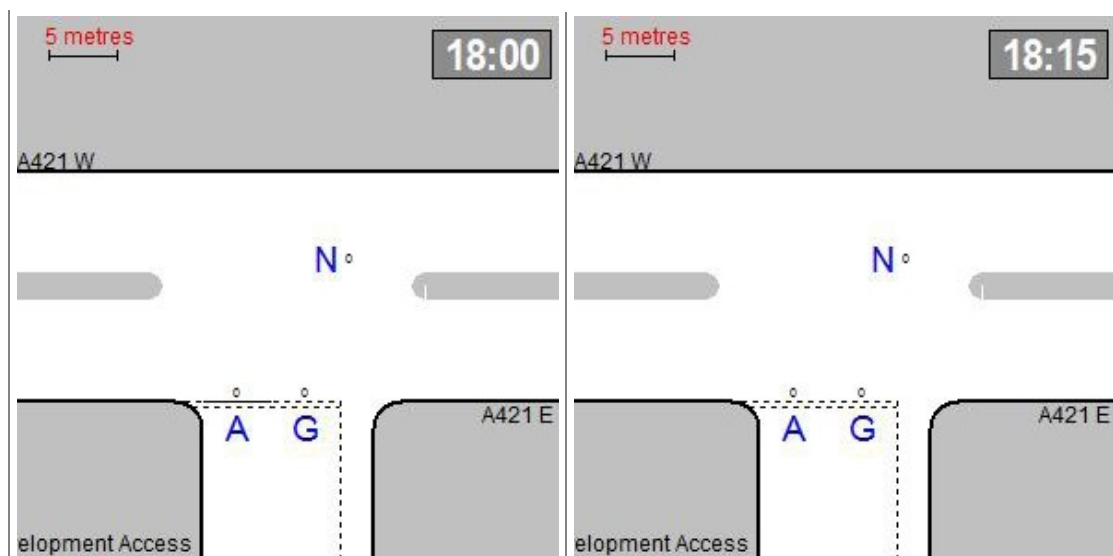
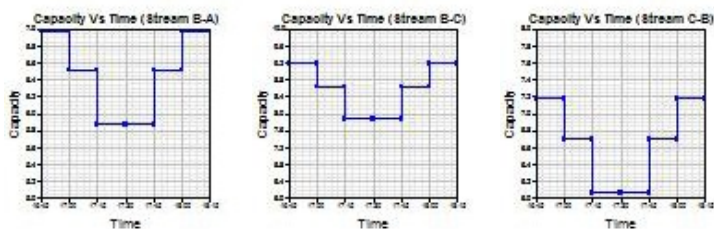




Capacity Graph

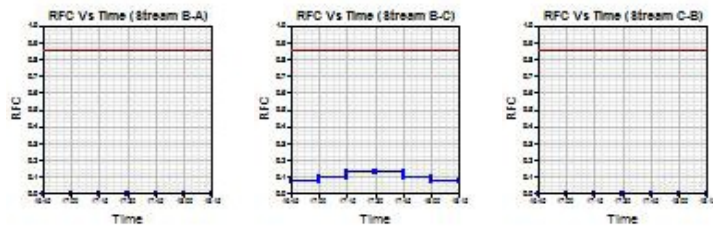
Demand Set: Whaddon Road Access Junction S2 PM
Modelling Period: 16:45-18:15



RFC Graph

Demand Set: Whaddon Road Access Junction S2 PM

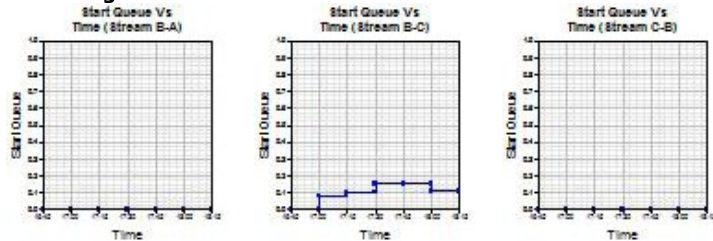
Modelling Period: 16:45-18:15



Start Queue Graph

Demand Set: Whaddon Road Access Junction S2 PM

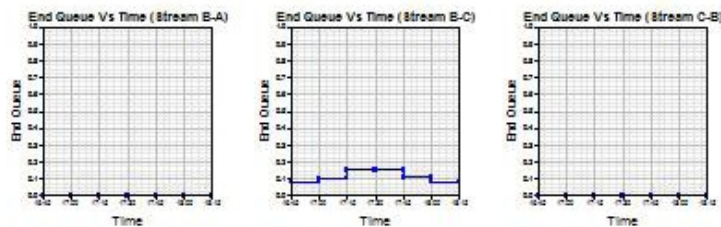
Modelling Period: 16:45-18:15



End Queue Graph

Demand Set: Whaddon Road Access Junction S2 PM

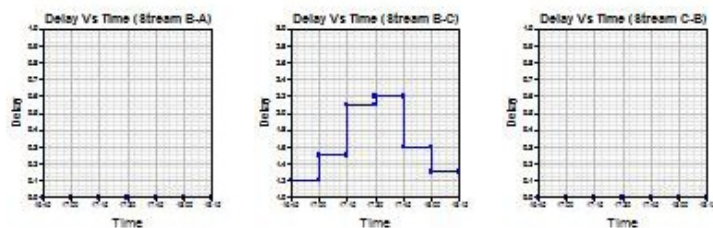
Modelling Period: 16:45-18:15



Delay Graph

Demand Set: Whaddon Road Access Junction S2 PM

Modelling Period: 16:45-18:15



Queues & Delays

Demand Set: Whaddon Road Access Junction S2 PM

Modelling Period: 16:45-18:15

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
16:45- 17:00	B-A	0.00	6.97	0.000	-	0.00	0.00	-	0.0	0.00
	B-C	0.69	9.19	0.075	-	0.00	0.08	-	1.2	0.12
	C-A	0.00	-	-	-	-	-	-	-	-
	C-B	0.00	7.17	0.000	-	0.00	0.00	-	0.0	0.00
	A-B	1.49	-	-	-	-	-	-	-	-
	A-C	14.19	-	-	-	-	-	-	-	-
Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:00- 17:15	B-A	0.00	6.51	0.000	-	0.00	0.00	-	0.0	0.00
	B-C	0.82	8.63	0.095	-	0.08	0.10	-	1.5	0.13
	C-A	0.00	-	-	-	-	-	-	-	-
	C-B	0.00	6.70	0.000	-	0.00	0.00	-	0.0	0.00
	A-B	1.78	-	-	-	-	-	-	-	-
	A-C	16.95	-	-	-	-	-	-	-	-
Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:15- 17:30	B-A	0.00	5.87	0.000	-	0.00	0.00	-	0.0	0.00
	B-C	1.01	7.87	0.128	-	0.10	0.15	-	2.1	0.15
	C-A	0.00	-	-	-	-	-	-	-	-
	C-B	0.00	6.06	0.000	-	0.00	0.00	-	0.0	0.00
	A-B	2.18	-	-	-	-	-	-	-	-
	A-C	20.75	-	-	-	-	-	-	-	-
Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:30- 17:45	B-A	0.00	5.87	0.000	-	0.00	0.00	-	0.0	0.00
	B-C	1.01	7.87	0.128	-	0.15	0.15	-	2.2	0.15
	C-A	0.00	-	-	-	-	-	-	-	-
	C-B	0.00	6.06	0.000	-	0.00	0.00	-	0.0	0.00
	A-B	2.18	-	-	-	-	-	-	-	-
	A-C	20.75	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:45- 18:00	B-A	0.00	6.51	0.000	-	0.00	0.00	-	0.0	0.00
	B-C	0.82	8.63	0.095	-	0.15	0.11	-	1.6	0.13
	C-A	0.00	-	-	-	-	-	-	-	-
	C-B	0.00	6.70	0.000	-	0.00	0.00	-	0.0	0.00
	A-B	1.78	-	-	-	-	-	-	-	-
	A-C	16.95	-	-	-	-	-	-	-	-
Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
18:00- 18:15	B-A	0.00	6.97	0.000	-	0.00	0.00	-	0.0	0.00
	B-C	0.69	9.19	0.075	-	0.11	0.08	-	1.3	0.12
	C-A	0.00	-	-	-	-	-	-	-	-
	C-B	0.00	7.17	0.000	-	0.00	0.00	-	0.0	0.00
	A-B	1.49	-	-	-	-	-	-	-	-
	A-C	14.19	-	-	-	-	-	-	-	-

Entry capacities marked with an '(X)' are dominated by a pedestrian crossing in that time segment.

In time segments marked with a '(B)', traffic leaving the junction may block back from a crossing so impairing normal operation of the junction.

Delays marked with '##' could not be calculated.

Overall Queues & Delays

Queueing Delay Information Over Whole Period

Demand Set: Whaddon Road Access Junction S2 PM

Modelling Period: 16:45-18:15

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	0.0	0.0	0.0	0.0	0.0	0.0
B-C	75.7	50.5	9.9	0.1	9.9	0.1
C-A	0.0	0.0	-	-	-	-
C-B	0.0	0.0	0.0	0.0	0.0	0.0
A-B	163.8	109.2	-	-	-	-
A-C	1556.7	1037.8	-	-	-	-
All	1796.2	1197.5	9.9	0.0	9.9	0.0

Delay is that occurring only within the time period.

Inclusive delay includes delay suffered by vehicles which are still queuing after the end of the time period.

These will only be significantly different if there is a large queue remaining at the end of the time period.

PICADY 5 Run Successful

Appendix M

LINSIG Output

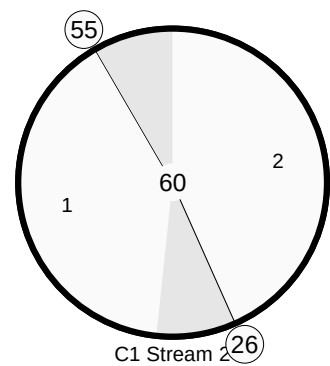
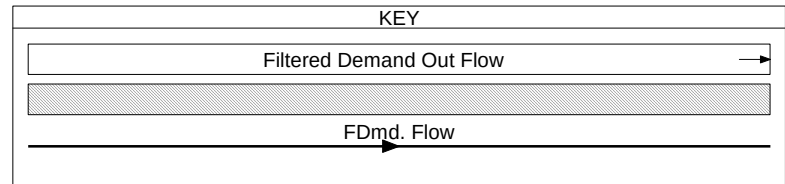
Buckingham Road Junction

PRC: 13.1 %

Total Traffic Delay: 22.8 pcuHr

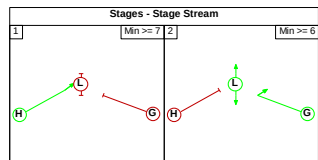
Ave. Route Delay Per Ped: 0.0 s/Ped

Results For Scenario: AM PEAK		
Cycle Time: 60	PRC: 13.1%	Tot Delay (pcuHr): 22.78



BUCKINGHAM RD W (AH)
Green: 47-22 (35's)
% SAT: 74.2%
MMQ : 11.9
Delay: 3.5

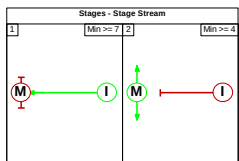
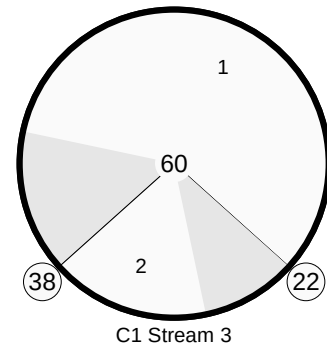
BUCKINGHAM RD E (RT)
Green: 27-38 (11's)
% SAT: 65.5%
MMQ : 4.5
Delay: 1.6



Buckingham Rd (W) RT
Green: 0-26 (26's)
% SAT: 58.5%
MMQ : 4.8
Delay: 1.2

Buckingham Road (N) RT
Green: 33-51 (18's)
% SAT: 68.7%
MMQ : 2.2
Delay: 1.8

Buckingham Rd (N) AHLT
Green: 32-51 (19's)
% SAT: 79.3%
MMQ : 10.3
Delay: 4.9



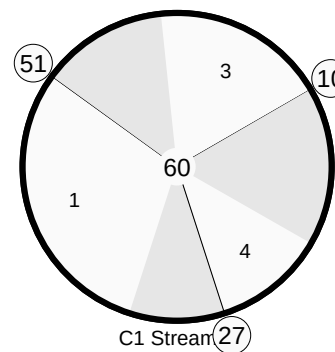
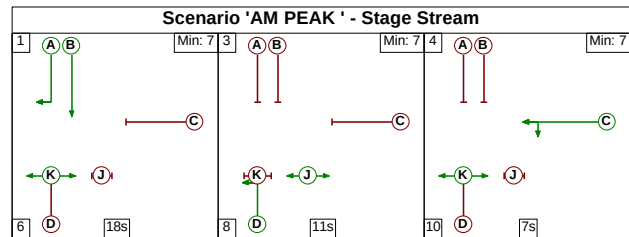
Toucan (WB) OS
Green: 32-16 (44's)
% SAT: 28.8%
MMQ : 1.2
Delay: 0.3

Toucan (WB) NS
Green: 32-16 (44's)
% SAT: 23.2%
MMQ : 2.2
Delay: 0.3

SWMK ACCESS (S)
Green: 59-10 (11's)
% SAT: 79.6%
MMQ : 6.6
Delay: 3.8

Buckingham Road (E) RT
Green: 20-27 (7's)
% SAT: 57.3%
MMQ : 3.2
Delay:

Buckingham Rd (E) AHLT
Green: 20-27 (7's)
% SAT: 56.6%
MMQ : 3.2
Delay: 2.8



Project Name

South Milton Keynes

Company

Pell Frischmann

Address

George House, George Street, Wakefield, WF1 1LY

Author

David Key

Date

12 Nov 2014

Scale

NTS

Project Location

Buckingham Road Junction

Project Title

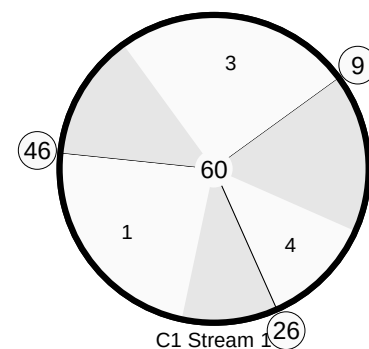
Buckingham Road Junction

Drawing Title

Network Layout

FileName

Buckingham Road Jctn for dwg V5.lsg3x



Project Name South Milton Keynes		
Company Pell Frischmann		
Address George House, George Street, Wakefield, WF1 1LY		
Author David Key	Date 12 Nov 2014	Scale NTS
Project Location Buckingham Road Junction		
Project Title Buckingham Road Junction		
Drawing Title Network Layout		
FileName Buckingham Road Jctn for dwg V5.lsg3x		

Appendix N

ARCADY Output

Junctions 8	
ARCADY 8 - Roundabout Module	
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2014	
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk	
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Filename: Waddon Crossroads Roundabout.arc8
Path: P:\data\W50---\SW Milton Keynes\ARCADY\Whaddon Crossroads
Report generation date: 26/11/2014 11:54:54

- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM
- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

File summary

Title	Waddon Crossroads Roundabout
Location	Coddinmoor Lane / A421 / Whaddon Road
Site Number	
Date	06/11/2014
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	A Lechmere
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, AM	Scenario 1 - 2026 Forecast + Committed	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Waddon Crossroads Roundabout	Roundabout	1,2,3,4			422.36	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Coddimore Lane (N)	
2	2	A421 (E)	
3	3	Waddon Road	
4	4	A421 (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	2.70	6.70	8.00	42.20	50.00	31.00	
2	3.20	7.70	8.60	43.80	50.00	36.00	
3	2.70	6.10	10.30	27.30	50.00	43.00	
4	3.70	7.60	12.50	38.30	50.00	48.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.542	1312.834
2		(calculated)	(calculated)	0.570	1487.939
3		(calculated)	(calculated)	0.519	1276.838
4		(calculated)	(calculated)	0.587	1645.475

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	638.00	100.000
2	ONE HOUR	✓	1480.00	100.000
3	ONE HOUR	✓	392.00	100.000
4	ONE HOUR	✓	1456.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	160.000	223.000	255.000
	2	59.000	0.000	148.000	1273.000
	3	223.000	145.000	0.000	24.000
	4	320.000	1121.000	15.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.25	0.35	0.40
	2	0.04	0.00	0.10	0.86
	3	0.57	0.37	0.00	0.06
	4	0.22	0.77	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To				
		1	2	3	4
From	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	1.09	186.27	38.42	F
2	1.35	769.07	274.62	F
3	0.74	24.20	2.79	C
4	1.16	280.59	122.33	F

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	480.32	474.36	954.11	0.00	796.05	0.603	1.49	11.119	B
2	1114.22	1090.78	366.57	0.00	1278.98	0.871	5.86	17.607	C
3	295.12	291.98	1171.30	0.00	668.63	0.441	0.78	9.585	A
4	1096.15	1084.45	317.59	0.00	1459.05	0.751	2.93	9.443	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	573.55	563.53	1132.66	0.00	699.34	0.820	4.00	25.129	D
2	1330.49	1216.80	435.45	0.00	1239.71	1.073	34.28	71.544	F
3	352.40	349.80	1320.36	0.00	591.23	0.596	1.43	14.913	B
4	1308.91	1285.88	376.89	0.00	1424.24	0.919	8.68	23.163	C

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	702.45	628.22	1229.04	0.00	647.14	1.085	22.55	93.463	F
2	1629.51	1210.68	484.82	0.00	1211.57	1.345	138.99	265.475	F
3	431.60	426.63	1340.71	0.00	580.66	0.743	2.68	22.887	C
4	1603.09	1372.99	448.77	0.00	1382.04	1.160	66.21	108.211	F

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	702.45	638.99	1235.07	0.00	643.87	1.091	38.42	186.266	F
2	1629.51	1206.80	492.95	0.00	1206.94	1.350	244.67	576.772	F
3	431.60	431.13	1341.52	0.00	580.24	0.744	2.79	24.204	C
4	1603.09	1378.58	452.85	0.00	1379.65	1.162	122.33	251.513	F

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	573.55	629.40	1231.20	0.00	645.97	0.888	24.46	183.150	F
2	1330.49	1210.66	486.07	0.00	1210.85	1.099	274.62	769.066	F
3	352.40	357.07	1341.16	0.00	580.43	0.607	1.63	16.619	C
4	1308.91	1408.73	383.47	0.00	1420.38	0.922	97.38	280.589	F

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	480.32	564.59	1231.80	0.00	645.64	0.744	3.39	65.500	F
2	1114.22	1233.82	437.81	0.00	1238.36	0.900	244.72	757.917	F
3	295.12	297.37	1336.10	0.00	583.06	0.506	1.06	12.839	B
4	1096.15	1437.80	328.35	0.00	1452.73	0.755	11.97	141.346	F

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, PM	Scenario 1 - 2026 Forecast + Committed	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Waddon Crossroads Roundabout	Roundabout	1,2,3,4			583.98	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Coddimoor Lane (N)	
2	2	A421 (E)	
3	3	Waddon Road	
4	4	A421 (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	2.70	6.70	8.00	42.20	50.00	31.00	
2	3.20	7.70	8.60	43.80	50.00	36.00	
3	2.70	6.10	10.30	27.30	50.00	43.00	
4	3.70	7.60	12.50	38.30	50.00	48.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.542	1312.834
2		(calculated)	(calculated)	0.570	1487.939
3		(calculated)	(calculated)	0.519	1276.838
4		(calculated)	(calculated)	0.587	1645.475

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	818.00	100.000
2	ONE HOUR	✓	1418.00	100.000
3	ONE HOUR	✓	433.00	100.000
4	ONE HOUR	✓	1403.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	82.000	343.000	393.000
	2	71.000	0.000	170.000	1177.000
	3	277.000	143.000	0.000	13.000
	4	281.000	1094.000	28.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.10	0.42	0.48
	2	0.05	0.00	0.12	0.83
	3	0.64	0.33	0.00	0.03
	4	0.20	0.78	0.02	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	1.39	888.30	166.09	F
2	1.37	902.22	292.06	F
3	0.80	30.21	3.80	D
4	1.15	255.80	111.64	F

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	615.83	603.56	942.31	0.00	802.44	0.767	3.07	17.374	C
2	1067.54	1035.56	563.92	0.00	1166.48	0.915	8.00	23.844	C
3	325.99	322.05	1201.38	0.00	653.01	0.499	0.98	10.874	B
4	1056.25	1045.31	364.23	0.00	1431.67	0.738	2.74	9.179	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	735.37	676.40	1120.18	0.00	706.10	1.041	17.81	72.205	F
2	1274.75	1115.57	633.37	0.00	1126.89	1.131	47.79	101.921	F
3	389.26	386.03	1306.80	0.00	598.27	0.651	1.79	16.889	C
4	1261.27	1241.31	430.30	0.00	1392.89	0.906	7.73	21.600	C

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	900.63	649.63	1221.96	0.00	650.97	1.384	80.56	285.938	F
2	1561.25	1139.03	611.14	0.00	1139.56	1.370	153.35	325.018	F
3	476.74	469.58	1314.58	0.00	594.23	0.802	3.58	27.658	D
4	1544.73	1334.08	512.51	0.00	1344.62	1.149	60.39	102.307	F

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	900.63	647.22	1228.55	0.00	647.41	1.391	143.91	633.813	F
2	1561.25	1140.63	609.07	0.00	1140.74	1.369	258.50	655.233	F
3	476.74	475.85	1314.83	0.00	594.10	0.802	3.80	30.205	D
4	1544.73	1339.72	518.67	0.00	1341.01	1.152	111.64	236.832	F

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	735.37	646.64	1229.57	0.00	646.85	1.137	166.09	863.895	F
2	1274.75	1140.51	609.24	0.00	1140.64	1.118	292.06	875.026	F
3	389.26	396.40	1314.45	0.00	594.30	0.655	2.02	18.995	C
4	1261.27	1373.81	441.60	0.00	1386.25	0.910	83.51	255.801	F

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	615.83	653.98	1209.06	0.00	657.96	0.936	156.56	888.301	F
2	1067.54	1132.93	615.88	0.00	1136.86	0.939	275.72	902.222	F
3	325.99	329.03	1311.31	0.00	595.93	0.547	1.26	13.787	B
4	1056.25	1375.99	375.88	0.00	1424.83	0.741	3.57	107.798	F

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, AM	Scenario 2 - 2026 Forecast + Committed + Development	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Waddon Crossroads Roundabout	Roundabout	1,2,3,4			636.06	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Coddimoor Lane (N)	
2	2	A421 (E)	
3	3	Waddon Road	
4	4	A421 (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	2.70	6.70	8.00	42.20	50.00	31.00	
2	3.20	7.70	8.60	43.80	50.00	36.00	
3	2.70	6.10	10.30	27.30	50.00	43.00	
4	3.70	7.60	12.50	38.30	50.00	48.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.542	1312.834
2		(calculated)	(calculated)	0.570	1487.939
3		(calculated)	(calculated)	0.519	1276.838
4		(calculated)	(calculated)	0.587	1645.475

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	653.00	100.000
2	ONE HOUR	✓	1642.00	100.000
3	ONE HOUR	✓	388.00	100.000
4	ONE HOUR	✓	1369.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	176.000	222.000	255.000
	2	181.000	0.000	115.000	1346.000
	3	233.000	132.000	0.000	23.000
	4	274.000	1068.000	27.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.27	0.34	0.39
	2	0.11	0.00	0.07	0.82
	3	0.60	0.34	0.00	0.06
	4	0.20	0.78	0.02	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	1.09	185.48	39.28	F
2	1.51	1308.06	446.72	F
3	0.76	26.15	2.98	D
4	1.13	217.85	97.77	F

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	491.61	485.70	914.03	0.00	817.76	0.601	1.48	10.779	B
2	1236.18	1183.46	374.91	0.00	1274.22	0.970	13.18	30.950	D
3	292.11	288.44	1290.24	0.00	606.87	0.481	0.92	11.307	B
4	1030.65	1020.07	401.80	0.00	1409.62	0.731	2.65	9.112	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	587.03	577.65	1087.92	0.00	723.57	0.811	3.82	23.557	C
2	1476.12	1228.77	445.88	0.00	1233.77	1.196	75.02	139.905	F
3	348.80	346.26	1368.29	0.00	566.34	0.616	1.55	16.343	C
4	1230.70	1212.87	461.19	0.00	1374.75	0.895	7.11	20.510	C

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	718.97	643.05	1200.64	0.00	662.52	1.085	22.80	91.670	F
2	1807.88	1205.10	495.80	0.00	1205.31	1.500	225.71	455.649	F
3	427.20	422.01	1371.82	0.00	564.51	0.757	2.85	24.638	C
4	1507.30	1321.58	529.84	0.00	1334.46	1.130	53.53	93.349	F

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	718.97	653.05	1209.25	0.00	657.86	1.093	39.28	185.480	F
2	1807.88	1201.01	503.27	0.00	1201.05	1.505	377.43	906.449	F
3	427.20	426.67	1371.91	0.00	564.46	0.757	2.98	26.146	D
4	1507.30	1330.36	533.76	0.00	1332.15	1.131	97.77	211.297	F

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	587.03	642.73	1206.63	0.00	659.28	0.890	25.36	183.423	F
2	1476.12	1204.99	496.29	0.00	1205.03	1.225	445.21	1225.941	F
3	348.80	353.89	1371.59	0.00	564.63	0.618	1.71	17.663	C
4	1230.70	1358.04	465.74	0.00	1372.08	0.897	65.93	217.853	F

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	491.61	582.73	1125.60	0.00	703.17	0.699	2.58	48.068	E
2	1236.18	1230.16	450.96	0.00	1230.87	1.004	446.72	1308.057	F
3	292.11	294.48	1371.56	0.00	564.64	0.517	1.11	13.590	B
4	1030.65	1282.00	412.62	0.00	1403.26	0.734	3.10	69.136	F

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, PM	Scenario 2 - 2026 Forecast + Committed + Development	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Waddon Crossroads Roundabout	Roundabout	1,2,3,4			585.19	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Coddimoor Lane (N)	
2	2	A421 (E)	
3	3	Waddon Road	
4	4	A421 (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	2.70	6.70	8.00	42.20	50.00	31.00	
2	3.20	7.70	8.60	43.80	50.00	36.00	
3	2.70	6.10	10.30	27.30	50.00	43.00	
4	3.70	7.60	12.50	38.30	50.00	48.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.542	1312.834
2		(calculated)	(calculated)	0.570	1487.939
3		(calculated)	(calculated)	0.519	1276.838
4		(calculated)	(calculated)	0.587	1645.475

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	866.00	100.000
2	ONE HOUR	✓	1372.00	100.000
3	ONE HOUR	✓	441.00	100.000
4	ONE HOUR	✓	1398.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	122.000	346.000	398.000
	2	165.000	0.000	123.000	1084.000
	3	296.000	132.000	0.000	13.000
	4	280.000	1090.000	28.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.14	0.40	0.46
	2	0.12	0.00	0.09	0.79
	3	0.67	0.30	0.00	0.03
	4	0.20	0.78	0.02	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	1.41	1013.86	188.86	F
2	1.32	735.37	243.54	F
3	0.84	38.16	4.84	E
4	1.19	344.81	135.62	F

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	651.97	637.00	930.14	0.00	809.03	0.806	3.74	19.732	C
2	1032.91	1006.99	568.10	0.00	1164.10	0.887	6.48	20.625	C
3	332.01	327.88	1209.47	0.00	648.81	0.512	1.03	11.203	B
4	1052.49	1040.37	439.31	0.00	1387.59	0.759	3.03	10.158	B

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	778.52	696.66	1100.51	0.00	716.75	1.086	24.21	88.981	F
2	1233.40	1114.44	623.14	0.00	1132.72	1.089	36.22	81.479	F
3	396.45	392.52	1334.71	0.00	583.78	0.679	2.01	18.648	C
4	1256.77	1229.22	514.98	0.00	1343.18	0.936	9.92	27.017	D

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	953.48	677.21	1171.86	0.00	678.11	1.406	93.27	324.340	F
2	1510.60	1140.69	607.59	0.00	1141.58	1.323	128.70	268.187	F
3	485.55	475.86	1349.66	0.00	576.01	0.843	4.44	33.392	D
4	1539.23	1287.24	599.02	0.00	1293.85	1.190	72.92	125.892	F

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	953.48	676.14	1175.23	0.00	676.28	1.410	162.61	691.013	F
2	1510.60	1141.94	606.69	0.00	1142.10	1.323	220.86	556.468	F
3	485.55	483.95	1350.30	0.00	575.68	0.843	4.84	38.162	E
4	1539.23	1288.43	607.01	0.00	1289.15	1.194	135.62	295.711	F

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	778.52	673.54	1180.01	0.00	673.69	1.156	188.86	950.817	F
2	1233.40	1142.70	605.16	0.00	1142.97	1.079	243.54	735.372	F
3	396.45	406.28	1349.81	0.00	575.94	0.688	2.38	22.530	C
4	1256.77	1323.48	531.73	0.00	1333.35	0.943	118.94	344.812	F

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	651.97	664.89	1189.69	0.00	668.45	0.975	185.62	1013.858	F
2	1032.91	1142.02	598.50	0.00	1146.76	0.901	216.26	724.998	F
3	332.01	335.88	1345.21	0.00	578.32	0.574	1.41	15.244	C
4	1052.49	1361.93	463.32	0.00	1373.50	0.766	41.58	214.773	F

Junctions 8	
ARCADY 8 - Roundabout Module	
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2014	
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Filename: Bottle Dump Roundabout.arc8

Path: P:\data\W50---\SW Milton Keynes\ARCADY\Bottle Dump Roundabout

Report generation date: 12/11/2014 14:48:46

- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM
- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

File summary

Title	Bottle Dump Roundabout
Location	Standing Way / Whaddon Road / Buckingham Road
Site Number	
Date	06/11/2014
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	A Lechmere
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, AM	Scenario 1 - 2026 Forecast + Committed	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Bottle Dump Roundabout	Roundabout	1,2,3			6.43	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Standing Way (E)	
2	2	Whaddon Road (S)	
3	3	Buckingham Road (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	7.50	7.50	0.00	45.80	56.00	34.00	
2	3.30	7.40	23.30	61.40	56.00	29.00	
3	5.90	7.40	22.90	42.90	56.00	50.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.691	2303.557
2		(calculated)	(calculated)	0.618	1860.073
3		(calculated)	(calculated)	0.634	2069.771

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	1464.00	100.000
2	ONE HOUR	✓	280.00	100.000
3	ONE HOUR	✓	1246.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
From		1	2	3
	1	0.000	204.000	1260.000
	2	60.000	0.000	220.000
	3	981.000	265.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
From		1	2	3
	1	0.00	0.14	0.86
	2	0.21	0.00	0.79
	3	0.79	0.21	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
From		1	2	3
	1	1.011	1.011	1.011
	2	1.011	1.011	1.011
	3	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To			
		1	2	3
	1	1.1	1.1	1.1
	2	1.1	1.1	1.1
	3	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.77	7.42	3.27	A
2	0.31	5.24	0.45	A
3	0.68	5.54	2.09	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1102.18	1098.02	198.78	0.00	2166.10	0.509	1.04	3.396	A
2	210.80	210.00	945.02	0.00	1276.22	0.165	0.20	3.412	A
3	938.05	934.64	45.00	0.00	2041.25	0.460	0.85	3.280	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1316.11	1313.88	237.91	0.00	2139.04	0.615	1.60	4.399	A
2	251.71	251.40	1130.79	0.00	1161.45	0.217	0.28	3.998	A
3	1120.13	1118.64	53.87	0.00	2035.63	0.550	1.23	3.962	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1611.89	1605.42	291.05	0.00	2102.30	0.767	3.21	7.232	A
2	308.29	307.63	1381.72	0.00	1006.42	0.306	0.44	5.204	A
3	1371.87	1368.47	65.92	0.00	2027.99	0.676	2.08	5.490	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1611.89	1611.68	291.75	0.00	2101.81	0.767	3.27	7.416	A
2	308.29	308.27	1387.10	0.00	1003.10	0.307	0.45	5.237	A
3	1371.87	1371.80	66.06	0.00	2027.90	0.677	2.09	5.545	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1316.11	1322.63	238.95	0.00	2138.33	0.615	1.64	4.498	A
2	251.71	252.37	1138.33	0.00	1156.79	0.218	0.28	4.028	A
3	1120.13	1123.51	54.08	0.00	2035.49	0.550	1.25	4.006	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1102.18	1104.51	199.83	0.00	2165.38	0.509	1.06	3.437	A
2	210.80	211.12	950.60	0.00	1272.77	0.166	0.20	3.428	A
3	938.05	939.59	45.24	0.00	2041.10	0.460	0.87	3.310	A

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, PM	Scenario 1 - 2026 Forecast + Committed	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Bottle Dump Roundabout	Roundabout	1,2,3			6.64	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Standing Way (E)	
2	2	Whaddon Road (S)	
3	3	Buckingham Road (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	7.50	7.50	0.00	45.80	56.00	34.00	
2	3.30	7.40	23.30	61.40	56.00	29.00	
3	5.90	7.40	22.90	42.90	56.00	50.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.691	2303.557
2		(calculated)	(calculated)	0.618	1860.073
3		(calculated)	(calculated)	0.634	2069.771

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	1273.00	100.000
2	ONE HOUR	✓	367.00	100.000
3	ONE HOUR	✓	1382.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
From		1	2	3
	1	0.000	55.000	1218.000
	2	167.000	0.000	200.000
	3	1162.000	220.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

	To			
From		1	2	3
	1	0.00	0.04	0.96
	2	0.46	0.00	0.54
	3	0.84	0.16	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

	To			
From		1	2	3
	1	1.011	1.011	1.011
	2	1.011	1.011	1.011
	3	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To			
From		1	2	3
	1	1.1	1.1	1.1
	2	1.1	1.1	1.1
	3	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.66	4.95	1.91	A
2	0.39	5.80	0.65	A
3	0.78	8.41	3.49	A

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	958.38	955.25	164.93	0.00	2189.51	0.438	0.78	2.941	A
2	276.30	275.21	913.98	0.00	1295.40	0.213	0.27	3.564	A
3	1040.44	1036.05	125.23	0.00	1990.40	0.523	1.10	3.797	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1144.40	1143.04	197.40	0.00	2167.06	0.528	1.12	3.549	A
2	329.93	329.46	1093.66	0.00	1184.39	0.279	0.39	4.255	A
3	1242.39	1240.02	149.92	0.00	1974.75	0.629	1.69	4.938	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1401.60	1398.50	241.12	0.00	2136.83	0.656	1.90	4.909	A
2	404.07	403.06	1338.07	0.00	1033.38	0.391	0.64	5.764	A
3	1521.61	1514.68	183.41	0.00	1953.52	0.779	3.42	8.166	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1401.60	1401.54	242.18	0.00	2136.09	0.656	1.91	4.954	A
2	404.07	404.06	1340.98	0.00	1031.59	0.392	0.65	5.799	A
3	1521.61	1521.34	183.86	0.00	1953.23	0.779	3.49	8.412	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1144.40	1147.49	198.89	0.00	2166.03	0.528	1.14	3.586	A
2	329.93	330.94	1097.91	0.00	1181.76	0.279	0.39	4.284	A
3	1242.39	1249.39	150.59	0.00	1974.32	0.629	1.74	5.067	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	958.38	959.78	166.02	0.00	2188.75	0.438	0.79	2.964	A
2	276.30	276.77	918.31	0.00	1292.72	0.214	0.28	3.586	A
3	1040.44	1042.94	125.94	0.00	1989.95	0.523	1.12	3.853	A

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, AM	Scenario 2 - 2026 Forecast + Committed + Development	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Bottle Dump Roundabout	Roundabout	1,2,3			6.84	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Standing Way (E)	
2	2	Whaddon Road (S)	
3	3	Buckingham Road (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	7.50	7.50	0.00	45.80	56.00	34.00	
2	3.30	7.40	23.30	61.40	56.00	29.00	
3	5.90	7.40	22.90	42.90	56.00	50.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.691	2303.557
2		(calculated)	(calculated)	0.618	1860.073
3		(calculated)	(calculated)	0.634	2069.771

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	1532.00	100.000
2	ONE HOUR	✓	255.00	100.000
3	ONE HOUR	✓	1157.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		1	2	3
From	1	85.000	12.000	1435.000
	2	47.000	0.000	208.000
	3	934.000	223.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.06	0.01	0.94
	2	0.18	0.00	0.82
	3	0.81	0.19	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		1	2	3
From	1	1.011	1.011	1.011
	2	1.011	1.011	1.011
	3	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		1	2	3
From	1	1.1	1.1	1.1
	2	1.1	1.1	1.1
	3	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.79	8.12	3.74	A
2	0.34	6.67	0.52	A
3	0.64	5.17	1.82	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1153.37	1148.90	167.29	0.00	2187.88	0.527	1.12	3.489	A
2	191.98	191.18	1139.90	0.00	1155.82	0.166	0.20	3.769	A
3	871.05	867.97	98.98	0.00	2007.03	0.434	0.77	3.188	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1377.24	1374.74	200.22	0.00	2165.11	0.636	1.74	4.590	A
2	229.24	228.87	1363.97	0.00	1017.39	0.225	0.29	4.613	A
3	1040.12	1038.83	118.46	0.00	1994.69	0.521	1.09	3.802	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1686.76	1679.09	244.98	0.00	2134.16	0.790	3.66	7.866	A
2	280.76	279.89	1665.94	0.00	830.82	0.338	0.51	6.595	A
3	1273.88	1271.05	144.75	0.00	1978.03	0.644	1.80	5.127	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1686.76	1686.47	245.52	0.00	2133.79	0.791	3.74	8.122	A
2	280.76	280.74	1673.26	0.00	826.30	0.340	0.52	6.670	A
3	1273.88	1273.82	145.31	0.00	1977.67	0.644	1.82	5.170	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1377.24	1385.01	201.01	0.00	2164.56	0.636	1.79	4.715	A
2	229.24	230.11	1374.16	0.00	1011.09	0.227	0.30	4.666	A
3	1040.12	1042.93	119.26	0.00	1994.18	0.522	1.11	3.836	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1153.37	1155.99	168.14	0.00	2187.29	0.527	1.14	3.539	A
2	191.98	192.36	1146.94	0.00	1151.47	0.167	0.20	3.798	A
3	871.05	872.38	99.59	0.00	2006.65	0.434	0.78	3.211	A

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, PM	Scenario 2 - 2026 Forecast + Committed + Development	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Bottle Dump Roundabout	Roundabout	1,2,3			6.12	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Standing Way (E)	
2	2	Whaddon Road (S)	
3	3	Buckingham Road (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	7.50	7.50	0.00	45.80	56.00	34.00	
2	3.30	7.40	23.30	61.40	56.00	29.00	
3	5.90	7.40	22.90	42.90	56.00	50.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.691	2303.557
2		(calculated)	(calculated)	0.618	1860.073
3		(calculated)	(calculated)	0.634	2069.771

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	1186.00	100.000
2	ONE HOUR	✓	291.00	100.000
3	ONE HOUR	✓	1396.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
From		1	2	3
	1	1.000	12.000	1173.000
	2	93.000	0.000	198.000
	3	1156.000	240.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
From		1	2	3
	1	0.00	0.01	0.99
	2	0.32	0.00	0.68
	3	0.83	0.17	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

	To			
		1	2	3
From	1	1.011	1.011	1.011
	2	1.011	1.011	1.011
	3	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To			
		1	2	3
From	1	1.1	1.1	1.1
	2	1.1	1.1	1.1
	3	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.62	4.46	1.61	A
2	0.30	4.91	0.44	A
3	0.77	7.78	3.27	A

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	892.88	890.09	179.94	0.00	2179.13	0.410	0.70	2.817	A
2	219.08	218.28	881.08	0.00	1315.72	0.167	0.20	3.315	A
3	1050.98	1046.66	70.51	0.00	2025.08	0.519	1.08	3.703	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1066.19	1065.05	215.37	0.00	2154.63	0.495	0.98	3.337	A
2	261.60	261.30	1054.27	0.00	1208.72	0.216	0.28	3.841	A
3	1254.98	1252.72	84.41	0.00	2016.27	0.622	1.64	4.752	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1305.81	1303.35	263.17	0.00	2121.58	0.615	1.60	4.435	A
2	320.40	319.78	1290.16	0.00	1062.98	0.301	0.43	4.893	A
3	1537.02	1530.75	103.30	0.00	2004.30	0.767	3.21	7.586	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1305.81	1305.77	264.21	0.00	2120.86	0.616	1.61	4.465	A
2	320.40	320.39	1292.55	0.00	1061.51	0.302	0.44	4.910	A
3	1537.02	1536.80	103.49	0.00	2004.17	0.767	3.27	7.777	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1066.19	1068.63	216.84	0.00	2153.62	0.495	1.00	3.363	A
2	261.60	262.22	1057.82	0.00	1206.53	0.217	0.28	3.857	A
3	1254.98	1261.28	84.70	0.00	2016.08	0.622	1.69	4.862	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	892.88	894.05	181.09	0.00	2178.34	0.410	0.71	2.835	A
2	219.08	219.39	885.01	0.00	1313.30	0.167	0.20	3.327	A
3	1050.98	1053.34	70.87	0.00	2024.85	0.519	1.10	3.754	A

Junctions 8	
ARCADY 8 - Roundabout Module	
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2014	
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Filename: Tattenhoe Roundabout.arc8

Path: P:\data\W50---\SW Milton Keynes\ARCADY\Tattenhoe Roundabout

Report generation date: 12/11/2014 15:51:58

- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM
- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM
- » Revised Junction Layout with Buckingham Road Access - Scenario 1 - 2026 Forecast + Committed, AM
- » Revised Junction Layout with Buckingham Road Access - Scenario 1 - 2026 Forecast + Committed, PM
- » Revised Junction Layout with Buckingham Road Access - Scenario 2 - 2026 Forecast + Committed + Development, AM
- » Revised Junction Layout with Buckingham Road Access - Scenario 2 - 2026 Forecast + Committed + Development, PM

File summary

Title	Tattenhoe Roundabout
Location	Snelshall Street / Standing Way / Buckingham Road
Site Number	
Date	06/11/2014
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	A Lechmere
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, AM	Scenario 1 - 2026 Forecast + Committed	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			4.99	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Snelshall Street (N)	
2	2	Standing Way (E)	
3	3	Buckingham Road (S)	
4	4	Standing Way (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.76	7.70	7.70	24.70	56.00	33.00	
2	7.20	8.80	13.00	54.50	56.00	36.00	
3	3.40	7.30	19.60	53.70	56.00	47.00	
4	8.30	9.00	15.90	70.00	56.00	39.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.559	1590.171
2		(calculated)	(calculated)	0.736	2555.050
3		(calculated)	(calculated)	0.572	1702.595
4		(calculated)	(calculated)	0.762	2710.798

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	409.00	100.000
2	ONE HOUR	✓	1153.00	100.000
3	ONE HOUR	✓	486.00	100.000
4	ONE HOUR	✓	1035.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	98.000	156.000	155.000
	2	137.000	0.000	48.000	968.000
	3	113.000	30.000	0.000	343.000
	4	42.000	768.000	225.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.24	0.38	0.38
	2	0.12	0.00	0.04	0.84
	3	0.23	0.06	0.00	0.71
	4	0.04	0.74	0.22	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.47	7.13	0.89	A
2	0.60	4.27	1.50	A
3	0.59	9.72	1.43	A
4	0.46	2.72	0.86	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	307.92	306.47	768.35	0.00	1160.69	0.265	0.36	4.254	A
2	868.04	865.53	402.04	0.00	2259.23	0.384	0.63	2.607	A
3	365.89	364.04	945.64	0.00	1161.89	0.315	0.46	4.552	A
4	779.20	777.43	209.96	0.00	2550.79	0.305	0.44	2.050	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	367.68	367.05	919.03	0.00	1076.47	0.342	0.52	5.126	A
2	1036.52	1035.46	481.25	0.00	2200.94	0.471	0.89	3.120	A
3	436.90	435.92	1131.45	0.00	1055.64	0.414	0.71	5.863	A
4	930.44	929.86	251.30	0.00	2519.28	0.369	0.59	2.290	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	450.32	448.88	1125.15	0.00	961.26	0.468	0.88	7.083	A
2	1269.48	1267.10	588.83	0.00	2121.79	0.598	1.49	4.246	A
3	535.10	532.31	1384.46	0.00	910.97	0.587	1.40	9.542	A
4	1139.56	1138.49	307.18	0.00	2476.69	0.460	0.86	2.717	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	450.32	450.29	1126.33	0.00	960.60	0.469	0.89	7.131	A
2	1269.48	1269.44	590.12	0.00	2120.83	0.599	1.50	4.274	A
3	535.10	535.01	1387.24	0.00	909.39	0.588	1.43	9.715	A
4	1139.56	1139.55	308.26	0.00	2475.87	0.460	0.86	2.723	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	367.68	369.11	920.85	0.00	1075.45	0.342	0.53	5.164	A
2	1036.52	1038.89	483.17	0.00	2199.53	0.471	0.91	3.143	A
3	436.90	439.71	1135.52	0.00	1053.32	0.415	0.72	5.959	A
4	930.44	931.50	252.82	0.00	2518.12	0.370	0.59	2.296	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	307.92	308.56	770.80	0.00	1159.32	0.266	0.37	4.280	A
2	868.04	869.13	404.15	0.00	2257.67	0.384	0.63	2.622	A
3	365.89	366.91	949.88	0.00	1159.46	0.316	0.47	4.599	A
4	779.20	779.80	211.23	0.00	2549.82	0.306	0.45	2.058	A

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, PM	Scenario 1 - 2026 Forecast + Committed	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			4.56	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Snelshall Street (N)	
2	2	Standing Way (E)	
3	3	Buckingham Road (S)	
4	4	Standing Way (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.76	7.70	7.70	24.70	56.00	33.00	
2	7.20	8.80	13.00	54.50	56.00	36.00	
3	3.40	7.30	19.60	53.70	56.00	47.00	
4	8.30	9.00	15.90	70.00	56.00	39.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.559	1590.171
2		(calculated)	(calculated)	0.736	2555.050
3		(calculated)	(calculated)	0.572	1702.595
4		(calculated)	(calculated)	0.762	2710.798

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	166.00	100.000
2	ONE HOUR	✓	1188.00	100.000
3	ONE HOUR	✓	349.00	100.000
4	ONE HOUR	✓	1421.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	67.000	71.000	28.000
	2	115.000	0.000	33.000	1040.000
	3	132.000	33.000	0.000	184.000
	4	64.000	941.000	394.000	22.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.40	0.43	0.17
	2	0.10	0.00	0.03	0.88
	3	0.38	0.09	0.00	0.53
	4	0.05	0.66	0.28	0.02

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To				
		1	2	3	4
From	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.25	6.59	0.33	A
2	0.61	4.39	1.58	A
3	0.41	6.50	0.69	A
4	0.63	3.99	1.73	A

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	124.97	124.40	1043.58	0.00	1006.85	0.124	0.14	4.121	A
2	894.39	891.77	386.53	0.00	2270.64	0.394	0.65	2.635	A
3	262.75	261.60	904.50	0.00	1185.41	0.222	0.29	3.935	A
4	1069.80	1066.90	210.00	0.00	2550.75	0.419	0.73	2.449	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	149.23	148.99	1248.36	0.00	892.38	0.167	0.20	4.895	A
2	1067.99	1066.86	462.47	0.00	2214.76	0.482	0.94	3.168	A
3	313.74	313.25	1082.12	0.00	1083.85	0.289	0.41	4.720	A
4	1277.45	1276.22	251.37	0.00	2519.22	0.507	1.03	2.925	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	182.77	182.25	1527.71	0.00	736.24	0.248	0.33	6.564	A
2	1308.01	1305.46	565.92	0.00	2138.64	0.612	1.57	4.355	A
3	384.26	383.16	1324.12	0.00	945.48	0.406	0.68	6.459	A
4	1564.55	1561.83	307.52	0.00	2476.44	0.632	1.71	3.967	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	182.77	182.76	1530.38	0.00	734.75	0.249	0.33	6.592	A
2	1308.01	1307.97	567.01	0.00	2137.84	0.612	1.58	4.385	A
3	384.26	384.23	1326.69	0.00	944.01	0.407	0.69	6.501	A
4	1564.55	1564.51	308.27	0.00	2475.86	0.632	1.73	3.993	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	149.23	149.74	1252.27	0.00	890.20	0.168	0.20	4.920	A
2	1067.99	1070.53	464.07	0.00	2213.58	0.482	0.95	3.192	A
3	313.74	314.84	1085.87	0.00	1081.71	0.290	0.42	4.754	A
4	1277.45	1280.16	252.48	0.00	2518.38	0.507	1.05	2.945	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	124.97	125.22	1047.71	0.00	1004.54	0.124	0.14	4.139	A
2	894.39	895.54	388.23	0.00	2269.39	0.394	0.66	2.652	A
3	262.75	263.25	908.37	0.00	1183.20	0.222	0.29	3.959	A
4	1069.80	1071.06	211.15	0.00	2549.88	0.420	0.73	2.464	A

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, AM	Scenario 2 - 2026 Forecast + Committed + Development	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			10.15	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Snelshall Street (N)	
2	2	Standing Way (E)	
3	3	Buckingham Road (S)	
4	4	Standing Way (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.76	7.70	7.70	24.70	56.00	33.00	
2	7.20	8.80	13.00	54.50	56.00	36.00	
3	3.40	7.30	19.60	53.70	56.00	47.00	
4	8.30	9.00	15.90	70.00	56.00	39.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.559	1590.171
2		(calculated)	(calculated)	0.736	2555.050
3		(calculated)	(calculated)	0.572	1702.595
4		(calculated)	(calculated)	0.762	2710.798

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	457.00	100.000
2	ONE HOUR	✓	1366.00	100.000
3	ONE HOUR	✓	796.00	100.000
4	ONE HOUR	✓	1059.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	95.000	331.000	31.000
	2	140.000	0.000	316.000	910.000
	3	211.000	267.000	2.000	316.000
	4	40.000	792.000	226.000	1.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.21	0.72	0.07
	2	0.10	0.00	0.23	0.67
	3	0.27	0.34	0.00	0.40
	4	0.04	0.75	0.21	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.63	12.33	1.69	B
2	0.72	6.35	2.62	A
3	0.86	24.18	5.58	C
4	0.53	3.55	1.14	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	344.05	342.10	966.43	0.00	1049.98	0.328	0.49	5.130	A
2	1028.40	1024.95	442.94	0.00	2229.13	0.461	0.86	3.013	A
3	599.27	595.52	811.81	0.00	1238.41	0.484	0.94	5.629	A
4	797.27	795.21	464.16	0.00	2357.06	0.338	0.51	2.327	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	410.83	409.71	1156.16	0.00	943.92	0.435	0.77	6.799	A
2	1228.01	1226.20	530.23	0.00	2164.90	0.567	1.31	3.870	A
3	715.59	712.79	971.23	0.00	1147.26	0.624	1.64	8.321	A
4	952.02	951.21	555.49	0.00	2287.45	0.416	0.72	2.722	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	503.17	499.64	1411.74	0.00	801.07	0.628	1.65	11.937	B
2	1503.99	1498.91	647.52	0.00	2078.60	0.724	2.58	6.224	A
3	876.41	862.29	1187.16	0.00	1023.79	0.856	5.17	20.937	C
4	1165.98	1164.31	673.59	0.00	2197.45	0.531	1.13	3.516	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	503.17	503.00	1417.51	0.00	797.84	0.631	1.69	12.329	B
2	1503.99	1503.84	650.56	0.00	2076.36	0.724	2.62	6.353	A
3	876.41	874.75	1191.17	0.00	1021.49	0.858	5.58	24.179	C
4	1165.98	1165.94	681.62	0.00	2191.33	0.532	1.14	3.548	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	410.83	414.41	1164.69	0.00	939.16	0.437	0.80	6.983	A
2	1228.01	1233.12	534.53	0.00	2161.74	0.568	1.34	3.940	A
3	715.59	731.00	976.87	0.00	1144.03	0.626	1.73	9.125	A
4	952.02	953.68	567.18	0.00	2278.54	0.418	0.73	2.750	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	344.05	345.24	971.52	0.00	1047.13	0.329	0.50	5.195	A
2	1028.40	1030.28	446.07	0.00	2226.83	0.462	0.87	3.045	A
3	599.27	602.34	816.11	0.00	1235.95	0.485	0.96	5.771	A
4	797.27	798.11	468.81	0.00	2353.51	0.339	0.52	2.342	A

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, PM	Scenario 2 - 2026 Forecast + Committed + Development	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			9.10	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Snelshall Street (N)	
2	2	Standing Way (E)	
3	3	Buckingham Road (S)	
4	4	Standing Way (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.76	7.70	7.70	24.70	56.00	33.00	
2	7.20	8.80	13.00	54.50	56.00	36.00	
3	3.40	7.30	19.60	53.70	56.00	47.00	
4	8.30	9.00	15.90	70.00	56.00	39.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.559	1590.171
2		(calculated)	(calculated)	0.736	2555.050
3		(calculated)	(calculated)	0.572	1702.595
4		(calculated)	(calculated)	0.762	2710.798

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	227.00	100.000
2	ONE HOUR	✓	1518.00	100.000
3	ONE HOUR	✓	671.00	100.000
4	ONE HOUR	✓	1352.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	62.000	154.000	11.000
	2	113.000	0.000	361.000	1044.000
	3	201.000	293.000	2.000	175.000
	4	47.000	871.000	414.000	20.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.27	0.68	0.05
	2	0.07	0.00	0.24	0.69
	3	0.30	0.44	0.00	0.26
	4	0.03	0.64	0.31	0.01

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.41	10.23	0.70	B
2	0.81	9.13	4.15	A
3	0.77	16.69	3.31	C
4	0.68	5.11	2.09	A

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	170.90	169.98	1200.33	0.00	919.23	0.186	0.23	4.851	A
2	1142.83	1138.59	450.81	0.00	2223.34	0.514	1.06	3.343	A
3	505.16	502.22	891.06	0.00	1193.09	0.423	0.73	5.246	A
4	1017.86	1014.81	456.00	0.00	2363.28	0.431	0.76	2.694	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	204.07	203.58	1436.09	0.00	787.46	0.259	0.35	6.228	A
2	1364.65	1362.03	539.46	0.00	2158.11	0.632	1.72	4.557	A
3	603.22	601.26	1065.95	0.00	1093.10	0.552	1.22	7.370	A
4	1215.42	1213.95	545.84	0.00	2294.81	0.530	1.13	3.363	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	249.93	248.57	1754.61	0.00	609.41	0.410	0.69	10.048	B
2	1671.35	1662.05	659.50	0.00	2069.78	0.808	4.04	8.732	A
3	738.78	731.04	1300.81	0.00	958.81	0.771	3.16	15.481	C
4	1488.58	1484.83	664.10	0.00	2204.68	0.675	2.07	5.030	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	249.93	249.88	1761.26	0.00	605.70	0.413	0.70	10.225	B
2	1671.35	1670.92	661.64	0.00	2068.21	0.808	4.15	9.134	A
3	738.78	738.18	1307.68	0.00	954.88	0.774	3.31	16.686	C
4	1488.58	1488.47	670.04	0.00	2200.15	0.677	2.09	5.112	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	204.07	205.44	1445.56	0.00	782.16	0.261	0.36	6.324	A
2	1364.65	1374.17	542.51	0.00	2155.87	0.633	1.77	4.710	A
3	603.22	611.33	1075.36	0.00	1087.71	0.555	1.28	7.766	A
4	1215.42	1219.18	554.19	0.00	2288.45	0.531	1.15	3.414	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	170.90	171.40	1206.97	0.00	915.52	0.187	0.23	4.894	A
2	1142.83	1145.58	453.33	0.00	2221.48	0.514	1.08	3.390	A
3	505.16	507.28	896.53	0.00	1189.97	0.425	0.75	5.347	A
4	1017.86	1019.39	460.26	0.00	2360.03	0.431	0.77	2.717	A

Revised Junction Layout with Buckingham Road Access - Scenario 1 - 2026 Forecast + Committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Revised Junction Layout with Buckingham Road Access	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, AM	Scenario 1 - 2026 Forecast + Committed	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			4.27	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Snelshall Street (N)	
2	2	Standing Way (E)	
3	3	Buckingham Road (S)	
4	4	Standing Way (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.76	7.70	7.70	24.70	56.00	33.00	
2	7.20	8.80	13.00	54.50	56.00	36.00	
3	7.30	7.30	0.00	53.70	56.00	47.00	
4	8.30	9.00	15.90	70.00	56.00	39.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.559	1590.171
2		(calculated)	(calculated)	0.736	2555.050
3		(calculated)	(calculated)	0.652	2149.298
4		(calculated)	(calculated)	0.762	2710.798

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	409.00	100.000
2	ONE HOUR	✓	1153.00	100.000
3	ONE HOUR	✓	486.00	100.000
4	ONE HOUR	✓	1035.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	98.000	156.000	155.000
	2	137.000	0.000	48.000	968.000
	3	113.000	30.000	0.000	343.000
	4	42.000	768.000	225.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.24	0.38	0.38
	2	0.12	0.00	0.04	0.84
	3	0.23	0.06	0.00	0.71
	4	0.04	0.74	0.22	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.47	7.13	0.89	A
2	0.60	4.27	1.50	A
3	0.43	5.13	0.76	A
4	0.46	2.72	0.86	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	307.92	306.47	768.39	0.00	1160.67	0.265	0.36	4.254	A
2	868.04	865.53	402.04	0.00	2259.23	0.384	0.63	2.607	A
3	365.89	364.62	945.64	0.00	1532.52	0.239	0.32	3.114	A
4	779.20	777.43	210.13	0.00	2550.66	0.305	0.44	2.051	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	367.68	367.05	919.06	0.00	1076.45	0.342	0.52	5.126	A
2	1036.52	1035.46	481.25	0.00	2200.94	0.471	0.89	3.120	A
3	436.90	436.36	1131.45	0.00	1411.32	0.310	0.45	3.731	A
4	930.44	929.86	251.43	0.00	2519.18	0.369	0.59	2.290	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	450.32	448.88	1125.24	0.00	961.20	0.468	0.88	7.084	A
2	1269.48	1267.10	588.82	0.00	2121.79	0.598	1.49	4.246	A
3	535.10	533.89	1384.46	0.00	1246.30	0.429	0.75	5.101	A
4	1139.56	1138.49	307.65	0.00	2476.34	0.460	0.86	2.717	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	450.32	450.29	1126.33	0.00	960.60	0.469	0.89	7.131	A
2	1269.48	1269.44	590.12	0.00	2120.83	0.599	1.50	4.274	A
3	535.10	535.08	1387.24	0.00	1244.49	0.430	0.76	5.130	A
4	1139.56	1139.55	308.28	0.00	2475.86	0.460	0.86	2.723	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	367.68	369.11	920.75	0.00	1075.51	0.342	0.53	5.164	A
2	1036.52	1038.89	483.17	0.00	2199.53	0.471	0.91	3.141	A
3	436.90	438.11	1135.52	0.00	1408.67	0.310	0.46	3.756	A
4	930.44	931.50	252.35	0.00	2518.48	0.369	0.59	2.296	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	307.92	308.56	770.77	0.00	1159.34	0.266	0.37	4.282	A
2	868.04	869.13	404.15	0.00	2257.67	0.384	0.63	2.622	A
3	365.89	366.44	949.88	0.00	1529.75	0.239	0.32	3.131	A
4	779.20	779.80	211.09	0.00	2549.92	0.306	0.45	2.056	A

Revised Junction Layout with Buckingham Road Access - Scenario 1 - 2026 Forecast + Committed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Revised Junction Layout with Buckingham Road Access	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, PM	Scenario 1 - 2026 Forecast + Committed	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			4.29	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Snelshall Street (N)	
2	2	Standing Way (E)	
3	3	Buckingham Road (S)	
4	4	Standing Way (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.76	7.70	7.70	24.70	56.00	33.00	
2	7.20	8.80	13.00	54.50	56.00	36.00	
3	7.30	7.30	0.00	53.70	56.00	47.00	
4	8.30	9.00	15.90	70.00	56.00	39.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.559	1590.171
2		(calculated)	(calculated)	0.736	2555.050
3		(calculated)	(calculated)	0.652	2149.298
4		(calculated)	(calculated)	0.762	2710.798

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	166.00	100.000
2	ONE HOUR	✓	1188.00	100.000
3	ONE HOUR	✓	349.00	100.000
4	ONE HOUR	✓	1421.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	67.000	71.000	28.000
	2	115.000	0.000	33.000	1040.000
	3	132.000	33.000	0.000	184.000
	4	64.000	941.000	394.000	22.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.40	0.43	0.17
	2	0.10	0.00	0.03	0.88
	3	0.38	0.09	0.00	0.53
	4	0.05	0.66	0.28	0.02

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To			
	1	2	3	4
From	1	1.1	1.1	1.1
	2	1.1	1.1	1.1
	3	1.1	1.1	1.1
	4	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.25	6.59	0.33	A
2	0.61	4.39	1.58	A
3	0.30	4.04	0.43	A
4	0.63	3.99	1.73	A

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	124.97	124.40	1043.61	0.00	1006.83	0.124	0.14	4.122	A
2	894.39	891.77	386.53	0.00	2270.64	0.394	0.65	2.635	A
3	262.75	261.93	904.50	0.00	1559.34	0.169	0.20	2.804	A
4	1069.80	1066.90	210.16	0.00	2550.63	0.419	0.73	2.449	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	149.23	148.99	1248.38	0.00	892.37	0.167	0.20	4.895	A
2	1067.99	1066.86	462.47	0.00	2214.76	0.482	0.94	3.168	A
3	313.74	313.44	1082.12	0.00	1443.50	0.217	0.28	3.220	A
4	1277.45	1276.22	251.46	0.00	2519.16	0.507	1.03	2.925	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	182.77	182.25	1527.76	0.00	736.21	0.248	0.33	6.565	A
2	1308.01	1305.46	565.92	0.00	2138.64	0.612	1.57	4.355	A
3	384.26	383.66	1324.12	0.00	1285.65	0.299	0.43	4.032	A
4	1564.55	1561.82	307.76	0.00	2476.25	0.632	1.71	3.968	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	182.77	182.76	1530.38	0.00	734.75	0.249	0.33	6.592	A
2	1308.01	1307.97	567.01	0.00	2137.84	0.612	1.58	4.385	A
3	384.26	384.25	1326.69	0.00	1283.98	0.299	0.43	4.044	A
4	1564.55	1564.51	308.28	0.00	2475.86	0.632	1.73	3.993	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	149.23	149.74	1252.23	0.00	890.23	0.168	0.20	4.920	A
2	1067.99	1070.53	464.07	0.00	2213.58	0.482	0.95	3.192	A
3	313.74	314.33	1085.87	0.00	1441.05	0.218	0.28	3.231	A
4	1277.45	1280.16	252.24	0.00	2518.56	0.507	1.05	2.944	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	124.97	125.22	1047.69	0.00	1004.55	0.124	0.14	4.141	A
2	894.39	895.54	388.23	0.00	2269.39	0.394	0.66	2.652	A
3	262.75	263.05	908.37	0.00	1556.82	0.169	0.21	2.813	A
4	1069.80	1071.06	211.06	0.00	2549.95	0.420	0.73	2.462	A

Revised Junction Layout with Buckingham Road Access - Scenario 2 - 2026 Forecast + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Revised Junction Layout with Buckingham Road Access	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, AM	Scenario 2 - 2026 Forecast + Committed + Development	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			6.50	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Snelshall Street (N)	
2	2	Standing Way (E)	
3	3	Buckingham Road (S)	
4	4	Standing Way (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.76	7.70	7.70	24.70	56.00	33.00	
2	7.20	8.80	13.00	54.50	56.00	36.00	
3	7.30	7.30	0.00	53.70	56.00	47.00	
4	8.30	9.00	15.90	70.00	56.00	39.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.559	1590.171
2		(calculated)	(calculated)	0.736	2555.050
3		(calculated)	(calculated)	0.652	2149.298
4		(calculated)	(calculated)	0.762	2710.798

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	457.00	100.000
2	ONE HOUR	✓	1366.00	100.000
3	ONE HOUR	✓	796.00	100.000
4	ONE HOUR	✓	1059.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	95.000	331.000	31.000
	2	140.000	0.000	316.000	910.000
	3	211.000	267.000	2.000	316.000
	4	40.000	792.000	226.000	1.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.21	0.72	0.07
	2	0.10	0.00	0.23	0.67
	3	0.27	0.34	0.00	0.40
	4	0.04	0.75	0.21	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.63	12.34	1.70	B
2	0.72	6.35	2.62	A
3	0.64	7.33	1.76	A
4	0.53	3.55	1.15	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	344.05	342.10	966.89	0.00	1049.72	0.328	0.49	5.132	A
2	1028.40	1024.95	442.94	0.00	2229.13	0.461	0.86	3.013	A
3	599.27	596.91	811.81	0.00	1619.81	0.370	0.59	3.551	A
4	797.27	795.21	464.99	0.00	2356.42	0.338	0.51	2.328	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	410.83	409.71	1156.69	0.00	943.63	0.435	0.77	6.803	A
2	1228.01	1226.20	530.23	0.00	2164.90	0.567	1.31	3.870	A
3	715.59	714.36	971.23	0.00	1515.82	0.472	0.90	4.535	A
4	952.02	951.21	556.44	0.00	2286.73	0.416	0.72	2.724	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	503.17	499.60	1415.35	0.00	799.05	0.630	1.66	12.014	B
2	1503.99	1498.91	647.51	0.00	2078.61	0.724	2.58	6.224	A
3	876.41	873.04	1187.16	0.00	1374.99	0.637	1.74	7.202	A
4	1165.98	1164.29	680.08	0.00	2192.50	0.532	1.14	3.533	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	503.17	503.03	1418.06	0.00	797.53	0.631	1.70	12.344	B
2	1503.99	1503.84	650.59	0.00	2076.34	0.724	2.62	6.353	A
3	876.41	876.31	1191.18	0.00	1372.37	0.639	1.76	7.334	A
4	1165.98	1165.96	682.56	0.00	2190.62	0.532	1.15	3.551	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	410.83	414.44	1160.64	0.00	941.42	0.436	0.79	6.954	A
2	1228.01	1233.12	534.52	0.00	2161.74	0.568	1.34	3.941	A
3	715.59	718.98	976.87	0.00	1512.14	0.473	0.92	4.609	A
4	952.02	953.69	559.94	0.00	2284.06	0.417	0.73	2.738	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	344.05	345.23	970.90	0.00	1047.48	0.328	0.50	5.192	A
2	1028.40	1030.28	446.05	0.00	2226.84	0.462	0.87	3.048	A
3	599.27	600.54	816.11	0.00	1617.00	0.371	0.60	3.587	A
4	797.27	798.10	467.73	0.00	2354.34	0.339	0.52	2.339	A

Revised Junction Layout with Buckingham Road Access - Scenario 2 - 2026 Forecast + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Revised Junction Layout with Buckingham Road Access	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, PM	Scenario 2 - 2026 Forecast + Committed + Development	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			7.29	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Snelshall Street (N)	
2	2	Standing Way (E)	
3	3	Buckingham Road (S)	
4	4	Standing Way (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.76	7.70	7.70	24.70	56.00	33.00	
2	7.20	8.80	13.00	54.50	56.00	36.00	
3	7.30	7.30	0.00	53.70	56.00	47.00	
4	8.30	9.00	15.90	70.00	56.00	39.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.559	1590.171
2		(calculated)	(calculated)	0.736	2555.050
3		(calculated)	(calculated)	0.652	2149.298
4		(calculated)	(calculated)	0.762	2710.798

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	227.00	100.000
2	ONE HOUR	✓	1518.00	100.000
3	ONE HOUR	✓	671.00	100.000
4	ONE HOUR	✓	1352.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	62.000	154.000	11.000
	2	113.000	0.000	361.000	1044.000
	3	201.000	293.000	2.000	175.000
	4	47.000	871.000	414.000	20.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.27	0.68	0.05
	2	0.07	0.00	0.24	0.69
	3	0.30	0.44	0.00	0.26
	4	0.03	0.64	0.31	0.01

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.41	10.23	0.70	B
2	0.81	9.13	4.15	A
3	0.57	6.52	1.33	A
4	0.68	5.11	2.10	A

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	170.90	169.98	1200.78	0.00	918.98	0.186	0.23	4.853	A
2	1142.83	1138.59	450.81	0.00	2223.34	0.514	1.06	3.343	A
3	505.16	503.25	891.06	0.00	1568.11	0.322	0.48	3.412	A
4	1017.86	1014.81	456.76	0.00	2362.70	0.431	0.76	2.695	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	204.07	203.58	1436.53	0.00	787.21	0.259	0.35	6.230	A
2	1364.65	1362.03	539.46	0.00	2158.11	0.632	1.72	4.557	A
3	603.22	602.28	1065.95	0.00	1454.04	0.415	0.71	4.269	A
4	1215.42	1213.94	546.59	0.00	2294.23	0.530	1.13	3.364	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	249.93	248.56	1756.94	0.00	608.11	0.411	0.69	10.085	B
2	1671.35	1662.05	659.50	0.00	2069.78	0.808	4.04	8.732	A
3	738.78	736.40	1300.80	0.00	1300.86	0.568	1.31	6.421	A
4	1488.58	1484.80	668.07	0.00	2201.66	0.676	2.08	5.051	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	249.93	249.89	1761.52	0.00	605.55	0.413	0.70	10.228	B
2	1671.35	1670.92	661.66	0.00	2068.20	0.808	4.15	9.135	A
3	738.78	738.71	1307.68	0.00	1296.38	0.570	1.33	6.524	A
4	1488.58	1488.49	670.43	0.00	2199.85	0.677	2.10	5.114	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	204.07	205.44	1443.07	0.00	783.55	0.260	0.36	6.312	A
2	1364.65	1374.17	542.51	0.00	2155.87	0.633	1.77	4.710	A
3	603.22	605.61	1075.36	0.00	1447.90	0.417	0.73	4.334	A
4	1215.42	1219.20	549.96	0.00	2291.67	0.530	1.15	3.404	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	170.90	171.40	1206.46	0.00	915.81	0.187	0.23	4.894	A
2	1142.83	1145.58	453.32	0.00	2221.49	0.514	1.08	3.390	A
3	505.16	506.14	896.53	0.00	1564.54	0.323	0.48	3.443	A
4	1017.86	1019.38	459.41	0.00	2360.68	0.431	0.77	2.718	A

Junctions 8	
ARCADY 8 - Roundabout Module	
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2014	
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Filename: Kingsmead Roundabout.arc8

Path: P:\data\W50---\SW Milton Keynes\ARCADY\Kingsmead Roundabout

Report generation date: 07/11/2014 12:32:11

- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM
- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

File summary

Title	Kingsmead Roundabout
Location	Snelshall Street / Chaffron Way
Site Number	
Date	06/11/2014
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	A Lechmere
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, AM	Scenario 1 - 2026 Forecast + Committed	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			5.17	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Snelshall Street (W)	
2	2	Chaffron Way (N)	
3	3	Snelshall Street (E)	
4	4	Chaffron Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.80	7.20	5.30	39.60	56.00	28.00	
2	3.60	7.30	4.20	31.50	56.00	38.00	
3	3.60	7.40	6.00	20.20	56.00	42.00	
4	3.70	7.30	3.50	34.30	56.00	34.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.558	1535.225
2		(calculated)	(calculated)	0.517	1370.639
3		(calculated)	(calculated)	0.516	1410.669
4		(calculated)	(calculated)	0.524	1384.230

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	264.00	100.000
2	ONE HOUR	✓	323.00	100.000
3	ONE HOUR	✓	135.00	100.000
4	ONE HOUR	✓	701.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	6.000	150.000	108.000
	2	6.000	0.000	157.000	160.000
	3	59.000	24.000	0.000	52.000
	4	437.000	150.000	114.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.02	0.57	0.41
	2	0.02	0.00	0.49	0.50
	3	0.44	0.18	0.00	0.39
	4	0.62	0.21	0.16	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To			
	1	2	3	4
From	1	1.1	1.1	1.1
	2	1.1	1.1	1.1
	3	1.1	1.1	1.1
	4	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.21	3.41	0.27	A
2	0.31	4.53	0.45	A
3	0.12	3.29	0.14	A
4	0.58	6.49	1.38	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	198.75	198.09	215.79	0.00	1414.84	0.140	0.16	2.989	A
2	243.17	242.18	279.00	0.00	1226.39	0.198	0.25	3.694	A
3	101.64	101.29	205.50	0.00	1304.69	0.078	0.09	3.024	A
4	527.75	525.17	66.78	0.00	1349.24	0.391	0.64	4.404	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	237.33	237.16	258.53	0.00	1391.00	0.171	0.21	3.154	A
2	290.37	290.08	334.10	0.00	1197.90	0.242	0.32	4.008	A
3	121.36	121.28	246.10	0.00	1283.75	0.095	0.11	3.130	A
4	630.18	629.22	79.95	0.00	1342.34	0.469	0.89	5.096	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	290.67	290.40	316.35	0.00	1358.75	0.214	0.27	3.406	A
2	355.63	355.14	409.00	0.00	1159.18	0.307	0.44	4.523	A
3	148.64	148.52	301.32	0.00	1255.28	0.118	0.14	3.288	A
4	771.82	769.89	97.91	0.00	1332.93	0.579	1.37	6.442	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	290.67	290.67	317.08	0.00	1358.34	0.214	0.27	3.408	A
2	355.63	355.62	409.57	0.00	1158.88	0.307	0.45	4.530	A
3	148.64	148.64	301.67	0.00	1255.10	0.118	0.14	3.288	A
4	771.82	771.77	97.99	0.00	1332.89	0.579	1.38	6.486	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	237.33	237.59	259.64	0.00	1390.38	0.171	0.21	3.159	A
2	290.37	290.85	334.99	0.00	1197.44	0.242	0.33	4.018	A
3	121.36	121.48	246.68	0.00	1283.46	0.095	0.11	3.131	A
4	630.18	632.08	80.09	0.00	1342.27	0.469	0.90	5.140	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	198.75	198.92	217.21	0.00	1414.05	0.141	0.17	2.997	A
2	243.17	243.47	280.39	0.00	1225.67	0.198	0.25	3.705	A
3	101.64	101.72	206.50	0.00	1304.18	0.078	0.09	3.026	A
4	527.75	528.75	67.06	0.00	1349.09	0.391	0.65	4.443	A

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, PM	Scenario 1 - 2026 Forecast + Committed	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			4.66	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Snelshall Street (W)	
2	2	Chaffron Way (N)	
3	3	Snelshall Street (E)	
4	4	Chaffron Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.80	7.20	5.30	39.60	56.00	28.00	
2	3.60	7.30	4.20	31.50	56.00	38.00	
3	3.60	7.40	6.00	20.20	56.00	42.00	
4	3.70	7.30	3.50	34.30	56.00	34.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.558	1535.225
2		(calculated)	(calculated)	0.517	1370.639
3		(calculated)	(calculated)	0.516	1410.669
4		(calculated)	(calculated)	0.524	1384.230

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	183.00	100.000
2	ONE HOUR	✓	527.00	100.000
3	ONE HOUR	✓	261.00	100.000
4	ONE HOUR	✓	420.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	6.000	39.000	138.000
	2	7.000	0.000	32.000	488.000
	3	60.000	79.000	0.000	122.000
	4	146.000	256.000	18.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.03	0.21	0.75
	2	0.01	0.00	0.06	0.93
	3	0.23	0.30	0.00	0.47
	4	0.35	0.61	0.04	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.15	3.26	0.18	A
2	0.46	5.36	0.86	A
3	0.27	4.76	0.38	A
4	0.36	4.34	0.56	A

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	137.77	137.33	264.69	0.00	1387.57	0.099	0.11	2.911	A
2	396.75	394.98	146.32	0.00	1294.99	0.306	0.44	4.035	A
3	196.49	195.68	474.55	0.00	1165.94	0.169	0.20	3.747	A
4	316.20	314.94	109.46	0.00	1326.88	0.238	0.31	3.591	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	164.51	164.40	317.03	0.00	1358.37	0.121	0.14	3.047	A
2	473.76	473.18	175.18	0.00	1280.07	0.370	0.59	4.508	A
3	234.63	234.38	568.42	0.00	1117.53	0.210	0.27	4.120	A
4	377.57	377.21	131.11	0.00	1315.54	0.287	0.40	3.879	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	201.49	201.32	388.14	0.00	1318.70	0.153	0.18	3.256	A
2	580.24	579.18	214.51	0.00	1259.73	0.461	0.85	5.339	A
3	287.37	286.93	695.82	0.00	1051.83	0.273	0.38	4.756	A
4	462.43	461.83	160.50	0.00	1300.14	0.356	0.55	4.339	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	201.49	201.49	388.65	0.00	1318.41	0.153	0.18	3.257	A
2	580.24	580.22	214.70	0.00	1259.64	0.461	0.86	5.356	A
3	287.37	287.36	696.93	0.00	1051.26	0.273	0.38	4.764	A
4	462.43	462.42	160.75	0.00	1300.01	0.356	0.56	4.345	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	164.51	164.68	317.85	0.00	1357.91	0.121	0.14	3.052	A
2	473.76	474.80	175.49	0.00	1279.91	0.370	0.60	4.526	A
3	234.63	235.07	570.16	0.00	1116.64	0.210	0.27	4.130	A
4	377.57	378.16	131.50	0.00	1315.33	0.287	0.41	3.887	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	137.77	137.88	266.07	0.00	1386.79	0.099	0.11	2.916	A
2	396.75	397.35	146.93	0.00	1294.67	0.306	0.45	4.058	A
3	196.49	196.75	477.20	0.00	1164.58	0.169	0.21	3.763	A
4	316.20	316.56	110.06	0.00	1326.56	0.238	0.32	3.606	A

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, AM	Scenario 2 - 2026 Forecast + Committed + Development	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			5.25	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Snelshall Street (W)	
2	2	Chaffron Way (N)	
3	3	Snelshall Street (E)	
4	4	Chaffron Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.80	7.20	5.30	39.60	56.00	28.00	
2	3.60	7.30	4.20	31.50	56.00	38.00	
3	3.60	7.40	6.00	20.20	56.00	42.00	
4	3.70	7.30	3.50	34.30	56.00	34.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.558	1535.225
2		(calculated)	(calculated)	0.517	1370.639
3		(calculated)	(calculated)	0.516	1410.669
4		(calculated)	(calculated)	0.524	1384.230

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	292.00	100.000
2	ONE HOUR	✓	337.00	100.000
3	ONE HOUR	✓	206.00	100.000
4	ONE HOUR	✓	690.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	6.000	178.000	108.000
	2	6.000	0.000	170.000	161.000
	3	118.000	29.000	0.000	59.000
	4	435.000	149.000	106.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.02	0.61	0.37
	2	0.02	0.00	0.50	0.48
	3	0.57	0.14	0.00	0.29
	4	0.63	0.22	0.15	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.24	3.50	0.31	A
2	0.32	4.69	0.48	A
3	0.18	3.54	0.22	A
4	0.59	6.79	1.42	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	219.83	219.09	212.78	0.00	1416.53	0.155	0.18	3.038	A
2	253.71	252.65	294.00	0.00	1218.64	0.208	0.26	3.765	A
3	155.09	154.54	206.24	0.00	1304.31	0.119	0.14	3.163	A
4	519.47	516.88	114.78	0.00	1324.09	0.392	0.65	4.494	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	262.50	262.31	254.92	0.00	1393.01	0.188	0.23	3.218	A
2	302.96	302.64	352.06	0.00	1188.62	0.255	0.34	4.107	A
3	185.19	185.05	246.99	0.00	1283.30	0.144	0.17	3.313	A
4	620.30	619.30	137.44	0.00	1312.22	0.473	0.90	5.245	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	321.50	321.19	311.91	0.00	1361.23	0.236	0.31	3.499	A
2	371.04	370.50	430.98	0.00	1147.81	0.323	0.48	4.679	A
3	226.81	226.60	302.40	0.00	1254.72	0.181	0.22	3.539	A
4	759.70	757.66	168.30	0.00	1296.05	0.586	1.41	6.734	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	321.50	321.49	312.67	0.00	1360.80	0.236	0.31	3.501	A
2	371.04	371.04	431.59	0.00	1147.50	0.323	0.48	4.687	A
3	226.81	226.81	302.78	0.00	1254.53	0.181	0.22	3.540	A
4	759.70	759.66	168.45	0.00	1295.97	0.586	1.42	6.786	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	262.50	262.81	256.08	0.00	1392.37	0.189	0.24	3.224	A
2	302.96	303.49	353.01	0.00	1188.13	0.255	0.35	4.118	A
3	185.19	185.40	247.60	0.00	1282.98	0.144	0.17	3.315	A
4	620.30	622.31	137.70	0.00	1312.08	0.473	0.92	5.293	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	219.83	220.03	214.21	0.00	1415.73	0.155	0.19	3.043	A
2	253.71	254.03	295.47	0.00	1217.88	0.208	0.27	3.779	A
3	155.09	155.22	207.27	0.00	1303.78	0.119	0.14	3.170	A
4	519.47	520.50	115.29	0.00	1323.82	0.392	0.66	4.536	A

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, PM	Scenario 2 - 2026 Forecast + Committed + Development	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			4.99	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Snelshall Street (W)	
2	2	Chaffron Way (N)	
3	3	Snelshall Street (E)	
4	4	Chaffron Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.80	7.20	5.30	39.60	56.00	28.00	
2	3.60	7.30	4.20	31.50	56.00	38.00	
3	3.60	7.40	6.00	20.20	56.00	42.00	
4	3.70	7.30	3.50	34.30	56.00	34.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.558	1535.225
2		(calculated)	(calculated)	0.517	1370.639
3		(calculated)	(calculated)	0.516	1410.669
4		(calculated)	(calculated)	0.524	1384.230

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	213.00	100.000
2	ONE HOUR	✓	569.00	100.000
3	ONE HOUR	✓	293.00	100.000
4	ONE HOUR	✓	438.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	7.000	74.000	132.000
	2	7.000	0.000	40.000	522.000
	3	67.000	85.000	0.000	141.000
	4	158.000	258.000	22.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.03	0.35	0.62
	2	0.01	0.00	0.07	0.92
	3	0.23	0.29	0.00	0.48
	4	0.36	0.59	0.05	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.18	3.38	0.22	A
2	0.50	5.92	1.02	A
3	0.31	5.11	0.46	A
4	0.37	4.49	0.60	A

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	160.36	159.83	273.66	0.00	1382.56	0.116	0.13	2.974	A
2	428.37	426.36	171.07	0.00	1282.19	0.334	0.50	4.244	A
3	220.59	219.64	495.43	0.00	1155.17	0.191	0.24	3.886	A
4	329.75	328.41	119.19	0.00	1321.78	0.249	0.33	3.659	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	191.48	191.35	327.79	0.00	1352.37	0.142	0.17	3.134	A
2	511.52	510.81	204.82	0.00	1264.75	0.404	0.68	4.824	A
3	263.40	263.09	593.48	0.00	1104.61	0.238	0.31	4.324	A
4	393.75	393.36	142.77	0.00	1309.43	0.301	0.43	3.971	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	234.52	234.31	401.29	0.00	1311.36	0.179	0.22	3.379	A
2	626.48	625.13	250.79	0.00	1240.97	0.505	1.02	5.896	A
3	322.60	322.04	726.39	0.00	1036.07	0.311	0.45	5.089	A
4	482.25	481.59	174.76	0.00	1292.67	0.373	0.60	4.483	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	234.52	234.52	401.86	0.00	1311.04	0.179	0.22	3.380	A
2	626.48	626.45	251.03	0.00	1240.85	0.505	1.02	5.923	A
3	322.60	322.59	727.75	0.00	1035.37	0.312	0.46	5.105	A
4	482.25	482.24	175.06	0.00	1292.51	0.373	0.60	4.491	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	191.48	191.69	328.70	0.00	1351.86	0.142	0.17	3.139	A
2	511.52	512.84	205.20	0.00	1264.55	0.405	0.69	4.851	A
3	263.40	263.95	595.59	0.00	1103.53	0.239	0.32	4.337	A
4	393.75	394.40	143.24	0.00	1309.18	0.301	0.44	3.982	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	160.36	160.49	275.14	0.00	1381.74	0.116	0.13	2.979	A
2	428.37	429.10	171.80	0.00	1281.81	0.334	0.51	4.273	A
3	220.59	220.90	498.40	0.00	1153.65	0.191	0.24	3.904	A
4	329.75	330.15	119.88	0.00	1321.42	0.250	0.34	3.672	A

Junctions 8	
ARCADY 8 - Roundabout Module	
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2014	
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Filename: Westcroft Roundabout.arc8

Path: P:\data\W50---\SW Milton Keynes\ARCADY\Westcroft Roundabout

Report generation date: 07/11/2014 17:30:44

- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM
- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

File summary

Title	Westcroft Roundabout
Location	Tattenhoe Street / Chaffron Way
Site Number	
Date	06/11/2014
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	A Lechmere
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, AM	Scenario 1 - 2026 Forecast + Committed	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			3.64	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Tattenhoe Street (W)	
2	2	Chaffron Way (N)	
3	3	Fulmer Street (E)	
4	4	Tattenhoe Street (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.76	7.70	20.80	85.70	66.00	16.00	
2	3.70	7.90	20.20	31.70	66.00	25.00	
3	3.90	7.10	21.30	47.10	66.00	33.00	
4	3.80	7.80	18.80	87.30	66.00	43.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.602	2044.587
2		(calculated)	(calculated)	0.574	1952.000
3		(calculated)	(calculated)	0.557	1869.056
4		(calculated)	(calculated)	0.549	1858.583

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	171.00	100.000
2	ONE HOUR	✓	582.00	100.000
3	ONE HOUR	✓	714.00	100.000
4	ONE HOUR	✓	288.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	32.000	124.000	15.000
	2	154.000	0.000	170.000	258.000
	3	387.000	289.000	0.000	38.000
	4	8.000	206.000	74.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.19	0.73	0.09
	2	0.26	0.00	0.29	0.44
	3	0.54	0.40	0.00	0.05
	4	0.03	0.72	0.26	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To				
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.11	2.46	0.13	A
2	0.35	3.09	0.55	A
3	0.49	4.43	0.96	A
4	0.23	3.50	0.31	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	128.74	128.42	426.96	0.00	1787.51	0.072	0.08	2.193	A
2	438.16	436.92	159.93	0.00	1860.13	0.236	0.31	2.555	A
3	537.54	535.66	320.56	0.00	1690.64	0.318	0.47	3.145	A
4	216.82	216.15	622.76	0.00	1516.91	0.143	0.17	2.796	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	153.73	153.65	511.05	0.00	1736.88	0.089	0.10	2.298	A
2	523.21	522.85	191.37	0.00	1842.07	0.284	0.40	2.759	A
3	641.87	641.20	383.61	0.00	1655.55	0.388	0.64	3.586	A
4	258.91	258.70	745.43	0.00	1449.61	0.179	0.22	3.055	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	188.27	188.15	625.62	0.00	1667.90	0.113	0.13	2.459	A
2	640.79	640.20	234.33	0.00	1817.39	0.353	0.55	3.090	A
3	786.13	784.84	469.71	0.00	1607.63	0.489	0.96	4.416	A
4	317.09	316.74	912.47	0.00	1357.97	0.234	0.31	3.495	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	188.27	188.27	626.47	0.00	1667.39	0.113	0.13	2.460	A
2	640.79	640.79	234.52	0.00	1817.28	0.353	0.55	3.092	A
3	786.13	786.11	470.13	0.00	1607.39	0.489	0.96	4.431	A
4	317.09	317.09	913.83	0.00	1357.22	0.234	0.31	3.498	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	153.73	153.85	512.37	0.00	1736.09	0.089	0.10	2.301	A
2	523.21	523.79	191.67	0.00	1841.89	0.284	0.40	2.761	A
3	641.87	643.15	384.29	0.00	1655.17	0.388	0.64	3.602	A
4	258.91	259.25	747.51	0.00	1448.47	0.179	0.22	3.060	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	128.74	128.82	428.85	0.00	1786.38	0.072	0.08	2.195	A
2	438.16	438.52	160.47	0.00	1859.81	0.236	0.31	2.562	A
3	537.54	538.22	321.73	0.00	1689.99	0.318	0.47	3.163	A
4	216.82	217.03	625.61	0.00	1515.35	0.143	0.17	2.805	A

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, PM	Scenario 1 - 2026 Forecast + Committed	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			3.48	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Tattenhoe Street (W)	
2	2	Chaffron Way (N)	
3	3	Fulmer Street (E)	
4	4	Tattenhoe Street (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.76	7.70	20.80	85.70	66.00	16.00	
2	3.70	7.90	20.20	31.70	66.00	25.00	
3	3.90	7.10	21.30	47.10	66.00	33.00	
4	3.80	7.80	18.80	87.30	66.00	43.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.602	2044.587
2		(calculated)	(calculated)	0.574	1952.000
3		(calculated)	(calculated)	0.557	1869.056
4		(calculated)	(calculated)	0.549	1858.583

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	352.00	100.000
2	ONE HOUR	✓	748.00	100.000
3	ONE HOUR	✓	421.00	100.000
4	ONE HOUR	✓	330.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	32.000	278.000	42.000
	2	21.000	0.000	186.000	541.000
	3	207.000	146.000	0.000	68.000
	4	8.000	261.000	61.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.09	0.79	0.12
	2	0.03	0.00	0.25	0.72
	3	0.49	0.35	0.00	0.16
	4	0.02	0.79	0.18	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.22	2.70	0.29	A
2	0.48	4.10	0.93	A
3	0.31	3.51	0.45	A
4	0.22	2.87	0.29	A

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	265.00	264.32	351.32	0.00	1833.06	0.145	0.17	2.318	A
2	563.13	561.28	286.09	0.00	1787.65	0.315	0.46	2.964	A
3	316.95	315.97	453.25	0.00	1616.79	0.196	0.25	2.797	A
4	248.44	247.75	280.69	0.00	1704.58	0.146	0.17	2.497	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	316.44	316.26	420.44	0.00	1791.44	0.177	0.22	2.467	A
2	672.44	671.79	342.31	0.00	1755.35	0.383	0.62	3.357	A
3	378.47	378.17	542.48	0.00	1567.13	0.242	0.32	3.061	A
4	296.66	296.48	335.95	0.00	1674.27	0.177	0.22	2.641	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	387.56	387.26	514.82	0.00	1734.61	0.223	0.29	2.701	A
2	823.56	822.34	419.17	0.00	1711.20	0.481	0.93	4.088	A
3	463.53	463.01	664.06	0.00	1499.46	0.309	0.45	3.509	A
4	363.34	363.05	411.31	0.00	1632.92	0.223	0.29	2.866	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	387.56	387.56	515.27	0.00	1734.34	0.223	0.29	2.701	A
2	823.56	823.55	419.49	0.00	1711.02	0.481	0.93	4.100	A
3	463.53	463.52	665.00	0.00	1498.93	0.309	0.45	3.514	A
4	363.34	363.33	411.78	0.00	1632.67	0.223	0.29	2.866	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	316.44	316.73	421.17	0.00	1791.00	0.177	0.22	2.468	A
2	672.44	673.65	342.83	0.00	1755.06	0.383	0.63	3.371	A
3	378.47	378.98	543.93	0.00	1566.32	0.242	0.32	3.068	A
4	296.66	296.94	336.68	0.00	1673.87	0.177	0.22	2.643	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	265.00	265.19	352.62	0.00	1832.28	0.145	0.17	2.322	A
2	563.13	563.79	287.04	0.00	1787.11	0.315	0.47	2.978	A
3	316.95	317.25	455.24	0.00	1615.68	0.196	0.25	2.803	A
4	248.44	248.62	281.84	0.00	1703.95	0.146	0.17	2.500	A

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, AM	Scenario 2 - 2026 Forecast + Committed + Development	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			4.17	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Tattenhoe Street (W)	
2	2	Chaffron Way (N)	
3	3	Fulmer Street (E)	
4	4	Tattenhoe Street (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.76	7.70	20.80	85.70	66.00	16.00	
2	3.70	7.90	20.20	31.70	66.00	25.00	
3	3.90	7.10	21.30	47.10	66.00	33.00	
4	3.80	7.80	18.80	87.30	66.00	43.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.602	2044.587
2		(calculated)	(calculated)	0.574	1952.000
3		(calculated)	(calculated)	0.557	1869.056
4		(calculated)	(calculated)	0.549	1858.583

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	190.00	100.000
2	ONE HOUR	✓	600.00	100.000
3	ONE HOUR	✓	847.00	100.000
4	ONE HOUR	✓	283.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	34.000	141.000	15.000
	2	151.000	0.000	190.000	259.000
	3	449.000	356.000	0.000	42.000
	4	8.000	204.000	71.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.18	0.74	0.08
	2	0.25	0.00	0.32	0.43
	3	0.53	0.42	0.00	0.05
	4	0.03	0.72	0.25	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.13	2.57	0.15	A
2	0.37	3.17	0.58	A
3	0.58	5.38	1.38	A
4	0.24	3.75	0.32	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	143.04	142.69	473.36	0.00	1759.58	0.081	0.09	2.251	A
2	451.71	450.41	170.43	0.00	1854.09	0.244	0.32	2.590	A
3	637.67	635.23	319.05	0.00	1691.48	0.377	0.61	3.439	A
4	213.06	212.37	717.09	0.00	1465.16	0.145	0.17	2.903	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	170.81	170.71	566.63	0.00	1703.42	0.100	0.11	2.374	A
2	539.39	539.01	203.94	0.00	1834.84	0.294	0.42	2.808	A
3	761.44	760.46	381.80	0.00	1656.56	0.460	0.85	4.057	A
4	254.41	254.19	858.40	0.00	1387.63	0.183	0.23	3.210	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	209.19	209.05	693.49	0.00	1627.04	0.129	0.15	2.566	A
2	660.61	659.97	249.72	0.00	1808.55	0.365	0.58	3.167	A
3	932.56	930.48	467.49	0.00	1608.87	0.580	1.38	5.349	A
4	311.59	311.20	1050.43	0.00	1282.27	0.243	0.32	3.745	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	209.19	209.19	694.72	0.00	1626.29	0.129	0.15	2.567	A
2	660.61	660.61	249.93	0.00	1808.42	0.365	0.58	3.170	A
3	932.56	932.53	467.93	0.00	1608.62	0.580	1.38	5.383	A
4	311.59	311.58	1052.54	0.00	1281.12	0.243	0.32	3.753	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	170.81	170.95	568.50	0.00	1702.29	0.100	0.11	2.378	A
2	539.39	540.02	204.28	0.00	1834.65	0.294	0.42	2.814	A
3	761.44	763.50	382.51	0.00	1656.16	0.460	0.87	4.087	A
4	254.41	254.79	861.55	0.00	1385.90	0.184	0.23	3.220	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	143.04	143.14	475.69	0.00	1758.18	0.081	0.09	2.255	A
2	451.71	452.10	171.03	0.00	1853.75	0.244	0.33	2.596	A
3	637.67	638.67	320.23	0.00	1690.82	0.377	0.62	3.464	A
4	213.06	213.28	720.78	0.00	1463.13	0.146	0.17	2.914	A

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, PM	Scenario 2 - 2026 Forecast + Committed + Development	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			3.83	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Tattenhoe Street (W)	
2	2	Chaffron Way (N)	
3	3	Fulmer Street (E)	
4	4	Tattenhoe Street (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.76	7.70	20.80	85.70	66.00	16.00	
2	3.70	7.90	20.20	31.70	66.00	25.00	
3	3.90	7.10	21.30	47.10	66.00	33.00	
4	3.80	7.80	18.80	87.30	66.00	43.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.602	2044.587
2		(calculated)	(calculated)	0.574	1952.000
3		(calculated)	(calculated)	0.557	1869.056
4		(calculated)	(calculated)	0.549	1858.583

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	388.00	100.000
2	ONE HOUR	✓	816.00	100.000
3	ONE HOUR	✓	494.00	100.000
4	ONE HOUR	✓	337.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	30.000	316.000	42.000
	2	20.000	0.000	223.000	573.000
	3	252.000	171.000	0.000	71.000
	4	8.000	267.000	62.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.08	0.81	0.11
	2	0.02	0.00	0.27	0.70
	3	0.51	0.35	0.00	0.14
	4	0.02	0.79	0.18	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.25	2.83	0.34	A
2	0.53	4.62	1.15	A
3	0.37	3.89	0.59	A
4	0.23	2.98	0.31	A

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	292.11	291.34	375.30	0.00	1818.62	0.161	0.19	2.381	A
2	614.33	612.19	315.35	0.00	1770.84	0.347	0.53	3.136	A
3	371.91	370.69	476.43	0.00	1603.89	0.232	0.30	2.948	A
4	253.71	252.99	332.42	0.00	1676.20	0.151	0.18	2.556	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	348.80	348.59	449.16	0.00	1774.15	0.197	0.25	2.552	A
2	733.57	732.76	377.34	0.00	1735.23	0.423	0.74	3.626	A
3	444.10	443.70	570.24	0.00	1551.68	0.286	0.40	3.285	A
4	302.96	302.76	397.89	0.00	1640.29	0.185	0.23	2.720	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	427.20	426.84	549.96	0.00	1713.46	0.249	0.33	2.828	A
2	898.43	896.81	462.05	0.00	1686.57	0.533	1.14	4.599	A
3	543.90	543.18	697.93	0.00	1480.61	0.367	0.58	3.880	A
4	371.04	370.73	487.10	0.00	1591.34	0.233	0.31	2.981	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	427.20	427.19	550.50	0.00	1713.13	0.249	0.34	2.829	A
2	898.43	898.41	462.43	0.00	1686.35	0.533	1.15	4.618	A
3	543.90	543.90	699.13	0.00	1479.94	0.368	0.59	3.888	A
4	371.04	371.04	487.74	0.00	1590.99	0.233	0.31	2.982	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	348.80	349.15	450.04	0.00	1773.62	0.197	0.25	2.555	A
2	733.57	735.17	377.95	0.00	1734.88	0.423	0.75	3.648	A
3	444.10	444.81	572.05	0.00	1550.67	0.286	0.41	3.295	A
4	302.96	303.26	398.90	0.00	1639.73	0.185	0.23	2.723	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	292.11	292.32	376.76	0.00	1817.74	0.161	0.19	2.387	A
2	614.33	615.15	316.43	0.00	1770.22	0.347	0.54	3.152	A
3	371.91	372.31	478.68	0.00	1602.64	0.232	0.31	2.958	A
4	253.71	253.91	333.88	0.00	1675.40	0.151	0.18	2.560	A

Junctions 8	
ARCADY 8 - Roundabout Module	
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2014	
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Filename: Windmill Roundabout.arc8

Path: P:\data\W50---\SW Milton Keynes\ARCADY\Windmill Hill Roundabout

Report generation date: 14/11/2014 10:49:14

- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM
- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

File summary

Title	Windmill Hill Roundabout
Location	Tattenhoe Street / Standing Way
Site Number	5
Date	06/11/2014
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	A Lechmere
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, AM	Scenario 1 - 2026 Forecast + Committed	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Windmill Hill Roundabout	Roundabout	1,2,3,4			4.95	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Tattenhoe Way (W)	
2	2	Standing Way (N)	
3	3	Tattenhoe Way (E)	
4	4	Standing Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.65	7.00	5.80	28.80	56.00	29.00	
2	7.40	9.00	25.00	48.00	56.00	39.00	
3	3.70	7.60	10.00	31.80	56.00	46.00	
4	7.30	9.00	17.50	46.90	56.00	29.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.546	1489.247
2		(calculated)	(calculated)	0.747	2637.437
3		(calculated)	(calculated)	0.548	1585.220
4		(calculated)	(calculated)	0.765	2686.946

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	464.00	100.000
2	ONE HOUR	✓	1198.00	100.000
3	ONE HOUR	✓	437.00	100.000
4	ONE HOUR	✓	866.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	261.000	119.000	84.000
	2	211.000	0.000	69.000	918.000
	3	207.000	124.000	0.000	106.000
	4	47.000	804.000	15.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.56	0.26	0.18
	2	0.18	0.00	0.06	0.77
	3	0.47	0.28	0.00	0.24
	4	0.05	0.93	0.02	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To				
		1	2	3	4
From	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.55	8.84	1.24	A
2	0.54	3.19	1.17	A
3	0.56	9.78	1.29	A
4	0.43	2.85	0.75	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	349.32	347.46	708.00	0.00	1102.60	0.317	0.47	4.808	A
2	901.92	899.67	163.28	0.00	2515.44	0.359	0.56	2.250	A
3	329.00	327.25	910.75	0.00	1085.97	0.303	0.44	4.786	A
4	651.97	650.45	406.33	0.00	2375.94	0.274	0.38	2.107	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	417.13	416.25	846.99	0.00	1026.70	0.406	0.68	5.953	A
2	1076.98	1076.16	195.59	0.00	2491.31	0.432	0.77	2.570	A
3	392.85	391.96	1089.54	0.00	987.97	0.398	0.66	6.098	A
4	778.52	778.00	486.42	0.00	2314.64	0.336	0.51	2.368	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	510.87	508.70	1036.66	0.00	923.12	0.553	1.23	8.737	A
2	1319.02	1317.44	239.06	0.00	2458.83	0.536	1.16	3.184	A
3	481.15	478.69	1333.66	0.00	854.15	0.563	1.27	9.631	A
4	953.48	952.53	594.62	0.00	2231.83	0.427	0.75	2.844	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	510.87	510.81	1038.23	0.00	922.26	0.554	1.24	8.843	A
2	1319.02	1319.00	240.00	0.00	2458.12	0.537	1.17	3.194	A
3	481.15	481.08	1335.51	0.00	853.13	0.564	1.29	9.778	A
4	953.48	953.47	596.70	0.00	2230.23	0.428	0.75	2.850	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	417.13	419.29	849.33	0.00	1025.42	0.407	0.70	6.027	A
2	1076.98	1078.54	196.94	0.00	2490.29	0.432	0.77	2.580	A
3	392.85	395.31	1092.33	0.00	986.44	0.398	0.68	6.183	A
4	778.52	779.47	489.38	0.00	2312.37	0.337	0.52	2.375	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	349.32	350.23	710.70	0.00	1101.13	0.317	0.47	4.852	A
2	901.92	902.74	164.53	0.00	2514.51	0.359	0.57	2.260	A
3	329.00	329.93	914.15	0.00	1084.11	0.303	0.44	4.833	A
4	651.97	652.49	408.90	0.00	2373.98	0.275	0.38	2.114	A

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, PM	Scenario 1 - 2026 Forecast + Committed	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Windmill Hill Roundabout	Roundabout	1,2,3,4			4.84	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Tattenhoe Way (W)	
2	2	Standing Way (N)	
3	3	Tattenhoe Way (E)	
4	4	Standing Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.65	7.00	5.80	28.80	56.00	29.00	
2	7.40	9.00	25.00	48.00	56.00	39.00	
3	3.70	7.60	10.00	31.80	56.00	46.00	
4	7.30	9.00	17.50	46.90	56.00	29.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.546	1489.247
2		(calculated)	(calculated)	0.747	2637.437
3		(calculated)	(calculated)	0.548	1585.220
4		(calculated)	(calculated)	0.765	2686.946

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	453.00	100.000
2	ONE HOUR	✓	1455.00	100.000
3	ONE HOUR	✓	237.00	100.000
4	ONE HOUR	✓	984.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	297.000	127.000	29.000
	2	254.000	0.000	108.000	1093.000
	3	104.000	106.000	0.000	27.000
	4	115.000	775.000	94.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.66	0.28	0.06
	2	0.17	0.00	0.07	0.75
	3	0.44	0.45	0.00	0.11
	4	0.12	0.79	0.10	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.55	9.00	1.23	A
2	0.66	4.39	1.94	A
3	0.35	7.37	0.53	A
4	0.47	3.00	0.90	A

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	341.04	339.21	732.08	0.00	1089.45	0.313	0.46	4.839	A
2	1095.40	1092.26	187.41	0.00	2497.41	0.439	0.79	2.585	A
3	178.43	177.57	1032.90	0.00	1019.02	0.175	0.21	4.321	A
4	740.81	739.03	348.02	0.00	2420.57	0.306	0.44	2.163	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	407.24	406.37	875.79	0.00	1010.97	0.403	0.67	6.011	A
2	1308.02	1306.64	224.39	0.00	2469.79	0.530	1.13	3.124	A
3	213.06	212.68	1235.67	0.00	907.87	0.235	0.31	5.233	A
4	884.60	883.97	416.55	0.00	2368.12	0.374	0.60	2.450	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	498.76	496.59	1072.06	0.00	903.79	0.552	1.22	8.890	A
2	1601.98	1598.81	274.39	0.00	2432.42	0.659	1.92	4.349	A
3	260.94	260.07	1511.93	0.00	756.43	0.345	0.53	7.318	A
4	1083.40	1082.22	509.55	0.00	2296.94	0.472	0.90	2.993	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	498.76	498.70	1073.48	0.00	903.01	0.552	1.23	8.999	A
2	1601.98	1601.93	275.23	0.00	2431.80	0.659	1.94	4.385	A
3	260.94	260.92	1514.95	0.00	754.77	0.346	0.53	7.369	A
4	1083.40	1083.39	510.85	0.00	2295.94	0.472	0.90	3.000	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	407.24	409.41	877.93	0.00	1009.80	0.403	0.69	6.085	A
2	1308.02	1311.18	225.60	0.00	2468.88	0.530	1.15	3.151	A
3	213.06	213.93	1240.06	0.00	905.46	0.235	0.31	5.269	A
4	884.60	885.77	418.45	0.00	2366.67	0.374	0.61	2.459	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	341.04	341.94	734.76	0.00	1087.99	0.313	0.47	4.884	A
2	1095.40	1096.81	188.58	0.00	2496.54	0.439	0.79	2.604	A
3	178.43	178.81	1037.29	0.00	1016.61	0.176	0.22	4.345	A
4	740.81	741.44	349.91	0.00	2419.12	0.306	0.45	2.171	A

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, AM	Scenario 2 - 2026 Forecast + Committed + Development	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Windmill Hill Roundabout	Roundabout	1,2,3,4			6.83	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Tattenhoe Way (W)	
2	2	Standing Way (N)	
3	3	Tattenhoe Way (E)	
4	4	Standing Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.65	7.00	5.80	28.80	56.00	29.00	
2	7.40	9.00	25.00	48.00	56.00	39.00	
3	3.70	7.60	10.00	31.80	56.00	46.00	
4	7.30	9.00	17.50	46.90	56.00	29.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.546	1489.247
2		(calculated)	(calculated)	0.747	2637.437
3		(calculated)	(calculated)	0.548	1585.220
4		(calculated)	(calculated)	0.765	2686.946

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	499.00	100.000
2	ONE HOUR	✓	1321.00	100.000
3	ONE HOUR	✓	478.00	100.000
4	ONE HOUR	✓	1142.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	246.000	120.000	133.000
	2	192.000	0.000	68.000	1061.000
	3	260.000	108.000	0.000	110.000
	4	159.000	968.000	15.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.49	0.24	0.27
	2	0.15	0.00	0.05	0.80
	3	0.54	0.23	0.00	0.23
	4	0.14	0.85	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.66	12.79	1.91	B
2	0.60	3.78	1.52	A
3	0.70	16.28	2.32	C
4	0.57	3.80	1.32	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	375.67	373.41	818.89	0.00	1042.05	0.361	0.56	5.424	A
2	994.52	991.84	200.59	0.00	2487.57	0.400	0.67	2.429	A
3	359.86	357.66	1040.31	0.00	1014.95	0.355	0.55	5.520	A
4	859.76	857.46	419.51	0.00	2365.85	0.363	0.57	2.410	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	448.59	447.31	979.66	0.00	954.24	0.470	0.88	7.163	A
2	1187.55	1186.48	240.27	0.00	2457.92	0.483	0.94	2.859	A
3	429.71	428.30	1244.62	0.00	902.95	0.476	0.90	7.645	A
4	1026.63	1025.70	502.18	0.00	2302.58	0.446	0.81	2.849	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	549.41	545.46	1198.27	0.00	834.86	0.658	1.87	12.408	B
2	1454.45	1452.17	293.04	0.00	2418.49	0.601	1.51	3.756	A
3	526.29	520.92	1522.80	0.00	750.47	0.701	2.25	15.507	C
4	1257.37	1255.36	612.11	0.00	2218.44	0.567	1.31	3.771	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	549.41	549.24	1201.11	0.00	833.31	0.659	1.91	12.791	B
2	1454.45	1454.41	294.99	0.00	2417.04	0.602	1.52	3.780	A
3	526.29	526.00	1525.93	0.00	748.75	0.703	2.32	16.285	C
4	1257.37	1257.33	616.34	0.00	2215.20	0.568	1.32	3.798	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	448.59	452.59	983.75	0.00	952.01	0.471	0.91	7.346	A
2	1187.55	1189.82	242.98	0.00	2455.89	0.484	0.95	2.879	A
3	429.71	435.24	1249.20	0.00	900.44	0.477	0.94	7.913	A
4	1026.63	1028.63	508.01	0.00	2298.12	0.447	0.82	2.870	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	375.67	377.02	822.53	0.00	1040.06	0.361	0.58	5.499	A
2	994.52	995.62	202.46	0.00	2486.17	0.400	0.68	2.443	A
3	359.86	361.36	1044.86	0.00	1012.46	0.355	0.56	5.604	A
4	859.76	860.72	422.91	0.00	2363.25	0.364	0.58	2.423	A

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, PM	Scenario 2 - 2026 Forecast + Committed + Development	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Windmill Hill Roundabout	Roundabout	1,2,3,4			7.92	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Tattenhoe Way (W)	
2	2	Standing Way (N)	
3	3	Tattenhoe Way (E)	
4	4	Standing Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.65	7.00	5.80	28.80	56.00	29.00	
2	7.40	9.00	25.00	48.00	56.00	39.00	
3	3.70	7.60	10.00	31.80	56.00	46.00	
4	7.30	9.00	17.50	46.90	56.00	29.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.546	1489.247
2		(calculated)	(calculated)	0.747	2637.437
3		(calculated)	(calculated)	0.548	1585.220
4		(calculated)	(calculated)	0.765	2686.946

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	528.00	100.000
2	ONE HOUR	✓	1678.00	100.000
3	ONE HOUR	✓	302.00	100.000
4	ONE HOUR	✓	1158.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	293.000	128.000	107.000
	2	243.000	0.000	104.000	1331.000
	3	161.000	106.000	0.000	35.000
	4	132.000	932.000	94.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.55	0.24	0.20
	2	0.14	0.00	0.06	0.79
	3	0.53	0.35	0.00	0.12
	4	0.11	0.80	0.08	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.72	15.93	2.50	C
2	0.78	7.00	3.53	A
3	0.58	15.24	1.38	C
4	0.56	3.70	1.31	A

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	397.51	394.97	849.71	0.00	1025.21	0.388	0.63	5.752	A
2	1263.29	1259.02	246.37	0.00	2453.36	0.515	1.07	3.036	A
3	227.36	225.99	1261.03	0.00	893.96	0.254	0.34	5.438	A
4	871.80	869.50	382.13	0.00	2394.47	0.364	0.58	2.384	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	474.66	473.09	1016.52	0.00	934.11	0.508	1.03	7.867	A
2	1508.49	1506.11	294.99	0.00	2417.04	0.624	1.66	3.985	A
3	271.49	270.63	1508.64	0.00	758.23	0.358	0.56	7.450	A
4	1041.02	1040.09	457.38	0.00	2336.87	0.445	0.81	2.805	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	581.34	575.74	1243.53	0.00	810.14	0.718	2.43	15.176	C
2	1847.51	1840.28	359.59	0.00	2368.77	0.780	3.47	6.795	A
3	332.51	329.39	1842.90	0.00	575.00	0.578	1.34	14.639	B
4	1274.98	1273.03	557.72	0.00	2260.07	0.564	1.30	3.679	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	581.34	581.02	1246.26	0.00	808.65	0.719	2.50	15.933	C
2	1847.51	1847.25	362.09	0.00	2366.90	0.781	3.53	6.995	A
3	332.51	332.34	1850.51	0.00	570.83	0.583	1.38	15.238	C
4	1274.98	1274.95	561.33	0.00	2257.30	0.565	1.31	3.704	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	474.66	480.41	1020.49	0.00	931.95	0.509	1.07	8.159	A
2	1508.49	1515.80	298.48	0.00	2414.43	0.625	1.70	4.083	A
3	271.49	274.69	1519.21	0.00	752.43	0.361	0.58	7.666	A
4	1041.02	1042.96	462.37	0.00	2333.05	0.446	0.82	2.827	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	397.51	399.18	853.39	0.00	1023.20	0.388	0.65	5.849	A
2	1263.29	1265.77	248.51	0.00	2451.76	0.515	1.08	3.074	A
3	227.36	228.28	1268.21	0.00	890.02	0.255	0.35	5.506	A
4	871.80	872.75	385.12	0.00	2392.17	0.364	0.58	2.398	A

Junctions 8	
ARCADY 8 - Roundabout Module	
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2014	
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Filename: Emerson Roundabout.arc8

Path: P:\data\W50---\SW Milton Keynes\ARCADY\Emerson Roundabout

Report generation date: 12/11/2014 14:41:32

- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM
- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

File summary

Title	Emerson Roundabout
Location	Fulmer Street / Standing Way / Shenley Road
Site Number	
Date	06/11/2014
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	A Lechmere
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, AM	Scenario 1 - 2026 Forecast + Committed	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			524.83	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Fulmer Street	
2	2	Standing Way (N)	
3	3	Shenley Way	
4	4	Standing Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.00	7.80	6.80	65.50	56.00	24.00	
2	7.40	9.30	24.90	59.20	56.00	23.00	
3	3.70	7.90	1.90	41.80	56.00	31.00	
4	7.50	10.60	9.00	31.00	56.00	24.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.545	1429.551
2		(calculated)	(calculated)	0.803	2858.202
3		(calculated)	(calculated)	0.514	1306.897
4		(calculated)	(calculated)	0.792	2823.113

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	380.00	100.000
2	ONE HOUR	✓	1280.00	100.000
3	ONE HOUR	✓	1144.00	100.000
4	ONE HOUR	✓	1511.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	15.000	318.000	47.000
	2	124.000	0.000	186.000	970.000
	3	343.000	621.000	0.000	180.000
	4	5.000	1298.000	208.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.04	0.84	0.12
	2	0.10	0.00	0.15	0.76
	3	0.30	0.54	0.00	0.16
	4	0.00	0.86	0.14	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To				
		1	2	3	4
From	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	1.28	397.70	49.29	F
2	0.58	3.59	1.40	A
3	1.89	1835.56	437.30	F
4	0.73	5.99	2.74	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	286.08	282.18	1567.46	0.00	574.85	0.498	0.97	12.280	B
2	963.65	961.15	427.05	0.00	2515.23	0.383	0.63	2.337	A
3	861.26	806.70	856.38	0.00	866.49	0.994	13.64	44.224	E
4	1137.56	1133.31	772.88	0.00	2211.19	0.514	1.06	3.365	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	341.61	335.23	1774.09	0.00	462.18	0.739	2.57	27.404	D
2	1150.69	1149.63	508.70	0.00	2449.66	0.470	0.89	2.796	A
3	1028.43	777.95	1024.04	0.00	780.27	1.318	76.26	229.539	F
4	1358.36	1356.28	766.91	0.00	2215.92	0.613	1.58	4.223	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	418.39	322.67	2016.11	0.00	330.21	1.267	26.50	186.143	F
2	1409.31	1407.31	538.32	0.00	2425.87	0.581	1.39	3.565	A
3	1259.57	667.73	1242.72	0.00	667.81	1.886	224.22	814.922	F
4	1663.64	1659.13	699.00	0.00	2269.68	0.733	2.71	5.918	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	418.39	327.21	2019.90	0.00	328.14	1.275	49.29	397.698	F
2	1409.31	1409.26	543.29	0.00	2421.88	0.582	1.40	3.593	A
3	1259.57	666.65	1244.95	0.00	666.67	1.889	372.45	1617.965	F
4	1663.64	1663.52	698.28	0.00	2270.26	0.733	2.74	5.993	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	341.61	451.21	1777.24	0.00	460.46	0.742	21.90	285.331	F
2	1150.69	1152.42	621.00	0.00	2359.47	0.488	0.97	3.021	A
3	1028.43	771.66	1040.76	0.00	771.67	1.333	436.64	1791.878	F
4	1358.36	1362.87	761.88	0.00	2219.90	0.612	1.61	4.270	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	286.08	369.20	1601.88	0.00	556.08	0.514	1.12	29.536	D
2	963.65	964.89	511.49	0.00	2447.42	0.394	0.66	2.458	A
3	861.26	858.65	870.34	0.00	859.32	1.002	437.30	1835.558	F
4	1137.56	1139.55	817.02	0.00	2176.25	0.523	1.12	3.519	A

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, PM	Scenario 1 - 2026 Forecast + Committed	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			778.94	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Fulmer Street	
2	2	Standing Way (N)	
3	3	Shenley Way	
4	4	Standing Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.00	7.80	6.80	65.50	56.00	24.00	
2	7.40	9.30	24.90	59.20	56.00	23.00	
3	3.70	7.90	1.90	41.80	56.00	31.00	
4	7.50	10.60	9.00	31.00	56.00	24.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.545	1429.551
2		(calculated)	(calculated)	0.803	2858.202
3		(calculated)	(calculated)	0.514	1306.897
4		(calculated)	(calculated)	0.792	2823.113

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	671.00	100.000
2	ONE HOUR	✓	1995.00	100.000
3	ONE HOUR	✓	1035.00	100.000
4	ONE HOUR	✓	1146.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	205.000	408.000	58.000
	2	307.000	17.000	391.000	1280.000
	3	510.000	408.000	0.000	117.000
	4	0.000	1002.000	144.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.31	0.61	0.09
	2	0.15	0.01	0.20	0.64
	3	0.49	0.39	0.00	0.11
	4	0.00	0.87	0.13	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	1.14	233.54	51.92	F
2	0.93	19.47	11.19	C
3	3.06	3454.94	644.94	F
4	0.55	3.58	1.25	A

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	505.16	498.78	1127.73	0.00	814.62	0.620	1.60	11.308	B
2	1501.94	1495.88	454.47	0.00	2493.21	0.602	1.52	3.627	A
3	779.20	646.52	1245.81	0.00	666.23	1.170	33.17	108.734	F
4	862.77	860.13	816.37	0.00	2176.76	0.396	0.66	2.758	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	603.22	594.27	1257.80	0.00	743.70	0.811	3.83	23.073	C
2	1793.46	1788.28	542.05	0.00	2422.87	0.740	2.81	5.689	A
3	930.44	540.80	1489.16	0.00	541.08	1.720	130.58	660.929	F
4	1030.23	1029.37	770.10	0.00	2213.40	0.465	0.87	3.073	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	738.78	636.33	1429.44	0.00	650.11	1.136	29.45	110.893	F
2	2196.54	2167.86	600.28	0.00	2376.11	0.924	9.98	15.697	C
3	1139.56	382.25	1797.99	0.00	382.26	2.981	319.91	2108.206	F
4	1261.77	1260.28	691.11	0.00	2275.93	0.554	1.25	3.579	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	738.78	648.90	1427.02	0.00	651.42	1.134	51.92	233.538	F
2	2196.54	2191.69	609.20	0.00	2368.95	0.927	11.19	19.468	C
3	1139.56	371.85	1818.23	0.00	371.85	3.065	511.83	2863.048	F
4	1261.77	1261.76	685.76	0.00	2280.17	0.553	1.25	3.572	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	603.22	732.49	1252.20	0.00	746.75	0.808	19.60	180.246	F
2	1793.46	1824.69	638.34	0.00	2345.54	0.765	3.39	7.382	A
3	930.44	519.88	1530.38	0.00	519.88	1.790	614.48	3278.683	F
4	1030.23	1031.71	757.45	0.00	2223.41	0.463	0.88	3.057	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	505.16	576.58	1135.57	0.00	810.35	0.623	1.75	20.533	C
2	1501.94	1509.01	508.94	0.00	2449.47	0.613	1.62	3.898	A
3	779.20	657.33	1263.09	0.00	657.34	1.185	644.94	3454.937	F
4	862.77	863.59	828.09	0.00	2167.48	0.398	0.67	2.792	A

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, AM	Scenario 2 - 2026 Forecast + Committed + Development	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			527.56	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Fulmer Street	
2	2	Standing Way (N)	
3	3	Shenley Way	
4	4	Standing Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.00	7.80	6.80	65.50	56.00	24.00	
2	7.40	9.30	24.90	59.20	56.00	23.00	
3	3.70	7.90	1.90	41.80	56.00	31.00	
4	7.50	10.60	9.00	31.00	56.00	24.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.545	1429.551
2		(calculated)	(calculated)	0.803	2858.202
3		(calculated)	(calculated)	0.514	1306.897
4		(calculated)	(calculated)	0.792	2823.113

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	386.00	100.000
2	ONE HOUR	✓	1398.00	100.000
3	ONE HOUR	✓	1090.00	100.000
4	ONE HOUR	✓	1614.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	34.000	294.000	58.000
	2	124.000	0.000	211.000	1063.000
	3	339.000	552.000	0.000	199.000
	4	6.000	1401.000	201.000	6.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.09	0.76	0.15
	2	0.09	0.00	0.15	0.76
	3	0.31	0.51	0.00	0.18
	4	0.00	0.87	0.12	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	1.43	560.65	68.00	F
2	0.63	3.96	1.68	A
3	1.97	1958.67	439.99	F
4	0.77	6.68	3.25	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	290.60	286.37	1594.17	0.00	560.28	0.519	1.06	13.097	B
2	1052.49	1049.61	416.39	0.00	2523.80	0.417	0.72	2.465	A
3	820.61	766.67	938.72	0.00	824.15	0.996	13.48	46.093	E
4	1215.10	1210.41	719.80	0.00	2253.22	0.539	1.17	3.474	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	347.01	338.57	1811.65	0.00	441.69	0.786	3.17	32.944	D
2	1256.77	1255.46	494.53	0.00	2461.04	0.511	1.05	3.016	A
3	979.89	727.68	1122.23	0.00	729.78	1.343	76.54	247.519	F
4	1450.95	1448.53	706.18	0.00	2264.00	0.641	1.78	4.449	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	424.99	294.78	2073.50	0.00	298.92	1.422	35.72	261.801	F
2	1539.23	1536.73	495.99	0.00	2459.87	0.626	1.67	3.933	A
3	1200.11	609.66	1355.67	0.00	609.73	1.968	224.15	889.173	F
4	1777.05	1771.34	634.66	0.00	2320.63	0.766	3.21	6.558	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	424.99	295.86	2078.45	0.00	296.21	1.435	68.00	560.650	F
2	1539.23	1539.18	497.68	0.00	2458.51	0.626	1.68	3.958	A
3	1200.11	608.55	1357.93	0.00	608.57	1.972	372.04	1770.888	F
4	1777.05	1776.87	633.97	0.00	2321.17	0.766	3.25	6.680	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	347.01	432.69	1816.37	0.00	439.12	0.790	46.58	458.860	F
2	1256.77	1258.99	581.40	0.00	2391.27	0.526	1.13	3.219	A
3	979.89	720.93	1139.40	0.00	720.95	1.359	436.78	1904.377	F
4	1450.95	1456.69	700.98	0.00	2268.12	0.640	1.82	4.516	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	290.60	471.82	1622.02	0.00	545.09	0.533	1.28	127.750	F
2	1052.49	1053.79	586.41	0.00	2387.25	0.441	0.80	2.731	A
3	820.61	807.76	970.17	0.00	807.98	1.016	439.99	1958.675	F
4	1215.10	1217.48	753.76	0.00	2226.33	0.546	1.23	3.615	A

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, PM	Scenario 2 - 2026 Forecast + Committed + Development	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			966.45	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Fulmer Street	
2	2	Standing Way (N)	
3	3	Shenley Way	
4	4	Standing Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.00	7.80	6.80	65.50	56.00	24.00	
2	7.40	9.30	24.90	59.20	56.00	23.00	
3	3.70	7.90	1.90	41.80	56.00	31.00	
4	7.50	10.60	9.00	31.00	56.00	24.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.545	1429.551
2		(calculated)	(calculated)	0.803	2858.202
3		(calculated)	(calculated)	0.514	1306.897
4		(calculated)	(calculated)	0.792	2823.113

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	651.00	100.000
2	ONE HOUR	✓	2148.00	100.000
3	ONE HOUR	✓	1021.00	100.000
4	ONE HOUR	✓	1284.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	194.000	391.000	66.000
	2	296.000	17.000	372.000	1463.000
	3	477.000	395.000	0.000	149.000
	4	0.000	1129.000	155.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.30	0.60	0.10
	2	0.14	0.01	0.17	0.68
	3	0.47	0.39	0.00	0.15
	4	0.00	0.88	0.12	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	1.22	335.43	71.25	F
2	0.99	43.90	28.35	E
3	3.97	4520.26	751.06	F
4	0.60	3.85	1.50	A

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	490.11	483.38	1202.45	0.00	773.88	0.633	1.68	12.263	B
2	1617.13	1609.75	455.65	0.00	2492.26	0.649	1.84	4.091	A
3	768.66	584.41	1379.97	0.00	597.23	1.287	46.06	163.253	F
4	966.66	963.61	733.69	0.00	2242.22	0.431	0.76	2.839	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	585.24	573.96	1346.11	0.00	695.54	0.841	4.50	27.672	D
2	1931.01	1923.10	542.13	0.00	2422.81	0.797	3.82	7.171	A
3	917.86	459.16	1648.23	0.00	459.28	1.998	160.74	1069.597	F
4	1154.29	1153.26	672.38	0.00	2290.77	0.504	1.02	3.196	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	716.76	578.73	1546.05	0.00	586.52	1.222	39.01	152.011	F
2	2364.99	2296.92	576.69	0.00	2395.06	0.987	20.84	26.971	D
3	1124.14	300.07	1957.80	0.00	300.08	3.746	366.76	3177.977	F
4	1413.71	1411.78	590.98	0.00	2355.21	0.600	1.50	3.850	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	716.76	587.83	1541.84	0.00	588.82	1.217	71.25	335.430	F
2	2364.99	2334.94	583.31	0.00	2389.74	0.990	28.35	43.896	E
3	1124.14	283.43	1990.16	0.00	283.44	3.966	576.93	3659.207	F
4	1413.71	1413.71	582.31	0.00	2362.07	0.599	1.50	3.836	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	585.24	694.05	1330.79	0.00	703.90	0.831	44.04	298.319	F
2	1931.01	2024.88	626.80	0.00	2354.81	0.820	4.89	13.910	B
3	917.86	409.74	1744.56	0.00	409.74	2.240	703.96	4244.690	F
4	1154.29	1156.25	645.00	0.00	2312.44	0.499	1.01	3.154	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	490.11	658.64	1205.02	0.00	772.48	0.634	1.91	74.087	F
2	1617.13	1628.11	579.18	0.00	2393.06	0.676	2.14	4.824	A
3	768.66	580.28	1412.93	0.00	580.29	1.325	751.06	4520.255	F
4	966.66	967.64	732.84	0.00	2242.89	0.431	0.77	2.855	A

Junctions 8
ARCADY 8 - Roundabout Module
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2014
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Filename: Furzton Roundabout.arc8

Path: P:\data\W50---\SW Milton Keynes\ARCADY\Furzton Roundabout

Report generation date: 07/11/2014 16:20:20

- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM
- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

File summary

Title	Furzton Roundabout
Location	Fulmer Street / Chaffron Way
Site Number	
Date	06/11/2014
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	A Lechmere
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, AM	Scenario 1 - 2026 Forecast + Committed	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			8.92	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Fulmer Street (W)	
2	2	Chaffron Way (N)	
3	3	Fulmer Street (E)	
4	4	Chaffron Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.70	7.90	17.20	41.40	56.00	24.00	
2	3.70	7.90	18.50	66.40	56.00	29.00	
3	3.80	7.70	8.40	44.50	56.00	37.00	
4	3.70	7.90	6.00	34.60	56.00	22.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.631	1920.094
2		(calculated)	(calculated)	0.630	1928.149
3		(calculated)	(calculated)	0.567	1631.079
4		(calculated)	(calculated)	0.572	1587.141

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	560.00	100.000
2	ONE HOUR	✓	420.00	100.000
3	ONE HOUR	✓	1094.00	100.000
4	ONE HOUR	✓	354.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	133.000	400.000	27.000
	2	35.000	0.000	171.000	214.000
	3	657.000	364.000	0.000	73.000
	4	66.000	261.000	27.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.24	0.71	0.05
	2	0.08	0.00	0.41	0.51
	3	0.60	0.33	0.00	0.07
	4	0.19	0.74	0.08	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To				
		1	2	3	4
From	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.42	4.28	0.73	A
2	0.29	3.16	0.41	A
3	0.83	14.18	4.59	B
4	0.42	6.83	0.73	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	421.60	420.17	488.27	0.00	1611.87	0.262	0.36	3.049	A
2	316.20	315.29	340.61	0.00	1713.42	0.185	0.23	2.602	A
3	823.62	818.85	207.18	0.00	1513.54	0.544	1.19	5.204	A
4	266.51	265.28	790.49	0.00	1135.04	0.235	0.31	4.178	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	503.43	502.92	584.74	0.00	1550.97	0.325	0.48	3.470	A
2	377.57	377.31	407.71	0.00	1671.12	0.226	0.29	2.813	A
3	983.48	980.58	247.94	0.00	1490.41	0.660	1.92	7.097	A
4	318.24	317.72	946.59	0.00	1045.77	0.304	0.44	4.996	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	616.57	615.60	713.61	0.00	1469.62	0.420	0.72	4.257	A
2	462.43	461.99	499.04	0.00	1613.55	0.287	0.40	3.161	A
3	1204.52	1194.50	303.57	0.00	1458.85	0.826	4.42	13.286	B
4	389.76	388.62	1153.30	0.00	927.55	0.420	0.72	6.740	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	616.57	616.55	717.61	0.00	1467.10	0.420	0.73	4.278	A
2	462.43	462.42	499.85	0.00	1613.04	0.287	0.41	3.162	A
3	1204.52	1203.84	303.88	0.00	1458.67	0.826	4.59	14.182	B
4	389.76	389.72	1162.04	0.00	922.54	0.422	0.73	6.830	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	503.43	504.39	590.50	0.00	1547.34	0.325	0.49	3.494	A
2	377.57	378.01	408.95	0.00	1670.34	0.226	0.30	2.818	A
3	983.48	993.82	248.42	0.00	1490.14	0.660	2.01	7.481	A
4	318.24	319.37	959.00	0.00	1038.67	0.306	0.45	5.069	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	421.60	422.12	492.35	0.00	1609.29	0.262	0.36	3.068	A
2	316.20	316.46	342.23	0.00	1712.40	0.185	0.23	2.607	A
3	823.62	826.76	207.97	0.00	1513.09	0.544	1.22	5.326	A
4	266.51	267.06	797.96	0.00	1130.77	0.236	0.31	4.216	A

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, PM	Scenario 1 - 2026 Forecast + Committed	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			30.48	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Fulmer Street (W)	
2	2	Chaffron Way (N)	
3	3	Fulmer Street (E)	
4	4	Chaffron Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.70	7.90	17.20	41.40	56.00	24.00	
2	3.70	7.90	18.50	66.40	56.00	29.00	
3	3.80	7.70	8.40	44.50	56.00	37.00	
4	3.70	7.90	6.00	34.60	56.00	22.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.631	1920.094
2		(calculated)	(calculated)	0.630	1928.149
3		(calculated)	(calculated)	0.567	1631.079
4		(calculated)	(calculated)	0.572	1587.141

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	661.00	100.000
2	ONE HOUR	✓	1197.00	100.000
3	ONE HOUR	✓	954.00	100.000
4	ONE HOUR	✓	273.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	43.000	526.000	92.000
	2	232.000	0.000	378.000	587.000
	3	724.000	217.000	0.000	13.000
	4	33.000	221.000	19.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.07	0.80	0.14
	2	0.19	0.00	0.32	0.49
	3	0.76	0.23	0.00	0.01
	4	0.12	0.81	0.07	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.45	4.15	0.83	A
2	0.89	20.79	7.22	C
3	0.99	67.74	19.42	F
4	0.35	6.49	0.54	A

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	497.64	495.98	341.99	0.00	1704.21	0.292	0.42	3.008	A
2	901.16	896.20	477.95	0.00	1626.84	0.554	1.24	4.948	A
3	718.22	712.80	682.22	0.00	1244.02	0.577	1.36	6.786	A
4	205.53	204.59	876.78	0.00	1085.69	0.189	0.23	4.126	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	594.23	593.65	409.30	0.00	1661.72	0.358	0.56	3.405	A
2	1076.08	1072.40	572.08	0.00	1567.50	0.686	2.16	7.293	A
3	857.63	852.37	816.37	0.00	1167.91	0.734	2.67	11.346	B
4	245.42	245.03	1048.60	0.00	987.42	0.249	0.33	4.900	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	727.77	726.70	492.26	0.00	1609.35	0.452	0.83	4.118	A
2	1317.92	1299.74	700.29	0.00	1486.68	0.886	6.70	17.954	C
3	1050.37	1005.37	990.44	0.00	1069.15	0.982	13.92	41.451	E
4	300.58	299.82	1243.58	0.00	875.91	0.343	0.52	6.310	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	727.77	727.75	498.11	0.00	1605.66	0.453	0.83	4.145	A
2	1317.92	1315.85	701.32	0.00	1486.03	0.887	7.22	20.791	C
3	1050.37	1028.36	1001.61	0.00	1062.82	0.988	19.42	67.740	F
4	300.58	300.52	1269.39	0.00	861.15	0.349	0.54	6.491	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	594.23	595.27	426.36	0.00	1650.95	0.360	0.57	3.450	A
2	1076.08	1095.86	573.68	0.00	1566.50	0.687	2.28	8.042	A
3	857.63	923.11	832.65	0.00	1158.68	0.740	3.05	19.407	C
4	245.42	246.14	1122.93	0.00	944.91	0.260	0.36	5.215	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	497.64	498.24	345.96	0.00	1701.70	0.292	0.42	3.027	A
2	901.16	905.18	480.17	0.00	1625.45	0.554	1.27	5.082	A
3	718.22	724.77	688.68	0.00	1240.36	0.579	1.42	7.145	A
4	205.53	206.00	890.33	0.00	1077.94	0.191	0.24	4.176	A

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, AM	Scenario 2 - 2026 Forecast + Committed + Development	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			8.91	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Fulmer Street (W)	
2	2	Chaffron Way (N)	
3	3	Fulmer Street (E)	
4	4	Chaffron Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.70	7.90	17.20	41.40	56.00	24.00	
2	3.70	7.90	18.50	66.40	56.00	29.00	
3	3.80	7.70	8.40	44.50	56.00	37.00	
4	3.70	7.90	6.00	34.60	56.00	22.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.631	1920.094
2		(calculated)	(calculated)	0.630	1928.149
3		(calculated)	(calculated)	0.567	1631.079
4		(calculated)	(calculated)	0.572	1587.141

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	545.00	100.000
2	ONE HOUR	✓	414.00	100.000
3	ONE HOUR	✓	1085.00	100.000
4	ONE HOUR	✓	410.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

	To				
From		1	2	3	4
	1	0.000	121.000	392.000	32.000
	2	35.000	0.000	163.000	216.000
	3	648.000	363.000	0.000	74.000
	4	79.000	294.000	37.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

	To				
From		1	2	3	4
	1	0.00	0.22	0.72	0.06
	2	0.08	0.00	0.39	0.52
	3	0.60	0.33	0.00	0.07
	4	0.19	0.72	0.09	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

	To				
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To				
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.42	4.34	0.72	A
2	0.28	3.16	0.40	A
3	0.82	13.89	4.46	B
4	0.49	7.62	0.95	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	410.30	408.91	519.70	0.00	1592.03	0.258	0.35	3.071	A
2	311.68	310.78	345.84	0.00	1710.13	0.182	0.22	2.600	A
3	816.84	812.14	212.43	0.00	1510.56	0.541	1.18	5.178	A
4	308.67	307.18	783.03	0.00	1139.31	0.271	0.37	4.365	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	489.94	489.44	622.40	0.00	1527.20	0.321	0.47	3.505	A
2	372.18	371.92	413.98	0.00	1667.17	0.223	0.29	2.809	A
3	975.39	972.55	254.22	0.00	1486.84	0.656	1.89	7.037	A
4	368.58	367.91	937.66	0.00	1050.87	0.351	0.54	5.323	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	600.06	599.09	759.61	0.00	1440.58	0.417	0.72	4.321	A
2	455.82	455.39	506.68	0.00	1608.73	0.283	0.40	3.156	A
3	1194.61	1184.93	311.27	0.00	1454.48	0.821	4.31	13.052	B
4	451.42	449.86	1142.61	0.00	933.66	0.484	0.93	7.499	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	600.06	600.04	763.85	0.00	1437.91	0.417	0.72	4.343	A
2	455.82	455.82	507.55	0.00	1608.18	0.283	0.40	3.157	A
3	1194.61	1193.97	311.59	0.00	1454.30	0.821	4.46	13.892	B
4	451.42	451.36	1151.07	0.00	928.82	0.486	0.95	7.619	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	489.94	490.90	628.49	0.00	1523.36	0.322	0.48	3.527	A
2	372.18	372.61	415.31	0.00	1666.33	0.223	0.29	2.813	A
3	975.39	985.36	254.73	0.00	1486.56	0.656	1.97	7.402	A
4	368.58	370.14	949.66	0.00	1044.01	0.353	0.56	5.412	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	410.30	410.82	524.08	0.00	1589.27	0.258	0.35	3.091	A
2	311.68	311.94	347.53	0.00	1709.06	0.182	0.23	2.605	A
3	816.84	819.91	213.25	0.00	1510.09	0.541	1.21	5.298	A
4	308.67	309.38	790.36	0.00	1135.12	0.272	0.38	4.412	A

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, PM	Scenario 2 - 2026 Forecast + Committed + Development	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			35.74	E

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Fulmer Street (W)	
2	2	Chaffron Way (N)	
3	3	Fulmer Street (E)	
4	4	Chaffron Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	3.70	7.90	17.20	41.40	56.00	24.00	
2	3.70	7.90	18.50	66.40	56.00	29.00	
3	3.80	7.70	8.40	44.50	56.00	37.00	
4	3.70	7.90	6.00	34.60	56.00	22.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.631	1920.094
2		(calculated)	(calculated)	0.630	1928.149
3		(calculated)	(calculated)	0.567	1631.079
4		(calculated)	(calculated)	0.572	1587.141

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	674.00	100.000
2	ONE HOUR	✓	1246.00	100.000
3	ONE HOUR	✓	925.00	100.000
4	ONE HOUR	✓	288.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	44.000	530.000	100.000
	2	240.000	0.000	364.000	642.000
	3	685.000	227.000	0.000	13.000
	4	37.000	232.000	19.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.07	0.79	0.15
	2	0.19	0.00	0.29	0.52
	3	0.74	0.25	0.00	0.01
	4	0.13	0.81	0.07	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.47	4.28	0.88	A
2	0.93	30.07	10.74	D
3	1.00	75.39	21.32	F
4	0.36	6.49	0.57	A

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	507.42	505.70	357.69	0.00	1694.30	0.299	0.43	3.058	A
2	938.05	932.58	486.93	0.00	1621.18	0.579	1.37	5.246	A
3	696.39	691.04	735.17	0.00	1213.98	0.574	1.34	6.893	A
4	216.82	215.83	860.96	0.00	1094.74	0.198	0.25	4.137	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	605.91	605.30	428.04	0.00	1649.89	0.367	0.58	3.482	A
2	1120.13	1115.63	582.84	0.00	1560.72	0.718	2.49	8.095	A
3	831.56	826.22	879.53	0.00	1132.08	0.735	2.67	11.696	B
4	258.91	258.49	1029.50	0.00	998.35	0.259	0.35	4.917	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	742.09	740.94	513.88	0.00	1595.70	0.465	0.87	4.253	A
2	1371.87	1344.11	713.43	0.00	1478.39	0.928	9.43	23.418	C
3	1018.44	970.74	1061.38	0.00	1028.90	0.990	14.60	44.280	E
4	317.09	316.29	1215.99	0.00	891.69	0.356	0.55	6.316	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	742.09	742.06	519.63	0.00	1592.07	0.466	0.88	4.281	A
2	1371.87	1366.65	714.53	0.00	1477.70	0.928	10.74	30.072	D
3	1018.44	991.54	1077.50	0.00	1019.76	0.999	21.32	75.393	F
4	317.09	317.03	1240.84	0.00	877.48	0.361	0.57	6.494	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	605.91	607.03	448.21	0.00	1637.16	0.370	0.60	3.538	A
2	1120.13	1152.43	584.53	0.00	1559.65	0.718	2.66	9.608	A
3	831.56	904.29	905.83	0.00	1117.16	0.744	3.14	22.396	C
4	258.91	259.65	1113.56	0.00	950.27	0.272	0.38	5.277	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	507.42	508.07	362.02	0.00	1691.56	0.300	0.44	3.078	A
2	938.05	943.06	489.24	0.00	1619.73	0.579	1.41	5.419	A
3	696.39	703.36	742.94	0.00	1209.57	0.576	1.40	7.287	A
4	216.82	217.33	875.12	0.00	1086.64	0.200	0.25	4.190	A

Junctions 8	
ARCADY 8 - Roundabout Module	
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2014	
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Filename: Elfield Park Roundabout.arc8

Path: P:\data\W50---\SW Milton Keynes\ARCADY\Elfield Park Roundabout

Report generation date: 12/11/2014 14:28:19

- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM
- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

File summary

Title	Elfield Park Roundabout
Location	Watling Street / Standing Way
Site Number	
Date	06/11/2014
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	A Lechmere
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, AM	Scenario 1 - 2026 Forecast + Committed	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Elfield Park Roundabout	Roundabout	1,2,3,4			807.04	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Watling Street (W)	
2	2	Standing Way (N)	
3	3	Watling Street (E)	
4	4	Standing Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.60	9.20	9.00	49.30	56.00	36.00	
2	7.20	8.70	3.10	29.90	56.00	47.00	
3	4.90	9.40	4.50	67.50	56.00	26.00	
4	7.50	9.60	23.30	26.20	56.00	44.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.624	1938.492
2		(calculated)	(calculated)	0.668	2258.945
3		(calculated)	(calculated)	0.628	1896.718
4		(calculated)	(calculated)	0.743	2663.985

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	729.00	100.000
2	ONE HOUR	✓	1519.00	100.000
3	ONE HOUR	✓	1496.00	100.000
4	ONE HOUR	✓	2166.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	194.000	467.000	68.000
	2	226.000	0.000	63.000	1230.000
	3	752.000	359.000	133.000	252.000
	4	239.000	1106.000	795.000	26.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.27	0.64	0.09
	2	0.15	0.00	0.04	0.81
	3	0.50	0.24	0.09	0.17
	4	0.11	0.51	0.37	0.01

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To			
	1	2	3	4
From	1	1.1	1.1	1.1
	2	1.1	1.1	1.1
	3	1.1	1.1	1.1
	4	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	1.18	360.36	69.69	F
2	1.21	401.18	156.07	F
3	1.63	1796.77	517.92	F
4	1.26	558.43	298.55	F

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	548.83	541.12	1783.97	0.00	824.85	0.665	1.93	12.513	B
2	1143.58	1131.87	1101.91	0.00	1522.83	0.751	2.93	9.058	A
3	1126.27	1079.22	1154.69	0.00	1171.98	0.961	11.76	30.852	D
4	1630.68	1606.28	1065.83	0.00	1872.53	0.871	6.10	12.699	B

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	655.36	631.60	1975.27	0.00	705.43	0.929	7.87	40.453	E
2	1365.55	1326.91	1251.60	0.00	1422.83	0.960	12.59	30.096	D
3	1344.87	1044.35	1352.81	0.00	1047.63	1.284	86.89	181.772	F
4	1947.19	1834.20	1065.85	0.00	1872.52	1.040	34.35	49.319	E

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	802.64	676.36	2010.03	0.00	683.73	1.174	39.44	141.917	F
2	1672.45	1384.71	1301.03	0.00	1389.80	1.203	84.52	135.492	F
3	1647.13	1009.72	1413.01	0.00	1009.84	1.631	246.24	600.387	F
4	2384.81	1886.07	1045.66	0.00	1887.51	1.263	159.03	190.539	F

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	802.64	681.63	2011.25	0.00	682.97	1.175	69.69	300.017	F
2	1672.45	1386.27	1305.48	0.00	1386.83	1.206	156.07	318.180	F
3	1647.13	1008.56	1415.01	0.00	1008.58	1.633	405.89	1166.719	F
4	2384.81	1887.86	1044.92	0.00	1888.06	1.263	283.27	425.687	F

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	655.36	673.58	2010.64	0.00	683.35	0.959	65.14	360.362	F
2	1365.55	1382.10	1299.16	0.00	1391.06	0.982	151.93	401.182	F
3	1344.87	1011.55	1410.25	0.00	1011.57	1.329	489.22	1597.423	F
4	1947.19	1886.07	1046.79	0.00	1886.67	1.032	298.55	558.425	F

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	548.83	676.05	2005.53	0.00	686.54	0.799	33.33	265.568	F
2	1143.58	1382.10	1298.80	0.00	1391.30	0.822	92.30	319.302	F
3	1126.27	1011.44	1410.41	0.00	1011.47	1.113	517.92	1796.769	F
4	1630.68	1880.38	1046.69	0.00	1886.74	0.864	236.12	512.196	F

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, PM	Scenario 1 - 2026 Forecast + Committed	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Elfield Park Roundabout	Roundabout	1,2,3,4			410.06	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Watling Street (W)	
2	2	Standing Way (N)	
3	3	Watling Street (E)	
4	4	Standing Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.60	9.20	9.00	49.30	56.00	36.00	
2	7.20	8.70	3.10	29.90	56.00	47.00	
3	4.90	9.40	4.50	67.50	56.00	26.00	
4	7.50	9.60	23.30	26.20	56.00	44.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.624	1938.492
2		(calculated)	(calculated)	0.668	2258.945
3		(calculated)	(calculated)	0.628	1896.718
4		(calculated)	(calculated)	0.743	2663.985

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	594.00	100.000
2	ONE HOUR	✓	2095.00	100.000
3	ONE HOUR	✓	524.00	100.000
4	ONE HOUR	✓	1748.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	128.000	355.000	111.000
	2	353.000	0.000	94.000	1648.000
	3	335.000	164.000	24.000	1.000
	4	34.000	1279.000	343.000	92.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.22	0.60	0.19
	2	0.17	0.00	0.04	0.79
	3	0.64	0.31	0.05	0.00
	4	0.02	0.73	0.20	0.05

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	1.03	109.99	20.91	F
2	1.44	912.97	464.20	F
3	0.72	16.05	2.52	C
4	0.94	27.40	13.74	D

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	447.19	444.22	1424.77	0.00	1049.08	0.426	0.74	5.989	A
2	1577.23	1551.59	692.39	0.00	1796.40	0.878	6.41	13.696	B
3	394.49	391.20	1633.93	0.00	871.18	0.453	0.82	7.532	A
4	1315.99	1309.90	651.89	0.00	2179.91	0.604	1.52	4.154	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	533.99	530.81	1703.47	0.00	875.10	0.610	1.54	10.475	B
2	1883.36	1688.05	827.57	0.00	1706.10	1.104	55.23	75.645	F
3	471.07	468.21	1793.92	0.00	770.76	0.611	1.54	11.915	B
4	1571.42	1565.94	751.75	0.00	2105.76	0.746	2.89	6.674	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	654.01	610.15	2057.50	0.00	654.09	1.000	12.50	57.592	F
2	2306.64	1607.27	974.91	0.00	1607.67	1.435	230.08	325.404	F
3	576.93	573.18	1748.57	0.00	799.23	0.722	2.48	15.824	C
4	1924.58	1888.60	842.90	0.00	2038.07	0.944	11.89	20.685	C

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	654.01	620.36	2086.80	0.00	635.80	1.029	20.91	109.992	F
2	2306.64	1597.40	990.19	0.00	1597.46	1.444	407.39	710.390	F
3	576.93	576.78	1742.56	0.00	803.00	0.718	2.52	16.048	C
4	1924.58	1917.16	844.83	0.00	2036.64	0.945	13.74	27.395	D

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	533.99	610.37	1753.05	0.00	844.15	0.633	1.82	20.916	C
2	1883.36	1656.12	902.27	0.00	1656.19	1.137	464.20	912.967	F
3	471.07	474.75	1780.82	0.00	778.98	0.605	1.59	12.107	B
4	1571.42	1614.11	752.90	0.00	2104.91	0.747	3.07	8.033	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	447.19	451.38	1438.14	0.00	1040.73	0.430	0.77	6.217	A
2	1577.23	1786.63	701.19	0.00	1790.52	0.881	411.85	882.770	F
3	394.49	395.99	1860.39	0.00	729.05	0.541	1.22	10.978	B
4	1315.99	1321.78	696.28	0.00	2146.95	0.613	1.62	4.442	A

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, AM	Scenario 2 - 2026 Forecast + Committed + Development	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Elfield Park Roundabout	Roundabout	1,2,3,4			870.61	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Watling Street (W)	
2	2	Standing Way (N)	
3	3	Watling Street (E)	
4	4	Standing Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.60	9.20	9.00	49.30	56.00	36.00	
2	7.20	8.70	3.10	29.90	56.00	47.00	
3	4.90	9.40	4.50	67.50	56.00	26.00	
4	7.50	9.60	23.30	26.20	56.00	44.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.624	1938.492
2		(calculated)	(calculated)	0.668	2258.945
3		(calculated)	(calculated)	0.628	1896.718
4		(calculated)	(calculated)	0.743	2663.985

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	779.00	100.000
2	ONE HOUR	✓	1599.00	100.000
3	ONE HOUR	✓	1472.00	100.000
4	ONE HOUR	✓	2179.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	223.000	474.000	82.000
	2	238.000	0.000	61.000	1300.000
	3	735.000	364.000	150.000	223.000
	4	245.000	1100.000	810.000	24.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.29	0.61	0.11
	2	0.15	0.00	0.04	0.81
	3	0.50	0.25	0.10	0.15
	4	0.11	0.50	0.37	0.01

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	1.26	571.52	109.12	F
2	1.27	567.02	223.25	F
3	1.62	1772.36	506.07	F
4	1.28	591.14	316.82	F

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	586.47	576.66	1800.91	0.00	814.27	0.720	2.45	14.769	B
2	1203.81	1188.36	1136.93	0.00	1499.43	0.803	3.86	11.205	B
3	1108.20	1052.96	1221.51	0.00	1130.03	0.981	13.81	35.432	E
4	1640.47	1614.80	1070.32	0.00	1869.20	0.878	6.42	13.210	B

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	700.31	656.68	1986.48	0.00	698.43	1.003	13.36	58.972	F
2	1437.47	1359.48	1275.81	0.00	1406.65	1.022	23.36	47.099	E
3	1323.30	1017.24	1396.98	0.00	1019.90	1.297	90.32	195.247	F
4	1958.88	1837.92	1065.49	0.00	1872.79	1.046	36.66	51.825	F

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	857.69	676.53	2016.87	0.00	679.46	1.262	58.65	205.936	F
2	1760.53	1385.98	1303.81	0.00	1387.95	1.268	117.00	190.252	F
3	1620.70	1002.20	1425.00	0.00	1002.31	1.617	244.95	608.489	F
4	2399.12	1878.09	1056.66	0.00	1879.34	1.277	166.91	200.946	F

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	857.69	678.36	2017.86	0.00	678.85	1.263	103.49	440.408	F
2	1760.53	1386.52	1305.56	0.00	1386.77	1.270	210.50	430.336	F
3	1620.70	1001.83	1425.73	0.00	1001.86	1.618	399.67	1162.922	F
4	2399.12	1879.34	1056.43	0.00	1879.51	1.276	296.86	448.001	F

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	700.31	677.76	2017.61	0.00	679.00	1.031	109.12	571.520	F
2	1437.47	1386.46	1305.03	0.00	1387.14	1.036	223.25	567.024	F
3	1323.30	1001.92	1425.60	0.00	1001.94	1.321	480.01	1583.597	F
4	1958.88	1879.03	1056.50	0.00	1879.46	1.042	316.82	591.145	F

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	586.47	675.88	2012.57	0.00	682.14	0.860	86.77	522.710	F
2	1203.81	1383.28	1301.41	0.00	1389.55	0.866	178.39	523.122	F
3	1108.20	1003.98	1422.28	0.00	1004.02	1.104	506.07	1772.363	F
4	1640.47	1872.54	1057.77	0.00	1878.51	0.873	258.80	553.649	F

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, PM	Scenario 2 - 2026 Forecast + Committed + Development	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Elfield Park Roundabout	Roundabout	1,2,3,4			444.56	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Watling Street (W)	
2	2	Standing Way (N)	
3	3	Watling Street (E)	
4	4	Standing Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.60	9.20	9.00	49.30	56.00	36.00	
2	7.20	8.70	3.10	29.90	56.00	47.00	
3	4.90	9.40	4.50	67.50	56.00	26.00	
4	7.50	9.60	23.30	26.20	56.00	44.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.624	1938.492
2		(calculated)	(calculated)	0.668	2258.945
3		(calculated)	(calculated)	0.628	1896.718
4		(calculated)	(calculated)	0.743	2663.985

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	564.00	100.000
2	ONE HOUR	✓	2106.00	100.000
3	ONE HOUR	✓	499.00	100.000
4	ONE HOUR	✓	1839.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	85.000	365.000	114.000
	2	319.000	0.000	25.000	1762.000
	3	346.000	142.000	11.000	0.000
	4	39.000	1349.000	359.000	92.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.15	0.65	0.20
	2	0.15	0.00	0.01	0.84
	3	0.69	0.28	0.02	0.00
	4	0.02	0.73	0.20	0.05

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	1.02	105.54	18.93	F
2	1.46	990.80	485.58	F
3	0.71	16.13	2.41	C
4	0.97	39.25	21.13	E

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	424.61	421.78	1462.78	0.00	1025.35	0.414	0.71	6.003	A
2	1585.51	1558.14	704.32	0.00	1788.43	0.887	6.84	14.432	B
3	375.67	372.41	1693.83	0.00	833.59	0.451	0.82	7.839	A
4	1384.50	1377.82	608.42	0.00	2212.19	0.626	1.67	4.328	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	507.02	503.99	1748.49	0.00	846.99	0.599	1.47	10.519	B
2	1893.25	1681.03	841.71	0.00	1696.65	1.116	59.89	81.306	F
3	448.59	445.80	1845.33	0.00	738.50	0.607	1.51	12.318	B
4	1653.22	1646.73	700.43	0.00	2143.86	0.771	3.29	7.224	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	620.98	582.14	2096.85	0.00	629.53	0.986	11.18	55.284	F
2	2318.75	1597.33	989.88	0.00	1597.67	1.451	240.25	344.067	F
3	549.41	545.95	1794.65	0.00	770.31	0.713	2.38	15.961	C
4	2024.78	1971.26	787.90	0.00	2078.91	0.974	16.67	26.017	D

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	620.98	589.96	2132.78	0.00	607.11	1.023	18.93	105.544	F
2	2318.75	1587.29	1005.33	0.00	1587.34	1.461	423.12	743.816	F
3	549.41	549.27	1788.10	0.00	774.42	0.709	2.41	16.129	C
4	2024.78	2006.92	789.70	0.00	2077.57	0.975	21.13	39.250	E

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	507.02	575.39	1825.64	0.00	798.84	0.635	1.84	21.379	C
2	1893.25	1643.39	921.34	0.00	1643.45	1.152	485.58	990.800	F
3	448.59	452.04	1826.42	0.00	750.37	0.598	1.55	12.338	B
4	1653.22	1723.59	700.97	0.00	2143.47	0.771	3.54	10.079	B

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	424.61	429.03	1477.66	0.00	1016.07	0.418	0.73	6.247	A
2	1585.51	1778.30	713.95	0.00	1782.00	0.890	437.38	934.376	F
3	375.67	377.01	1913.52	0.00	695.70	0.540	1.22	11.473	B
4	1384.50	1391.57	646.37	0.00	2184.01	0.634	1.77	4.632	A

Junctions 8	
ARCADY 8 - Roundabout Module	
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2014	
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Filename: Bleak Hall Roundabout.arc8

Path: P:\data\W50---\SW Milton Keynes\ARCADY\Bleak Hall Roundabout

Report generation date: 12/11/2014 14:35:05

- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM
- » Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM
- » Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

File summary

Title	Bleak Hall Roundabout
Location	Grafton Street / Standing Way
Site Number	
Date	06/11/2014
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	A Lechmere
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, AM	Scenario 1 - 2026 Forecast + Committed	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			175.87	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Grafton Street (W)	
2	2	Standing Way (N)	
3	3	Grafton Street (E)	
4	4	Standing Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	7.50	11.90	4.80	28.80	55.00	39.00	
2	6.70	7.60	7.70	53.50	55.00	36.00	
3	7.10	9.30	4.00	28.00	55.00	29.00	
4	7.20	8.50	3.50	55.00	55.00	36.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.738	2568.913
2		(calculated)	(calculated)	0.687	2250.407
3		(calculated)	(calculated)	0.723	2434.556
4		(calculated)	(calculated)	0.712	2385.900

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	951.00	100.000
2	ONE HOUR	✓	1399.00	100.000
3	ONE HOUR	✓	1206.00	100.000
4	ONE HOUR	✓	1659.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	31.000	41.000	595.000	284.000
	2	244.000	0.000	200.000	955.000
	3	819.000	74.000	0.000	313.000
	4	477.000	951.000	213.000	18.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.03	0.04	0.63	0.30
	2	0.17	0.00	0.14	0.68
	3	0.68	0.06	0.00	0.26
	4	0.29	0.57	0.13	0.01

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To			
	1	2	3	4
From	1	1.1	1.1	1.1
	2	1.1	1.1	1.1
	3	1.1	1.1	1.1
	4	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.61	5.44	1.57	A
2	1.09	151.01	72.46	F
3	1.02	85.62	33.02	F
4	1.21	360.15	163.77	F

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	715.96	713.48	938.45	0.00	1876.54	0.382	0.62	3.123	A
2	1053.24	1046.38	855.30	0.00	1662.75	0.633	1.72	5.842	A
3	907.94	902.75	1146.56	0.00	1605.99	0.565	1.30	5.138	A
4	1248.98	1239.42	874.21	0.00	1763.60	0.708	2.39	6.825	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	854.93	853.57	1112.55	0.00	1748.09	0.489	0.96	4.063	A
2	1257.67	1248.18	1021.28	0.00	1548.71	0.812	4.09	11.752	B
3	1084.17	1077.73	1368.41	0.00	1445.68	0.750	2.91	9.725	A
4	1491.41	1468.71	1043.54	0.00	1643.07	0.908	8.06	18.837	C

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1047.07	1044.65	1159.04	0.00	1713.79	0.611	1.56	5.419	A
2	1540.33	1393.94	1211.05	0.00	1418.32	1.086	40.69	68.516	F
3	1327.83	1257.06	1557.16	0.00	1309.28	1.014	20.60	44.989	E
4	1826.59	1518.52	1207.98	0.00	1526.01	1.197	85.08	119.240	F

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1047.07	1047.04	1155.59	0.00	1716.34	0.610	1.57	5.437	A
2	1540.33	1413.25	1212.41	0.00	1417.38	1.087	72.46	151.007	F
3	1327.83	1278.16	1574.43	0.00	1296.79	1.024	33.02	85.621	F
4	1826.59	1511.85	1227.05	0.00	1512.44	1.208	163.77	300.201	F

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	854.93	857.11	1171.13	0.00	1704.88	0.501	1.03	4.305	A
2	1257.67	1518.57	1034.78	0.00	1539.43	0.817	7.23	100.048	F
3	1084.17	1188.78	1602.10	0.00	1276.80	0.849	6.87	52.495	F
4	1491.41	1541.37	1173.04	0.00	1550.88	0.962	151.28	360.151	F

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	715.96	716.82	1292.60	0.00	1615.26	0.443	0.81	4.056	A
2	1053.24	1074.40	927.38	0.00	1613.22	0.653	1.94	7.012	A
3	907.94	929.90	1177.05	0.00	1583.96	0.573	1.38	5.747	A
4	1248.98	1734.15	899.31	0.00	1745.74	0.715	29.99	190.911	F

Existing Junction Layout - Scenario 1 - 2026 Forecast + Committed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 1 - 2026 Forecast + Committed, PM	Scenario 1 - 2026 Forecast + Committed	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			187.46	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Grafton Street (W)	
2	2	Standing Way (N)	
3	3	Grafton Street (E)	
4	4	Standing Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	7.50	11.90	4.80	28.80	55.00	39.00	
2	6.70	7.60	7.70	53.50	55.00	36.00	
3	7.10	9.30	4.00	28.00	55.00	29.00	
4	7.20	8.50	3.50	55.00	55.00	36.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.738	2568.913
2		(calculated)	(calculated)	0.687	2250.407
3		(calculated)	(calculated)	0.723	2434.556
4		(calculated)	(calculated)	0.712	2385.900

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	1507.00	100.000
2	ONE HOUR	✓	1017.00	100.000
3	ONE HOUR	✓	1198.00	100.000
4	ONE HOUR	✓	1572.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	47.000	857.000	603.000
	2	17.000	0.000	17.000	983.000
	3	531.000	184.000	0.000	483.000
	4	204.000	846.000	518.000	4.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.00	0.03	0.57	0.40
	2	0.02	0.00	0.02	0.97
	3	0.44	0.15	0.00	0.40
	4	0.13	0.54	0.33	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	1.26	370.02	174.53	F
2	1.14	318.95	79.44	F
3	0.97	51.03	17.94	F
4	0.95	31.37	14.19	D

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1134.55	1126.75	1162.53	0.00	1711.22	0.663	1.95	6.147	A
2	765.65	759.15	1482.67	0.00	1231.70	0.622	1.62	7.596	A
3	901.92	896.51	1200.31	0.00	1567.15	0.576	1.35	5.385	A
4	1183.48	1177.66	547.75	0.00	1995.99	0.593	1.45	4.417	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1354.76	1337.36	1389.66	0.00	1543.65	0.878	6.30	16.426	C
2	914.26	896.49	1763.22	0.00	1038.93	0.880	6.07	23.171	C
3	1076.98	1069.85	1420.21	0.00	1408.24	0.765	3.13	10.540	B
4	1413.20	1408.07	653.50	0.00	1920.71	0.736	2.74	7.030	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1659.24	1329.23	1671.31	0.00	1335.85	1.242	88.80	137.940	F
2	1119.74	967.15	1850.69	0.00	978.84	1.144	44.21	106.479	F
3	1319.02	1276.72	1487.17	0.00	1359.86	0.970	13.71	33.457	D
4	1730.80	1695.21	778.15	0.00	1831.98	0.945	11.64	22.408	C

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1659.24	1316.31	1697.28	0.00	1316.70	1.260	174.53	353.169	F
2	1119.74	979.85	1846.59	0.00	981.65	1.141	79.19	239.057	F
3	1319.02	1302.08	1494.55	0.00	1354.52	0.974	17.94	51.029	F
4	1730.80	1720.57	793.50	0.00	1821.06	0.950	14.19	31.370	D

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1354.76	1496.14	1442.31	0.00	1504.80	0.900	139.19	370.020	F
2	914.26	913.25	1933.51	0.00	921.93	0.992	79.44	318.946	F
3	1076.98	1131.56	1500.35	0.00	1350.33	0.798	4.30	20.020	C
4	1413.20	1457.68	690.62	0.00	1894.29	0.746	3.07	9.145	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1134.55	1680.14	1175.22	0.00	1701.86	0.667	2.79	152.860	F
2	765.65	849.76	2022.82	0.00	860.57	0.890	58.41	293.392	F
3	901.92	910.61	1510.86	0.00	1342.73	0.672	2.12	8.585	A
4	1183.48	1189.76	557.68	0.00	1988.92	0.595	1.50	4.590	A

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, AM	Scenario 2 - 2026 Forecast + Committed + Development	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			199.40	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Grafton Street (W)	
2	2	Standing Way (N)	
3	3	Grafton Street (E)	
4	4	Standing Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	7.50	11.90	4.80	28.80	55.00	39.00	
2	6.70	7.60	7.70	53.50	55.00	36.00	
3	7.10	9.30	4.00	28.00	55.00	29.00	
4	7.20	8.50	3.50	55.00	55.00	36.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.738	2568.913
2		(calculated)	(calculated)	0.687	2250.407
3		(calculated)	(calculated)	0.723	2434.556
4		(calculated)	(calculated)	0.712	2385.900

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	1030.00	100.000
2	ONE HOUR	✓	1381.00	100.000
3	ONE HOUR	✓	1224.00	100.000
4	ONE HOUR	✓	1688.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	34.000	41.000	622.000	333.000
	2	239.000	0.000	167.000	975.000
	3	824.000	75.000	0.000	325.000
	4	472.000	1010.000	185.000	21.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.03	0.04	0.60	0.32
	2	0.17	0.00	0.12	0.71
	3	0.67	0.06	0.00	0.27
	4	0.28	0.60	0.11	0.01

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.011	1.011	1.011	1.011
	2	1.011	1.011	1.011	1.011
	3	1.011	1.011	1.011	1.011
	4	1.011	1.011	1.011	1.011

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.1	1.1	1.1	1.1
	2	1.1	1.1	1.1	1.1
	3	1.1	1.1	1.1	1.1
	4	1.1	1.1	1.1	1.1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.67	6.47	2.02	A
2	1.11	174.63	83.00	F
3	1.07	133.55	54.95	F
4	1.21	385.13	170.07	F

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	775.44	772.56	964.26	0.00	1857.50	0.417	0.72	3.346	A
2	1039.69	1032.75	895.65	0.00	1635.02	0.636	1.73	5.976	A
3	921.49	915.81	1198.82	0.00	1568.23	0.588	1.42	5.532	A
4	1270.81	1260.64	876.88	0.00	1761.70	0.721	2.54	7.126	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	925.95	924.21	1140.49	0.00	1727.48	0.536	1.16	4.520	A
2	1241.49	1231.39	1069.29	0.00	1515.72	0.819	4.26	12.382	B
3	1100.35	1092.05	1430.33	0.00	1400.93	0.785	3.50	11.486	B
4	1517.48	1490.29	1045.70	0.00	1641.53	0.924	9.34	21.092	C

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1134.05	1130.67	1184.25	0.00	1695.20	0.669	2.00	6.409	A
2	1520.51	1355.34	1273.43	0.00	1375.46	1.105	45.55	76.769	F
3	1347.65	1237.86	1613.45	0.00	1268.59	1.062	30.94	61.780	F
4	1858.52	1538.63	1181.06	0.00	1545.17	1.203	89.31	124.051	F

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1134.05	1133.98	1182.81	0.00	1696.26	0.669	2.02	6.470	A
2	1520.51	1370.71	1276.23	0.00	1373.54	1.107	83.00	174.633	F
3	1347.65	1251.61	1628.11	0.00	1258.01	1.071	54.95	133.552	F
4	1858.52	1535.47	1193.93	0.00	1536.01	1.210	170.07	309.110	F

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	925.95	929.11	1181.83	0.00	1696.98	0.546	1.23	4.758	A
2	1241.49	1490.38	1079.75	0.00	1508.53	0.823	20.78	129.115	F
3	1100.35	1212.41	1660.33	0.00	1234.72	0.891	26.94	124.060	F
4	1517.48	1537.44	1179.09	0.00	1546.58	0.981	165.08	385.127	F

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	775.44	776.63	1276.66	0.00	1627.02	0.477	0.93	4.285	A
2	1039.69	1115.08	951.38	0.00	1596.73	0.651	1.93	8.792	A
3	921.49	1022.79	1277.93	0.00	1511.06	0.610	1.61	9.172	A
4	1270.81	1685.21	969.83	0.00	1695.53	0.750	61.48	243.898	F

Existing Junction Layout - Scenario 2 - 2026 Forecast + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Existing Junction Layout	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Scenario 2 - 2026 Forecast + Committed + Development, PM	Scenario 2 - 2026 Forecast + Committed + Development	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	Emerson Roundabout	Roundabout	1,2,3,4			199.05	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	Grafton Street (W)	
2	2	Standing Way (N)	
3	3	Grafton Street (E)	
4	4	Standing Way (S)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00
4	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	7.50	11.90	4.80	28.80	55.00	39.00	
2	6.70	7.60	7.70	53.50	55.00	36.00	
3	7.10	9.30	4.00	28.00	55.00	29.00	
4	7.20	8.50	3.50	55.00	55.00	36.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.738	2568.913
2		(calculated)	(calculated)	0.687	2250.407
3		(calculated)	(calculated)	0.723	2434.556
4		(calculated)	(calculated)	0.712	2385.900

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	1540.00	100.000
2	ONE HOUR	✓	1044.00	100.000
3	ONE HOUR	✓	1235.00	100.000
4	ONE HOUR	✓	1577.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
From		1	2	3	4
	1	0.000	51.000	910.000	579.000
	2	23.000	0.000	18.000	1003.000
	3	539.000	192.000	0.000	504.000
	4	236.000	873.000	463.000	5.000