Redwood Partnership Transportation Limited

[redacted]

REDWOOD PARTNERSHIP
Consulting Engineers
Transportation Planners



MIXED-USE DEVELOPMENT
A259 NEW ROAD
RUSTINGTON
WEST SUSSEX

TRANSPORT ASSESSMENT

VOLUME 4 OF 4

On behalf of
COMMERCIAL DEVELOPMENT PROJECTS LIMITED
&
MARKS AND SPENCERS PLC

PMcL/3167d1/Feb 2015

Registered in England No. 7200530
Registered Office: The White House, 2 Meadrow, Godalming, Surrey, GU7 3HN

ARUN DISTRICT COUNCIL A/23/15/OUT



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TRICS data

APPENDIX E
PICADY & ARCADY computer outputs

APPENDIX D

Department for Transport statistics

National Travel Survey

Table NTS0409

Average number of trips (trip rates) by purpose and main mode: England, 2013

	Trips per person per year									
Purpose	Walk	Bicycle	Car / van driver	Car / van passenger	Motorcycle	Other private transport[1]	Local bus	Rail[2]	Other public transport[3]	All modes
Commuting	14	5	83	15	1	-	11	13	2	145
Business	2	-	21	2	-	-	1	3	-	30
Education / escort education	45	1	23	25	-	3	13	2	1	112
Shopping	38	1	81	39	-	1	16	2	2	180
Other escort	10	-	48	25	-	-	2	-	1	86
Personal business	18	1	38	22	-	1	7	1	1	89
Leisure[4]	36	5	88	82	1	2	13	8	6	240
Other including just walk	40	0	-	-	-	0	0	0	0	40
All purposes	203	14	380	210	3	7	63	30	13	923
Unweighted sample size: trips ('000s)	62	4	113	63	1	2	18	8	4	274

1 Mostly private hire bus (including school buses).

2 Surface rail and London Underground.

3 Non-local bus, taxi / minicab and other public transport (air, ferries, light rail).

4 Visit friends at home and elsewhere, entertainment, sport, holiday and day trip.

Telephone: 020 7944 3097

Email: national.travelsurvey@dft.gsi.gov.uk

Notes & definitions

Source: National Travel Survey

Last updated: 29 July 2014

Next update: July 2015

The figures in this table are National Statistics

Note:

The results presented in this table are weighted. The base (unweighted sample size) is shown in the table for information.

Weights are applied to adjust for non-response to ensure the characteristics of the achieved sample match the population of Great Britain (1995-2012) or England (2013 onwards) and for the drop off in trip recording in diary data.

The survey results are subject to sampling error.

ARUN DISTRICT COUNCIL A/23/15/OUT

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : C - PUB/RESTAURANT

VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	BF	BRACKNELL FOREST	1 days
	EX	ESSEX	1 days
06	**WEST MIDLANDS**		
	SH	SHROPSHIRE	1 days
09	**NORTH**		
	TW	TYNE & WEAR	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Filtering Stage 2 selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter:	Gross floor area
Actual Range:	400 to 1400 (units: sqm)
Range Selected by User:	112 to 1500 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/06 to 26/11/13

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Friday	4 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town Centre	1
Edge of Town	3

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	2
No Sub Category	2

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

PUBLIC HOUSE
FRIDAY

Filtering Stage 3 selection:

Use Class:

A4	4 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
250,001 to 500,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	2 days
2.1 to 2.5	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	4 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

LIST OF SITES relevant to selection parameters

1	**BF-06-C-01**	**HARVESTER**		**BRACKNELL FOREST**
	BAGSHOT ROAD			
	BRACKNELL			
	Edge of Town Centre			
	Residential Zone			
	Total Gross floor area:		725 sqm	
	Survey date: FRIDAY		*23/11/12*	*Survey Type: MANUAL*
2	**EX-06-C-02**	**HARVESTER**		**ESSEX**
	LONDON ROAD			
	STANWAY			
	COLCHESTER			
	Edge of Town			
	No Sub Category			
	Total Gross floor area:		450 sqm	
	Survey date: FRIDAY		*08/11/13*	*Survey Type: MANUAL*
3	**SH-06-C-02**	**HUNGRY HORSE**		**SHROPSHIRE**
	WELSHPOOL ROAD			
	SHELTON			
	SHREWSBURY			
	Edge of Town			
	No Sub Category			
	Total Gross floor area:		1400 sqm	
	Survey date: FRIDAY		*26/06/09*	*Survey Type: MANUAL*
4	**TW-06-C-01**	**PUB/ RESTAURANT**		**TYNE & WEAR**
	WHICKHAM HIGHWAY			
	GATESHEAD			
	Edge of Town			
	Residential Zone			
	Total Gross floor area:		400 sqm	
	Survey date: FRIDAY		*04/10/13*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/C - PUB/RESTAURANT

VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	4	744	0.471	4	744	0.504	4	744	0.975
11:00 - 12:00	4	744	1.042	4	744	0.504	4	744	1.546
12:00 - 13:00	4	744	2.857	4	744	0.874	4	744	3.731
13:00 - 14:00	4	744	2.218	4	744	1.748	4	744	3.966
14:00 - 15:00	4	744	1.008	4	744	3.059	4	744	4.067
15:00 - 16:00	4	744	1.445	4	744	1.244	4	744	2.689
16:00 - 17:00	4	744	2.252	4	744	1.277	4	744	3.529
17:00 - 18:00	4	744	3.798	4	744	2.017	4	744	5.815
18:00 - 19:00	**4**	**744**	**4.706**	4	744	3.529	**4**	**744**	**8.235**
19:00 - 20:00	4	744	3.966	**4**	**744**	**3.765**	4	744	7.731
20:00 - 21:00	4	744	2.218	4	744	3.395	4	744	5.613
21:00 - 22:00	4	744	1.546	4	744	3.227	4	744	4.773
22:00 - 23:00	4	744	0.706	4	744	2.252	4	744	2.958
23:00 - 24:00	4	744	0.303	4	744	1.277	4	744	1.580
Total Rates:			28.536			28.672			57.208

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	400 - 1400 (units: sqm)
Survey date date range:	01/01/06 - 26/11/13
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	1

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : C - PUB/RESTAURANT

VEHICLES

Selected regions and areas:

03	**SOUTH WEST**		
	WL	WILTSHIRE	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	WY	WEST YORKSHIRE	1 days
11	**SCOTLAND**		
	FA	FALKIRK	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Filtering Stage 2 selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter:	Gross floor area
Actual Range:	375 to 904 (units: sqm)
Range Selected by User:	375 to 904 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/06 to 01/06/13

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Saturday	3 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	3

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Out of Town	1
No Sub Category	2

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

PUBLIC HOUSE
SATURDAY

Filtering Stage 3 selection:

Use Class:

A4	3 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

50,001 to 75,000	1 days
75,001 to 100,000	1 days
250,001 to 500,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	3 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

LIST OF SITES relevant to selection parameters

1 **FA-06-C-02** **PUB/ RESTAURANT** **FALKIRK**
MILLENNIUM WHEEL DRIVE

FALKIRK
Edge of Town
Out of Town
Total Gross floor area: 700 sqm
Survey date: SATURDAY *01/06/13* *Survey Type: MANUAL*

2 **WL-06-C-01** **HUNGRY HORSE** **WILTSHIRE**
A4 ROWDEN HILL

CHIPPENHAM
Edge of Town
No Sub Category
Total Gross floor area: 375 sqm
Survey date: SATURDAY *07/10/06* *Survey Type: MANUAL*

3 **WY-06-C-01** **BREWERS FAYRE** **WEST YORKSHIRE**
BRIDGHOUSE ROAD
AINLEY TOP
HUDDERSFIELD
Edge of Town
No Sub Category
Total Gross floor area: 904 sqm
Survey date: SATURDAY *16/09/06* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/C - PUB/RESTAURANT

VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	700	1.857	1	700	0.571	1	700	2.428
10:00 - 11:00	3	660	1.364	3	660	0.910	3	660	2.274
11:00 - 12:00	3	660	2.425	3	660	1.920	3	660	4.345
12:00 - 13:00	3	660	3.739	3	660	1.769	3	660	5.508
13:00 - 14:00	3	660	3.284	3	660	3.183	3	660	6.467
14:00 - 15:00	3	660	2.729	3	660	2.981	3	660	5.710
15:00 - 16:00	3	660	2.880	3	660	2.830	3	660	5.710
16:00 - 17:00	3	660	3.941	3	660	3.032	3	660	6.973
17:00 - 18:00	3	660	3.234	3	660	3.284	3	660	6.518
18:00 - 19:00	**3**	**660**	**4.699**	**3**	**660**	**4.144**	**3**	**660**	**8.843**
19:00 - 20:00	3	660	3.588	3	660	3.891	3	660	7.479
20:00 - 21:00	3	660	2.628	3	660	3.183	3	660	5.811
21:00 - 22:00	3	660	1.011	3	660	3.537	3	660	4.548
22:00 - 23:00	3	660	0.455	3	660	2.223	3	660	2.678
23:00 - 24:00	2	640	0.391	2	640	0.469	2	640	0.860
Total Rates:			38.225			37.927			76.152

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	375 - 904 (units: sqm)
Survey date date range:	01/01/06 - 01/06/13
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	3
Number of Sundays:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

APPENDIX E

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.4.487 [15039,24/03/2014]
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Import of 3167P101 Friday 2016.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 18/02/2015 09:59:22

» Scenario 1, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Scenario 1				
Stream B-AC	0.17	7.34	0.15	A	140 % [Stream B-AC]
Stream C-A	-	-	-	-	
Stream C-B	0.00	0.00	0.00	A	
Stream A-B	-	-	-	-	
Stream A-C	-	-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Scenario 1, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 18/02/2015 09:59:22

File summary

Title	3167P101 Friday PM 2016 + committed + development
Location	A259/Site egress
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Scenario 1, 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
	N/A		✓				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	Relations
Scenario 1, AM	Scenario 1	AM	PM Peak Hour	Varies by Arm	16:30	18:00	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	A,B,C		7.34	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	140	Stream B-AC

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A259 East		Major
B	B	Site egress		Minor
C	C	A259 West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	18.00		0.00		2.20	0.00		

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.00										0	120

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/min)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	9.822	0.051	0.130	0.082	0.185
1	B-C	12.825	0.056	0.142	-	-
1	C-B	9.566	0.106	0.106	-	-

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 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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	21.48	100.000
B	ONE HOUR	✓	1.28	100.000
C	ONE HOUR	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	1.400	20.083
	B	0.000	0.000	1.283
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.07	0.93
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.15	7.34	0.17	A	1.18	105.98	11.92	6.75	0.13	11.92	6.75
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	1.28	115.62	-	-	-	-	-
A-C	-	-	-	-	18.43	1658.59	-	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	0.97	14.49	0.96	0.00	10.61	0.091	0.00	0.10	6.212	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.85	0.000	0.00	0.00	0.000	A
A-B	1.05	15.81	1.05	0.00	-	-	-	-	-	-
A-C	15.12	226.80	15.12	0.00	-	-	-	-	-	-

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

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.15	17.31	1.15	0.00	10.18	0.113	0.10	0.13	6.642	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.51	0.000	0.00	0.00	0.000	A
A-B	1.26	18.88	1.26	0.00	-	-	-	-	-	-
A-C	18.05	270.82	18.05	0.00	-	-	-	-	-	-

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

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.41	21.19	1.41	0.00	9.59	0.147	0.13	0.17	7.336	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.05	0.000	0.00	0.00	0.000	A
A-B	1.54	23.12	1.54	0.00	-	-	-	-	-	-
A-C	22.11	331.68	22.11	0.00	-	-	-	-	-	-

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

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.41	21.19	1.41	0.00	9.59	0.147	0.17	0.17	7.339	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.05	0.000	0.00	0.00	0.000	A
A-B	1.54	23.12	1.54	0.00	-	-	-	-	-	-
A-C	22.11	331.68	22.11	0.00	-	-	-	-	-	-

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

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.15	17.31	1.16	0.00	10.18	0.113	0.17	0.13	6.649	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.51	0.000	0.00	0.00	0.000	A
A-B	1.26	18.88	1.26	0.00	-	-	-	-	-	-
A-C	18.05	270.82	18.05	0.00	-	-	-	-	-	-

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

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	0.97	14.49	0.97	0.00	10.61	0.091	0.13	0.10	6.224	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.85	0.000	0.00	0.00	0.000	A
A-B	1.05	15.81	1.05	0.00	-	-	-	-	-	-
A-C	15.12	226.80	15.12	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.45	0.10	6.212	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.86	0.12	6.642	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.51	0.17	7.336	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.58	0.17	7.339	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.98	0.13	6.649	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.54	0.10	6.224	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167P102 Saturday 2016.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 18/02/2015 10:03:57

» Scenario 1, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Scenario 1				
Stream B-AC	0.23	7.57	0.19	A	128 % [Stream B-AC]
Stream C-A	-	-	-	-	
Stream C-B	0.00	0.00	0.00	A	
Stream A-B	-	-	-	-	
Stream A-C	-	-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Scenario 1, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 18/02/2015 10:03:57

File summary

Title	3167P102 Saturday PM 2016 + committed + development
Location	A259/Site egress
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Scenario 1, 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
	N/A		✓				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	Relations
Scenario 1, AM	Scenario 1	AM	PM Peak Hour	Varies by Arm	11:45	13:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	A,B,C		7.57	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	128	Stream B-AC

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A259 East		Major
B	B	Site egress		Minor
C	C	A259 West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	18.00		0.00		2.20	0.00		

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.00										0	120

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/min)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	9.822	0.051	0.130	0.082	0.185
1	B-C	12.825	0.056	0.142	-	-
1	C-B	9.566	0.106	0.106	-	-

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 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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	20.67	100.000
B	ONE HOUR	✓	1.67	100.000
C	ONE HOUR	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	1.883	18.783
	B	0.000	0.000	1.667
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.09	0.91
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.19	7.57	0.23	A	1.53	137.64	15.86	6.91	0.18	15.86	6.91
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	1.73	155.54	-	-	-	-	-
A-C	-	-	-	-	17.24	1551.23	-	-	-	-	-

Main Results for each time segment

Main results: (11:45-12:00)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.25	18.82	1.25	0.00	10.73	0.117	0.00	0.13	6.321	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.91	0.000	0.00	0.00	0.000	A
A-B	1.42	21.27	1.42	0.00	-	-	-	-	-	-
A-C	14.14	212.12	14.14	0.00	-	-	-	-	-	-

Main results: (12:00-12:15)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.50	22.47	1.50	0.00	10.32	0.145	0.13	0.17	6.795	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.59	0.000	0.00	0.00	0.000	A
A-B	1.69	25.40	1.69	0.00	-	-	-	-	-	-
A-C	16.89	253.29	16.89	0.00	-	-	-	-	-	-

Main results: (12:15-12:30)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.84	27.53	1.83	0.00	9.76	0.188	0.17	0.23	7.562	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.15	0.000	0.00	0.00	0.000	A
A-B	2.07	31.10	2.07	0.00	-	-	-	-	-	-
A-C	20.68	310.21	20.68	0.00	-	-	-	-	-	-

Main results: (12:30-12:45)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.84	27.53	1.83	0.00	9.76	0.188	0.23	0.23	7.568	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.15	0.000	0.00	0.00	0.000	A
A-B	2.07	31.10	2.07	0.00	-	-	-	-	-	-
A-C	20.68	310.21	20.68	0.00	-	-	-	-	-	-

Main results: (12:45-13:00)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.50	22.47	1.50	0.00	10.32	0.145	0.23	0.17	6.803	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.59	0.000	0.00	0.00	0.000	A
A-B	1.69	25.40	1.69	0.00	-	-	-	-	-	-
A-C	16.89	253.29	16.89	0.00	-	-	-	-	-	-

Main results: (13:00-13:15)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.25	18.82	1.26	0.00	10.73	0.117	0.17	0.13	6.337	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.91	0.000	0.00	0.00	0.000	A
A-B	1.42	21.27	1.42	0.00	-	-	-	-	-	-
A-C	14.14	212.12	14.14	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-12:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.91	0.13	6.321	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:00-12:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.47	0.16	6.795	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:15-12:30)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.35	0.22	7.562	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:30-12:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.45	0.23	7.568	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:45-13:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.63	0.18	6.803	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (13:00-13:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.04	0.14	6.337	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167P103 Friday 2020.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 18/02/2015 10:01:49

» Scenario 1, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Scenario 1				
Stream B-AC	0.18	7.47	0.15	A	132 % [Stream B-AC]
Stream C-A	-	-	-	-	
Stream C-B	0.00	0.00	0.00	A	
Stream A-B	-	-	-	-	
Stream A-C	-	-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Scenario 1, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 18/02/2015 10:01:49

File summary

Title	3167P101 Friday PM 2020 + committed + development
Location	A259/Site egress
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Scenario 1, 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
	N/A		✓				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	Relations
Scenario 1, AM	Scenario 1	AM	PM Peak Hour	Varies by Arm	16:30	18:00	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	A,B,C		7.47	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	132	Stream B-AC

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A259 East		Major
B	B	Site egress		Minor
C	C	A259 West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	18.00		0.00		2.20	0.00		

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.00										0	120

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/min)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	9.822	0.051	0.130	0.082	0.185
1	B-C	12.825	0.056	0.142	-	-
1	C-B	9.566	0.106	0.106	-	-

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 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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	22.43	100.000
B	ONE HOUR	✓	1.28	100.000
C	ONE HOUR	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	1.400	21.033
	B	0.000	0.000	1.283
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.06	0.94
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.15	7.47	0.18	A	1.18	105.98	12.09	6.85	0.13	12.10	6.85
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	1.28	115.62	-	-	-	-	-
A-C	-	-	-	-	19.30	1737.05	-	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	0.97	14.49	0.96	0.00	10.51	0.092	0.00	0.10	6.279	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.77	0.000	0.00	0.00	0.000	A
A-B	1.05	15.81	1.05	0.00	-	-	-	-	-	-
A-C	15.84	237.52	15.84	0.00	-	-	-	-	-	-

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

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.15	17.31	1.15	0.00	10.06	0.115	0.10	0.13	6.733	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.42	0.000	0.00	0.00	0.000	A
A-B	1.26	18.88	1.26	0.00	-	-	-	-	-	-
A-C	18.91	283.63	18.91	0.00	-	-	-	-	-	-

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

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.41	21.19	1.41	0.00	9.44	0.150	0.13	0.17	7.473	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	6.94	0.000	0.00	0.00	0.000	A
A-B	1.54	23.12	1.54	0.00	-	-	-	-	-	-
A-C	23.16	347.37	23.16	0.00	-	-	-	-	-	-

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

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.41	21.19	1.41	0.00	9.44	0.150	0.17	0.18	7.475	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	6.94	0.000	0.00	0.00	0.000	A
A-B	1.54	23.12	1.54	0.00	-	-	-	-	-	-
A-C	23.16	347.37	23.16	0.00	-	-	-	-	-	-

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

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.15	17.31	1.16	0.00	10.06	0.115	0.18	0.13	6.743	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.42	0.000	0.00	0.00	0.000	A
A-B	1.26	18.88	1.26	0.00	-	-	-	-	-	-
A-C	18.91	283.63	18.91	0.00	-	-	-	-	-	-

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

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	0.97	14.49	0.97	0.00	10.51	0.092	0.13	0.10	6.289	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.77	0.000	0.00	0.00	0.000	A
A-B	1.05	15.81	1.05	0.00	-	-	-	-	-	-
A-C	15.84	237.52	15.84	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.46	0.10	6.279	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.89	0.13	6.733	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.55	0.17	7.473	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.62	0.17	7.475	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.00	0.13	6.743	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.56	0.10	6.289	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167P104 Saturday 2020.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 18/02/2015 10:02:44

» Scenario 1, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Scenario 1				
Stream B-AC	0.23	7.70	0.19	A	122 % [Stream B-AC]
Stream C-A	-	-	-	-	
Stream C-B	0.00	0.00	0.00	A	
Stream A-B	-	-	-	-	
Stream A-C	-	-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Scenario 1, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 18/02/2015 10:02:44

File summary

Title	3167P102 Saturday PM 2016 + committed + development
Location	A259/Site egress
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Scenario 1, 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
	N/A		✓				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	Relations
Scenario 1, AM	Scenario 1	AM	PM Peak Hour	Varies by Arm	11:45	13:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	A,B,C		7.70	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	122	Stream B-AC

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A259 East		Major
B	B	Site egress		Minor
C	C	A259 West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	18.00		0.00		2.20	0.00		

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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.00										0	120

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/min)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	9.822	0.051	0.130	0.082	0.185
1	B-C	12.825	0.056	0.142	-	-
1	C-B	9.566	0.106	0.106	-	-

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 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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	21.52	100.000
B	ONE HOUR	✓	1.67	100.000
C	ONE HOUR	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	1.883	19.633
	B	0.000	0.000	1.667
	C	0.000	0.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.09	0.91
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

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

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.19	7.70	0.23	A	1.53	137.64	16.08	7.01	0.18	16.08	7.01
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	1.73	155.54	-	-	-	-	-
A-C	-	-	-	-	18.02	1621.43	-	-	-	-	-

Main Results for each time segment

Main results: (11:45-12:00)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.25	18.82	1.25	0.00	10.64	0.118	0.00	0.13	6.382	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.84	0.000	0.00	0.00	0.000	A
A-B	1.42	21.27	1.42	0.00	-	-	-	-	-	-
A-C	14.78	221.72	14.78	0.00	-	-	-	-	-	-

Main results: (12:00-12:15)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.50	22.47	1.50	0.00	10.21	0.147	0.13	0.17	6.880	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.51	0.000	0.00	0.00	0.000	A
A-B	1.69	25.40	1.69	0.00	-	-	-	-	-	-
A-C	17.65	264.75	17.65	0.00	-	-	-	-	-	-

Main results: (12:15-12:30)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.84	27.53	1.83	0.00	9.63	0.191	0.17	0.23	7.691	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.05	0.000	0.00	0.00	0.000	A
A-B	2.07	31.10	2.07	0.00	-	-	-	-	-	-
A-C	21.62	324.25	21.62	0.00	-	-	-	-	-	-

Main results: (12:30-12:45)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.84	27.53	1.83	0.00	9.63	0.191	0.23	0.23	7.698	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.05	0.000	0.00	0.00	0.000	A
A-B	2.07	31.10	2.07	0.00	-	-	-	-	-	-
A-C	21.62	324.25	21.62	0.00	-	-	-	-	-	-

Main results: (12:45-13:00)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.50	22.47	1.50	0.00	10.21	0.147	0.23	0.17	6.889	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.51	0.000	0.00	0.00	0.000	A
A-B	1.69	25.40	1.69	0.00	-	-	-	-	-	-
A-C	17.65	264.75	17.65	0.00	-	-	-	-	-	-

Main results: (13:00-13:15)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.25	18.82	1.26	0.00	10.64	0.118	0.17	0.13	6.398	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.84	0.000	0.00	0.00	0.000	A
A-B	1.42	21.27	1.42	0.00	-	-	-	-	-	-
A-C	14.78	221.72	14.78	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-12:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	1.93	0.13	6.382	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:00-12:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.50	0.17	6.880	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:15-12:30)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.41	0.23	7.691	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:30-12:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.51	0.23	7.698	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:45-13:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.66	0.18	6.889	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (13:00-13:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.06	0.14	6.398	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A101 Friday PM do nothing + committed development 2016.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 17/02/2015 08:01:47

» Year 2016 Friday PM Peak Hour do nothing, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2016 Friday PM Peak Hour do nothing				
Arm A	0.37	18.24	0.28	C	10 % [Arm A]
Arm B	3.36	5.49	0.78	A	
Arm C	1.19	5.84	0.55	A	
Arm D	1.24	3.54	0.56	A	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Year 2016 Friday PM Peak Hour do nothing, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 17/02/2015 08:01:45

File summary

Title	3167A101 Friday PM existing traffic + committed development 2016
Location	A259/Mill Lane roundabout
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Year 2016 Friday PM Peak Hour do nothing, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
	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	Relationsh
Year 2016 Friday PM Peak Hour do nothing, AM	Year 2016 Friday PM Peak Hour do nothing	AM		Varies by Arm	16:30	18:00	90	5				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D				5.20	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	10	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	Golfers Lane	
B	B	A259 East	
C	C	Mill Lane	
D	D	A259 West	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.50	5.40	2.70	8.00	60.00	35.00	
B	7.60	11.40	70.00	24.00	60.00	51.00	
C	3.80	11.10	34.40	18.10	60.00	37.00	
D	7.40	10.40	27.70	28.00	60.00	38.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.434	18.755
B		(calculated)	(calculated)	0.778	51.188
C		(calculated)	(calculated)	0.670	39.935
D		(calculated)	(calculated)	0.757	47.950

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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1.12	100.000
B	ONE HOUR	✓	33.25	100.000
C	ONE HOUR	✓	10.95	100.000
D	ONE HOUR	✓	18.73	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.533	0.100	0.483
	B	0.800	1.000	11.967	19.483
	C	0.150	9.400	0.067	1.333
	D	0.267	16.083	1.383	1.000

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

		To			
		A	B	C	D
From	A	0.00	0.48	0.09	0.43
	B	0.02	0.03	0.36	0.59
	C	0.01	0.86	0.01	0.12
	D	0.01	0.86	0.07	0.05

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.28	18.24	0.37	C	1.03	92.37	17.57	11.41	0.20	17.57	11.41
B	0.78	5.49	3.36	A	30.56	2750.30	168.96	3.69	1.88	168.97	3.69
C	0.55	5.84	1.19	A	10.06	905.74	62.97	4.17	0.70	62.97	4.17
D	0.56	3.54	1.24	A	17.22	1549.54	71.96	2.79	0.80	71.96	2.79

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.83	0.91	21.73	0.00	9.33	0.00	0.091	0.00	0.10	7.039	A
B	25.18	125.88	24.97	20.28	2.27	0.00	49.42	47.75	0.509	0.00	1.02	2.435	A
C	8.29	41.46	8.21	10.15	17.09	0.00	28.48	18.25	0.291	0.00	0.40	2.946	A
D	14.18	70.92	14.08	16.74	8.56	0.00	41.47	33.86	0.342	0.00	0.51	2.183	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.85	0.92	21.91	0.00	9.25	0.00	0.091	0.10	0.10	7.134	A
B	25.18	125.88	25.17	20.46	2.30	0.00	49.40	47.75	0.510	1.02	1.03	2.476	A
C	8.29	41.46	8.29	10.23	17.24	0.00	28.39	18.25	0.292	0.40	0.41	2.985	A
D	14.18	70.92	14.18	16.88	8.64	0.00	41.40	33.86	0.343	0.51	0.52	2.203	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.85	0.92	21.91	0.00	9.25	0.00	0.091	0.10	0.10	7.134	A
B	25.18	125.88	25.18	20.46	2.30	0.00	49.40	47.75	0.510	1.03	1.03	2.476	A
C	8.29	41.46	8.29	10.23	17.24	0.00	28.39	18.25	0.292	0.41	0.41	2.985	A
D	14.18	70.92	14.18	16.89	8.64	0.00	41.40	33.86	0.343	0.52	0.52	2.204	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.90	4.51	0.90	0.98	23.35	0.00	8.63	0.00	0.105	0.10	0.11	7.757	A
B	26.86	134.31	26.83	21.80	2.45	0.00	49.28	47.75	0.545	1.03	1.18	2.668	A
C	8.85	44.23	8.84	10.91	18.37	0.00	27.63	18.25	0.320	0.41	0.46	3.191	A
D	15.13	75.67	15.12	18.00	9.21	0.00	40.97	33.86	0.369	0.52	0.58	2.319	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.01	5.05	1.00	1.10	26.11	0.00	7.43	0.00	0.136	0.11	0.15	9.318	A
B	30.06	150.32	29.99	24.37	2.73	0.00	49.06	47.75	0.613	1.18	1.54	3.132	A
C	9.90	49.50	9.87	12.19	20.53	0.00	26.18	18.25	0.378	0.46	0.60	3.673	A
D	16.94	84.69	16.91	20.11	10.30	0.00	40.15	33.86	0.422	0.58	0.72	2.577	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.10	5.52	1.09	1.20	28.57	0.00	6.37	0.00	0.174	0.15	0.20	11.355	B
B	32.90	164.49	32.81	26.67	2.99	0.00	48.86	47.75	0.673	1.54	1.99	3.713	A
C	10.83	54.17	10.80	13.34	22.46	0.00	24.89	18.25	0.435	0.60	0.75	4.246	A
D	18.54	92.68	18.50	22.00	11.26	0.00	39.42	33.86	0.470	0.72	0.87	2.868	A

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.18	5.91	1.17	1.28	30.57	0.00	5.50	0.00	0.215	0.20	0.26	13.815	B
B	35.20	175.99	35.10	28.54	3.20	0.00	48.70	47.75	0.723	1.99	2.49	4.372	A
C	11.59	57.96	11.56	14.27	24.03	0.00	23.84	18.25	0.486	0.75	0.92	4.870	A
D	19.83	99.15	19.80	23.54	12.05	0.00	38.82	33.86	0.511	0.87	1.02	3.148	A

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.24	6.18	1.22	1.34	31.99	0.00	4.88	0.00	0.253	0.26	0.32	16.327	C
B	36.82	184.10	36.73	29.86	3.35	0.00	48.58	47.75	0.758	2.49	2.97	5.006	A
C	12.13	60.63	12.10	14.93	25.14	0.00	23.09	18.25	0.525	0.92	1.07	5.455	A
D	20.74	103.72	20.72	24.63	12.61	0.00	38.40	33.86	0.540	1.02	1.15	3.387	A

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.26	6.32	1.26	1.38	32.74	0.00	4.56	0.00	0.277	0.32	0.36	18.101	C
B	37.66	188.29	37.60	30.56	3.43	0.00	48.52	47.75	0.776	2.97	3.29	5.439	A
C	12.40	62.01	12.38	15.28	25.74	0.00	22.69	18.25	0.547	1.07	1.17	5.803	A
D	21.22	106.09	21.20	25.21	12.91	0.00	38.17	33.86	0.556	1.15	1.23	3.532	A

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.26	6.32	1.26	1.38	32.76	0.00	4.55	0.00	0.278	0.36	0.37	18.236	C
B	37.66	188.29	37.64	30.59	3.43	0.00	48.52	47.75	0.776	3.29	3.36	5.495	A
C	12.40	62.01	12.40	15.30	25.78	0.00	22.67	18.25	0.547	1.17	1.19	5.837	A
D	21.22	106.09	21.22	25.25	12.93	0.00	38.16	33.86	0.556	1.23	1.24	3.540	A

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.24	6.18	1.24	1.35	32.06	0.00	4.85	0.00	0.255	0.37	0.36	16.641	C
B	36.82	184.10	36.84	29.93	3.36	0.00	48.57	47.75	0.758	3.36	3.24	5.138	A
C	12.13	60.63	12.14	14.98	25.23	0.00	23.03	18.25	0.526	1.19	1.14	5.515	A
D	20.74	103.72	20.75	24.71	12.65	0.00	38.37	33.86	0.541	1.24	1.20	3.410	A

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.18	5.91	1.20	1.29	30.68	0.00	5.45	0.00	0.217	0.36	0.29	14.157	B
B	35.20	175.99	35.30	28.66	3.22	0.00	48.68	47.75	0.723	3.24	2.72	4.527	A
C	11.59	57.96	11.62	14.35	24.17	0.00	23.74	18.25	0.488	1.14	0.98	4.968	A
D	19.83	99.15	19.86	23.68	12.12	0.00	38.77	33.86	0.511	1.20	1.07	3.179	A

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.10	5.52	1.12	1.21	28.69	0.00	6.31	0.00	0.175	0.29	0.22	11.590	B
B	32.90	164.49	33.02	26.80	3.01	0.00	48.84	47.75	0.674	2.72	2.13	3.823	A
C	10.83	54.17	10.87	13.42	22.61	0.00	24.79	18.25	0.437	0.98	0.79	4.325	A
D	18.54	92.68	18.57	22.15	11.33	0.00	39.37	33.86	0.471	1.07	0.90	2.891	A

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.01	5.05	1.02	1.10	26.23	0.00	7.38	0.00	0.137	0.22	0.16	9.452	A
B	30.06	150.32	30.17	24.49	2.75	0.00	49.05	47.75	0.613	2.13	1.62	3.197	A
C	9.90	49.50	9.93	12.26	20.66	0.00	26.10	18.25	0.379	0.79	0.62	3.719	A
D	16.94	84.69	16.97	20.23	10.36	0.00	40.11	33.86	0.422	0.90	0.74	2.596	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.90	4.51	0.91	0.99	23.43	0.00	8.59	0.00	0.105	0.16	0.12	7.819	A
B	26.86	134.31	26.94	21.88	2.46	0.00	49.28	47.75	0.545	1.62	1.22	2.695	A
C	8.85	44.23	8.87	10.95	18.45	0.00	27.58	18.25	0.321	0.62	0.48	3.212	A
D	15.13	75.67	15.16	18.07	9.25	0.00	40.94	33.86	0.370	0.74	0.59	2.329	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.85	0.92	21.93	0.00	9.24	0.00	0.091	0.12	0.10	7.153	A
B	25.18	125.88	25.21	20.48	2.30	0.00	49.40	47.75	0.510	1.22	1.06	2.483	A
C	8.29	41.46	8.30	10.25	17.26	0.00	28.37	18.25	0.292	0.48	0.42	2.991	A
D	14.18	70.92	14.20	16.91	8.66	0.00	41.39	33.86	0.343	0.59	0.53	2.208	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.85	0.92	21.91	0.00	9.25	0.00	0.091	0.10	0.10	7.135	A
B	25.18	125.88	25.18	20.46	2.30	0.00	49.40	47.75	0.510	1.06	1.05	2.476	A
C	8.29	41.46	8.29	10.24	17.24	0.00	28.39	18.25	0.292	0.42	0.42	2.987	A
D	14.18	70.92	14.19	16.89	8.65	0.00	41.40	33.86	0.343	0.53	0.52	2.205	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.85	0.92	21.91	0.00	9.25	0.00	0.091	0.10	0.10	7.138	A
B	25.18	125.88	25.18	20.46	2.30	0.00	49.40	47.75	0.510	1.05	1.04	2.476	A
C	8.29	41.46	8.29	10.23	17.24	0.00	28.39	18.25	0.292	0.42	0.41	2.985	A
D	14.18	70.92	14.18	16.89	8.64	0.00	41.40	33.86	0.343	0.52	0.52	2.204	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.45	0.09	7.039	A	A
B	4.86	0.97	2.435	A	A
C	1.93	0.39	2.946	A	A
D	2.47	0.49	2.183	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.49	0.10	7.134	A	A
B	5.14	1.03	2.476	A	A
C	2.04	0.41	2.985	A	A
D	2.58	0.52	2.203	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.50	0.10	7.134	A	A
B	5.16	1.03	2.476	A	A
C	2.05	0.41	2.985	A	A
D	2.59	0.52	2.204	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.55	0.11	7.757	A	A
B	5.75	1.15	2.668	A	A
C	2.27	0.45	3.191	A	A
D	2.84	0.57	2.319	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.73	0.15	9.318	A	A
B	7.41	1.48	3.132	A	A
C	2.89	0.58	3.673	A	A
D	3.50	0.70	2.577	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.96	0.19	11.355	B	B
B	9.51	1.90	3.713	A	A
C	3.63	0.73	4.246	A	A
D	4.24	0.85	2.868	A	A

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.23	0.25	13.815	B	B
B	11.87	2.37	4.372	A	A
C	4.43	0.89	4.870	A	A
D	4.98	1.00	3.148	A	A

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.52	0.30	16.327	C	B
B	14.17	2.83	5.006	A	A
C	5.17	1.03	5.455	A	A
D	5.61	1.12	3.387	A	A

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.74	0.35	18.101	C	B
B	15.90	3.18	5.439	A	A
C	5.70	1.14	5.803	A	A
D	6.03	1.21	3.532	A	A

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.84	0.37	18.236	C	B
B	16.64	3.33	5.495	A	A
C	5.89	1.18	5.837	A	A
D	6.17	1.23	3.540	A	A

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.81	0.36	16.641	C	B
B	16.44	3.29	5.138	A	A
C	5.77	1.15	5.515	A	A
D	6.05	1.21	3.410	A	A

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.53	0.31	14.157	B	B
B	14.24	2.85	4.527	A	A
C	5.07	1.01	4.968	A	A
D	5.46	1.09	3.179	A	A

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.17	0.23	11.590	B	B
B	11.19	2.24	3.823	A	A
C	4.12	0.82	4.325	A	A
D	4.65	0.93	2.891	A	A

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.86	0.17	9.452	A	A
B	8.48	1.70	3.197	A	A
C	3.22	0.64	3.719	A	A
D	3.81	0.76	2.596	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.63	0.13	7.819	A	A
B	6.33	1.27	2.695	A	A
C	2.47	0.49	3.212	A	A
D	3.04	0.61	2.329	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.53	0.11	7.153	A	A
B	5.41	1.08	2.483	A	A
C	2.14	0.43	2.991	A	A
D	2.68	0.54	2.208	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.51	0.10	7.135	A	A
B	5.25	1.05	2.476	A	A
C	2.08	0.42	2.987	A	A
D	2.63	0.53	2.205	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.51	0.10	7.138	A	A
B	5.23	1.05	2.476	A	A
C	2.07	0.41	2.985	A	A
D	2.62	0.52	2.204	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A102 Saturday do nothing + committed development 2016.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 17/02/2015 08:08:05

» Year 2016 Saturday Peak Hour do nothing, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2016 Saturday Peak Hour do nothing				
Arm A	1.20	30.82	0.57	D	1 % [Arm A]
Arm B	2.25	4.10	0.70	A	
Arm C	1.62	6.67	0.62	A	
Arm D	1.12	3.50	0.53	A	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Year 2016 Saturday Peak Hour do nothing, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 17/02/2015 08:08:03

File summary

Title	3167A102 Saturday existing traffic + committed development 2016
Location	A259/Mill Lane rondabout
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Year 2016 Saturday Peak Hour do nothing, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
	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	Relation
Year 2016 Saturday Peak Hour do nothing, AM	Year 2016 Saturday Peak Hour do nothing	AM		Varies by Arm	11:45	13:15	90	5				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D				5.43	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	1	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	Golfers Lane	
B	B	A259 East	
C	C	Mill Lane	
D	D	A259 West	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.50	5.40	2.70	8.00	60.00	35.00	
B	7.60	11.40	70.00	24.00	60.00	51.00	
C	3.80	11.10	34.40	18.10	60.00	37.00	
D	7.40	10.40	27.70	28.00	60.00	38.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.434	18.755
B		(calculated)	(calculated)	0.778	51.188
C		(calculated)	(calculated)	0.670	39.935
D		(calculated)	(calculated)	0.757	47.950

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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	2.20	100.000
B	ONE HOUR	✓	29.53	100.000
C	ONE HOUR	✓	13.13	100.000
D	ONE HOUR	✓	17.15	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	1.083	0.683	0.433
	B	0.700	1.133	10.250	17.450
	C	0.117	11.333	0.000	1.683
	D	0.367	14.350	0.933	1.500

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

		To			
		A	B	C	D
From	A	0.00	0.49	0.31	0.20
	B	0.02	0.04	0.35	0.59
	C	0.01	0.86	0.00	0.13
	D	0.02	0.84	0.05	0.09

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.57	30.82	1.20	D	2.02	181.97	47.84	15.77	0.53	47.84	15.78
B	0.70	4.10	2.25	A	27.14	2442.88	123.21	3.03	1.37	123.22	3.03
C	0.62	6.67	1.62	A	12.07	1086.34	82.60	4.56	0.92	82.60	4.56
D	0.53	3.50	1.12	A	15.76	1418.58	65.36	2.76	0.73	65.36	2.76

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.62	0.89	21.96	0.00	9.23	0.00	0.180	0.00	0.21	7.851	A
B	22.36	111.81	22.20	20.93	2.65	0.00	49.12	47.40	0.455	0.00	0.82	2.215	A
C	9.94	49.72	9.84	8.91	15.94	0.00	29.26	17.19	0.340	0.00	0.51	3.074	A
D	12.99	64.93	12.89	15.82	9.96	0.00	40.41	34.37	0.321	0.00	0.47	2.174	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.66	0.90	22.15	0.00	9.15	0.00	0.182	0.21	0.22	8.011	A
B	22.36	111.81	22.36	21.12	2.69	0.00	49.10	47.40	0.455	0.82	0.83	2.243	A
C	9.94	49.72	9.94	8.98	16.06	0.00	29.17	17.19	0.341	0.51	0.51	3.119	A
D	12.99	64.93	12.99	15.95	10.06	0.00	40.33	34.37	0.322	0.47	0.47	2.193	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.67	0.90	22.15	0.00	9.15	0.00	0.182	0.22	0.22	8.014	A
B	22.36	111.81	22.36	21.13	2.69	0.00	49.10	47.40	0.455	0.83	0.83	2.243	A
C	9.94	49.72	9.94	8.99	16.06	0.00	29.17	17.19	0.341	0.51	0.51	3.119	A
D	12.99	64.93	12.99	15.95	10.06	0.00	40.33	34.37	0.322	0.47	0.47	2.193	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.78	8.89	1.77	0.96	23.61	0.00	8.52	0.00	0.209	0.22	0.26	8.877	A
B	23.86	119.29	23.84	22.51	2.86	0.00	48.96	47.40	0.487	0.83	0.94	2.386	A
C	10.61	53.05	10.60	9.58	17.12	0.00	28.46	17.19	0.373	0.51	0.58	3.354	A
D	13.85	69.27	13.84	17.00	10.72	0.00	39.83	34.37	0.348	0.47	0.53	2.307	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.99	9.95	1.97	1.07	26.39	0.00	7.31	0.00	0.272	0.26	0.36	11.186	B
B	26.70	133.52	26.65	25.16	3.20	0.00	48.70	47.40	0.548	0.94	1.19	2.714	A
C	11.87	59.37	11.84	10.70	19.14	0.00	27.11	17.19	0.438	0.58	0.76	3.919	A
D	15.51	77.53	15.48	19.01	11.98	0.00	38.88	34.37	0.399	0.53	0.65	2.562	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.18	10.88	2.15	1.17	28.87	0.00	6.23	0.00	0.349	0.36	0.50	14.569	B
B	29.22	146.10	29.16	27.53	3.49	0.00	48.47	47.40	0.603	1.19	1.48	3.096	A
C	12.99	64.97	12.95	11.71	20.95	0.00	25.90	17.19	0.502	0.76	0.98	4.614	A
D	16.97	84.84	16.94	20.80	13.10	0.00	38.03	34.37	0.446	0.65	0.79	2.841	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.33	11.64	2.29	1.25	30.89	0.00	5.36	0.00	0.435	0.50	0.70	19.259	C
B	31.26	156.32	31.20	29.45	3.73	0.00	48.28	47.40	0.648	1.48	1.78	3.500	A
C	13.90	69.51	13.86	12.53	22.41	0.00	24.92	17.19	0.558	0.98	1.22	5.386	A
D	18.15	90.77	18.13	22.25	14.02	0.00	37.33	34.37	0.486	0.79	0.93	3.123	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.44	12.18	2.39	1.31	32.33	0.00	4.74	0.00	0.514	0.70	0.94	24.944	C
B	32.70	163.52	32.65	30.81	3.90	0.00	48.15	47.40	0.679	1.78	2.05	3.853	A
C	14.54	72.72	14.50	13.11	23.45	0.00	24.23	17.19	0.600	1.22	1.44	6.133	A
D	18.99	94.96	18.97	23.28	14.67	0.00	36.84	34.37	0.515	0.93	1.04	3.352	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.49	12.46	2.45	1.34	33.09	0.00	4.41	0.00	0.566	0.94	1.14	29.793	D
B	33.45	167.25	33.42	31.54	4.00	0.00	48.08	47.40	0.696	2.05	2.22	4.077	A
C	14.87	74.37	14.85	13.42	24.00	0.00	23.86	17.19	0.624	1.44	1.59	6.624	A
D	19.42	97.12	19.41	23.83	15.02	0.00	36.58	34.37	0.531	1.04	1.11	3.491	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.49	12.46	2.48	1.34	33.12	0.00	4.39	0.00	0.567	1.14	1.20	30.817	D
B	33.45	167.25	33.44	31.59	4.01	0.00	48.07	47.40	0.696	2.22	2.25	4.098	A
C	14.87	74.37	14.87	13.43	24.02	0.00	23.84	17.19	0.624	1.59	1.62	6.672	A
D	19.42	97.12	19.42	23.85	15.04	0.00	36.56	34.37	0.531	1.11	1.12	3.500	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.44	12.18	2.45	1.31	32.41	0.00	4.70	0.00	0.518	1.20	1.15	26.929	D
B	32.70	163.52	32.72	30.92	3.94	0.00	48.13	47.40	0.680	2.25	2.17	3.903	A
C	14.54	72.72	14.56	13.15	23.51	0.00	24.19	17.19	0.601	1.62	1.55	6.247	A
D	18.99	94.96	19.00	23.34	14.72	0.00	36.80	34.37	0.516	1.12	1.08	3.372	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.33	11.64	2.39	1.25	31.03	0.00	5.30	0.00	0.440	1.15	0.86	21.040	C
B	31.26	156.32	31.32	29.63	3.79	0.00	48.24	47.40	0.648	2.17	1.89	3.559	A
C	13.90	69.51	13.95	12.60	22.51	0.00	24.85	17.19	0.559	1.55	1.31	5.533	A
D	18.15	90.77	18.18	22.35	14.11	0.00	37.27	34.37	0.487	1.08	0.97	3.149	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.18	10.88	2.23	1.17	29.02	0.00	6.17	0.00	0.353	0.86	0.58	15.443	C
B	29.22	146.10	29.29	27.71	3.54	0.00	48.43	47.40	0.603	1.89	1.56	3.145	A
C	12.99	64.97	13.05	11.78	21.05	0.00	25.83	17.19	0.503	1.31	1.04	4.716	A
D	16.97	84.84	17.00	20.90	13.19	0.00	37.96	34.37	0.447	0.97	0.82	2.866	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.99	9.95	2.03	1.07	26.52	0.00	7.25	0.00	0.274	0.58	0.40	11.559	B
B	26.70	133.52	26.77	25.31	3.23	0.00	48.67	47.40	0.549	1.56	1.24	2.746	A
C	11.87	59.37	11.92	10.76	19.23	0.00	27.05	17.19	0.439	1.04	0.80	3.981	A
D	15.51	77.53	15.54	19.10	12.06	0.00	38.82	34.37	0.399	0.82	0.67	2.579	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.78	8.89	1.80	0.96	23.69	0.00	8.48	0.00	0.210	0.40	0.27	9.017	A
B	23.86	119.29	23.91	22.61	2.88	0.00	48.94	47.40	0.487	1.24	0.97	2.403	A
C	10.61	53.05	10.65	9.61	17.18	0.00	28.42	17.19	0.373	0.80	0.61	3.384	A
D	13.85	69.27	13.88	17.06	10.77	0.00	39.79	34.37	0.348	0.67	0.54	2.317	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.67	0.90	22.17	0.00	9.14	0.00	0.182	0.27	0.23	8.051	A
B	22.36	111.81	22.39	21.16	2.69	0.00	49.09	47.40	0.456	0.97	0.85	2.250	A
C	9.94	49.72	9.96	9.00	16.08	0.00	29.16	17.19	0.341	0.61	0.53	3.127	A
D	12.99	64.93	13.00	15.97	10.07	0.00	40.32	34.37	0.322	0.54	0.48	2.196	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.67	0.90	22.15	0.00	9.15	0.00	0.182	0.23	0.23	8.019	A
B	22.36	111.81	22.36	21.13	2.69	0.00	49.10	47.40	0.455	0.85	0.84	2.244	A
C	9.94	49.72	9.95	8.99	16.07	0.00	29.17	17.19	0.341	0.53	0.52	3.122	A
D	12.99	64.93	12.99	15.95	10.06	0.00	40.33	34.37	0.322	0.48	0.48	2.195	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.67	0.90	22.15	0.00	9.15	0.00	0.182	0.23	0.22	8.018	A
B	22.36	111.81	22.36	21.13	2.69	0.00	49.10	47.40	0.455	0.84	0.84	2.244	A
C	9.94	49.72	9.94	8.99	16.07	0.00	29.17	17.19	0.341	0.52	0.52	3.122	A
D	12.99	64.93	12.99	15.95	10.06	0.00	40.33	34.37	0.322	0.48	0.48	2.195	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.98	0.20	7.851	A	A
B	3.94	0.79	2.215	A	A
C	2.41	0.48	3.074	A	A
D	2.26	0.45	2.174	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.08	0.22	8.011	A	A
B	4.14	0.83	2.243	A	A
C	2.55	0.51	3.119	A	A
D	2.35	0.47	2.193	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.10	0.22	8.014	A	A
B	4.16	0.83	2.243	A	A
C	2.57	0.51	3.119	A	A
D	2.36	0.47	2.193	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.23	0.25	8.877	A	A
B	4.59	0.92	2.386	A	A
C	2.86	0.57	3.354	A	A
D	2.59	0.52	2.307	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.68	0.34	11.186	B	B
B	5.76	1.15	2.714	A	A
C	3.67	0.73	3.919	A	A
D	3.19	0.64	2.562	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.34	0.47	14.569	B	B
B	7.15	1.43	3.096	A	A
C	4.70	0.94	4.614	A	A
D	3.86	0.77	2.841	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.23	0.65	19.259	C	B
B	8.60	1.72	3.500	A	A
C	5.83	1.17	5.386	A	A
D	4.52	0.90	3.123	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.31	0.86	24.944	C	C
B	9.91	1.98	3.853	A	A
C	6.92	1.38	6.133	A	A
D	5.09	1.02	3.352	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.31	1.06	29.793	D	C
B	10.82	2.16	4.077	A	A
C	7.71	1.54	6.624	A	A
D	5.46	1.09	3.491	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.86	1.17	30.817	D	C
B	11.17	2.23	4.098	A	A
C	8.03	1.61	6.672	A	A
D	5.58	1.12	3.500	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.86	1.17	26.929	D	C
B	10.99	2.20	3.903	A	A
C	7.88	1.58	6.247	A	A
D	5.48	1.10	3.372	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.66	0.93	21.040	C	C
B	9.78	1.96	3.559	A	A
C	6.83	1.37	5.533	A	A
D	4.95	0.99	3.149	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.17	0.63	15.443	C	B
B	8.07	1.61	3.145	A	A
C	5.43	1.09	4.716	A	A
D	4.22	0.84	2.866	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.13	0.43	11.559	B	B
B	6.41	1.28	2.746	A	A
C	4.16	0.83	3.981	A	A
D	3.46	0.69	2.579	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.46	0.29	9.017	A	A
B	4.98	1.00	2.403	A	A
C	3.14	0.63	3.384	A	A
D	2.77	0.55	2.317	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.19	0.24	8.051	A	A
B	4.33	0.87	2.250	A	A
C	2.69	0.54	3.127	A	A
D	2.44	0.49	2.196	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.14	0.23	8.019	A	A
B	4.22	0.84	2.244	A	A
C	2.61	0.52	3.122	A	A
D	2.39	0.48	2.195	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.13	0.23	8.018	A	A
B	4.20	0.84	2.244	A	A
C	2.60	0.52	3.122	A	A
D	2.38	0.48	2.195	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A103 Friday PM do nothing + committed development 2020.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 17/02/2015 08:10:12

» Year 2020 Friday PM Peak Hour do nothing, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2020 Friday PM Peak Hour do nothing				
Arm A	0.52	24.17	0.36	C	5 % [Arm A]
Arm B	4.31	6.77	0.82	A	
Arm C	1.46	6.84	0.60	A	
Arm D	1.42	3.89	0.59	A	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Year 2020 Friday PM Peak Hour do nothing, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 17/02/2015 08:10:09

File summary

Title	3167A103 Friday PM existing traffic + committed development 2020
Location	A259/Mill Lane roundabout
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Year 2020 Friday PM Peak Hour do nothing, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
	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	Relationsh
Year 2020 Friday PM Peak Hour do nothing, AM	Year 2020 Friday PM Peak Hour do nothing	AM		Varies by Arm	16:30	18:00	90	5				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D				6.25	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	5	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	Golfers Lane	
B	B	A259 East	
C	C	Mill Lane	
D	D	A259 West	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.50	5.40	2.70	8.00	60.00	35.00	
B	7.60	11.40	70.00	24.00	60.00	51.00	
C	3.80	11.10	34.40	18.10	60.00	37.00	
D	7.40	10.40	27.70	28.00	60.00	38.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.434	18.755
B		(calculated)	(calculated)	0.778	51.188
C		(calculated)	(calculated)	0.670	39.935
D		(calculated)	(calculated)	0.757	47.950

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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1.20	100.000
B	ONE HOUR	✓	35.00	100.000
C	ONE HOUR	✓	11.53	100.000
D	ONE HOUR	✓	19.63	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.567	0.117	0.517
	B	0.833	1.050	12.617	20.500
	C	0.167	9.917	0.067	1.383
	D	0.267	16.900	1.467	1.000

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

		To			
		A	B	C	D
From	A	0.00	0.47	0.10	0.43
	B	0.02	0.03	0.36	0.59
	C	0.01	0.86	0.01	0.12
	D	0.01	0.86	0.07	0.05

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.36	24.17	0.52	C	1.10	99.26	22.53	13.62	0.25	22.53	13.62
B	0.82	6.77	4.31	A	32.17	2895.06	203.68	4.22	2.26	203.69	4.22
C	0.60	6.84	1.46	A	10.60	953.99	73.77	4.64	0.82	73.77	4.64
D	0.59	3.89	1.42	A	18.04	1623.99	80.68	2.98	0.90	80.68	2.98

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.89	0.95	22.82	0.00	8.86	0.00	0.103	0.00	0.11	7.511	A
B	26.50	132.51	26.27	21.34	2.37	0.00	49.34	47.80	0.537	0.00	1.14	2.577	A
C	8.73	43.66	8.64	10.71	17.94	0.00	27.92	18.30	0.313	0.00	0.45	3.099	A
D	14.87	74.33	14.75	17.56	9.02	0.00	41.12	33.80	0.362	0.00	0.56	2.267	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.91	0.96	23.02	0.00	8.77	0.00	0.104	0.11	0.11	7.628	A
B	26.50	132.51	26.50	21.53	2.40	0.00	49.32	47.80	0.537	1.14	1.15	2.628	A
C	8.73	43.66	8.73	10.80	18.10	0.00	27.81	18.30	0.314	0.45	0.45	3.144	A
D	14.87	74.33	14.87	17.72	9.11	0.00	41.05	33.80	0.362	0.56	0.56	2.291	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.91	0.96	23.02	0.00	8.77	0.00	0.104	0.11	0.11	7.628	A
B	26.50	132.51	26.50	21.53	2.40	0.00	49.32	47.80	0.537	1.15	1.15	2.628	A
C	8.73	43.66	8.73	10.80	18.10	0.00	27.81	18.30	0.314	0.45	0.46	3.144	A
D	14.87	74.33	14.87	17.72	9.11	0.00	41.05	33.80	0.362	0.56	0.57	2.291	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.85	0.97	1.02	24.53	0.00	8.12	0.00	0.119	0.11	0.13	8.388	A
B	28.27	141.37	28.24	22.94	2.55	0.00	49.20	47.80	0.575	1.15	1.32	2.857	A
C	9.32	46.59	9.30	11.51	19.28	0.00	27.02	18.30	0.345	0.46	0.52	3.387	A
D	15.86	79.30	15.85	18.88	9.71	0.00	40.60	33.80	0.391	0.57	0.63	2.423	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.09	5.42	1.08	1.14	27.42	0.00	6.86	0.00	0.158	0.13	0.18	10.348	B
B	31.65	158.23	31.56	25.65	2.85	0.00	48.97	47.80	0.646	1.32	1.77	3.427	A
C	10.43	52.14	10.40	12.86	21.55	0.00	25.50	18.30	0.409	0.52	0.68	3.963	A
D	17.75	88.76	17.72	21.10	10.85	0.00	39.74	33.80	0.447	0.63	0.80	2.725	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.19	5.94	1.17	1.25	30.01	0.00	5.74	0.00	0.207	0.18	0.25	13.049	B
B	34.63	173.15	34.51	28.06	3.12	0.00	48.76	47.80	0.710	1.77	2.35	4.176	A
C	11.41	57.06	11.37	14.07	23.57	0.00	24.15	18.30	0.473	0.68	0.87	4.681	A
D	19.43	97.13	19.39	23.07	11.87	0.00	38.96	33.80	0.499	0.80	0.98	3.060	A

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.27	6.35	1.25	1.34	32.10	0.00	4.83	0.00	0.263	0.25	0.33	16.669	C
B	37.05	185.25	36.92	30.02	3.34	0.00	48.59	47.80	0.762	2.35	3.03	5.066	A
C	12.21	61.05	12.17	15.05	25.20	0.00	23.05	18.30	0.530	0.87	1.09	5.485	A
D	20.78	103.92	20.75	24.68	12.69	0.00	38.34	33.80	0.542	0.98	1.16	3.403	A

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.33	6.64	1.31	1.40	33.59	0.00	4.19	0.00	0.317	0.33	0.43	20.679	C
B	38.76	193.79	38.62	31.41	3.49	0.00	48.47	47.80	0.800	3.03	3.71	5.980	A
C	12.77	63.86	12.73	15.75	26.37	0.00	22.27	18.30	0.574	1.09	1.29	6.257	A
D	21.74	108.71	21.71	25.82	13.28	0.00	37.89	33.80	0.574	1.16	1.31	3.699	A

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.36	6.80	1.34	1.43	34.39	0.00	3.84	0.00	0.354	0.43	0.50	23.790	C
B	39.64	198.20	39.54	32.15	3.58	0.00	48.41	47.80	0.819	3.71	4.19	6.646	A
C	13.06	65.31	13.04	16.12	27.00	0.00	21.85	18.30	0.598	1.29	1.43	6.776	A
D	22.24	111.18	22.22	26.44	13.60	0.00	37.65	33.80	0.591	1.31	1.41	3.874	A

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.36	6.80	1.36	1.43	34.42	0.00	3.83	0.00	0.355	0.50	0.52	24.168	C
B	39.64	198.20	39.62	32.19	3.58	0.00	48.40	47.80	0.819	4.19	4.31	6.765	A
C	13.06	65.31	13.06	16.15	27.05	0.00	21.81	18.30	0.599	1.43	1.46	6.840	A
D	22.24	111.18	22.23	26.49	13.62	0.00	37.63	33.80	0.591	1.41	1.42	3.893	A

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.33	6.64	1.33	1.40	33.68	0.00	4.15	0.00	0.320	0.52	0.50	21.423	C
B	38.76	193.79	38.79	31.51	3.51	0.00	48.46	47.80	0.800	4.31	4.18	6.253	A
C	12.77	63.86	12.78	15.81	26.49	0.00	22.19	18.30	0.576	1.46	1.40	6.394	A
D	21.74	108.71	21.75	25.93	13.34	0.00	37.85	33.80	0.574	1.42	1.38	3.733	A

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.27	6.35	1.29	1.35	32.26	0.00	4.77	0.00	0.266	0.50	0.39	17.388	C
B	37.05	185.25	37.20	30.18	3.37	0.00	48.57	47.80	0.763	4.18	3.40	5.366	A
C	12.21	61.05	12.25	15.16	25.41	0.00	22.91	18.30	0.533	1.40	1.18	5.657	A
D	20.78	103.92	20.82	24.88	12.78	0.00	38.27	33.80	0.543	1.38	1.21	3.447	A

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.19	5.94	1.21	1.26	30.17	0.00	5.67	0.00	0.209	0.39	0.28	13.509	B
B	34.63	173.15	34.80	28.22	3.15	0.00	48.74	47.80	0.711	3.40	2.56	4.360	A
C	11.41	57.06	11.46	14.18	23.77	0.00	24.01	18.30	0.475	1.18	0.93	4.802	A
D	19.43	97.13	19.47	23.27	11.96	0.00	38.89	33.80	0.499	1.21	1.02	3.094	A

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.09	5.42	1.10	1.15	27.57	0.00	6.80	0.00	0.160	0.28	0.20	10.560	B
B	31.65	158.23	31.78	25.79	2.88	0.00	48.95	47.80	0.646	2.56	1.88	3.524	A
C	10.43	52.14	10.47	12.95	21.71	0.00	25.39	18.30	0.411	0.93	0.71	4.032	A
D	17.75	88.76	17.79	21.25	10.93	0.00	39.68	33.80	0.447	1.02	0.82	2.746	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.85	0.98	1.03	24.63	0.00	8.08	0.00	0.120	0.20	0.14	8.472	A
B	28.27	141.37	28.38	23.04	2.57	0.00	49.19	47.80	0.575	1.88	1.38	2.898	A
C	9.32	46.59	9.35	11.57	19.38	0.00	26.95	18.30	0.346	0.71	0.54	3.415	A
D	15.86	79.30	15.90	18.97	9.76	0.00	40.56	33.80	0.391	0.82	0.65	2.437	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.91	0.96	23.05	0.00	8.76	0.00	0.104	0.14	0.12	7.650	A
B	26.50	132.51	26.54	21.56	2.40	0.00	49.32	47.80	0.537	1.38	1.18	2.640	A
C	8.73	43.66	8.75	10.82	18.13	0.00	27.79	18.30	0.314	0.54	0.46	3.154	A
D	14.87	74.33	14.88	17.75	9.13	0.00	41.04	33.80	0.362	0.65	0.57	2.294	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.91	0.96	23.02	0.00	8.77	0.00	0.104	0.12	0.12	7.633	A
B	26.50	132.51	26.50	21.53	2.40	0.00	49.32	47.80	0.537	1.18	1.17	2.629	A
C	8.73	43.66	8.73	10.80	18.10	0.00	27.81	18.30	0.314	0.46	0.46	3.147	A
D	14.87	74.33	14.87	17.72	9.11	0.00	41.05	33.80	0.362	0.57	0.57	2.291	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.91	0.96	23.02	0.00	8.77	0.00	0.104	0.12	0.12	7.629	A
B	26.50	132.51	26.50	21.53	2.40	0.00	49.32	47.80	0.537	1.17	1.17	2.629	A
C	8.73	43.66	8.73	10.80	18.10	0.00	27.81	18.30	0.314	0.46	0.46	3.146	A
D	14.87	74.33	14.87	17.72	9.11	0.00	41.05	33.80	0.362	0.57	0.57	2.293	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.51	0.10	7.511	A	A
B	5.39	1.08	2.577	A	A
C	2.14	0.43	3.099	A	A
D	2.69	0.54	2.267	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.56	0.11	7.628	A	A
B	5.73	1.15	2.628	A	A
C	2.26	0.45	3.144	A	A
D	2.81	0.56	2.291	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.57	0.11	7.628	A	A
B	5.76	1.15	2.628	A	A
C	2.27	0.45	3.144	A	A
D	2.82	0.56	2.291	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.64	0.13	8.388	A	A
B	6.45	1.29	2.857	A	A
C	2.53	0.51	3.387	A	A
D	3.11	0.62	2.423	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.86	0.17	10.348	B	B
B	8.47	1.69	3.427	A	A
C	3.27	0.65	3.963	A	A
D	3.86	0.77	2.725	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.17	0.23	13.049	B	B
B	11.13	2.23	4.176	A	A
C	4.19	0.84	4.681	A	A
D	4.73	0.95	3.060	A	A

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.57	0.31	16.669	C	B
B	14.27	2.85	5.066	A	A
C	5.21	1.04	5.485	A	A
D	5.61	1.12	3.403	A	A

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.01	0.40	20.679	C	C
B	17.50	3.50	5.980	A	A
C	6.20	1.24	6.257	A	A
D	6.39	1.28	3.699	A	A

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.40	0.48	23.790	C	C
B	20.09	4.02	6.646	A	A
C	6.93	1.39	6.776	A	A
D	6.91	1.38	3.874	A	A

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.58	0.52	24.168	C	C
B	21.31	4.26	6.765	A	A
C	7.22	1.44	6.840	A	A
D	7.09	1.42	3.893	A	A

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.53	0.51	21.423	C	C
B	21.16	4.23	6.253	A	A
C	7.09	1.42	6.394	A	A
D	6.96	1.39	3.733	A	A

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.06	0.41	17.388	C	B
B	17.97	3.59	5.366	A	A
C	6.13	1.23	5.657	A	A
D	6.24	1.25	3.447	A	A

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.49	0.30	13.509	B	B
B	13.56	2.71	4.360	A	A
C	4.85	0.97	4.802	A	A
D	5.24	1.05	3.094	A	A

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.05	0.21	10.560	B	B
B	9.90	1.98	3.524	A	A
C	3.70	0.74	4.032	A	A
D	4.23	0.85	2.746	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.74	0.15	8.472	A	A
B	7.20	1.44	2.898	A	A
C	2.78	0.56	3.415	A	A
D	3.34	0.67	2.437	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.61	0.12	7.650	A	A
B	6.07	1.21	2.640	A	A
C	2.38	0.48	3.154	A	A
D	2.93	0.59	2.294	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.59	0.12	7.633	A	A
B	5.88	1.18	2.629	A	A
C	2.31	0.46	3.147	A	A
D	2.86	0.57	2.291	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.58	0.12	7.629	A	A
B	5.85	1.17	2.629	A	A
C	2.30	0.46	3.146	A	A
D	2.85	0.57	2.293	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A104 Saturday do nothing + committed development 2020.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 17/02/2015 08:12:18

» Year 2020 Saturday Peak Hour do nothing, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2020 Saturday Peak Hour do nothing				
Arm A	1.97	50.05	0.71	F	-3 % [Arm A]
Arm B	2.67	4.65	0.73	A	
Arm C	2.03	8.00	0.68	A	
Arm D	1.28	3.84	0.57	A	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Year 2020 Saturday Peak Hour do nothing, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 17/02/2015 08:12:15

File summary

Title	3167A104 Saturday existing traffic + committed development 2020
Location	A259/Mill Lane roundabout
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Year 2020 Saturday Peak Hour do nothing, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
	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	Relation
Year 2020 Saturday Peak Hour do nothing, AM	Year 2020 Saturday Peak Hour do nothing	AM		Varies by Arm	11:45	13:15	90	5				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D				6.74	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	-3	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	Golfers Lane	
B	B	A259 East	
C	C	Mill Lane	
D	D	A259 West	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.50	5.40	2.70	8.00	60.00	35.00	
B	7.60	11.40	70.00	24.00	60.00	51.00	
C	3.80	11.10	34.40	18.10	60.00	37.00	
D	7.40	10.40	27.70	28.00	60.00	38.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.434	18.755
B		(calculated)	(calculated)	0.778	51.188
C		(calculated)	(calculated)	0.670	39.935
D		(calculated)	(calculated)	0.757	47.950

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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	2.30	100.000
B	ONE HOUR	✓	31.02	100.000
C	ONE HOUR	✓	13.82	100.000
D	ONE HOUR	✓	17.93	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	1.133	0.717	0.450
	B	0.733	1.183	10.783	18.317
	C	0.133	11.950	0.000	1.733
	D	0.383	15.067	0.983	1.500

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

		To			
		A	B	C	D
From	A	0.00	0.49	0.31	0.20
	B	0.02	0.04	0.35	0.59
	C	0.01	0.86	0.00	0.13
	D	0.02	0.84	0.05	0.08

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.71	50.05	1.97	F	2.11	190.25	66.87	21.09	0.74	66.88	21.09
B	0.73	4.65	2.67	A	28.51	2565.57	141.14	3.30	1.57	141.15	3.30
C	0.68	8.00	2.03	A	12.70	1142.86	97.86	5.14	1.09	97.87	5.14
D	0.57	3.84	1.28	A	16.48	1483.37	72.92	2.95	0.81	72.92	2.95

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.69	0.94	23.03	0.00	8.77	0.00	0.199	0.00	0.24	8.428	A
B	23.49	117.43	23.30	22.00	2.73	0.00	49.07	47.49	0.479	0.00	0.90	2.313	A
C	10.46	52.31	10.35	9.37	16.66	0.00	28.77	17.26	0.364	0.00	0.56	3.237	A
D	13.58	67.90	13.48	16.52	10.49	0.00	40.00	34.30	0.339	0.00	0.51	2.254	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.74	0.95	23.23	0.00	8.68	0.00	0.201	0.24	0.25	8.641	A
B	23.49	117.43	23.48	22.21	2.76	0.00	49.04	47.49	0.479	0.90	0.91	2.347	A
C	10.46	52.31	10.46	9.45	16.80	0.00	28.68	17.26	0.365	0.56	0.57	3.292	A
D	13.58	67.90	13.58	16.66	10.60	0.00	39.92	34.30	0.340	0.51	0.51	2.277	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.74	0.95	23.23	0.00	8.68	0.00	0.201	0.25	0.25	8.646	A
B	23.49	117.43	23.49	22.21	2.76	0.00	49.04	47.49	0.479	0.91	0.91	2.347	A
C	10.46	52.31	10.46	9.45	16.80	0.00	28.68	17.26	0.365	0.57	0.57	3.292	A
D	13.58	67.90	13.58	16.66	10.60	0.00	39.92	34.30	0.340	0.51	0.51	2.277	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.86	9.29	1.85	1.01	24.76	0.00	8.02	0.00	0.232	0.25	0.29	9.696	A
B	25.06	125.28	25.03	23.67	2.94	0.00	48.90	47.49	0.512	0.91	1.03	2.512	A
C	11.16	55.81	11.15	10.07	17.90	0.00	27.94	17.26	0.399	0.57	0.65	3.569	A
D	14.49	72.44	14.48	17.75	11.29	0.00	39.40	34.30	0.368	0.51	0.57	2.406	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.08	10.40	2.05	1.13	27.67	0.00	6.75	0.00	0.308	0.29	0.42	12.689	B
B	28.04	140.22	27.98	26.45	3.28	0.00	48.63	47.49	0.577	1.03	1.33	2.897	A
C	12.49	62.46	12.45	11.26	20.01	0.00	26.53	17.26	0.471	0.65	0.87	4.247	A
D	16.21	81.07	16.19	19.84	12.62	0.00	38.39	34.30	0.422	0.57	0.72	2.698	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.28	11.38	2.23	1.23	30.28	0.00	5.62	0.00	0.405	0.42	0.63	17.467	C
B	30.69	153.44	30.62	28.93	3.59	0.00	48.40	47.49	0.634	1.33	1.69	3.360	A
C	13.67	68.35	13.62	12.31	21.89	0.00	25.27	17.26	0.541	0.87	1.14	5.122	A
D	17.74	88.72	17.71	21.71	13.80	0.00	37.50	34.30	0.473	0.72	0.88	3.027	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.43	12.17	2.37	1.32	32.39	0.00	4.71	0.00	0.517	0.63	0.94	24.951	C
B	32.83	164.17	32.76	30.94	3.83	0.00	48.21	47.49	0.681	1.69	2.06	3.860	A
C	14.63	73.13	14.56	13.17	23.42	0.00	24.25	17.26	0.603	1.14	1.45	6.148	A
D	18.98	94.92	18.95	23.22	14.76	0.00	36.77	34.30	0.516	0.88	1.05	3.359	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.55	12.73	2.46	1.38	33.89	0.00	4.06	0.00	0.628	0.94	1.36	35.452	E
B	34.35	171.73	34.28	32.36	3.99	0.00	48.08	47.49	0.714	2.06	2.40	4.318	A
C	15.30	76.50	15.24	13.77	24.50	0.00	23.52	17.26	0.651	1.45	1.76	7.175	A
D	19.86	99.29	19.83	24.30	15.45	0.00	36.25	34.30	0.548	1.05	1.18	3.647	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.60	13.02	2.52	1.41	34.70	0.00	3.71	0.00	0.703	1.36	1.79	45.187	E
B	35.13	175.65	35.09	33.13	4.09	0.00	48.01	47.49	0.732	2.40	2.62	4.618	A
C	15.65	78.24	15.61	14.10	25.08	0.00	23.13	17.26	0.676	1.76	1.98	7.900	A
D	20.31	101.56	20.29	24.87	15.82	0.00	35.97	34.30	0.565	1.18	1.27	3.821	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.60	13.02	2.57	1.42	34.74	0.00	3.69	0.00	0.706	1.79	1.97	50.045	F
B	35.13	175.65	35.12	33.19	4.12	0.00	47.99	47.49	0.732	2.62	2.67	4.653	A
C	15.65	78.24	15.64	14.12	25.11	0.00	23.11	17.26	0.677	1.98	2.03	7.999	A
D	20.31	101.56	20.31	24.90	15.85	0.00	35.95	34.30	0.565	1.27	1.28	3.836	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.55	12.73	2.56	1.38	34.00	0.00	4.01	0.00	0.635	1.97	1.91	42.531	E
B	34.35	171.73	34.36	32.51	4.05	0.00	48.04	47.49	0.715	2.67	2.58	4.400	A
C	15.30	76.50	15.32	13.83	24.58	0.00	23.47	17.26	0.652	2.03	1.94	7.393	A
D	19.86	99.29	19.87	24.38	15.52	0.00	36.20	34.30	0.549	1.28	1.24	3.680	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.43	12.17	2.56	1.33	32.57	0.00	4.63	0.00	0.526	1.91	1.27	30.448	D
B	32.83	164.17	32.91	31.20	3.93	0.00	48.13	47.49	0.682	2.58	2.22	3.965	A
C	14.63	73.13	14.69	13.28	23.56	0.00	24.15	17.26	0.606	1.94	1.60	6.398	A
D	18.98	94.92	19.01	23.37	14.88	0.00	36.68	34.30	0.518	1.24	1.09	3.402	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.28	11.38	2.38	1.24	30.46	0.00	5.54	0.00	0.410	1.27	0.76	19.474	C
B	30.69	153.44	30.77	29.17	3.67	0.00	48.34	47.49	0.635	2.22	1.79	3.437	A
C	13.67	68.35	13.75	12.42	22.03	0.00	25.18	17.26	0.543	1.60	1.23	5.284	A
D	17.74	88.72	17.78	21.85	13.92	0.00	37.41	34.30	0.474	1.09	0.92	3.064	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.08	10.40	2.14	1.13	27.83	0.00	6.68	0.00	0.311	0.76	0.48	13.347	B
B	28.04	140.22	28.12	26.64	3.33	0.00	48.60	47.49	0.577	1.79	1.39	2.942	A
C	12.49	62.46	12.55	11.33	20.12	0.00	26.45	17.26	0.472	1.23	0.92	4.336	A
D	16.21	81.07	16.25	19.96	12.72	0.00	38.32	34.30	0.423	0.92	0.74	2.724	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.86	9.29	1.89	1.01	24.86	0.00	7.97	0.00	0.233	0.48	0.32	9.914	A
B	25.06	125.28	25.12	23.78	2.97	0.00	48.88	47.49	0.513	1.39	1.07	2.532	A
C	11.16	55.81	11.21	10.12	17.97	0.00	27.89	17.26	0.400	0.92	0.68	3.605	A
D	14.49	72.44	14.52	17.83	11.36	0.00	39.35	34.30	0.368	0.74	0.59	2.420	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.75	0.95	23.26	0.00	8.67	0.00	0.201	0.32	0.26	8.694	A
B	23.49	117.43	23.51	22.25	2.77	0.00	49.03	47.49	0.479	1.07	0.93	2.355	A
C	10.46	52.31	10.48	9.47	16.82	0.00	28.67	17.26	0.365	0.68	0.58	3.304	A
D	13.58	67.90	13.59	16.68	10.62	0.00	39.91	34.30	0.340	0.59	0.52	2.282	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.74	0.95	23.23	0.00	8.68	0.00	0.201	0.26	0.26	8.654	A
B	23.49	117.43	23.49	22.21	2.76	0.00	49.04	47.49	0.479	0.93	0.93	2.349	A
C	10.46	52.31	10.46	9.45	16.80	0.00	28.68	17.26	0.365	0.58	0.58	3.293	A
D	13.58	67.90	13.58	16.66	10.60	0.00	39.92	34.30	0.340	0.52	0.52	2.277	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.74	0.95	23.23	0.00	8.68	0.00	0.201	0.26	0.25	8.650	A
B	23.49	117.43	23.49	22.21	2.76	0.00	49.04	47.49	0.479	0.93	0.92	2.347	A
C	10.46	52.31	10.46	9.45	16.80	0.00	28.68	17.26	0.365	0.58	0.58	3.295	A
D	13.58	67.90	13.58	16.66	10.60	0.00	39.92	34.30	0.340	0.52	0.52	2.279	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.09	0.22	8.428	A	A
B	4.32	0.86	2.313	A	A
C	2.67	0.53	3.237	A	A
D	2.44	0.49	2.254	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.22	0.24	8.641	A	A
B	4.55	0.91	2.347	A	A
C	2.83	0.57	3.292	A	A
D	2.55	0.51	2.277	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.23	0.25	8.646	A	A
B	4.57	0.91	2.347	A	A
C	2.85	0.57	3.292	A	A
D	2.56	0.51	2.277	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.40	0.28	9.696	A	A
B	5.06	1.01	2.512	A	A
C	3.19	0.64	3.569	A	A
D	2.82	0.56	2.406	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.97	0.39	12.689	B	B
B	6.43	1.29	2.897	A	A
C	4.17	0.83	4.247	A	A
D	3.50	0.70	2.698	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.87	0.57	17.467	C	B
B	8.10	1.62	3.360	A	A
C	5.44	1.09	5.122	A	A
D	4.28	0.86	3.027	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.22	0.84	24.951	C	C
B	9.89	1.98	3.860	A	A
C	6.91	1.38	6.148	A	A
D	5.07	1.01	3.359	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.06	1.21	35.452	E	D
B	11.56	2.31	4.318	A	A
C	8.39	1.68	7.175	A	A
D	5.76	1.15	3.647	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.10	1.62	46.187	E	D
B	12.76	2.55	4.618	A	A
C	9.54	1.91	7.900	A	A
D	6.22	1.24	3.821	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.46	1.89	50.045	F	D
B	13.24	2.65	4.653	A	A
C	10.03	2.01	7.999	A	A
D	6.38	1.28	3.836	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.69	1.94	42.631	E	D
B	13.06	2.61	4.400	A	A
C	9.87	1.97	7.393	A	A
D	6.26	1.25	3.680	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.12	1.42	30.448	D	C
B	11.51	2.30	3.965	A	A
C	8.40	1.68	6.398	A	A
D	5.62	1.12	3.402	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.23	0.85	19.474	C	B
B	9.31	1.86	3.437	A	A
C	6.46	1.29	5.284	A	A
D	4.73	0.95	3.064	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.60	0.52	13.347	B	B
B	7.24	1.45	2.942	A	A
C	4.80	0.96	4.336	A	A
D	3.83	0.77	2.724	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.69	0.34	9.914	A	A
B	5.53	1.11	2.532	A	A
C	3.53	0.71	3.605	A	A
D	3.03	0.61	2.420	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.35	0.27	8.694	A	A
B	4.77	0.95	2.355	A	A
C	2.99	0.60	3.304	A	A
D	2.66	0.53	2.282	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.29	0.26	8.654	A	A
B	4.64	0.93	2.349	A	A
C	2.90	0.58	3.293	A	A
D	2.60	0.52	2.277	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.27	0.25	8.650	A	A
B	4.62	0.92	2.347	A	A
C	2.89	0.58	3.295	A	A
D	2.59	0.52	2.279	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A105 Friday PM total traffic with development 2016.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 17/02/2015 08:13:56

» Year 2016 Friday PM Peak Hour with development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2016 Friday PM Peak Hour with development				
Arm A	0.39	19.14	0.29	C	9 % [Arm A]
Arm B	3.63	5.90	0.79	A	
Arm C	1.28	6.27	0.57	A	
Arm D	1.30	3.63	0.57	A	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Year 2016 Friday PM Peak Hour with development, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 17/02/2015 08:13:53

File summary

Title	3167A105 Year 2016, Friday PM Total traffic + development
Location	A259/Mill Lane roundabout
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Year 2016 Friday PM Peak Hour with development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
	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
Year 2016 Friday PM Peak Hour with development, AM	Year 2016 Friday PM Peak Hour with development	AM		Varies by Arm	16:30	18:00	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D				5.52	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	9	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	Golfers Lane	
B	B	A259 East	
C	C	Mill Lane	
D	D	A259 West	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.50	5.40	2.70	8.00	60.00	35.00	
B	7.60	11.40	70.00	24.00	60.00	51.00	
C	3.80	11.10	34.40	18.10	60.00	37.00	
D	7.40	10.40	27.70	28.00	60.00	38.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.434	18.755
B		(calculated)	(calculated)	0.778	51.188
C		(calculated)	(calculated)	0.670	39.935
D		(calculated)	(calculated)	0.757	47.950

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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1.12	100.000
B	ONE HOUR	✓	33.55	100.000
C	ONE HOUR	✓	11.05	100.000
D	ONE HOUR	✓	19.23	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.533	0.100	0.483
	B	0.800	1.000	11.967	19.783
	C	0.150	9.217	0.067	1.617
	D	0.267	16.100	1.383	1.483

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

		To			
		A	B	C	D
From	A	0.00	0.48	0.09	0.43
	B	0.02	0.03	0.36	0.59
	C	0.01	0.83	0.01	0.15
	D	0.01	0.84	0.07	0.08

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.29	19.14	0.39	A	1.03	92.37	18.11	11.77	0.20	18.11	11.77
B	0.79	5.90	3.63	A	30.83	2775.12	178.68	3.86	1.99	178.69	3.86
C	0.57	6.27	1.28	A	10.16	914.01	66.66	4.38	0.74	66.66	4.38
D	0.57	3.63	1.30	A	17.68	1590.90	75.17	2.83	0.84	75.17	2.84

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.83	0.91	21.97	0.00	9.23	0.00	0.092	0.00	0.10	7.129	A
B	25.40	127.02	25.19	20.16	2.64	0.00	49.14	47.11	0.517	0.00	1.05	2.487	A
C	8.37	41.84	8.28	10.15	17.68	0.00	28.09	17.85	0.298	0.00	0.42	3.017	A
D	14.56	72.82	14.46	17.54	8.42	0.00	41.57	34.49	0.350	0.00	0.53	2.206	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.85	0.92	22.15	0.00	9.15	0.00	0.092	0.10	0.10	7.223	A
B	25.40	127.02	25.40	20.33	2.66	0.00	49.12	47.11	0.517	1.05	1.06	2.529	A
C	8.37	41.84	8.37	10.23	17.83	0.00	27.99	17.85	0.299	0.42	0.42	3.057	A
D	14.56	72.82	14.56	17.69	8.50	0.00	41.51	34.49	0.351	0.53	0.54	2.226	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.85	0.92	22.15	0.00	9.15	0.00	0.092	0.10	0.10	7.223	A
B	25.40	127.02	25.40	20.33	2.66	0.00	49.12	47.11	0.517	1.06	1.07	2.529	A
C	8.37	41.84	8.37	10.23	17.83	0.00	27.99	17.85	0.299	0.42	0.42	3.057	A
D	14.56	72.82	14.56	17.69	8.51	0.00	41.51	34.49	0.351	0.54	0.54	2.226	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.90	4.51	0.90	0.98	23.61	0.00	8.52	0.00	0.106	0.10	0.12	7.870	A
B	27.10	135.52	27.07	21.67	2.84	0.00	48.98	47.11	0.553	1.07	1.22	2.738	A
C	8.93	44.63	8.92	10.91	19.00	0.00	27.20	17.85	0.328	0.42	0.48	3.279	A
D	15.54	77.69	15.53	18.86	9.06	0.00	41.09	34.49	0.378	0.54	0.60	2.346	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.01	5.05	1.00	1.10	26.39	0.00	7.31	0.00	0.138	0.12	0.16	9.500	A
B	30.33	151.67	30.26	24.22	3.17	0.00	48.72	47.11	0.623	1.22	1.61	3.234	A
C	9.99	49.96	9.96	12.19	21.24	0.00	25.71	17.85	0.389	0.48	0.62	3.804	A
D	17.39	86.95	17.36	21.07	10.13	0.00	40.28	34.49	0.432	0.60	0.75	2.614	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.10	5.52	1.09	1.20	28.88	0.00	6.23	0.00	0.177	0.16	0.21	11.655	B
B	33.19	165.97	33.10	26.50	3.47	0.00	48.49	47.11	0.685	1.61	2.09	3.870	A
C	10.93	54.67	10.90	13.34	23.23	0.00	24.37	17.85	0.449	0.62	0.79	4.441	A
D	19.03	95.15	19.00	23.05	11.08	0.00	39.56	34.49	0.481	0.75	0.91	2.912	A

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.18	5.91	1.17	1.28	30.90	0.00	5.36	0.00	0.221	0.21	0.27	14.283	B
B	35.52	177.58	35.41	28.36	3.71	0.00	48.30	47.11	0.735	2.09	2.65	4.604	A
C	11.70	58.49	11.66	14.27	24.85	0.00	23.29	17.85	0.502	0.79	0.98	5.142	A
D	20.36	101.80	20.33	24.66	11.85	0.00	38.97	34.49	0.522	0.91	1.07	3.212	A

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.24	6.18	1.22	1.34	32.33	0.00	4.73	0.00	0.261	0.27	0.33	17.014	C
B	37.15	185.76	37.05	29.67	3.88	0.00	48.17	47.11	0.771	2.65	3.18	5.325	A
C	12.24	61.18	12.20	14.93	26.00	0.00	22.51	17.85	0.543	0.98	1.15	5.793	A
D	21.30	106.49	21.27	25.80	12.40	0.00	38.56	34.49	0.552	1.07	1.21	3.465	A

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.26	6.32	1.26	1.38	33.09	0.00	4.40	0.00	0.287	0.33	0.38	18.967	C
B	38.00	189.99	37.93	30.37	3.98	0.00	48.10	47.11	0.790	3.18	3.54	5.827	A
C	12.52	62.58	12.49	15.28	26.62	0.00	22.10	17.85	0.566	1.15	1.26	6.221	A
D	21.78	108.92	21.77	26.41	12.70	0.00	38.33	34.49	0.568	1.21	1.29	3.616	A

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.26	6.32	1.26	1.38	33.12	0.00	4.39	0.00	0.288	0.38	0.39	19.137	C
B	38.00	189.99	37.98	30.40	3.98	0.00	48.09	47.11	0.790	3.54	3.63	5.902	A
C	12.52	62.58	12.51	15.30	26.66	0.00	22.07	17.85	0.567	1.26	1.28	6.266	A
D	21.78	108.92	21.78	26.45	12.72	0.00	38.32	34.49	0.569	1.29	1.30	3.627	A

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.24	6.18	1.24	1.35	32.41	0.00	4.70	0.00	0.263	0.39	0.37	17.378	C
B	37.15	185.76	37.18	29.75	3.90	0.00	48.16	47.11	0.771	3.63	3.51	5.495	A
C	12.24	61.18	12.25	14.98	26.10	0.00	22.45	17.85	0.545	1.28	1.23	5.890	A
D	21.30	106.49	21.31	25.89	12.45	0.00	38.52	34.49	0.553	1.30	1.26	3.487	A

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.18	5.91	1.20	1.29	31.03	0.00	5.30	0.00	0.223	0.37	0.30	14.679	B
B	35.52	177.58	35.63	28.49	3.73	0.00	48.28	47.11	0.736	3.51	2.91	4.795	A
C	11.70	58.49	11.73	14.35	25.01	0.00	23.18	17.85	0.505	1.23	1.05	5.264	A
D	20.36	101.80	20.39	24.82	11.93	0.00	38.92	34.49	0.523	1.26	1.12	3.246	A

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.10	5.52	1.12	1.21	29.01	0.00	6.17	0.00	0.179	0.30	0.23	11.913	B
B	33.19	165.97	33.33	26.64	3.49	0.00	48.47	47.11	0.685	2.91	2.25	3.998	A
C	10.93	54.67	10.97	13.42	23.40	0.00	24.26	17.85	0.451	1.05	0.84	4.532	A
D	19.03	95.15	19.06	23.21	11.16	0.00	39.50	34.49	0.482	1.12	0.95	2.940	A

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.01	5.05	1.02	1.10	26.52	0.00	7.26	0.00	0.139	0.23	0.17	9.645	A
B	30.33	151.67	30.45	24.35	3.19	0.00	48.71	47.11	0.623	2.25	1.70	3.308	A
C	9.99	49.96	10.03	12.26	21.37	0.00	25.62	17.85	0.390	0.84	0.65	3.858	A
D	17.39	86.95	17.42	21.21	10.19	0.00	40.23	34.49	0.432	0.95	0.77	2.636	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.90	4.51	0.91	0.99	23.69	0.00	8.48	0.00	0.106	0.17	0.12	7.934	A
B	27.10	135.52	27.19	21.75	2.85	0.00	48.97	47.11	0.553	1.70	1.26	2.767	A
C	8.93	44.63	8.96	10.95	19.09	0.00	27.15	17.85	0.329	0.65	0.50	3.306	A
D	15.54	77.69	15.57	18.94	9.11	0.00	41.05	34.49	0.378	0.77	0.62	2.358	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.85	0.92	22.17	0.00	9.14	0.00	0.093	0.12	0.10	7.243	A
B	25.40	127.02	25.44	20.36	2.67	0.00	49.11	47.11	0.517	1.26	1.09	2.538	A
C	8.37	41.84	8.38	10.25	17.86	0.00	27.97	17.85	0.299	0.50	0.43	3.064	A
D	14.56	72.82	14.58	17.72	8.52	0.00	41.50	34.49	0.351	0.62	0.55	2.229	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.85	0.92	22.15	0.00	9.15	0.00	0.092	0.10	0.10	7.228	A
B	25.40	127.02	25.41	20.33	2.66	0.00	49.12	47.11	0.517	1.09	1.08	2.532	A
C	8.37	41.84	8.37	10.24	17.83	0.00	27.99	17.85	0.299	0.43	0.43	3.057	A
D	14.56	72.82	14.56	17.69	8.51	0.00	41.51	34.49	0.351	0.55	0.54	2.226	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.85	4.23	0.85	0.92	22.15	0.00	9.15	0.00	0.092	0.10	0.10	7.224	A
B	25.40	127.02	25.40	20.33	2.66	0.00	49.12	47.11	0.517	1.08	1.08	2.532	A
C	8.37	41.84	8.37	10.23	17.83	0.00	27.99	17.85	0.299	0.43	0.43	3.059	A
D	14.56	72.82	14.56	17.69	8.51	0.00	41.51	34.49	0.351	0.54	0.54	2.228	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.46	0.09	7.129	A	A
B	5.00	1.00	2.487	A	A
C	2.00	0.40	3.017	A	A
D	2.56	0.51	2.206	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.50	0.10	7.223	A	A
B	5.29	1.06	2.529	A	A
C	2.11	0.42	3.057	A	A
D	2.68	0.54	2.226	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.50	0.10	7.223	A	A
B	5.32	1.06	2.529	A	A
C	2.12	0.42	3.057	A	A
D	2.69	0.54	2.226	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.56	0.11	7.870	A	A
B	5.93	1.19	2.738	A	A
C	2.35	0.47	3.279	A	A
D	2.95	0.59	2.346	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.74	0.15	9.500	A	A
B	7.70	1.54	3.234	A	A
C	3.01	0.60	3.804	A	A
D	3.64	0.73	2.614	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.98	0.20	11.655	B	B
B	9.97	1.99	3.870	A	A
C	3.82	0.76	4.441	A	A
D	4.43	0.89	2.912	A	A

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.27	0.25	14.283	B	B
B	12.55	2.51	4.604	A	A
C	4.70	0.94	5.142	A	A
D	5.21	1.04	3.212	A	A

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.58	0.32	17.014	C	B
B	15.12	3.02	5.325	A	A
C	5.54	1.11	5.793	A	A
D	5.88	1.18	3.465	A	A

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.82	0.36	18.967	C	B
B	17.09	3.42	5.827	A	A
C	6.14	1.23	6.221	A	A
D	6.33	1.27	3.616	A	A

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.93	0.39	19.137	C	B
B	17.96	3.59	5.902	A	A
C	6.37	1.27	6.266	A	A
D	6.48	1.30	3.627	A	A

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.89	0.38	17.378	C	B
B	17.77	3.55	5.495	A	A
C	6.24	1.25	5.890	A	A
D	6.36	1.27	3.487	A	A

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.59	0.32	14.679	B	B
B	15.28	3.06	4.795	A	A
C	5.44	1.09	5.264	A	A
D	5.74	1.15	3.246	A	A

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.20	0.24	11.913	B	B
B	11.85	2.37	3.998	A	A
C	4.37	0.87	4.532	A	A
D	4.86	0.97	2.940	A	A

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.88	0.18	9.645	A	A
B	8.87	1.77	3.308	A	A
C	3.38	0.68	3.858	A	A
D	3.97	0.79	2.636	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.64	0.13	7.934	A	A
B	6.57	1.31	2.767	A	A
C	2.57	0.51	3.306	A	A
D	3.16	0.63	2.358	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.54	0.11	7.243	A	A
B	5.58	1.12	2.538	A	A
C	2.21	0.44	3.064	A	A
D	2.78	0.56	2.229	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.52	0.10	7.228	A	A
B	5.42	1.08	2.532	A	A
C	2.15	0.43	3.057	A	A
D	2.72	0.54	2.226	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.51	0.10	7.224	A	A
B	5.39	1.08	2.532	A	A
C	2.14	0.43	3.059	A	A
D	2.71	0.54	2.228	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A106 Saturday total traffic with development 2016.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 17/02/2015 08:15:41

» Year 2016 Saturday Peak Hour with development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2016 Saturday Peak Hour with development				
Arm A	1.32	34.22	0.60	D	0 % [Arm A]
Arm B	2.43	4.39	0.71	A	
Arm C	1.81	7.41	0.65	A	
Arm D	1.20	3.61	0.55	A	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Year 2016 Saturday Peak Hour with development, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 17/02/2015 08:15:39

File summary

Title	3167A106 Year 2016, Saturday total traffic with development
Location	A259/Mill Lane roundabout
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Year 2016 Saturday Peak Hour with development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
	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
Year 2016 Saturday Peak Hour with development, AM	Year 2016 Saturday Peak Hour with development	AM		Varies by Arm	11:45	13:15	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D				5.84	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	0	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	Golfers Lane	
B	B	A259 East	
C	C	Mill Lane	
D	D	A259 West	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.50	5.40	2.70	8.00	60.00	35.00	
B	7.60	11.40	70.00	24.00	60.00	51.00	
C	3.80	11.10	34.40	18.10	60.00	37.00	
D	7.40	10.40	27.70	28.00	60.00	38.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.434	18.755
B		(calculated)	(calculated)	0.778	51.188
C		(calculated)	(calculated)	0.670	39.935
D		(calculated)	(calculated)	0.757	47.950

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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	2.20	100.000
B	ONE HOUR	✓	29.88	100.000
C	ONE HOUR	✓	13.25	100.000
D	ONE HOUR	✓	17.83	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	1.083	0.683	0.433
	B	0.700	1.133	10.250	17.800
	C	0.117	11.067	0.000	2.067
	D	0.367	14.367	0.933	2.167

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

		To			
		A	B	C	D
From	A	0.00	0.49	0.31	0.20
	B	0.02	0.04	0.34	0.60
	C	0.01	0.84	0.00	0.16
	D	0.02	0.81	0.05	0.12

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.60	34.22	1.32	D	2.02	181.97	50.96	16.80	0.57	50.96	16.80
B	0.71	4.39	2.43	A	27.46	2471.83	130.71	3.17	1.45	130.72	3.17
C	0.65	7.41	1.81	A	12.18	1095.99	89.31	4.89	0.99	89.31	4.89
D	0.55	3.61	1.20	A	16.39	1475.10	69.54	2.83	0.77	69.54	2.83

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.62	0.89	22.27	0.00	9.10	0.00	0.183	0.00	0.22	7.985	A
B	22.63	113.14	22.46	20.74	3.15	0.00	48.74	46.43	0.464	0.00	0.85	2.269	A
C	10.03	50.16	9.93	8.91	16.70	0.00	28.75	16.63	0.349	0.00	0.53	3.169	A
D	13.50	67.52	13.40	16.87	9.76	0.00	40.56	35.16	0.333	0.00	0.49	2.201	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.66	0.90	22.46	0.00	9.01	0.00	0.185	0.22	0.22	8.161	A
B	22.63	113.14	22.63	20.93	3.19	0.00	48.71	46.43	0.465	0.85	0.86	2.300	A
C	10.03	50.16	10.03	8.98	16.83	0.00	28.66	16.63	0.350	0.53	0.53	3.220	A
D	13.50	67.52	13.50	17.01	9.86	0.00	40.49	35.16	0.334	0.49	0.50	2.223	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.67	0.90	22.46	0.00	9.01	0.00	0.185	0.22	0.22	8.164	A
B	22.63	113.14	22.63	20.94	3.19	0.00	48.70	46.43	0.465	0.86	0.86	2.300	A
C	10.03	50.16	10.03	8.99	16.83	0.00	28.66	16.63	0.350	0.53	0.54	3.220	A
D	13.50	67.52	13.50	17.01	9.86	0.00	40.49	35.16	0.334	0.50	0.50	2.223	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.78	8.89	1.77	0.96	23.94	0.00	8.37	0.00	0.212	0.22	0.26	9.074	A
B	24.14	120.71	24.12	22.31	3.40	0.00	48.54	46.43	0.497	0.86	0.98	2.454	A
C	10.70	53.52	10.69	9.58	17.94	0.00	27.91	16.63	0.383	0.54	0.61	3.480	A
D	14.41	72.03	14.40	18.13	10.50	0.00	40.00	35.16	0.360	0.50	0.56	2.342	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.99	9.95	1.97	1.07	26.76	0.00	7.15	0.00	0.278	0.26	0.37	11.524	B
B	27.02	135.10	26.96	24.93	3.80	0.00	48.23	46.43	0.560	0.98	1.25	2.814	A
C	11.98	59.90	11.94	10.70	20.06	0.00	26.50	16.63	0.452	0.61	0.81	4.110	A
D	16.12	80.62	16.10	20.27	11.73	0.00	39.06	35.16	0.413	0.56	0.69	2.608	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.18	10.88	2.15	1.17	29.28	0.00	6.06	0.00	0.359	0.37	0.52	15.201	C
B	29.57	147.84	29.50	27.27	4.15	0.00	47.96	46.43	0.617	1.25	1.57	3.238	A
C	13.11	65.55	13.06	11.71	21.95	0.00	25.23	16.63	0.520	0.81	1.05	4.908	A
D	17.64	88.22	17.61	22.17	12.83	0.00	38.23	35.16	0.462	0.69	0.84	2.910	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.33	11.64	2.29	1.25	31.33	0.00	5.17	0.00	0.451	0.52	0.74	20.441	C
B	31.63	158.17	31.57	29.18	4.44	0.00	47.74	46.43	0.663	1.57	1.90	3.692	A
C	14.03	70.13	13.97	12.52	23.48	0.00	24.21	16.63	0.579	1.05	1.32	5.828	A
D	18.88	94.39	18.85	23.72	13.73	0.00	37.55	35.16	0.503	0.84	0.99	3.202	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.44	12.18	2.38	1.31	32.78	0.00	4.54	0.00	0.537	0.74	1.01	27.011	D
B	33.09	165.46	33.03	30.53	4.64	0.00	47.58	46.43	0.695	1.90	2.20	4.101	A
C	14.67	73.36	14.62	13.10	24.57	0.00	23.48	16.63	0.625	1.32	1.59	6.721	A
D	19.75	98.74	19.72	24.82	14.37	0.00	37.07	35.16	0.533	0.99	1.12	3.452	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.49	12.46	2.45	1.34	33.55	0.00	4.20	0.00	0.593	1.01	1.24	32.832	D
B	33.85	169.23	33.81	31.25	4.75	0.00	47.49	46.43	0.713	2.20	2.39	4.364	A
C	15.01	75.03	14.97	13.41	25.15	0.00	23.09	16.63	0.650	1.59	1.77	7.338	A
D	20.20	100.99	20.18	25.41	14.71	0.00	36.81	35.16	0.549	1.12	1.19	3.605	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.49	12.46	2.48	1.34	33.59	0.00	4.19	0.00	0.595	1.24	1.32	34.218	D
B	33.85	169.23	33.84	31.30	4.77	0.00	47.48	46.43	0.713	2.39	2.43	4.389	A
C	15.01	75.03	15.00	13.43	25.17	0.00	23.07	16.63	0.650	1.77	1.81	7.410	A
D	20.20	100.99	20.20	25.44	14.74	0.00	36.79	35.16	0.549	1.19	1.20	3.615	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.44	12.18	2.45	1.31	32.87	0.00	4.50	0.00	0.542	1.32	1.27	29.656	D
B	33.09	165.46	33.11	30.64	4.68	0.00	47.55	46.43	0.696	2.43	2.35	4.164	A
C	14.67	73.36	14.69	13.15	24.63	0.00	23.43	16.63	0.626	1.81	1.73	6.888	A
D	19.75	98.74	19.76	24.89	14.43	0.00	37.02	35.16	0.533	1.20	1.16	3.479	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.33	11.64	2.40	1.26	31.48	0.00	5.10	0.00	0.456	1.27	0.93	22.736	C
B	31.63	158.17	31.70	29.38	4.50	0.00	47.69	46.43	0.663	2.35	2.03	3.770	A
C	14.03	70.13	14.08	12.61	23.59	0.00	24.13	16.63	0.581	1.73	1.44	6.015	A
D	18.88	94.39	18.90	23.85	13.83	0.00	37.47	35.16	0.504	1.16	1.03	3.235	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.18	10.88	2.24	1.17	29.44	0.00	5.99	0.00	0.364	0.93	0.61	16.264	C
B	29.57	147.84	29.64	27.47	4.21	0.00	47.91	46.43	0.617	2.03	1.65	3.298	A
C	13.11	65.55	13.17	11.79	22.06	0.00	25.15	16.63	0.521	1.44	1.12	5.038	A
D	17.64	88.22	17.68	22.30	12.94	0.00	38.15	35.16	0.462	1.03	0.87	2.937	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.99	9.95	2.03	1.07	26.90	0.00	7.09	0.00	0.281	0.61	0.41	11.957	B
B	27.02	135.10	27.09	25.09	3.84	0.00	48.20	46.43	0.561	1.65	1.30	2.853	A
C	11.98	59.90	12.03	10.77	20.16	0.00	26.43	16.63	0.453	1.12	0.85	4.184	A
D	16.12	80.62	16.16	20.38	11.82	0.00	39.00	35.16	0.413	0.87	0.71	2.630	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.78	8.89	1.80	0.96	24.03	0.00	8.33	0.00	0.213	0.41	0.28	9.226	A
B	24.14	120.71	24.20	22.41	3.42	0.00	48.52	46.43	0.498	1.30	1.01	2.472	A
C	10.70	53.52	10.75	9.62	18.01	0.00	27.87	16.63	0.384	0.85	0.63	3.514	A
D	14.41	72.03	14.44	18.20	10.56	0.00	39.96	35.16	0.361	0.71	0.57	2.353	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.68	0.90	22.49	0.00	9.00	0.00	0.185	0.28	0.23	8.202	A
B	22.63	113.14	22.65	20.97	3.20	0.00	48.70	46.43	0.465	1.01	0.88	2.305	A
C	10.03	50.16	10.05	9.00	16.85	0.00	28.64	16.63	0.350	0.63	0.55	3.229	A
D	13.50	67.52	13.52	17.03	9.87	0.00	40.47	35.16	0.334	0.57	0.51	2.226	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.67	0.90	22.46	0.00	9.01	0.00	0.185	0.23	0.23	8.171	A
B	22.63	113.14	22.63	20.94	3.19	0.00	48.70	46.43	0.465	0.88	0.87	2.300	A
C	10.03	50.16	10.03	8.99	16.84	0.00	28.66	16.63	0.350	0.55	0.54	3.221	A
D	13.50	67.52	13.50	17.01	9.86	0.00	40.49	35.16	0.334	0.51	0.50	2.223	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.67	8.33	1.67	0.90	22.46	0.00	9.01	0.00	0.185	0.23	0.23	8.169	A
B	22.63	113.14	22.63	20.94	3.19	0.00	48.70	46.43	0.465	0.87	0.87	2.302	A
C	10.03	50.16	10.03	8.99	16.84	0.00	28.66	16.63	0.350	0.54	0.54	3.221	A
D	13.50	67.52	13.50	17.01	9.86	0.00	40.49	35.16	0.334	0.50	0.50	2.225	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.00	0.20	7.985	A	A
B	4.08	0.82	2.269	A	A
C	2.51	0.50	3.169	A	A
D	2.37	0.48	2.201	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.10	0.22	8.161	A	A
B	4.29	0.86	2.300	A	A
C	2.66	0.53	3.220	A	A
D	2.48	0.50	2.223	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.12	0.22	8.164	A	A
B	4.31	0.86	2.300	A	A
C	2.67	0.53	3.220	A	A
D	2.49	0.50	2.223	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.26	0.25	9.074	A	A
B	4.77	0.95	2.454	A	A
C	2.99	0.60	3.480	A	A
D	2.73	0.55	2.342	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.73	0.35	11.524	B	B
B	6.03	1.21	2.814	A	A
C	3.88	0.78	4.110	A	A
D	3.37	0.67	2.608	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.43	0.49	15.201	C	B
B	7.54	1.51	3.238	A	A
C	5.01	1.00	4.908	A	A
D	4.10	0.82	2.910	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.41	0.68	20.441	C	C
B	9.15	1.83	3.692	A	A
C	6.31	1.26	5.828	A	A
D	4.82	0.96	3.202	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.61	0.92	27.011	D	C
B	10.62	2.12	4.101	A	A
C	7.59	1.52	6.721	A	A
D	5.44	1.09	3.452	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.78	1.16	32.832	D	C
B	11.67	2.33	4.364	A	A
C	8.56	1.71	7.338	A	A
D	5.85	1.17	3.605	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.44	1.29	34.218	D	C
B	12.07	2.41	4.389	A	A
C	8.96	1.79	7.410	A	A
D	5.99	1.20	3.615	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.46	1.29	29.656	D	C
B	11.89	2.38	4.164	A	A
C	8.80	1.76	6.888	A	A
D	5.88	1.18	3.479	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.06	1.01	22.736	C	C
B	10.52	2.10	3.770	A	A
C	7.54	1.51	6.015	A	A
D	5.30	1.06	3.235	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.35	0.67	16.264	C	B
B	8.59	1.72	3.298	A	A
C	5.88	1.18	5.038	A	A
D	4.50	0.90	2.937	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.21	0.44	11.957	B	B
B	6.74	1.35	2.853	A	A
C	4.43	0.89	4.184	A	A
D	3.67	0.73	2.630	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.49	0.30	9.226	A	A
B	5.19	1.04	2.472	A	A
C	3.29	0.66	3.514	A	A
D	2.93	0.59	2.353	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.21	0.24	8.202	A	A
B	4.49	0.90	2.305	A	A
C	2.81	0.56	3.229	A	A
D	2.58	0.52	2.226	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.16	0.23	8.171	A	A
B	4.38	0.88	2.300	A	A
C	2.72	0.54	3.221	A	A
D	2.52	0.50	2.223	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.15	0.23	8.169	A	A
B	4.36	0.87	2.302	A	A
C	2.71	0.54	3.221	A	A
D	2.51	0.50	2.225	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A107 Friday PM total traffic with development 2020.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 17/02/2015 08:17:14

» Year 2020 Friday PM Peak Hour with development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2020 Friday PM Peak Hour with development				
Arm A	0.56	25.75	0.37	D	4 % [Arm A]
Arm B	4.73	7.38	0.83	A	
Arm C	1.59	7.43	0.62	A	
Arm D	1.50	4.00	0.60	A	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Year 2020 Friday PM Peak Hour with development, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 17/02/2015 08:17:12

File summary

Title	3167A107 Year 2020, Friday PM total traffic with development
Location	A259/Mill Lane
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Year 2020 Friday PM Peak Hour with development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
	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
Year 2020 Friday PM Peak Hour with development, AM	Year 2020 Friday PM Peak Hour with development	AM		Varies by Arm	16:30	18:00	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D				6.72	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	4	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	Golfers Lane	
B	B	A259 East	
C	C	Mill Lane	
D	D	A259 West	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.50	5.40	2.70	8.00	60.00	35.00	
B	7.60	11.40	70.00	24.00	60.00	51.00	
C	3.80	11.10	34.40	18.10	60.00	37.00	
D	7.40	10.40	27.70	28.00	60.00	38.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.434	18.755
B		(calculated)	(calculated)	0.778	51.188
C		(calculated)	(calculated)	0.670	39.935
D		(calculated)	(calculated)	0.757	47.950

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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1.20	100.000
B	ONE HOUR	✓	35.30	100.000
C	ONE HOUR	✓	11.63	100.000
D	ONE HOUR	✓	20.13	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	0.567	0.117	0.517
	B	0.833	1.050	12.617	20.800
	C	0.167	9.733	0.067	1.667
	D	0.267	16.917	1.467	1.483

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

		To			
		A	B	C	D
From	A	0.00	0.47	0.10	0.43
	B	0.02	0.03	0.36	0.59
	C	0.01	0.84	0.01	0.14
	D	0.01	0.84	0.07	0.07

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.37	25.75	0.56	D	1.10	99.26	23.42	14.16	0.26	23.42	14.16
B	0.83	7.38	4.73	A	32.44	2919.87	217.24	4.46	2.41	217.26	4.46
C	0.62	7.43	1.59	A	10.69	962.26	78.61	4.90	0.87	78.61	4.90
D	0.60	4.00	1.50	A	18.50	1665.35	84.29	3.04	0.94	84.30	3.04

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.89	0.95	23.06	0.00	8.75	0.00	0.104	0.00	0.11	7.602	A
B	26.73	133.65	26.49	21.21	2.73	0.00	49.06	47.19	0.545	0.00	1.17	2.633	A
C	8.81	44.04	8.72	10.71	18.52	0.00	27.53	17.92	0.320	0.00	0.46	3.174	A
D	15.24	76.22	15.13	18.36	8.88	0.00	41.22	34.41	0.370	0.00	0.58	2.289	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.91	0.96	23.26	0.00	8.67	0.00	0.105	0.11	0.12	7.729	A
B	26.73	133.65	26.73	21.40	2.76	0.00	49.04	47.19	0.545	1.17	1.19	2.688	A
C	8.81	44.04	8.81	10.80	18.69	0.00	27.41	17.92	0.321	0.46	0.47	3.223	A
D	15.24	76.22	15.24	18.52	8.97	0.00	41.16	34.41	0.370	0.58	0.58	2.315	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.91	0.96	23.26	0.00	8.67	0.00	0.105	0.12	0.12	7.731	A
B	26.73	133.65	26.73	21.40	2.76	0.00	49.04	47.19	0.545	1.19	1.19	2.688	A
C	8.81	44.04	8.81	10.80	18.69	0.00	27.41	17.92	0.321	0.47	0.47	3.224	A
D	15.24	76.22	15.24	18.53	8.97	0.00	41.15	34.41	0.370	0.58	0.59	2.315	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.85	0.97	1.02	24.79	0.00	8.01	0.00	0.121	0.12	0.13	8.520	A
B	28.52	142.59	28.48	22.81	2.94	0.00	48.90	47.19	0.583	1.19	1.37	2.934	A
C	9.40	46.99	9.38	11.51	19.91	0.00	26.59	17.92	0.353	0.47	0.54	3.483	A
D	16.26	81.32	16.25	19.74	9.56	0.00	40.71	34.41	0.400	0.59	0.66	2.452	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.09	5.42	1.07	1.14	27.71	0.00	6.74	0.00	0.161	0.13	0.18	10.575	B
B	31.92	159.59	31.82	25.49	3.29	0.00	48.63	47.19	0.656	1.37	1.85	3.547	A
C	10.52	52.59	10.48	12.86	22.25	0.00	25.03	17.92	0.420	0.54	0.71	4.115	A
D	18.20	91.02	18.17	22.05	10.68	0.00	39.86	34.41	0.457	0.66	0.83	2.761	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.19	5.94	1.17	1.25	30.31	0.00	5.61	0.00	0.212	0.18	0.26	13.478	B
B	34.93	174.63	34.80	27.89	3.60	0.00	48.39	47.19	0.722	1.85	2.48	4.369	A
C	11.51	57.55	11.47	14.07	24.33	0.00	23.63	17.92	0.487	0.71	0.92	4.913	A
D	19.92	99.60	19.88	24.12	11.68	0.00	39.10	34.41	0.509	0.83	1.02	3.114	A

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.27	6.35	1.25	1.34	32.43	0.00	4.69	0.00	0.271	0.26	0.35	17.343	C
B	37.37	186.84	37.22	29.84	3.85	0.00	48.20	47.19	0.775	2.48	3.23	5.376	A
C	12.31	61.57	12.27	15.04	26.02	0.00	22.50	17.92	0.547	0.92	1.16	5.829	A
D	21.31	106.56	21.27	25.79	12.49	0.00	38.49	34.41	0.554	1.02	1.21	3.476	A

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.33	6.64	1.31	1.40	33.94	0.00	4.04	0.00	0.329	0.35	0.45	21.777	C
B	39.09	195.45	38.94	31.22	4.03	0.00	48.06	47.19	0.813	3.23	4.01	6.429	A
C	12.88	64.41	12.84	15.74	27.22	0.00	21.70	17.92	0.594	1.16	1.40	6.726	A
D	22.30	111.48	22.26	26.98	13.07	0.00	38.05	34.41	0.586	1.21	1.38	3.789	A

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.36	6.80	1.34	1.43	34.74	0.00	3.69	0.00	0.368	0.45	0.53	25.299	D
B	39.98	199.90	39.87	31.96	4.12	0.00	47.98	47.19	0.833	4.01	4.57	7.222	A
C	13.18	65.88	13.14	16.11	27.87	0.00	21.26	17.92	0.620	1.40	1.56	7.348	A
D	22.80	114.02	22.78	27.63	13.39	0.00	37.81	34.41	0.603	1.38	1.48	3.985	A

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.36	6.80	1.35	1.43	34.78	0.00	3.67	0.00	0.370	0.53	0.56	25.751	D
B	39.98	199.90	39.95	32.00	4.13	0.00	47.98	47.19	0.833	4.57	4.73	7.384	A
C	13.18	65.88	13.17	16.15	27.93	0.00	21.22	17.92	0.621	1.56	1.59	7.431	A
D	22.80	114.02	22.80	27.69	13.41	0.00	37.79	34.41	0.603	1.48	1.50	3.999	A

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.33	6.64	1.33	1.40	34.04	0.00	3.99	0.00	0.333	0.56	0.53	22.671	C
B	39.09	195.45	39.12	31.33	4.05	0.00	48.04	47.19	0.814	4.73	4.58	6.793	A
C	12.88	64.41	12.90	15.81	27.36	0.00	21.61	17.92	0.596	1.59	1.52	6.908	A
D	22.30	111.48	22.31	27.12	13.14	0.00	38.00	34.41	0.587	1.50	1.45	3.826	A

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.27	6.35	1.29	1.35	32.60	0.00	4.62	0.00	0.275	0.53	0.41	18.198	C
B	37.37	186.84	37.55	30.01	3.88	0.00	48.17	47.19	0.776	4.58	3.68	5.758	A
C	12.31	61.57	12.37	15.17	26.26	0.00	22.34	17.92	0.551	1.52	1.27	6.047	A
D	21.31	106.56	21.35	26.03	12.60	0.00	38.41	34.41	0.555	1.45	1.27	3.527	A

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.19	5.94	1.21	1.26	30.49	0.00	5.53	0.00	0.215	0.41	0.29	13.955	B
B	34.93	174.63	35.12	28.07	3.63	0.00	48.36	47.19	0.722	3.68	2.72	4.598	A
C	11.51	57.55	11.57	14.19	24.56	0.00	23.48	17.92	0.490	1.27	0.99	5.062	A
D	19.92	99.60	19.96	24.34	11.78	0.00	39.03	34.41	0.510	1.27	1.06	3.156	A

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.09	5.42	1.10	1.15	27.86	0.00	6.67	0.00	0.163	0.29	0.20	10.802	B
B	31.92	159.59	32.07	25.65	3.32	0.00	48.61	47.19	0.657	2.72	1.97	3.659	A
C	10.52	52.59	10.57	12.96	22.42	0.00	24.91	17.92	0.422	0.99	0.75	4.198	A
D	18.20	91.02	18.25	22.23	10.76	0.00	39.80	34.41	0.457	1.06	0.86	2.791	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.97	4.85	0.98	1.03	24.89	0.00	7.96	0.00	0.122	0.20	0.14	8.610	A
B	28.52	142.59	28.63	22.91	2.96	0.00	48.89	47.19	0.583	1.97	1.43	2.979	A
C	9.40	46.99	9.44	11.57	20.02	0.00	26.52	17.92	0.354	0.75	0.56	3.518	A
D	16.26	81.32	16.30	19.84	9.61	0.00	40.67	34.41	0.400	0.86	0.68	2.467	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.91	0.96	23.29	0.00	8.66	0.00	0.105	0.14	0.12	7.754	A
B	26.73	133.65	26.77	21.43	2.77	0.00	49.03	47.19	0.545	1.43	1.22	2.702	A
C	8.81	44.04	8.82	10.82	18.72	0.00	27.39	17.92	0.322	0.56	0.48	3.235	A
D	15.24	76.22	15.26	18.56	8.99	0.00	41.14	34.41	0.371	0.68	0.60	2.321	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.91	0.96	23.26	0.00	8.67	0.00	0.105	0.12	0.12	7.735	A
B	26.73	133.65	26.73	21.40	2.76	0.00	49.04	47.19	0.545	1.22	1.21	2.689	A
C	8.81	44.04	8.81	10.80	18.69	0.00	27.41	17.92	0.321	0.48	0.48	3.224	A
D	15.24	76.22	15.25	18.53	8.97	0.00	41.15	34.41	0.370	0.60	0.59	2.315	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	0.91	4.54	0.91	0.96	23.26	0.00	8.67	0.00	0.105	0.12	0.12	7.734	A
B	26.73	133.65	26.73	21.40	2.76	0.00	49.04	47.19	0.545	1.21	1.21	2.691	A
C	8.81	44.04	8.81	10.80	18.69	0.00	27.41	17.92	0.321	0.48	0.48	3.227	A
D	15.24	76.22	15.25	18.53	8.97	0.00	41.15	34.41	0.370	0.59	0.59	2.317	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.52	0.10	7.602	A	A
B	5.55	1.11	2.633	A	A
C	2.20	0.44	3.174	A	A
D	2.78	0.56	2.289	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.57	0.11	7.729	A	A
B	5.91	1.18	2.688	A	A
C	2.34	0.47	3.223	A	A
D	2.91	0.58	2.315	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.58	0.12	7.731	A	A
B	5.94	1.19	2.688	A	A
C	2.35	0.47	3.224	A	A
D	2.93	0.59	2.315	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.65	0.13	8.520	A	A
B	6.67	1.33	2.934	A	A
C	2.63	0.53	3.483	A	A
D	3.22	0.64	2.452	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.87	0.17	10.575	B	B
B	8.82	1.76	3.547	A	A
C	3.41	0.68	4.115	A	A
D	4.02	0.80	2.761	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.20	0.24	13.478	B	B
B	11.70	2.34	4.369	A	A
C	4.42	0.88	4.913	A	A
D	4.93	0.99	3.114	A	A

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.62	0.32	17.343	C	B
B	15.17	3.03	5.376	A	A
C	5.56	1.11	5.829	A	A
D	5.87	1.17	3.476	A	A

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.11	0.42	21.777	C	C
B	18.83	3.77	6.429	A	A
C	6.68	1.34	6.726	A	A
D	6.70	1.34	3.789	A	A

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.53	0.51	25.299	D	C
B	21.85	4.37	7.222	A	A
C	7.54	1.51	7.348	A	A
D	7.26	1.45	3.985	A	A

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.73	0.55	25.751	D	C
B	23.32	4.66	7.384	A	A
C	7.89	1.58	7.431	A	A
D	7.46	1.49	3.999	A	A

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.69	0.54	22.671	C	C
B	23.21	4.64	6.793	A	A
C	7.74	1.55	6.908	A	A
D	7.32	1.46	3.826	A	A

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.17	0.43	18.198	C	B
B	19.54	3.91	5.758	A	A
C	6.64	1.33	6.047	A	A
D	6.55	1.31	3.527	A	A

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.54	0.31	13.955	B	B
B	14.47	2.89	4.598	A	A
C	5.18	1.04	5.062	A	A
D	5.48	1.10	3.156	A	A

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.07	0.21	10.802	B	B
B	10.40	2.08	3.659	A	A
C	3.89	0.78	4.198	A	A
D	4.41	0.88	2.791	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.75	0.15	8.610	A	A
B	7.47	1.49	2.979	A	A
C	2.89	0.58	3.518	A	A
D	3.47	0.69	2.467	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.62	0.12	7.754	A	A
B	6.27	1.25	2.702	A	A
C	2.46	0.49	3.235	A	A
D	3.04	0.61	2.321	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.60	0.12	7.735	A	A
B	6.07	1.21	2.689	A	A
C	2.39	0.48	3.224	A	A
D	2.97	0.59	2.315	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	0.59	0.12	7.734	A	A
B	6.04	1.21	2.691	A	A
C	2.38	0.48	3.227	A	A
D	2.96	0.59	2.317	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3167A108 Saturday total traffic with development 2020.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 17/02/2015 08:19:21

» Saturday peak hour with development 2020, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Saturday peak hour with development 2020				
Arm A	2.28	58.43	0.75	F	-5 % [Arm A]
Arm B	2.91	5.03	0.75	A	
Arm C	2.31	9.07	0.71	A	
Arm D	1.38	3.97	0.58	A	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Saturday peak hour with development 2020, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 17/02/2015 08:19:18

File summary

Title	3167A108 Saturday total traffic with development 2020
Location	A259/Mill Lane roundabout
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Saturday peak hour with development 2020, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm B - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm C - 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
	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
Saturday peak hour with development 2020, AM	Saturday peak hour with development 2020	AM		Varies by Arm	11:45	13:15	90	5				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D				7.44	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	-5	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	Golfers Lane	
B	B	A259 East	
C	C	Mill Lane	
D	D	A259 West	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.50	5.40	2.70	8.00	60.00	35.00	
B	7.60	11.40	70.00	24.00	60.00	51.00	
C	3.80	11.10	34.40	18.10	60.00	37.00	
D	7.40	10.40	27.70	28.00	60.00	38.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.434	18.755
B		(calculated)	(calculated)	0.778	51.188
C		(calculated)	(calculated)	0.670	39.935
D		(calculated)	(calculated)	0.757	47.950

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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	2.30	100.000
B	ONE HOUR	✓	31.37	100.000
C	ONE HOUR	✓	13.93	100.000
D	ONE HOUR	✓	18.62	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.000	1.133	0.717	0.450
	B	0.733	1.183	10.783	18.667
	C	0.133	11.683	0.000	2.117
	D	0.383	15.083	0.983	2.167

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

		To			
		A	B	C	D
From	A	0.00	0.49	0.31	0.20
	B	0.02	0.04	0.34	0.60
	C	0.01	0.84	0.00	0.15
	D	0.02	0.81	0.05	0.12

Vehicle Mix

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

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		A	B	C	D
From	A	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.75	53.45	2.28	F	2.11	190.25	73.43	23.16	0.82	73.43	23.16
B	0.75	5.03	2.91	A	28.83	2594.52	150.46	3.48	1.67	150.47	3.48
C	0.71	9.07	2.31	A	12.81	1152.51	107.02	5.57	1.19	107.03	5.57
D	0.58	3.97	1.38	A	17.11	1539.89	77.59	3.02	0.86	77.59	3.02

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.69	0.94	23.34	0.00	8.63	0.00	0.202	0.00	0.24	8.588	A
B	23.75	118.75	23.56	21.81	3.23	0.00	48.68	46.58	0.488	0.00	0.94	2.372	A
C	10.55	52.75	10.43	9.37	17.42	0.00	28.26	16.73	0.373	0.00	0.59	3.344	A
D	14.10	70.48	13.99	17.57	10.29	0.00	40.16	35.05	0.351	0.00	0.53	2.283	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.74	0.95	23.55	0.00	8.54	0.00	0.204	0.24	0.25	8.818	A
B	23.75	118.75	23.75	22.02	3.27	0.00	48.65	46.58	0.488	0.94	0.95	2.409	A
C	10.55	52.75	10.55	9.45	17.57	0.00	28.17	16.73	0.375	0.59	0.59	3.404	A
D	14.10	70.48	14.10	17.72	10.40	0.00	40.08	35.05	0.352	0.53	0.54	2.309	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.74	0.95	23.55	0.00	8.54	0.00	0.204	0.25	0.25	8.820	A
B	23.75	118.75	23.75	22.02	3.27	0.00	48.65	46.58	0.488	0.95	0.95	2.409	A
C	10.55	52.75	10.55	9.45	17.57	0.00	28.17	16.73	0.375	0.59	0.59	3.405	A
D	14.10	70.48	14.10	17.72	10.40	0.00	40.07	35.05	0.352	0.54	0.54	2.309	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.86	9.29	1.85	1.01	25.10	0.00	7.87	0.00	0.236	0.25	0.30	9.944	A
B	25.34	126.70	25.31	23.46	3.48	0.00	48.48	46.58	0.523	0.95	1.08	2.586	A
C	11.26	56.28	11.24	10.07	18.72	0.00	27.39	16.73	0.411	0.59	0.68	3.708	A
D	15.04	75.20	15.03	18.88	11.08	0.00	39.56	35.05	0.380	0.54	0.61	2.444	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.08	10.40	2.05	1.13	28.05	0.00	6.59	0.00	0.315	0.30	0.44	13.130	B
B	28.36	141.80	28.30	26.22	3.88	0.00	48.17	46.58	0.589	1.08	1.40	3.009	A
C	12.60	62.99	12.55	11.25	20.93	0.00	25.92	16.73	0.486	0.68	0.92	4.473	A
D	16.83	84.16	16.80	21.10	12.37	0.00	38.58	35.05	0.436	0.61	0.76	2.751	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.28	11.38	2.23	1.23	30.68	0.00	5.45	0.00	0.418	0.44	0.66	18.372	C
B	31.03	155.17	30.96	28.67	4.24	0.00	47.89	46.58	0.648	1.40	1.79	3.525	A
C	13.79	68.93	13.72	12.31	22.89	0.00	24.60	16.73	0.560	0.92	1.23	5.482	A
D	18.42	92.10	18.38	23.08	13.53	0.00	37.70	35.05	0.489	0.76	0.94	3.101	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.43	12.17	2.36	1.32	32.82	0.00	4.52	0.00	0.539	0.66	1.01	26.867	D
B	33.20	166.02	33.12	30.66	4.53	0.00	47.67	46.58	0.697	1.79	2.21	4.096	A
C	14.75	73.75	14.68	13.16	24.49	0.00	23.53	16.73	0.627	1.23	1.60	6.707	A
D	19.71	98.54	19.67	24.69	14.47	0.00	36.99	35.05	0.533	0.94	1.12	3.457	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.55	12.73	2.45	1.38	34.34	0.00	3.86	0.00	0.660	1.01	1.51	38.359	E
B	34.73	173.67	34.66	32.07	4.72	0.00	47.51	46.58	0.731	2.21	2.60	4.625	A
C	15.43	77.15	15.35	13.76	25.62	0.00	22.77	16.73	0.678	1.60	1.97	7.983	A
D	20.62	103.08	20.59	25.83	15.14	0.00	36.48	35.05	0.565	1.12	1.27	3.765	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.60	13.02	2.50	1.41	35.16	0.00	3.51	0.00	0.743	1.51	2.03	52.819	F
B	35.53	177.63	35.47	32.83	4.83	0.00	47.43	46.58	0.749	2.60	2.85	4.982	A
C	15.78	78.90	15.73	14.09	26.22	0.00	22.37	16.73	0.705	1.97	2.24	8.916	A
D	21.09	105.43	21.07	26.44	15.51	0.00	36.21	35.05	0.582	1.27	1.36	3.949	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.60	13.02	2.56	1.42	35.21	0.00	3.49	0.00	0.747	2.03	2.28	58.454	F
B	35.53	177.63	35.51	32.90	4.86	0.00	47.41	46.58	0.749	2.85	2.91	5.030	A
C	15.78	78.90	15.77	14.12	26.26	0.00	22.34	16.73	0.706	2.24	2.31	9.067	A
D	21.09	105.43	21.08	26.48	15.54	0.00	36.18	35.05	0.583	1.36	1.38	3.971	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.55	12.73	2.56	1.39	34.47	0.00	3.81	0.00	0.669	2.28	2.23	40.843	E
B	34.73	173.67	34.75	32.24	4.79	0.00	47.46	46.58	0.732	2.91	2.81	4.736	A
C	15.43	77.15	15.45	13.83	25.71	0.00	22.71	16.73	0.679	2.31	2.21	8.311	A
D	20.62	103.08	20.63	25.93	15.23	0.00	36.42	35.05	0.566	1.38	1.33	3.805	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.43	12.17	2.60	1.33	33.03	0.00	4.43	0.00	0.549	2.23	1.42	34.658	D
B	33.20	166.02	33.29	30.97	4.66	0.00	47.57	46.58	0.698	2.81	2.40	4.231	A
C	14.75	73.75	14.83	13.30	24.65	0.00	23.42	16.73	0.630	2.21	1.79	7.067	A
D	19.71	98.54	19.74	24.87	14.61	0.00	36.88	35.05	0.534	1.33	1.17	3.509	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.28	11.38	2.40	1.24	30.89	0.00	5.36	0.00	0.425	1.42	0.81	20.945	C
B	31.03	155.17	31.13	28.95	4.34	0.00	47.81	46.58	0.649	2.40	1.91	3.619	A
C	13.79	68.93	13.88	12.43	23.05	0.00	24.49	16.73	0.563	1.79	1.34	5.702	A
D	18.42	92.10	18.46	23.25	13.67	0.00	37.60	35.05	0.490	1.17	0.98	3.143	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	2.08	10.40	2.14	1.13	28.22	0.00	6.52	0.00	0.319	0.81	0.50	13.900	B
B	28.36	141.80	28.45	26.42	3.94	0.00	48.12	46.58	0.589	1.91	1.47	3.065	A
C	12.60	62.99	12.67	11.34	21.05	0.00	25.83	16.73	0.488	1.34	0.98	4.585	A
D	16.83	84.16	16.87	21.24	12.48	0.00	38.50	35.05	0.437	0.98	0.79	2.779	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.86	9.29	1.89	1.01	25.20	0.00	7.82	0.00	0.237	0.50	0.32	10.173	B
B	25.34	126.70	25.41	23.59	3.51	0.00	48.46	46.58	0.523	1.47	1.11	2.613	A
C	11.26	56.28	11.31	10.12	18.80	0.00	27.34	16.73	0.412	0.98	0.71	3.757	A
D	15.04	75.20	15.07	18.96	11.14	0.00	39.51	35.05	0.381	0.79	0.62	2.458	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.75	0.95	23.58	0.00	8.53	0.00	0.204	0.32	0.26	8.875	A
B	23.75	118.75	23.78	22.06	3.28	0.00	48.64	46.58	0.488	1.11	0.97	2.418	A
C	10.55	52.75	10.57	9.47	17.59	0.00	28.15	16.73	0.375	0.71	0.61	3.416	A
D	14.10	70.48	14.11	17.74	10.42	0.00	40.06	35.05	0.352	0.62	0.55	2.315	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.74	0.95	23.55	0.00	8.54	0.00	0.204	0.26	0.26	8.828	A
B	23.75	118.75	23.75	22.02	3.27	0.00	48.65	46.58	0.488	0.97	0.96	2.410	A
C	10.55	52.75	10.55	9.45	17.57	0.00	28.17	16.73	0.375	0.61	0.60	3.406	A
D	14.10	70.48	14.10	17.72	10.40	0.00	40.07	35.05	0.352	0.55	0.55	2.311	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	1.74	8.71	1.74	0.95	23.55	0.00	8.54	0.00	0.204	0.26	0.26	8.826	A
B	23.75	118.75	23.75	22.02	3.27	0.00	48.65	46.58	0.488	0.96	0.96	2.411	A
C	10.55	52.75	10.55	9.45	17.57	0.00	28.17	16.73	0.375	0.60	0.60	3.408	A
D	14.10	70.48	14.10	17.72	10.40	0.00	40.07	35.05	0.352	0.55	0.54	2.311	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.11	0.22	8.588	A	A
B	4.47	0.89	2.372	A	A
C	2.77	0.55	3.344	A	A
D	2.57	0.51	2.283	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.24	0.25	8.818	A	A
B	4.72	0.94	2.409	A	A
C	2.95	0.59	3.404	A	A
D	2.69	0.54	2.309	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.26	0.25	8.820	A	A
B	4.74	0.95	2.409	A	A
C	2.97	0.59	3.405	A	A
D	2.70	0.54	2.309	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.43	0.29	9.944	A	A
B	5.26	1.05	2.586	A	A
C	3.34	0.67	3.708	A	A
D	2.97	0.59	2.444	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.03	0.41	13.130	B	B
B	6.74	1.35	3.009	A	A
C	4.41	0.88	4.473	A	A
D	3.70	0.74	2.751	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	3.00	0.60	18.372	C	B
B	8.56	1.71	3.525	A	A
C	5.83	1.17	5.482	A	A
D	4.55	0.91	3.101	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.49	0.90	26.867	D	C
B	10.56	2.11	4.096	A	A
C	7.54	1.51	6.707	A	A
D	5.41	1.08	3.457	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.62	1.32	39.359	E	D
B	12.46	2.49	4.625	A	A
C	9.32	1.86	7.983	A	A
D	6.16	1.23	3.765	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.09	1.82	52.813	F	D
B	13.85	2.77	4.982	A	A
C	10.75	2.15	8.916	A	A
D	6.67	1.33	3.949	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.86	2.17	58.464	F	E
B	14.43	2.89	5.030	A	A
C	11.39	2.28	9.067	A	A
D	6.85	1.37	3.971	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	11.26	2.25	49.643	E	D
B	14.25	2.85	4.736	A	A
C	11.23	2.25	8.311	A	A
D	6.73	1.35	3.805	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.04	1.61	34.658	D	C
B	12.48	2.50	4.231	A	A
C	9.43	1.89	7.067	A	A
D	6.02	1.20	3.509	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.55	0.91	20.945	C	C
B	9.96	1.99	3.619	A	A
C	7.06	1.41	5.702	A	A
D	5.04	1.01	3.143	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	2.72	0.54	13.900	B	B
B	7.64	1.53	3.065	A	A
C	5.13	1.03	4.585	A	A
D	4.06	0.81	2.779	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.74	0.35	10.173	B	B
B	5.77	1.15	2.613	A	A
C	3.72	0.74	3.757	A	A
D	3.20	0.64	2.458	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.38	0.28	8.875	A	A
B	4.96	0.99	2.418	A	A
C	3.13	0.63	3.416	A	A
D	2.80	0.56	2.315	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.31	0.26	8.828	A	A
B	4.82	0.96	2.410	A	A
C	3.03	0.61	3.406	A	A
D	2.74	0.55	2.311	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	1.30	0.26	8.826	A	A
B	4.80	0.96	2.411	A	A
C	3.02	0.60	3.408	A	A
D	2.73	0.55	2.311	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3008A111 Friday PM do nothing + committed development 2016 .arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 17/02/2015 08:21:52

» Year 2016 Friday PM Peak Hour do nothing, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2016 Friday PM Peak Hour do nothing				
Arm A	7.91	22.04	0.91	C	4 % [Arm A]
Arm B	1.73	11.93	0.64	B	
Arm C	2.15	11.03	0.69	B	
Arm D	5.57	13.36	0.86	B	
Arm E	0.41	13.07	0.30	B	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Year 2016 Friday PM Peak Hour do nothing, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 17/02/2015 08:21:49

File summary

Title	3167A111 Year 2016, Friday PM peak hour Existing traffic + committed development
Location	A259/B2187 Roundabout
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Year 2016 Friday PM Peak Hour do nothing, 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
	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	Relationsh
Year 2016 Friday PM Peak Hour do nothing, AM	Year 2016 Friday PM Peak Hour do nothing	AM		Varies by Arm	16:30	18:00	90	5				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				15.54	C

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	4	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.60	10.30	22.70	25.00	75.00	42.00	
B	3.35	7.00	21.70	21.00	75.00	35.00	
C	3.70	7.60	14.50	33.00	75.00	35.00	
D	3.75	11.70	22.50	37.60	75.00	36.00	
E	3.50	7.00	5.60	18.50	75.00	43.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.534	34.447
B		(calculated)	(calculated)	0.484	28.466
C		(calculated)	(calculated)	0.496	29.326
D		(calculated)	(calculated)	0.573	37.858
E		(calculated)	(calculated)	0.421	22.410

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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	20.42	100.000
B	ONE HOUR	✓	7.98	100.000
C	ONE HOUR	✓	10.73	100.000
D	ONE HOUR	✓	23.43	100.000
E	ONE HOUR	✓	1.70	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.067	0.783	4.917	13.283	0.367
	B	2.333	0.000	2.233	3.350	0.067
	C	4.533	2.400	0.000	3.667	0.133
	D	11.500	5.500	6.067	0.000	0.367
	E	0.667	0.250	0.150	0.633	0.000

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

		To				
		A	B	C	D	E
From	A	0.05	0.04	0.24	0.65	0.02
	B	0.29	0.00	0.28	0.42	0.01
	C	0.42	0.22	0.00	0.34	0.01
	D	0.49	0.23	0.26	0.00	0.02
	E	0.39	0.15	0.09	0.37	0.00

Vehicle Mix

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

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.91	22.04	7.91	C	18.76	1688.78	292.05	10.38	3.25	292.08	10.38
B	0.64	11.93	1.73	B	7.34	660.35	82.86	7.53	0.92	82.87	7.53
C	0.69	11.03	2.15	B	9.86	887.82	104.59	7.07	1.16	104.59	7.07
D	0.86	13.36	5.57	B	21.54	1938.31	234.61	7.26	2.61	234.63	7.26
E	0.30	13.07	0.41	B	1.56	140.62	20.31	8.66	0.23	20.31	8.66

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.46	77.30	15.23	15.01	11.21	0.00	28.46	23.65	0.543	0.00	1.15	4.462	A
B	6.04	30.22	5.95	6.67	19.76	0.00	18.90	12.93	0.320	0.00	0.46	4.603	A
C	8.13	40.64	8.01	9.98	15.74	0.00	21.52	15.50	0.378	0.00	0.59	4.402	A
D	17.74	88.72	17.52	15.61	8.13	0.00	33.20	28.83	0.534	0.00	1.12	3.775	A
E	1.29	6.44	1.26	0.70	24.95	0.00	11.90	4.12	0.108	0.00	0.12	5.630	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.46	77.30	15.45	15.22	11.36	0.00	28.38	23.65	0.545	1.15	1.18	4.638	A
B	6.04	30.22	6.04	6.76	20.05	0.00	18.76	12.93	0.322	0.46	0.47	4.715	A
C	8.13	40.64	8.13	10.12	15.97	0.00	21.41	15.50	0.380	0.59	0.60	4.515	A
D	17.74	88.72	17.74	15.85	8.25	0.00	33.13	28.83	0.536	1.12	1.14	3.896	A
E	1.29	6.44	1.29	0.71	25.28	0.00	11.76	4.12	0.109	0.12	0.12	5.729	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.46	77.30	15.46	15.22	11.36	0.00	28.38	23.65	0.545	1.18	1.18	4.642	A
B	6.04	30.22	6.04	6.76	20.05	0.00	18.76	12.93	0.322	0.47	0.47	4.718	A
C	8.13	40.64	8.13	10.12	15.98	0.00	21.41	15.50	0.380	0.60	0.61	4.518	A
D	17.74	88.72	17.74	15.85	8.25	0.00	33.13	28.83	0.536	1.14	1.14	3.898	A
E	1.29	6.44	1.29	0.71	25.29	0.00	11.76	4.12	0.109	0.12	0.12	5.730	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.49	82.47	16.45	16.21	12.09	0.00	27.98	23.65	0.589	1.18	1.39	5.180	A
B	6.45	32.25	6.44	7.20	21.34	0.00	18.13	12.93	0.356	0.47	0.54	5.122	A
C	8.67	43.35	8.65	10.77	17.01	0.00	20.90	15.50	0.415	0.61	0.69	4.885	A
D	18.93	94.65	18.89	16.87	8.79	0.00	32.82	28.83	0.577	1.14	1.32	4.293	A
E	1.37	6.87	1.37	0.75	26.93	0.00	11.07	4.12	0.124	0.12	0.14	6.188	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.46	92.30	18.34	18.08	13.50	0.00	27.23	23.65	0.678	1.39	1.98	6.648	A
B	7.22	36.09	7.18	8.04	23.80	0.00	16.95	12.93	0.426	0.54	0.72	6.125	A
C	9.70	48.52	9.66	12.02	18.96	0.00	19.93	15.50	0.487	0.69	0.92	5.817	A
D	21.19	105.94	21.09	18.82	9.81	0.00	32.24	28.83	0.657	1.32	1.83	5.327	A
E	1.54	7.69	1.53	0.84	30.05	0.00	9.75	4.12	0.158	0.14	0.18	7.292	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.20	101.00	20.02	19.77	14.75	0.00	26.56	23.65	0.761	1.98	2.87	8.897	A
B	7.90	39.49	7.85	8.78	25.99	0.00	15.89	12.93	0.497	0.72	0.95	7.420	A
C	10.62	53.10	10.56	13.13	20.71	0.00	19.06	15.50	0.557	0.92	1.20	7.009	A
D	23.19	115.93	23.04	20.55	10.72	0.00	31.71	28.83	0.731	1.83	2.53	6.783	A
E	1.68	8.41	1.67	0.92	32.85	0.00	8.57	4.12	0.196	0.18	0.24	8.679	A

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.61	108.06	21.36	21.13	15.77	0.00	26.02	23.65	0.831	2.87	4.13	12.104	B
B	8.45	42.26	8.40	9.39	27.74	0.00	15.04	12.93	0.562	0.95	1.21	8.947	A
C	11.36	56.81	11.30	14.03	22.11	0.00	18.36	15.50	0.619	1.20	1.53	8.394	A
D	24.81	124.03	24.63	21.95	11.46	0.00	31.29	28.83	0.793	2.53	3.44	8.713	A
E	1.80	9.00	1.79	0.98	35.11	0.00	7.62	4.12	0.236	0.24	0.30	10.269	B

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.61	113.04	22.30	22.10	16.49	0.00	25.63	23.65	0.882	4.13	5.70	16.107	C
B	8.84	44.20	8.79	9.82	28.97	0.00	14.44	12.93	0.612	1.21	1.47	10.477	B
C	11.89	59.43	11.82	14.66	23.10	0.00	17.88	15.50	0.665	1.53	1.85	9.768	A
D	25.95	129.75	25.75	22.93	11.99	0.00	30.99	28.83	0.837	3.44	4.44	10.890	B
E	1.88	9.41	1.87	1.02	36.72	0.00	6.94	4.12	0.271	0.30	0.36	11.795	B

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.12	115.62	22.83	22.64	16.89	0.00	25.42	23.65	0.910	5.70	7.17	19.986	C
B	9.04	45.21	9.00	10.06	29.66	0.00	14.11	12.93	0.641	1.47	1.67	11.612	B
C	12.16	60.78	12.11	15.01	23.65	0.00	17.60	15.50	0.691	1.85	2.08	10.775	B
D	26.54	132.70	26.38	23.48	12.28	0.00	30.82	28.83	0.861	4.44	5.27	12.728	B
E	1.93	9.63	1.92	1.05	37.61	0.00	6.57	4.12	0.293	0.36	0.40	12.873	B

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.12	115.62	22.98	22.72	16.95	0.00	25.39	23.65	0.911	7.17	7.91	22.042	C
B	9.04	45.21	9.03	10.09	29.84	0.00	14.02	12.93	0.645	1.67	1.73	11.927	B
C	12.16	60.78	12.14	15.08	23.78	0.00	17.54	15.50	0.693	2.08	2.15	11.032	B
D	26.54	132.70	26.48	23.60	12.32	0.00	30.80	28.83	0.862	5.27	5.57	13.359	B
E	1.93	9.63	1.92	1.05	37.75	0.00	6.51	4.12	0.296	0.40	0.41	13.070	B

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.61	113.04	22.61	22.27	16.62	0.00	25.56	23.65	0.884	7.91	7.90	20.645	C
B	8.84	44.20	8.85	9.90	29.34	0.00	14.27	12.93	0.620	1.73	1.69	11.126	B
C	11.89	59.43	11.89	14.81	23.37	0.00	17.74	15.50	0.670	2.15	2.11	10.323	B
D	25.95	129.75	25.97	23.19	12.08	0.00	30.93	28.83	0.839	5.57	5.49	12.277	B
E	1.88	9.41	1.89	1.03	37.01	0.00	6.82	4.12	0.276	0.41	0.39	12.182	B

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.61	108.06	22.00	21.46	16.02	0.00	25.89	23.65	0.835	7.90	5.96	16.695	C
B	8.45	42.26	8.50	9.54	28.48	0.00	14.68	12.93	0.576	1.69	1.43	9.810	A
C	11.36	56.81	11.43	14.32	22.66	0.00	18.09	15.50	0.628	2.11	1.79	9.108	A
D	24.81	124.03	25.04	22.46	11.62	0.00	31.20	28.83	0.795	5.49	4.30	10.159	B
E	1.80	9.00	1.81	1.00	35.67	0.00	7.38	4.12	0.244	0.39	0.33	10.795	B

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.20	101.00	20.67	20.11	15.00	0.00	26.43	23.65	0.764	5.96	3.60	11.105	B
B	7.90	39.49	7.97	8.94	26.73	0.00	15.53	12.93	0.509	1.43	1.08	8.019	A
C	10.62	53.10	10.70	13.43	21.27	0.00	18.78	15.50	0.565	1.79	1.36	7.515	A
D	23.19	115.93	23.45	21.08	10.89	0.00	31.61	28.83	0.733	4.30	2.96	7.588	A
E	1.68	8.41	1.70	0.94	33.41	0.00	8.33	4.12	0.202	0.33	0.26	9.062	A

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.46	92.30	18.73	18.33	13.68	0.00	27.14	23.65	0.680	3.60	2.26	7.347	A
B	7.22	36.09	7.28	8.15	24.26	0.00	16.72	12.93	0.432	1.08	0.79	6.392	A
C	9.70	48.52	9.78	12.22	19.32	0.00	19.75	15.50	0.491	1.36	1.00	6.064	A
D	21.19	105.94	21.37	19.16	9.94	0.00	32.16	28.83	0.659	2.96	2.02	5.660	A
E	1.54	7.69	1.55	0.85	30.46	0.00	9.58	4.12	0.161	0.26	0.20	7.486	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.49	82.47	16.65	16.35	12.20	0.00	27.93	23.65	0.591	2.26	1.50	5.388	A
B	6.45	32.25	6.49	7.26	21.58	0.00	18.02	12.93	0.358	0.79	0.57	5.223	A
C	8.67	43.35	8.72	10.88	17.19	0.00	20.80	15.50	0.417	1.00	0.73	4.989	A
D	18.93	94.65	19.05	17.05	8.86	0.00	32.78	28.83	0.578	2.02	1.41	4.411	A
E	1.37	6.87	1.38	0.76	27.16	0.00	10.97	4.12	0.125	0.20	0.15	6.265	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.46	77.30	15.51	15.26	11.39	0.00	28.36	23.65	0.545	1.50	1.23	4.693	A
B	6.04	30.22	6.06	6.78	20.12	0.00	18.73	12.93	0.323	0.57	0.49	4.743	A
C	8.13	40.64	8.15	10.15	16.03	0.00	21.38	15.50	0.380	0.73	0.63	4.544	A
D	17.74	88.72	17.79	15.90	8.28	0.00	33.11	28.83	0.536	1.41	1.18	3.929	A
E	1.29	6.44	1.29	0.71	25.36	0.00	11.73	4.12	0.110	0.15	0.13	5.753	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.46	77.30	15.46	15.22	11.36	0.00	28.38	23.65	0.545	1.23	1.22	4.650	A
B	6.04	30.22	6.05	6.77	20.06	0.00	18.76	12.93	0.322	0.49	0.48	4.722	A
C	8.13	40.64	8.13	10.12	15.98	0.00	21.40	15.50	0.380	0.63	0.62	4.520	A
D	17.74	88.72	17.75	15.85	8.25	0.00	33.13	28.83	0.536	1.18	1.17	3.904	A
E	1.29	6.44	1.29	0.71	25.29	0.00	11.75	4.12	0.110	0.13	0.12	5.732	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.46	77.30	15.46	15.22	11.36	0.00	28.38	23.65	0.545	1.22	1.21	4.647	A
B	6.04	30.22	6.05	6.76	20.05	0.00	18.76	12.93	0.322	0.48	0.48	4.719	A
C	8.13	40.64	8.13	10.12	15.98	0.00	21.40	15.50	0.380	0.62	0.62	4.521	A
D	17.74	88.72	17.74	15.85	8.25	0.00	33.13	28.83	0.536	1.17	1.16	3.903	A
E	1.29	6.44	1.29	0.71	25.29	0.00	11.75	4.12	0.110	0.12	0.12	5.731	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.31	1.06	4.462	A	A
B	2.16	0.43	4.603	A	A
C	2.77	0.55	4.402	A	A
D	5.21	1.04	3.775	A	A
E	0.56	0.11	5.630	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.83	1.17	4.638	A	A
B	2.33	0.47	4.715	A	A
C	3.00	0.60	4.515	A	A
D	5.65	1.13	3.896	A	A
E	0.60	0.12	5.729	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.90	1.18	4.642	A	A
B	2.35	0.47	4.718	A	A
C	3.03	0.61	4.518	A	A
D	5.70	1.14	3.898	A	A
E	0.61	0.12	5.730	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.68	1.34	5.180	A	A
B	2.62	0.52	5.122	A	A
C	3.37	0.67	4.885	A	A
D	6.41	1.28	4.293	A	A
E	0.68	0.14	6.188	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.23	1.85	6.648	A	A
B	3.43	0.69	6.125	A	A
C	4.37	0.87	5.817	A	A
D	8.62	1.72	5.327	A	A
E	0.87	0.17	7.292	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.12	2.62	8.897	A	A
B	4.49	0.90	7.420	A	A
C	5.69	1.14	7.009	A	A
D	11.78	2.36	6.783	A	A
E	1.13	0.23	8.679	A	A

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.56	3.71	12.104	B	B
B	5.73	1.15	8.947	A	A
C	7.21	1.44	8.394	A	A
D	15.82	3.16	8.713	A	A
E	1.42	0.28	10.269	B	B

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	25.47	5.09	16.107	C	B
B	6.98	1.40	10.477	B	B
C	8.75	1.75	9.768	A	A
D	20.45	4.09	10.890	B	B
E	1.70	0.34	11.795	B	B

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	32.75	6.55	19.986	C	B
B	8.00	1.60	11.612	B	B
C	9.98	2.00	10.775	B	B
D	24.71	4.94	12.728	B	B
E	1.92	0.38	12.873	B	B

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	37.90	7.58	22.042	C	C
B	8.51	1.70	11.927	B	B
C	10.60	2.12	11.032	B	B
D	27.20	5.44	13.359	B	B
E	2.02	0.40	13.070	B	B

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	39.53	7.91	20.645	C	C
B	8.53	1.71	11.126	B	B
C	10.63	2.13	10.323	B	B
D	27.65	5.53	12.277	B	B
E	1.99	0.40	12.182	B	B

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	32.69	6.54	16.695	C	B
B	7.52	1.50	9.810	A	A
C	9.38	1.88	9.108	A	A
D	23.19	4.64	10.159	B	B
E	1.74	0.35	10.795	B	B

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	20.12	4.02	11.105	B	B
B	5.75	1.15	8.019	A	A
C	7.24	1.45	7.515	A	A
D	16.09	3.22	7.588	A	A
E	1.37	0.27	9.062	A	A

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.35	2.47	7.347	A	A
B	4.15	0.83	6.392	A	A
C	5.29	1.06	6.064	A	A
D	10.85	2.17	5.660	A	A
E	1.03	0.21	7.486	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.01	1.60	5.388	A	A
B	2.99	0.60	5.223	A	A
C	3.84	0.77	4.989	A	A
D	7.46	1.49	4.411	A	A
E	0.76	0.15	6.265	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.42	1.28	4.693	A	A
B	2.51	0.50	4.743	A	A
C	3.23	0.65	4.544	A	A
D	6.12	1.22	3.929	A	A
E	0.65	0.13	5.753	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.12	1.22	4.650	A	A
B	2.42	0.48	4.722	A	A
C	3.11	0.62	4.520	A	A
D	5.87	1.17	3.904	A	A
E	0.62	0.12	5.732	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.06	1.21	4.647	A	A
B	2.40	0.48	4.719	A	A
C	3.09	0.62	4.521	A	A
D	5.83	1.17	3.903	A	A
E	0.62	0.12	5.731	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3008A112 Saturday do nothing + committed development 2016 .arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 17/02/2015 08:23:44

» Year 2016 Saturday Peak Hour do nothing, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2016 Saturday Peak Hour do nothing				
Arm A	3.93	11.34	0.81	B	14 % [Arm D]
Arm B	1.31	9.06	0.58	A	
Arm C	1.41	8.27	0.59	A	
Arm D	4.63	11.07	0.83	B	
Arm E	0.00	0.00	0.00	A	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Year 2016 Saturday Peak Hour do nothing, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 17/02/2015 08:23:40

File summary

Title	3167A112 Year 2016, Saturday PM peak hour Existing traffic + committed dev
Location	A259/B2187 Roundabout
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Year 2016 Saturday Peak Hour do nothing, 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
	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	Relation
Year 2016 Saturday Peak Hour do nothing, AM	Year 2016 Saturday Peak Hour do nothing	AM		Varies by Arm	11:45	13:15	90	5				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				10.46	B

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	14	Arm D

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.60	10.30	22.70	25.00	75.00	42.00	
B	3.35	7.00	21.70	21.00	75.00	35.00	
C	3.70	7.60	14.50	33.00	75.00	35.00	
D	3.75	11.70	22.50	37.60	75.00	36.00	
E	3.50	7.00	5.60	18.50	75.00	43.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.534	34.447
B		(calculated)	(calculated)	0.484	28.466
C		(calculated)	(calculated)	0.496	29.326
D		(calculated)	(calculated)	0.573	37.858
E		(calculated)	(calculated)	0.421	22.410

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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	19.27	100.000
B	ONE HOUR	✓	7.88	100.000
C	ONE HOUR	✓	9.23	100.000
D	ONE HOUR	✓	23.28	100.000
E	ONE HOUR	✓	0.03	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.250	0.883	3.817	13.317	0.000
	B	2.317	0.000	1.700	3.867	0.000
	C	4.017	2.017	0.000	3.200	0.000
	D	12.950	5.083	5.250	0.000	0.000
	E	0.033	0.000	0.000	0.000	0.000

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

		To				
		A	B	C	D	E
From	A	0.06	0.05	0.20	0.69	0.00
	B	0.29	0.00	0.22	0.49	0.00
	C	0.44	0.22	0.00	0.35	0.00
	D	0.56	0.22	0.23	0.00	0.00
	E	1.00	0.00	0.00	0.00	0.00

Vehicle Mix

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

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.81	11.34	3.93	B	17.71	1593.66	179.81	6.77	2.00	179.83	6.77
B	0.58	9.06	1.31	A	7.25	652.08	67.97	6.25	0.76	67.98	6.25
C	0.59	8.27	1.41	A	8.49	763.74	74.13	5.82	0.82	74.14	5.82
D	0.83	11.07	4.63	B	21.40	1925.90	206.71	6.44	2.30	206.73	6.44
E	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	14.59	72.94	14.40	15.35	9.24	0.00	29.51	25.82	0.494	0.00	0.95	3.922	A
B	5.97	29.85	5.89	5.97	17.67	0.00	19.92	13.35	0.300	0.00	0.42	4.254	A
C	6.99	34.96	6.90	8.05	15.50	0.00	21.64	14.46	0.323	0.00	0.47	4.070	A
D	17.63	88.15	17.42	15.23	7.17	0.00	33.75	29.23	0.522	0.00	1.07	3.628	A
E	0.00	0.00	0.00	0.00	24.59	0.00	12.05	3.76	0.000	0.00	0.00	0.000	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	14.59	72.94	14.59	15.54	9.35	0.00	29.45	25.82	0.495	0.95	0.97	4.036	A
B	5.97	29.85	5.97	6.04	17.89	0.00	19.81	13.35	0.301	0.42	0.43	4.336	A
C	6.99	34.96	6.99	8.15	15.71	0.00	21.54	14.46	0.325	0.47	0.48	4.124	A
D	17.63	88.15	17.63	15.43	7.27	0.00	33.69	29.23	0.523	1.07	1.08	3.734	A
E	0.00	0.00	0.00	0.00	24.89	0.00	11.92	3.76	0.000	0.00	0.00	0.000	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	14.59	72.94	14.59	15.55	9.35	0.00	29.45	25.82	0.495	0.97	0.97	4.037	A
B	5.97	29.85	5.97	6.04	17.89	0.00	19.80	13.35	0.301	0.43	0.43	4.336	A
C	6.99	34.96	6.99	8.15	15.71	0.00	21.54	14.46	0.325	0.48	0.48	4.124	A
D	17.63	88.15	17.63	15.43	7.27	0.00	33.69	29.23	0.523	1.08	1.09	3.734	A
E	0.00	0.00	0.00	0.00	24.90	0.00	11.92	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.56	77.82	15.54	16.56	9.96	0.00	29.12	25.82	0.534	0.97	1.12	4.403	A
B	6.37	31.84	6.36	6.44	19.06	0.00	19.24	13.35	0.331	0.43	0.48	4.651	A
C	7.46	37.30	7.45	8.68	16.73	0.00	21.03	14.46	0.355	0.48	0.54	4.411	A
D	18.81	94.05	18.78	16.44	7.74	0.00	33.42	29.23	0.563	1.09	1.25	4.085	A
E	0.00	0.00	0.00	0.00	26.52	0.00	11.24	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.42	87.10	17.34	18.49	11.12	0.00	28.50	25.82	0.611	1.12	1.51	5.335	A
B	7.13	35.64	7.10	7.19	21.27	0.00	18.17	13.35	0.392	0.48	0.63	5.407	A
C	8.35	41.74	8.32	9.69	18.68	0.00	20.07	14.46	0.416	0.54	0.69	5.091	A
D	21.05	105.26	20.96	18.35	8.65	0.00	32.90	29.23	0.640	1.25	1.71	4.983	A
E	0.00	0.00	0.00	0.00	29.61	0.00	9.94	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.06	95.31	18.96	20.22	12.16	0.00	27.95	25.82	0.682	1.51	2.02	6.587	A
B	7.80	39.00	7.77	7.86	23.26	0.00	17.21	13.35	0.453	0.63	0.80	6.323	A
C	9.14	45.68	9.10	10.60	20.43	0.00	19.20	14.46	0.476	0.69	0.88	5.910	A
D	23.04	115.18	22.92	20.07	9.46	0.00	32.44	29.23	0.710	1.71	2.31	6.209	A
E	0.00	0.00	0.00	0.00	32.37	0.00	8.77	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.40	101.98	20.27	21.62	13.00	0.00	27.50	25.82	0.742	2.02	2.65	8.125	A
B	8.35	41.73	8.31	8.40	24.87	0.00	16.43	13.35	0.508	0.80	0.99	7.345	A
C	9.77	48.87	9.73	11.33	21.84	0.00	18.50	14.46	0.528	0.88	1.08	6.810	A
D	24.65	123.24	24.50	21.46	10.12	0.00	32.06	29.23	0.769	2.31	3.05	7.745	A
E	0.00	0.00	0.00	0.00	34.62	0.00	7.83	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.34	106.68	21.21	22.62	13.60	0.00	27.18	25.82	0.785	2.65	3.29	9.752	A
B	8.73	43.65	8.69	8.79	26.01	0.00	15.87	13.35	0.550	0.99	1.16	8.302	A
C	10.22	51.12	10.19	11.85	22.85	0.00	18.00	14.46	0.568	1.08	1.26	7.642	A
D	25.78	128.92	25.63	22.45	10.59	0.00	31.79	29.23	0.811	3.05	3.83	9.401	A
E	0.00	0.00	0.00	0.00	36.22	0.00	7.15	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.82	109.11	21.72	23.17	13.93	0.00	27.00	25.82	0.808	3.29	3.77	11.012	B
B	8.93	44.64	8.91	9.01	26.65	0.00	15.57	13.35	0.574	1.16	1.28	8.939	A
C	10.46	52.29	10.43	12.14	23.41	0.00	17.72	14.46	0.590	1.26	1.38	8.187	A
D	26.37	131.85	26.25	23.00	10.84	0.00	31.64	29.23	0.833	3.83	4.43	10.710	B
E	0.00	0.00	0.00	0.00	37.09	0.00	6.78	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.82	109.11	21.79	23.23	13.97	0.00	26.98	25.82	0.809	3.77	3.93	11.342	B
B	8.93	44.64	8.92	9.03	26.73	0.00	15.53	13.35	0.575	1.28	1.31	9.059	A
C	10.46	52.29	10.45	12.18	23.47	0.00	17.69	14.46	0.591	1.38	1.41	8.268	A
D	26.37	131.85	26.33	23.06	10.87	0.00	31.63	29.23	0.834	4.43	4.63	11.068	B
E	0.00	0.00	0.00	0.00	37.20	0.00	6.74	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.34	106.68	21.35	22.75	13.69	0.00	27.13	25.82	0.786	3.93	3.86	10.489	B
B	8.73	43.65	8.74	8.85	26.19	0.00	15.79	13.35	0.553	1.31	1.28	8.533	A
C	10.22	51.12	10.23	11.93	23.00	0.00	17.93	14.46	0.570	1.41	1.37	7.818	A
D	25.78	128.92	25.80	22.59	10.64	0.00	31.76	29.23	0.812	4.63	4.54	10.196	B
E	0.00	0.00	0.00	0.00	36.44	0.00	7.06	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.40	101.98	20.54	21.87	13.16	0.00	27.41	25.82	0.744	3.86	3.14	8.945	A
B	8.35	41.73	8.38	8.50	25.19	0.00	16.27	13.35	0.513	1.28	1.10	7.647	A
C	9.77	48.87	9.81	11.47	22.10	0.00	18.37	14.46	0.532	1.37	1.18	7.048	A
D	24.65	123.24	24.83	21.71	10.21	0.00	32.01	29.23	0.770	4.54	3.64	8.597	A
E	0.00	0.00	0.00	0.00	35.03	0.00	7.65	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.06	95.31	19.23	20.47	12.32	0.00	27.86	25.82	0.684	3.14	2.30	7.092	A
B	7.80	39.00	7.84	7.96	23.59	0.00	17.05	13.35	0.458	1.10	0.87	6.554	A
C	9.14	45.68	9.18	10.74	20.69	0.00	19.07	14.46	0.479	1.18	0.95	6.102	A
D	23.04	115.18	23.24	20.32	9.55	0.00	32.38	29.23	0.711	3.64	2.62	6.711	A
E	0.00	0.00	0.00	0.00	32.79	0.00	8.59	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.42	87.10	17.55	18.69	11.24	0.00	28.44	25.82	0.613	2.30	1.65	5.577	A
B	7.13	35.64	7.17	7.27	21.53	0.00	18.05	13.35	0.395	0.87	0.67	5.539	A
C	8.35	41.74	8.39	9.80	18.89	0.00	19.96	14.46	0.418	0.95	0.74	5.207	A
D	21.05	105.26	21.20	18.55	8.73	0.00	32.86	29.23	0.641	2.62	1.86	5.219	A
E	0.00	0.00	0.00	0.00	29.93	0.00	9.80	3.76	0.000	0.00	0.00	0.000	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.56	77.82	15.66	16.68	10.03	0.00	29.09	25.82	0.535	1.65	1.19	4.501	A
B	6.37	31.84	6.40	6.48	19.20	0.00	19.17	13.35	0.332	0.67	0.51	4.710	A
C	7.46	37.30	7.49	8.75	16.86	0.00	20.97	14.46	0.356	0.74	0.56	4.464	A
D	18.81	94.05	18.92	16.56	7.79	0.00	33.39	29.23	0.563	1.86	1.33	4.175	A
E	0.00	0.00	0.00	0.00	26.71	0.00	11.16	3.76	0.000	0.00	0.00	0.000	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	14.59	72.94	14.62	15.58	9.37	0.00	29.44	25.82	0.496	1.19	1.01	4.061	A
B	5.97	29.85	5.98	6.06	17.94	0.00	19.78	13.35	0.302	0.51	0.44	4.354	A
C	6.99	34.96	7.01	8.17	15.75	0.00	21.52	14.46	0.325	0.56	0.49	4.139	A
D	17.63	88.15	17.67	15.47	7.29	0.00	33.68	29.23	0.523	1.33	1.12	3.760	A
E	0.00	0.00	0.00	0.00	24.96	0.00	11.90	3.76	0.000	0.00	0.00	0.000	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	14.59	72.94	14.59	15.55	9.35	0.00	29.45	25.82	0.495	1.01	0.99	4.040	A
B	5.97	29.85	5.97	6.05	17.90	0.00	19.80	13.35	0.301	0.44	0.44	4.339	A
C	6.99	34.96	6.99	8.15	15.71	0.00	21.54	14.46	0.325	0.49	0.49	4.126	A
D	17.63	88.15	17.63	15.44	7.27	0.00	33.69	29.23	0.523	1.12	1.11	3.737	A
E	0.00	0.00	0.00	0.00	24.90	0.00	11.92	3.76	0.000	0.00	0.00	0.000	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	14.59	72.94	14.59	15.55	9.35	0.00	29.45	25.82	0.495	0.99	0.99	4.040	A
B	5.97	29.85	5.97	6.05	17.90	0.00	19.80	13.35	0.301	0.44	0.43	4.338	A
C	6.99	34.96	6.99	8.15	15.71	0.00	21.54	14.46	0.325	0.49	0.48	4.126	A
D	17.63	88.15	17.63	15.43	7.27	0.00	33.69	29.23	0.523	1.11	1.11	3.735	A
E	0.00	0.00	0.00	0.00	24.90	0.00	11.92	3.76	0.000	0.00	0.00	0.000	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.45	0.89	3.922	A	A
B	1.98	0.40	4.254	A	A
C	2.20	0.44	4.070	A	A
D	4.98	1.00	3.628	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.81	0.96	4.036	A	A
B	2.12	0.42	4.336	A	A
C	2.36	0.47	4.124	A	A
D	5.38	1.08	3.734	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.85	0.97	4.037	A	A
B	2.14	0.43	4.336	A	A
C	2.38	0.48	4.124	A	A
D	5.43	1.09	3.734	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.42	1.08	4.403	A	A
B	2.36	0.47	4.651	A	A
C	2.63	0.53	4.411	A	A
D	6.08	1.22	4.085	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.14	1.43	5.335	A	A
B	3.01	0.60	5.407	A	A
C	3.33	0.67	5.091	A	A
D	8.06	1.61	4.983	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.49	1.90	6.587	A	A
B	3.83	0.77	6.323	A	A
C	4.20	0.84	5.910	A	A
D	10.80	2.16	6.209	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.33	2.47	8.125	A	A
B	4.72	0.94	7.345	A	A
C	5.14	1.03	6.810	A	A
D	14.17	2.83	7.745	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.37	3.07	9.752	A	A
B	5.58	1.12	8.302	A	A
C	6.03	1.21	7.642	A	A
D	17.84	3.57	9.401	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	17.96	3.59	11.012	B	B
B	6.22	1.24	8.939	A	A
C	6.69	1.34	8.187	A	A
D	21.02	4.20	10.710	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	19.32	3.86	11.342	B	B
B	6.50	1.30	9.059	A	A
C	6.97	1.39	8.268	A	A
D	22.72	4.54	11.068	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	19.45	3.89	10.489	B	B
B	6.45	1.29	8.533	A	A
C	6.91	1.38	7.818	A	A
D	22.89	4.58	10.196	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	16.71	3.34	8.945	A	A
B	5.71	1.14	7.647	A	A
C	6.14	1.23	7.048	A	A
D	19.43	3.89	8.597	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.34	2.47	7.092	A	A
B	4.58	0.92	6.554	A	A
C	4.97	0.99	6.102	A	A
D	14.10	2.82	6.711	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.76	1.75	5.577	A	A
B	3.51	0.70	5.539	A	A
C	3.86	0.77	5.207	A	A
D	9.90	1.98	5.219	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.24	1.25	4.501	A	A
B	2.65	0.53	4.710	A	A
C	2.93	0.59	4.464	A	A
D	6.99	1.40	4.175	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.20	1.04	4.061	A	A
B	2.26	0.45	4.354	A	A
C	2.52	0.50	4.139	A	A
D	5.81	1.16	3.760	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.99	1.00	4.040	A	A
B	2.19	0.44	4.339	A	A
C	2.44	0.49	4.126	A	A
D	5.58	1.12	3.737	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.96	0.99	4.040	A	A
B	2.18	0.44	4.338	A	A
C	2.42	0.48	4.126	A	A
D	5.54	1.11	3.735	A	A
E	0.00	0.00	0.000	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3008A113 Friday PM do nothing + committed development 2020 .arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 17/02/2015 08:26:15

» Year 2020 Friday Peak Hour do nothing, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2020 Friday Peak Hour do nothing				
Arm A	13.90	36.43	0.97	E	-1 % [Arm A]
Arm B	2.26	14.97	0.71	B	
Arm C	2.81	13.81	0.75	B	
Arm D	8.57	19.74	0.92	C	
Arm E	0.52	16.04	0.35	C	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Year 2020 Friday Peak Hour do nothing, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 17/02/2015 08:26:09

File summary

Title	3167A113 Year 2020, Friday PM peak hour do nothing
Location	A259/B2187 Roundabout
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Year 2020 Friday Peak Hour do nothing, 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
	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	Relationsh
Year 2020 Friday Peak Hour do nothing, AM	Year 2020 Friday Peak Hour do nothing	AM		Varies by Arm	16:30	18:00	90	5				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				23.33	C

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	-1	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.60	10.30	22.70	25.00	75.00	42.00	
B	3.35	7.00	21.70	21.00	75.00	35.00	
C	3.70	7.60	14.50	33.00	75.00	35.00	
D	3.75	11.70	22.50	37.60	75.00	36.00	
E	3.50	7.00	5.60	18.50	75.00	43.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.534	34.447
B		(calculated)	(calculated)	0.484	28.466
C		(calculated)	(calculated)	0.496	29.326
D		(calculated)	(calculated)	0.573	37.858
E		(calculated)	(calculated)	0.421	22.410

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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	21.37	100.000
B	ONE HOUR	✓	8.42	100.000
C	ONE HOUR	✓	11.33	100.000
D	ONE HOUR	✓	24.65	100.000
E	ONE HOUR	✓	1.78	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.067	0.800	5.183	13.933	0.383
	B	2.450	0.000	2.367	3.533	0.067
	C	4.783	2.533	0.000	3.867	0.150
	D	12.083	5.800	6.383	0.000	0.383
	E	0.700	0.250	0.167	0.667	0.000

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

		To				
		A	B	C	D	E
From	A	0.05	0.04	0.24	0.65	0.02
	B	0.29	0.00	0.28	0.42	0.01
	C	0.42	0.22	0.00	0.34	0.01
	D	0.49	0.24	0.26	0.00	0.02
	E	0.39	0.14	0.09	0.37	0.00

Vehicle Mix

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

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.97	36.43	13.90	E	19.64	1767.36	435.77	14.79	4.84	435.81	14.80
B	0.71	14.97	2.26	B	7.74	696.19	102.64	8.85	1.14	102.65	8.85
C	0.75	13.81	2.81	B	10.42	937.45	128.95	8.25	1.43	128.97	8.25
D	0.92	19.74	8.57	C	22.65	2038.95	318.03	9.36	3.53	318.06	9.36
E	0.35	16.04	0.52	C	1.64	147.51	24.46	9.95	0.27	24.46	9.95

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.18	80.89	15.92	15.73	11.79	0.00	28.14	23.62	0.575	0.00	1.30	4.812	A
B	6.37	31.87	6.27	7.00	20.71	0.00	18.44	12.91	0.346	0.00	0.52	4.892	A
C	8.58	42.91	8.45	10.52	16.46	0.00	21.16	15.53	0.405	0.00	0.66	4.672	A
D	18.66	93.32	18.41	16.39	8.52	0.00	32.97	28.86	0.566	0.00	1.26	4.055	A
E	1.35	6.75	1.32	0.73	26.20	0.00	11.37	4.14	0.119	0.00	0.13	5.955	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.18	80.89	16.17	15.96	11.96	0.00	28.05	23.62	0.577	1.30	1.33	5.043	A
B	6.37	31.87	6.37	7.10	21.03	0.00	18.29	12.91	0.349	0.52	0.53	5.033	A
C	8.58	42.91	8.58	10.67	16.73	0.00	21.03	15.53	0.408	0.66	0.68	4.817	A
D	18.66	93.32	18.66	16.65	8.65	0.00	32.90	28.86	0.567	1.26	1.29	4.210	A
E	1.35	6.75	1.35	0.74	26.57	0.00	11.22	4.14	0.120	0.13	0.13	6.080	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.18	80.89	16.18	15.96	11.96	0.00	28.05	23.62	0.577	1.33	1.34	5.048	A
B	6.37	31.87	6.37	7.10	21.04	0.00	18.28	12.91	0.349	0.53	0.53	5.036	A
C	8.58	42.91	8.58	10.68	16.73	0.00	21.03	15.53	0.408	0.68	0.68	4.819	A
D	18.66	93.32	18.66	16.66	8.66	0.00	32.90	28.86	0.567	1.29	1.30	4.214	A
E	1.35	6.75	1.35	0.74	26.58	0.00	11.21	4.14	0.120	0.13	0.14	6.082	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.26	86.31	17.21	16.99	12.73	0.00	27.64	23.62	0.624	1.34	1.60	5.716	A
B	6.80	34.00	6.78	7.56	22.38	0.00	17.63	12.91	0.386	0.53	0.61	5.521	A
C	9.16	45.78	9.14	11.36	17.80	0.00	20.50	15.53	0.447	0.68	0.79	5.267	A
D	19.91	99.57	19.87	17.72	9.21	0.00	32.58	28.86	0.611	1.30	1.52	4.700	A
E	1.44	7.20	1.44	0.79	28.29	0.00	10.49	4.14	0.137	0.14	0.16	6.623	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.32	96.60	19.16	18.95	14.20	0.00	26.86	23.62	0.719	1.60	2.37	7.629	A
B	7.61	38.05	7.57	8.43	24.93	0.00	16.40	12.91	0.464	0.61	0.83	6.755	A
C	10.25	51.24	10.19	12.66	19.83	0.00	19.49	15.53	0.526	0.79	1.06	6.407	A
D	22.29	111.44	22.16	19.75	10.28	0.00	31.97	28.86	0.697	1.52	2.17	6.028	A
E	1.61	8.06	1.60	0.88	31.55	0.00	9.12	4.14	0.177	0.16	0.21	7.970	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.14	105.70	20.89	20.70	15.51	0.00	26.16	23.62	0.808	2.37	3.64	10.806	B
B	8.33	41.64	8.27	9.21	27.19	0.00	15.31	12.91	0.544	0.83	1.13	8.441	A
C	11.21	56.07	11.14	13.82	21.64	0.00	18.60	15.53	0.603	1.06	1.43	7.950	A
D	24.39	121.95	24.19	21.55	11.23	0.00	31.42	28.86	0.776	2.17	3.15	8.052	A
E	1.76	8.82	1.75	0.96	34.46	0.00	7.89	4.14	0.224	0.21	0.28	9.737	A

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.62	113.09	22.22	22.10	16.56	0.00	25.60	23.62	0.884	3.64	5.64	15.756	C
B	8.91	44.55	8.84	9.83	28.95	0.00	14.45	12.91	0.616	1.13	1.49	10.501	B
C	12.00	59.99	11.91	14.74	23.05	0.00	17.90	15.53	0.670	1.43	1.88	9.833	A
D	26.09	130.47	25.82	22.96	12.00	0.00	30.98	28.86	0.842	3.15	4.52	10.934	B
E	1.89	9.44	1.87	1.03	36.79	0.00	6.91	4.14	0.273	0.28	0.36	11.863	B

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.66	118.30	23.10	23.09	17.30	0.00	25.20	23.62	0.939	5.64	8.45	22.510	C
B	9.32	46.60	9.25	10.27	30.13	0.00	13.88	12.91	0.671	1.49	1.86	12.668	B
C	12.55	62.75	12.46	15.37	24.01	0.00	17.42	15.53	0.720	1.88	2.33	11.787	B
D	27.30	136.48	26.96	23.93	12.54	0.00	30.67	28.86	0.890	4.52	6.21	14.514	B
E	1.97	9.87	1.96	1.07	38.43	0.00	6.22	4.14	0.317	0.36	0.44	14.007	B

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.20	121.00	23.58	23.64	17.72	0.00	24.98	23.62	0.969	8.45	11.55	30.030	D
B	9.53	47.66	9.48	10.51	30.78	0.00	13.57	12.91	0.703	1.86	2.14	14.339	B
C	12.84	64.18	12.77	15.72	24.54	0.00	17.16	15.53	0.748	2.33	2.68	13.295	B
D	27.92	139.59	27.60	24.46	12.85	0.00	30.50	28.86	0.916	6.21	7.80	17.954	C
E	2.02	10.10	2.01	1.10	39.35	0.00	5.83	4.14	0.346	0.44	0.50	15.611	C

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.20	121.00	23.77	23.76	17.81	0.00	24.93	23.62	0.971	11.55	13.71	35.873	E
B	9.53	47.66	9.51	10.57	31.01	0.00	13.46	12.91	0.708	2.14	2.26	14.971	B
C	12.84	64.18	12.81	15.82	24.70	0.00	17.08	15.53	0.752	2.68	2.81	13.808	B
D	27.92	139.59	27.76	24.62	12.90	0.00	30.47	28.86	0.916	7.80	8.57	19.744	C
E	2.02	10.10	2.02	1.10	39.56	0.00	5.75	4.14	0.352	0.50	0.52	16.043	C

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.66	118.30	23.62	23.35	17.50	0.00	25.09	23.62	0.943	13.71	13.90	36.429	E
B	9.32	46.60	9.32	10.39	30.73	0.00	13.59	12.91	0.686	2.26	2.25	14.134	B
C	12.55	62.75	12.55	15.61	24.45	0.00	17.21	15.53	0.729	2.81	2.79	12.983	B
D	27.30	136.48	27.30	24.34	12.66	0.00	30.60	28.86	0.892	8.57	8.55	18.489	C
E	1.97	9.87	1.98	1.09	38.87	0.00	6.03	4.14	0.327	0.52	0.50	14.828	B

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.62	113.09	23.26	22.62	16.96	0.00	25.38	23.62	0.891	13.90	10.68	30.502	D
B	8.91	44.55	8.97	10.08	30.15	0.00	13.87	12.91	0.642	2.25	1.93	12.457	B
C	12.00	59.99	12.08	15.21	23.91	0.00	17.47	15.53	0.687	2.79	2.37	11.353	B
D	26.09	130.47	26.52	23.77	12.22	0.00	30.85	28.86	0.846	8.55	6.43	14.954	B
E	1.89	9.44	1.90	1.06	37.68	0.00	6.54	4.14	0.289	0.50	0.43	13.004	B

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.14	105.70	22.23	21.25	15.92	0.00	25.94	23.62	0.815	10.68	5.21	18.271	C
B	8.33	41.64	8.43	9.47	28.68	0.00	14.58	12.91	0.571	1.93	1.42	9.924	A
C	11.21	56.07	11.34	14.38	22.74	0.00	18.05	15.53	0.621	2.37	1.75	9.105	A
D	24.39	121.95	24.89	22.57	11.50	0.00	31.27	28.86	0.780	6.43	3.93	10.014	B
E	1.76	8.82	1.79	1.00	35.39	0.00	7.50	4.14	0.235	0.43	0.32	10.538	B

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.32	96.60	19.80	19.31	14.47	0.00	26.72	23.62	0.723	5.21	2.83	9.170	A
B	7.61	38.05	7.71	8.60	25.66	0.00	16.04	12.91	0.474	1.42	0.94	7.275	A
C	10.25	51.24	10.36	12.97	20.40	0.00	19.21	15.53	0.533	1.75	1.19	6.862	A
D	22.29	111.44	22.58	20.29	10.47	0.00	31.86	28.86	0.700	3.93	2.47	6.656	A
E	1.61	8.06	1.63	0.90	32.15	0.00	8.87	4.14	0.182	0.32	0.23	8.313	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.26	86.31	17.48	17.18	12.87	0.00	27.57	23.62	0.626	2.83	1.75	6.068	A
B	6.80	34.00	6.86	7.65	22.70	0.00	17.48	12.91	0.389	0.94	0.66	5.679	A
C	9.16	45.78	9.23	11.50	18.05	0.00	20.38	15.53	0.449	1.19	0.84	5.417	A
D	19.91	99.57	20.08	17.97	9.31	0.00	32.52	28.86	0.612	2.47	1.64	4.888	A
E	1.44	7.20	1.45	0.80	28.59	0.00	10.36	4.14	0.139	0.23	0.17	6.744	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.18	80.89	16.25	16.02	12.00	0.00	28.03	23.62	0.577	1.75	1.41	5.125	A
B	6.37	31.87	6.39	7.13	21.12	0.00	18.24	12.91	0.349	0.66	0.55	5.073	A
C	8.58	42.91	8.61	10.71	16.80	0.00	21.00	15.53	0.409	0.84	0.71	4.854	A
D	18.66	93.32	18.72	16.72	8.69	0.00	32.88	28.86	0.568	1.64	1.35	4.257	A
E	1.35	6.75	1.36	0.75	26.66	0.00	11.18	4.14	0.121	0.17	0.14	6.113	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.18	80.89	16.18	15.97	11.97	0.00	28.05	23.62	0.577	1.41	1.39	5.063	A
B	6.37	31.87	6.37	7.11	21.04	0.00	18.28	12.91	0.349	0.55	0.54	5.042	A
C	8.58	42.91	8.58	10.68	16.74	0.00	21.03	15.53	0.408	0.71	0.70	4.822	A
D	18.66	93.32	18.67	16.66	8.66	0.00	32.89	28.86	0.567	1.35	1.33	4.222	A
E	1.35	6.75	1.35	0.74	26.58	0.00	11.21	4.14	0.120	0.14	0.14	6.087	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.18	80.89	16.18	15.97	11.96	0.00	28.05	23.62	0.577	1.39	1.38	5.056	A
B	6.37	31.87	6.37	7.11	21.04	0.00	18.28	12.91	0.349	0.54	0.54	5.038	A
C	8.58	42.91	8.58	10.68	16.74	0.00	21.03	15.53	0.408	0.70	0.70	4.822	A
D	18.66	93.32	18.67	16.66	8.66	0.00	32.90	28.86	0.567	1.33	1.33	4.218	A
E	1.35	6.75	1.35	0.74	26.58	0.00	11.21	4.14	0.120	0.14	0.14	6.085	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.96	1.19	4.812	A	A
B	2.40	0.48	4.892	A	A
C	3.09	0.62	4.672	A	A
D	5.85	1.17	4.055	A	A
E	0.62	0.12	5.955	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.61	1.32	5.043	A	A
B	2.61	0.52	5.033	A	A
C	3.37	0.67	4.817	A	A
D	6.40	1.28	4.210	A	A
E	0.67	0.13	6.080	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.70	1.34	5.048	A	A
B	2.64	0.53	5.036	A	A
C	3.40	0.68	4.819	A	A
D	6.47	1.29	4.214	A	A
E	0.68	0.14	6.082	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.65	1.53	5.716	A	A
B	2.97	0.59	5.521	A	A
C	3.81	0.76	5.267	A	A
D	7.33	1.47	4.700	A	A
E	0.76	0.15	6.623	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.91	2.18	7.629	A	A
B	3.95	0.79	6.755	A	A
C	5.04	1.01	6.407	A	A
D	10.13	2.03	6.028	A	A
E	1.00	0.20	7.970	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	16.27	3.25	10.806	B	B
B	5.31	1.06	8.441	A	A
C	6.73	1.35	7.950	A	A
D	14.39	2.88	8.052	A	A
E	1.32	0.26	9.737	A	A

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	24.52	4.90	15.756	C	B
B	6.97	1.39	10.501	B	B
C	8.77	1.75	9.833	A	A
D	20.31	4.06	10.934	B	B
E	1.70	0.34	11.863	B	B

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	36.31	7.26	22.510	C	C
B	8.73	1.75	12.668	B	B
C	10.92	2.18	11.787	B	B
D	27.81	5.56	14.514	B	B
E	2.09	0.42	14.007	B	B

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	50.69	10.14	30.030	D	C
B	10.21	2.04	14.339	B	B
C	12.75	2.55	13.295	B	B
D	35.64	7.13	17.954	C	B
E	2.41	0.48	15.611	C	B

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	63.45	12.69	35.873	E	D
B	11.06	2.21	14.971	B	B
C	13.77	2.75	13.808	B	B
D	41.12	8.22	19.744	C	B
E	2.56	0.51	16.043	C	B

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	69.02	13.80	36.429	E	D
B	11.26	2.25	14.134	B	B
C	13.98	2.80	12.983	B	B
D	42.82	8.56	18.489	C	B
E	2.55	0.51	14.828	B	B

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	58.77	11.75	30.502	D	C
B	10.15	2.03	12.457	B	B
C	12.47	2.49	11.353	B	B
D	35.30	7.06	14.954	B	B
E	2.23	0.45	13.004	B	B

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	32.38	6.48	18.271	C	B
B	7.61	1.52	9.924	A	A
C	9.38	1.88	9.105	A	A
D	21.89	4.38	10.014	B	B
E	1.69	0.34	10.538	B	B

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.76	3.15	9.170	A	A
B	5.03	1.01	7.275	A	A
C	6.38	1.28	6.862	A	A
D	13.47	2.69	6.656	A	A
E	1.21	0.24	8.313	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.47	1.89	6.068	A	A
B	3.45	0.69	5.679	A	A
C	4.43	0.89	5.417	A	A
D	8.74	1.75	4.888	A	A
E	0.87	0.17	6.744	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.39	1.48	5.125	A	A
B	2.84	0.57	5.073	A	A
C	3.66	0.73	4.854	A	A
D	7.02	1.40	4.257	A	A
E	0.72	0.14	6.113	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.99	1.40	5.063	A	A
B	2.72	0.54	5.042	A	A
C	3.51	0.70	4.822	A	A
D	6.70	1.34	4.222	A	A
E	0.70	0.14	6.087	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.92	1.38	5.056	A	A
B	2.70	0.54	5.038	A	A
C	3.48	0.70	4.822	A	A
D	6.64	1.33	4.218	A	A
E	0.69	0.14	6.085	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3008A114 Saturday do nothing + committed development 2020 .arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 17/02/2015 08:27:52

» Year 2020 Saturday Peak Hour do nothing, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2020 Saturday Peak Hour do nothing				
Arm A	5.31	14.86	0.86	B	8 % [Arm D]
Arm B	1.64	10.82	0.63	B	
Arm C	1.72	9.69	0.64	A	
Arm D	6.61	15.24	0.88	C	
Arm E	0.00	0.00	0.00	A	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Year 2020 Saturday Peak Hour do nothing, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 17/02/2015 08:27:47

File summary

Title	3167A114 Year 2020, Saturday PM peak hour do nothing
Location	A259/B2187 Roundabout
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Year 2020 Saturday Peak Hour do nothing, 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
	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	Relation
Year 2020 Saturday Peak Hour do nothing, AM	Year 2020 Saturday Peak Hour do nothing	AM		Varies by Arm	11:45	13:15	90	5				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				13.67	B

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	8	Arm D

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.60	10.30	22.70	25.00	75.00	42.00	
B	3.35	7.00	21.70	21.00	75.00	35.00	
C	3.70	7.60	14.50	33.00	75.00	35.00	
D	3.75	11.70	22.50	37.60	75.00	36.00	
E	3.50	7.00	5.60	18.50	75.00	43.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.534	34.447
B		(calculated)	(calculated)	0.484	28.466
C		(calculated)	(calculated)	0.496	29.326
D		(calculated)	(calculated)	0.573	37.858
E		(calculated)	(calculated)	0.421	22.410

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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	20.12	100.000
B	ONE HOUR	✓	8.32	100.000
C	ONE HOUR	✓	9.72	100.000
D	ONE HOUR	✓	24.48	100.000
E	ONE HOUR	✓	0.03	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.250	0.883	4.033	13.950	0.000
	B	2.433	0.000	1.800	4.083	0.000
	C	4.233	2.117	0.000	3.367	0.000
	D	13.583	5.367	5.533	0.000	0.000
	E	0.033	0.000	0.000	0.000	0.000

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

		To				
		A	B	C	D	E
From	A	0.06	0.04	0.20	0.69	0.00
	B	0.29	0.00	0.22	0.49	0.00
	C	0.44	0.22	0.00	0.35	0.00
	D	0.55	0.22	0.23	0.00	0.00
	E	1.00	0.00	0.00	0.00	0.00

Vehicle Mix

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

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.66	14.86	5.31	B	18.49	1663.97	223.20	8.05	2.48	223.22	8.05
B	0.63	10.82	1.64	B	7.64	687.92	80.73	7.04	0.90	80.73	7.04
C	0.64	9.69	1.72	A	8.93	803.72	86.76	6.48	0.96	86.77	6.48
D	0.88	15.24	6.61	C	22.50	2025.16	266.53	7.90	2.96	266.55	7.90
E	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.23	76.16	15.02	16.06	9.73	0.00	29.25	25.79	0.521	0.00	1.06	4.160	A
B	6.30	31.49	6.20	6.25	18.50	0.00	19.51	13.33	0.323	0.00	0.47	4.479	A
C	7.36	36.79	7.25	8.49	16.21	0.00	21.29	14.49	0.346	0.00	0.52	4.245	A
D	18.54	92.69	18.30	15.98	7.49	0.00	33.57	29.28	0.552	0.00	1.20	3.872	A
E	0.00	0.00	0.00	0.00	25.79	0.00	11.55	3.77	0.000	0.00	0.00	0.000	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.23	76.16	15.23	16.28	9.85	0.00	29.18	25.79	0.522	1.06	1.07	4.298	A
B	6.30	31.49	6.30	6.33	18.75	0.00	19.39	13.33	0.325	0.47	0.47	4.580	A
C	7.36	36.79	7.36	8.60	16.44	0.00	21.18	14.49	0.347	0.52	0.53	4.339	A
D	18.54	92.69	18.53	16.20	7.60	0.00	33.50	29.28	0.553	1.20	1.22	4.005	A
E	0.00	0.00	0.00	0.00	26.13	0.00	11.40	3.77	0.000	0.00	0.00	0.000	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.23	76.16	15.23	16.28	9.86	0.00	29.18	25.79	0.522	1.07	1.08	4.299	A
B	6.30	31.49	6.30	6.33	18.75	0.00	19.39	13.33	0.325	0.47	0.48	4.582	A
C	7.36	36.79	7.36	8.61	16.44	0.00	21.17	14.49	0.347	0.53	0.53	4.342	A
D	18.54	92.69	18.54	16.20	7.60	0.00	33.50	29.28	0.553	1.22	1.23	4.007	A
E	0.00	0.00	0.00	0.00	26.13	0.00	11.40	3.77	0.000	0.00	0.00	0.000	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.25	81.26	16.22	17.33	10.49	0.00	28.84	25.79	0.564	1.08	1.25	4.752	A
B	6.72	33.59	6.71	6.75	19.97	0.00	18.80	13.33	0.357	0.48	0.54	4.953	A
C	7.85	39.25	7.84	9.16	17.51	0.00	20.65	14.49	0.380	0.53	0.60	4.677	A
D	19.78	98.89	19.74	17.25	8.09	0.00	33.22	29.28	0.595	1.23	1.43	4.433	A
E	0.00	0.00	0.00	0.00	27.83	0.00	10.69	3.77	0.000	0.00	0.00	0.000	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.19	90.94	18.09	19.34	11.71	0.00	28.19	25.79	0.645	1.25	1.73	5.880	A
B	7.52	37.60	7.48	7.53	22.28	0.00	17.68	13.33	0.425	0.54	0.72	5.861	A
C	8.79	43.93	8.75	10.22	19.54	0.00	19.64	14.49	0.447	0.60	0.79	5.487	A
D	22.14	110.68	22.02	19.25	9.03	0.00	32.68	29.28	0.677	1.43	2.00	5.562	A
E	0.00	0.00	0.00	0.00	31.05	0.00	9.33	3.77	0.000	0.00	0.00	0.000	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.90	99.52	19.77	21.14	12.80	0.00	27.61	25.79	0.721	1.73	2.40	7.508	A
B	8.23	41.14	8.19	8.23	24.34	0.00	16.68	13.33	0.493	0.72	0.93	7.013	A
C	9.61	48.07	9.57	11.17	21.35	0.00	18.74	14.49	0.513	0.79	1.01	6.503	A
D	24.22	121.12	24.06	21.04	9.88	0.00	32.20	29.28	0.752	2.00	2.80	7.209	A
E	0.00	0.00	0.00	0.00	33.94	0.00	8.11	3.77	0.000	0.00	0.00	0.000	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.30	106.48	21.12	22.59	13.67	0.00	27.14	25.79	0.785	2.40	3.26	9.634	A
B	8.80	44.02	8.75	8.79	26.01	0.00	15.88	13.33	0.554	0.93	1.18	8.352	A
C	10.29	51.43	10.24	11.94	22.82	0.00	18.01	14.49	0.571	1.01	1.27	7.652	A
D	25.92	129.59	25.70	22.49	10.56	0.00	31.80	29.28	0.815	2.80	3.88	9.428	A
E	0.00	0.00	0.00	0.00	36.27	0.00	7.13	3.77	0.000	0.00	0.00	0.000	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.28	111.38	22.09	23.62	14.29	0.00	26.81	25.79	0.831	3.26	4.21	12.047	B
B	9.21	46.05	9.16	9.19	27.19	0.00	15.31	13.33	0.602	1.18	1.42	9.663	A
C	10.76	53.80	10.71	12.48	23.87	0.00	17.49	14.49	0.615	1.27	1.51	8.762	A
D	27.11	135.56	26.86	23.53	11.05	0.00	31.52	29.28	0.860	3.88	5.12	12.010	B
E	0.00	0.00	0.00	0.00	37.92	0.00	6.44	3.77	0.000	0.00	0.00	0.000	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.78	113.92	22.63	24.20	14.64	0.00	26.62	25.79	0.856	4.21	5.00	14.098	B
B	9.42	47.10	9.39	9.42	27.85	0.00	14.98	13.33	0.629	1.42	1.59	10.609	B
C	11.01	55.03	10.97	12.79	24.45	0.00	17.20	14.49	0.640	1.51	1.68	9.540	A
D	27.73	138.65	27.52	24.10	11.32	0.00	31.37	29.28	0.884	5.12	6.18	14.328	B
E	0.00	0.00	0.00	0.00	38.84	0.00	6.05	3.77	0.000	0.00	0.00	0.000	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.78	113.92	22.72	24.29	14.70	0.00	26.59	25.79	0.857	5.00	5.31	14.856	B
B	9.42	47.10	9.41	9.45	27.97	0.00	14.93	13.33	0.631	1.59	1.64	10.818	B
C	11.01	55.03	11.00	12.84	24.54	0.00	17.16	14.49	0.641	1.68	1.72	9.689	A
D	27.73	138.65	27.64	24.19	11.35	0.00	31.35	29.28	0.884	6.18	6.61	15.241	C
E	0.00	0.00	0.00	0.00	38.99	0.00	5.98	3.77	0.000	0.00	0.00	0.000	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.28	111.38	22.29	23.82	14.42	0.00	26.74	25.79	0.833	5.31	5.25	13.696	B
B	9.21	46.05	9.22	9.27	27.44	0.00	15.18	13.33	0.607	1.64	1.60	10.102	B
C	10.76	53.80	10.77	12.59	24.06	0.00	17.40	14.49	0.619	1.72	1.68	9.090	A
D	27.11	135.56	27.13	23.71	11.12	0.00	31.48	29.28	0.861	6.61	6.54	14.038	B
E	0.00	0.00	0.00	0.00	38.25	0.00	6.30	3.77	0.000	0.00	0.00	0.000	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.30	106.48	21.51	22.98	13.92	0.00	27.00	25.79	0.789	5.25	4.16	11.400	B
B	8.80	44.02	8.85	8.94	26.49	0.00	15.64	13.33	0.563	1.60	1.35	8.919	A
C	10.29	51.43	10.34	12.16	23.19	0.00	17.83	14.49	0.577	1.68	1.43	8.075	A
D	25.92	129.59	26.22	22.85	10.68	0.00	31.74	29.28	0.817	6.54	5.03	11.476	B
E	0.00	0.00	0.00	0.00	36.90	0.00	6.86	3.77	0.000	0.00	0.00	0.000	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.90	99.52	20.17	21.52	13.04	0.00	27.48	25.79	0.724	4.16	2.84	8.494	A
B	8.23	41.14	8.29	8.38	24.83	0.00	16.45	13.33	0.500	1.35	1.04	7.420	A
C	9.61	48.07	9.68	11.39	21.73	0.00	18.55	14.49	0.518	1.43	1.12	6.811	A
D	24.22	121.12	24.56	21.41	10.00	0.00	32.12	29.28	0.754	5.03	3.33	8.265	A
E	0.00	0.00	0.00	0.00	34.57	0.00	7.85	3.77	0.000	0.00	0.00	0.000	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.19	90.94	18.37	19.61	11.88	0.00	28.10	25.79	0.647	2.84	1.93	6.284	A
B	7.52	37.60	7.57	7.63	22.62	0.00	17.52	13.33	0.429	1.04	0.78	6.068	A
C	8.79	43.93	8.84	10.38	19.81	0.00	19.50	14.49	0.450	1.12	0.85	5.657	A
D	22.14	110.68	22.36	19.52	9.13	0.00	32.62	29.28	0.679	3.33	2.22	5.968	A
E	0.00	0.00	0.00	0.00	31.49	0.00	9.14	3.77	0.000	0.00	0.00	0.000	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.25	81.26	16.37	17.48	10.59	0.00	28.79	25.79	0.565	1.93	1.34	4.877	A
B	6.72	33.59	6.76	6.80	20.15	0.00	18.71	13.33	0.359	0.78	0.57	5.037	A
C	7.85	39.25	7.89	9.25	17.66	0.00	20.57	14.49	0.382	0.85	0.63	4.751	A
D	19.78	98.89	19.92	17.40	8.15	0.00	33.19	29.28	0.596	2.22	1.53	4.569	A
E	0.00	0.00	0.00	0.00	28.07	0.00	10.58	3.77	0.000	0.00	0.00	0.000	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.23	76.16	15.28	16.32	9.88	0.00	29.16	25.79	0.522	1.34	1.12	4.335	A
B	6.30	31.49	6.31	6.35	18.81	0.00	19.36	13.33	0.325	0.57	0.49	4.604	A
C	7.36	36.79	7.37	8.63	16.49	0.00	21.15	14.49	0.348	0.63	0.54	4.361	A
D	18.54	92.69	18.59	16.25	7.62	0.00	33.49	29.28	0.554	1.53	1.27	4.042	A
E	0.00	0.00	0.00	0.00	26.21	0.00	11.37	3.77	0.000	0.00	0.00	0.000	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.23	76.16	15.24	16.28	9.86	0.00	29.18	25.79	0.522	1.12	1.11	4.305	A
B	6.30	31.49	6.30	6.34	18.76	0.00	19.39	13.33	0.325	0.49	0.49	4.584	A
C	7.36	36.79	7.36	8.61	16.45	0.00	21.17	14.49	0.348	0.54	0.54	4.345	A
D	18.54	92.69	18.54	16.21	7.60	0.00	33.50	29.28	0.553	1.27	1.26	4.014	A
E	0.00	0.00	0.00	0.00	26.14	0.00	11.40	3.77	0.000	0.00	0.00	0.000	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.23	76.16	15.23	16.28	9.86	0.00	29.18	25.79	0.522	1.11	1.10	4.303	A
B	6.30	31.49	6.30	6.34	18.75	0.00	19.39	13.33	0.325	0.49	0.48	4.585	A
C	7.36	36.79	7.36	8.61	16.44	0.00	21.17	14.49	0.347	0.54	0.54	4.344	A
D	18.54	92.69	18.54	16.21	7.60	0.00	33.50	29.28	0.553	1.26	1.25	4.012	A
E	0.00	0.00	0.00	0.00	26.14	0.00	11.40	3.77	0.000	0.00	0.00	0.000	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.90	0.98	4.160	A	A
B	2.19	0.44	4.479	A	A
C	2.43	0.49	4.245	A	A
D	5.57	1.11	3.872	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.34	1.07	4.298	A	A
B	2.36	0.47	4.580	A	A
C	2.61	0.52	4.339	A	A
D	6.06	1.21	4.005	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.39	1.08	4.299	A	A
B	2.38	0.48	4.582	A	A
C	2.64	0.53	4.342	A	A
D	6.12	1.22	4.007	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.06	1.21	4.752	A	A
B	2.65	0.53	4.953	A	A
C	2.92	0.58	4.677	A	A
D	6.90	1.38	4.433	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.15	1.63	5.880	A	A
B	3.43	0.69	5.861	A	A
C	3.76	0.75	5.487	A	A
D	9.36	1.87	5.562	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	11.13	2.23	7.508	A	A
B	4.44	0.89	7.013	A	A
C	4.82	0.96	6.503	A	A
D	12.96	2.59	7.209	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	14.96	2.99	9.634	A	A
B	5.60	1.12	8.352	A	A
C	6.02	1.20	7.652	A	A
D	17.70	3.54	9.428	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	19.35	3.87	12.047	B	B
B	6.75	1.35	9.663	A	A
C	7.19	1.44	8.762	A	A
D	23.33	4.67	12.010	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	23.43	4.69	14.098	B	B
B	7.67	1.53	10.609	B	B
C	8.10	1.62	9.540	A	A
D	28.74	5.75	14.328	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	25.86	5.17	14.856	B	B
B	8.10	1.62	10.818	B	B
C	8.51	1.70	9.689	A	A
D	32.09	6.42	15.241	C	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	26.38	5.28	13.696	B	B
B	8.08	1.62	10.102	B	B
C	8.48	1.70	9.090	A	A
D	32.87	6.57	14.038	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	22.38	4.48	11.400	B	B
B	7.09	1.42	8.919	A	A
C	7.47	1.49	8.075	A	A
D	27.31	5.46	11.476	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.49	3.10	8.494	A	A
B	5.52	1.10	7.420	A	A
C	5.90	1.18	6.811	A	A
D	18.27	3.65	8.265	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.37	2.07	6.284	A	A
B	4.09	0.82	6.068	A	A
C	4.44	0.89	5.657	A	A
D	11.98	2.40	5.968	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.10	1.42	4.877	A	A
B	3.00	0.60	5.037	A	A
C	3.30	0.66	4.751	A	A
D	8.09	1.62	4.569	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.82	1.16	4.335	A	A
B	2.53	0.51	4.604	A	A
C	2.80	0.56	4.361	A	A
D	6.60	1.32	4.042	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.57	1.11	4.305	A	A
B	2.44	0.49	4.584	A	A
C	2.70	0.54	4.345	A	A
D	6.31	1.26	4.014	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.53	1.11	4.303	A	A
B	2.43	0.49	4.585	A	A
C	2.69	0.54	4.344	A	A
D	6.27	1.25	4.012	A	A
E	0.00	0.00	0.000	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3008A115 Friday PM total traffic with development 2016 .arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 17/02/2015 08:30:03

» Year 2016 Friday Peak Hour with development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2016 Friday Peak Hour with development				
Arm A	10.77	28.50	0.95	D	2 % [Arm A]
Arm B	1.82	12.55	0.66	B	
Arm C	2.27	11.64	0.71	B	
Arm D	5.39	13.11	0.86	B	
Arm E	0.41	13.25	0.30	B	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Year 2016 Friday Peak Hour with development, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 17/02/2015 08:29:59

File summary

Title	3167A115 Year 2020, Friday PM peak hour with development
Location	A259/B2187 Roundabout
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Year 2016 Friday Peak Hour with development, 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
	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
Year 2016 Friday Peak Hour with development, AM	Year 2016 Friday Peak Hour with development	AM		Varies by Arm	16:30	18:00	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				17.86	◌

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	2	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.60	10.30	22.70	25.00	75.00	42.00	
B	3.35	7.00	21.70	21.00	75.00	35.00	
C	3.70	7.60	14.50	33.00	75.00	35.00	
D	3.75	11.70	22.50	37.60	75.00	36.00	
E	3.50	7.00	5.60	18.50	75.00	43.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.534	34.447
B		(calculated)	(calculated)	0.484	28.466
C		(calculated)	(calculated)	0.496	29.326
D		(calculated)	(calculated)	0.573	37.858
E		(calculated)	(calculated)	0.421	22.410

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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	21.37	100.000
B	ONE HOUR	✓	8.00	100.000
C	ONE HOUR	✓	10.78	100.000
D	ONE HOUR	✓	23.07	100.000
E	ONE HOUR	✓	1.70	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.250	0.867	5.300	13.583	0.367
	B	2.400	0.000	2.233	3.300	0.067
	C	4.783	2.400	0.000	3.467	0.133
	D	11.500	5.467	5.733	0.000	0.367
	E	0.667	0.250	0.150	0.633	0.000

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

		To				
		A	B	C	D	E
From	A	0.06	0.04	0.25	0.64	0.02
	B	0.30	0.00	0.28	0.41	0.01
	C	0.44	0.22	0.00	0.32	0.01
	D	0.50	0.24	0.25	0.00	0.02
	E	0.39	0.15	0.09	0.37	0.00

Vehicle Mix

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

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.95	28.50	10.77	D	19.64	1767.36	364.59	12.38	4.05	364.62	12.38
B	0.66	12.55	1.82	B	7.35	661.73	86.27	7.82	0.96	86.27	7.82
C	0.71	11.64	2.27	B	9.91	891.95	109.25	7.35	1.21	109.26	7.35
D	0.86	13.11	5.39	B	21.20	1907.98	228.30	7.18	2.54	228.32	7.18
E	0.30	13.25	0.41	B	1.56	140.62	20.49	8.74	0.23	20.49	8.74

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.18	80.89	15.93	15.38	10.93	0.00	28.60	23.91	0.566	0.00	1.26	4.647	A
B	6.06	30.29	5.96	6.71	20.15	0.00	18.71	13.04	0.324	0.00	0.47	4.674	A
C	8.17	40.83	8.04	10.01	16.10	0.00	21.34	15.49	0.383	0.00	0.60	4.472	A
D	17.47	87.33	17.25	15.64	8.50	0.00	32.98	28.49	0.530	0.00	1.10	3.763	A
E	1.29	6.44	1.26	0.70	25.05	0.00	11.86	4.01	0.109	0.00	0.12	5.652	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.18	80.89	16.17	15.59	11.08	0.00	28.53	23.91	0.567	1.26	1.28	4.848	A
B	6.06	30.29	6.06	6.80	20.45	0.00	18.57	13.04	0.326	0.47	0.48	4.794	A
C	8.17	40.83	8.16	10.16	16.35	0.00	21.22	15.49	0.385	0.60	0.62	4.593	A
D	17.47	87.33	17.46	15.88	8.63	0.00	32.91	28.49	0.531	1.10	1.11	3.880	A
E	1.29	6.44	1.29	0.71	25.39	0.00	11.72	4.01	0.110	0.12	0.12	5.752	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.18	80.89	16.18	15.60	11.08	0.00	28.53	23.91	0.567	1.28	1.29	4.858	A
B	6.06	30.29	6.06	6.80	20.45	0.00	18.56	13.04	0.326	0.48	0.48	4.796	A
C	8.17	40.83	8.16	10.16	16.35	0.00	21.22	15.49	0.385	0.62	0.62	4.596	A
D	17.47	87.33	17.46	15.89	8.63	0.00	32.91	28.49	0.531	1.11	1.12	3.883	A
E	1.29	6.44	1.29	0.71	25.39	0.00	11.71	4.01	0.110	0.12	0.12	5.753	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.26	86.31	17.21	16.61	11.80	0.00	28.14	23.91	0.613	1.29	1.53	5.462	A
B	6.46	32.31	6.45	7.24	21.77	0.00	17.93	13.04	0.360	0.48	0.55	5.218	A
C	8.71	43.56	8.69	10.81	17.41	0.00	20.70	15.49	0.421	0.62	0.71	4.989	A
D	18.63	93.17	18.60	16.91	9.19	0.00	32.59	28.49	0.572	1.12	1.30	4.275	A
E	1.37	6.87	1.37	0.75	27.04	0.00	11.02	4.01	0.125	0.12	0.14	6.212	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.32	96.60	19.18	18.53	13.17	0.00	27.41	23.91	0.705	1.53	2.23	7.154	A
B	7.23	36.17	7.20	8.08	24.26	0.00	16.72	13.04	0.433	0.55	0.74	6.271	A
C	9.75	48.75	9.70	12.06	19.40	0.00	19.71	15.49	0.495	0.71	0.95	5.965	A
D	20.86	104.28	20.76	18.85	10.25	0.00	31.98	28.49	0.652	1.30	1.79	5.293	A
E	1.54	7.69	1.53	0.84	30.17	0.00	9.70	4.01	0.158	0.14	0.18	7.337	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.14	105.70	20.92	20.26	14.39	0.00	26.75	23.91	0.790	2.23	3.33	9.864	A
B	7.92	39.58	7.87	8.83	26.48	0.00	15.65	13.04	0.506	0.74	0.98	7.660	A
C	10.67	53.35	10.61	13.17	21.18	0.00	18.83	15.49	0.567	0.95	1.25	7.238	A
D	22.82	114.11	22.69	20.58	11.21	0.00	31.43	28.49	0.726	1.79	2.47	6.737	A
E	1.68	8.41	1.67	0.92	32.98	0.00	8.52	4.01	0.197	0.18	0.24	8.749	A

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.62	113.09	22.29	21.65	15.38	0.00	26.23	23.91	0.862	3.33	4.97	13.920	B
B	8.47	42.34	8.41	9.44	28.23	0.00	14.80	13.04	0.572	0.98	1.26	9.294	A
C	11.42	57.08	11.35	14.06	22.59	0.00	18.13	15.49	0.630	1.25	1.60	8.733	A
D	24.42	122.09	24.24	21.95	11.98	0.00	30.99	28.49	0.788	2.47	3.35	8.616	A
E	1.80	9.00	1.79	0.98	35.24	0.00	7.56	4.01	0.238	0.24	0.30	10.354	B

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.66	118.30	23.22	22.64	16.09	0.00	25.85	23.91	0.915	4.97	7.17	19.246	C
B	8.86	44.29	8.80	9.87	29.44	0.00	14.21	13.04	0.623	1.26	1.54	10.935	B
C	11.94	59.71	11.87	14.68	23.56	0.00	17.64	15.49	0.677	1.60	1.94	10.225	B
D	25.54	127.72	25.35	22.91	12.53	0.00	30.68	28.49	0.833	3.35	4.31	10.733	B
E	1.88	9.41	1.87	1.02	36.86	0.00	6.88	4.01	0.274	0.30	0.36	11.938	B

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.20	121.00	23.75	23.19	16.48	0.00	25.64	23.91	0.944	7.17	9.42	24.834	C
B	9.06	45.30	9.02	10.11	30.12	0.00	13.88	13.04	0.653	1.54	1.74	12.159	B
C	12.21	61.07	12.16	15.03	24.11	0.00	17.37	15.49	0.703	1.94	2.19	11.333	B
D	26.13	130.63	25.97	23.44	12.83	0.00	30.50	28.49	0.856	4.31	5.10	12.509	B
E	1.93	9.63	1.92	1.05	37.75	0.00	6.50	4.01	0.296	0.36	0.40	13.051	B

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.20	121.00	23.93	23.27	16.54	0.00	25.61	23.91	0.945	9.42	10.76	28.496	D
B	9.06	45.30	9.05	10.15	30.33	0.00	13.79	13.04	0.657	1.74	1.82	12.549	B
C	12.21	61.07	12.20	15.11	24.26	0.00	17.30	15.49	0.706	2.19	2.27	11.644	B
D	26.13	130.63	26.07	23.58	12.88	0.00	30.48	28.49	0.857	5.10	5.39	13.107	B
E	1.93	9.63	1.92	1.05	37.89	0.00	6.45	4.01	0.299	0.40	0.41	13.246	B

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.66	118.30	23.66	22.83	16.22	0.00	25.78	23.91	0.918	10.76	10.77	27.651	D
B	8.86	44.29	8.86	9.95	29.92	0.00	13.98	13.04	0.634	1.82	1.79	11.776	B
C	11.94	59.71	11.95	14.86	23.92	0.00	17.47	15.49	0.684	2.27	2.24	10.931	B
D	25.54	127.72	25.56	23.24	12.63	0.00	30.62	28.49	0.834	5.39	5.31	12.049	B
E	1.88	9.41	1.89	1.03	37.16	0.00	6.76	4.01	0.279	0.41	0.40	12.336	B

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.62	113.09	23.16	22.00	15.62	0.00	26.10	23.91	0.867	10.77	8.05	22.441	C
B	8.47	42.34	8.52	9.60	29.18	0.00	14.34	13.04	0.591	1.79	1.53	10.432	B
C	11.42	57.08	11.48	14.41	23.29	0.00	17.78	15.49	0.642	2.24	1.91	9.660	A
D	24.42	122.09	24.64	22.61	12.17	0.00	30.88	28.49	0.791	5.31	4.18	9.998	A
E	1.80	9.00	1.81	1.00	35.81	0.00	7.32	4.01	0.246	0.40	0.34	10.916	B

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.14	105.70	21.87	20.62	14.63	0.00	26.63	23.91	0.794	8.05	4.39	13.868	B
B	7.92	39.58	7.99	9.00	27.50	0.00	15.15	13.04	0.522	1.53	1.15	8.474	A
C	10.67	53.35	10.76	13.54	21.95	0.00	18.44	15.49	0.579	1.91	1.44	7.912	A
D	22.82	114.11	23.08	21.29	11.42	0.00	31.31	28.49	0.729	4.18	2.89	7.511	A
E	1.68	8.41	1.70	0.94	33.56	0.00	8.27	4.01	0.203	0.34	0.26	9.149	A

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.32	96.60	19.68	18.80	13.35	0.00	27.31	23.91	0.707	4.39	2.60	8.187	A
B	7.23	36.17	7.30	8.20	24.82	0.00	16.45	13.04	0.440	1.15	0.81	6.605	A
C	9.75	48.75	9.83	12.28	19.84	0.00	19.49	15.49	0.500	1.44	1.04	6.264	A
D	20.86	104.28	21.04	19.26	10.41	0.00	31.89	28.49	0.654	2.89	1.98	5.619	A
E	1.54	7.69	1.55	0.85	30.59	0.00	9.52	4.01	0.161	0.26	0.20	7.542	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.26	86.31	17.45	16.76	11.90	0.00	28.09	23.91	0.615	2.60	1.66	5.736	A
B	6.46	32.31	6.51	7.31	22.04	0.00	17.80	13.04	0.363	0.81	0.58	5.335	A
C	8.71	43.56	8.77	10.93	17.62	0.00	20.59	15.49	0.423	1.04	0.75	5.101	A
D	18.63	93.17	18.75	17.11	9.28	0.00	32.54	28.49	0.573	1.98	1.38	4.389	A
E	1.37	6.87	1.38	0.76	27.27	0.00	10.92	4.01	0.126	0.20	0.15	6.299	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.18	80.89	16.24	15.64	11.11	0.00	28.51	23.91	0.567	1.66	1.36	4.917	A
B	6.06	30.29	6.08	6.82	20.53	0.00	18.53	13.04	0.327	0.58	0.50	4.827	A
C	8.17	40.83	8.19	10.19	16.41	0.00	21.19	15.49	0.385	0.75	0.64	4.623	A
D	17.47	87.33	17.51	15.94	8.66	0.00	32.90	28.49	0.531	1.38	1.16	3.913	A
E	1.29	6.44	1.29	0.71	25.46	0.00	11.68	4.01	0.110	0.15	0.13	5.777	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.18	80.89	16.18	15.60	11.08	0.00	28.52	23.91	0.567	1.36	1.33	4.866	A
B	6.06	30.29	6.06	6.80	20.46	0.00	18.56	13.04	0.326	0.50	0.49	4.799	A
C	8.17	40.83	8.17	10.16	16.36	0.00	21.22	15.49	0.385	0.64	0.63	4.600	A
D	17.47	87.33	17.47	15.89	8.63	0.00	32.91	28.49	0.531	1.16	1.15	3.889	A
E	1.29	6.44	1.29	0.71	25.40	0.00	11.71	4.01	0.110	0.13	0.12	5.755	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.18	80.89	16.18	15.60	11.08	0.00	28.52	23.91	0.567	1.33	1.33	4.864	A
B	6.06	30.29	6.06	6.80	20.46	0.00	18.56	13.04	0.326	0.49	0.49	4.800	A
C	8.17	40.83	8.17	10.16	16.36	0.00	21.22	15.49	0.385	0.63	0.63	4.599	A
D	17.47	87.33	17.47	15.89	8.63	0.00	32.91	28.49	0.531	1.15	1.14	3.886	A
E	1.29	6.44	1.29	0.71	25.39	0.00	11.71	4.01	0.110	0.12	0.12	5.754	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.77	1.15	4.647	A	A
B	2.19	0.44	4.674	A	A
C	2.83	0.57	4.472	A	A
D	5.11	1.02	3.763	A	A
E	0.56	0.11	5.652	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.37	1.27	4.848	A	A
B	2.37	0.47	4.794	A	A
C	3.06	0.61	4.593	A	A
D	5.54	1.11	3.880	A	A
E	0.60	0.12	5.752	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.45	1.29	4.858	A	A
B	2.39	0.48	4.796	A	A
C	3.09	0.62	4.596	A	A
D	5.59	1.12	3.883	A	A
E	0.61	0.12	5.753	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.34	1.47	5.462	A	A
B	2.68	0.54	5.218	A	A
C	3.44	0.69	4.989	A	A
D	6.28	1.26	4.275	A	A
E	0.68	0.14	6.212	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.30	2.06	7.154	A	A
B	3.51	0.70	6.271	A	A
C	4.50	0.90	5.965	A	A
D	8.45	1.69	5.293	A	A
E	0.88	0.18	7.337	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	15.02	3.00	9.864	A	A
B	4.63	0.93	7.660	A	A
C	5.89	1.18	7.238	A	A
D	11.51	2.30	6.737	A	A
E	1.14	0.23	8.749	A	A

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	21.95	4.39	13.920	B	B
B	5.94	1.19	9.294	A	A
C	7.51	1.50	8.733	A	A
D	15.43	3.09	8.616	A	A
E	1.43	0.29	10.354	B	B

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	31.37	6.27	19.246	C	B
B	7.28	1.46	10.935	B	B
C	9.16	1.83	10.225	B	B
D	19.88	3.98	10.733	B	B
E	1.72	0.34	11.938	B	B

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	42.11	8.42	24.834	C	C
B	8.36	1.67	12.159	B	B
C	10.50	2.10	11.333	B	B
D	23.96	4.79	12.509	B	B
E	1.95	0.39	13.051	B	B

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	50.70	10.14	28.496	D	C
B	8.94	1.79	12.549	B	B
C	11.19	2.24	11.644	B	B
D	26.31	5.26	13.107	B	B
E	2.04	0.41	13.246	B	B

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	53.83	10.77	27.651	D	C
B	9.01	1.80	11.776	B	B
C	11.27	2.25	10.931	B	B
D	26.72	5.34	12.049	B	B
E	2.02	0.40	12.336	B	B

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	44.48	8.90	22.441	C	C
B	8.02	1.60	10.432	B	B
C	10.02	2.00	9.660	A	A
D	22.47	4.49	9.998	A	A
E	1.76	0.35	10.916	B	B

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	25.21	5.04	13.868	B	B
B	6.11	1.22	8.474	A	A
C	7.69	1.54	7.912	A	A
D	15.68	3.14	7.511	A	A
E	1.39	0.28	9.149	A	A

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	14.31	2.86	8.187	A	A
B	4.31	0.86	6.605	A	A
C	5.50	1.10	6.264	A	A
D	10.60	2.12	5.619	A	A
E	1.04	0.21	7.542	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.94	1.79	5.736	A	A
B	3.07	0.61	5.335	A	A
C	3.95	0.79	5.101	A	A
D	7.30	1.46	4.389	A	A
E	0.77	0.15	6.299	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.07	1.41	4.917	A	A
B	2.56	0.51	4.827	A	A
C	3.31	0.66	4.623	A	A
D	6.00	1.20	3.913	A	A
E	0.65	0.13	5.777	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.71	1.34	4.866	A	A
B	2.46	0.49	4.799	A	A
C	3.18	0.64	4.600	A	A
D	5.76	1.15	3.889	A	A
E	0.63	0.13	5.755	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.65	1.33	4.864	A	A
B	2.45	0.49	4.800	A	A
C	3.16	0.63	4.599	A	A
D	5.72	1.14	3.886	A	A
E	0.62	0.12	5.754	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3008A116 Saturday total traffic with development 2016 .arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 17/02/2015 08:31:33

» Year 2016 Saturday Peak Hour with development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2016 Saturday Peak Hour with development				
Arm A	5.02	13.77	0.85	B	11 % [Arm A]
Arm B	1.38	9.53	0.59	A	
Arm C	1.48	8.67	0.60	A	
Arm D	4.40	10.76	0.83	B	
Arm E	0.00	0.00	0.00	A	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Year 2016 Saturday Peak Hour with development, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 17/02/2015 08:31:30

File summary

Title	3167A116 Year 2016, Saturday peak hour with development
Location	A259/B2187 Roundabout
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Year 2016 Saturday Peak Hour with development, 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
	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
Year 2016 Saturday Peak Hour with development, AM	Year 2016 Saturday Peak Hour with development	AM		Varies by Arm	11:45	13:15	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				11.30	B

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	11	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.60	10.30	22.70	25.00	75.00	42.00	
B	3.35	7.00	21.70	21.00	75.00	35.00	
C	3.70	7.60	14.50	33.00	75.00	35.00	
D	3.75	11.70	22.50	37.60	75.00	36.00	
E	3.50	7.00	5.60	18.50	75.00	43.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.534	34.447
B		(calculated)	(calculated)	0.484	28.466
C		(calculated)	(calculated)	0.496	29.326
D		(calculated)	(calculated)	0.573	37.858
E		(calculated)	(calculated)	0.421	22.410

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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	20.45	100.000
B	ONE HOUR	✓	7.90	100.000
C	ONE HOUR	✓	9.30	100.000
D	ONE HOUR	✓	22.75	100.000
E	ONE HOUR	✓	0.03	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.483	1.033	4.383	13.550	0.000
	B	2.400	0.000	1.700	3.800	0.000
	C	4.367	2.017	0.000	2.917	0.000
	D	12.967	4.983	4.800	0.000	0.000
	E	0.033	0.000	0.000	0.000	0.000

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

		To				
		A	B	C	D	E
From	A	0.07	0.05	0.21	0.66	0.00
	B	0.30	0.00	0.22	0.48	0.00
	C	0.47	0.22	0.00	0.31	0.00
	D	0.57	0.22	0.21	0.00	0.00
	E	1.00	0.00	0.00	0.00	0.00

Vehicle Mix

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

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.85	13.77	5.02	B	18.79	1691.54	216.00	7.66	2.40	216.02	7.66
B	0.59	9.53	1.38	A	7.26	653.46	70.49	6.47	0.78	70.49	6.47
C	0.60	8.67	1.48	A	8.55	769.26	77.12	6.01	0.86	77.12	6.02
D	0.83	10.76	4.40	B	20.91	1881.79	198.29	6.32	2.20	198.31	6.32
E	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.48	77.42	15.27	15.86	8.83	0.00	29.73	26.17	0.521	0.00	1.06	4.100	A
B	5.98	29.91	5.90	6.01	18.09	0.00	19.71	13.51	0.304	0.00	0.43	4.319	A
C	7.04	35.21	6.95	8.13	15.86	0.00	21.47	14.53	0.328	0.00	0.48	4.107	A
D	17.23	86.13	17.02	15.13	7.67	0.00	33.46	28.70	0.515	0.00	1.03	3.604	A
E	0.00	0.00	0.00	0.00	24.69	0.00	12.01	3.59	0.000	0.00	0.00	0.000	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.48	77.42	15.48	16.06	8.93	0.00	29.67	26.17	0.522	1.06	1.07	4.225	A
B	5.98	29.91	5.98	6.08	18.33	0.00	19.59	13.51	0.305	0.43	0.43	4.408	A
C	7.04	35.21	7.04	8.24	16.07	0.00	21.36	14.53	0.330	0.48	0.49	4.190	A
D	17.23	86.13	17.22	15.34	7.77	0.00	33.40	28.70	0.516	1.03	1.05	3.707	A
E	0.00	0.00	0.00	0.00	25.00	0.00	11.88	3.59	0.000	0.00	0.00	0.000	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.48	77.42	15.48	16.06	8.93	0.00	29.67	26.17	0.522	1.07	1.08	4.227	A
B	5.98	29.91	5.98	6.08	18.34	0.00	19.59	13.51	0.305	0.43	0.44	4.408	A
C	7.04	35.21	7.04	8.24	16.08	0.00	21.36	14.53	0.330	0.49	0.49	4.191	A
D	17.23	86.13	17.23	15.34	7.77	0.00	33.40	28.70	0.516	1.05	1.06	3.708	A
E	0.00	0.00	0.00	0.00	25.00	0.00	11.88	3.59	0.000	0.00	0.00	0.000	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.52	82.60	16.49	17.11	9.52	0.00	29.36	26.17	0.563	1.08	1.25	4.645	A
B	6.38	31.91	6.37	6.48	19.52	0.00	19.02	13.51	0.336	0.44	0.49	4.739	A
C	7.51	37.57	7.50	8.78	17.12	0.00	20.84	14.53	0.361	0.49	0.55	4.493	A
D	18.38	91.89	18.35	16.34	8.28	0.00	33.11	28.70	0.555	1.06	1.22	4.052	A
E	0.00	0.00	0.00	0.00	26.63	0.00	11.19	3.59	0.000	0.00	0.00	0.000	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.49	92.45	18.40	19.10	10.62	0.00	28.77	26.17	0.643	1.25	1.72	5.727	A
B	7.14	35.71	7.11	7.23	21.79	0.00	17.92	13.51	0.399	0.49	0.64	5.536	A
C	8.41	42.04	8.38	9.80	19.11	0.00	19.85	14.53	0.424	0.55	0.71	5.211	A
D	20.57	102.85	20.48	18.24	9.24	0.00	32.56	28.70	0.632	1.22	1.65	4.929	A
E	0.00	0.00	0.00	0.00	29.73	0.00	9.89	3.59	0.000	0.00	0.00	0.000	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.23	101.17	20.11	20.89	11.62	0.00	28.24	26.17	0.717	1.72	2.36	7.246	A
B	7.82	39.08	7.78	7.91	23.81	0.00	16.94	13.51	0.461	0.64	0.83	6.524	A
C	9.20	46.01	9.16	10.71	20.89	0.00	18.97	14.53	0.485	0.71	0.91	6.091	A
D	22.51	112.55	22.39	19.94	10.11	0.00	32.06	28.70	0.702	1.65	2.22	6.122	A
E	0.00	0.00	0.00	0.00	32.51	0.00	8.72	3.59	0.000	0.00	0.00	0.000	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.65	108.24	21.49	22.34	12.42	0.00	27.81	26.17	0.778	2.36	3.16	9.198	A
B	8.36	41.81	8.32	8.46	25.45	0.00	16.15	13.51	0.518	0.83	1.03	7.620	A
C	9.84	49.22	9.80	11.45	22.33	0.00	18.26	14.53	0.539	0.91	1.12	7.053	A
D	24.08	120.41	23.94	21.31	10.82	0.00	31.66	28.70	0.761	2.22	2.93	7.603	A
E	0.00	0.00	0.00	0.00	34.76	0.00	7.77	3.59	0.000	0.00	0.00	0.000	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.65	113.23	22.47	23.37	13.00	0.00	27.50	26.17	0.823	3.16	4.05	11.374	B
B	8.75	43.74	8.71	8.85	26.62	0.00	15.58	13.51	0.561	1.03	1.22	8.669	A
C	10.30	51.49	10.26	11.97	23.35	0.00	17.75	14.53	0.580	1.12	1.32	7.956	A
D	25.19	125.96	25.05	22.30	11.32	0.00	31.37	28.70	0.803	2.93	3.66	9.189	A
E	0.00	0.00	0.00	0.00	36.36	0.00	7.09	3.59	0.000	0.00	0.00	0.000	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.16	115.81	23.02	23.94	13.31	0.00	27.33	26.17	0.847	4.05	4.76	13.174	B
B	8.95	44.74	8.92	9.06	27.27	0.00	15.27	13.51	0.586	1.22	1.35	9.393	A
C	10.53	52.67	10.51	12.27	23.92	0.00	17.47	14.53	0.603	1.32	1.45	8.570	A
D	25.77	128.83	25.65	22.84	11.59	0.00	31.21	28.70	0.825	3.66	4.22	10.429	B
E	0.00	0.00	0.00	0.00	37.25	0.00	6.72	3.59	0.000	0.00	0.00	0.000	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.16	115.81	23.11	24.00	13.35	0.00	27.31	26.17	0.848	4.76	5.02	13.772	B
B	8.95	44.74	8.94	9.09	27.37	0.00	15.22	13.51	0.588	1.35	1.38	9.528	A
C	10.53	52.67	10.53	12.31	24.00	0.00	17.43	14.53	0.604	1.45	1.48	8.670	A
D	25.77	128.83	25.73	22.91	11.62	0.00	31.20	28.70	0.826	4.22	4.40	10.760	B
E	0.00	0.00	0.00	0.00	37.35	0.00	6.68	3.59	0.000	0.00	0.00	0.000	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.65	113.23	22.66	23.51	13.08	0.00	27.46	26.17	0.825	5.02	4.95	12.694	B
B	8.75	43.74	8.76	8.90	26.83	0.00	15.48	13.51	0.565	1.38	1.34	8.955	A
C	10.30	51.49	10.31	12.06	23.53	0.00	17.66	14.53	0.583	1.48	1.44	8.181	A
D	25.19	125.96	25.21	22.46	11.38	0.00	31.34	28.70	0.804	4.40	4.31	9.910	A
E	0.00	0.00	0.00	0.00	36.59	0.00	7.00	3.59	0.000	0.00	0.00	0.000	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.65	108.24	21.85	22.60	12.57	0.00	27.73	26.17	0.781	4.95	3.94	10.602	B
B	8.36	41.81	8.40	8.56	25.86	0.00	15.95	13.51	0.524	1.34	1.15	8.003	A
C	9.84	49.22	9.88	11.61	22.66	0.00	18.09	14.53	0.544	1.44	1.24	7.355	A
D	24.08	120.41	24.25	21.62	10.92	0.00	31.60	28.70	0.762	4.31	3.47	8.382	A
E	0.00	0.00	0.00	0.00	35.17	0.00	7.59	3.59	0.000	0.00	0.00	0.000	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.23	101.17	20.47	21.16	11.77	0.00	28.16	26.17	0.719	3.94	2.75	8.045	A
B	7.82	39.08	7.86	8.01	24.23	0.00	16.74	13.51	0.467	1.15	0.91	6.801	A
C	9.20	46.01	9.25	10.87	21.22	0.00	18.81	14.53	0.489	1.24	0.99	6.318	A
D	22.51	112.55	22.70	20.25	10.22	0.00	32.00	28.70	0.703	3.47	2.52	6.588	A
E	0.00	0.00	0.00	0.00	32.92	0.00	8.54	3.59	0.000	0.00	0.00	0.000	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.49	92.45	18.66	19.31	10.74	0.00	28.71	26.17	0.644	2.75	1.90	6.074	A
B	7.14	35.71	7.19	7.31	22.09	0.00	17.77	13.51	0.402	0.91	0.69	5.692	A
C	8.41	42.04	8.45	9.92	19.36	0.00	19.73	14.53	0.426	0.99	0.76	5.345	A
D	20.57	102.85	20.71	18.47	9.34	0.00	32.50	28.70	0.633	2.52	1.79	5.153	A
E	0.00	0.00	0.00	0.00	30.05	0.00	9.75	3.59	0.000	0.00	0.00	0.000	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.52	82.60	16.63	17.23	9.58	0.00	29.32	26.17	0.563	1.90	1.33	4.770	A
B	6.38	31.91	6.42	6.53	19.69	0.00	18.93	13.51	0.337	0.69	0.52	4.806	A
C	7.51	37.57	7.55	8.85	17.26	0.00	20.77	14.53	0.362	0.76	0.58	4.553	A
D	18.38	91.89	18.48	16.48	8.34	0.00	33.08	28.70	0.556	1.79	1.29	4.138	A
E	0.00	0.00	0.00	0.00	26.82	0.00	11.11	3.59	0.000	0.00	0.00	0.000	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.48	77.42	15.53	16.10	8.96	0.00	29.66	26.17	0.522	1.33	1.12	4.261	A
B	5.98	29.91	6.00	6.10	18.39	0.00	19.57	13.51	0.306	0.52	0.45	4.426	A
C	7.04	35.21	7.06	8.26	16.12	0.00	21.33	14.53	0.330	0.58	0.50	4.209	A
D	17.23	86.13	17.27	15.39	7.79	0.00	33.39	28.70	0.516	1.29	1.09	3.732	A
E	0.00	0.00	0.00	0.00	25.06	0.00	11.85	3.59	0.000	0.00	0.00	0.000	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.48	77.42	15.49	16.07	8.94	0.00	29.67	26.17	0.522	1.12	1.11	4.234	A
B	5.98	29.91	5.98	6.08	18.34	0.00	19.59	13.51	0.305	0.45	0.44	4.412	A
C	7.04	35.21	7.04	8.24	16.08	0.00	21.35	14.53	0.330	0.50	0.50	4.193	A
D	17.23	86.13	17.23	15.35	7.78	0.00	33.40	28.70	0.516	1.09	1.08	3.713	A
E	0.00	0.00	0.00	0.00	25.00	0.00	11.88	3.59	0.000	0.00	0.00	0.000	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	15.48	77.42	15.49	16.07	8.94	0.00	29.67	26.17	0.522	1.11	1.10	4.230	A
B	5.98	29.91	5.98	6.08	18.34	0.00	19.59	13.51	0.305	0.44	0.44	4.409	A
C	7.04	35.21	7.04	8.24	16.08	0.00	21.35	14.53	0.330	0.50	0.50	4.193	A
D	17.23	86.13	17.23	15.35	7.77	0.00	33.40	28.70	0.516	1.08	1.07	3.709	A
E	0.00	0.00	0.00	0.00	25.00	0.00	11.88	3.59	0.000	0.00	0.00	0.000	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	4.91	0.98	4.100	A	A
B	2.01	0.40	4.319	A	A
C	2.25	0.45	4.107	A	A
D	4.84	0.97	3.604	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.34	1.07	4.225	A	A
B	2.16	0.43	4.408	A	A
C	2.42	0.48	4.190	A	A
D	5.22	1.04	3.707	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.39	1.08	4.227	A	A
B	2.18	0.44	4.408	A	A
C	2.44	0.49	4.191	A	A
D	5.27	1.05	3.708	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.04	1.21	4.645	A	A
B	2.41	0.48	4.739	A	A
C	2.69	0.54	4.493	A	A
D	5.90	1.18	4.052	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.08	1.62	5.727	A	A
B	3.09	0.62	5.536	A	A
C	3.43	0.69	5.211	A	A
D	7.81	1.56	4.929	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.95	2.19	7.246	A	A
B	3.94	0.79	6.524	A	A
C	4.35	0.87	6.091	A	A
D	10.42	2.08	6.122	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	14.59	2.92	9.198	A	A
B	4.90	0.98	7.620	A	A
C	5.35	1.07	7.053	A	A
D	13.62	2.72	7.603	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.69	3.74	11.374	B	B
B	5.82	1.16	8.669	A	A
C	6.31	1.26	7.956	A	A
D	17.08	3.42	9.189	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	22.39	4.48	13.174	B	B
B	6.52	1.30	9.393	A	A
C	7.02	1.40	8.570	A	A
D	20.05	4.01	10.429	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	24.53	4.91	13.772	B	B
B	6.83	1.37	9.528	A	A
C	7.34	1.47	8.670	A	A
D	21.61	4.32	10.760	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	24.91	4.98	12.694	B	B
B	6.79	1.36	8.955	A	A
C	7.29	1.46	8.181	A	A
D	21.74	4.35	9.910	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	21.14	4.23	10.602	B	B
B	6.00	1.20	8.003	A	A
C	6.47	1.29	7.355	A	A
D	18.50	3.70	8.382	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	14.91	2.98	8.045	A	A
B	4.77	0.95	6.801	A	A
C	5.20	1.04	6.318	A	A
D	13.51	2.70	6.588	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.18	2.04	6.074	A	A
B	3.62	0.72	5.692	A	A
C	3.99	0.80	5.345	A	A
D	9.54	1.91	5.153	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.05	1.41	4.770	A	A
B	2.71	0.54	4.806	A	A
C	3.02	0.60	4.553	A	A
D	6.76	1.35	4.138	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.80	1.16	4.261	A	A
B	2.31	0.46	4.426	A	A
C	2.58	0.52	4.209	A	A
D	5.63	1.13	3.732	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.56	1.11	4.234	A	A
B	2.23	0.45	4.412	A	A
C	2.49	0.50	4.193	A	A
D	5.41	1.08	3.713	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.52	1.10	4.230	A	A
B	2.22	0.44	4.409	A	A
C	2.48	0.50	4.193	A	A
D	5.38	1.08	3.709	A	A
E	0.00	0.00	0.000	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3008A117 Friday PM total traffic with development 2020.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 17/02/2015 08:33:25

» Year 2020 Friday Peak Hour with development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2020 Friday Peak Hour with development				
Arm A	20.80	52.47	1.01	F	-3 % [Arm A]
Arm B	2.35	15.53	0.72	C	
Arm C	2.95	14.48	0.76	B	
Arm D	8.23	19.23	0.91	C	
Arm E	0.53	16.29	0.36	C	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Year 2020 Friday Peak Hour with development, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 17/02/2015 08:33:20

File summary

Title	3167A117 Year 2020, Friday PM peak hour with development
Location	A259/B2187 Roundabout
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Year 2020 Friday Peak Hour with development, 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
	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
Year 2020 Friday Peak Hour with development, AM	Year 2020 Friday Peak Hour with development	AM		Varies by Arm	16:30	18:00	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				28.78	D

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	-3	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.60	10.30	22.70	25.00	75.00	42.00	
B	3.35	7.00	21.70	21.00	75.00	35.00	
C	3.70	7.60	14.50	33.00	75.00	35.00	
D	3.75	11.70	22.50	37.60	75.00	36.00	
E	3.50	7.00	5.60	18.50	75.00	43.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.534	34.447
B		(calculated)	(calculated)	0.484	28.466
C		(calculated)	(calculated)	0.496	29.326
D		(calculated)	(calculated)	0.573	37.858
E		(calculated)	(calculated)	0.421	22.410

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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	22.32	100.000
B	ONE HOUR	✓	8.43	100.000
C	ONE HOUR	✓	11.38	100.000
D	ONE HOUR	✓	24.28	100.000
E	ONE HOUR	✓	1.78	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.250	0.883	5.567	14.233	0.383
	B	2.517	0.000	2.367	3.483	0.067
	C	5.033	2.533	0.000	3.667	0.150
	D	12.083	5.767	6.050	0.000	0.383
	E	0.700	0.250	0.167	0.667	0.000

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

		To				
		A	B	C	D	E
From	A	0.06	0.04	0.25	0.64	0.02
	B	0.30	0.00	0.28	0.41	0.01
	C	0.44	0.22	0.00	0.32	0.01
	D	0.50	0.24	0.25	0.00	0.02
	E	0.39	0.14	0.09	0.37	0.00

Vehicle Mix

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

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	1.01	52.47	20.80	F	20.51	1845.94	594.41	19.32	6.60	594.45	19.32
B	0.72	15.53	2.35	C	7.75	697.57	107.26	9.23	1.19	107.27	9.23
C	0.76	14.48	2.95	B	10.46	941.58	135.36	8.63	1.50	135.37	8.63
D	0.91	19.23	8.23	C	22.32	2008.62	308.34	9.21	3.43	308.36	9.21
E	0.36	16.29	0.53	C	1.64	147.51	24.72	10.05	0.27	24.72	10.05

Main Results for each time segment

Main results: (16:30-16:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.90	84.49	16.61	16.10	11.52	0.00	28.29	23.87	0.597	0.00	1.42	5.025	A
B	6.39	31.93	6.28	7.04	21.09	0.00	18.26	13.02	0.350	0.00	0.52	4.969	A
C	8.62	43.10	8.48	10.55	16.82	0.00	20.99	15.52	0.411	0.00	0.68	4.751	A
D	18.39	91.94	18.14	16.42	8.89	0.00	32.76	28.54	0.561	0.00	1.24	4.038	A
E	1.35	6.75	1.32	0.73	26.30	0.00	11.33	4.03	0.119	0.00	0.13	5.980	A

Main results: (16:35-16:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.90	84.49	16.89	16.34	11.68	0.00	28.20	23.87	0.599	1.42	1.46	5.297	A
B	6.39	31.93	6.38	7.14	21.43	0.00	18.09	13.02	0.353	0.52	0.54	5.124	A
C	8.62	43.10	8.62	10.71	17.11	0.00	20.85	15.52	0.413	0.68	0.69	4.902	A
D	18.39	91.94	18.38	16.69	9.03	0.00	32.68	28.54	0.563	1.24	1.26	4.192	A
E	1.35	6.75	1.35	0.74	26.67	0.00	11.17	4.03	0.121	0.13	0.14	6.106	A

Main results: (16:40-16:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.90	84.49	16.90	16.34	11.69	0.00	28.20	23.87	0.599	1.46	1.47	5.303	A
B	6.39	31.93	6.39	7.14	21.44	0.00	18.09	13.02	0.353	0.54	0.54	5.126	A
C	8.62	43.10	8.62	10.71	17.11	0.00	20.84	15.52	0.414	0.69	0.70	4.907	A
D	18.39	91.94	18.39	16.69	9.03	0.00	32.68	28.54	0.563	1.26	1.27	4.196	A
E	1.35	6.75	1.35	0.74	26.68	0.00	11.17	4.03	0.121	0.14	0.14	6.108	A

Main results: (16:45-16:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.03	90.14	17.97	17.39	12.44	0.00	27.80	23.87	0.649	1.47	1.76	6.059	A
B	6.81	34.06	6.80	7.60	22.81	0.00	17.43	13.02	0.391	0.54	0.63	5.632	A
C	9.20	45.98	9.17	11.40	18.20	0.00	20.30	15.52	0.453	0.70	0.81	5.378	A
D	19.62	98.09	19.57	17.76	9.62	0.00	32.35	28.54	0.606	1.27	1.49	4.681	A
E	1.44	7.20	1.44	0.79	28.40	0.00	10.45	4.03	0.138	0.14	0.16	6.656	A

Main results: (16:50-16:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.18	100.89	19.99	19.40	13.87	0.00	27.03	23.87	0.746	1.76	2.69	8.284	A
B	7.63	38.13	7.58	8.48	25.39	0.00	16.18	13.02	0.471	0.63	0.86	6.938	A
C	10.29	51.46	10.23	12.70	20.27	0.00	19.28	15.52	0.534	0.81	1.10	6.586	A
D	21.96	109.78	21.83	19.78	10.72	0.00	31.71	28.54	0.692	1.49	2.13	5.985	A
E	1.61	8.06	1.60	0.88	31.67	0.00	9.07	4.03	0.178	0.16	0.21	8.035	A

Main results: (16:55-17:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.08	110.40	21.76	21.18	15.15	0.00	26.35	23.87	0.838	2.69	4.28	12.168	B
B	8.34	41.72	8.28	9.26	27.66	0.00	15.08	13.02	0.553	0.86	1.17	8.735	A
C	11.26	56.31	11.18	13.85	22.08	0.00	18.38	15.52	0.613	1.10	1.49	8.236	A
D	24.03	120.13	23.84	21.56	11.71	0.00	31.15	28.54	0.771	2.13	3.07	7.975	A
E	1.76	8.82	1.75	0.96	34.59	0.00	7.84	4.03	0.225	0.21	0.28	9.829	A

Main results: (17:00-17:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.62	118.12	23.09	22.61	16.18	0.00	25.80	23.87	0.916	4.28	6.97	18.487	C
B	8.93	44.64	8.85	9.88	29.38	0.00	14.24	13.02	0.627	1.17	1.55	10.940	B
C	12.05	60.25	11.96	14.76	23.48	0.00	17.69	15.52	0.681	1.49	1.97	10.259	B
D	25.71	128.53	25.44	22.93	12.51	0.00	30.69	28.54	0.838	3.07	4.39	10.786	B
E	1.89	9.44	1.87	1.03	36.92	0.00	6.86	4.03	0.275	0.28	0.36	11.992	B

Main results: (17:05-17:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.71	123.56	23.90	23.62	16.90	0.00	25.41	23.87	0.972	6.97	11.02	27.557	D
B	9.34	46.69	9.26	10.31	30.49	0.00	13.71	13.02	0.681	1.55	1.94	13.186	B
C	12.61	63.03	12.51	15.36	24.39	0.00	17.24	15.52	0.731	1.97	2.45	12.347	B
D	26.89	134.45	26.57	23.83	13.07	0.00	30.37	28.54	0.885	4.39	6.01	14.259	B
E	1.97	9.87	1.96	1.07	38.57	0.00	6.16	4.03	0.320	0.36	0.45	14.194	B

Main results: (17:10-17:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	25.28	126.38	24.31	24.19	17.31	0.00	25.19	23.87	1.003	11.02	15.86	56.423	E
B	9.55	47.76	9.49	10.56	31.06	0.00	13.43	13.02	0.711	1.94	2.23	14.875	B
C	12.89	64.46	12.82	15.69	24.86	0.00	17.00	15.52	0.758	2.45	2.81	13.931	B
D	27.50	137.52	27.20	24.31	13.38	0.00	30.19	28.54	0.911	6.01	7.51	17.560	C
E	2.02	10.10	2.01	1.09	39.49	0.00	5.77	4.03	0.350	0.45	0.51	15.854	C

Main results: (17:15-17:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	25.28	126.38	24.49	24.31	17.40	0.00	25.15	23.87	1.005	15.86	19.79	48.987	E
B	9.55	47.76	9.53	10.61	31.28	0.00	13.33	13.02	0.717	2.23	2.35	15.531	C
C	12.89	64.46	12.86	15.79	25.02	0.00	16.92	15.52	0.762	2.81	2.95	14.480	B
D	27.50	137.52	27.36	24.45	13.43	0.00	30.16	28.54	0.912	7.51	8.23	19.231	C
E	2.02	10.10	2.02	1.10	39.69	0.00	5.69	4.03	0.355	0.51	0.53	16.287	C

Main results: (17:20-17:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.71	123.56	24.51	23.89	17.10	0.00	25.31	23.87	0.976	19.79	20.80	52.469	F
B	9.34	46.69	9.34	10.44	31.17	0.00	13.38	13.02	0.698	2.35	2.34	14.886	B
C	12.61	63.03	12.61	15.62	24.88	0.00	16.99	15.52	0.742	2.95	2.94	13.758	B
D	26.89	134.45	26.90	24.29	13.20	0.00	30.29	28.54	0.888	8.23	8.21	17.972	C
E	1.97	9.87	1.98	1.09	39.01	0.00	5.98	4.03	0.331	0.53	0.51	15.046	C

Main results: (17:25-17:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.62	118.12	24.40	23.15	16.56	0.00	25.60	23.87	0.923	20.80	16.94	46.972	E
B	8.93	44.64	8.98	10.13	30.83	0.00	13.54	13.02	0.659	2.34	2.09	13.371	B
C	12.05	60.25	12.13	15.29	24.52	0.00	17.17	15.52	0.702	2.94	2.55	12.157	B
D	25.71	128.53	26.11	23.89	12.76	0.00	30.55	28.54	0.842	8.21	6.20	14.556	B
E	1.89	9.44	1.90	1.06	37.80	0.00	6.48	4.03	0.291	0.51	0.43	13.158	B

Main results: (17:30-17:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.08	110.40	24.05	21.79	15.54	0.00	26.14	23.87	0.845	16.94	7.10	29.539	D
B	8.34	41.72	8.44	9.55	30.04	0.00	13.93	13.02	0.599	2.09	1.60	11.144	B
C	11.26	56.31	11.39	14.64	23.84	0.00	17.51	15.52	0.643	2.55	1.93	10.013	B
D	24.03	120.13	24.50	23.16	12.06	0.00	30.94	28.54	0.776	6.20	3.84	9.877	A
E	1.76	8.82	1.79	1.02	35.55	0.00	7.43	4.03	0.237	0.43	0.32	10.665	B

Main results: (17:35-17:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	20.18	100.89	20.93	19.80	14.13	0.00	26.89	23.87	0.750	7.10	3.32	11.010	B
B	7.63	38.13	7.75	8.66	26.41	0.00	15.68	13.02	0.486	1.60	0.99	7.672	A
C	10.29	51.46	10.43	13.09	21.07	0.00	18.88	15.52	0.545	1.93	1.25	7.207	A
D	21.96	109.78	22.24	20.52	10.97	0.00	31.57	28.54	0.696	3.84	2.42	6.615	A
E	1.61	8.06	1.63	0.91	32.30	0.00	8.80	4.03	0.183	0.32	0.23	8.392	A

Main results: (17:40-17:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	18.03	90.14	18.30	17.59	12.57	0.00	27.73	23.87	0.650	3.32	1.96	6.538	A
B	6.81	34.06	6.88	7.69	23.18	0.00	17.24	13.02	0.395	0.99	0.67	5.821	A
C	9.20	45.98	9.27	11.56	18.50	0.00	20.15	15.52	0.456	1.25	0.87	5.553	A
D	19.62	98.09	19.78	18.04	9.73	0.00	32.28	28.54	0.608	2.42	1.61	4.863	A
E	1.44	7.20	1.45	0.80	28.71	0.00	10.31	4.03	0.140	0.23	0.17	6.780	A

Main results: (17:45-17:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.90	84.49	16.98	16.40	11.72	0.00	28.18	23.87	0.600	1.96	1.56	5.400	A
B	6.39	31.93	6.41	7.17	21.54	0.00	18.04	13.02	0.354	0.67	0.56	5.169	A
C	8.62	43.10	8.65	10.76	17.19	0.00	20.81	15.52	0.414	0.87	0.72	4.949	A
D	18.39	91.94	18.44	16.77	9.07	0.00	32.66	28.54	0.563	1.61	1.32	4.240	A
E	1.35	6.75	1.36	0.75	26.76	0.00	11.13	4.03	0.121	0.17	0.14	6.138	A

Main results: (17:50-17:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.90	84.49	16.90	16.35	11.69	0.00	28.20	23.87	0.599	1.56	1.53	5.318	A
B	6.39	31.93	6.39	7.14	21.45	0.00	18.08	13.02	0.353	0.56	0.55	5.130	A
C	8.62	43.10	8.62	10.72	17.12	0.00	20.84	15.52	0.414	0.72	0.72	4.914	A
D	18.39	91.94	18.39	16.70	9.04	0.00	32.68	28.54	0.563	1.32	1.31	4.204	A
E	1.35	6.75	1.35	0.74	26.68	0.00	11.17	4.03	0.121	0.14	0.14	6.113	A

Main results: (17:55-18:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.90	84.49	16.90	16.34	11.69	0.00	28.20	23.87	0.599	1.53	1.52	5.315	A
B	6.39	31.93	6.39	7.14	21.44	0.00	18.09	13.02	0.353	0.55	0.55	5.128	A
C	8.62	43.10	8.62	10.72	17.11	0.00	20.84	15.52	0.414	0.72	0.71	4.910	A
D	18.39	91.94	18.39	16.70	9.04	0.00	32.68	28.54	0.563	1.31	1.30	4.201	A
E	1.35	6.75	1.35	0.74	26.68	0.00	11.17	4.03	0.121	0.14	0.14	6.109	A

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.48	1.30	5.025	A	A
B	2.45	0.49	4.969	A	A
C	3.16	0.63	4.751	A	A
D	5.74	1.15	4.038	A	A
E	0.62	0.12	5.980	A	A

Queueing Delay results: (16:35-16:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.23	1.45	5.297	A	A
B	2.66	0.53	5.124	A	A
C	3.44	0.69	4.902	A	A
D	6.28	1.26	4.192	A	A
E	0.67	0.13	6.106	A	A

Queueing Delay results: (16:40-16:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.34	1.47	5.303	A	A
B	2.69	0.54	5.126	A	A
C	3.48	0.70	4.907	A	A
D	6.35	1.27	4.196	A	A
E	0.68	0.14	6.108	A	A

Queueing Delay results: (16:45-16:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.43	1.69	6.059	A	A
B	3.03	0.61	5.632	A	A
C	3.90	0.78	5.378	A	A
D	7.19	1.44	4.681	A	A
E	0.76	0.15	6.656	A	A

Queueing Delay results: (16:50-16:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.24	2.45	8.284	A	A
B	4.06	0.81	6.938	A	A
C	5.19	1.04	6.586	A	A
D	9.92	1.98	5.985	A	A
E	1.00	0.20	8.035	A	A

Queueing Delay results: (16:55-17:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.83	3.77	12.168	B	B
B	5.49	1.10	8.735	A	A
C	6.98	1.40	8.236	A	A
D	14.06	2.81	7.975	A	A
E	1.33	0.27	9.829	A	A

Queueing Delay results: (17:00-17:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	29.60	5.92	18.487	C	B
B	7.24	1.45	10.940	B	B
C	9.15	1.83	10.259	B	B
D	19.78	3.96	10.786	B	B
E	1.72	0.34	11.992	B	B

Queueing Delay results: (17:05-17:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	46.12	9.22	27.557	D	C
B	9.07	1.81	13.186	B	B
C	11.44	2.29	12.347	B	B
D	26.97	5.39	14.259	B	B
E	2.12	0.42	14.194	B	B

Queueing Delay results: (17:10-17:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	67.86	13.57	38.423	E	D
B	10.60	2.12	14.875	B	B
C	13.38	2.68	13.931	B	B
D	34.40	6.88	17.560	C	B
E	2.44	0.49	15.854	C	B

Queueing Delay results: (17:15-17:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	89.43	17.89	48.367	E	D
B	11.48	2.30	15.531	C	B
C	14.47	2.89	14.480	B	B
D	39.53	7.91	19.231	C	B
E	2.60	0.52	16.287	C	B

Queueing Delay results: (17:20-17:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	101.54	20.31	52.469	F	D
B	11.72	2.34	14.886	B	B
C	14.75	2.95	13.758	B	B
D	41.08	8.22	17.972	C	B
E	2.59	0.52	15.046	C	B

Queueing Delay results: (17:25-17:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	91.82	18.36	46.972	E	D
B	10.86	2.17	13.371	B	B
C	13.40	2.68	12.157	B	B
D	33.97	6.79	14.556	B	B
E	2.26	0.45	13.158	B	B

Queueing Delay results: (17:30-17:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	53.84	10.77	29.539	D	C
B	8.58	1.72	11.144	B	B
C	10.39	2.08	10.013	B	B
D	21.36	4.27	9.877	A	A
E	1.72	0.34	10.665	B	B

Queueing Delay results: (17:35-17:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	19.54	3.91	11.010	B	B
B	5.33	1.07	7.672	A	A
C	6.75	1.35	7.207	A	A
D	13.19	2.64	6.615	A	A
E	1.22	0.24	8.392	A	A

Queueing Delay results: (17:40-17:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	10.66	2.13	6.538	A	A
B	3.56	0.71	5.821	A	A
C	4.58	0.92	5.553	A	A
D	8.56	1.71	4.863	A	A
E	0.87	0.17	6.780	A	A

Queueing Delay results: (17:45-17:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.17	1.63	5.400	A	A
B	2.90	0.58	5.169	A	A
C	3.75	0.75	4.949	A	A
D	6.89	1.38	4.240	A	A
E	0.73	0.15	6.138	A	A

Queueing Delay results: (17:50-17:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.69	1.54	5.318	A	A
B	2.78	0.56	5.130	A	A
C	3.59	0.72	4.914	A	A
D	6.57	1.31	4.204	A	A
E	0.70	0.14	6.113	A	A

Queueing Delay results: (17:55-18:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	7.60	1.52	5.315	A	A
B	2.76	0.55	5.128	A	A
C	3.57	0.71	4.910	A	A
D	6.51	1.30	4.201	A	A
E	0.69	0.14	6.109	A	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Import of 3008A118 Saturday total traffic with development 2020.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 17/02/2015 08:35:17

» Year 2020 Saturday Peak Hour with development, AM
» Junction Network
» Arms
» Traffic Flows
» Entry Flows
» Turning Proportions
» Vehicle Mix
» Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	Year 2020 Saturday Peak Hour with development				
Arm A	7.23	19.16	0.90	C	6 % [Arm A]
Arm B	1.74	11.48	0.65	B	
Arm C	1.83	10.27	0.66	B	
Arm D	6.17	14.57	0.88	B	
Arm E	0.00	0.00	0.00	A	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Year 2020 Saturday Peak Hour with development, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 17/02/2015 08:35:13

File summary

Title	3167A118 Year 2020, Saturday peak hour with development
Location	A259/B2187 Roundabout
Site Number	
Date	10/02/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
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		✓	Delay	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	Veh	Veh	perMin	s	-Min	perMin

Year 2020 Saturday Peak Hour with development, 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
	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
Year 2020 Saturday Peak Hour with development, AM	Year 2020 Saturday Peak Hour with development	AM		Varies by Arm	11:45	13:15	90	5				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	Roundabout	A,B,C,D,E				15.05	C

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	6	Arm A

Arms

Arms

Arm	Arm	Name	Description
A	A	A259 East	
B	B	B2187 Worthing Road	
C	C	B2187 Horsham Road	
D	D	A259 Worthing Road	
E	E	Norway Lane	

Capacity Options

Arm	Minimum Capacity (PCU/min)	Maximum Capacity (PCU/min)	Assume Flat Start Profile	Initial Queue (PCU)
A	0.00	1666.65		0.00
B	0.00	1666.65		0.00
C	0.00	1666.65		0.00
D	0.00	1666.65		0.00
E	0.00	1666.65		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
A	3.60	10.30	22.70	25.00	75.00	42.00	
B	3.35	7.00	21.70	21.00	75.00	35.00	
C	3.70	7.60	14.50	33.00	75.00	35.00	
D	3.75	11.70	22.50	37.60	75.00	36.00	
E	3.50	7.00	5.60	18.50	75.00	43.00	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/min)	Final Slope	Final Intercept (PCU/min)
A		(calculated)	(calculated)	0.534	34.447
B		(calculated)	(calculated)	0.484	28.466
C		(calculated)	(calculated)	0.496	29.326
D		(calculated)	(calculated)	0.573	37.858
E		(calculated)	(calculated)	0.421	22.410

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 (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	21.40	100.000
B	ONE HOUR	✓	8.35	100.000
C	ONE HOUR	✓	9.78	100.000
D	ONE HOUR	✓	23.85	100.000
E	ONE HOUR	✓	0.03	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	1.517	1.083	4.617	14.183	0.000
	B	2.567	0.000	1.800	3.983	0.000
	C	4.617	2.117	0.000	3.050	0.000
	D	13.600	5.233	5.017	0.000	0.000
	E	0.033	0.000	0.000	0.000	0.000

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

		To				
		A	B	C	D	E
From	A	0.07	0.05	0.22	0.66	0.00
	B	0.31	0.00	0.22	0.48	0.00
	C	0.47	0.22	0.00	0.31	0.00
	D	0.57	0.22	0.21	0.00	0.00
	E	1.00	0.00	0.00	0.00	0.00

Vehicle Mix

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

		To				
		A	B	C	D	E
From	A	1.000	1.000	1.000	1.000	1.000
	B	1.000	1.000	1.000	1.000	1.000
	C	1.000	1.000	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000	1.000
	E	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		A	B	C	D	E
From	A	0.0	0.0	0.0	0.0	0.0
	B	0.0	0.0	0.0	0.0	0.0
	C	0.0	0.0	0.0	0.0	0.0
	D	0.0	0.0	0.0	0.0	0.0
	E	0.0	0.0	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
A	0.90	19.16	7.23	C	19.67	1770.12	279.75	9.48	3.11	279.78	9.48
B	0.65	11.48	1.74	B	7.67	690.68	84.40	7.33	0.94	84.41	7.33
C	0.66	10.27	1.83	B	8.99	809.24	90.89	6.74	1.01	90.90	6.74
D	0.88	14.57	6.17	B	21.92	1972.77	252.33	7.67	2.80	252.36	7.68
E	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Main Results for each time segment

Main results: (11:45-11:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.20	81.02	15.97	16.66	9.24	0.00	29.51	26.18	0.549	0.00	1.18	4.359	A
B	6.32	31.61	6.23	6.30	18.91	0.00	19.31	13.52	0.327	0.00	0.48	4.550	A
C	7.41	37.04	7.30	8.54	16.60	0.00	21.10	14.55	0.351	0.00	0.53	4.316	A
D	18.06	90.30	17.83	15.83	8.07	0.00	33.23	28.67	0.543	0.00	1.16	3.842	A
E	0.00	0.00	0.00	0.00	25.90	0.00	11.50	3.58	0.000	0.00	0.00	0.000	A

Main results: (11:50-11:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.20	81.02	16.20	16.88	9.36	0.00	29.44	26.18	0.550	1.18	1.20	4.526	A
B	6.32	31.61	6.32	6.38	19.18	0.00	19.18	13.52	0.330	0.48	0.49	4.663	A
C	7.41	37.04	7.41	8.66	16.84	0.00	20.98	14.55	0.353	0.53	0.54	4.419	A
D	18.06	90.30	18.06	16.06	8.19	0.00	33.16	28.67	0.545	1.16	1.18	3.968	A
E	0.00	0.00	0.00	0.00	26.24	0.00	11.35	3.58	0.000	0.00	0.00	0.000	A

Main results: (11:55-12:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.20	81.02	16.20	16.88	9.36	0.00	29.44	26.18	0.550	1.20	1.21	4.530	A
B	6.32	31.61	6.32	6.39	19.18	0.00	19.18	13.52	0.330	0.49	0.49	4.665	A
C	7.41	37.04	7.41	8.66	16.85	0.00	20.97	14.55	0.353	0.54	0.54	4.422	A
D	18.06	90.30	18.06	16.06	8.19	0.00	33.16	28.67	0.545	1.18	1.18	3.970	A
E	0.00	0.00	0.00	0.00	26.25	0.00	11.35	3.58	0.000	0.00	0.00	0.000	A

Main results: (12:00-12:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.29	86.44	17.25	17.98	9.97	0.00	29.12	26.18	0.594	1.21	1.41	5.036	A
B	6.75	33.73	6.73	6.80	20.42	0.00	18.58	13.52	0.363	0.49	0.56	5.056	A
C	7.90	39.52	7.89	9.22	17.93	0.00	20.44	14.55	0.387	0.54	0.62	4.776	A
D	19.27	96.34	19.23	17.10	8.72	0.00	32.86	28.67	0.586	1.18	1.38	4.386	A
E	0.00	0.00	0.00	0.00	27.95	0.00	10.64	3.58	0.000	0.00	0.00	0.000	A

Main results: (12:05-12:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.35	96.75	19.23	20.06	11.13	0.00	28.50	26.18	0.679	1.41	2.00	6.384	A
B	7.55	37.75	7.51	7.59	22.77	0.00	17.44	13.52	0.433	0.56	0.74	6.022	A
C	8.85	44.23	8.81	10.28	20.00	0.00	19.41	14.55	0.456	0.62	0.81	5.640	A
D	21.56	107.82	21.46	19.08	9.73	0.00	32.28	28.67	0.668	1.38	1.92	5.483	A
E	0.00	0.00	0.00	0.00	31.19	0.00	9.27	3.58	0.000	0.00	0.00	0.000	A

Main results: (12:10-12:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.17	105.87	21.00	21.93	12.16	0.00	27.95	26.18	0.758	2.00	2.85	8.401	A
B	8.26	41.31	8.22	8.29	24.87	0.00	16.43	13.52	0.503	0.74	0.97	7.261	A
C	9.68	48.40	9.63	11.23	21.85	0.00	18.49	14.55	0.523	0.81	1.05	6.726	A
D	23.60	117.99	23.45	20.84	10.64	0.00	31.76	28.67	0.743	1.92	2.68	7.067	A
E	0.00	0.00	0.00	0.00	34.09	0.00	8.05	3.58	0.000	0.00	0.00	0.000	A

Main results: (12:15-12:20)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.65	113.27	22.42	23.43	12.99	0.00	27.50	26.18	0.824	2.85	4.01	11.189	B
B	8.84	44.20	8.79	8.86	26.55	0.00	15.61	13.52	0.566	0.97	1.24	8.714	A
C	10.36	51.78	10.30	12.00	23.34	0.00	17.75	14.55	0.583	1.05	1.33	7.978	A
D	25.25	126.24	25.05	22.26	11.38	0.00	31.34	28.67	0.806	2.68	3.68	9.183	A
E	0.00	0.00	0.00	0.00	36.43	0.00	7.06	3.58	0.000	0.00	0.00	0.000	A

Main results: (12:20-12:25)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.70	118.49	23.42	24.50	13.59	0.00	27.19	26.18	0.872	4.01	5.39	14.554	B
B	9.25	46.23	9.19	9.26	27.74	0.00	15.04	13.52	0.615	1.24	1.49	10.146	B
C	10.83	54.17	10.78	12.54	24.39	0.00	17.23	14.55	0.629	1.33	1.59	9.196	A
D	26.41	132.05	26.18	23.27	11.91	0.00	31.03	28.67	0.851	3.68	4.82	11.634	B
E	0.00	0.00	0.00	0.00	38.09	0.00	6.36	3.58	0.000	0.00	0.00	0.000	A

Main results: (12:25-12:30)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.24	121.19	23.99	25.10	13.92	0.00	27.01	26.18	0.897	5.39	6.64	17.670	C
B	9.46	47.29	9.42	9.49	28.41	0.00	14.71	13.52	0.643	1.49	1.68	11.204	B
C	11.08	55.40	11.04	12.85	24.99	0.00	16.94	14.55	0.654	1.59	1.78	10.070	B
D	27.01	135.06	26.82	23.84	12.20	0.00	30.87	28.67	0.875	4.82	5.79	13.767	B
E	0.00	0.00	0.00	0.00	39.02	0.00	5.97	3.58	0.000	0.00	0.00	0.000	A

Main results: (12:30-12:35)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	24.24	121.19	24.12	25.20	13.97	0.00	26.98	26.18	0.898	6.64	7.23	19.162	C
B	9.46	47.29	9.45	9.53	28.57	0.00	14.64	13.52	0.646	1.68	1.74	11.478	B
C	11.08	55.40	11.07	12.91	25.11	0.00	16.88	14.55	0.656	1.78	1.83	10.266	B
D	27.01	135.06	26.94	23.94	12.23	0.00	30.85	28.67	0.876	5.79	6.17	14.573	B
E	0.00	0.00	0.00	0.00	39.17	0.00	5.91	3.58	0.000	0.00	0.00	0.000	A

Main results: (12:35-12:40)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	23.70	118.49	23.70	24.71	13.70	0.00	27.12	26.18	0.874	7.23	7.20	17.845	C
B	9.25	46.23	9.25	9.34	28.06	0.00	14.88	13.52	0.621	1.74	1.70	10.710	B
C	10.83	54.17	10.84	12.67	24.65	0.00	17.11	14.55	0.633	1.83	1.79	9.621	A
D	26.41	132.05	26.43	23.50	11.99	0.00	30.99	28.67	0.852	6.17	6.09	13.401	B
E	0.00	0.00	0.00	0.00	38.41	0.00	6.23	3.58	0.000	0.00	0.00	0.000	A

Main results: (12:40-12:45)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	22.65	113.27	22.98	23.83	13.22	0.00	27.38	26.18	0.827	7.20	5.55	14.593	B
B	8.84	44.20	8.89	9.02	27.19	0.00	15.30	13.52	0.578	1.70	1.44	9.449	A
C	10.36	51.78	10.41	12.24	23.84	0.00	17.51	14.55	0.592	1.79	1.52	8.531	A
D	25.25	126.24	25.52	22.72	11.53	0.00	31.25	28.67	0.808	6.09	4.71	10.993	B
E	0.00	0.00	0.00	0.00	37.05	0.00	6.80	3.58	0.000	0.00	0.00	0.000	A

Main results: (12:45-12:50)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	21.17	105.87	21.58	22.32	12.38	0.00	27.83	26.18	0.761	5.55	3.51	10.141	B
B	8.26	41.31	8.33	8.45	25.52	0.00	16.11	13.52	0.513	1.44	1.10	7.782	A
C	9.68	48.40	9.75	11.48	22.37	0.00	18.24	14.55	0.531	1.52	1.18	7.129	A
D	23.60	117.99	23.91	21.32	10.80	0.00	31.67	28.67	0.745	4.71	3.16	8.024	A
E	0.00	0.00	0.00	0.00	34.71	0.00	7.79	3.58	0.000	0.00	0.00	0.000	A

Main results: (12:50-12:55)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	19.35	96.75	19.60	20.34	11.28	0.00	28.42	26.18	0.681	3.51	2.26	6.988	A
B	7.55	37.75	7.61	7.70	23.18	0.00	17.24	13.52	0.438	1.10	0.80	6.268	A
C	8.85	44.23	8.91	10.45	20.35	0.00	19.24	14.55	0.460	1.18	0.88	5.841	A
D	21.56	107.82	21.77	19.40	9.86	0.00	32.21	28.67	0.670	3.16	2.13	5.860	A
E	0.00	0.00	0.00	0.00	31.63	0.00	9.09	3.58	0.000	0.00	0.00	0.000	A

Main results: (12:55-13:00)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	17.29	86.44	17.44	18.14	10.06	0.00	29.07	26.18	0.595	2.26	1.52	5.223	A
B	6.75	33.73	6.79	6.86	20.63	0.00	18.48	13.52	0.365	0.80	0.59	5.153	A
C	7.90	39.52	7.95	9.31	18.12	0.00	20.34	14.55	0.388	0.88	0.65	4.858	A
D	19.27	96.34	19.40	17.27	8.79	0.00	32.82	28.67	0.587	2.13	1.47	4.517	A
E	0.00	0.00	0.00	0.00	28.19	0.00	10.53	3.58	0.000	0.00	0.00	0.000	A

Main results: (13:00-13:05)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.20	81.02	16.26	16.93	9.39	0.00	29.43	26.18	0.551	1.52	1.26	4.575	A
B	6.32	31.61	6.34	6.40	19.24	0.00	19.15	13.52	0.330	0.59	0.50	4.689	A
C	7.41	37.04	7.43	8.68	16.90	0.00	20.95	14.55	0.354	0.65	0.56	4.443	A
D	18.06	90.30	18.11	16.11	8.21	0.00	33.15	28.67	0.545	1.47	1.23	4.004	A
E	0.00	0.00	0.00	0.00	26.32	0.00	11.32	3.58	0.000	0.00	0.00	0.000	A

Main results: (13:05-13:10)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.20	81.02	16.21	16.89	9.37	0.00	29.44	26.18	0.550	1.26	1.24	4.538	A
B	6.32	31.61	6.32	6.39	19.19	0.00	19.18	13.52	0.330	0.50	0.50	4.668	A
C	7.41	37.04	7.41	8.66	16.85	0.00	20.97	14.55	0.353	0.56	0.55	4.426	A
D	18.06	90.30	18.06	16.07	8.19	0.00	33.16	28.67	0.545	1.23	1.21	3.976	A
E	0.00	0.00	0.00	0.00	26.25	0.00	11.35	3.58	0.000	0.00	0.00	0.000	A

Main results: (13:10-13:15)

Arm	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Exit Flow (Veh/min)	Circulating Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	Saturation Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
A	16.20	81.02	16.21	16.89	9.36	0.00	29.44	26.18	0.550	1.24	1.24	4.536	A
B	6.32	31.61	6.32	6.39	19.18	0.00	19.18	13.52	0.330	0.50	0.50	4.666	A
C	7.41	37.04	7.41	8.66	16.85	0.00	20.97	14.55	0.353	0.55	0.55	4.423	A
D	18.06	90.30	18.06	16.07	8.19	0.00	33.16	28.67	0.545	1.21	1.21	3.975	A
E	0.00	0.00	0.00	0.00	26.25	0.00	11.35	3.58	0.000	0.00	0.00	0.000	A

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-11:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.45	1.09	4.359	A	A
B	2.23	0.45	4.550	A	A
C	2.48	0.50	4.316	A	A
D	5.38	1.08	3.842	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:50-11:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	5.97	1.19	4.526	A	A
B	2.41	0.48	4.663	A	A
C	2.68	0.54	4.419	A	A
D	5.85	1.17	3.968	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (11:55-12:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.03	1.21	4.530	A	A
B	2.43	0.49	4.665	A	A
C	2.70	0.54	4.422	A	A
D	5.90	1.18	3.970	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:00-12:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.81	1.36	5.036	A	A
B	2.71	0.54	5.056	A	A
C	3.00	0.60	4.776	A	A
D	6.65	1.33	4.386	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:05-12:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	9.32	1.86	6.384	A	A
B	3.53	0.71	6.022	A	A
C	3.88	0.78	5.640	A	A
D	9.01	1.80	5.483	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:10-12:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	13.06	2.61	8.401	A	A
B	4.60	0.92	7.261	A	A
C	5.01	1.00	6.726	A	A
D	12.41	2.48	7.067	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:15-12:20)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	18.13	3.63	11.189	B	B
B	5.84	1.17	8.714	A	A
C	6.29	1.26	7.978	A	A
D	16.86	3.37	9.183	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:20-12:25)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	24.35	4.87	14.554	B	B
B	7.09	1.42	10.146	B	B
C	7.57	1.51	9.196	A	A
D	22.07	4.41	11.634	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:25-12:30)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	30.62	6.12	17.670	C	B
B	8.09	1.62	11.204	B	B
C	8.57	1.71	10.070	B	B
D	27.01	5.40	13.767	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:30-12:35)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	34.83	6.97	19.162	C	B
B	8.59	1.72	11.478	B	B
C	9.05	1.81	10.266	B	B
D	30.00	6.00	14.573	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:35-12:40)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	36.06	7.21	17.845	C	B
B	8.59	1.72	10.710	B	B
C	9.03	1.81	9.621	A	A
D	30.63	6.13	13.401	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:40-12:45)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	30.23	6.05	14.593	B	B
B	7.57	1.51	9.449	A	A
C	7.97	1.59	8.531	A	A
D	25.53	5.11	10.993	B	B
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:45-12:50)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	19.47	3.89	10.141	B	B
B	5.83	1.17	7.782	A	A
C	6.23	1.25	7.129	A	A
D	17.30	3.46	8.024	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:50-12:55)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	12.31	2.46	6.988	A	A
B	4.25	0.85	6.268	A	A
C	4.63	0.93	5.841	A	A
D	11.45	2.29	5.860	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (12:55-13:00)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	8.12	1.62	5.223	A	A
B	3.09	0.62	5.153	A	A
C	3.40	0.68	4.858	A	A
D	7.78	1.56	4.517	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:00-13:05)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.56	1.31	4.575	A	A
B	2.59	0.52	4.689	A	A
C	2.87	0.57	4.443	A	A
D	6.36	1.27	4.004	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:05-13:10)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.25	1.25	4.538	A	A
B	2.50	0.50	4.668	A	A
C	2.77	0.55	4.426	A	A
D	6.09	1.22	3.976	A	A
E	0.00	0.00	0.000	A	A

Queueing Delay results: (13:10-13:15)

Arm	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
A	6.20	1.24	4.536	A	A
B	2.48	0.50	4.666	A	A
C	2.76	0.55	4.423	A	A
D	6.05	1.21	3.975	A	A
E	0.00	0.00	0.000	A	A