

Junctions 9							
PICADY 9 - Priority Intersection Module							
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Filename: Napier MRT.j9

Path: J:\28791 RBC BLTB LA Scheme\03 East Reading MRT\Transport\Working Documents\Junction Analysis

Report generation date: 16/06/2017 15:49:45

»2021 + P&R + MRT, AM

»2021 + P&R + MRT, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2021 + P&R + MRT								
Stream B-AC	0.0	10.24	0.02	B	0.0	10.32	0.02	B
Stream C-AB	0.0	9.68	0.02	A	0.0	9.75	0.02	A

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	06/06/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PBA\ldharvey
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 + P&R + MRT	AM	ONE HOUR	07:45	09:15	15	✓
D2	2021 + P&R + MRT	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2021 + P&R + MRT, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.14	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Tesco		Major
B	MRT Scheme		Minor
C	Napier Road West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.80		✓	5.00	45.0	✓	4.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	4.30	85	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	599	0.101	0.254	0.160	0.363
1	B-C	741	0.105	0.265	-	-
1	C-B	783	0.280	0.280	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 + P&R + MRT	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	73	100.000
B		ONE HOUR	✓	15	100.000
C		ONE HOUR	✓	173	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0	0	73
	B	0	0	15
	C	158	15	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A	B	C
	A	10	10	10
	B	10	10	100
	C	10	100	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.02	10.24	0.0	B	14	21
C-AB	0.02	9.68	0.0	A	14	21
C-A					145	217
A-B					0	0
A-C					67	100

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	11	3	726	0.016	11	0.0	0.0	10.069	B
C-AB	11	3	768	0.015	11	0.0	0.0	9.518	A
C-A	119	30			119				
A-B	0	0			0				
A-C	55	14			55				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	13	3	723	0.019	13	0.0	0.0	10.142	B
C-AB	13	3	765	0.018	13	0.0	0.0	9.585	A
C-A	142	36			142				
A-B	0	0			0				
A-C	66	16			66				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	17	4	719	0.023	16	0.0	0.0	10.242	B
C-AB	17	4	760	0.022	16	0.0	0.0	9.676	A
C-A	174	43			174				
A-B	0	0			0				
A-C	80	20			80				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	17	4	719	0.023	17	0.0	0.0	10.242	B
C-AB	17	4	760	0.022	17	0.0	0.0	9.676	A
C-A	174	43			174				
A-B	0	0			0				
A-C	80	20			80				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	13	3	723	0.019	14	0.0	0.0	10.143	B
C-AB	13	3	765	0.018	14	0.0	0.0	9.586	A
C-A	142	36			142				
A-B	0	0			0				
A-C	66	16			66				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	11	3	726	0.016	11	0.0	0.0	10.073	B
C-AB	11	3	768	0.015	11	0.0	0.0	9.520	A
C-A	119	30			119				
A-B	0	0			0				
A-C	55	14			55				

2021 + P&R + MRT, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.66	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2021 + P&R + MRT	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	92	100.000
B		ONE HOUR	✓	15	100.000
C		ONE HOUR	✓	74	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	0	92
	B	0	0	15
	C	59	15	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	10	10	10
	B	10	10	100
	C	10	100	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.02	10.32	0.0	B	14	21
C-AB	0.02	9.75	0.0	A	14	21
C-A					54	81
A-B					0	0
A-C					84	127

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	11	3	722	0.016	11	0.0	0.0	10.122	B
C-AB	11	3	764	0.015	11	0.0	0.0	9.569	A
C-A	44	11			44				
A-B	0	0			0				
A-C	69	17			69				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	13	3	719	0.019	13	0.0	0.0	10.207	B
C-AB	13	3	760	0.018	13	0.0	0.0	9.647	A
C-A	53	13			53				
A-B	0	0			0				
A-C	83	21			83				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	17	4	714	0.023	16	0.0	0.0	10.323	B
C-AB	17	4	755	0.022	16	0.0	0.0	9.754	A
C-A	65	16			65				
A-B	0	0			0				
A-C	101	25			101				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	17	4	714	0.023	17	0.0	0.0	10.323	B
C-AB	17	4	755	0.022	17	0.0	0.0	9.754	A
C-A	65	16			65				
A-B	0	0			0				
A-C	101	25			101				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	13	3	719	0.019	14	0.0	0.0	10.208	B
C-AB	13	3	760	0.018	14	0.0	0.0	9.648	A
C-A	53	13			53				
A-B	0	0			0				
A-C	83	21			83				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	11	3	722	0.016	11	0.0	0.0	10.127	B
C-AB	11	3	764	0.015	11	0.0	0.0	9.571	A
C-A	44	11			44				
A-B	0	0			0				
A-C	69	17			69				