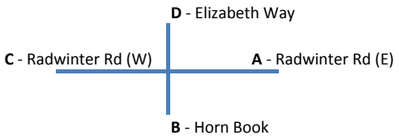
Appendix L

J1 - Radwinter Road / Elizabeth Way – Junction Assessment Data

1 - Radwinter Road / Elizabeth Way



AM Peak 0800-0900

Background Traffic 2013 count

	A	B	C	D
A	0	3	204	146
B	8	0	4	10
C	260	4	0	144
D	124	0	103	0

Tempro 12-18

	A	B	C	D
A	1.038	1.038	1.038	1.038
B	1.038	1.038	1.038	1.038
C	1.038	1.038	1.038	1.038
D	1.038	1.038	1.038	1.038

Background 2018

	A	B	C	D
A	0	3	212	151
B	8	0	4	10
C	270	4	0	149
D	129	0	107	0

Committed Development

	A	B	C	D
A	0	0	12	51
B	0	0	0	0
C	24	0	0	14
D	-4	0	11	0

Background + Committed

	A	B	C	D
A	0	3	224	202
B	8	0	4	10
C	294	4	0	163
D	125	0	118	0

Development

	A	B	C	D
A	0	0	7	43
B	0	0	0	0
C	5	0	0	0
D	31	0	0	0

Background + Committed + Development

	A	B	C	D
A	0	3	231	245
B	8	0	4	10
C	299	4	0	163
D	156	0	118	0

PM Peak 1700-1800

Background Traffic 2013 count

	A	B	C	D
A	0	11	331	113
B	8	0	5	3
C	245	3	0	107
D	90	12	170	0

Tempro 12-18

	A	B	C	D
A	1.055	1.055	1.055	1.055
B	1.055	1.055	1.055	1.055
C	1.055	1.055	1.055	1.055
D	1.055	1.055	1.055	1.055

Background 2018

	A	B	C	D
A	0	12	349	119
B	8	0	5	3
C	258	3	0	113
D	95	13	179	0

Committed Development

	A	B	C	D
A	0	0	-7	78
B	0	0	0	0
C	74	0	0	12
D	15	0	5	0

Background + Committed

	A	B	C	D
A	0	12	342	197
B	8	0	5	3
C	332	3	0	125
D	110	13	184	0

Development

	A	B	C	D
A	0	0	7	41
B	0	0	0	0
C	7	0	0	0
D	41	0	0	0

Background + Committed + Development

	A	B	C	D
A	0	12	349	238
B	8	0	5	3
C	339	3	0	125
D	150	13	184	0

AM Peak 0800-0900

Tempro 12-26

	A	B	C	D
A	1.069	1.069	1.069	1.069
B	1.069	1.069	1.069	1.069
C	1.069	1.069	1.069	1.069
D	1.069	1.069	1.069	1.069

Background 2026

	A	B	C	D
A	0	3	219	156
B	9	0	4	11
C	278	4	0	154
D	132	0	110	0

Committed Development

	A	B	C	D
A	0	0	12	51
B	0	0	0	0
C	24	0	0	14
D	-4	0	11	0

Background + Committed

	A	B	C	D
A	0	3	231	207
B	9	0	4	11
C	302	4	0	168
D	128	0	121	0

Development

	A	B	C	D
A	0	0	7	43
B	0	0	0	0
C	5	0	0	0
D	31	0	0	0

Background + Committed + Development

	A	B	C	D
A	0	3	238	250
B	9	0	4	11
C	307	4	0	168
D	160	0	121	0

PM Peak 1700-1800

Tempro 12-26

	A	B	C	D
A	1.113	1.113	1.113	1.113
B	1.113	1.113	1.113	1.113
C	1.113	1.113	1.113	1.113
D	1.113	1.113	1.113	1.113

Background 2026

	A	B	C	D
A	0	12	368	125
B	9	0	6	3
C	272	3	0	119
D	100	13	189	0

Committed Development

	A	B	C	D
A	0	0	-7	78
B	0	0	0	0
C	74	0	0	12
D	15	0	5	0

Background + Committed

	A	B	C	D
A	0	12	361	203
B	9	0	6	3
C	346	3	0	131
D	115	13	194	0

Development

	A	B	C	D
A	0	0	7	41
B	0	0	0	0
C	7	0	0	0
D	41	0	0	0

Background + Committed + Development

	A	B	C	D
A	0	12	368	244
B	9	0	6	3
C	353	3	0	131
D	156	13	194	0

TRANSYT 14

Version: 14.1.2.315 [26-09-12]

For sales and distribution information, program advice and maintenance, contact TRL:
Tel: +44 (0)1344 770758 E-mail: software@trl.co.uk Web: http://www.trlsoftware.co.uk

Last run: 03/12/2013 08:46:33
Analysis Set used for last run: A1 - (untitled)

Filename: J1 - Radwinter_Elizabeth.t14
Path: S:\JPP\JPP Schemes R\R6694PP - Saffron Walden\Reports\TA\Junction Modelling
Report generation date: 03/12/2013 08:49:16

File summary

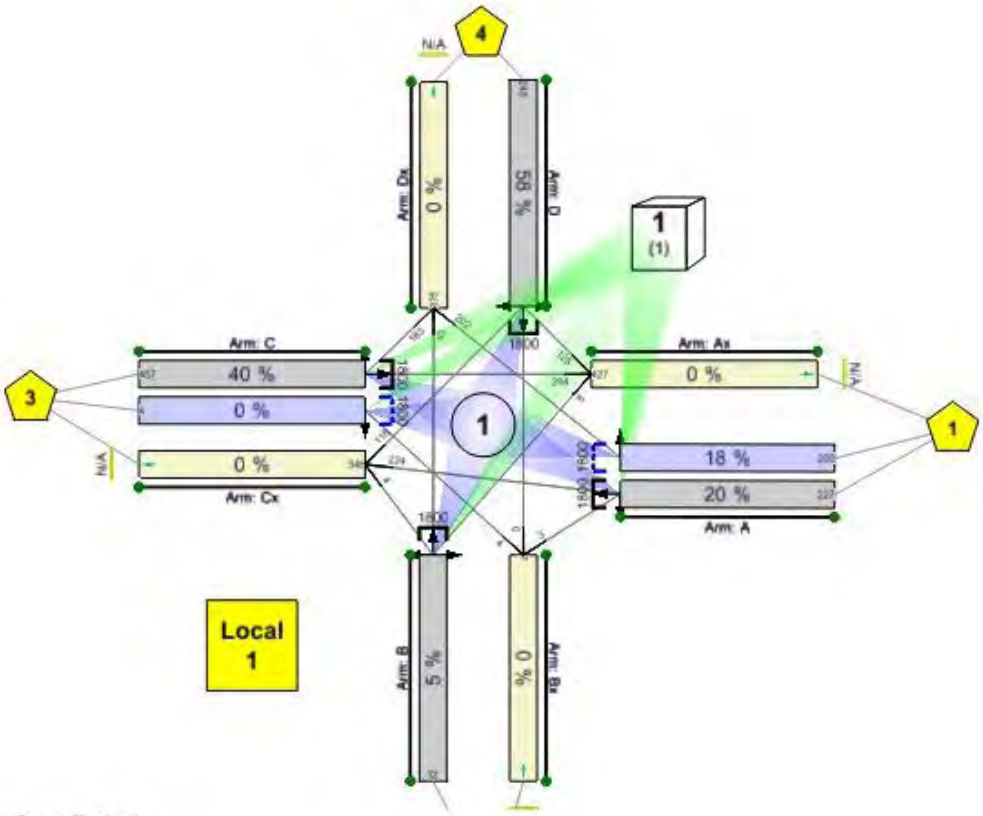
File Description

Title	(untitled)
Location	
Site Number	
UTCRegion	
Driving Side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CEDARBARN\MartinA
Description	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units
kph	m	mpg	l/h

Network Diagrams



Node Signals Cones Enabled
Node Traffic Cones Enabled

(untitled)
Cycletime 0s / 90s , Timesteps 0 / 90
Diagram produced using TRANSYT 14.1.2.315 Network Construction Editor

A1 - (untitled) : D1 - (untitled) *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	Network Within Capacity
08:00	90	4.66	57.86	D/1	0	0	✓

Analysis Set Details

Name	Description	Demand Set	Include In Report	Locked
(untitled)		D1	✓	

Demand Set Details

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked

(untitled)				08:00	

Network Options

Network Timings

Network Cycle Time (s)	Time Segment Length (min)
90	60

Signals Options

Start Displacement (s)	End Displacement (s)
2	3

Traffic Options

Traffic Model	Flow Scaling Factor (%)	Cruise Times Or Speeds
Quick PDM	100	Cruise Speeds

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level
✓	Hill Climb (Fast)	Offsets And Green Splits

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Traffic Nodes

Traffic Nodes

Traffic Node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic Node
A	(untitled)		1
B	(untitled)		1
C	(untitled)		1
D	(untitled)		1
Ax	(untitled)		
Bx	(untitled)		
Cx	(untitled)		
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Is Give Way	Traffic Type
A	1	(untitled)		100.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	A			Normal
A	2	(untitled)		10.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	A		✓	Normal

B	1	(untitled)		100.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	B			Normal
C	1	(untitled)		100.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	A			Normal
C	2	(untitled)		10.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	A		✓	Normal
D	1	(untitled)		100.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	B			Normal
Ax	1	(untitled)		100.00	[QuickPDM]		N/A	N/A		N/A	N/A			Normal
Bx	1	(untitled)		100.00	[QuickPDM]		N/A	N/A		N/A	N/A			Normal
Cx	1	(untitled)		100.00	[QuickPDM]		N/A	N/A		N/A	N/A			Normal
Dx	1	(untitled)		100.00	[QuickPDM]		N/A	N/A		N/A	N/A			Normal

Lanes

Arm	Traffic Stream	Lane	Name	Description	Saturation Flow (PCU/hr)
A	1	1	(untitled)		1800
A	2	1	(untitled)		1800
B	1	1	(untitled)		1800
C	1	1	(untitled)		1800
C	2	1	(untitled)		1800
D	1	1	(untitled)		1800
Ax	1	1	(untitled)		1800
Bx	1	1	(untitled)		1800
Cx	1	1	(untitled)		1800
Dx	1	1	(untitled)		1800

Modelling

Arm	Traffic Stream	Stop Weighting Multiplier (%)	Delay Weighting Multiplier (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit
A	1	100	100		0.00	
A	2	100	100		0.00	
B	1	100	100		0.00	
C	1	100	100		0.00	
C	2	100	100		0.00	
D	1	100	100		0.00	
Ax	1	100	100		0.00	
Bx	1	100	100		0.00	
Cx	1	100	100		0.00	
Dx	1	100	100		0.00	

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Calculated Cruise Speed (kph)
A	1	227	227	0	0	1.00
A	2	202	202	0	0	1.00
B	1	22	22	0	0	1.00
C	1	457	457	0	0	1.00
C	2	4	4	0	0	1.00
D	1	243	243	0	0	1.00
Ax	1	427	427	0	0	1.00
Bx	1	7	7	0	0	1.00
Cx	1	346	346	0	0	1.00
Dx	1	375	375	0	0	1.00

Normal - Modelling

Arm	Traffic Stream	Stop Weighting (%)	Delay Weighting (%)
A	1	100	100
A	2	100	100

B	1	100	100
C	1	100	100
C	2	100	100
D	1	100	100
Ax	1	100	100
Bx	1	100	100
Cx	1	100	100
Dx	1	100	100

Sources - default sources for entries

Arm	Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
A	1	12.00	30.00	Buses Not Permittted	Trams Not Permitted
A	2	1.20	30.00	Buses Not Permittted	Trams Not Permitted
B	1	12.00	30.00	Buses Not Permittted	Trams Not Permitted
C	1	12.00	30.00	Buses Not Permittted	Trams Not Permitted
C	2	1.20	30.00	Buses Not Permittted	Trams Not Permitted
D	1	12.00	30.00	Buses Not Permittted	Trams Not Permitted

Sources - sources for internals

Arm	Traffic Stream	Source	Source Type	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
Ax	1	1	TrafficStream	C/1	294	294	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Ax	1	2	TrafficStream	B/1	8	8	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Ax	1	3	TrafficStream	D/1	125	125	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Bx	1	1	TrafficStream	A/1	3	3	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Bx	1	2	TrafficStream	D/1	0	0	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Bx	1	3	TrafficStream	C/2	4	4	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Cx	1	1	TrafficStream	B/1	4	4	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Cx	1	2	TrafficStream	D/1	118	118	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Cx	1	3	TrafficStream	A/1	224	224	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Dx	1	1	TrafficStream	C/1	163	163	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Dx	1	2	TrafficStream	B/1	10	10	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Dx	1	3	TrafficStream	A/2	202	202	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted

Give Way Data

Arm	Traffic Stream	Opposed Traffic	Use Step-wise Opposed Turn Model
A	2	AllTraffic	
C	2	AllTraffic	

Flow Allocation Tool Tables - Local Matrix: 1

Normal Input Flows (PCU/hr)

		To			
		1	2	3	4
From	1	0	3	224	202
	2	8	0	4	10
	3	294	4	0	163
	4	125	0	118	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Locations

Local Matrix	Location	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1	1	(untitled)	A/2,A/1	Ax/1	429	429	0	0	427	427	0	0
1	2	(untitled)	B/1	Bx/1	22	22	0	0	7	7	0	0
1	3	(untitled)	C/2,C/1	Cx/1	461	461	0	0	346	346	0	0
1	4	(untitled)	D/1	Dx/1	243	243	0	0	375	375	0	0

Paths

Local Matrix	Path	Description	Path Items	Calculated Total Flow (PCU/hr)
1	1		A/2,Dx/1	202
1	2		A/1,Bx/1	3
1	3		A/1,Cx/1	224
1	4		B/1,Dx/1	10
1	5		B/1,Ax/1	8
1	6		B/1,Cx/1	4
1	7		C/2,Bx/1	4
1	8		C/1,Dx/1	163
1	9		C/1,Ax/1	294
1	10		D/1,Ax/1	125
1	11		D/1,Bx/1	0
1	12		D/1,Cx/1	118

Normal Path Flows

Local Matrix	Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	1	✓	Normal	N/A	N/A	202
1	2	✓	Normal	N/A	N/A	3
1	3	✓	Normal	N/A	N/A	224
1	4	✓	Normal	N/A	N/A	10
1	5	✓	Normal	N/A	N/A	8
1	6	✓	Normal	N/A	N/A	4
1	7	✓	Normal	N/A	N/A	4
1	8	✓	Normal	N/A	N/A	163
1	9	✓	Normal	N/A	N/A	294
1	10	✓	Normal	N/A	N/A	125
1	11	✓	Normal	N/A	N/A	0
1	12	✓	Normal	N/A	N/A	118

Signal Timings

90s cycle time; 90 steps

Controller Stream

Controller Stream	Name	Description	Multiple Cycling	Auto Redistribute	Use Sequence
1	(untitled)		Single	✓	1

Phases

Controller Stream	Phase	Name	Minimum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)
1	A	(untitled)	7	0	0
1	B	(untitled)	7	0	0

Library Stages

Controller Stream	Library Stage	Phases In Stage	User Stage Minimum (s)
1	1	A	1
1	2	B	1

Stage Sequences

Controller Stream	Stage Sequence	Name	Stage IDs	Multiple Cycling Stage IDs
1	1	(untitled)	1,2	

Resultant Stages

Controller Stream	Stage	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	✓	1	A	79	45	56	1	7
1	2	✓	2	B	52	72	20	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	✓	79	45	56
1	B	1	✓	52	72	20

Intergreen Matrix for Controller Stream 1

		To	
		A	B
From	A	-	7
	B	7	-

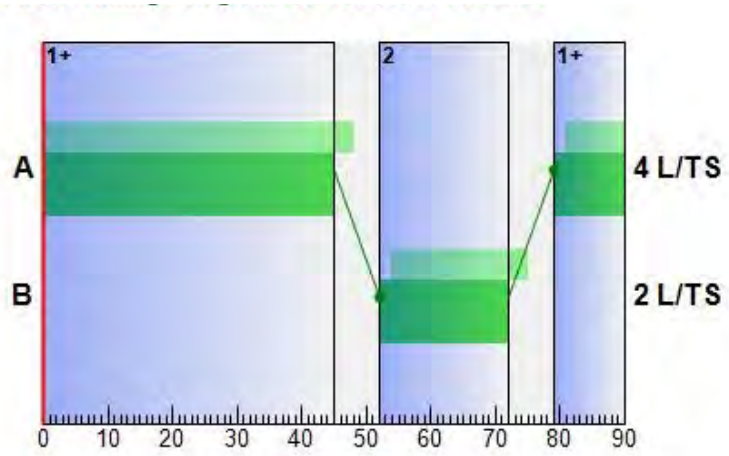
Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	-	7
	2	7	-

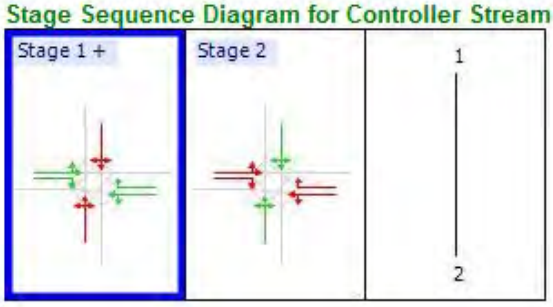
Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1	-	
	2		-

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 12 Tables

Resultant Stages

Controller Stream	Stage	Is Base Stage	Library Stage ID	Phases In This Stage
1	1	✓	1	A
1	2	✓	2	B

Signals

Controller Stream	Stage	Is Base Stage	Library Stage ID	Phases In This Stage	TRANSYT Stage Start (s)	TRANSYT Preceding Interstage (s)	TRANSYT Stage Minimum (s)
1	1	✓	1	A	72	7	14
1	2	✓	2	B	45	7	14

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	TRANSYT Starting Stage (s)	TRANSYT Ending Stage (s)	TRANSYT Start Lag (s)	TRANSYT End Lag (s)
1	A	1	1	2	7	0
1	B	1	2	1	7	0

Stage Timings (TRANSYT 12 timings)

90s cycle time; 90 steps

Controller Stream	Number of Stages	Stage 1	Stage 2
1	2	72	45

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Amber	Green Period 1			Green Period 2			Green Period 3			Green Period 4		
						Start	End	Duration	Start	End	Duration	Start	End	Duration	Start	End	Duration

A	1	1	1	A	0	79	45	56								
A	2	1	1	A	0	79	45	56								
B	1	1	1	B	0	52	72	20								
C	1	1	1	A	0	79	45	56								
C	2	1	1	A	0	79	45	56								
D	1	1	1	B	0	52	72	20								

Data Entry: Traffic Stream

Traffic Stream

Arm	Traffic Stream	Length (m)	Max Queue Storage (PCU)	Normal Cruise Speed (kph)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Delay Weighting (%)	Stop Weighting (%)
A	1	100.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
A	2	10.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
B	1	100.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
C	1	100.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
C	2	10.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
D	1	100.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
Ax	1	100.00	0.00	N/A	[QuickPDM]		N/A	N/A	100	100
Bx	1	100.00	0.00	N/A	[QuickPDM]		N/A	N/A	100	100
Cx	1	100.00	0.00	N/A	[QuickPDM]		N/A	N/A	100	100
Dx	1	100.00	0.00	N/A	[QuickPDM]		N/A	N/A	100	100

Results: Traffic Stream

Results: Traffic Stream: Summary

Time Segment	Arm	Traffic Stream	Name	Phase	Phase2	Calculated Flow Entering LTS (PCU/hr)	Calculated Sat Flow (PCU/hr)	Actual Green (s (per cycle))	Wasted Time Blocking Back (s (per cycle))	Calculated Capacity (PCU/hr)	Degree Of Saturation (%)	Practical Reserve Capacity (%)	Mean Max Queue (PCU)	Max End Of Red Queue (PCU)	Mean Delay Per PCU (s)
08:00-09:00	A	1	(untitled)	A	N/A	227	1800	56.00	0.00	1140	20	352	2.36	2.11	7.32
08:00-09:00	A	2	(untitled)	A	N/A	202	1800	56.00	0.00	1140	18	408	2.10	1.87	7.16
08:00-09:00	B	1	(untitled)	B	N/A	22	1800	20.00	0.00	420	5	1618	0.42	0.42	27.07
08:00-09:00	C	1	(untitled)	A	N/A	457	1800	56.00	0.00	1140	40	125	5.72	4.32	9.17
08:00-09:00	C	2	(untitled)	A	N/A	4	1800	56.00	0.00	1140	0	25550	0.04	0.04	6.24
08:00-09:00	D	1	(untitled)	B	N/A	243	1800	20.00	0.00	420	58	56	5.73	5.05	36.40
08:00-09:00	Ax	1	(untitled)	N/A	N/A	427	Unrestricted	90.00	0.00	Unrestricted	0	Unrestricted	0.00	N/A	0.00
08:00-09:00	Bx	1	(untitled)	N/A	N/A	7	Unrestricted	90.00	0.00	Unrestricted	0	Unrestricted	0.00	N/A	0.00
08:00-09:00	Cx	1	(untitled)	N/A	N/A	346	Unrestricted	90.00	0.00	Unrestricted	0	Unrestricted	0.00	N/A	0.00
08:00-09:00	Dx	1	(untitled)	N/A	N/A	375	Unrestricted	90.00	0.00	Unrestricted	0	Unrestricted	0.00	N/A	0.00

Results: Link

Data Entry: Signal Timings

Green Period

Controller Stream	Phase	Green Period	Start Time (s)	End Time (s)	Duration (s)	Minimum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)
1	A	1	79	45	56	7	0	0
1	B	1	52	72	20	7	0	0

Traffic Stream Results

Traffic Stream Results: Summary

Time Segment	Arm	Traffic Stream	Calculated Flow Entering LTS (PCU/hr)	Flow Discrepancy (PCU/hr)	Adjusted Flow Warning	Calculated Sat Flow (PCU/hr)	Calculated Capacity (PCU/hr)	Degree Of Saturation (%)	DOS Threshold Exceeded	Practical Reserve Capacity (%)	Actual Green (s (per cycle))	Effective Green (s (per cycle))	Cost Of Penalties (£ per hr)	Perfo Index h
08:00-09:00	A	1	227	0		1800	1140	20		352	56.00	57.00	0.00	7.
08:00-09:00	A	2	202	0		1800	1140	18		408	56.00	57.00	0.00	6.
08:00-09:00	B	1	22	0		1800	420	5		1618	20.00	21.00	0.00	2.
08:00-09:00	C	1	457	0		1800	1140	40		125	56.00	57.00	0.00	19
08:00-09:00	C	2	4	0		1800	1140	0		25550	56.00	57.00	0.00	0.
08:00-09:00	D	1	243	0		1800	420	58		56	20.00	21.00	0.00	37
08:00-09:00	Ax	1	427	0		Unrestricted	Unrestricted	0		Unrestricted	90.00	90.00	0.00	0.
08:00-09:00	Bx	1	7	0		Unrestricted	Unrestricted	0		Unrestricted	90.00	90.00	0.00	0.
08:00-09:00	Cx	1	346	0		Unrestricted	Unrestricted	0		Unrestricted	90.00	90.00	0.00	0.
08:00-09:00	Dx	1	375	0		Unrestricted	Unrestricted	0		Unrestricted	90.00	90.00	0.00	0.

Traffic Stream Results: Stops And Delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time Per PCU (s)	Signalled LoS	Mean Delay Per PCU (s)	Uniform Delay (PCU-hr/hr)	Weighted Cost Of Delay (£ per hr)	Mean Stops Per PCU (%)	Uniform Stops (Stops per hr)	Random Stops (Stops per hr)	Weighted Cost Of Stops (£ per hr)
08:00-09:00	A	1	12.00	A	7.32	0.44	6.56	40.16	90.18	0.99	1.14
08:00-09:00	A	2	1.20	A	7.16	0.38	5.71	39.74	79.51	0.76	1.01
08:00-09:00	B	1	12.00	C	27.07	0.16	2.35	75.62	16.58	0.06	0.21
08:00-09:00	C	1	12.00	A	9.17	1.03	16.52	47.85	213.33	5.34	2.74
08:00-09:00	C	2	1.20	A	6.24	0.01	0.10	35.36	1.41	0.00	0.02
08:00-09:00	D	1	12.00	D	36.40	2.06	34.89	92.74	209.90	15.46	2.83
08:00-09:00	Ax	1	12.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08:00-09:00	Bx	1	12.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

08:00-09:00	Cx	1	12.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08:00-09:00	Dx	1	12.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues And Blocking

Time Segment	Arm	Traffic Stream	Mean Max Queue (PCU)	Max Queue Storage (PCU)	Average Link Excess Queue (PCU)	Average Limit Excess Queue (PCU)	Excess Queue Penalty (£ per hr)
08:00-09:00	A	1	2.36	17.39	0.00	0.00	0.00
08:00-09:00	A	2	2.10	1.74	0.01	0.00	0.00
08:00-09:00	B	1	0.42	17.39	0.00	0.00	0.00
08:00-09:00	C	1	5.72	17.39	0.00	0.00	0.00
08:00-09:00	C	2	0.04	1.74	0.00	0.00	0.00
08:00-09:00	D	1	5.73	17.39	0.00	0.00	0.00
08:00-09:00	Ax	1	0.00	17.39	0.00	0.00	0.00
08:00-09:00	Bx	1	0.00	17.39	0.00	0.00	0.00
08:00-09:00	Cx	1	0.00	17.39	0.00	0.00	0.00
08:00-09:00	Dx	1	0.00	17.39	0.00	0.00	0.00

Traffic Stream Results: Journey Times

Time Segment	Arm	Traffic Stream	Distance Travelled (PCU-km/hr)	Time Spent (PCU-hr/hr)	Mean Journey Speed (kph)	Journey Time Per PCU (s)
08:00-09:00	A	1	22.70	1.22	18.63	19.32
08:00-09:00	A	2	2.02	0.47	4.31	8.36
08:00-09:00	B	1	2.20	0.24	9.21	39.07
08:00-09:00	C	1	45.70	2.69	17.01	21.17
08:00-09:00	C	2	0.04	0.01	4.84	7.44
08:00-09:00	D	1	24.30	3.27	7.44	48.40
08:00-09:00	Ax	1	42.70	1.42	30.00	12.00
08:00-09:00	Bx	1	0.70	0.02	30.00	12.00
08:00-09:00	Cx	1	34.60	1.15	30.00	12.00
08:00-09:00	Dx	1	37.50	1.25	30.00	12.00

Network Results

Run Summary

Time Segment	Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	Network Within Capacity
08:00-09:00	08:00	90	4.66	57.86	D/1	0	0	✓

Network Results: Summary

Time Segment	Calculated Flow Entering LTS (PCU/hr)	Flow Discrepancy (PCU/hr)	Adjusted Flow Warning	Calculated Sat Flow (PCU/hr)	Calculated Capacity (PCU/hr)	Degree Of Saturation (%)	DOS Threshold Exceeded	Practical Reserve Capacity (%)	Actual Green (s (per cycle))	Effective Green (s (per cycle))	Cost Of Penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	2310	0		0	0	58		56	624.00	630.00	0.00	74.07

Network Results: Stops And Delays

Time Segment	Mean Cruise Time Per PCU (s)	Signalled LoS	Mean Delay Per PCU (s)	Uniform Delay (PCU-hr/hr)	Weighted Cost Of Delay (£ per hr)	Mean Stops Per PCU (%)	Uniform Stops (Stops per hr)	Random Stops (Stops per hr)	Weighted Cost Of Stops (£ per hr)
08:00-09:00	11.04	B	7.26	4.08	66.13	27.43	610.91	22.61	7.94

Network Results: Queues And Blocking

Time Segment	Mean Max Queue (PCU)	Max Queue Storage (PCU)	Average Link Excess Queue (PCU)	Average Limit Excess Queue (PCU)	Excess Queue Penalty (£ per hr)
08:00-09:00	0.00	142.61	0.00	0.00	0.00

Network Results: Journey Times

Time Segment	Distance Travelled (PCU-km/hr)	Time Spent (PCU-hr/hr)	Mean Journey Speed (kph)	Journey Time Per PCU (s)
08:00-09:00	212.46	11.74	18.10	18.29

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To			
		1	2	3	4
From	1	0.00	31.32	31.32	20.36
	2	51.07	0.00	51.07	51.07
	3	33.17	19.44	0.00	33.17
	4	60.40	0.00	60.40	0.00

Path Journey Time

Path	Avg Journey Time (s)	Normal Journey Time (s)	Bus Journey Time (s)	Tram Journey Time (s)
1	20.36	20.36	0.00	0.00
2	31.32	31.32	0.00	0.00
3	31.32	31.32	0.00	0.00
4	51.07	51.07	0.00	0.00
5	51.07	51.07	0.00	0.00
6	51.07	51.07	0.00	0.00
7	19.44	19.44	0.00	0.00
8	33.17	33.17	0.00	0.00
9	33.17	33.17	0.00	0.00
10	60.40	60.40	0.00	0.00
11	0.00	0.00	0.00	0.00
12	60.40	60.40	0.00	0.00

TRANSYT 14

Version: 14.1.2.315 [26-09-12]

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Last run: 04/12/2013 09:37:41
Analysis Set used for last run: A1 - (untitled)

Filename: J1 - 2018-Back+Comm+Dev-AM.t14
Path: S:\JPP\JPP Schemes R\R6694PP - Saffron Walden\Reports\TA\Junction Modelling\J1 - Radwinter_Elizabeth_TRANSYT 14 Report
Report generation date: 04/12/2013 09:38:27

File summary

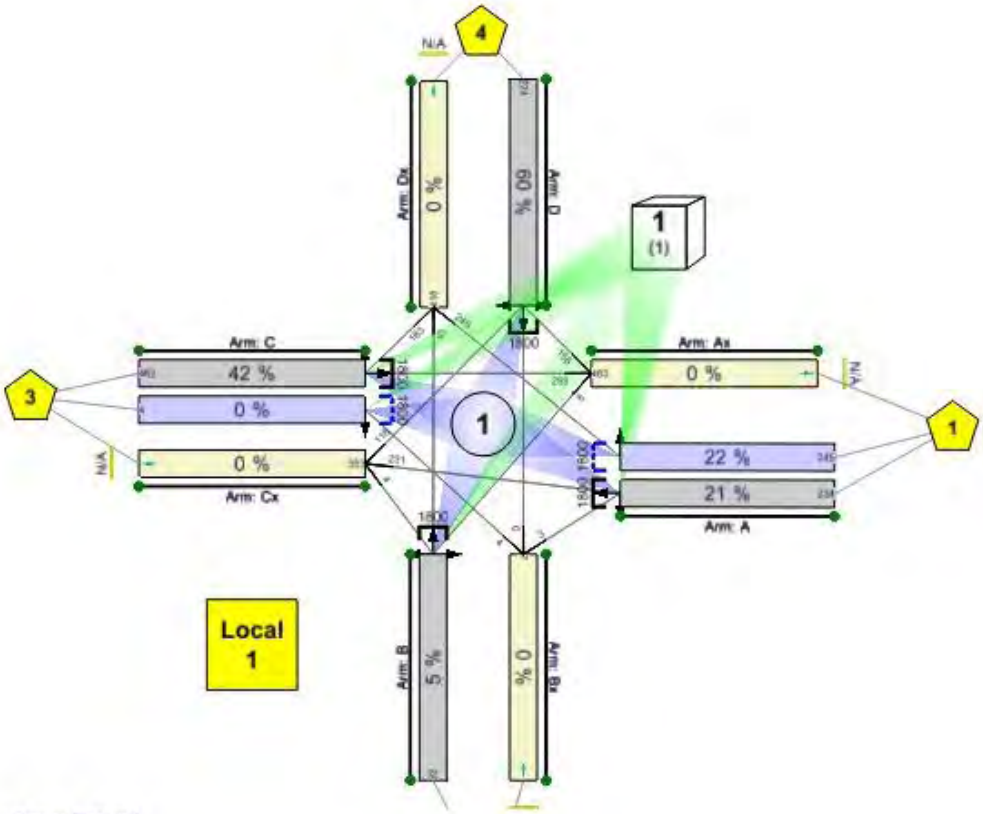
File Description

Title	(untitled)
Location	
Site Number	
UTCRegion	
Driving Side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CEDARBARN\MartinA
Description	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units
kph	m	mpg	l/h

Network Diagrams



Node Signals Cones Enabled
Node Traffic Cones Enabled

(untitled)
Cycletime 0s / 90s , Timesteps 0 / 90
Diagram produced using TRANSYT 14.1.2.315 Network Construction Editor

A1 - (untitled) : D1 - (untitled) *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	Network Within Capacity
08:00	90	5.27	59.57	D/1	0	0	✓

Analysis Set Details

Name	Description	Demand Set	Include In Report	Locked
(untitled)		D1	✓	

Demand Set Details

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked

(untitled)				08:00	

Network Options

Network Timings

Network Cycle Time (s)	Time Segment Length (min)
90	60

Signals Options

Start Displacement (s)	End Displacement (s)
2	3

Traffic Options

Traffic Model	Flow Scaling Factor (%)	Cruise Times Or Speeds
Quick PDM	100	Cruise Speeds

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level
✓	Hill Climb (Fast)	Offsets And Green Splits

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Traffic Nodes

Traffic Nodes

Traffic Node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic Node
A	(untitled)		1
B	(untitled)		1
C	(untitled)		1
D	(untitled)		1
Ax	(untitled)		
Bx	(untitled)		
Cx	(untitled)		
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Is Give Way	Traffic Type
A	1	(untitled)		100.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	A			Normal
A	2	(untitled)		10.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	A		✓	Normal

B	1	(untitled)		100.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	B			Normal
C	1	(untitled)		100.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	A			Normal
C	2	(untitled)		10.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	A		✓	Normal
D	1	(untitled)		100.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	B			Normal
Ax	1	(untitled)		100.00	[QuickPDM]		N/A	N/A		N/A	N/A			Normal
Bx	1	(untitled)		100.00	[QuickPDM]		N/A	N/A		N/A	N/A			Normal
Cx	1	(untitled)		100.00	[QuickPDM]		N/A	N/A		N/A	N/A			Normal
Dx	1	(untitled)		100.00	[QuickPDM]		N/A	N/A		N/A	N/A			Normal

Lanes

Arm	Traffic Stream	Lane	Name	Description	Saturation Flow (PCU/hr)
A	1	1	(untitled)		1800
A	2	1	(untitled)		1800
B	1	1	(untitled)		1800
C	1	1	(untitled)		1800
C	2	1	(untitled)		1800
D	1	1	(untitled)		1800
Ax	1	1	(untitled)		1800
Bx	1	1	(untitled)		1800
Cx	1	1	(untitled)		1800
Dx	1	1	(untitled)		1800

Modelling

Arm	Traffic Stream	Stop Weighting Multiplier (%)	Delay Weighting Multiplier (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit
A	1	100	100		0.00	
A	2	100	100		0.00	
B	1	100	100		0.00	
C	1	100	100		0.00	
C	2	100	100		0.00	
D	1	100	100		0.00	
Ax	1	100	100		0.00	
Bx	1	100	100		0.00	
Cx	1	100	100		0.00	
Dx	1	100	100		0.00	

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Calculated Cruise Speed (kph)
A	1	234	234	0	0	1.00
A	2	245	245	0	0	1.00
B	1	22	22	0	0	1.00
C	1	462	462	0	0	1.00
C	2	4	4	0	0	1.00
D	1	274	274	0	0	1.00
Ax	1	463	463	0	0	1.00
Bx	1	7	7	0	0	1.00
Cx	1	353	353	0	0	1.00
Dx	1	418	418	0	0	1.00

Normal - Modelling

Arm	Traffic Stream	Stop Weighting (%)	Delay Weighting (%)
A	1	100	100
A	2	100	100

B	1	100	100
C	1	100	100
C	2	100	100
D	1	100	100
Ax	1	100	100
Bx	1	100	100
Cx	1	100	100
Dx	1	100	100

Sources - default sources for entries

Arm	Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
A	1	12.00	30.00	Buses Not Permittted	Trams Not Permitted
A	2	1.20	30.00	Buses Not Permittted	Trams Not Permitted
B	1	12.00	30.00	Buses Not Permittted	Trams Not Permitted
C	1	12.00	30.00	Buses Not Permittted	Trams Not Permitted
C	2	1.20	30.00	Buses Not Permittted	Trams Not Permitted
D	1	12.00	30.00	Buses Not Permittted	Trams Not Permitted

Sources - sources for internals

Arm	Traffic Stream	Source	Source Type	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
Ax	1	1	TrafficStream	C/1	299	299	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Ax	1	2	TrafficStream	B/1	8	8	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Ax	1	3	TrafficStream	D/1	156	156	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Bx	1	1	TrafficStream	A/1	3	3	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Bx	1	2	TrafficStream	D/1	0	0	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Bx	1	3	TrafficStream	C/2	4	4	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Cx	1	1	TrafficStream	B/1	4	4	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Cx	1	2	TrafficStream	D/1	118	118	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Cx	1	3	TrafficStream	A/1	231	231	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Dx	1	1	TrafficStream	C/1	163	163	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Dx	1	2	TrafficStream	B/1	10	10	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Dx	1	3	TrafficStream	A/2	245	245	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted

Give Way Data

Arm	Traffic Stream	Opposed Traffic	Use Step-wise Opposed Turn Model
A	2	AllTraffic	
C	2	AllTraffic	

Flow Allocation Tool Tables - Local Matrix: 1

Normal Input Flows (PCU/hr)

		To			
		1	2	3	4
From	1	0	3	231	245
	2	8	0	4	10
	3	299	4	0	163
	4	156	0	118	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Locations

Local Matrix	Location	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1	1	(untitled)	A/2,A/1	Ax/1	479	479	0	0	463	463	0	0
1	2	(untitled)	B/1	Bx/1	22	22	0	0	7	7	0	0
1	3	(untitled)	C/2,C/1	Cx/1	466	466	0	0	353	353	0	0
1	4	(untitled)	D/1	Dx/1	274	274	0	0	418	418	0	0

Paths

Local Matrix	Path	Description	Path Items	Calculated Total Flow (PCU/hr)
1	1		A/2,Dx/1	245
1	2		A/1,Bx/1	3
1	3		A/1,Cx/1	231
1	4		B/1,Dx/1	10
1	5		B/1,Ax/1	8
1	6		B/1,Cx/1	4
1	7		C/2,Bx/1	4
1	8		C/1,Dx/1	163
1	9		C/1,Ax/1	299
1	10		D/1,Ax/1	156
1	11		D/1,Bx/1	0
1	12		D/1,Cx/1	118

Normal Path Flows

Local Matrix	Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	1	✓	Normal	N/A	N/A	245
1	2	✓	Normal	N/A	N/A	3
1	3	✓	Normal	N/A	N/A	231
1	4	✓	Normal	N/A	N/A	10
1	5	✓	Normal	N/A	N/A	8
1	6	✓	Normal	N/A	N/A	4
1	7	✓	Normal	N/A	N/A	4
1	8	✓	Normal	N/A	N/A	163
1	9	✓	Normal	N/A	N/A	299
1	10	✓	Normal	N/A	N/A	156
1	11	✓	Normal	N/A	N/A	0
1	12	✓	Normal	N/A	N/A	118

Signal Timings

90s cycle time; 90 steps

Controller Stream

Controller Stream	Name	Description	Multiple Cycling	Auto Redistribute	Use Sequence
1	(untitled)		Single	✓	1

Phases

Controller Stream	Phase	Name	Minimum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)
1	A	(untitled)	7	0	0
1	B	(untitled)	7	0	0

Library Stages

Controller Stream	Library Stage	Phases In Stage	User Stage Minimum (s)
1	1	A	1
1	2	B	1

Stage Sequences

Controller Stream	Stage Sequence	Name	Stage IDs	Multiple Cycling Stage IDs
1	1	(untitled)	1,2	

Resultant Stages

Controller Stream	Stage	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	✓	1	A	81	45	54	1	7
1	2	✓	2	B	52	74	22	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	✓	81	45	54
1	B	1	✓	52	74	22

Intergreen Matrix for Controller Stream 1

		To	
		A	B
From	A	-	7
	B	7	-

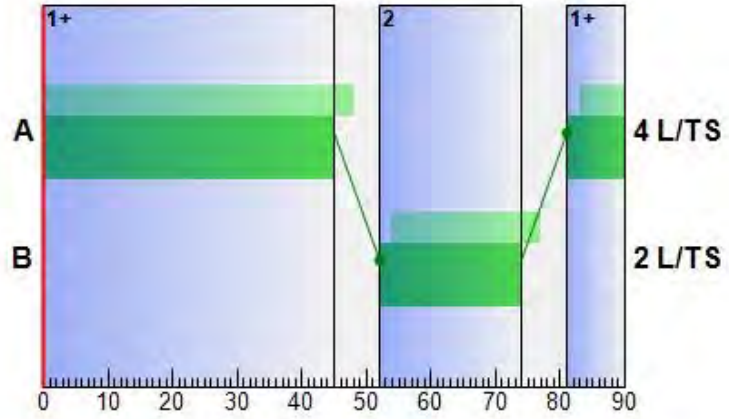
Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	-	7
	2	7	-

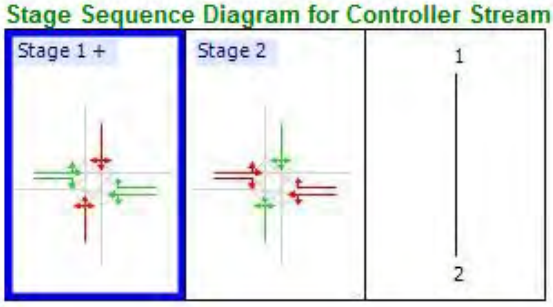
Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1	-	
	2		-

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 12 Tables

Resultant Stages

Controller Stream	Stage	Is Base Stage	Library Stage ID	Phases In This Stage
1	1	✓	1	A
1	2	✓	2	B

Signals

Controller Stream	Stage	Is Base Stage	Library Stage ID	Phases In This Stage	TRANSYT Stage Start (s)	TRANSYT Preceding Interstage (s)	TRANSYT Stage Minimum (s)
1	1	✓	1	A	74	7	14
1	2	✓	2	B	45	7	14

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	TRANSYT Starting Stage (s)	TRANSYT Ending Stage (s)	TRANSYT Start Lag (s)	TRANSYT End Lag (s)
1	A	1	1	2	7	0
1	B	1	2	1	7	0

Stage Timings (TRANSYT 12 timings)

90s cycle time; 90 steps

Controller Stream	Number of Stages	Stage 1	Stage 2
1	2	74	45

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Amber	Green Period 1			Green Period 2			Green Period 3			Green Period 4		
						Start	End	Duration	Start	End	Duration	Start	End	Duration	Start	End	Duration

A	1	1	1	A	0	81	45	54								
A	2	1	1	A	0	81	45	54								
B	1	1	1	B	0	52	74	22								
C	1	1	1	A	0	81	45	54								
C	2	1	1	A	0	81	45	54								
D	1	1	1	B	0	52	74	22								

Data Entry: Traffic Stream

Traffic Stream

Arm	Traffic Stream	Length (m)	Max Queue Storage (PCU)	Normal Cruise Speed (kph)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Delay Weighting (%)	Stop Weighting (%)
A	1	100.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
A	2	10.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
B	1	100.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
C	1	100.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
C	2	10.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
D	1	100.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
Ax	1	100.00	0.00	N/A	[QuickPDM]		N/A	N/A	100	100
Bx	1	100.00	0.00	N/A	[QuickPDM]		N/A	N/A	100	100
Cx	1	100.00	0.00	N/A	[QuickPDM]		N/A	N/A	100	100
Dx	1	100.00	0.00	N/A	[QuickPDM]		N/A	N/A	100	100

Results: Traffic Stream

Results: Traffic Stream: Summary

Time Segment	Arm	Traffic Stream	Name	Phase	Phase2	Calculated Flow Entering LTS (PCU/hr)	Calculated Sat Flow (PCU/hr)	Actual Green (s (per cycle))	Wasted Time Blocking Back (s (per cycle))	Calculated Capacity (PCU/hr)	Degree Of Saturation (%)	Practical Reserve Capacity (%)	Mean Max Queue (PCU)	Max End Of Red Queue (PCU)	Mean Delay Per PCU (s)
08:00-09:00	A	1	(untitled)	A	N/A	234	1800	54.00	0.00	1100	21	323	2.63	2.30	8.27
08:00-09:00	A	2	(untitled)	A	N/A	245	1800	54.00	0.00	1100	22	304	2.75	2.41	8.36
08:00-09:00	B	1	(untitled)	B	N/A	22	1800	22.00	0.00	460	5	1782	0.41	0.41	25.51
08:00-09:00	C	1	(untitled)	A	N/A	462	1800	54.00	0.00	1100	42	114	6.18	4.64	10.34
08:00-09:00	C	2	(untitled)	A	N/A	4	1800	54.00	0.00	1100	0	24650	0.04	0.04	7.01
08:00-09:00	D	1	(untitled)	B	N/A	274	1800	22.00	0.00	460	60	51	6.45	5.53	35.12
08:00-09:00	Ax	1	(untitled)	N/A	N/A	463	Unrestricted	90.00	0.00	Unrestricted	0	Unrestricted	0.00	N/A	0.00
08:00-09:00	Bx	1	(untitled)	N/A	N/A	7	Unrestricted	90.00	0.00	Unrestricted	0	Unrestricted	0.00	N/A	0.00
08:00-09:00	Cx	1	(untitled)	N/A	N/A	353	Unrestricted	90.00	0.00	Unrestricted	0	Unrestricted	0.00	N/A	0.00
08:00-09:00	Dx	1	(untitled)	N/A	N/A	418	Unrestricted	90.00	0.00	Unrestricted	0	Unrestricted	0.00	N/A	0.00

Results: Link

Data Entry: Signal Timings

Green Period

Controller Stream	Phase	Green Period	Start Time (s)	End Time (s)	Duration (s)	Minimum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)
1	A	1	81	45	54	7	0	0
1	B	1	52	74	22	7	0	0

Traffic Stream Results

Traffic Stream Results: Summary

Time Segment	Arm	Traffic Stream	Calculated Flow Entering LTS (PCU/hr)	Flow Discrepancy (PCU/hr)	Adjusted Flow Warning	Calculated Sat Flow (PCU/hr)	Calculated Capacity (PCU/hr)	Degree Of Saturation (%)	DOS Threshold Exceeded	Practical Reserve Capacity (%)	Actual Green (s (per cycle))	Effective Green (s (per cycle))	Cost Of Penalties (£ per hr)	Perfo Index
08:00-09:00	A	1	234	0		1800	1100	21		323	54.00	55.00	0.00	8.
08:00-09:00	A	2	245	0		1800	1100	22		304	54.00	55.00	0.00	9.
08:00-09:00	B	1	22	0		1800	460	5		1782	22.00	23.00	0.00	2.
08:00-09:00	C	1	462	0		1800	1100	42		114	54.00	55.00	0.00	21
08:00-09:00	C	2	4	0		1800	1100	0		24650	54.00	55.00	0.00	0.
08:00-09:00	D	1	274	0		1800	460	60		51	22.00	23.00	0.00	41
08:00-09:00	Ax	1	463	0		Unrestricted	Unrestricted	0		Unrestricted	90.00	90.00	0.00	0.
08:00-09:00	Bx	1	7	0		Unrestricted	Unrestricted	0		Unrestricted	90.00	90.00	0.00	0.
08:00-09:00	Cx	1	353	0		Unrestricted	Unrestricted	0		Unrestricted	90.00	90.00	0.00	0.
08:00-09:00	Dx	1	418	0		Unrestricted	Unrestricted	0		Unrestricted	90.00	90.00	0.00	0.

Traffic Stream Results: Stops And Delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time Per PCU (s)	Signalled LoS	Mean Delay Per PCU (s)	Uniform Delay (PCU-hr/hr)	Weighted Cost Of Delay (£ per hr)	Mean Stops Per PCU (%)	Uniform Stops (Stops per hr)	Random Stops (Stops per hr)	Weighted Cost Of Stops (£ per hr)
08:00-09:00	A	1	12.00	A	8.27	0.51	7.63	43.21	99.97	1.15	1.27
08:00-09:00	A	2	1.20	A	8.36	0.54	8.07	43.46	105.21	1.27	1.34
08:00-09:00	B	1	12.00	C	25.51	0.15	2.21	73.35	16.09	0.05	0.20
08:00-09:00	C	1	12.00	B	10.34	1.18	18.84	51.02	229.64	6.05	2.96
08:00-09:00	C	2	1.20	A	7.01	0.01	0.11	37.58	1.50	0.00	0.02
08:00-09:00	D	1	12.00	D	35.12	2.24	37.96	91.64	234.00	17.09	3.15
08:00-09:00	Ax	1	12.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08:00-09:00	Bx	1	12.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

08:00-09:00	Cx	1	12.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08:00-09:00	Dx	1	12.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues And Blocking

Time Segment	Arm	Traffic Stream	Mean Max Queue (PCU)	Max Queue Storage (PCU)	Average Link Excess Queue (PCU)	Average Limit Excess Queue (PCU)	Excess Queue Penalty (£ per hr)
08:00-09:00	A	1	2.63	17.39	0.00	0.00	0.00
08:00-09:00	A	2	2.75	1.74	0.09	0.00	0.00
08:00-09:00	B	1	0.41	17.39	0.00	0.00	0.00
08:00-09:00	C	1	6.18	17.39	0.00	0.00	0.00
08:00-09:00	C	2	0.04	1.74	0.00	0.00	0.00
08:00-09:00	D	1	6.45	17.39	0.00	0.00	0.00
08:00-09:00	Ax	1	0.00	17.39	0.00	0.00	0.00
08:00-09:00	Bx	1	0.00	17.39	0.00	0.00	0.00
08:00-09:00	Cx	1	0.00	17.39	0.00	0.00	0.00
08:00-09:00	Dx	1	0.00	17.39	0.00	0.00	0.00

Traffic Stream Results: Journey Times

Time Segment	Arm	Traffic Stream	Distance Travelled (PCU-km/hr)	Time Spent (PCU-hr/hr)	Mean Journey Speed (kph)	Journey Time Per PCU (s)
08:00-09:00	A	1	23.40	1.32	17.76	20.27
08:00-09:00	A	2	2.45	0.65	3.77	9.56
08:00-09:00	B	1	2.20	0.23	9.60	37.51
08:00-09:00	C	1	46.20	2.87	16.11	22.34
08:00-09:00	C	2	0.04	0.01	4.39	8.21
08:00-09:00	D	1	27.40	3.59	7.64	47.12
08:00-09:00	Ax	1	46.30	1.54	30.00	12.00
08:00-09:00	Bx	1	0.70	0.02	30.00	12.00
08:00-09:00	Cx	1	35.30	1.18	30.00	12.00
08:00-09:00	Dx	1	41.80	1.39	30.00	12.00

Network Results

Run Summary

Time Segment	Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	Network Within Capacity
08:00-09:00	08:00	90	5.27	59.57	D/1	0	0	✓

Network Results: Summary

Time Segment	Calculated Flow Entering LTS (PCU/hr)	Flow Discrepancy (PCU/hr)	Adjusted Flow Warning	Calculated Sat Flow (PCU/hr)	Calculated Capacity (PCU/hr)	Degree Of Saturation (%)	DOS Threshold Exceeded	Practical Reserve Capacity (%)	Actual Green (s (per cycle))	Effective Green (s (per cycle))	Cost Of Penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	2482	0		0	0	60		51	620.00	626.00	0.00	83.76

Network Results: Stops And Delays

Time Segment	Mean Cruise Time Per PCU (s)	Signalled LoS	Mean Delay Per PCU (s)	Uniform Delay (PCU-hr/hr)	Weighted Cost Of Delay (£ per hr)	Mean Stops Per PCU (%)	Uniform Stops (Stops per hr)	Random Stops (Stops per hr)	Weighted Cost Of Stops (£ per hr)
08:00-09:00	10.92	B	7.64	4.62	74.83	28.69	686.41	25.61	8.93

Network Results: Queues And Blocking

Time Segment	Mean Max Queue (PCU)	Max Queue Storage (PCU)	Average Link Excess Queue (PCU)	Average Limit Excess Queue (PCU)	Excess Queue Penalty (£ per hr)
08:00-09:00	0.00	142.61	0.00	0.00	0.00

Network Results: Journey Times

Time Segment	Distance Travelled (PCU-km/hr)	Time Spent (PCU-hr/hr)	Mean Journey Speed (kph)	Journey Time Per PCU (s)
08:00-09:00	225.79	12.80	17.65	18.56

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To			
		1	2	3	4
From	1	0.00	32.27	32.27	21.56
	2	49.51	0.00	49.51	49.51
	3	34.34	20.21	0.00	34.34
	4	59.12	0.00	59.12	0.00

Path Journey Time

Path	Avg Journey Time (s)	Normal Journey Time (s)	Bus Journey Time (s)	Tram Journey Time (s)
1	21.56	21.56	0.00	0.00
2	32.27	32.27	0.00	0.00
3	32.27	32.27	0.00	0.00
4	49.51	49.51	0.00	0.00
5	49.51	49.51	0.00	0.00
6	49.51	49.51	0.00	0.00
7	20.21	20.21	0.00	0.00
8	34.34	34.34	0.00	0.00
9	34.34	34.34	0.00	0.00
10	59.12	59.12	0.00	0.00
11	0.00	0.00	0.00	0.00
12	59.12	59.12	0.00	0.00

TRANSYT 14

Last run: 03/12/2013 09:21:58
Analysis Set used for last run: A1 - (untitled)

Filename: J1 - 2018-Back+Comm-PM.t14
Path: S:\JPP\JPP Schemes R\R6694PP - Saffron Walden\Reports\TA\Junction Modelling\J1 - Radwinter_Elizabeth_TRANSYT 14 Report
Report generation date: 03/12/2013 09:39:15

File summary

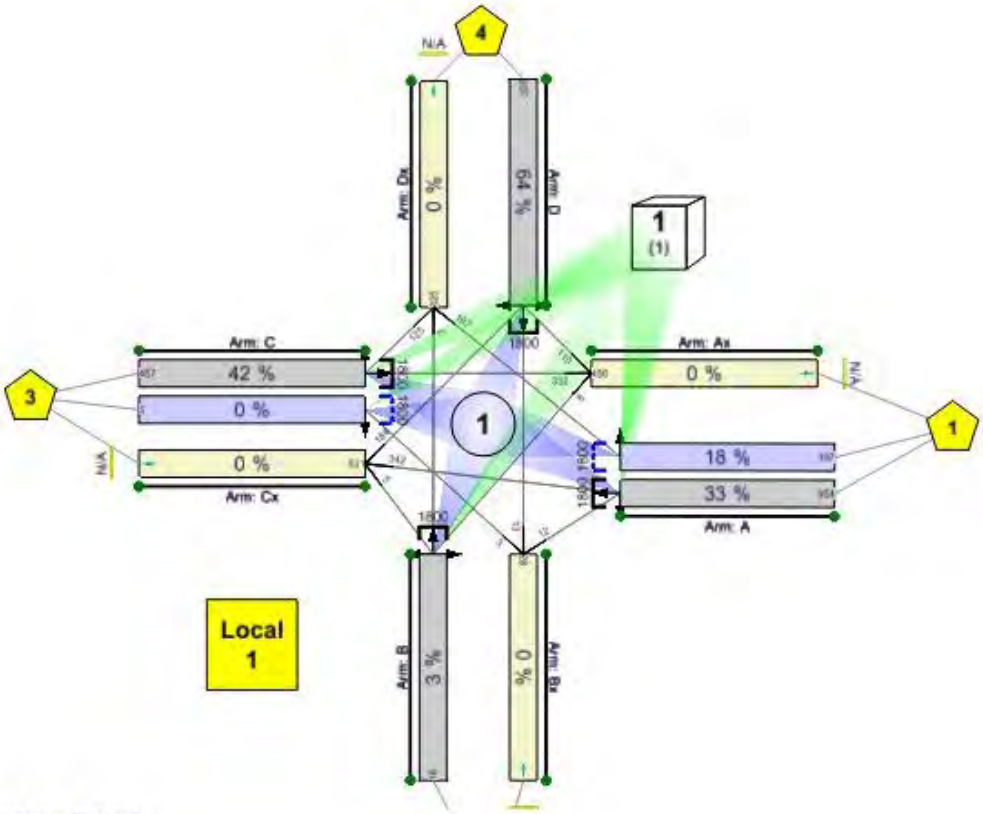
File Description

Title	(untitled)
Location	
Site Number	
UTCRegion	
Driving Side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CEDARBARN\MartinA
Description	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units
kph	m	mpg	l/h

Network Diagrams



Node Signals Cones Enabled
Node Traffic Cones Enabled

(untitled)
Cycletime 0s / 90s , Timesteps 0 / 90
Diagram produced using TRANSYT 14.1.2.315 Network Construction Editor

A1 - (untitled) : D1 - (untitled) *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	Network Within Capacity
08:00	90	5.97	63.96	D/1	0	0	✓

Analysis Set Details

Name	Description	Demand Set	Include In Report	Locked
(untitled)		D1	✓	

Demand Set Details

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked

(untitled)				08:00	

Network Options

Network Timings

Network Cycle Time (s)	Time Segment Length (min)
90	60

Signals Options

Start Displacement (s)	End Displacement (s)
2	3

Traffic Options

Traffic Model	Flow Scaling Factor (%)	Cruise Times Or Speeds
Quick PDM	100	Cruise Speeds

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level
✓	Hill Climb (Fast)	Offsets And Green Splits

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Traffic Nodes

Traffic Nodes

Traffic Node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic Node
A	(untitled)		1
B	(untitled)		1
C	(untitled)		1
D	(untitled)		1
Ax	(untitled)		
Bx	(untitled)		
Cx	(untitled)		
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Is Give Way	Traffic Type
A	1	(untitled)		100.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	A			Normal
A	2	(untitled)		10.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	A		✓	Normal

B	1	(untitled)		100.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	B			Normal
C	1	(untitled)		100.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	A			Normal
C	2	(untitled)		10.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	A		✓	Normal
D	1	(untitled)		100.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	B			Normal
Ax	1	(untitled)		100.00	[QuickPDM]		N/A	N/A		N/A	N/A			Normal
Bx	1	(untitled)		100.00	[QuickPDM]		N/A	N/A		N/A	N/A			Normal
Cx	1	(untitled)		100.00	[QuickPDM]		N/A	N/A		N/A	N/A			Normal
Dx	1	(untitled)		100.00	[QuickPDM]		N/A	N/A		N/A	N/A			Normal

Lanes

Arm	Traffic Stream	Lane	Name	Description	Saturation Flow (PCU/hr)
A	1	1	(untitled)		1800
A	2	1	(untitled)		1800
B	1	1	(untitled)		1800
C	1	1	(untitled)		1800
C	2	1	(untitled)		1800
D	1	1	(untitled)		1800
Ax	1	1	(untitled)		1800
Bx	1	1	(untitled)		1800
Cx	1	1	(untitled)		1800
Dx	1	1	(untitled)		1800

Modelling

Arm	Traffic Stream	Stop Weighting Multiplier (%)	Delay Weighting Multiplier (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit
A	1	100	100		0.00	
A	2	100	100		0.00	
B	1	100	100		0.00	
C	1	100	100		0.00	
C	2	100	100		0.00	
D	1	100	100		0.00	
Ax	1	100	100		0.00	
Bx	1	100	100		0.00	
Cx	1	100	100		0.00	
Dx	1	100	100		0.00	

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Calculated Cruise Speed (kph)
A	1	354	354	0	0	1.00
A	2	197	197	0	0	1.00
B	1	16	16	0	0	1.00
C	1	457	457	0	0	1.00
C	2	3	3	0	0	1.00
D	1	307	307	0	0	1.00
Ax	1	450	450	0	0	1.00
Bx	1	28	28	0	0	1.00
Cx	1	531	531	0	0	1.00
Dx	1	325	325	0	0	1.00

Normal - Modelling

Arm	Traffic Stream	Stop Weighting (%)	Delay Weighting (%)
A	1	100	100
A	2	100	100

B	1	100	100
C	1	100	100
C	2	100	100
D	1	100	100
Ax	1	100	100
Bx	1	100	100
Cx	1	100	100
Dx	1	100	100

Sources - default sources for entries

Arm	Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
A	1	12.00	30.00	Buses Not Permittted	Trams Not Permitted
A	2	1.20	30.00	Buses Not Permittted	Trams Not Permitted
B	1	12.00	30.00	Buses Not Permittted	Trams Not Permitted
C	1	12.00	30.00	Buses Not Permittted	Trams Not Permitted
C	2	1.20	30.00	Buses Not Permittted	Trams Not Permitted
D	1	12.00	30.00	Buses Not Permittted	Trams Not Permitted

Sources - sources for internals

Arm	Traffic Stream	Source	Source Type	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
Ax	1	1	TrafficStream	C/1	332	332	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Ax	1	2	TrafficStream	B/1	8	8	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Ax	1	3	TrafficStream	D/1	110	110	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Bx	1	1	TrafficStream	A/1	12	12	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Bx	1	2	TrafficStream	D/1	13	13	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Bx	1	3	TrafficStream	C/2	3	3	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Cx	1	1	TrafficStream	B/1	5	5	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Cx	1	2	TrafficStream	D/1	184	184	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Cx	1	3	TrafficStream	A/1	342	342	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Dx	1	1	TrafficStream	C/1	125	125	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Dx	1	2	TrafficStream	B/1	3	3	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Dx	1	3	TrafficStream	A/2	197	197	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted

Give Way Data

Arm	Traffic Stream	Opposed Traffic	Use Step-wise Opposed Turn Model
A	2	AllTraffic	
C	2	AllTraffic	

Flow Allocation Tool Tables - Local Matrix: 1

Normal Input Flows (PCU/hr)

		To			
		1	2	3	4
From	1	0	12	342	197
	2	8	0	5	3
	3	332	3	0	125
	4	110	13	184	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Locations

Local Matrix	Location	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1	1	(untitled)	A/2,A/1	Ax/1	551	551	0	0	450	450	0	0
1	2	(untitled)	B/1	Bx/1	16	16	0	0	28	28	0	0
1	3	(untitled)	C/2,C/1	Cx/1	460	460	0	0	531	531	0	0
1	4	(untitled)	D/1	Dx/1	307	307	0	0	325	325	0	0

Paths

Local Matrix	Path	Description	Path Items	Calculated Total Flow (PCU/hr)
1	1		A/2,Dx/1	197
1	2		A/1,Bx/1	12
1	3		A/1,Cx/1	342
1	4		B/1,Dx/1	3
1	5		B/1,Ax/1	8
1	6		B/1,Cx/1	5
1	7		C/2,Bx/1	3
1	8		C/1,Dx/1	125
1	9		C/1,Ax/1	332
1	10		D/1,Ax/1	110
1	11		D/1,Bx/1	13
1	12		D/1,Cx/1	184

Normal Path Flows

Local Matrix	Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	1	✓	Normal	N/A	N/A	197
1	2	✓	Normal	N/A	N/A	12
1	3	✓	Normal	N/A	N/A	342
1	4	✓	Normal	N/A	N/A	3
1	5	✓	Normal	N/A	N/A	8
1	6	✓	Normal	N/A	N/A	5
1	7	✓	Normal	N/A	N/A	3
1	8	✓	Normal	N/A	N/A	125
1	9	✓	Normal	N/A	N/A	332
1	10	✓	Normal	N/A	N/A	110
1	11	✓	Normal	N/A	N/A	13
1	12	✓	Normal	N/A	N/A	184

Signal Timings

90s cycle time; 90 steps

Controller Stream

Controller Stream	Name	Description	Multiple Cycling	Auto Redistribute	Use Sequence
1	(untitled)		Single	✓	1

Phases

Controller Stream	Phase	Name	Minimum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)
1	A	(untitled)	7	0	0
1	B	(untitled)	7	0	0

Library Stages

Controller Stream	Library Stage	Phases In Stage	User Stage Minimum (s)
1	1	A	1
1	2	B	1

Stage Sequences

Controller Stream	Stage Sequence	Name	Stage IDs	Multiple Cycling Stage IDs
1	1	(untitled)	1,2	

Resultant Stages

Controller Stream	Stage	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	✓	1	A	82	45	53	1	7
1	2	✓	2	B	52	75	23	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	✓	82	45	53
1	B	1	✓	52	75	23

Intergreen Matrix for Controller Stream 1

		To	
		A	B
From	A	-	7
	B	7	-

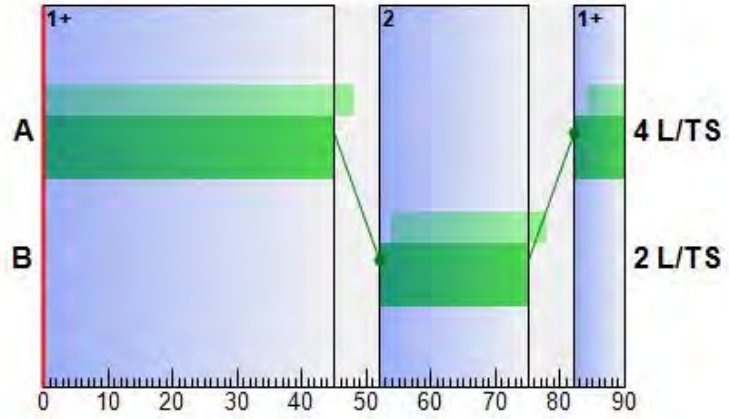
Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	-	7
	2	7	-

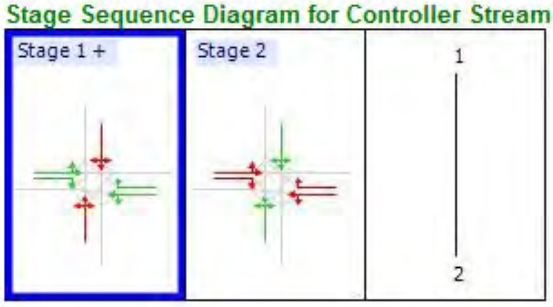
Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1	-	
	2		-

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 12 Tables

Resultant Stages

Controller Stream	Stage	Is Base Stage	Library Stage ID	Phases In This Stage
1	1	✓	1	A
1	2	✓	2	B

Signals

Controller Stream	Stage	Is Base Stage	Library Stage ID	Phases In This Stage	TRANSYT Stage Start (s)	TRANSYT Preceding Interstage (s)	TRANSYT Stage Minimum (s)
1	1	✓	1	A	75	7	14
1	2	✓	2	B	45	7	14

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	TRANSYT Starting Stage (s)	TRANSYT Ending Stage (s)	TRANSYT Start Lag (s)	TRANSYT End Lag (s)
1	A	1	1	2	7	0
1	B	1	2	1	7	0

Stage Timings (TRANSYT 12 timings)

90s cycle time; 90 steps

Controller Stream	Number of Stages	Stage 1	Stage 2
1	2	75	45

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Amber	Green Period 1			Green Period 2			Green Period 3			Green Period 4		
						Start	End	Duration	Start	End	Duration	Start	End	Duration	Start	End	Duration

A	1	1	1	A	0	82	45	53								
A	2	1	1	A	0	82	45	53								
B	1	1	1	B	0	52	75	23								
C	1	1	1	A	0	82	45	53								
C	2	1	1	A	0	82	45	53								
D	1	1	1	B	0	52	75	23								

Data Entry: Traffic Stream

Traffic Stream

Arm	Traffic Stream	Length (m)	Max Queue Storage (PCU)	Normal Cruise Speed (kph)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Delay Weighting (%)	Stop Weighting (%)
A	1	100.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
A	2	10.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
B	1	100.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
C	1	100.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
C	2	10.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
D	1	100.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
Ax	1	100.00	0.00	N/A	[QuickPDM]		N/A	N/A	100	100
Bx	1	100.00	0.00	N/A	[QuickPDM]		N/A	N/A	100	100
Cx	1	100.00	0.00	N/A	[QuickPDM]		N/A	N/A	100	100
Dx	1	100.00	0.00	N/A	[QuickPDM]		N/A	N/A	100	100

Results: Traffic Stream

Results: Traffic Stream: Summary

Time Segment	Arm	Traffic Stream	Name	Phase	Phase2	Calculated Flow Entering LTS (PCU/hr)	Calculated Sat Flow (PCU/hr)	Actual Green (s (per cycle))	Wasted Time Blocking Back (s (per cycle))	Calculated Capacity (PCU/hr)	Degree Of Saturation (%)	Practical Reserve Capacity (%)	Mean Max Queue (PCU)	Max End Of Red Queue (PCU)	Mean Delay Per PCU (s)
08:00-09:00	A	1	(untitled)	A	N/A	354	1800	53.00	0.00	1080	33	175	4.41	3.62	9.78
08:00-09:00	A	2	(untitled)	A	N/A	197	1800	53.00	0.00	1080	18	393	2.21	1.99	8.47
08:00-09:00	B	1	(untitled)	B	N/A	16	1800	23.00	0.00	480	3	2600	0.29	0.29	24.70
08:00-09:00	C	1	(untitled)	A	N/A	457	1800	53.00	0.00	1080	42	113	6.25	4.72	10.87
08:00-09:00	C	2	(untitled)	A	N/A	3	1800	53.00	0.00	1080	0	32300	0.03	0.03	7.40
08:00-09:00	D	1	(untitled)	B	N/A	307	1800	23.00	0.00	480	64	41	7.30	6.19	35.75
08:00-09:00	Ax	1	(untitled)	N/A	N/A	450	Unrestricted	90.00	0.00	Unrestricted	0	Unrestricted	0.00	N/A	0.00
08:00-09:00	Bx	1	(untitled)	N/A	N/A	28	Unrestricted	90.00	0.00	Unrestricted	0	Unrestricted	0.00	N/A	0.00
08:00-09:00	Cx	1	(untitled)	N/A	N/A	531	Unrestricted	90.00	0.00	Unrestricted	0	Unrestricted	0.00	N/A	0.00
08:00-09:00	Dx	1	(untitled)	N/A	N/A	325	Unrestricted	90.00	0.00	Unrestricted	0	Unrestricted	0.00	N/A	0.00

Results: Link

Data Entry: Signal Timings

Green Period

Controller Stream	Phase	Green Period	Start Time (s)	End Time (s)	Duration (s)	Minimum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)
1	A	1	82	45	53	7	0	0
1	B	1	52	75	23	7	0	0

Traffic Stream Results

Traffic Stream Results: Summary

Time Segment	Arm	Traffic Stream	Calculated Flow Entering LTS (PCU/hr)	Flow Discrepancy (PCU/hr)	Adjusted Flow Warning	Calculated Sat Flow (PCU/hr)	Calculated Capacity (PCU/hr)	Degree Of Saturation (%)	DOS Threshold Exceeded	Practical Reserve Capacity (%)	Actual Green (s (per cycle))	Effective Green (s (per cycle))	Cost Of Penalties (£ per hr)	Perfo Index h
08:00-09:00	A	1	354	0		1800	1080	33		175	53.00	54.00	0.00	15
08:00-09:00	A	2	197	0		1800	1080	18		393	53.00	54.00	0.00	7.
08:00-09:00	B	1	16	0		1800	480	3		2600	23.00	24.00	0.00	1.
08:00-09:00	C	1	457	0		1800	1080	42		113	53.00	54.00	0.00	22
08:00-09:00	C	2	3	0		1800	1080	0		32300	53.00	54.00	0.00	0.
08:00-09:00	D	1	307	0		1800	480	64		41	23.00	24.00	0.00	46
08:00-09:00	Ax	1	450	0		Unrestricted	Unrestricted	0		Unrestricted	90.00	90.00	0.00	0.
08:00-09:00	Bx	1	28	0		Unrestricted	Unrestricted	0		Unrestricted	90.00	90.00	0.00	0.
08:00-09:00	Cx	1	531	0		Unrestricted	Unrestricted	0		Unrestricted	90.00	90.00	0.00	0.
08:00-09:00	Dx	1	325	0		Unrestricted	Unrestricted	0		Unrestricted	90.00	90.00	0.00	0.

Traffic Stream Results: Stops And Delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time Per PCU (s)	Signalled LoS	Mean Delay Per PCU (s)	Uniform Delay (PCU-hr/hr)	Weighted Cost Of Delay (£ per hr)	Mean Stops Per PCU (%)	Uniform Stops (Stops per hr)	Random Stops (Stops per hr)	Weighted Cost Of Stops (£ per hr)
08:00-09:00	A	1	12.00	A	9.78	0.88	13.65	48.28	167.71	3.19	2.14
08:00-09:00	A	2	1.20	A	8.47	0.44	6.58	43.37	84.62	0.81	1.07
08:00-09:00	B	1	12.00	C	24.70	0.11	1.56	72.16	11.52	0.02	0.14
08:00-09:00	C	1	12.00	B	10.87	1.23	19.60	52.52	233.84	6.18	3.01
08:00-09:00	C	2	1.20	A	7.40	0.01	0.09	38.69	1.16	0.00	0.01
08:00-09:00	D	1	12.00	D	35.75	2.49	43.29	93.38	264.69	21.99	3.59
08:00-09:00	Ax	1	12.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08:00-09:00	Bx	1	12.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

08:00-09:00	Cx	1	12.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08:00-09:00	Dx	1	12.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues And Blocking

Time Segment	Arm	Traffic Stream	Mean Max Queue (PCU)	Max Queue Storage (PCU)	Average Link Excess Queue (PCU)	Average Limit Excess Queue (PCU)	Excess Queue Penalty (£ per hr)
08:00-09:00	A	1	4.41	17.39	0.00	0.00	0.00
08:00-09:00	A	2	2.21	1.74	0.03	0.00	0.00
08:00-09:00	B	1	0.29	17.39	0.00	0.00	0.00
08:00-09:00	C	1	6.25	17.39	0.00	0.00	0.00
08:00-09:00	C	2	0.03	1.74	0.00	0.00	0.00
08:00-09:00	D	1	7.30	17.39	0.00	0.00	0.00
08:00-09:00	Ax	1	0.00	17.39	0.00	0.00	0.00
08:00-09:00	Bx	1	0.00	17.39	0.00	0.00	0.00
08:00-09:00	Cx	1	0.00	17.39	0.00	0.00	0.00
08:00-09:00	Dx	1	0.00	17.39	0.00	0.00	0.00

Traffic Stream Results: Journey Times

Time Segment	Arm	Traffic Stream	Distance Travelled (PCU-km/hr)	Time Spent (PCU-hr/hr)	Mean Journey Speed (kph)	Journey Time Per PCU (s)
08:00-09:00	A	1	35.40	2.14	16.53	21.78
08:00-09:00	A	2	1.97	0.53	3.72	9.67
08:00-09:00	B	1	1.60	0.16	9.81	36.70
08:00-09:00	C	1	45.70	2.90	15.74	22.87
08:00-09:00	C	2	0.03	0.01	4.18	8.60
08:00-09:00	D	1	30.70	4.07	7.54	47.75
08:00-09:00	Ax	1	45.00	1.50	30.00	12.00
08:00-09:00	Bx	1	2.80	0.09	30.00	12.00
08:00-09:00	Cx	1	53.10	1.77	30.00	12.00
08:00-09:00	Dx	1	32.50	1.08	30.00	12.00

Network Results

Run Summary

Time Segment	Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	Network Within Capacity
08:00-09:00	08:00	90	5.97	63.96	D/1	0	0	✓

Network Results: Summary

Time Segment	Calculated Flow Entering LTS (PCU/hr)	Flow Discrepancy (PCU/hr)	Adjusted Flow Warning	Calculated Sat Flow (PCU/hr)	Calculated Capacity (PCU/hr)	Degree Of Saturation (%)	DOS Threshold Exceeded	Practical Reserve Capacity (%)	Actual Green (s (per cycle))	Effective Green (s (per cycle))	Cost Of Penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	2668	0		0	0	64		41	618.00	624.00	0.00	94.74

Network Results: Stops And Delays

Time Segment	Mean Cruise Time Per PCU (s)	Signalled LoS	Mean Delay Per PCU (s)	Uniform Delay (PCU-hr/hr)	Weighted Cost Of Delay (£ per hr)	Mean Stops Per PCU (%)	Uniform Stops (Stops per hr)	Random Stops (Stops per hr)	Weighted Cost Of Stops (£ per hr)
08:00-09:00	11.19	B	8.05	5.15	84.77	29.83	763.56	32.18	9.98

Network Results: Queues And Blocking

Time Segment	Mean Max Queue (PCU)	Max Queue Storage (PCU)	Average Link Excess Queue (PCU)	Average Limit Excess Queue (PCU)	Excess Queue Penalty (£ per hr)
08:00-09:00	0.00	142.61	0.00	0.00	0.00

Network Results: Journey Times

Time Segment	Distance Travelled (PCU-km/hr)	Time Spent (PCU-hr/hr)	Mean Journey Speed (kph)	Journey Time Per PCU (s)
08:00-09:00	248.80	14.26	17.44	19.25

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To			
		1	2	3	4
From	1	0.00	33.78	33.78	21.67
	2	48.70	0.00	48.70	48.70
	3	34.87	20.60	0.00	34.87
	4	59.75	59.75	59.75	0.00

Path Journey Time

Path	Avg Journey Time (s)	Normal Journey Time (s)	Bus Journey Time (s)	Tram Journey Time (s)
1	21.67	21.67	0.00	0.00
2	33.78	33.78	0.00	0.00
3	33.78	33.78	0.00	0.00
4	48.70	48.70	0.00	0.00
5	48.70	48.70	0.00	0.00
6	48.70	48.70	0.00	0.00
7	20.60	20.60	0.00	0.00
8	34.87	34.87	0.00	0.00
9	34.87	34.87	0.00	0.00
10	59.75	59.75	0.00	0.00
11	59.75	59.75	0.00	0.00
12	59.75	59.75	0.00	0.00

TRANSYT 14

Version: 14.1.2.315 [26-09-12]

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Last run: 03/12/2013 09:40:33
Analysis Set used for last run: A1 - (untitled)

Filename: J1 - 2018-Back+Comm+Dev-PM.t14
Path: S:\JPP\JPP Schemes R\R6694PP - Saffron Walden\Reports\TA\Junction Modelling\J1 - Radwinter_Elizabeth_TRANSYT 14 Report
Report generation date: 03/12/2013 09:46:53

File summary

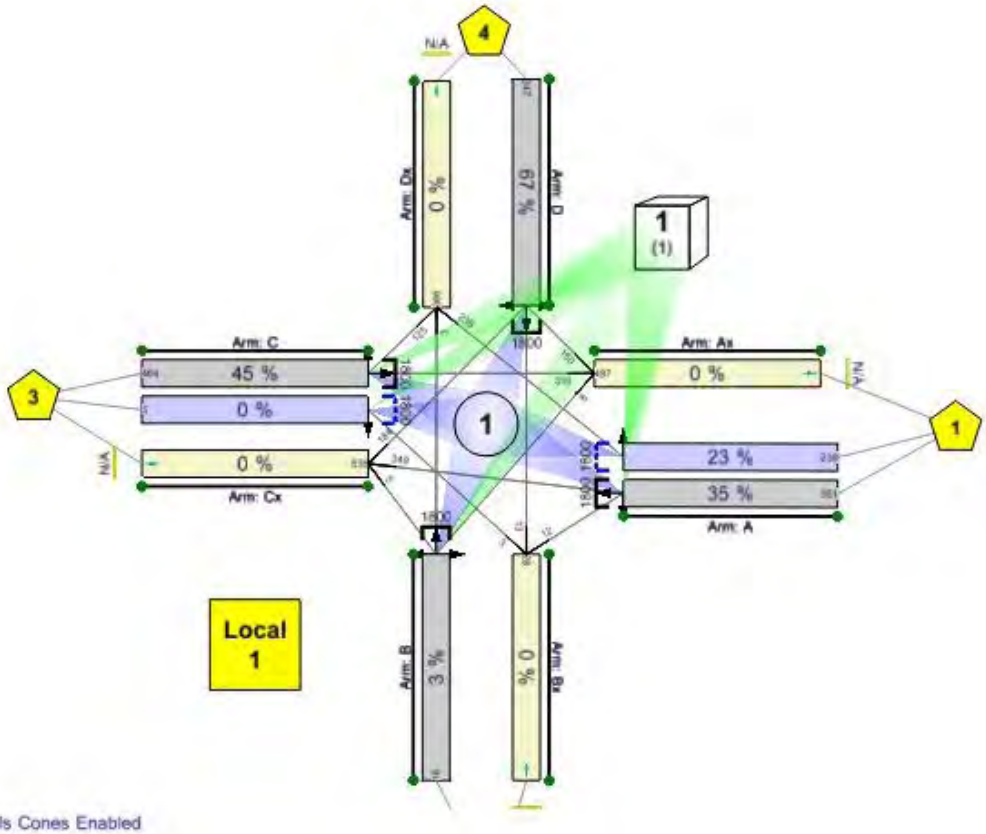
File Description

Title	(untitled)
Location	
Site Number	
UTCRegion	
Driving Side	Left
Date	06/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CEDARBARN\MartinA
Description	

Units

Speed Units	Distance Units	Fuel Economy Units	Fuel Rate Units
kph	m	mpg	l/h

Network Diagrams



Node Signals Cones Enabled
Node Traffic Cones Enabled

(untitled)
Cycletime 0s / 90s , Timesteps 0 / 90
Diagram produced using TRANSYT 14.1.2.315 Network Construction Editor

A1 - (untitled) : D1 - (untitled) *

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	Network Within Capacity
08:00	90	6.80	66.73	D/1	0	0	✓

Analysis Set Details

Name	Description	Demand Set	Include In Report	Locked
(untitled)		D1	✓	

Demand Set Details

Name	Description	Composite	Demand Sets	Start Time (HH:mm)	Locked

(untitled)				08:00	

Network Options

Network Timings

Network Cycle Time (s)	Time Segment Length (min)
90	60

Signals Options

Start Displacement (s)	End Displacement (s)
2	3

Traffic Options

Traffic Model	Flow Scaling Factor (%)	Cruise Times Or Speeds
Quick PDM	100	Cruise Speeds

Optimisation Options

Auto Redistribute	Optimisation Type	Optimisation Level
✓	Hill Climb (Fast)	Offsets And Green Splits

Economics

Unit Of Cost	Monetary Value Of Delay (£ per PCU-hr)	Monetary Value Of Stops (£ per 100 stops)
£	14.20	2.60

Traffic Nodes

Traffic Nodes

Traffic Node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic Node
A	(untitled)		1
B	(untitled)		1
C	(untitled)		1
D	(untitled)		1
Ax	(untitled)		
Bx	(untitled)		
Cx	(untitled)		
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Length (m)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Is Signal Controlled	Controller Stream	Phase	Phase2 Enabled	Is Give Way	Traffic Type
A	1	(untitled)		100.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	A			Normal
A	2	(untitled)		10.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	A		✓	Normal

B	1	(untitled)		100.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	B			Normal
C	1	(untitled)		100.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	A			Normal
C	2	(untitled)		10.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	A		✓	Normal
D	1	(untitled)		100.00	[QuickPDM]	✓	SumOfLanes	1800	✓	1	B			Normal
Ax	1	(untitled)		100.00	[QuickPDM]		N/A	N/A		N/A	N/A			Normal
Bx	1	(untitled)		100.00	[QuickPDM]		N/A	N/A		N/A	N/A			Normal
Cx	1	(untitled)		100.00	[QuickPDM]		N/A	N/A		N/A	N/A			Normal
Dx	1	(untitled)		100.00	[QuickPDM]		N/A	N/A		N/A	N/A			Normal

Lanes

Arm	Traffic Stream	Lane	Name	Description	Saturation Flow (PCU/hr)
A	1	1	(untitled)		1800
A	2	1	(untitled)		1800
B	1	1	(untitled)		1800
C	1	1	(untitled)		1800
C	2	1	(untitled)		1800
D	1	1	(untitled)		1800
Ax	1	1	(untitled)		1800
Bx	1	1	(untitled)		1800
Cx	1	1	(untitled)		1800
Dx	1	1	(untitled)		1800

Modelling

Arm	Traffic Stream	Stop Weighting Multiplier (%)	Delay Weighting Multiplier (%)	Exclude From Results Calculation	Max Queue Storage (PCU)	Has Queue Limit
A	1	100	100		0.00	
A	2	100	100		0.00	
B	1	100	100		0.00	
C	1	100	100		0.00	
C	2	100	100		0.00	
D	1	100	100		0.00	
Ax	1	100	100		0.00	
Bx	1	100	100		0.00	
Cx	1	100	100		0.00	
Dx	1	100	100		0.00	

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)	Bus Flow (PCU/hr)	Tram Flow (PCU/hr)	Calculated Cruise Speed (kph)
A	1	361	361	0	0	1.00
A	2	238	238	0	0	1.00
B	1	16	16	0	0	1.00
C	1	464	464	0	0	1.00
C	2	3	3	0	0	1.00
D	1	347	347	0	0	1.00
Ax	1	497	497	0	0	1.00
Bx	1	28	28	0	0	1.00
Cx	1	538	538	0	0	1.00
Dx	1	366	366	0	0	1.00

Normal - Modelling

Arm	Traffic Stream	Stop Weighting (%)	Delay Weighting (%)
A	1	100	100
A	2	100	100

B	1	100	100
C	1	100	100
C	2	100	100
D	1	100	100
Ax	1	100	100
Bx	1	100	100
Cx	1	100	100
Dx	1	100	100

Sources - default sources for entries

Arm	Traffic Stream	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
A	1	12.00	30.00	Buses Not Permittted	Trams Not Permitted
A	2	1.20	30.00	Buses Not Permittted	Trams Not Permitted
B	1	12.00	30.00	Buses Not Permittted	Trams Not Permitted
C	1	12.00	30.00	Buses Not Permittted	Trams Not Permitted
C	2	1.20	30.00	Buses Not Permittted	Trams Not Permitted
D	1	12.00	30.00	Buses Not Permittted	Trams Not Permitted

Sources - sources for internals

Arm	Traffic Stream	Source	Source Type	Source Traffic Stream	Source Total Flow (PCU/hr)	Source Normal Flow (PCU/hr)	Source Bus Flow (PCU/hr)	Source Tram Flow (PCU/hr)	Normal Cruise Time (seconds)	Normal Cruise Speed (kph)	Bus Free Running Speed (kph)	Tram Free Running Speed (kph)
Ax	1	1	TrafficStream	C/1	339	339	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Ax	1	2	TrafficStream	B/1	8	8	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Ax	1	3	TrafficStream	D/1	150	150	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Bx	1	1	TrafficStream	A/1	12	12	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Bx	1	2	TrafficStream	D/1	13	13	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Bx	1	3	TrafficStream	C/2	3	3	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Cx	1	1	TrafficStream	B/1	5	5	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Cx	1	2	TrafficStream	D/1	184	184	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Cx	1	3	TrafficStream	A/1	349	349	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Dx	1	1	TrafficStream	C/1	125	125	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Dx	1	2	TrafficStream	B/1	3	3	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted
Dx	1	3	TrafficStream	A/2	238	238	0	0	12.00	30.00	Buses Not Permittted	Trams Not Permitted

Give Way Data

Arm	Traffic Stream	Opposed Traffic	Use Step-wise Opposed Turn Model
A	2	AllTraffic	
C	2	AllTraffic	

Flow Allocation Tool Tables - Local Matrix: 1

Normal Input Flows (PCU/hr)

		To			
		1	2	3	4
From	1	0	12	349	238
	2	8	0	5	3
	3	339	3	0	125
	4	150	13	184	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Locations

Local Matrix	Location	Name	Entries	Exits	Total Flow In (PCU/hr)	Normal Flow In (PCU/hr)	Bus Flow In (PCU/hr)	Tram Flow In (PCU/hr)	Total Flow Out (PCU/hr)	Normal Flow Out (PCU/hr)	Bus Flow Out (PCU/hr)	Tram Flow Out (PCU/hr)
1	1	(untitled)	A/2,A/1	Ax/1	599	599	0	0	497	497	0	0
1	2	(untitled)	B/1	Bx/1	16	16	0	0	28	28	0	0
1	3	(untitled)	C/2,C/1	Cx/1	467	467	0	0	538	538	0	0
1	4	(untitled)	D/1	Dx/1	347	347	0	0	366	366	0	0

Paths

Local Matrix	Path	Description	Path Items	Calculated Total Flow (PCU/hr)
1	1		A/2,Dx/1	238
1	2		A/1,Bx/1	12
1	3		A/1,Cx/1	349
1	4		B/1,Dx/1	3
1	5		B/1,Ax/1	8
1	6		B/1,Cx/1	5
1	7		C/2,Bx/1	3
1	8		C/1,Dx/1	125
1	9		C/1,Ax/1	339
1	10		D/1,Ax/1	150
1	11		D/1,Bx/1	13
1	12		D/1,Cx/1	184

Normal Path Flows

Local Matrix	Path	Permitted Flow Type	Allocation Type	Percentage (%)	Fixed Flow (PCU/hr)	Calculated Flow (PCU/hr)
1	1	✓	Normal	N/A	N/A	238
1	2	✓	Normal	N/A	N/A	12
1	3	✓	Normal	N/A	N/A	349
1	4	✓	Normal	N/A	N/A	3
1	5	✓	Normal	N/A	N/A	8
1	6	✓	Normal	N/A	N/A	5
1	7	✓	Normal	N/A	N/A	3
1	8	✓	Normal	N/A	N/A	125
1	9	✓	Normal	N/A	N/A	339
1	10	✓	Normal	N/A	N/A	150
1	11	✓	Normal	N/A	N/A	13
1	12	✓	Normal	N/A	N/A	184

Signal Timings

90s cycle time; 90 steps

Controller Stream

Controller Stream	Name	Description	Multiple Cycling	Auto Redistribute	Use Sequence
1	(untitled)		Single	✓	1

Phases

Controller Stream	Phase	Name	Minimum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)
1	A	(untitled)	7	0	0
1	B	(untitled)	7	0	0

Library Stages

Controller Stream	Library Stage	Phases In Stage	User Stage Minimum (s)
1	1	A	1
1	2	B	1

Stage Sequences

Controller Stream	Stage Sequence	Name	Stage IDs	Multiple Cycling Stage IDs
1	1	(untitled)	1,2	

Resultant Stages

Controller Stream	Stage	Is Base Stage	Library Stage ID	Phases In This Stage	Stage Start (s)	Stage End (s)	Stage Duration (s)	User Stage Minimum (s)	Stage Minimum (s)
1	1	✓	1	A	84	45	51	1	7
1	2	✓	2	B	52	77	25	1	7

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	Is Base Green Period	Start Time (s)	End Time (s)	Duration (s)
1	A	1	✓	84	45	51
1	B	1	✓	52	77	25

Intergreen Matrix for Controller Stream 1

		To	
		A	B
From	A	-	7
	B	7	-

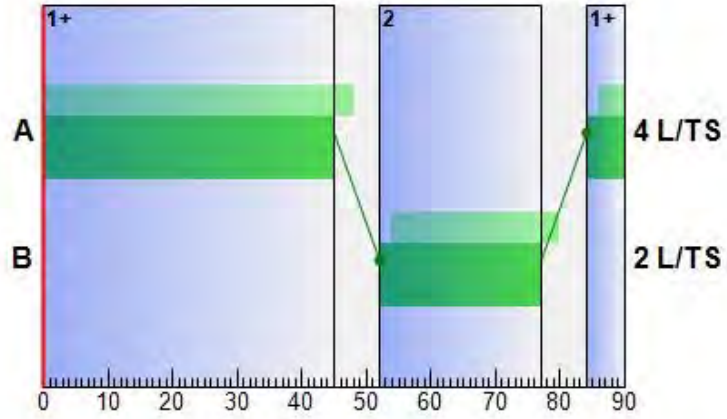
Interstage Matrix for Controller Stream 1

		To	
		1	2
From	1	-	7
	2	7	-

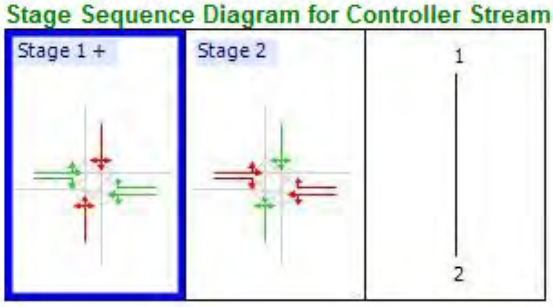
Banned Stage transitions for Controller Stream 1

		To	
		1	2
From	1	-	
	2		-

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



TRANSYT 12 Tables

Resultant Stages

Controller Stream	Stage	Is Base Stage	Library Stage ID	Phases In This Stage
1	1	✓	1	A
1	2	✓	2	B

Signals

Controller Stream	Stage	Is Base Stage	Library Stage ID	Phases In This Stage	TRANSYT Stage Start (s)	TRANSYT Preceding Interstage (s)	TRANSYT Stage Minimum (s)
1	1	✓	1	A	77	7	14
1	2	✓	2	B	45	7	14

Resultant Phase Green Periods

Controller Stream	Phase	Green Period	TRANSYT Starting Stage (s)	TRANSYT Ending Stage (s)	TRANSYT Start Lag (s)	TRANSYT End Lag (s)
1	A	1	1	2	7	0
1	B	1	2	1	7	0

Stage Timings (TRANSYT 12 timings)

90s cycle time; 90 steps

Controller Stream	Number of Stages	Stage 1	Stage 2
1	2	77	45

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Amber	Green Period 1			Green Period 2			Green Period 3			Green Period 4		
						Start	End	Duration	Start	End	Duration	Start	End	Duration	Start	End	Duration

A	1	1	1	A	0	84	45	51									
A	2	1	1	A	0	84	45	51									
B	1	1	1	B	0	52	77	25									
C	1	1	1	A	0	84	45	51									
C	2	1	1	A	0	84	45	51									
D	1	1	1	B	0	52	77	25									

Data Entry: Traffic Stream

Traffic Stream

Arm	Traffic Stream	Length (m)	Max Queue Storage (PCU)	Normal Cruise Speed (kph)	Traffic Model	Has Restricted Flow	Saturation Flow Source	Saturation Flow (PCU/hr)	Delay Weighting (%)	Stop Weighting (%)
A	1	100.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
A	2	10.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
B	1	100.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
C	1	100.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
C	2	10.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
D	1	100.00	0.00	30.00	[QuickPDM]	✓	SumOfLanes	1800	100	100
Ax	1	100.00	0.00	N/A	[QuickPDM]		N/A	N/A	100	100
Bx	1	100.00	0.00	N/A	[QuickPDM]		N/A	N/A	100	100
Cx	1	100.00	0.00	N/A	[QuickPDM]		N/A	N/A	100	100
Dx	1	100.00	0.00	N/A	[QuickPDM]		N/A	N/A	100	100

Results: Traffic Stream

Results: Traffic Stream: Summary

Time Segment	Arm	Traffic Stream	Name	Phase	Phase2	Calculated Flow Entering LTS (PCU/hr)	Calculated Sat Flow (PCU/hr)	Actual Green (s (per cycle))	Wasted Time Blocking Back (s (per cycle))	Calculated Capacity (PCU/hr)	Degree Of Saturation (%)	Practical Reserve Capacity (%)	Mean Max Queue (PCU)	Max End Of Red Queue (PCU)	Mean Delay Per PCU (s)
08:00-09:00	A	1	(untitled)	A	N/A	361	1800	51.00	0.00	1040	35	159	4.81	3.90	10.96
08:00-09:00	A	2	(untitled)	A	N/A	238	1800	51.00	0.00	1040	23	293	2.88	2.55	9.76
08:00-09:00	B	1	(untitled)	B	N/A	16	1800	25.00	0.00	520	3	2825	0.28	0.28	23.22
08:00-09:00	C	1	(untitled)	A	N/A	464	1800	51.00	0.00	1040	45	102	6.75	5.08	12.20
08:00-09:00	C	2	(untitled)	A	N/A	3	1800	51.00	0.00	1040	0	31100	0.03	0.03	8.24
08:00-09:00	D	1	(untitled)	B	N/A	347	1800	25.00	0.00	520	67	35	8.27	6.83	35.03
08:00-09:00	Ax	1	(untitled)	N/A	N/A	497	Unrestricted	90.00	0.00	Unrestricted	0	Unrestricted	0.00	N/A	0.00
08:00-09:00	Bx	1	(untitled)	N/A	N/A	28	Unrestricted	90.00	0.00	Unrestricted	0	Unrestricted	0.00	N/A	0.00
08:00-09:00	Cx	1	(untitled)	N/A	N/A	538	Unrestricted	90.00	0.00	Unrestricted	0	Unrestricted	0.00	N/A	0.00
08:00-09:00	Dx	1	(untitled)	N/A	N/A	366	Unrestricted	90.00	0.00	Unrestricted	0	Unrestricted	0.00	N/A	0.00

Results: Link

Data Entry: Signal Timings

Green Period

Controller Stream	Phase	Green Period	Start Time (s)	End Time (s)	Duration (s)	Minimum Green (s)	Relative Start Displacement (s)	Relative End Displacement (s)
1	A	1	84	45	51	7	0	0
1	B	1	52	77	25	7	0	0

Traffic Stream Results

Traffic Stream Results: Summary

Time Segment	Arm	Traffic Stream	Calculated Flow Entering LTS (PCU/hr)	Flow Discrepancy (PCU/hr)	Adjusted Flow Warning	Calculated Sat Flow (PCU/hr)	Calculated Capacity (PCU/hr)	Degree Of Saturation (%)	DOS Threshold Exceeded	Practical Reserve Capacity (%)	Actual Green (s (per cycle))	Effective Green (s (per cycle))	Cost Of Penalties (£ per hr)	Perfo Index h
08:00-09:00	A	1	361	0		1800	1040	35		159	51.00	52.00	0.00	17
08:00-09:00	A	2	238	0		1800	1040	23		293	51.00	52.00	0.00	10
08:00-09:00	B	1	16	0		1800	520	3		2825	25.00	26.00	0.00	1.
08:00-09:00	C	1	464	0		1800	1040	45		102	51.00	52.00	0.00	25
08:00-09:00	C	2	3	0		1800	1040	0		31100	51.00	52.00	0.00	0.
08:00-09:00	D	1	347	0		1800	520	67		35	25.00	26.00	0.00	52
08:00-09:00	Ax	1	497	0		Unrestricted	Unrestricted	0		Unrestricted	90.00	90.00	0.00	0.
08:00-09:00	Bx	1	28	0		Unrestricted	Unrestricted	0		Unrestricted	90.00	90.00	0.00	0.
08:00-09:00	Cx	1	538	0		Unrestricted	Unrestricted	0		Unrestricted	90.00	90.00	0.00	0.
08:00-09:00	Dx	1	366	0		Unrestricted	Unrestricted	0		Unrestricted	90.00	90.00	0.00	0.

Traffic Stream Results: Stops And Delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time Per PCU (s)	Signalled LoS	Mean Delay Per PCU (s)	Uniform Delay (PCU-hr/hr)	Weighted Cost Of Delay (£ per hr)	Mean Stops Per PCU (%)	Uniform Stops (Stops per hr)	Random Stops (Stops per hr)	Weighted Cost Of Stops (£ per hr)
08:00-09:00	A	1	12.00	B	10.96	1.01	15.61	51.58	182.52	3.68	2.33
08:00-09:00	A	2	1.20	A	9.76	0.61	9.17	46.96	110.41	1.36	1.40
08:00-09:00	B	1	12.00	C	23.22	0.10	1.47	69.92	11.17	0.02	0.14
08:00-09:00	C	1	12.00	B	12.20	1.39	22.33	55.92	252.31	7.14	3.25
08:00-09:00	C	2	1.20	A	8.24	0.01	0.10	40.91	1.23	0.00	0.02
08:00-09:00	D	1	12.00	D	35.03	2.72	47.95	93.38	298.17	25.87	4.06
08:00-09:00	Ax	1	12.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08:00-09:00	Bx	1	12.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

08:00-09:00	Cx	1	12.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08:00-09:00	Dx	1	12.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues And Blocking

Time Segment	Arm	Traffic Stream	Mean Max Queue (PCU)	Max Queue Storage (PCU)	Average Link Excess Queue (PCU)	Average Limit Excess Queue (PCU)	Excess Queue Penalty (£ per hr)
08:00-09:00	A	1	4.81	17.39	0.00	0.00	0.00
08:00-09:00	A	2	2.88	1.74	0.12	0.00	0.00
08:00-09:00	B	1	0.28	17.39	0.00	0.00	0.00
08:00-09:00	C	1	6.75	17.39	0.00	0.00	0.00
08:00-09:00	C	2	0.03	1.74	0.00	0.00	0.00
08:00-09:00	D	1	8.27	17.39	0.00	0.00	0.00
08:00-09:00	Ax	1	0.00	17.39	0.00	0.00	0.00
08:00-09:00	Bx	1	0.00	17.39	0.00	0.00	0.00
08:00-09:00	Cx	1	0.00	17.39	0.00	0.00	0.00
08:00-09:00	Dx	1	0.00	17.39	0.00	0.00	0.00

Traffic Stream Results: Journey Times

Time Segment	Arm	Traffic Stream	Distance Travelled (PCU-km/hr)	Time Spent (PCU-hr/hr)	Mean Journey Speed (kph)	Journey Time Per PCU (s)
08:00-09:00	A	1	36.10	2.30	15.68	22.96
08:00-09:00	A	2	2.38	0.72	3.28	10.96
08:00-09:00	B	1	1.60	0.16	10.22	35.22
08:00-09:00	C	1	46.40	3.12	14.87	24.20
08:00-09:00	C	2	0.03	0.01	3.81	9.44
08:00-09:00	D	1	34.70	4.53	7.65	47.03
08:00-09:00	Ax	1	49.70	1.66	30.00	12.00
08:00-09:00	Bx	1	2.80	0.09	30.00	12.00
08:00-09:00	Cx	1	53.80	1.79	30.00	12.00
08:00-09:00	Dx	1	36.60	1.22	30.00	12.00

Network Results

Run Summary

Time Segment	Modelling Start Time (HH:mm)	Cycle Time Used (s)	Total Network Delay (PCU-hr/hr)	Highest DOS (%)	LTSWith Highest DOS	Number Of Oversaturated LTS	Percentage Of Oversaturated LTS (%)	Network Within Capacity
08:00-09:00	08:00	90	6.80	66.73	D/1	0	0	✓

Network Results: Summary

Time Segment	Calculated Flow Entering LTS (PCU/hr)	Flow Discrepancy (PCU/hr)	Adjusted Flow Warning	Calculated Sat Flow (PCU/hr)	Calculated Capacity (PCU/hr)	Degree Of Saturation (%)	DOS Threshold Exceeded	Practical Reserve Capacity (%)	Actual Green (s (per cycle))	Effective Green (s (per cycle))	Cost Of Penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	2858	0		0	0	67		35	614.00	620.00	0.00	107.83

Network Results: Stops And Delays

Time Segment	Mean Cruise Time Per PCU (s)	Signalled LoS	Mean Delay Per PCU (s)	Uniform Delay (PCU-hr/hr)	Weighted Cost Of Delay (£ per hr)	Mean Stops Per PCU (%)	Uniform Stops (Stops per hr)	Random Stops (Stops per hr)	Weighted Cost Of Stops (£ per hr)
08:00-09:00	11.09	B	8.57	5.84	96.62	31.28	855.81	38.07	11.21

Network Results: Queues And Blocking

Time Segment	Mean Max Queue (PCU)	Max Queue Storage (PCU)	Average Link Excess Queue (PCU)	Average Limit Excess Queue (PCU)	Excess Queue Penalty (£ per hr)
08:00-09:00	0.00	142.61	0.00	0.00	0.00

Network Results: Journey Times

Time Segment	Distance Travelled (PCU-km/hr)	Time Spent (PCU-hr/hr)	Mean Journey Speed (kph)	Journey Time Per PCU (s)
08:00-09:00	264.11	15.61	16.92	19.66

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To			
		1	2	3	4
From	1	0.00	34.96	34.96	22.96
	2	47.22	0.00	47.22	47.22
	3	36.20	21.44	0.00	36.20
	4	59.03	59.03	59.03	0.00

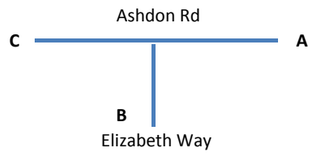
Path Journey Time

Path	Avg Journey Time (s)	Normal Journey Time (s)	Bus Journey Time (s)	Tram Journey Time (s)
1	22.96	22.96	0.00	0.00
2	34.96	34.96	0.00	0.00
3	34.96	34.96	0.00	0.00
4	47.22	47.22	0.00	0.00
5	47.22	47.22	0.00	0.00
6	47.22	47.22	0.00	0.00
7	21.44	21.44	0.00	0.00
8	36.20	36.20	0.00	0.00
9	36.20	36.20	0.00	0.00
10	59.03	59.03	0.00	0.00
11	59.03	59.03	0.00	0.00
12	59.03	59.03	0.00	0.00

Appendix M

J2 - Elizabeth Way / Ashdon Road – Junction Assessment Data

2 - Elizabeth Way / Ashdon Road



AM Peak 0800-0900

Background Traffic 2013 count

	A	B	C
A	0	100	171
B	84	0	169
C	96	87	0

Tempro 12-18

	A	B	C
A	1.038	1.038	1.038
B	1.038	1.038	1.038
C	1.038	1.038	1.038

Background 2018

	A	B	C
A	0	104	177
B	87	0	175
C	100	90	0

Committed Development

	A	B	C
A	0	13	14
B	37	0	7
C	18	-4	0

Background + Committed

	A	B	C
A	0	117	191
B	123	0	182
C	118	86	0

Development

	A	B	C
A	0	0	0
B	0	0	43
C	0	31	0

Background + Committed + Development

	A	B	C
A	0	117	191
B	124	0	225
C	118	117	0

PM Peak 1700-1800

Background Traffic 2013 count

	A	B	C
A	0	72	74
B	87	0	130
C	100	188	0

Tempro 12-18

	A	B	C
A	1.055	1.055	1.055
B	1.055	1.055	1.055
C	1.055	1.055	1.055

Background 2018

	A	B	C
A	0	76	78
B	92	0	137
C	106	199	0

Committed Development

	A	B	C
A	0	16	10
B	23	0	-3
C	26	4	0

Background + Committed

	A	B	C
A	0	92	88
B	115	0	134
C	132	203	0

Development

	A	B	C
A	0	0	0
B	0	0	40
C	0	40	0

Background + Committed + Development

	A	B	C
A	0	92	88
B	116	0	174
C	132	243	0

AM Peak 0800-0900

Tempro 12-26

	A	B	C
A	1.069	1.069	1.069
B	1.069	1.069	1.069
C	1.069	1.069	1.069

Background 2026

	A	B	C
A	0	107	183
B	89	0	181
C	103	93	0

Committed Development

	A	B	C
A	0	13	14
B	37	0	7
C	18	-4	0

Background + Committed

	A	B	C
A	0	120	197
B	126	0	187
C	121	89	0

Development

	A	B	C
A	0	0	0
B	0	0	43
C	0	31	0

Background + Committed + Development

	A	B	C
A	0	120	197
B	126	0	230
C	121	120	0

PM Peak 1700-1800

Tempro 12-26

	A	B	C
A	1.113	1.113	1.113
B	1.113	1.113	1.113
C	1.113	1.113	1.113

Background 2026

	A	B	C
A	0	80	83
B	97	0	144
C	111	209	0

Committed Development

	A	B	C
A	0	16	10
B	23	0	-3
C	26	4	0

Background + Committed

	A	B	C
A	0	96	93
B	120	0	141
C	137	213	0

Development

	A	B	C
A	0	0	0
B	0	0	40
C	0	40	0

Background + Committed + Development

	A	B	C
A	0	97	93
B	121	0	182
C	137	254	0

Junctions 8

PICADY 8 - Priority Intersection Module

Filename: J2 - Elizabeth Way_Ashdon.arc8
Path: S:\JPP\JPP Schemes R\R6694PP - Saffron Walden\Reports\TA\Junction Modelling\J2 - Elizabeth Way_Ashdon
Report generation date: 02/12/2013 09:52:41

Summary of junction performance

	AM				
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)
	J2 - Elizabeth Way / Ashdon Rd - 2018 - Back + Comm				
Stream B-AC	3.33	37.67	0.78	E	31.34
Stream C-A	-	-	-	-	
Stream C-B	0.23	8.91	0.19	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. Junction LOS and Junction Delay are demand-weighted averages.

"D1 - 2018 - Back + Comm, AM" model duration: 07:45 - 09:15
"D2 - 2018 - Back + Comm + Dev, AM" model duration: 07:45 - 09:15
"D3 - 2018 - Back + Comm, PM" model duration: 16:45 - 18:15
"D4 - 2018 - Back + Comm + Dev, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.2.316 at 02/12/2013 09:52:40

File summary

File Description

Title	J2 - Elizabeth Way / Ashdon Rd
Location	
Site Number	
Date	20/11/2013
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

J2 - Elizabeth Way / Ashdon Rd - 2018 - Back + Comm, 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
J2 - Elizabeth Way / Ashdon Rd	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	Relationship
2018 - Back + Comm, AM	2018 - Back + Comm	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
(untitled)	T-Junction	Two-way	A,B,C		31.34	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm Type
A	Ashdon Rd (E)		Major
B	Elizabeth Way		Minor
C	Ashdon Rd (W)		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	6.00		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	2.20										0	0

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.080	0.202	0.127	0.289
1	B-C	573.963	0.088	0.222	-	-
1	C-B	573.963	0.222	0.222	-	-

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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	308.00	100.000
B	ONE HOUR	✓	305.00	100.000
C	ONE HOUR	✓	204.00	100.000

Turning Proportions

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

		To		
		A	B	C
From	A	0.000	117.000	191.000
	B	123.000	0.000	182.000
	C	118.000	86.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.38	0.62
	B	0.40	0.00	0.60
	C	0.58	0.42	0.00

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	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.78	37.67	3.33	E	279.87	419.81	168.91	24.14	1.88	168.98	24.15
C-A	-	-	-	-	108.28	162.42	-	-	-	-	-
C-B	0.19	8.91	0.23	A	78.92	118.37	16.43	8.33	0.18	16.43	8.33
A-B	-	-	-	-	107.36	161.04	-	-	-	-	-
A-C	-	-	-	-	175.26	262.90	-	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	229.62	57.41	225.69	0.00	455.17	0.504	0.00	0.98	15.440	C
C-A	88.84	22.21	88.84	0.00	-	-	-	-	-	-
C-B	64.75	16.19	64.19	0.00	522.40	0.124	0.00	0.14	7.847	A
A-B	88.08	22.02	88.08	0.00	-	-	-	-	-	-
A-C	143.79	35.95	143.79	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	274.19	68.55	272.00	0.00	443.99	0.618	0.98	1.53	20.654	C
C-A	106.08	26.52	106.08	0.00	-	-	-	-	-	-
C-B	77.31	19.33	77.17	0.00	512.39	0.151	0.14	0.18	8.269	A
A-B	105.18	26.30	105.18	0.00	-	-	-	-	-	-
A-C	171.71	42.93	171.71	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	335.81	83.95	329.48	0.00	428.47	0.784	1.53	3.11	34.270	D
C-A	129.92	32.48	129.92	0.00	-	-	-	-	-	-
C-B	94.69	23.67	94.46	0.00	498.55	0.190	0.18	0.23	8.904	A
A-B	128.82	32.20	128.82	0.00	-	-	-	-	-	-
A-C	210.29	52.57	210.29	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	335.81	83.95	334.96	0.00	428.43	0.784	3.11	3.33	37.665	E
C-A	129.92	32.48	129.92	0.00	-	-	-	-	-	-
C-B	94.69	23.67	94.68	0.00	498.55	0.190	0.23	0.23	8.913	A
A-B	128.82	32.20	128.82	0.00	-	-	-	-	-	-
A-C	210.29	52.57	210.29	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	274.19	68.55	280.67	0.00	443.92	0.618	3.33	1.71	22.835	C
C-A	106.08	26.52	106.08	0.00	-	-	-	-	-	-
C-B	77.31	19.33	77.53	0.00	512.39	0.151	0.23	0.18	8.282	A
A-B	105.18	26.30	105.18	0.00	-	-	-	-	-	-
A-C	171.71	42.93	171.71	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	229.62	57.41	232.23	0.00	455.05	0.505	1.71	1.05	16.341	C
C-A	88.84	22.21	88.84	0.00	-	-	-	-	-	-
C-B	64.75	16.19	64.89	0.00	522.40	0.124	0.18	0.14	7.871	A
A-B	88.08	22.02	88.08	0.00	-	-	-	-	-	-
A-C	143.79	35.95	143.79	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	13.56	0.90	15.440	C	B
C-A	-	-	-	-	-
C-B	2.03	0.14	7.847	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	21.30	1.42	20.654	C	C
C-A	-	-	-	-	-
C-B	2.58	0.17	8.269	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	40.41	2.69	34.270	D	C
C-A	-	-	-	-	-
C-B	3.39	0.23	8.904	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	48.58	3.24	37.665	E	D
C-A	-	-	-	-	-
C-B	3.49	0.23	8.913	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	28.21	1.88	22.835	C	C
C-A	-	-	-	-	-
C-B	2.76	0.18	8.282	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	16.86	1.12	16.341	C	B
C-A	-	-	-	-	-
C-B	2.19	0.15	7.871	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

J2 - Elizabeth Way / Ashdon Rd - 2018 - Back + Comm + Dev, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
J2 - Elizabeth Way / Ashdon Rd	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	Relationship
2018 - Back + Comm + Dev, AM	2018 - Back + Comm + Dev	AM		ONE HOUR	07:45	09:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
(untitled)	T-Junction	Two-way	A,B,C		50.09	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm Type
A	Ashdon Rd (E)		Major
B	Elizabeth Way		Minor
C	Ashdon Rd (W)		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	6.00		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	2.20										0	0

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.080	0.202	0.127	0.289
1	B-C	573.963	0.088	0.222	-	-
1	C-B	573.963	0.222	0.222	-	-

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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	308.00	100.000
B	ONE HOUR	✓	349.00	100.000
C	ONE HOUR	✓	235.00	100.000

Turning Proportions

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

		To		
		A	B	C
From	A	0.000	117.000	191.000
	B	124.000	0.000	225.000
	C	118.000	117.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.38	0.62
	B	0.36	0.00	0.64
	C	0.50	0.50	0.00

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	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.89	63.62	6.29	F	320.25	480.37	269.68	33.68	3.00	269.81	33.70
C-A	-	-	-	-	108.28	162.42	-	-	-	-	-
C-B	0.26	9.74	0.35	A	107.36	161.04	23.99	8.94	0.27	23.99	8.94
A-B	-	-	-	-	107.36	161.04	-	-	-	-	-
A-C	-	-	-	-	175.26	262.90	-	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	262.75	65.69	257.64	0.00	459.60	0.572	0.00	1.28	17.421	C
C-A	88.84	22.21	88.84	0.00	-	-	-	-	-	-
C-B	88.08	22.02	87.28	0.00	522.40	0.169	0.00	0.20	8.259	A
A-B	88.08	22.02	88.08	0.00	-	-	-	-	-	-
A-C	143.79	35.95	143.79	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	313.74	78.44	310.24	0.00	447.82	0.701	1.28	2.15	25.489	D
C-A	106.08	26.52	106.08	0.00	-	-	-	-	-	-
C-B	105.18	26.30	104.96	0.00	512.39	0.205	0.20	0.26	8.831	A
A-B	105.18	26.30	105.18	0.00	-	-	-	-	-	-
A-C	171.71	42.93	171.71	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	384.26	96.06	371.12	0.00	431.43	0.891	2.15	5.44	50.892	F
C-A	129.92	32.48	129.92	0.00	-	-	-	-	-	-
C-B	128.82	32.20	128.47	0.00	498.55	0.258	0.26	0.34	9.716	A
A-B	128.82	32.20	128.82	0.00	-	-	-	-	-	-
A-C	210.29	52.57	210.29	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	384.26	96.06	380.83	0.00	431.36	0.891	5.44	6.29	63.618	F
C-A	129.92	32.48	129.92	0.00	-	-	-	-	-	-
C-B	128.82	32.20	128.81	0.00	498.55	0.258	0.34	0.35	9.736	A
A-B	128.82	32.20	128.82	0.00	-	-	-	-	-	-
A-C	210.29	52.57	210.29	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	313.74	78.44	328.68	0.00	447.72	0.701	6.29	2.56	33.149	D
C-A	106.08	26.52	106.08	0.00	-	-	-	-	-	-
C-B	105.18	26.30	105.52	0.00	512.39	0.205	0.35	0.26	8.855	A
A-B	105.18	26.30	105.18	0.00	-	-	-	-	-	-
A-C	171.71	42.93	171.71	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	262.75	65.69	267.40	0.00	459.43	0.572	2.56	1.39	19.172	C
C-A	88.84	22.21	88.84	0.00	-	-	-	-	-	-
C-B	88.08	22.02	88.31	0.00	522.40	0.169	0.26	0.20	8.299	A
A-B	88.08	22.02	88.08	0.00	-	-	-	-	-	-
A-C	143.79	35.95	143.79	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	17.33	1.16	17.421	C	B
C-A	-	-	-	-	-
C-B	2.89	0.19	8.259	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	29.27	1.95	25.489	D	C
C-A	-	-	-	-	-
C-B	3.73	0.25	8.831	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	65.10	4.34	50.892	F	D
C-A	-	-	-	-	-
C-B	5.00	0.33	9.716	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	88.86	5.92	63.618	F	E
C-A	-	-	-	-	-
C-B	5.18	0.35	9.736	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	46.43	3.10	33.149	D	C
C-A	-	-	-	-	-
C-B	4.03	0.27	8.855	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	22.70	1.51	19.172	C	B
C-A	-	-	-	-	-
C-B	3.15	0.21	8.299	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

J2 - Elizabeth Way / Ashdon Rd - 2018 - Back + Comm, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
J2 - Elizabeth Way / Ashdon Rd	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	Relationship
2018 - Back + Comm, PM	2018 - Back + Comm	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
(untitled)	T-Junction	Two-way	A,B,C		19.08	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm Type
A	Ashdon Rd (E)		Major
B	Elizabeth Way		Minor
C	Ashdon Rd (W)		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	6.00		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	2.20										0	0

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.080	0.202	0.127	0.289
1	B-C	573.963	0.088	0.222	-	-
1	C-B	573.963	0.222	0.222	-	-

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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	180.00	100.000
B	ONE HOUR	✓	249.00	100.000
C	ONE HOUR	✓	335.00	100.000

Turning Proportions

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

		To		
		A	B	C
From	A	0.000	92.000	88.000
	B	115.000	0.000	134.000
	C	132.000	203.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.51	0.49
	B	0.46	0.00	0.54
	C	0.39	0.61	0.00

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	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.66	25.06	1.85	D	228.49	342.73	105.81	18.52	1.18	105.85	18.53
C-A	-	-	-	-	121.13	181.69	-	-	-	-	-
C-B	0.42	11.75	0.72	B	186.28	279.41	48.17	10.34	0.54	48.18	10.35
A-B	-	-	-	-	84.42	126.63	-	-	-	-	-
A-C	-	-	-	-	80.75	121.13	-	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	187.46	46.87	184.63	0.00	445.94	0.420	0.00	0.71	13.638	B
C-A	99.38	24.84	99.38	0.00	-	-	-	-	-	-
C-B	152.83	38.21	151.29	0.00	543.83	0.281	0.00	0.39	9.136	A
A-B	69.26	17.32	69.26	0.00	-	-	-	-	-	-
A-C	66.25	16.56	66.25	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	223.85	55.96	222.56	0.00	433.88	0.516	0.71	1.03	16.925	C
C-A	118.67	29.67	118.67	0.00	-	-	-	-	-	-
C-B	182.49	45.62	182.01	0.00	537.98	0.339	0.39	0.51	10.098	B
A-B	82.71	20.68	82.71	0.00	-	-	-	-	-	-
A-C	79.11	19.78	79.11	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	274.15	68.54	271.12	0.00	417.09	0.657	1.03	1.79	24.146	C
C-A	145.33	36.33	145.33	0.00	-	-	-	-	-	-
C-B	223.51	55.88	222.67	0.00	529.89	0.422	0.51	0.71	11.685	B
A-B	101.29	25.32	101.29	0.00	-	-	-	-	-	-
A-C	96.89	24.22	96.89	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	274.15	68.54	273.91	0.00	416.91	0.658	1.79	1.85	25.056	D
C-A	145.33	36.33	145.33	0.00	-	-	-	-	-	-
C-B	223.51	55.88	223.48	0.00	529.89	0.422	0.71	0.72	11.748	B
A-B	101.29	25.32	101.29	0.00	-	-	-	-	-	-
A-C	96.89	24.22	96.89	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	223.85	55.96	226.81	0.00	433.60	0.516	1.85	1.11	17.650	C
C-A	118.67	29.67	118.67	0.00	-	-	-	-	-	-
C-B	182.49	45.62	183.29	0.00	537.98	0.339	0.72	0.52	10.174	B
A-B	82.71	20.68	82.71	0.00	-	-	-	-	-	-
A-C	79.11	19.78	79.11	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	187.46	46.87	188.91	0.00	445.52	0.421	1.11	0.74	14.109	B
C-A	99.38	24.84	99.38	0.00	-	-	-	-	-	-
C-B	152.83	38.21	153.33	0.00	543.83	0.281	0.52	0.40	9.232	A
A-B	69.26	17.32	69.26	0.00	-	-	-	-	-	-
A-C	66.25	16.56	66.25	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	9.88	0.66	13.638	B	B
C-A	-	-	-	-	-
C-B	5.52	0.37	9.136	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	14.58	0.97	16.925	C	B
C-A	-	-	-	-	-
C-B	7.34	0.49	10.098	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	24.43	1.63	24.146	C	C
C-A	-	-	-	-	-
C-B	10.28	0.69	11.685	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	27.36	1.82	25.056	D	C
C-A	-	-	-	-	-
C-B	10.78	0.72	11.748	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	17.81	1.19	17.650	C	B
C-A	-	-	-	-	-
C-B	8.12	0.54	10.174	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	11.76	0.78	14.109	B	B
C-A	-	-	-	-	-
C-B	6.13	0.41	9.232	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

J2 - Elizabeth Way / Ashdon Rd - 2018 - Back + Comm + Dev, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
J2 - Elizabeth Way / Ashdon Rd	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	Relationship
2018 - Back + Comm + Dev, PM	2018 - Back + Comm + Dev	PM		ONE HOUR	16:45	18:15	90	15				✓		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
(untitled)	T-Junction	Two-way	A,B,C		25.05	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm Type
A	Ashdon Rd (E)		Major
B	Elizabeth Way		Minor
C	Ashdon Rd (W)		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	6.00		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	2.20										0	0

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	439.579	0.080	0.202	0.127	0.289
1	B-C	573.963	0.088	0.222	-	-
1	C-B	573.963	0.222	0.222	-	-

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 (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	180.00	100.000
B	ONE HOUR	✓	290.00	100.000
C	ONE HOUR	✓	375.00	100.000

Turning Proportions

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

		To		
		A	B	C
From	A	0.000	92.000	88.000
	B	116.000	0.000	174.000
	C	132.000	243.000	0.000

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

		To		
		A	B	C
From	A	0.00	0.51	0.49
	B	0.40	0.00	0.60
	C	0.35	0.65	0.00

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	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.76	34.55	2.92	D	266.11	399.16	151.38	22.75	1.68	151.44	22.76
C-A	-	-	-	-	121.13	181.69	-	-	-	-	-
C-B	0.50	13.71	1.00	B	222.98	334.47	64.85	11.63	0.72	64.86	11.64
A-B	-	-	-	-	84.42	126.63	-	-	-	-	-
A-C	-	-	-	-	80.75	121.13	-	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	218.33	54.58	214.71	0.00	452.24	0.483	0.00	0.90	14.942	B
C-A	99.38	24.84	99.38	0.00	-	-	-	-	-	-
C-B	182.94	45.74	180.95	0.00	543.83	0.336	0.00	0.50	9.867	A
A-B	69.26	17.32	69.26	0.00	-	-	-	-	-	-
A-C	66.25	16.56	66.25	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	260.70	65.18	258.76	0.00	439.41	0.593	0.90	1.39	19.703	C
C-A	118.67	29.67	118.67	0.00	-	-	-	-	-	-
C-B	218.45	54.61	217.77	0.00	537.98	0.406	0.50	0.67	11.217	B
A-B	82.71	20.68	82.71	0.00	-	-	-	-	-	-
A-C	79.11	19.78	79.11	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	319.30	79.82	313.85	0.00	421.44	0.758	1.39	2.75	31.889	D
C-A	145.33	36.33	145.33	0.00	-	-	-	-	-	-
C-B	267.55	66.89	266.26	0.00	529.89	0.505	0.67	0.99	13.587	B
A-B	101.29	25.32	101.29	0.00	-	-	-	-	-	-
A-C	96.89	24.22	96.89	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	319.30	79.82	318.63	0.00	421.17	0.758	2.75	2.92	34.546	D
C-A	145.33	36.33	145.33	0.00	-	-	-	-	-	-
C-B	267.55	66.89	267.49	0.00	529.89	0.505	0.99	1.00	13.710	B
A-B	101.29	25.32	101.29	0.00	-	-	-	-	-	-
A-C	96.89	24.22	96.89	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	260.70	65.18	266.22	0.00	439.02	0.594	2.92	1.54	21.440	C
C-A	118.67	29.67	118.67	0.00	-	-	-	-	-	-
C-B	218.45	54.61	219.68	0.00	537.98	0.406	1.00	0.70	11.355	B
A-B	82.71	20.68	82.71	0.00	-	-	-	-	-	-
A-C	79.11	19.78	79.11	0.00	-	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	218.33	54.58	220.61	0.00	451.72	0.483	1.54	0.96	15.728	C
C-A	99.38	24.84	99.38	0.00	-	-	-	-	-	-
C-B	182.94	45.74	183.67	0.00	543.83	0.336	0.70	0.52	10.017	B
A-B	69.26	17.32	69.26	0.00	-	-	-	-	-	-
A-C	66.25	16.56	66.25	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	12.51	0.83	14.942	B	B
C-A	-	-	-	-	-
C-B	7.10	0.47	9.867	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	19.43	1.30	19.703	C	B
C-A	-	-	-	-	-
C-B	9.69	0.65	11.217	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	36.14	2.41	31.889	D	C
C-A	-	-	-	-	-
C-B	14.13	0.94	13.587	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	42.73	2.85	34.546	D	C
C-A	-	-	-	-	-
C-B	14.99	1.00	13.710	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	25.18	1.68	21.440	C	C
C-A	-	-	-	-	-
C-B	10.93	0.73	11.355	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	15.39	1.03	15.728	C	B
C-A	-	-	-	-	-
C-B	8.00	0.53	10.017	B	B
A-B	-	-	-	-	-
A-C	-	-	-	-	-