

Appendix 50  
A508/Roade Bypass  
northern roundabout assessment results

<h1>Junctions 8</h1>
<h2>ARCADY 8 - Roundabout Module</h2>
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**Filename:** Roade Bypass - Northern Roundabout\_ARCADY.arc8

**Path:** C:\Users\ADCteam\Dropbox\~ JN8 TEMP

**Report generation date:** 15/03/2018 18:56:11

» **Traffic Flows - 2031 J1d development case, AM**

» **Traffic Flows - 2031 J1d development case, PM**

### Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
<b>Traffic Flows - 2031 J1d development case</b>						
<b>Arm 1</b>	2.72	5.79	0.70	3.85	7.74	0.77
<b>Arm 2</b>	0.28	3.90	0.21	0.75	5.23	0.42
<b>Arm 3</b>	1.83	5.35	0.60	2.04	6.04	0.64

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

"D1 - 2031 J1d development case, AM" model duration: 07:45 - 09:15

"D2 - 2031 J1d development case, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 15/03/2018 18:56:09

### File summary

<b>Title</b>	Northern Roundabout
<b>Location</b>	Roade Bypass
<b>Site Number</b>	
<b>Date</b>	03/08/2017
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	KG
<b>Client</b>	
<b>Jobnumber</b>	ADC1475
<b>Enumerator</b>	ADCteam
<b>Description</b>	

### 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

# Traffic Flows - 2031 J1d development case, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## 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
Traffic Flows	ARCADY		✓				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	R
2031 J1d development case, AM	2031 J1d development case	AM		ONE HOUR	07:45	09:15	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3				5.47	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description
1	1	A508 (S)	
2	2	A508 (N)	
3	3	Roade Bypass	

## Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00

## 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	9.00	67.00	24.00	70.00	28.00	
2	3.65	7.90	37.00	20.00	70.00	30.00	
3	3.65	9.00	39.00	20.00	70.00	33.00	

## 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	2433.258
2		(calculated)	(calculated)	0.560	2047.585
3		(calculated)	(calculated)	0.583	2209.241

*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	2.30				✓	✓

# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	1552.00	100.000
2	ONE HOUR	✓	239.00	100.000
3	ONE HOUR	✓	1128.00	100.000

# Turning Proportions

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

		To		
		1	2	3
From	1	0.000	260.000	1292.000
	2	239.000	0.000	0.000
	3	1121.000	7.000	0.000

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

		To		
		1	2	3
From	1	0.00	0.17	0.83
	2	1.00	0.00	0.00
	3	0.99	0.01	0.00

# Vehicle Mix

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

		To		
		1	2	3
From	1	1.000	1.049	1.183
	2	1.070	1.000	1.000
	3	1.211	1.000	1.000

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.0	3.8	14.1
	2	5.4	0.0	0.0
	3	16.2	0.0	0.0

# 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)
1	0.70	5.79	2.72	A	1424.14	2136.21	158.44	4.45	1.76	158.45	4.45
2	0.21	3.90	0.28	A	219.31	328.97	18.63	3.40	0.21	18.63	3.40
3	0.60	5.35	1.83	A	1035.07	1552.61	112.68	4.35	1.25	112.68	4.35

## Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
1	1168.43	292.11	1164.16	1020.07	5.25	0.00	2429.98	2426.77	0.481	0.00	1.07	3.284	A
2	179.93	44.98	179.35	200.28	969.14	0.00	1504.65	915.80	0.120	0.00	0.14	2.905	A
3	849.22	212.30	845.97	969.14	179.35	0.00	2104.65	1675.18	0.404	0.00	0.81	3.449	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
1	1395.22	348.80	1393.29	1221.13	6.28	0.00	2429.33	2426.77	0.574	1.07	1.55	4.018	A
2	214.86	53.71	214.66	239.70	1159.88	0.00	1397.79	915.80	0.154	0.14	0.19	3.256	A
3	1014.05	253.51	1012.76	1159.88	214.66	0.00	2084.06	1675.18	0.487	0.81	1.14	4.057	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
1	1708.78	427.20	1704.20	1494.32	7.69	0.00	2428.46	2426.77	0.704	1.55	2.69	5.722	A
2	263.14	65.79	262.79	293.19	1418.70	0.00	1252.79	915.80	0.210	0.19	0.28	3.891	A
3	1241.95	310.49	1239.22	1418.70	262.79	0.00	2055.99	1675.18	0.604	1.14	1.82	5.310	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
1	1708.78	427.20	1708.67	1497.33	7.71	0.00	2428.45	2426.77	0.704	2.69	2.72	5.792	A
2	263.14	65.79	263.14	293.95	1422.43	0.00	1250.70	915.80	0.210	0.28	0.28	3.901	A
3	1241.95	310.49	1241.90	1422.43	263.14	0.00	2055.79	1675.18	0.604	1.82	1.83	5.347	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
1	1395.22	348.80	1399.79	1225.65	6.31	0.00	2429.32	2426.77	0.574	2.72	1.58	4.070	A
2	214.86	53.71	215.21	240.81	1165.29	0.00	1394.76	915.80	0.154	0.28	0.20	3.266	A
3	1014.05	253.51	1016.75	1165.29	215.21	0.00	2083.74	1675.18	0.487	1.83	1.16	4.089	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
1	1168.43	292.11	1170.42	1025.40	5.28	0.00	2429.96	2426.77	0.481	1.58	1.08	3.318	A
2	179.93	44.98	180.13	201.35	974.35	0.00	1501.73	915.80	0.120	0.20	0.15	2.915	A
3	849.22	212.30	850.55	974.35	180.13	0.00	2104.20	1675.18	0.404	1.16	0.82	3.474	A

## Queueing Delay Results for each time segment

### Queueing Delay results: (07:45-08:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
1	15.56	1.04	3.284	A	A
2	2.14	0.14	2.905	A	A
3	11.88	0.79	3.449	A	A

### Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
1	22.60	1.51	4.018	A	A
2	2.86	0.19	3.256	A	A
3	16.66	1.11	4.057	A	A

### Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
1	38.58	2.57	5.722	A	A
2	4.17	0.28	3.891	A	A
3	26.32	1.75	5.310	A	A

### Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
1	40.67	2.71	5.792	A	A
2	4.26	0.28	3.901	A	A
3	27.39	1.83	5.347	A	A

### Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
1	24.46	1.63	4.070	A	A
2	2.98	0.20	3.266	A	A
3	17.82	1.19	4.089	A	A

### Queueing Delay results: (09:00-09:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
1	16.57	1.10	3.318	A	A
2	2.22	0.15	2.915	A	A
3	12.60	0.84	3.474	A	A

# Traffic Flows - 2031 J1d development case, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## 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
Traffic Flows	ARCADY		✓				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	R
2031 J1d development case, PM	2031 J1d development case	PM		ONE HOUR	16:45	18:15	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3				6.79	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description
1	1	A508 (S)	
2	2	A508 (N)	
3	3	Road Bypass	



## Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00

## 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	9.00	67.00	24.00	70.00	28.00	
2	3.65	7.90	37.00	20.00	70.00	30.00	
3	3.65	9.00	39.00	20.00	70.00	33.00	

## 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	2433.258
2		(calculated)	(calculated)	0.560	2047.585
3		(calculated)	(calculated)	0.583	2209.241

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	2.30				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	1653.00	100.000
2	ONE HOUR	✓	474.00	100.000
3	ONE HOUR	✓	1112.00	100.000

## Turning Proportions

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

		To		
		1	2	3
From	1	0.000	325.000	1328.000
	2	474.000	0.000	0.000
	3	989.000	123.000	0.000

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

		To		
		1	2	3
From	1	0.00	0.20	0.80
	2	1.00	0.00	0.00
	3	0.89	0.11	0.00

## Vehicle Mix

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

		To		
		1	2	3
From	1	1.000	1.148	1.137
	2	1.027	1.000	1.000
	3	1.163	1.000	1.000

### Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.0	11.4	10.5
	2	2.1	0.0	0.0
	3	12.5	0.0	0.0

## 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)
1	0.77	7.74	3.85	A	1516.82	2275.23	205.93	5.43	2.29	205.95	5.43
2	0.42	5.23	0.75	A	434.95	652.43	45.73	4.21	0.51	45.73	4.21
3	0.64	6.04	2.04	A	1020.39	1530.59	119.75	4.69	1.33	119.76	4.69

### Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
1	1244.47	311.12	1239.50	1097.23	92.24	0.00	2375.66	2321.06	0.524	0.00	1.24	3.592	A
2	356.85	89.21	355.56	335.94	995.80	0.00	1489.71	1002.92	0.240	0.00	0.32	3.258	A
3	837.17	209.29	833.91	995.80	355.56	0.00	2001.89	1624.37	0.418	0.00	0.82	3.509	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
1	1486.01	371.50	1483.38	1313.39	110.41	0.00	2364.31	2321.06	0.629	1.24	1.90	4.639	A
2	426.12	106.53	425.58	402.07	1191.73	0.00	1379.94	1002.92	0.309	0.32	0.46	3.874	A
3	999.67	249.92	998.22	1191.73	425.58	0.00	1961.06	1624.37	0.510	0.82	1.18	4.264	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
1	1819.99	455.00	1812.47	1606.64	135.05	0.00	2348.92	2321.06	0.775	1.90	3.78	7.537	A
2	521.88	130.47	520.72	491.41	1456.11	0.00	1231.83	1002.92	0.424	0.46	0.75	5.192	A
3	1224.33	306.08	1220.98	1456.11	520.72	0.00	1905.57	1624.37	0.643	1.18	2.02	5.975	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
1	1819.99	455.00	1819.72	1610.70	135.42	0.00	2348.69	2321.06	0.775	3.78	3.85	7.737	A
2	521.88	130.47	521.86	493.20	1461.94	0.00	1228.56	1002.92	0.425	0.75	0.75	5.232	A
3	1224.33	306.08	1224.26	1461.94	521.86	0.00	1904.91	1624.37	0.643	2.02	2.04	6.037	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
1	1486.01	371.50	1493.59	1319.34	110.94	0.00	2363.98	2321.06	0.629	3.85	1.95	4.751	A
2	426.12	106.53	427.28	404.60	1199.93	0.00	1375.35	1002.92	0.310	0.75	0.46	3.906	A
3	999.67	249.92	1003.01	1199.93	427.28	0.00	1960.07	1624.37	0.510	2.04	1.20	4.310	A

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

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
1	1244.47	311.12	1247.23	1103.30	92.77	0.00	2375.33	2321.06	0.524	1.95	1.26	3.644	A
2	356.85	89.21	357.40	337.99	1002.01	0.00	1486.23	1002.92	0.240	0.46	0.33	3.277	A
3	837.17	209.29	838.66	1002.01	357.40	0.00	2000.81	1624.37	0.418	1.20	0.83	3.543	A

**Queueing Delay Results for each time segment**
**Queueing Delay results: (16:45-17:00)**

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
1	18.07	1.20	3.592	A	A
2	4.73	0.32	3.258	A	A
3	11.91	0.79	3.509	A	A

**Queueing Delay results: (17:00-17:15)**

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
1	27.59	1.84	4.639	A	A
2	6.72	0.45	3.874	A	A
3	17.21	1.15	4.264	A	A

**Queueing Delay results: (17:15-17:30)**

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
1	52.97	3.53	7.537	A	A
2	10.91	0.73	5.192	A	A
3	28.99	1.93	5.975	A	A

**Queueing Delay results: (17:30-17:45)**

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
1	57.32	3.82	7.737	A	A
2	11.28	0.75	5.232	A	A
3	30.41	2.03	6.037	A	A

**Queueing Delay results: (17:45-18:00)**

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
1	30.52	2.03	4.751	A	A
2	7.12	0.47	3.906	A	A
3	18.55	1.24	4.310	A	A

**Queueing Delay results: (18:00-18:15)**

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
1	19.45	1.30	3.644	A	A
2	4.97	0.33	3.277	A	A
3	12.67	0.84	3.543	A	A

