

Junctions 8			
ARCADY 8 - Roundabout Module			
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Filename: 05. Milton Road_Eagle Avenue Junction.arc8

Path: J:\21834 Woodcroft Farm\004 Transport\Working Documents\Junction Analysis\ARCADY\April 2013 Assessments

Report generation date: 08/07/2013 09:43:21

- » Existing Layout - 2010 Observed, AM
- » Existing Layout - 2010 Observed, PM
- » Existing Layout - 2018 Baseline, AM
- » Existing Layout - 2018 Baseline, PM
- » Existing Layout - 2018 Baseline + Dev, AM
- » Existing Layout - 2018 Baseline + Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Existing Layout - 2010 Observed								
Arm A	1.06	11.12	0.52	B	2.38	18.74	0.71	C
Arm B	0.43	7.97	0.30	A	0.32	7.87	0.24	A
Arm C	2.97	20.08	0.75	C	1.86	14.10	0.65	B
Existing Layout - 2018 Baseline								
Arm A	1.42	13.22	0.59	B	3.00	22.13	0.75	C
Arm B	0.55	8.94	0.35	A	0.31	8.26	0.24	A
Arm C	5.55	33.91	0.86	D	2.29	16.19	0.70	C
Existing Layout - 2018 Baseline + Dev								
Arm A	1.54	13.98	0.61	B	4.15	29.28	0.81	D
Arm B	0.85	10.73	0.46	B	0.40	8.83	0.29	A
Arm C	7.27	44.46	0.89	E	2.83	19.11	0.74	C

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

'D1 - 2010 Observed, AM" model duration: 08:00 - 09:00
'D2 - 2010 Observed, PM" model duration: 17:00 - 18:00
'D3 - 2018 Baseline, AM" model duration: 08:00 - 09:00
'D4 - 2018 Baseline, PM" model duration: 17:00 - 18:00
'D5 - 2018 Baseline + Dev, AM" model duration: 08:00 - 09:00
'D6 - 2018 Baseline + Dev, PM" model duration: 17:00 - 18:00
'D7 - 2023 Baseline, AM" model duration: 08:00 - 09:00
'D8 - 2023 Baseline, PM" model duration: 17:00 - 18:00
'D9 - 2023 Baseline + Dev, AM" model duration: 08:00 - 09:00
'D10 - 2023 Baseline + Dev, PM" model duration: 17:00 - 18:00
'D11 - 2023 Baseline + Dev (700 Units), AM" model duration: 08:00 - 09:00
'D12 - 2023 Baseline + Dev (700 Units), PM" model duration: 17:00 - 18:00
'D13 - 2018 Baseline + Dev (700 Units), AM" model duration: 08:00 - 09:00
'D14 - 2018 Baseline + Dev (700 Units), PM" model duration: 17:00 - 18:00

Run using Junctions 8.0.2.316 at 08/07/2013 09:43:17

File summary

File Description

Title	Milton Road_Eagle Avenue Junction
Location	Waterlooville
Site Number	05
Date	15/04/2013
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	21834
Enumerator	
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 Layout - 2010 Observed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓	✓	D1,D2,D3,D4,D5,D6		100.000	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)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Rela
2010 Observed, AM	2010 Observed	AM		DIRECT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
Milton Road_Eagle Avenue Junction	Mini-roundabout	A,B,C	15.03	C

File Name: 2010 Observed, AM

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
A	Milton Road (S)	
B	Eagle Avenue	
C	Milton Road (N)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.70	3.00	4.50	3.20	12.20	9.70	0.00	
B	4.20	3.50	5.36	4.90	14.60	13.00	0.00	
C	3.00	3.00	3.36	1.00	15.70	14.00	0.00	

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None

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)
A		(calculated)	(calculated)	0.537	727.067
B		(calculated)	(calculated)	0.588	835.949
C		(calculated)	(calculated)	0.541	768.256

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 (%)
A	DIRECT	✓	N/A	100.000
B	DIRECT	✓	N/A	100.000
C	DIRECT	✓	N/A	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 05 (for whole period)

		To		
From		A	B	C
	A	0.000	26.000	320.000
	B	86.000	0.000	110.000
	C	436.000	107.000	0.000

Turning Proportions (PCU) - Junction 05 (for whole period)

		To		
From		A	B	C
	A	0.00	0.08	0.92
	B	0.44	0.00	0.56
	C	0.80	0.20	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 05 (for whole period)

		To		
From		A	B	C
	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 05 (for whole period)

		To		
From		A	B	C
	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.52	11.12	1.06	B	346.00	346.00	62.10	10.77	1.03	62.15	10.78
B	0.30	7.97	0.43	A	196.00	196.00	25.52	7.81	0.43	25.53	7.82
C	0.75	20.08	2.97	C	543.00	543.00	167.94	18.56	2.80	168.31	18.60

Existing Layout - 2010 Observed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓	✓	D1,D2,D3,D4,D5,D6		100.000	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)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Rela
2010 Observed, PM	2010 Observed	PM		DIRECT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
Milton Road_Eagle Avenue Junction	Mini-roundabout	A,B,C	15.25	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
A	Milton Road (S)	
B	Eagle Avenue	
C	Milton Road (N)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.70	3.00	4.50	3.20	12.20	9.70	0.00	
B	4.20	3.50	5.36	4.90	14.60	13.00	0.00	
C	3.00	3.00	3.36	1.00	15.70	14.00	0.00	

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None

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)
A		(calculated)	(calculated)	0.537	727.067
B		(calculated)	(calculated)	0.588	835.949
C		(calculated)	(calculated)	0.541	768.256

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 (%)
A	DIRECT	✓	N/A	100.000
B	DIRECT	✓	N/A	100.000
C	DIRECT	✓	N/A	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 05 (for whole period)

		To		
From		A	B	C
	A	0.000	68.000	397.000
	B	63.000	0.000	82.000
	C	348.000	131.000	0.000

Turning Proportions (PCU) - Junction 05 (for whole period)

		To		
From		A	B	C
	A	0.00	0.15	0.85
	B	0.43	0.00	0.57
	C	0.73	0.27	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 05 (for whole period)

		To		
From		A	B	C
	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 05 (for whole period)

		To		
From		A	B	C
	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.71	18.74	2.38	C	465.00	465.00	135.66	17.50	2.26	135.92	17.54
B	0.24	7.87	0.32	A	145.00	145.00	18.64	7.71	0.31	18.64	7.71
C	0.65	14.10	1.86	B	479.00	479.00	107.28	13.44	1.79	107.42	13.46

Existing Layout - 2018 Baseline, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓	✓	D1,D2,D3,D4,D5,D6		100.000	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)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relative
2018 Baseline, AM	2018 Baseline	AM		DIRECT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
Milton Road_Eagle Avenue Junction	Mini-roundabout	A,B,C	22.80	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
A	Milton Road (S)	
B	Eagle Avenue	
C	Milton Road (N)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.70	3.00	4.50	3.20	12.20	9.70	0.00	
B	4.20	3.50	5.36	4.90	14.60	13.00	0.00	
C	3.00	3.00	3.36	1.00	15.70	14.00	0.00	

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None

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)
A		(calculated)	(calculated)	0.537	727.067
B		(calculated)	(calculated)	0.588	835.949
C		(calculated)	(calculated)	0.541	768.256

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 (%)
A	DIRECT	✓	N/A	100.000
B	DIRECT	✓	N/A	100.000
C	DIRECT	✓	N/A	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 05 (for whole period)

		To		
From		A	B	C
	A	0.000	29.000	361.000
	B	97.000	0.000	124.000
	C	491.000	121.000	0.000

Turning Proportions (PCU) - Junction 05 (for whole period)

		To		
From		A	B	C
	A	0.00	0.07	0.93
	B	0.44	0.00	0.56
	C	0.80	0.20	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 05 (for whole period)

		To		
From		A	B	C
	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 05 (for whole period)

		To		
From		A	B	C
	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.59	13.22	1.42	B	390.00	390.00	82.35	12.67	1.37	82.44	12.68
B	0.35	8.94	0.55	A	221.00	221.00	32.16	8.73	0.54	32.18	8.74
C	0.86	33.91	5.55	D	612.00	612.00	297.04	29.12	4.95	298.33	29.25

Existing Layout - 2018 Baseline, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓	✓	D1,D2,D3,D4,D5,D6		100.000	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)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relative
2018 Baseline, PM	2018 Baseline	PM		DIRECT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
Milton Road_Eagle Avenue Junction	Mini-roundabout	A,B,C	17.83	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
A	Milton Road (S)	
B	Eagle Avenue	
C	Milton Road (N)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.70	3.00	4.50	3.20	12.20	9.70	0.00	
B	4.20	3.50	5.36	4.90	14.60	13.00	0.00	
C	3.00	3.00	3.36	1.00	15.70	14.00	0.00	

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None

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)
A		(calculated)	(calculated)	0.537	727.067
B		(calculated)	(calculated)	0.588	835.949
C		(calculated)	(calculated)	0.541	768.256

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 (%)
A	DIRECT	✓	N/A	100.000
B	DIRECT	✓	N/A	100.000
C	DIRECT	✓	N/A	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 05 (for whole period)

		To		
From		A	B	C
	A	0.000	50.000	449.000
	B	54.000	0.000	82.000
	C	394.000	123.000	0.000

Turning Proportions (PCU) - Junction 05 (for whole period)

		To		
From		A	B	C
	A	0.00	0.10	0.90
	B	0.40	0.00	0.60
	C	0.76	0.24	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 05 (for whole period)

		To		
From		A	B	C
	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 05 (for whole period)

		To		
From		A	B	C
	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.75	22.13	3.00	C	499.00	499.00	168.86	20.30	2.81	169.27	20.35
B	0.24	8.26	0.31	A	136.00	136.00	18.31	8.08	0.31	18.31	8.08
C	0.70	16.19	2.29	C	517.00	517.00	131.53	15.26	2.19	131.75	15.29

Existing Layout - 2018 Baseline + Dev, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓	✓	D1,D2,D3,D4,D5,D6		100.000	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)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relatio
2018 Baseline + Dev, AM	2018 Baseline + Dev	AM		DIRECT	08:00	09:00	60	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
Milton Road_Eagle Avenue Junction	Mini-roundabout	A,B,C	27.69	D

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
A	Milton Road (S)	
B	Eagle Avenue	
C	Milton Road (N)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	99999.00		0.00
B	0.00	99999.00		0.00
C	0.00	99999.00		0.00

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A	3.70	3.00	4.50	3.20	12.20	9.70	0.00	
B	4.20	3.50	5.36	4.90	14.60	13.00	0.00	
C	3.00	3.00	3.36	1.00	15.70	14.00	0.00	

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None

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)
A		(calculated)	(calculated)	0.537	727.067
B		(calculated)	(calculated)	0.588	835.949
C		(calculated)	(calculated)	0.541	768.256

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 (%)
A	DIRECT	✓	N/A	100.000
B	DIRECT	✓	N/A	100.000
C	DIRECT	✓	N/A	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 05 (for whole period)

		To		
		A	B	C
From	A	0.000	40.000	361.000
	B	134.000	0.000	154.000
	C	491.000	128.000	0.000

Turning Proportions (PCU) - Junction 05 (for whole period)

		To		
		A	B	C
From	A	0.00	0.10	0.90
	B	0.47	0.00	0.53
	C	0.79	0.21	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 05 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 05 (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.61	13.98	1.54	B	401.00	401.00	89.11	13.33	1.49	89.22	13.35
B	0.46	10.73	0.85	B	288.00	288.00	49.90	10.40	0.83	49.94	10.40
C	0.89	44.46	7.27	E	619.00	619.00	374.99	36.35	6.25	377.27	36.57

Existing Layout - 2018 Baseline + Dev, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set (s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
Existing Layout	ARCADY		✓	✓	D1,D2,D3,D4,D5,D6		100.000	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)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relatio
2018 Baseline + Dev, PM	2018 Baseline + Dev	PM		DIRECT	17:00	18:00	60	15				✓		

Junction Network

Junctions

Name	Junction Type	Arm Order	Junction Delay (s)	Junction LOS
Milton Road_Eagle Avenue Junction	Mini-roundabout	A,B,C	22.08	C

Junction Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
A	Milton Road (S)	
B	Eagle Avenue	
C	Milton Road (N)	

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C	0.00	99999.00		0.00

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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 (%)
A	DIRECT	✓	N/A	100.000
B	DIRECT	✓	N/A	100.000
C	DIRECT	✓	N/A	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 05 (for whole period)

		To		
From		A	B	C
	A	0.000	77.000	449.000
	B	71.000	0.000	93.000
	C	394.000	148.000	0.000

Turning Proportions (PCU) - Junction 05 (for whole period)

		To		
From		A	B	C
	A	0.00	0.15	0.85
	B	0.43	0.00	0.57
	C	0.73	0.27	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 05 (for whole period)

		To		
From		A	B	C
	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 05 (for whole period)

		To		
From		A	B	C
	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
A	0.81	29.28	4.15	D	526.00	526.00	226.92	25.88	3.78	227.71	25.97
B	0.29	8.83	0.40	A	164.00	164.00	23.51	8.60	0.39	23.51	8.60
C	0.74	19.11	2.83	C	542.00	542.00	160.33	17.75	2.67	160.66	17.79