B3349 Barkham Road (W)		3.4	18.95	0.78	C	
1 - B3349 Barkham Road (E)		4.3	21.18	0.82	C	
	2040 - WSTM-SC2					
2 - Barkham Street	D5	10.7	65.30	0.95	F	-7 % [2 - Barkham Street]
3 - B3349 Barkham Road (W)		5.6	28.92	0.86	D	
1 - B3349 Barkham Road (E)		10.0	45.40	0.93	E	
	2040 - WSTM-SC3a					
2 - Barkham Street	D7	18.0	99.79	1.00	F	-11 % [2 - Barkham Street]
3 - B3349 Barkham Road (W)		11.0	52.31	0.94	F	
1 - B3349 Barkham Road (E)		14.0	61.24	0.96	F	
	2040 - WSTM-SC3b					
2 - Barkham Street	D9	10.6	66.03	0.95	F	-8 % [3 - B3349 Barkham Road (W)]
3 - B3349 Barkham Road (W)		17.8	75.37	0.99	F	
1 - B3349 Barkham Road (E)		15.7	67.67	0.97	F	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Barkham Street / barkham road mini roundabout
Location	Barkham Street / barkham road mini roundabout
Site number	
Date	18/07/2025
Version	
Status	Base Existing
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\LM
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

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
JUNCTIONS 9	5.75					✓	Delay	0.85	36.00	20.00		

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	Base	AM	ONE HOUR	07:45	09:15	15	✓
D3	2040	WSTM-SC1	AM	ONE HOUR	07:45	09:15	15	✓
D5	2040	WSTM-SC2	AM	ONE HOUR	07:45	09:15	15	✓
D7	2040	WSTM-SC3a	AM	ONE HOUR	07:45	09:15	15	✓
D9	2040	WSTM-SC3b	AM	ONE HOUR	07:45	09:15	15	✓

Analysis Set Details

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

D1 - 2025 | Base | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		2, 3, 1	17.76	C

Junction Network

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		8	2 - Barkham Street	17.76	C

Arms

Arms

Arm	Name	Description
2	Barkham Street	
3	B3349 Barkham Road (W)	
1	B3349 Barkham Road (E)	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
2 - Barkham Street	2.82	2.70	4.29	4.6	10.17	8.04	0.0	
3 - B3349 Barkham Road (W)	3.45	3.45	3.45	0.0	16.22	16.80	0.0	
1 - B3349 Barkham Road (E)	2.87	2.87	3.71	8.8	10.24	6.31	0.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
2 - Barkham Street	Direct	in line with queue surveys	150
3 - B3349 Barkham Road (W)	Direct	in line with queue survey	150
1 - B3349 Barkham Road (E)	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
2 - Barkham Street	0.608	979
3 - B3349 Barkham Road (W)	0.668	1180
1 - B3349 Barkham Road (E)	0.610	974

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	Base	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
2 - Barkham Street		ONE HOUR	✓	474	100.000
3 - B3349 Barkham Road (W)		ONE HOUR	✓	648	100.000
1 - B3349 Barkham Road (E)		ONE HOUR	✓	607	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		2 - Barkham Street	3 - B3349 Barkham Road (W)	1 - B3349 Barkham Road (E)
2 - Barkham Street		0	139	335
3 - B3349 Barkham Road (W)		83	0	565
1 - B3349 Barkham Road (E)		183	424	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

From	To			
		2 - Barkham Street	3 - B3349 Barkham Road (W)	1 - B3349 Barkham Road (E)
2 - Barkham Street		0	1	0
3 - B3349 Barkham Road (W)		1	0	2
1 - B3349 Barkham Road (E)		0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
2 - Barkham Street	0.76	21.48	3.0	C	435	652
3 - B3349 Barkham Road (W)	0.78	17.57	3.4	C	595	892
1 - B3349 Barkham Road (E)	0.74	15.10	2.7	C	557	835

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	357	89	317	780	0.457	354	199	0.0	0.8	8.372	A
3 - B3349 Barkham Road (W)	488	122	250	994	0.491	484	420	0.0	0.9	7.006	A
1 - B3349 Barkham Road (E)	457	114	62	923	0.495	453	672	0.0	1.0	7.597	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	426	107	380	741	0.575	424	238	0.8	1.3	11.284	B
3 - B3349 Barkham Road (W)	583	146	300	961	0.606	580	504	0.9	1.5	9.391	A
1 - B3349 Barkham Road (E)	546	136	74	916	0.596	544	806	1.0	1.4	9.624	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	522	130	463	690	0.757	516	291	1.3	2.9	20.022	C
3 - B3349 Barkham Road (W)	713	178	364	919	0.776	707	615	1.5	3.2	16.432	C
1 - B3349 Barkham Road (E)	668	167	91	906	0.738	663	981	1.4	2.7	14.546	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	522	130	467	688	0.759	521	293	2.9	3.0	21.478	C
3 - B3349 Barkham Road (W)	713	178	368	916	0.779	713	619	3.2	3.4	17.565	C
1 - B3349 Barkham Road (E)	668	167	91	906	0.738	668	990	2.7	2.7	15.103	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	426	107	385	738	0.577	432	242	3.0	1.4	12.006	B
3 - B3349 Barkham Road (W)	583	146	306	958	0.608	590	511	3.4	1.6	9.964	A
1 - B3349 Barkham Road (E)	546	136	76	915	0.596	551	820	2.7	1.5	10.001	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	357	89	321	778	0.459	359	201	1.4	0.9	8.640	A
3 - B3349 Barkham Road (W)	488	122	254	992	0.492	490	426	1.6	1.0	7.217	A
1 - B3349 Barkham Road (E)	457	114	63	923	0.495	459	681	1.5	1.0	7.796	A

D3 - 2040 | WSTM-SC1 | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		2, 3, 1	22.72	C

Junction Network

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		3	2 - Barkham Street	22.72	C

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2040	WSTM-SC1	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
2 - Barkham Street		ONE HOUR	✓	530	100.000
3 - B3349 Barkham Road (W)		ONE HOUR	✓	605	100.000
1 - B3349 Barkham Road (E)		ONE HOUR	✓	686	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		2 - Barkham Street	3 - B3349 Barkham Road (W)	1 - B3349 Barkham Road (E)
From	2 - Barkham Street	0	108	422
	3 - B3349 Barkham Road (W)	61	0	544
	1 - B3349 Barkham Road (E)	283	403	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		2 - Barkham Street	3 - B3349 Barkham Road (W)	1 - B3349 Barkham Road (E)
From	2 - Barkham Street	0	1	0
	3 - B3349 Barkham Road (W)	1	0	2
	1 - B3349 Barkham Road (E)	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
2 - Barkham Street	0.83	29.13	4.5	D	486	730
3 - B3349 Barkham Road (W)	0.78	18.95	3.4	C	555	833
1 - B3349 Barkham Road (E)	0.82	21.18	4.3	C	629	944

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	399	100	301	791	0.504	395	257	0.0	1.0	9.005	A
3 - B3349 Barkham Road (W)	455	114	315	952	0.479	452	381	0.0	0.9	7.154	A
1 - B3349 Barkham Road (E)	516	129	46	935	0.552	512	721	0.0	1.2	8.403	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	476	119	361	754	0.632	474	308	1.0	1.7	12.738	B
3 - B3349 Barkham Road (W)	544	136	377	910	0.597	542	457	0.9	1.4	9.708	A
1 - B3349 Barkham Road (E)	617	154	55	930	0.663	614	864	1.2	1.9	11.290	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	584	146	439	705	0.827	574	375	1.7	4.1	25.574	D
3 - B3349 Barkham Road (W)	666	167	457	858	0.776	659	556	1.4	3.2	17.488	C
1 - B3349 Barkham Road (E)	755	189	66	923	0.819	747	1049	1.9	4.0	19.544	C

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	584	146	443	703	0.830	582	378	4.1	4.5	29.131	D
3 - B3349 Barkham Road (W)	666	167	464	854	0.780	665	562	3.2	3.4	18.946	C
1 - B3349 Barkham Road (E)	755	189	67	922	0.819	754	1062	4.0	4.3	21.179	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	476	119	367	750	0.636	487	314	4.5	1.8	14.231	B
3 - B3349 Barkham Road (W)	544	136	388	903	0.602	551	467	3.4	1.6	10.420	B
1 - B3349 Barkham Road (E)	617	154	56	929	0.664	626	883	4.3	2.0	12.178	B

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	399	100	305	788	0.506	402	261	1.8	1.0	9.401	A
3 - B3349 Barkham Road (W)	455	114	320	948	0.481	458	387	1.6	0.9	7.384	A
1 - B3349 Barkham Road (E)	516	129	46	935	0.552	520	732	2.0	1.3	8.732	A

D5 - 2040 | WSTM-SC2 | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		2, 3, 1	45.37	E

Junction Network

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		-7	2 - Barkham Street	45.37	E

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2040	WSTM-SC2	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
2 - Barkham Street		ONE HOUR	✓	565	100.000
3 - B3349 Barkham Road (W)		ONE HOUR	✓	675	100.000
1 - B3349 Barkham Road (E)		ONE HOUR	✓	770	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		2 - Barkham Street	3 - B3349 Barkham Road (W)	1 - B3349 Barkham Road (E)
From	2 - Barkham Street	0	147	418
	3 - B3349 Barkham Road (W)	77	0	598
	1 - B3349 Barkham Road (E)	296	474	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		2 - Barkham Street	3 - B3349 Barkham Road (W)	1 - B3349 Barkham Road (E)
From	2 - Barkham Street	0	1	0
	3 - B3349 Barkham Road (W)	1	0	2
	1 - B3349 Barkham Road (E)	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
2 - Barkham Street	0.95	65.30	10.7	F	518	778
3 - B3349 Barkham Road (W)	0.86	28.92	5.6	D	619	929
1 - B3349 Barkham Road (E)	0.93	45.40	10.0	E	707	1060

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	425	106	353	758	0.561	420	278	0.0	1.2	10.511	B
3 - B3349 Barkham Road (W)	508	127	311	954	0.533	504	462	0.0	1.1	7.921	A
1 - B3349 Barkham Road (E)	580	145	57	928	0.625	573	757	0.0	1.6	9.986	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	508	127	423	715	0.711	504	333	1.2	2.3	16.715	C
3 - B3349 Barkham Road (W)	607	152	373	914	0.664	604	554	1.1	1.9	11.498	B
1 - B3349 Barkham Road (E)	692	173	69	921	0.752	687	907	1.6	2.8	15.099	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	622	156	508	662	0.939	598	401	2.3	8.3	45.047	E
3 - B3349 Barkham Road (W)	743	186	443	868	0.857	731	664	1.9	5.0	24.319	C
1 - B3349 Barkham Road (E)	848	212	83	912	0.930	825	1090	2.8	8.5	34.727	D

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	622	156	518	656	0.948	613	408	8.3	10.7	65.300	F
3 - B3349 Barkham Road (W)	743	186	453	861	0.864	741	678	5.0	5.6	28.920	D
1 - B3349 Barkham Road (E)	848	212	85	911	0.930	842	1110	8.5	10.0	45.399	E

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	508	127	443	703	0.723	539	347	10.7	2.8	25.492	D
3 - B3349 Barkham Road (W)	607	152	399	896	0.677	621	583	5.6	2.2	13.657	B
1 - B3349 Barkham Road (E)	692	173	71	920	0.753	719	949	10.0	3.3	19.977	C

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	425	106	361	753	0.565	431	284	2.8	1.3	11.373	B
3 - B3349 Barkham Road (W)	508	127	319	949	0.536	512	473	2.2	1.2	8.323	A
1 - B3349 Barkham Road (E)	580	145	58	927	0.625	586	773	3.3	1.7	10.736	B

D7 - 2040 | WSTM-SC3a | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		2, 3, 1	68.84	F

Junction Network

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		-11	2 - Barkham Street	68.84	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2040	WSTM-SC3a	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
2 - Barkham Street		ONE HOUR	✓	592	100.000
3 - B3349 Barkham Road (W)		ONE HOUR	✓	732	100.000
1 - B3349 Barkham Road (E)		ONE HOUR	✓	785	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		2 - Barkham Street	3 - B3349 Barkham Road (W)	1 - B3349 Barkham Road (E)
From	2 - Barkham Street	0	155	437
	3 - B3349 Barkham Road (W)	99	0	633
	1 - B3349 Barkham Road (E)	297	488	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		2 - Barkham Street	3 - B3349 Barkham Road (W)	1 - B3349 Barkham Road (E)
From	2 - Barkham Street	0	1	0
	3 - B3349 Barkham Road (W)	1	0	2
	1 - B3349 Barkham Road (E)	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
2 - Barkham Street	1.00	99.79	18.0	F	543	815
3 - B3349 Barkham Road (W)	0.94	52.31	11.0	F	672	1008
1 - B3349 Barkham Road (E)	0.96	61.24	14.0	F	720	1080

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	446	111	363	752	0.593	440	295	0.0	1.4	11.352	B
3 - B3349 Barkham Road (W)	551	138	325	945	0.583	546	478	0.0	1.4	8.896	A
1 - B3349 Barkham Road (E)	591	148	74	918	0.644	584	797	0.0	1.8	10.583	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	532	133	435	707	0.752	527	353	1.4	2.8	19.333	C
3 - B3349 Barkham Road (W)	658	165	389	903	0.729	653	573	1.4	2.5	14.143	B
1 - B3349 Barkham Road (E)	706	176	88	909	0.777	700	954	1.8	3.2	16.760	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	652	163	518	656	0.994	614	421	2.8	12.2	59.536	F
3 - B3349 Barkham Road (W)	806	201	454	861	0.936	781	679	2.5	8.8	37.046	E
1 - B3349 Barkham Road (E)	864	216	106	898	0.962	833	1129	3.2	11.0	42.437	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	652	163	530	649	1.005	629	430	12.2	18.0	99.792	F
3 - B3349 Barkham Road (W)	806	201	464	854	0.944	797	694	8.8	11.0	52.307	F
1 - B3349 Barkham Road (E)	864	216	108	897	0.964	852	1153	11.0	14.0	61.244	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	532	133	464	690	0.772	589	375	18.0	3.8	46.748	E
3 - B3349 Barkham Road (W)	658	165	435	873	0.754	689	618	11.0	3.3	22.219	C
1 - B3349 Barkham Road (E)	706	176	93	906	0.779	746	1030	14.0	3.9	26.799	D

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	446	111	372	746	0.597	455	302	3.8	1.5	12.731	B
3 - B3349 Barkham Road (W)	551	138	336	938	0.588	558	491	3.3	1.5	9.662	A
1 - B3349 Barkham Road (E)	591	148	76	917	0.645	599	819	3.9	1.9	11.604	B

D9 - 2040 | WSTM-SC3b | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		2, 3, 1	70.11	F

Junction Network

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		-8	3 - B3349 Barkham Road (W)	70.11	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2040	WSTM-SC3b	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
2 - Barkham Street		ONE HOUR	✓	554	100.000
3 - B3349 Barkham Road (W)		ONE HOUR	✓	787	100.000
1 - B3349 Barkham Road (E)		ONE HOUR	✓	791	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		2 - Barkham Street	3 - B3349 Barkham Road (W)	1 - B3349 Barkham Road (E)
From	2 - Barkham Street	0	158	396
	3 - B3349 Barkham Road (W)	105	0	682
	1 - B3349 Barkham Road (E)	293	498	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		2 - Barkham Street	3 - B3349 Barkham Road (W)	1 - B3349 Barkham Road (E)
From	2 - Barkham Street	0	1	0
	3 - B3349 Barkham Road (W)	1	0	2
	1 - B3349 Barkham Road (E)	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
2 - Barkham Street	0.95	66.03	10.6	F	508	763
3 - B3349 Barkham Road (W)	0.99	75.37	17.8	F	722	1083
1 - B3349 Barkham Road (E)	0.97	67.67	15.7	F	726	1089

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	417	104	370	747	0.558	412	296	0.0	1.2	10.600	B
3 - B3349 Barkham Road (W)	592	148	295	965	0.614	586	488	0.0	1.5	9.364	A
1 - B3349 Barkham Road (E)	596	149	78	915	0.651	588	803	0.0	1.8	10.805	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	498	125	444	702	0.710	494	355	1.2	2.3	16.955	C
3 - B3349 Barkham Road (W)	707	177	353	927	0.764	702	585	1.5	3.0	15.595	C
1 - B3349 Barkham Road (E)	711	178	94	905	0.785	705	961	1.8	3.4	17.402	C

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	610	152	527	651	0.938	587	420	2.3	8.1	45.246	E
3 - B3349 Barkham Road (W)	866	217	419	883	0.981	828	694	3.0	12.7	46.995	E
1 - B3349 Barkham Road (E)	871	218	110	895	0.973	836	1137	3.4	12.0	45.330	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	610	152	539	643	0.949	600	430	8.1	10.6	66.030	F
3 - B3349 Barkham Road (W)	866	217	429	877	0.988	846	710	12.7	17.8	75.366	F
1 - B3349 Barkham Road (E)	871	218	113	894	0.975	856	1162	12.0	15.7	67.671	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	498	125	477	681	0.731	529	382	10.6	2.9	27.264	D
3 - B3349 Barkham Road (W)	707	177	378	910	0.777	763	627	17.8	3.8	31.124	D
1 - B3349 Barkham Road (E)	711	178	102	900	0.790	757	1039	15.7	4.2	30.736	D

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	417	104	381	741	0.563	424	304	2.9	1.3	11.565	B
3 - B3349 Barkham Road (W)	592	148	303	960	0.617	601	501	3.8	1.7	10.279	B
1 - B3349 Barkham Road (E)	596	149	80	914	0.652	604	824	4.2	1.9	11.959	B

Junctions 11						
ARCADY 11 - Roundabout Module						
Version: 11.1.0.2307						
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Filename: Barkham Street_barkham road mini roundabout - PM.j11

Path: L:\PROJECTS\11000 SERIES\11337 - Barkham Square Park\Tech\Junction Assessments\Arcady

Report generation date: 14/11/2025 17:18:07

»D2 - 2025 | Base | PM

»D4 - 2040 | WSTM-SC1 | PM

»D6 - 2040 | WSTM-SC2 | PM

»D8 - 2040 | WSTM-SC3a | PM

»D10 - 2040 | WSTM-SC3b | PM

Summary of junction performance

	PM					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	2025 - Base					
2 - Barkham Street	D2	2.1	21.92	0.68	C	7 % [1 - B3349 Barkham Road (E)]
3 - B3349 Barkham Road (W)		2.0	12.61	0.67	B	
1 - B3349 Barkham Road (E)		4.8	22.16	0.84	C	
	2040 - WSTM-SC1					
2 - Barkham Street	D4	1.2	13.31	0.54	B	9 % [3 - B3349 Barkham Road (W)]
3 - B3349 Barkham Road (W)		3.9	20.84	0.80	C	
1 - B3349 Barkham Road (E)		1.9	10.53	0.66	B	
	2040 - WSTM-SC2					
2 - Barkham Street	D6	2.3	22.37	0.70	C	1 % [3 - B3349 Barkham Road (W)]
3 - B3349 Barkham Road (W)		6.1	31.55	0.87	D	
1 - B3349 Barkham Road (E)		3.3	16.24	0.77	C	
	2040 - WSTM-SC3a					
2 - Barkham Street	D8	3.1	29.48	0.77	D	-1 % [3 - B3349 Barkham Road (W)]
3 - B3349 Barkham Road (W)		7.2	36.30	0.89	E	
1 - B3349 Barkham Road (E)		4.2	19.80	0.81	C	
	2040 - WSTM-SC3b					
2 - Barkham Street	D10	3.4	31.98	0.79	D	-3 % [3 - B3349 Barkham Road (W)]
3 - B3349 Barkham Road (W)		8.7	42.75	0.92	E	
1 - B3349 Barkham Road (E)		4.3	20.42	0.82	C	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Barkham Street / barkham road mini roundabout
Location	Barkham Street / barkham road mini roundabout
Site number	
Date	18/07/2025
Version	
Status	Base Existing
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\LM
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

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
JUNCTIONS 9	5.75					✓	Delay	0.85	36.00	20.00		

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2025	Base	PM	ONE HOUR	16:45	18:15	15	✓
D4	2040	WSTM-SC1	PM	ONE HOUR	16:45	18:15	15	✓
D6	2040	WSTM-SC2	PM	ONE HOUR	16:45	18:15	15	✓
D8	2040	WSTM-SC3a	PM	ONE HOUR	16:45	18:15	15	✓
D10	2040	WSTM-SC3b	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

D2 - 2025 | Base | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		2, 3, 1	18.90	C

Junction Network

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		7	1 - B3349 Barkham Road (E)	18.90	C

Arms

Arms

Arm	Name	Description
2	Barkham Street	
3	B3349 Barkham Road (W)	
1	B3349 Barkham Road (E)	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
2 - Barkham Street	2.82	2.70	4.29	4.6	10.17	8.04	0.0	
3 - B3349 Barkham Road (W)	3.45	3.45	3.45	0.0	16.22	16.80	0.0	
1 - B3349 Barkham Road (E)	2.87	2.87	3.71	8.8	10.24	6.31	0.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
2 - Barkham Street	None		
3 - B3349 Barkham Road (W)	None		
1 - B3349 Barkham Road (E)	Direct		100

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
2 - Barkham Street	0.608	829
3 - B3349 Barkham Road (W)	0.668	1030
1 - B3349 Barkham Road (E)	0.610	1074

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2025	Base	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
2 - Barkham Street		ONE HOUR	✓	321	100.000
3 - B3349 Barkham Road (W)		ONE HOUR	✓	531	100.000
1 - B3349 Barkham Road (E)		ONE HOUR	✓	736	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		2 - Barkham Street	3 - B3349 Barkham Road (W)	1 - B3349 Barkham Road (E)
2 - Barkham Street		1	120	200
3 - B3349 Barkham Road (W)		146	1	384
1 - B3349 Barkham Road (E)		277	459	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

From	To			
		2 - Barkham Street	3 - B3349 Barkham Road (W)	1 - B3349 Barkham Road (E)
2 - Barkham Street		0	1	0
3 - B3349 Barkham Road (W)		0	0	2
1 - B3349 Barkham Road (E)		0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
2 - Barkham Street	0.68	21.92	2.1	C	295	442
3 - B3349 Barkham Road (W)	0.67	12.61	2.0	B	487	731
1 - B3349 Barkham Road (E)	0.84	22.16	4.8	C	675	1013

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	242	60	343	616	0.392	239	317	0.0	0.6	9.494	A
3 - B3349 Barkham Road (W)	400	100	150	916	0.436	397	433	0.0	0.8	6.887	A
1 - B3349 Barkham Road (E)	554	139	111	1001	0.554	549	436	0.0	1.2	7.891	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	289	72	412	574	0.503	287	380	0.6	1.0	12.488	B
3 - B3349 Barkham Road (W)	477	119	180	897	0.532	476	519	0.8	1.1	8.528	A
1 - B3349 Barkham Road (E)	662	165	133	987	0.670	659	523	1.2	2.0	10.850	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	353	88	500	520	0.680	349	462	1.0	2.0	20.639	C
3 - B3349 Barkham Road (W)	585	146	219	871	0.671	581	631	1.1	2.0	12.279	B
1 - B3349 Barkham Road (E)	810	203	162	970	0.836	800	638	2.0	4.5	20.123	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	353	88	506	516	0.684	353	466	2.0	2.1	21.916	C
3 - B3349 Barkham Road (W)	585	146	221	869	0.672	584	638	2.0	2.0	12.610	B
1 - B3349 Barkham Road (E)	810	203	163	969	0.836	809	643	4.5	4.8	22.161	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	289	72	420	569	0.507	293	386	2.1	1.1	13.222	B
3 - B3349 Barkham Road (W)	477	119	183	894	0.534	481	530	2.0	1.2	8.771	A
1 - B3349 Barkham Road (E)	662	165	134	987	0.671	672	530	4.8	2.1	11.813	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	242	60	348	613	0.394	243	321	1.1	0.7	9.786	A
3 - B3349 Barkham Road (W)	400	100	152	915	0.437	401	439	1.2	0.8	7.033	A
1 - B3349 Barkham Road (E)	554	139	112	1000	0.554	557	442	2.1	1.3	8.195	A

D4 - 2040 | WSTM-SC1 | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		2, 3, 1	15.36	C

Junction Network

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		9	3 - B3349 Barkham Road (W)	15.36	C

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2040	WSTM-SC1	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
2 - Barkham Street		ONE HOUR	✓	291	100.000
3 - B3349 Barkham Road (W)		ONE HOUR	✓	630	100.000
1 - B3349 Barkham Road (E)		ONE HOUR	✓	599	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		2 - Barkham Street	3 - B3349 Barkham Road (W)	1 - B3349 Barkham Road (E)
From	2 - Barkham Street	0	85	206
	3 - B3349 Barkham Road (W)	101	0	529
	1 - B3349 Barkham Road (E)	249	350	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		2 - Barkham Street	3 - B3349 Barkham Road (W)	1 - B3349 Barkham Road (E)
From	2 - Barkham Street	0	1	0
	3 - B3349 Barkham Road (W)	0	0	2
	1 - B3349 Barkham Road (E)	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
2 - Barkham Street	0.54	13.31	1.2	B	267	401
3 - B3349 Barkham Road (W)	0.80	20.84	3.9	C	578	867
1 - B3349 Barkham Road (E)	0.66	10.53	1.9	B	550	824

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	219	55	262	666	0.329	217	262	0.0	0.5	7.981	A
3 - B3349 Barkham Road (W)	474	119	154	912	0.520	470	325	0.0	1.1	8.049	A
1 - B3349 Barkham Road (E)	451	113	75	1023	0.441	448	548	0.0	0.8	6.231	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	262	65	314	634	0.412	261	314	0.5	0.7	9.614	A
3 - B3349 Barkham Road (W)	566	142	185	891	0.635	564	390	1.1	1.7	10.904	B
1 - B3349 Barkham Road (E)	538	135	90	1013	0.531	537	658	0.8	1.1	7.538	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	320	80	384	592	0.542	319	383	0.7	1.1	13.094	B
3 - B3349 Barkham Road (W)	694	173	226	865	0.802	686	477	1.7	3.7	19.303	C
1 - B3349 Barkham Road (E)	660	165	110	1002	0.659	657	801	1.1	1.9	10.341	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	320	80	385	591	0.542	320	385	1.1	1.2	13.308	B
3 - B3349 Barkham Road (W)	694	173	227	864	0.803	693	479	3.7	3.9	20.842	C
1 - B3349 Barkham Road (E)	660	165	111	1001	0.659	659	809	1.9	1.9	10.532	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
2 - Barkham Street	262	65	316	633	0.413	263	317	1.2	0.7	9.791	A
3 - B3349 Barkham Road (W)	566	142	186	890	0.636	575	393	3.9	1.8	11.682	B
1 - B3349 Barkham Road (E)	538	135	92	1012	0.532	541	669	1.9	1.2	7.692	A