

Junctions 10									
ARCADY 10 - Roundabout Module									
Version: 10.1.1.1905									
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Filename: Rugby Road_Sketchley Road.j10

Path: P:\2021\P21-390\T&T\Capacity Assessments\Junctions 10\5016 - Response to LCC

Report generation date: 25/04/2024 12:44:21

»2021, AM
»2021, PM
»2026, AM
»2026, PM
»2026 + Dev, AM
»2026 + Dev, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2021									
1 - Sketchley Road	D1	0.5	8.11	0.32	A	D2	0.2	6.28	0.18	A
2 - B4109 Rugby Road South		1.0	5.71	0.49	A		3.6	13.78	0.79	B
3 - Sketchley Lane		0.5	8.36	0.32	A		0.3	10.00	0.26	A
4 - B4109 Rugby Road North		1.8	10.58	0.65	B		2.0	12.66	0.67	B
	2026									
1 - Sketchley Road	D3	0.7	10.10	0.41	B	D4	0.3	6.75	0.21	A
2 - B4109 Rugby Road South		1.8	8.20	0.64	A		7.4	25.97	0.89	D
3 - Sketchley Lane		0.6	10.61	0.38	B		0.7	15.05	0.42	C
4 - B4109 Rugby Road North		2.7	13.78	0.73	B		2.3	13.30	0.70	B
	2026 + Dev									
1 - Sketchley Road	D5	0.7	10.49	0.42	B	D6	0.3	6.90	0.22	A
2 - B4109 Rugby Road South		2.0	8.93	0.67	A		9.2	31.53	0.92	D
3 - Sketchley Lane		0.6	11.26	0.39	B		0.8	16.06	0.43	C
4 - B4109 Rugby Road North		3.0	15.29	0.76	C		2.5	14.45	0.72	B

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

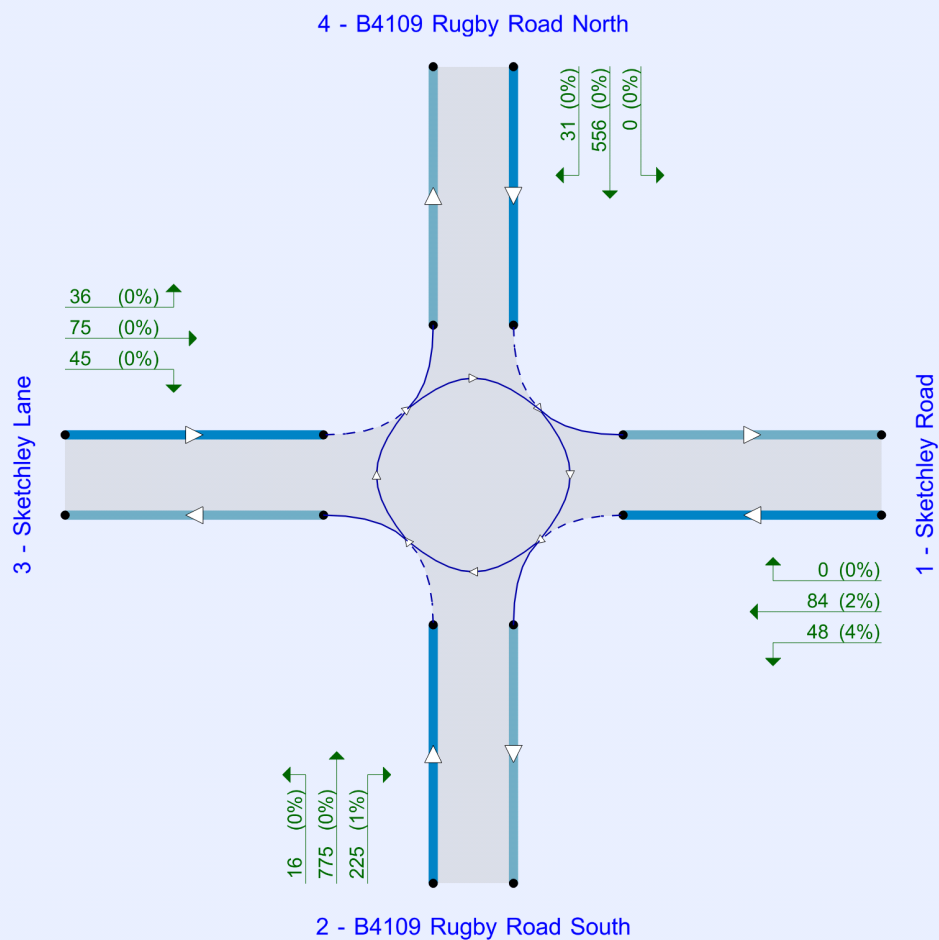
File summary

File Description

Title	B4109 Rugby Road / Sketchley Road / Sketchley Lane Roundabout
Location	
Site number	
Date	27/10/2023
Version	
Status	Existing
Identifier	
Client	Redrow Homes
Jobnumber	P21-390
Enumerator	
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



Flows show original traffic demand (Veh/hr).

The junction diagram reflects the last run of Junctions.

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	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021	AM	ONE HOUR	07:45	09:15	15	✓
D2	2021	PM	ONE HOUR	16:45	18:15	15	✓
D3	2026	AM	ONE HOUR	07:45	09:15	15	✓
D4	2026	PM	ONE HOUR	16:45	18:15	15	✓
D5	2026 + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2026 + Dev	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

2021, 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	B4109 Rugby Road / Sketchley Road Roundabout	Standard Roundabout		1, 2, 3, 4	8.17	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.17	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Sketchley Road		
2	B4109 Rugby Road South		
3	Sketchley Lane		
4	B4109 Rugby Road North		

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
1 - Sketchley Road	3.00	5.30	2.8	12.5	22.0	37.5		
2 - B4109 Rugby Road South	3.65	4.50	7.3	16.0	22.0	25.5		
3 - Sketchley Lane	3.00	4.00	1.4	8.6	22.0	34.5		
4 - B4109 Rugby Road North	3.20	4.65	1.8	15.0	22.0	23.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Sketchley Road	0.510	1040
2 - B4109 Rugby Road South	0.582	1298
3 - Sketchley Lane	0.478	921
4 - B4109 Rugby Road North	0.542	1101

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021	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 (%)
1 - Sketchley Road		ONE HOUR	✓	187	100.000
2 - B4109 Rugby Road South		ONE HOUR	✓	556	100.000
3 - Sketchley Lane		ONE HOUR	✓	182	100.000
4 - B4109 Rugby Road North		ONE HOUR	✓	564	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Sketchley Road	2 - B4109 Rugby Road South	3 - Sketchley Lane	4 - B4109 Rugby Road North
From	1 - Sketchley Road	0	173	14	0
	2 - B4109 Rugby Road South	78	0	25	453
	3 - Sketchley Lane	48	89	0	45
	4 - B4109 Rugby Road North	0	519	45	0

Vehicle Mix

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

Heavy Vehicle %

	To				
		1 - Sketchley Road	2 - B4109 Rugby Road South	3 - Sketchley Lane	4 - B4109 Rugby Road North
From	1 - Sketchley Road	0	3	5	0
	2 - B4109 Rugby Road South	4	0	0	1
	3 - Sketchley Lane	2	1	0	0
	4 - B4109 Rugby Road North	0	1	0	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)
1 - Sketchley Road	0.32	8.11	0.5	A	172	257
2 - B4109 Rugby Road South	0.49	5.71	1.0	A	510	765
3 - Sketchley Lane	0.32	8.36	0.5	A	167	251
4 - B4109 Rugby Road North	0.65	10.58	1.8	B	518	776

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
1 - Sketchley Road	141	35	488	765	0.184	140	94	0.0	0.2	5.754	A
2 - B4109 Rugby Road South	419	105	44	1255	0.334	417	584	0.0	0.5	4.282	A
3 - Sketchley Lane	137	34	398	721	0.190	136	63	0.0	0.2	6.148	A
4 - B4109 Rugby Road North	425	106	161	1003	0.424	422	373	0.0	0.7	6.166	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
1 - Sketchley Road	168	42	586	716	0.235	168	113	0.2	0.3	6.561	A
2 - B4109 Rugby Road South	500	125	53	1250	0.400	499	700	0.5	0.7	4.793	A
3 - Sketchley Lane	164	41	477	683	0.240	163	75	0.2	0.3	6.925	A
4 - B4109 Rugby Road North	507	127	193	985	0.515	506	447	0.7	1.0	7.492	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
1 - Sketchley Road	206	51	716	651	0.316	205	138	0.3	0.5	8.063	A
2 - B4109 Rugby Road South	612	153	65	1243	0.493	611	856	0.7	1.0	5.687	A
3 - Sketchley Lane	200	50	584	632	0.317	200	92	0.3	0.5	8.325	A
4 - B4109 Rugby Road North	621	155	236	961	0.646	618	547	1.0	1.8	10.401	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
1 - Sketchley Road	206	51	719	650	0.317	206	139	0.5	0.5	8.113	A
2 - B4109 Rugby Road South	612	153	65	1243	0.493	612	860	1.0	1.0	5.709	A
3 - Sketchley Lane	200	50	585	631	0.318	200	92	0.5	0.5	8.358	A
4 - B4109 Rugby Road North	621	155	237	961	0.646	621	548	1.8	1.8	10.577	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
1 - Sketchley Road	168	42	590	714	0.236	169	114	0.5	0.3	6.611	A
2 - B4109 Rugby Road South	500	125	53	1249	0.400	501	706	1.0	0.7	4.819	A
3 - Sketchley Lane	164	41	478	682	0.240	164	76	0.5	0.3	6.962	A
4 - B4109 Rugby Road North	507	127	194	984	0.515	510	449	1.8	1.1	7.630	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
1 - Sketchley Road	141	35	493	762	0.185	141	95	0.3	0.2	5.798	A
2 - B4109 Rugby Road South	419	105	45	1254	0.334	419	590	0.7	0.5	4.313	A
3 - Sketchley Lane	137	34	400	719	0.190	137	63	0.3	0.2	6.187	A
4 - B4109 Rugby Road North	425	106	162	1002	0.424	426	376	1.1	0.7	6.264	A

2021, 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	B4109 Rugby Road / Sketchley Road Roundabout	Standard Roundabout		1, 2, 3, 4	12.63	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.63	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2021	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 (%)
1 - Sketchley Road		ONE HOUR	✓	111	100.000
2 - B4109 Rugby Road South		ONE HOUR	✓	874	100.000
3 - Sketchley Lane		ONE HOUR	✓	114	100.000
4 - B4109 Rugby Road North		ONE HOUR	✓	533	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Sketchley Road	2 - B4109 Rugby Road South	3 - Sketchley Lane	4 - B4109 Rugby Road North
	From				
	1 - Sketchley Road	0	49	62	0
	2 - B4109 Rugby Road South	302	0	49	523
	3 - Sketchley Lane	36	45	0	33
	4 - B4109 Rugby Road North	0	484	49	0

Vehicle Mix

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

Heavy Vehicle %

	To				
		1 - Sketchley Road	2 - B4109 Rugby Road South	3 - Sketchley Lane	4 - B4109 Rugby Road North
From	1 - Sketchley Road	0	4	2	0
	2 - B4109 Rugby Road South	1	0	0	0
	3 - Sketchley Lane	0	0	0	0
	4 - B4109 Rugby Road North	0	0	0	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)
1 - Sketchley Road	0.18	6.28	0.2	A	102	153
2 - B4109 Rugby Road South	0.79	13.78	3.6	B	802	1203
3 - Sketchley Lane	0.26	10.00	0.3	A	105	157
4 - B4109 Rugby Road North	0.67	12.66	2.0	B	489	734

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
1 - Sketchley Road	84	21	432	797	0.105	83	253	0.0	0.1	5.041	A
2 - B4109 Rugby Road South	658	164	83	1245	0.529	654	432	0.0	1.1	6.045	A
3 - Sketchley Lane	86	21	617	625	0.137	85	120	0.0	0.2	6.663	A
4 - B4109 Rugby Road North	401	100	286	945	0.425	398	416	0.0	0.7	6.558	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
1 - Sketchley Road	100	25	518	754	0.132	100	303	0.1	0.2	5.499	A
2 - B4109 Rugby Road South	786	196	100	1235	0.636	783	518	1.1	1.7	7.923	A
3 - Sketchley Lane	102	26	739	566	0.181	102	143	0.2	0.2	7.754	A
4 - B4109 Rugby Road North	479	120	343	913	0.525	478	498	0.7	1.1	8.236	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
1 - Sketchley Road	122	31	633	697	0.175	122	370	0.2	0.2	6.254	A
2 - B4109 Rugby Road South	962	241	122	1222	0.787	955	633	1.7	3.5	13.144	B
3 - Sketchley Lane	126	31	902	488	0.257	125	175	0.2	0.3	9.892	A
4 - B4109 Rugby Road North	587	147	419	872	0.673	583	608	1.1	2.0	12.311	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
1 - Sketchley Road	122	31	636	696	0.176	122	372	0.2	0.2	6.278	A
2 - B4109 Rugby Road South	962	241	122	1222	0.788	962	636	3.5	3.6	13.780	B
3 - Sketchley Lane	126	31	908	485	0.259	125	176	0.3	0.3	10.000	A
4 - B4109 Rugby Road North	587	147	422	871	0.674	587	612	2.0	2.0	12.660	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
1 - Sketchley Road	100	25	523	751	0.133	100	306	0.2	0.2	5.527	A
2 - B4109 Rugby Road South	786	196	100	1235	0.636	793	523	3.6	1.8	8.273	A
3 - Sketchley Lane	102	26	748	562	0.182	103	145	0.3	0.2	7.852	A
4 - B4109 Rugby Road North	479	120	347	911	0.526	483	504	2.0	1.1	8.467	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
1 - Sketchley Road	84	21	437	794	0.105	84	255	0.2	0.1	5.067	A
2 - B4109 Rugby Road South	658	164	84	1244	0.529	661	437	1.8	1.1	6.195	A
3 - Sketchley Lane	86	21	624	622	0.138	86	121	0.2	0.2	6.722	A
4 - B4109 Rugby Road North	401	100	289	943	0.426	403	420	1.1	0.8	6.683	A

2026, 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	B4109 Rugby Road / Sketchley Road Roundabout	Standard Roundabout		1, 2, 3, 4	10.70	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.70	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026	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 (%)
1 - Sketchley Road		ONE HOUR	✓	229	100.000
2 - B4109 Rugby Road South		ONE HOUR	✓	722	100.000
3 - Sketchley Lane		ONE HOUR	✓	185	100.000
4 - B4109 Rugby Road North		ONE HOUR	✓	644	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Sketchley Road	2 - B4109 Rugby Road South	3 - Sketchley Lane	4 - B4109 Rugby Road North
	From				
	1 - Sketchley Road	0	174	55	0
	2 - B4109 Rugby Road South	71	0	24	627
	3 - Sketchley Lane	59	86	0	40
	4 - B4109 Rugby Road North	0	626	18	0

Vehicle Mix

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

Heavy Vehicle %

	To				
		1 - Sketchley Road	2 - B4109 Rugby Road South	3 - Sketchley Lane	4 - B4109 Rugby Road North
From	1 - Sketchley Road	0	3	5	0
	2 - B4109 Rugby Road South	4	0	0	1
	3 - Sketchley Lane	2	1	0	0
	4 - B4109 Rugby Road North	0	0	0	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)
1 - Sketchley Road	0.41	10.10	0.7	B	210	315
2 - B4109 Rugby Road South	0.64	8.20	1.8	A	663	994
3 - Sketchley Lane	0.38	10.61	0.6	B	170	255
4 - B4109 Rugby Road North	0.73	13.78	2.7	B	591	886

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
1 - Sketchley Road	172	43	545	736	0.234	171	97	0.0	0.3	6.362	A
2 - B4109 Rugby Road South	544	136	55	1249	0.435	541	662	0.0	0.8	5.058	A
3 - Sketchley Lane	139	35	523	661	0.211	138	73	0.0	0.3	6.877	A
4 - B4109 Rugby Road North	485	121	161	1012	0.479	481	499	0.0	0.9	6.743	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
1 - Sketchley Road	206	51	654	682	0.302	205	117	0.3	0.4	7.541	A
2 - B4109 Rugby Road South	649	162	65	1243	0.522	648	794	0.8	1.1	6.036	A
3 - Sketchley Lane	166	42	626	611	0.272	166	87	0.3	0.4	8.081	A
4 - B4109 Rugby Road North	579	145	194	994	0.583	577	598	0.9	1.4	8.603	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
1 - Sketchley Road	252	63	798	611	0.413	251	143	0.4	0.7	9.970	A
2 - B4109 Rugby Road South	795	199	80	1234	0.644	792	970	1.1	1.8	8.094	A
3 - Sketchley Lane	204	51	766	544	0.374	203	106	0.4	0.6	10.519	B
4 - B4109 Rugby Road North	709	177	237	970	0.731	704	732	1.4	2.6	13.313	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
1 - Sketchley Road	252	63	803	609	0.414	252	143	0.7	0.7	10.097	B
2 - B4109 Rugby Road South	795	199	80	1234	0.644	795	975	1.8	1.8	8.196	A
3 - Sketchley Lane	204	51	768	543	0.375	204	107	0.6	0.6	10.609	B
4 - B4109 Rugby Road North	709	177	238	969	0.732	709	734	2.6	2.7	13.782	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
1 - Sketchley Road	206	51	662	679	0.303	207	117	0.7	0.4	7.649	A
2 - B4109 Rugby Road South	649	162	66	1242	0.522	652	802	1.8	1.1	6.121	A
3 - Sketchley Lane	166	42	630	609	0.273	167	88	0.6	0.4	8.162	A
4 - B4109 Rugby Road North	579	145	195	993	0.583	584	602	2.7	1.4	8.902	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
1 - Sketchley Road	172	43	552	733	0.235	173	98	0.4	0.3	6.437	A
2 - B4109 Rugby Road South	544	136	55	1249	0.435	545	670	1.1	0.8	5.122	A
3 - Sketchley Lane	139	35	527	659	0.211	140	73	0.4	0.3	6.946	A
4 - B4109 Rugby Road North	485	121	163	1011	0.480	487	503	1.4	0.9	6.897	A

2026, 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	B4109 Rugby Road / Sketchley Road Roundabout	Standard Roundabout		1, 2, 3, 4	19.76	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	19.76	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026	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 (%)
1 - Sketchley Road		ONE HOUR	✓	132	100.000
2 - B4109 Rugby Road South		ONE HOUR	✓	990	100.000
3 - Sketchley Lane		ONE HOUR	✓	154	100.000
4 - B4109 Rugby Road North		ONE HOUR	✓	568	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Sketchley Road	2 - B4109 Rugby Road South	3 - Sketchley Lane	4 - B4109 Rugby Road North
	From				
	1 - Sketchley Road	0	48	84	0
	2 - B4109 Rugby Road South	225	0	16	749
	3 - Sketchley Lane	75	43	0	36
	4 - B4109 Rugby Road North	0	537	31	0

Vehicle Mix

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

Heavy Vehicle %

	To				
		1 - Sketchley Road	2 - B4109 Rugby Road South	3 - Sketchley Lane	4 - B4109 Rugby Road North
From	1 - Sketchley Road	0	4	2	0
	2 - B4109 Rugby Road South	1	0	0	0
	3 - Sketchley Lane	0	0	0	0
	4 - B4109 Rugby Road North	0	0	0	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)
1 - Sketchley Road	0.21	6.75	0.3	A	121	182
2 - B4109 Rugby Road South	0.89	25.97	7.4	D	908	1363
3 - Sketchley Lane	0.42	15.05	0.7	C	141	212
4 - B4109 Rugby Road North	0.70	13.30	2.3	B	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
1 - Sketchley Road	99	25	457	786	0.126	99	224	0.0	0.1	5.235	A
2 - B4109 Rugby Road South	745	186	86	1244	0.599	739	469	0.0	1.5	7.052	A
3 - Sketchley Lane	116	29	728	572	0.203	115	98	0.0	0.3	7.852	A
4 - B4109 Rugby Road North	428	107	256	961	0.445	424	586	0.0	0.8	6.668	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
1 - Sketchley Road	119	30	548	741	0.160	118	269	0.1	0.2	5.785	A
2 - B4109 Rugby Road South	890	222	103	1234	0.721	886	563	1.5	2.5	10.210	B
3 - Sketchley Lane	138	35	872	503	0.275	138	117	0.3	0.4	9.836	A
4 - B4109 Rugby Road North	511	128	307	933	0.547	509	702	0.8	1.2	8.450	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
1 - Sketchley Road	145	36	668	681	0.214	145	326	0.2	0.3	6.716	A
2 - B4109 Rugby Road South	1090	273	126	1221	0.893	1073	687	2.5	6.8	22.113	C
3 - Sketchley Lane	170	42	1055	415	0.408	168	144	0.4	0.7	14.499	B
4 - B4109 Rugby Road North	625	156	373	898	0.697	621	851	1.2	2.2	12.843	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
1 - Sketchley Road	145	36	672	679	0.214	145	330	0.3	0.3	6.750	A
2 - B4109 Rugby Road South	1090	273	127	1220	0.893	1088	691	6.8	7.4	25.974	D
3 - Sketchley Lane	170	42	1070	409	0.415	169	144	0.7	0.7	15.046	C
4 - B4109 Rugby Road North	625	156	377	895	0.699	625	862	2.2	2.3	13.296	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
1 - Sketchley Road	119	30	554	738	0.161	119	275	0.3	0.2	5.824	A
2 - B4109 Rugby Road South	890	222	104	1234	0.721	909	569	7.4	2.7	11.665	B
3 - Sketchley Lane	138	35	894	493	0.281	140	118	0.7	0.4	10.233	B
4 - B4109 Rugby Road North	511	128	314	930	0.549	515	720	2.3	1.2	8.752	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
1 - Sketchley Road	99	25	462	783	0.127	100	227	0.2	0.1	5.267	A
2 - B4109 Rugby Road South	745	186	87	1244	0.599	750	475	2.7	1.5	7.358	A
3 - Sketchley Lane	116	29	738	567	0.204	116	99	0.4	0.3	7.993	A
4 - B4109 Rugby Road North	428	107	260	959	0.446	429	595	1.2	0.8	6.813	A

2026 + Dev, 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	B4109 Rugby Road / Sketchley Road Roundabout	Standard Roundabout		1, 2, 3, 4	11.65	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.65	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 + Dev	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 (%)
1 - Sketchley Road		ONE HOUR	✓	229	100.000
2 - B4109 Rugby Road South		ONE HOUR	✓	755	100.000
3 - Sketchley Lane		ONE HOUR	✓	188	100.000
4 - B4109 Rugby Road North		ONE HOUR	✓	666	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Sketchley Road	2 - B4109 Rugby Road South	3 - Sketchley Lane	4 - B4109 Rugby Road North
From	1 - Sketchley Road	0	174	55	0
	2 - B4109 Rugby Road South	71	0	26	658
	3 - Sketchley Lane	59	89	0	40
	4 - B4109 Rugby Road North	0	648	18	0

Vehicle Mix

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

Heavy Vehicle %

	To				
		1 - Sketchley Road	2 - B4109 Rugby Road South	3 - Sketchley Lane	4 - B4109 Rugby Road North
From	1 - Sketchley Road	0	3	5	0
	2 - B4109 Rugby Road South	4	0	0	1
	3 - Sketchley Lane	2	1	0	0
	4 - B4109 Rugby Road North	0	0	0	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)
1 - Sketchley Road	0.42	10.49	0.7	B	210	315
2 - B4109 Rugby Road South	0.67	8.93	2.0	A	693	1039
3 - Sketchley Lane	0.39	11.26	0.6	B	173	259
4 - B4109 Rugby Road North	0.76	15.29	3.0	C	611	917

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
1 - Sketchley Road	172	43	564	727	0.237	171	97	0.0	0.3	6.465	A
2 - B4109 Rugby Road South	568	142	55	1249	0.455	565	681	0.0	0.8	5.235	A
3 - Sketchley Lane	142	35	546	650	0.218	140	74	0.0	0.3	7.057	A
4 - B4109 Rugby Road North	501	125	164	1010	0.496	498	522	0.0	1.0	6.970	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
1 - Sketchley Road	206	51	676	671	0.307	205	117	0.3	0.4	7.718	A
2 - B4109 Rugby Road South	679	170	65	1243	0.546	677	816	0.8	1.2	6.347	A
3 - Sketchley Lane	169	42	654	598	0.283	169	89	0.3	0.4	8.380	A
4 - B4109 Rugby Road North	599	150	196	992	0.603	597	626	1.0	1.5	9.052	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
1 - Sketchley Road	252	63	825	598	0.422	251	143	0.4	0.7	10.341	B
2 - B4109 Rugby Road South	831	208	80	1234	0.673	828	996	1.2	2.0	8.788	A
3 - Sketchley Lane	207	52	799	528	0.392	206	108	0.4	0.6	11.142	B
4 - B4109 Rugby Road North	733	183	240	968	0.758	727	765	1.5	2.9	14.618	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
1 - Sketchley Road	252	63	831	595	0.424	252	143	0.7	0.7	10.492	B
2 - B4109 Rugby Road South	831	208	80	1234	0.674	831	1003	2.0	2.0	8.928	A
3 - Sketchley Lane	207	52	803	527	0.393	207	109	0.6	0.6	11.258	B
4 - B4109 Rugby Road North	733	183	241	967	0.758	733	768	2.9	3.0	15.285	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
1 - Sketchley Road	206	51	685	667	0.309	207	117	0.7	0.5	7.844	A
2 - B4109 Rugby Road South	679	170	66	1243	0.546	682	826	2.0	1.2	6.459	A
3 - Sketchley Lane	169	42	658	596	0.284	170	90	0.6	0.4	8.476	A
4 - B4109 Rugby Road North	599	150	198	991	0.604	605	631	3.0	1.6	9.443	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
1 - Sketchley Road	172	43	571	723	0.238	173	98	0.5	0.3	6.548	A
2 - B4109 Rugby Road South	568	142	55	1249	0.455	570	689	1.2	0.8	5.311	A
3 - Sketchley Lane	142	35	550	647	0.219	142	75	0.4	0.3	7.129	A
4 - B4109 Rugby Road North	501	125	165	1009	0.497	504	527	1.6	1.0	7.148	A

2026 + Dev, 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	B4109 Rugby Road / Sketchley Road Roundabout	Standard Roundabout		1, 2, 3, 4	23.21	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	23.21	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 + Dev	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 (%)
1 - Sketchley Road		ONE HOUR	✓	132	100.000
2 - B4109 Rugby Road South		ONE HOUR	✓	1016	100.000
3 - Sketchley Lane		ONE HOUR	✓	156	100.000
4 - B4109 Rugby Road North		ONE HOUR	✓	587	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Sketchley Road	2 - B4109 Rugby Road South	3 - Sketchley Lane	4 - B4109 Rugby Road North
	From				
	1 - Sketchley Road	0	48	84	0
	2 - B4109 Rugby Road South	225	0	16	775
	3 - Sketchley Lane	75	45	0	36
	4 - B4109 Rugby Road North	0	556	31	0

Vehicle Mix

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

Heavy Vehicle %

	To				
		1 - Sketchley Road	2 - B4109 Rugby Road South	3 - Sketchley Lane	4 - B4109 Rugby Road North
From	1 - Sketchley Road	0	4	2	0
	2 - B4109 Rugby Road South	1	0	0	0
	3 - Sketchley Lane	0	0	0	0
	4 - B4109 Rugby Road North	0	0	0	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)
1 - Sketchley Road	0.22	6.90	0.3	A	121	182
2 - B4109 Rugby Road South	0.92	31.53	9.2	D	932	1398
3 - Sketchley Lane	0.43	16.06	0.8	C	143	215
4 - B4109 Rugby Road North	0.72	14.45	2.5	B	539	808

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
1 - Sketchley Road	99	25	472	778	0.128	99	224	0.0	0.1	5.295	A
2 - B4109 Rugby Road South	765	191	86	1244	0.615	759	485	0.0	1.6	7.321	A
3 - Sketchley Lane	117	29	747	563	0.209	116	98	0.0	0.3	8.038	A
4 - B4109 Rugby Road North	442	110	258	961	0.460	439	606	0.0	0.8	6.854	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
1 - Sketchley Road	119	30	566	731	0.162	118	268	0.1	0.2	5.873	A
2 - B4109 Rugby Road South	913	228	103	1234	0.740	909	582	1.6	2.7	10.897	B
3 - Sketchley Lane	140	35	894	493	0.285	140	117	0.3	0.4	10.187	B
4 - B4109 Rugby Road North	528	132	309	933	0.566	526	725	0.8	1.3	8.815	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
1 - Sketchley Road	145	36	691	669	0.217	145	325	0.2	0.3	6.859	A
2 - B4109 Rugby Road South	1119	280	126	1221	0.916	1097	710	2.7	8.2	25.453	D
3 - Sketchley Lane	172	43	1080	404	0.425	170	143	0.4	0.7	15.333	C
4 - B4109 Rugby Road North	646	162	374	897	0.721	642	876	1.3	2.4	13.848	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
1 - Sketchley Road	145	36	695	667	0.218	145	329	0.3	0.3	6.898	A
2 - B4109 Rugby Road South	1119	280	127	1221	0.917	1115	714	8.2	9.2	31.530	D
3 - Sketchley Lane	172	43	1097	396	0.434	172	144	0.7	0.8	16.057	C
4 - B4109 Rugby Road North	646	162	379	894	0.723	646	890	2.4	2.5	14.451	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
1 - Sketchley Road	119	30	573	728	0.163	119	276	0.3	0.2	5.917	A
2 - B4109 Rugby Road South	913	228	104	1234	0.740	938	588	9.2	3.0	13.087	B
3 - Sketchley Lane	140	35	923	479	0.293	142	119	0.8	0.4	10.720	B
4 - B4109 Rugby Road North	528	132	317	928	0.569	532	748	2.5	1.3	9.200	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
1 - Sketchley Road	99	25	478	775	0.128	100	227	0.2	0.1	5.329	A
2 - B4109 Rugby Road South	765	191	87	1244	0.615	770	491	3.0	1.6	7.685	A
3 - Sketchley Lane	117	29	758	558	0.211	118	99	0.4	0.3	8.197	A
4 - B4109 Rugby Road North	442	110	261	958	0.461	444	615	1.3	0.9	7.021	A