

Junctions 9			
ARCADY 9 - Roundabout Module			
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2017			
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk			
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: A27-A29 West-CAL.j9

Path: C:\clients\l-transport\ITB11324 Walberton\May 2017

Report generation date: 17/05/2017 10:41:39

«2017 Base, AM

»Junction Network

»Arms

»Traffic Demand

»Origin-Destination Data

»Vehicle Mix

»Results

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
2017 Base				
1 - A29 (N) dummy	0.0	0.00	0.00	A
2 - Arundel Road	0.0	0.00	0.00	A
3 - A29	0.0	0.00	0.00	A
4 - A27 (W) dummy	0.0	0.00	0.00	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	A27-A29 West
Location	
Site number	
Date	17/05/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	al
Description	for linsig

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	mph	PCU	PCU	perHour	s	-Hour	perHour

Analysis Options

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

Analysis Set Details

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

2017 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Arundel Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A29 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Profile Type	D1 - 2017 Base, AM	The DIRECT profile type is being used with the 'O-D data varies over time' option, but O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	A27/A29 (W)	Standard Roundabout	1,2,3,4	0	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A29 (N) dummy	
2	Arundel Road	
3	A29	
4	A27 (W) dummy	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A29 (N) dummy	7.40	11.30	22.0	42.0	56.0	23.0	
2 - Arundel Road	4.50	9.00	32.0	12.0	52.0	30.0	
3 - A29	3.70	9.00	33.0	12.0	52.0	35.0	
4 - A27 (W) dummy	8.00	11.80	15.0	28.0	56.0	19.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A29 (N) dummy	0.853	3146
2 - Arundel Road	0.689	2229
3 - A29	0.655	2073
4 - A27 (W) dummy	0.867	3219

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2017 Base	AM	2017 Base Flows	DIRECT	07:15	08:15	60	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1 - A29 (N) dummy		DIRECT	✓	100.000
2 - Arundel Road		DIRECT	✓	100.000
3 - A29		DIRECT	✓	100.000
4 - A27 (W) dummy		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - A29 (N) dummy	2 - Arundel Road	3 - A29	4 - A27 (W) dummy
From	1 - A29 (N) dummy	0	0	0	0
	2 - Arundel Road	0	0	0	0
	3 - A29	0	0	0	0
	4 - A27 (W) dummy	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - A29 (N) dummy	2 - Arundel Road	3 - A29	4 - A27 (W) dummy
From	1 - A29 (N) dummy	0	11	7	5
	2 - Arundel Road	8	0	10	9
	3 - A29	6	14	0	7
	4 - A27 (W) dummy	8	8	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A29 (N) dummy	0.00	0.00	0.0	A	0	0
2 - Arundel Road	0.00	0.00	0.0	A	0	0
3 - A29	0.00	0.00	0.0	A	0	0
4 - A27 (W) dummy	0.00	0.00	0.0	A	0	0

Main Results for each time segment

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N) dummy	0	0	0	3146	0.000	0	0	0.0	0.0	0.000	A
2 - Arundel Road	0	0	0	2229	0.000	0	0	0.0	0.0	0.000	A
3 - A29	0	0	0	2073	0.000	0	0	0.0	0.0	0.000	A
4 - A27 (W) dummy	0	0	0	3219	0.000	0	0	0.0	0.0	0.000	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N) dummy	0	0	0	3146	0.000	0	0	0.0	0.0	0.000	A
2 - Arundel Road	0	0	0	2229	0.000	0	0	0.0	0.0	0.000	A
3 - A29	0	0	0	2073	0.000	0	0	0.0	0.0	0.000	A
4 - A27 (W) dummy	0	0	0	3219	0.000	0	0	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N) dummy	0	0	0	3146	0.000	0	0	0.0	0.0	0.000	A
2 - Arundel Road	0	0	0	2229	0.000	0	0	0.0	0.0	0.000	A
3 - A29	0	0	0	2073	0.000	0	0	0.0	0.0	0.000	A
4 - A27 (W) dummy	0	0	0	3219	0.000	0	0	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1 - A29 (N) dummy	0	0	0	3146	0.000	0	0	0.0	0.0	0.000	A
2 - Arundel Road	0	0	0	2229	0.000	0	0	0.0	0.0	0.000	A
3 - A29	0	0	0	2073	0.000	0	0	0.0	0.0	0.000	A
4 - A27 (W) dummy	0	0	0	3219	0.000	0	0	0.0	0.0	0.000	A