



AQUIND Limited

AQUIND INTERCONNECTOR

**Environmental Statement – Volume 3 –
Appendix 22.1 Transport Assessment -
Low Resolution Part 5**

The Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations
2009 – Regulation 5(2)(a)

Document Ref: 6.3.22.1

PINS Ref.: EN020022



AQUIND Limited

AQUIND INTERCONNECTOR

Environmental Statement – Volume 3 –
Appendix 22.1 Transport Assessment -
Low Resolution Part 5

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DOCUMENT

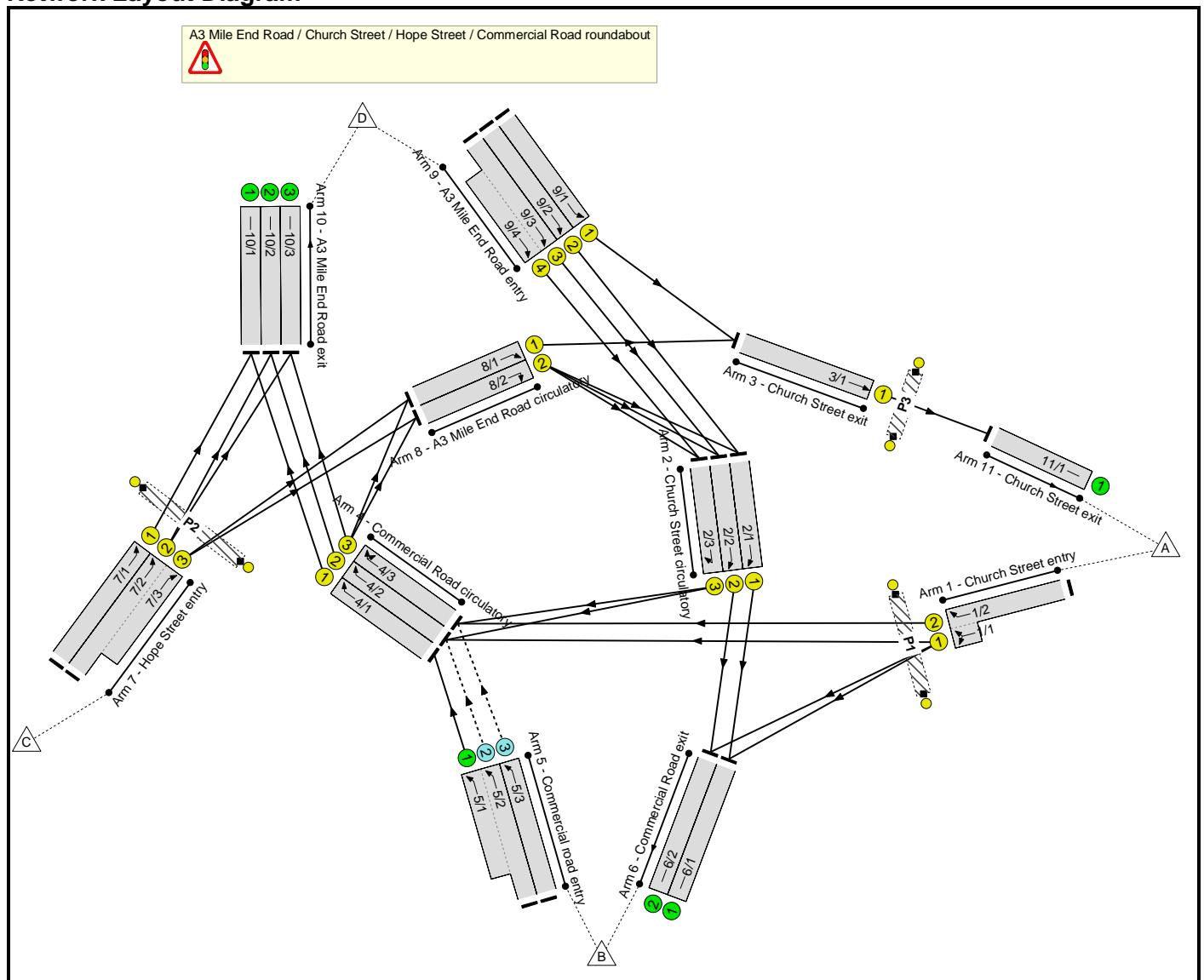
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Full Input Data And Results
Full Input Data And Results

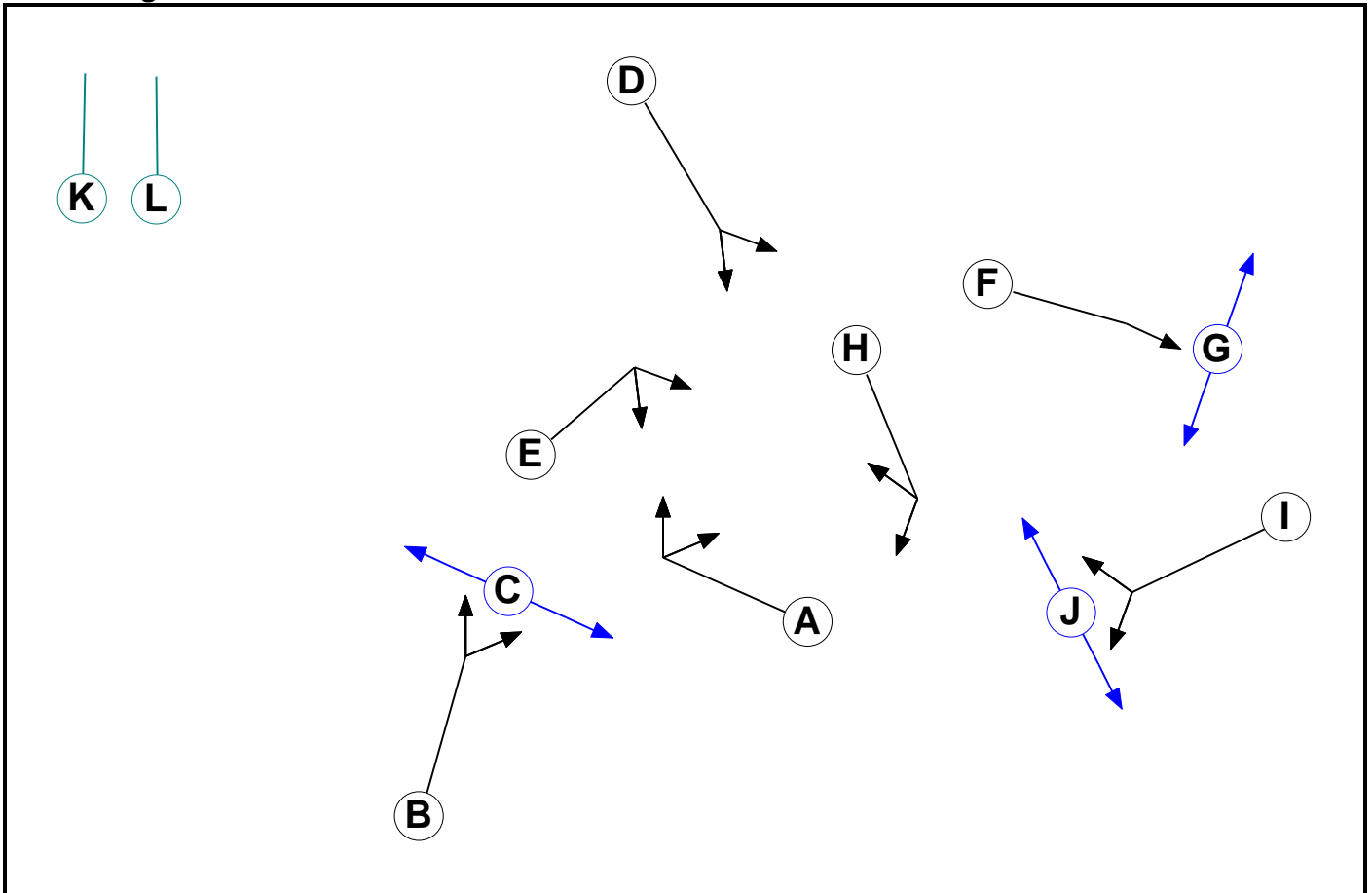
User and Project Details

Project:	
Title:	A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout
Location:	
Additional detail:	
File name:	A3 Mile End Rd_Church St_Hope St_Commercial Rd.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Pedestrian	1		6	6
D	Traffic	2		7	7
E	Traffic	2		7	7
F	Traffic	3		7	7
G	Pedestrian	3		5	5
H	Traffic	2		7	7
I	Traffic	2		7	7
J	Pedestrian	2		6	6
K	Dummy	1		3	3
L	Dummy	2		3	3

Phase Intergrens Matrix

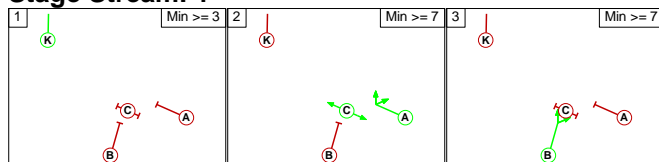
		Starting Phase											
		A	B	C	D	E	F	G	H	I	J	K	L
Terminating Phase	A		6	-	-	-	-	-	-	-	-	2	-
	B	6		5	-	-	-	-	-	-	-	2	-
	C	-	0		-	-	-	-	-	-	-	2	-
	D	-	-	-		10	-	-	-	-	-	-	2
	E	-	-	-	5		-	-	-	-	-	-	2
	F	-	-	-	-	-		0	-	-	-	-	-
	G	-	-	-	-	-	0		-	-	-	-	-
	H	-	-	-	-	-	-	-		6	-	-	2
	I	-	-	-	-	-	-	6	5		-	-	2
	J	-	-	-	-	-	-	-	0	-		-	2
	K	3	3	3	-	-	-	-	-	-	-		-
	L	-	-	-	3	3	-	-	3	3	3	-	

Phases in Stage

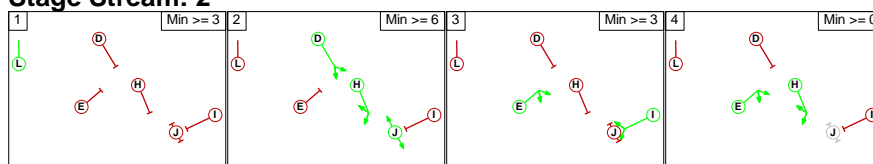
Stream	Stage No.	Phases in Stage
1	1	K
1	2	A C
1	3	B
2	1	L
2	2	D H J
2	3	E I
2	4	E H
3	1	F
3	2	G

Stage Diagram

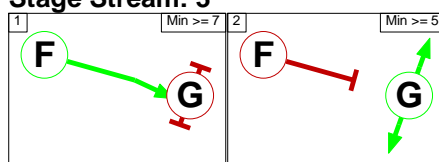
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 3

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

		To Stage		
		1	2	3
From Stage	1			
	2			
	3			

Stage Stream: 2

		To Stage			
		1	2	3	4
From Stage	1				
	2				
	3				
	4				

Stage Stream: 3

		To Stage	
		1	2
From Stage	1		
	2		

Full Input Data And Results

Give-Way Lane Input Data

Junction: A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
5/2 (Commercial road entry)	4/2 (Ahead)	1439	0	2/3	1.09	All	-	-	-	-	-
				1/1	1.09	To 4/2 (Right)					
				1/2	1.09	All					
5/3 (Commercial road entry)	4/3 (Ahead)	1439	0	2/3	1.09	All	-	-	-	-	-
				1/1	1.09	To 4/2 (Right)					
				1/2	1.09	All					

Full Input Data And Results

Lane Input Data

Junction: A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Church Street entry)	U	I	2	3	2.1	Geom	-	3.00	0.00	Y	Arm 4 Right	50.00
											Arm 6 Left	30.00
1/2 (Church Street entry)	U	I	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Right	50.00
2/1 (Church Street circulatory)	U	H	2	3	8.7	Geom	-	3.50	0.00	Y	Arm 6 Ahead	Inf
2/2 (Church Street circulatory)	U	H	2	3	8.7	Geom	-	3.50	0.00	Y	Arm 6 Ahead	Inf
2/3 (Church Street circulatory)	U	H	2	3	8.7	Geom	-	3.50	0.00	Y	Arm 4 Right	25.00
3/1 (Church Street exit)	U	F	2	3	9.6	Geom	-	3.25	0.00	Y	Arm 11 Ahead	Inf
4/1 (Commercial Road circulatory)	U	A	2	3	5.2	Geom	-	3.25	0.00	Y	Arm 10 Right	50.00
4/2 (Commercial Road circulatory)	U	A	2	3	5.2	Geom	-	3.25	0.00	Y	Arm 10 Right	50.00
4/3 (Commercial Road circulatory)	U	A	2	3	5.2	Geom	-	3.25	0.00	Y	Arm 8 Right	50.00
											Arm 10 Right	50.00
5/1 (Commercial road entry)	U		2	3	10.4	Geom	-	3.25	0.00	Y	Arm 4 Ahead	50.00
5/2 (Commercial road entry)	O		2	3	13.0	Geom	-	3.25	0.00	Y	Arm 4 Ahead	50.00
5/3 (Commercial road entry)	O		2	3	60.0	Geom	-	3.25	0.00	Y	Arm 4 Ahead	50.00
6/1 (Commercial Road exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2 (Commercial Road exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (Hope Street entry)	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 10 Ahead	100.00

Full Input Data And Results

7/2 (Hope Street entry)	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 10 Ahead	100.00
7/3 (Hope Street entry)	U	B	2	3	8.7	Geom	-	3.50	0.00	Y	Arm 8 Ahead	50.00
8/1 (A3 Mile End Road circulatory)	U	E	2	3	8.7	Geom	-	3.50	0.00	Y	Arm 3 Ahead	30.00
8/2 (A3 Mile End Road circulatory)	U	E	2	3	8.7	Geom	-	3.50	0.00	Y	Arm 2 Right	30.00
9/1 (A3 Mile End Road entry)	U	D	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 3 Ahead	20.00
9/2 (A3 Mile End Road entry)	U	D	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 2 Ahead	50.00
9/3 (A3 Mile End Road entry)	U	D	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 2 Ahead	50.00
9/4 (A3 Mile End Road entry)	U	D	2	3	11.3	Geom	-	3.50	0.00	Y	Arm 2 Ahead	50.00
10/1 (A3 Mile End Road exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
10/2 (A3 Mile End Road exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
10/3 (A3 Mile End Road exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
11/1 (Church Street exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'ELM - DM AM'	08:00	09:00	01:00	
2: 'ELM - DM PM'	17:00	18:00	01:00	
3: 'EMM - DS1 AM'	08:00	09:00	01:00	
4: 'EMM - DS1 PM'	17:00	18:00	01:00	
5: 'EML - DS2 AM'	08:00	09:00	01:00	
6: 'EML - DS2 PM'	17:00	18:00	01:00	

Full Input Data And Results

Scenario 1: 'ELM - DM AM' (FG1: 'ELM - DM AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	93	0	1495	1588
	B	6	3	0	1100	1109
	C	2	3	0	558	563
	D	1013	2092	0	0	3105
	Tot.	1021	2191	0	3153	6365

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: ELM - DM AM
Junction: A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	
1/1 (short)	811
1/2 (with short)	1588(In) 777(Out)
2/1	1027
2/2	1068
2/3	0
3/1	1021
4/1	436
4/2	1057
4/3	1108
5/1 (short)	436
5/2 (with short)	775(In) 339(Out)
5/3	331
6/1	1074
6/2	1114
7/1	278
7/2 (with short)	285(In) 280(Out)
7/3 (short)	5
8/1	8
8/2	3
9/1	1013
9/2	1025
9/3 (with short)	1067(In) 1067(Out)
9/4 (short)	0
10/1	714
10/2	1197
10/3	1242
11/1	1021

Full Input Data And Results

Lane Saturation Flows

Junction: A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Church Street entry)	3.00	0.00	Y	Arm 4 Right	50.00	88.5 %	1855	1855
				Arm 6 Left	30.00	11.5 %		
1/2 (Church Street entry)	3.00	0.00	Y	Arm 4 Right	50.00	100.0 %	1859	1859
2/1 (Church Street circulatory)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/2 (Church Street circulatory)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/3 (Church Street circulatory)	3.50	0.00	Y	Arm 4 Right	25.00	0.0 %	1965	1965
3/1 (Church Street exit)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
4/1 (Commercial Road circulatory)	3.25	0.00	Y	Arm 10 Right	50.00	100.0 %	1883	1883
4/2 (Commercial Road circulatory)	3.25	0.00	Y	Arm 10 Right	50.00	100.0 %	1883	1883
4/3 (Commercial Road circulatory)	3.25	0.00	Y	Arm 8 Right	50.00	0.5 %	1883	1883
				Arm 10 Right	50.00	99.5 %		
5/1 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	100.0 %	1883	1883
5/2 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	100.0 %	1883	1883
5/3 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	100.0 %	1883	1883
6/1 (Commercial Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (Commercial Road exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Hope Street entry)	3.50	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1936	1936
7/2 (Hope Street entry)	3.50	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1936	1936
7/3 (Hope Street entry)	3.50	0.00	Y	Arm 8 Ahead	50.00	100.0 %	1908	1908
8/1 (A3 Mile End Road circulatory)	3.50	0.00	Y	Arm 3 Ahead	30.00	100.0 %	1871	1871
8/2 (A3 Mile End Road circulatory)	3.50	0.00	Y	Arm 2 Right	30.00	100.0 %	1871	1871
9/1 (A3 Mile End Road entry)	4.00	0.00	Y	Arm 3 Ahead	20.00	100.0 %	1874	1874
9/2 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	100.0 %	1908	1908
9/3 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	100.0 %	1908	1908
9/4 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	0.0 %	1965	1965

Full Input Data And Results

10/1 (A3 Mile End Road exit Lane 1)	Infinite Saturation Flow	Inf	Inf
10/2 (A3 Mile End Road exit Lane 2)	Infinite Saturation Flow	Inf	Inf
10/3 (A3 Mile End Road exit Lane 3)	Infinite Saturation Flow	Inf	Inf
11/1 (Church Street exit Lane 1)	Infinite Saturation Flow	Inf	Inf

Scenario 2: 'ELM - DM PM' (FG2: 'ELM - DM PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	139	0	945	1084
	B	3	0	0	1464	1467
	C	11	0	0	1236	1247
	D	960	1803	0	0	2763
	Tot.	974	1942	0	3645	6561

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: ELM - DM PM
Junction: A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	
1/1 (short)	615
1/2 (with short)	1084(In) 469(Out)
2/1	886
2/2	917
2/3	0
3/1	974
4/1	548
4/2	935
4/3	929
5/1 (short)	548
5/2 (with short)	1007(In) 459(Out)
5/3	460
6/1	956
6/2	986
7/1	616
7/2 (with short)	631(In) 620(Out)
7/3 (short)	11
8/1	14
8/2	0
9/1	960
9/2	886
9/3 (with short)	917(In) 917(Out)
9/4 (short)	0
10/1	1164
10/2	1245
10/3	1236
11/1	974

Full Input Data And Results

Lane Saturation Flows

Junction: A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Church Street entry)	3.00	0.00	Y	Arm 4 Right	50.00	77.4 %	1851	1851
				Arm 6 Left	30.00	22.6 %		
1/2 (Church Street entry)	3.00	0.00	Y	Arm 4 Right	50.00	100.0 %	1859	1859
2/1 (Church Street circulatory)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/2 (Church Street circulatory)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/3 (Church Street circulatory)	3.50	0.00	Y	Arm 4 Right	25.00	0.0 %	1965	1965
3/1 (Church Street exit)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
4/1 (Commercial Road circulatory)	3.25	0.00	Y	Arm 10 Right	50.00	100.0 %	1883	1883
4/2 (Commercial Road circulatory)	3.25	0.00	Y	Arm 10 Right	50.00	100.0 %	1883	1883
4/3 (Commercial Road circulatory)	3.25	0.00	Y	Arm 8 Right	50.00	0.3 %	1883	1883
				Arm 10 Right	50.00	99.7 %		
5/1 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	100.0 %	1883	1883
5/2 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	100.0 %	1883	1883
5/3 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	100.0 %	1883	1883
6/1 (Commercial Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (Commercial Road exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Hope Street entry)	3.50	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1936	1936
7/2 (Hope Street entry)	3.50	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1936	1936
7/3 (Hope Street entry)	3.50	0.00	Y	Arm 8 Ahead	50.00	100.0 %	1908	1908
8/1 (A3 Mile End Road circulatory)	3.50	0.00	Y	Arm 3 Ahead	30.00	100.0 %	1871	1871
8/2 (A3 Mile End Road circulatory)	3.50	0.00	Y	Arm 2 Right	30.00	0.0 %	1965	1965
9/1 (A3 Mile End Road entry)	4.00	0.00	Y	Arm 3 Ahead	20.00	100.0 %	1874	1874
9/2 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	100.0 %	1908	1908
9/3 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	100.0 %	1908	1908
9/4 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	0.0 %	1965	1965

Full Input Data And Results

10/1 (A3 Mile End Road exit Lane 1)	Infinite Saturation Flow	Inf	Inf
10/2 (A3 Mile End Road exit Lane 2)	Infinite Saturation Flow	Inf	Inf
10/3 (A3 Mile End Road exit Lane 3)	Infinite Saturation Flow	Inf	Inf
11/1 (Church Street exit Lane 1)	Infinite Saturation Flow	Inf	Inf

Scenario 3: 'EMM - DS1 AM' (FG3: 'EMM - DS1 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	93	0	1496	1589
	B	6	4	0	1092	1102
	C	1	2	0	557	560
	D	1037	2101	0	0	3138
	Tot.	1044	2200	0	3145	6389

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: EMM - DS1 AM
Junction: A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	
1/1 (short)	807
1/2 (with short)	1589(In) 782(Out)
2/1	1030
2/2	1073
2/3	0
3/1	1044
4/1	433
4/2	1051
4/3	1110
5/1 (short)	433
5/2 (with short)	770(In) 337(Out)
5/3	328
6/1	1077
6/2	1119
7/1	277
7/2 (with short)	283(In) 280(Out)
7/3 (short)	3
8/1	7
8/2	2
9/1	1037
9/2	1029
9/3 (with short)	1072(In) 1072(Out)
9/4 (short)	0
10/1	710
10/2	1191
10/3	1244
11/1	1044

Full Input Data And Results

Lane Saturation Flows

Junction: A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Church Street entry)	3.00	0.00	Y	Arm 4 Right	50.00	88.5 %	1855	1855
				Arm 6 Left	30.00	11.5 %		
1/2 (Church Street entry)	3.00	0.00	Y	Arm 4 Right	50.00	100.0 %	1859	1859
2/1 (Church Street circulatory)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/2 (Church Street circulatory)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/3 (Church Street circulatory)	3.50	0.00	Y	Arm 4 Right	25.00	0.0 %	1965	1965
3/1 (Church Street exit)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
4/1 (Commercial Road circulatory)	3.25	0.00	Y	Arm 10 Right	50.00	100.0 %	1883	1883
4/2 (Commercial Road circulatory)	3.25	0.00	Y	Arm 10 Right	50.00	100.0 %	1883	1883
4/3 (Commercial Road circulatory)	3.25	0.00	Y	Arm 8 Right	50.00	0.5 %	1883	1883
				Arm 10 Right	50.00	99.5 %		
5/1 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	100.0 %	1883	1883
5/2 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	100.0 %	1883	1883
5/3 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	100.0 %	1883	1883
6/1 (Commercial Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (Commercial Road exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Hope Street entry)	3.50	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1936	1936
7/2 (Hope Street entry)	3.50	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1936	1936
7/3 (Hope Street entry)	3.50	0.00	Y	Arm 8 Ahead	50.00	100.0 %	1908	1908
8/1 (A3 Mile End Road circulatory)	3.50	0.00	Y	Arm 3 Ahead	30.00	100.0 %	1871	1871
8/2 (A3 Mile End Road circulatory)	3.50	0.00	Y	Arm 2 Right	30.00	100.0 %	1871	1871
9/1 (A3 Mile End Road entry)	4.00	0.00	Y	Arm 3 Ahead	20.00	100.0 %	1874	1874
9/2 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	100.0 %	1908	1908
9/3 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	100.0 %	1908	1908
9/4 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	0.0 %	1965	1965

Full Input Data And Results

10/1 (A3 Mile End Road exit Lane 1)	Infinite Saturation Flow	Inf	Inf
10/2 (A3 Mile End Road exit Lane 2)	Infinite Saturation Flow	Inf	Inf
10/3 (A3 Mile End Road exit Lane 3)	Infinite Saturation Flow	Inf	Inf
11/1 (Church Street exit Lane 1)	Infinite Saturation Flow	Inf	Inf

Scenario 4: 'EMM - DS1 PM' (FG4: 'EMM - DS1 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	149	0	964	1113
	B	4	0	0	1442	1446
	C	10	0	0	1236	1246
	D	1004	1794	0	0	2798
	Tot.	1018	1943	0	3642	6603

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: EMM - DS1 PM
Junction: A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	
1/1 (short)	636
1/2 (with short)	1113(In) 477(Out)
2/1	882
2/2	912
2/3	0
3/1	1018
4/1	540
4/2	939
4/3	931
5/1 (short)	540
5/2 (with short)	992(In) 452(Out)
5/3	454
6/1	957
6/2	986
7/1	616
7/2 (with short)	630(In) 620(Out)
7/3 (short)	10
8/1	14
8/2	0
9/1	1004
9/2	882
9/3 (with short)	912(In) 912(Out)
9/4 (short)	0
10/1	1156
10/2	1249
10/3	1237
11/1	1018

Full Input Data And Results

Lane Saturation Flows

Junction: A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Church Street entry)	3.00	0.00	Y	Arm 4 Right	50.00	76.6 %	1851	1851
				Arm 6 Left	30.00	23.4 %		
1/2 (Church Street entry)	3.00	0.00	Y	Arm 4 Right	50.00	100.0 %	1859	1859
2/1 (Church Street circulatory)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/2 (Church Street circulatory)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/3 (Church Street circulatory)	3.50	0.00	Y	Arm 4 Right	25.00	0.0 %	1965	1965
3/1 (Church Street exit)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
4/1 (Commercial Road circulatory)	3.25	0.00	Y	Arm 10 Right	50.00	100.0 %	1883	1883
4/2 (Commercial Road circulatory)	3.25	0.00	Y	Arm 10 Right	50.00	100.0 %	1883	1883
4/3 (Commercial Road circulatory)	3.25	0.00	Y	Arm 8 Right	50.00	0.4 %	1883	1883
				Arm 10 Right	50.00	99.6 %		
5/1 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	100.0 %	1883	1883
5/2 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	100.0 %	1883	1883
5/3 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	100.0 %	1883	1883
6/1 (Commercial Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (Commercial Road exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Hope Street entry)	3.50	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1936	1936
7/2 (Hope Street entry)	3.50	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1936	1936
7/3 (Hope Street entry)	3.50	0.00	Y	Arm 8 Ahead	50.00	100.0 %	1908	1908
8/1 (A3 Mile End Road circulatory)	3.50	0.00	Y	Arm 3 Ahead	30.00	100.0 %	1871	1871
8/2 (A3 Mile End Road circulatory)	3.50	0.00	Y	Arm 2 Right	30.00	0.0 %	1965	1965
9/1 (A3 Mile End Road entry)	4.00	0.00	Y	Arm 3 Ahead	20.00	100.0 %	1874	1874
9/2 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	100.0 %	1908	1908
9/3 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	100.0 %	1908	1908
9/4 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	0.0 %	1965	1965

Full Input Data And Results

10/1 (A3 Mile End Road exit Lane 1)	Infinite Saturation Flow	Inf	Inf
10/2 (A3 Mile End Road exit Lane 2)	Infinite Saturation Flow	Inf	Inf
10/3 (A3 Mile End Road exit Lane 3)	Infinite Saturation Flow	Inf	Inf
11/1 (Church Street exit Lane 1)	Infinite Saturation Flow	Inf	Inf

Scenario 5: 'EML - DS2 AM' (FG5: 'EML - DS2 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	88	0	1501	1589
	B	5	4	0	1105	1114
	C	2	3	0	562	567
	D	1018	2103	0	0	3121
	Tot.	1025	2198	0	3168	6391

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: EML - DS2 AM
Junction: A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	
1/1 (short)	990
1/2 (with short)	1589(In) 599(Out)
2/1	1054
2/2	1052
2/3	0
3/1	1025
4/1	1105
4/2	902
4/3	604
5/1 (short)	1105
5/2 (with short)	1105(In) 0(Out)
5/3	5
6/1	1098
6/2	1096
7/1	280
7/2 (with short)	287(In) 282(Out)
7/3 (short)	5
8/1	7
8/2	3
9/1	1018
9/2	1052
9/3 (with short)	1051(In) 1051(Out)
9/4 (short)	0
10/1	1385
10/2	1043
10/3	740
11/1	1025

Full Input Data And Results

Lane Saturation Flows

Junction: A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Church Street entry)	3.00	0.00	Y	Arm 4 Right	50.00	91.1 %	1856	1856
				Arm 6 Left	30.00	8.9 %		
1/2 (Church Street entry)	3.00	0.00	Y	Arm 4 Right	50.00	100.0 %	1859	1859
2/1 (Church Street circulatory)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/2 (Church Street circulatory)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/3 (Church Street circulatory)	3.50	0.00	Y	Arm 4 Right	25.00	0.0 %	1965	1965
3/1 (Church Street exit)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
4/1 (Commercial Road circulatory)	3.25	0.00	Y	Arm 10 Right	50.00	100.0 %	1883	1883
4/2 (Commercial Road circulatory)	3.25	0.00	Y	Arm 10 Right	50.00	100.0 %	1883	1883
4/3 (Commercial Road circulatory)	3.25	0.00	Y	Arm 8 Right	50.00	0.8 %	1883	1883
				Arm 10 Right	50.00	99.2 %		
5/1 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	100.0 %	1883	1883
5/2 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	0.0 %	1940	1940
5/3 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	100.0 %	1883	1883
6/1 (Commercial Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (Commercial Road exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Hope Street entry)	3.50	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1936	1936
7/2 (Hope Street entry)	3.50	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1936	1936
7/3 (Hope Street entry)	3.50	0.00	Y	Arm 8 Ahead	50.00	100.0 %	1908	1908
8/1 (A3 Mile End Road circulatory)	3.50	0.00	Y	Arm 3 Ahead	30.00	100.0 %	1871	1871
8/2 (A3 Mile End Road circulatory)	3.50	0.00	Y	Arm 2 Right	30.00	100.0 %	1871	1871
9/1 (A3 Mile End Road entry)	4.00	0.00	Y	Arm 3 Ahead	20.00	100.0 %	1874	1874
9/2 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	100.0 %	1908	1908
9/3 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	100.0 %	1908	1908
9/4 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	0.0 %	1965	1965

Full Input Data And Results

10/1 (A3 Mile End Road exit Lane 1)	Infinite Saturation Flow	Inf	Inf
10/2 (A3 Mile End Road exit Lane 2)	Infinite Saturation Flow	Inf	Inf
10/3 (A3 Mile End Road exit Lane 3)	Infinite Saturation Flow	Inf	Inf
11/1 (Church Street exit Lane 1)	Infinite Saturation Flow	Inf	Inf

Scenario 6: 'EML - DS2 PM' (FG6: 'EML - DS2 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	138	0	944	1082
	B	4	0	0	1465	1469
	C	12	0	0	1238	1250
	D	963	1805	0	0	2768
	Tot.	979	1943	0	3647	6569

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: EML - DS2 PM
Junction: A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	
1/1 (short)	614
1/2 (with short)	1082(In) 468(Out)
2/1	887
2/2	918
2/3	0
3/1	979
4/1	548
4/2	936
4/3	929
5/1 (short)	548
5/2 (with short)	1008(In) 460(Out)
5/3	461
6/1	956
6/2	987
7/1	616
7/2 (with short)	634(In) 622(Out)
7/3 (short)	12
8/1	16
8/2	0
9/1	963
9/2	887
9/3 (with short)	918(In) 918(Out)
9/4 (short)	0
10/1	1164
10/2	1247
10/3	1236
11/1	979

Full Input Data And Results

Lane Saturation Flows

Junction: A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Church Street entry)	3.00	0.00	Y	Arm 4 Right	50.00	77.5 %	1851	1851
				Arm 6 Left	30.00	22.5 %		
1/2 (Church Street entry)	3.00	0.00	Y	Arm 4 Right	50.00	100.0 %	1859	1859
2/1 (Church Street circulatory)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/2 (Church Street circulatory)	3.50	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1965	1965
2/3 (Church Street circulatory)	3.50	0.00	Y	Arm 4 Right	25.00	0.0 %	1965	1965
3/1 (Church Street exit)	3.25	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1940	1940
4/1 (Commercial Road circulatory)	3.25	0.00	Y	Arm 10 Right	50.00	100.0 %	1883	1883
4/2 (Commercial Road circulatory)	3.25	0.00	Y	Arm 10 Right	50.00	100.0 %	1883	1883
4/3 (Commercial Road circulatory)	3.25	0.00	Y	Arm 8 Right	50.00	0.4 %	1883	1883
				Arm 10 Right	50.00	99.6 %		
5/1 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	100.0 %	1883	1883
5/2 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	100.0 %	1883	1883
5/3 (Commercial road entry)	3.25	0.00	Y	Arm 4 Ahead	50.00	100.0 %	1883	1883
6/1 (Commercial Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (Commercial Road exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Hope Street entry)	3.50	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1936	1936
7/2 (Hope Street entry)	3.50	0.00	Y	Arm 10 Ahead	100.00	100.0 %	1936	1936
7/3 (Hope Street entry)	3.50	0.00	Y	Arm 8 Ahead	50.00	100.0 %	1908	1908
8/1 (A3 Mile End Road circulatory)	3.50	0.00	Y	Arm 3 Ahead	30.00	100.0 %	1871	1871
8/2 (A3 Mile End Road circulatory)	3.50	0.00	Y	Arm 2 Right	30.00	0.0 %	1965	1965
9/1 (A3 Mile End Road entry)	4.00	0.00	Y	Arm 3 Ahead	20.00	100.0 %	1874	1874
9/2 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	100.0 %	1908	1908
9/3 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	100.0 %	1908	1908
9/4 (A3 Mile End Road entry)	3.50	0.00	Y	Arm 2 Ahead	50.00	0.0 %	1965	1965

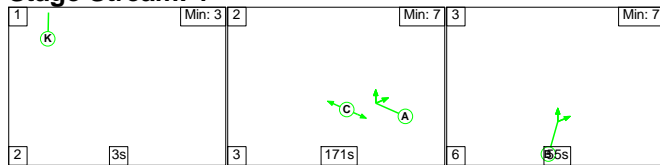
Full Input Data And Results

10/1 (A3 Mile End Road exit Lane 1)	Infinite Saturation Flow	Inf	Inf
10/2 (A3 Mile End Road exit Lane 2)	Infinite Saturation Flow	Inf	Inf
10/3 (A3 Mile End Road exit Lane 3)	Infinite Saturation Flow	Inf	Inf
11/1 (Church Street exit Lane 1)	Infinite Saturation Flow	Inf	Inf

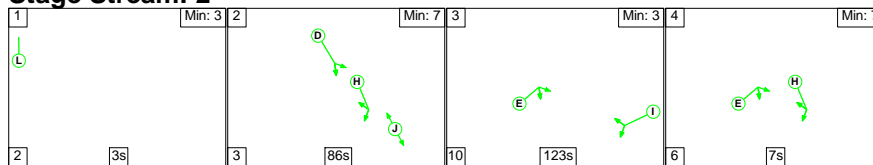
Scenario 1: 'ELM - DM AM' (FG1: 'ELM - DM AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

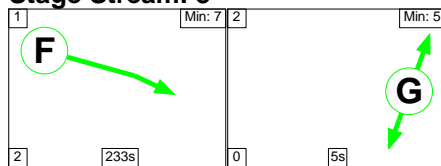
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	3	171	55
Change Point	0	5	179

Stage Stream: 2

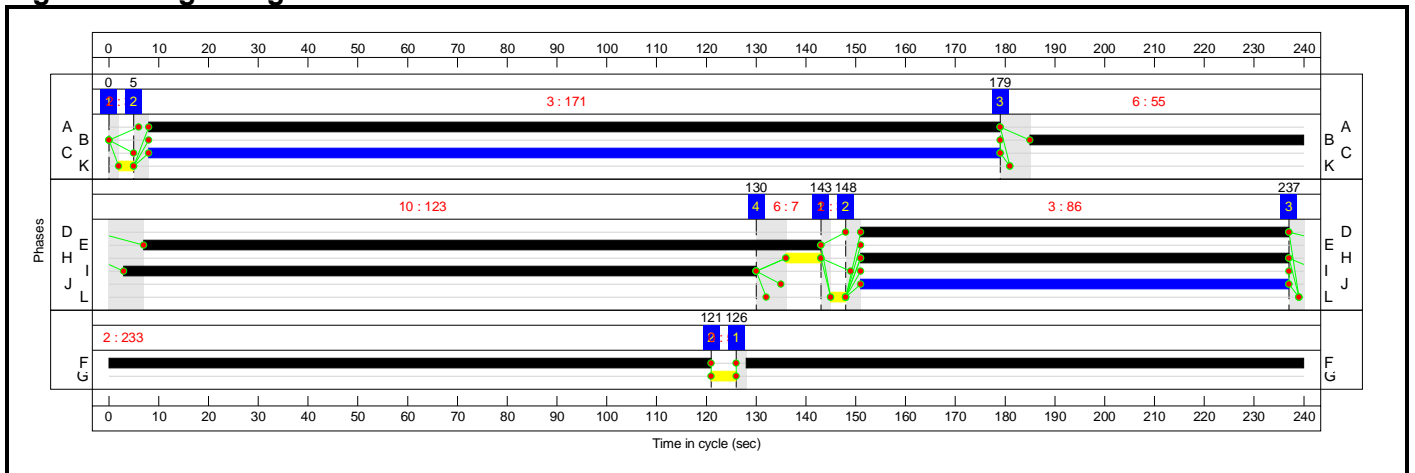
Stage	1	2	3	4
Duration	3	86	123	7
Change Point	143	148	237	130

Stage Stream: 3

Stage	1	2
Duration	233	5
Change Point	126	121

Full Input Data And Results

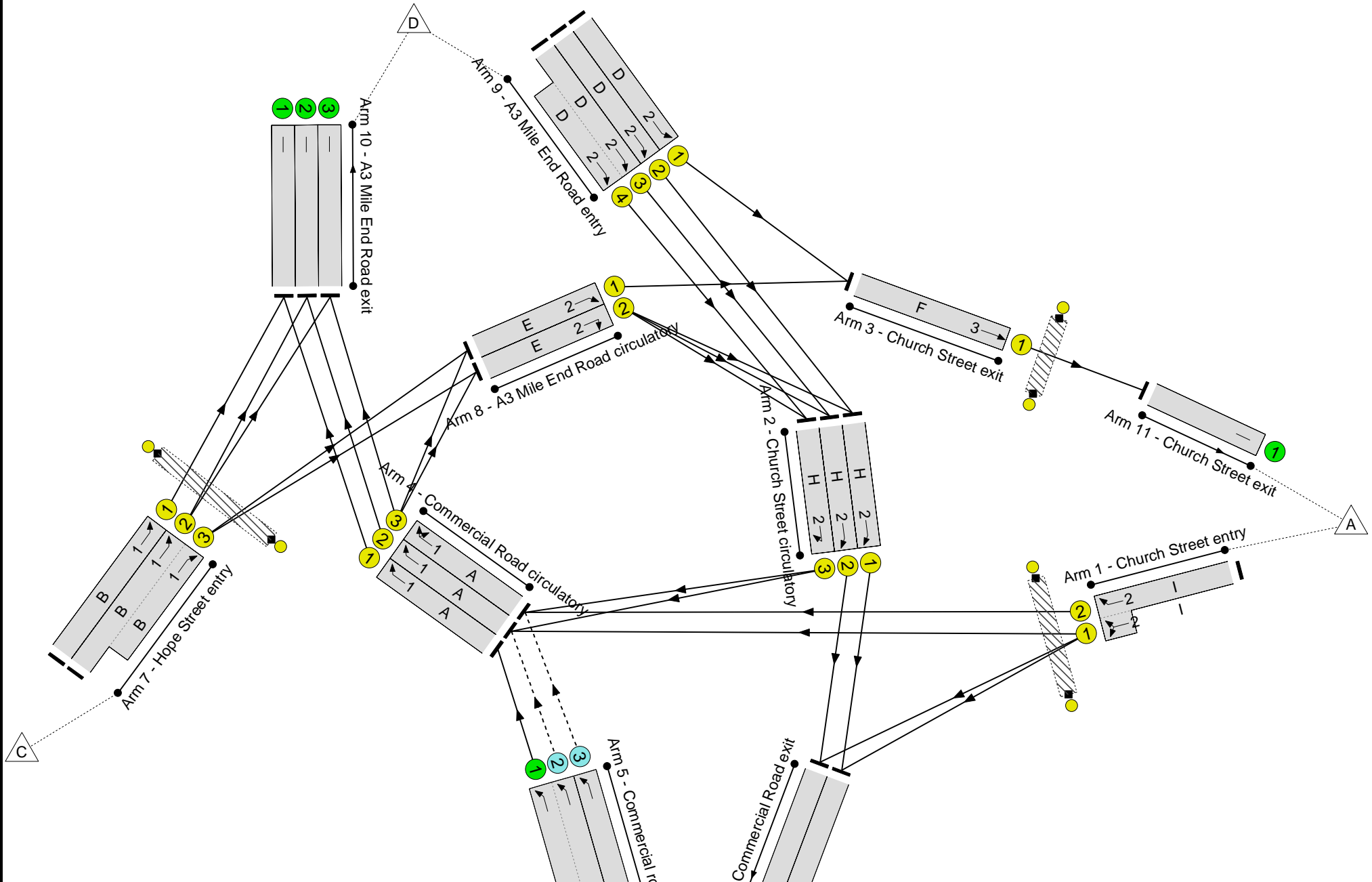
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout
 PRC: -72.9 %
 Total Traffic Delay: 1157.0 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	155.6%
A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	-	-	N/A	-	-		-	-	-	-	-	-	155.6%
1/2+1/1	Church Street entry Right Left	U	2	N/A	I		1	127	-	1588	1859:1855	1021	155.6%
2/1	Church Street circulatory Ahead	U	2	N/A	H		2	93	-	1027	1965	778	89.2%
2/2	Church Street circulatory Ahead	U	2	N/A	H		2	93	-	1068	1965	778	89.1%
2/3	Church Street circulatory Right	U	2	N/A	H		2	93	-	0	1965	-	-
3/1	Church Street exit Ahead	U	3	N/A	F		1	233	-	1021	1940	1892	36.3%
4/1	Commercial Road circulatory Right	U	1	N/A	A		1	171	-	436	1883	1349	32.3%
4/2	Commercial Road circulatory Right	U	1	N/A	A		1	171	-	1057	1883	1349	59.3%
4/3	Commercial Road circulatory Right Right2	U	1	N/A	A		1	171	-	1108	1883	1349	61.5%
5/2+5/1	Commercial road entry Ahead	O+U	N/A	N/A	-		-	-	-	775	1883:1883	1085	71.5%
5/3	Commercial road entry Ahead	O	N/A	N/A	-		-	-	-	331	1883	672	49.3%
6/1	Commercial Road exit	U	N/A	N/A	-		-	-	-	1074	Inf	Inf	0.0%
6/2	Commercial Road exit	U	N/A	N/A	-		-	-	-	1114	Inf	Inf	0.0%

Full Input Data And Results

7/1	Hope Street entry Ahead	U	1	N/A	B		1	55	-	278	1936	452	61.5%
7/2+7/3	Hope Street entry Ahead Ahead2	U	1	N/A	B		1	55	-	285	1936:1908	458	62.2%
8/1	A3 Mile End Road circulatory Ahead	U	2	N/A	E		1	136	-	8	1871	1068	0.7%
8/2	A3 Mile End Road circulatory Right	U	2	N/A	E		1	136	-	3	1871	1068	0.3%
9/1	A3 Mile End Road entry Ahead	U	2	N/A	D		1	86	-	1013	1874	679	149.1%
9/2	A3 Mile End Road entry Ahead	U	2	N/A	D		1	86	-	1025	1908	692	148.2%
9/3+9/4	A3 Mile End Road entry Ahead	U	2	N/A	D		1	86	-	1067	1908:1965	692	154.3%
10/1	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	714	Inf	Inf	0.0%
10/2	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	1197	Inf	Inf	0.0%
10/3	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	1242	Inf	Inf	0.0%
11/1	Church Street exit	U	N/A	N/A	-		-	-	-	1021	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	2	-	J		1	86	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	1	-	C		1	171	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	3	-	G		1	5	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	670	0	333.4	823.6	0.0	1157.0	-	-	-	-
A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	-	-	0	670	0	333.4	823.6	0.0	1157.0	-	-	-	-
1/2+1/1	1588	1021	-	-	-	89.0	285.0	-	374.1	848.0	142.6	285.0	427.6
2/1	694	694	-	-	-	1.7	3.8	-	5.5	28.5	3.0	3.8	6.8
2/2	693	693	-	-	-	1.7	3.7	-	5.4	28.1	2.9	3.7	6.7
2/3	-	-	-	-	-	-	-	-	-	-	-	-	-
3/1	687	687	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
4/1	436	436	-	-	-	1.6	0.2	-	1.8	14.9	10.8	0.2	11.0
4/2	800	800	-	-	-	1.4	0.7	-	2.1	9.5	14.2	0.7	14.9
4/3	830	830	-	-	-	1.4	0.8	-	2.2	9.3	14.9	0.8	15.7
5/2+5/1	775	775	0	339	0	4.8	1.2	-	6.0	28.1	23.7	1.2	25.0
5/3	331	331	0	331	0	4.1	0.5	-	4.6	49.6	15.3	0.5	15.7
6/1	724	724	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	722	722	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	278	278	-	-	-	6.4	0.8	-	7.2	92.6	16.5	0.8	17.3
7/2+7/3	285	285	-	-	-	6.5	0.8	-	7.3	92.7	16.8	0.8	17.6
8/1	8	8	-	-	-	0.1	0.0	-	0.1	54.4	0.4	0.0	0.4
8/2	3	3	-	-	-	0.0	0.0	-	0.0	44.0	0.2	0.0	0.2
9/1	1013	679	-	-	-	70.1	168.3	-	238.4	847.4	112.0	168.3	280.4
9/2	1025	692	-	-	-	70.3	168.2	-	238.5	837.7	112.8	168.2	281.0
9/3+9/4	1067	692	-	-	-	74.3	189.1	-	263.4	888.8	118.2	189.1	307.3
10/1	714	714	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	940	940	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/3	964	964	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	687	687	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

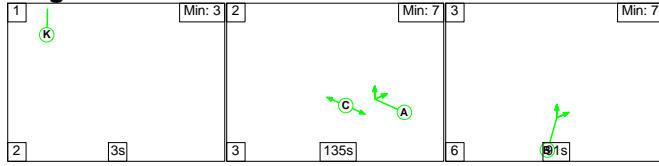
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-																																																												
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-																																																												
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-																																																												
<table> <tbody> <tr> <td>C1</td> <td>Stream: 1 PRC for Signalled Lanes (%)</td> <td>44.6</td> <td colspan="5">Total Delay for Signalled Lanes (pcuHr):</td> <td>20.56</td> <td colspan="5">Cycle Time (s):</td> <td>240</td> </tr> <tr> <td>C1</td> <td>Stream: 2 PRC for Signalled Lanes (%)</td> <td>-72.9</td> <td colspan="5">Total Delay for Signalled Lanes (pcuHr):</td> <td>1125.51</td> <td colspan="5">Cycle Time (s):</td> <td>240</td> </tr> <tr> <td>C1</td> <td>Stream: 3 PRC for Signalled Lanes (%)</td> <td>147.7</td> <td colspan="5">Total Delay for Signalled Lanes (pcuHr):</td> <td>0.29</td> <td colspan="5">Cycle Time (s):</td> <td>240</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>-72.9</td> <td colspan="5">Total Delay Over All Lanes(pcuHr):</td> <td>1156.96</td> <td colspan="5"></td> <td></td> </tr> </tbody> </table>														C1	Stream: 1 PRC for Signalled Lanes (%)	44.6	Total Delay for Signalled Lanes (pcuHr):					20.56	Cycle Time (s):					240	C1	Stream: 2 PRC for Signalled Lanes (%)	-72.9	Total Delay for Signalled Lanes (pcuHr):					1125.51	Cycle Time (s):					240	C1	Stream: 3 PRC for Signalled Lanes (%)	147.7	Total Delay for Signalled Lanes (pcuHr):					0.29	Cycle Time (s):					240		PRC Over All Lanes (%)	-72.9	Total Delay Over All Lanes(pcuHr):					1156.96						
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Full Input Data And Results

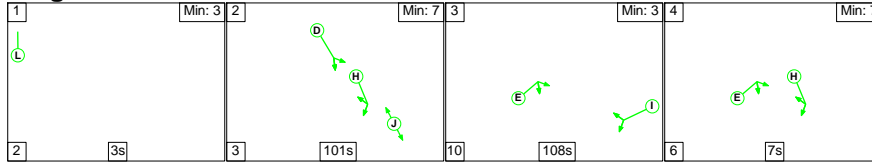
Scenario 2: 'ELM - DM PM' (FG2: 'ELM - DM PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

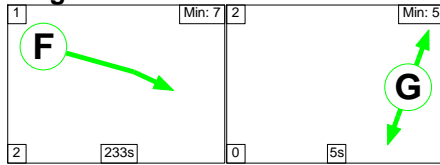
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	3	135	91
Change Point	0	5	143

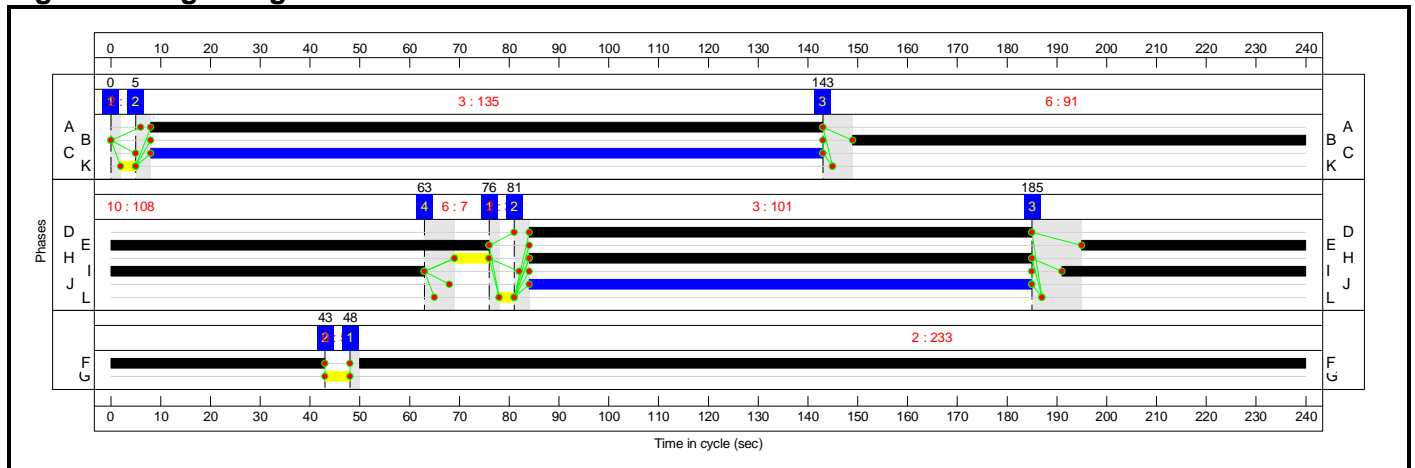
Stage Stream: 2

Stage	1	2	3	4
Duration	3	101	108	7
Change Point	76	81	185	63

Stage Stream: 3

Stage	1	2
Duration	233	5
Change Point	48	43

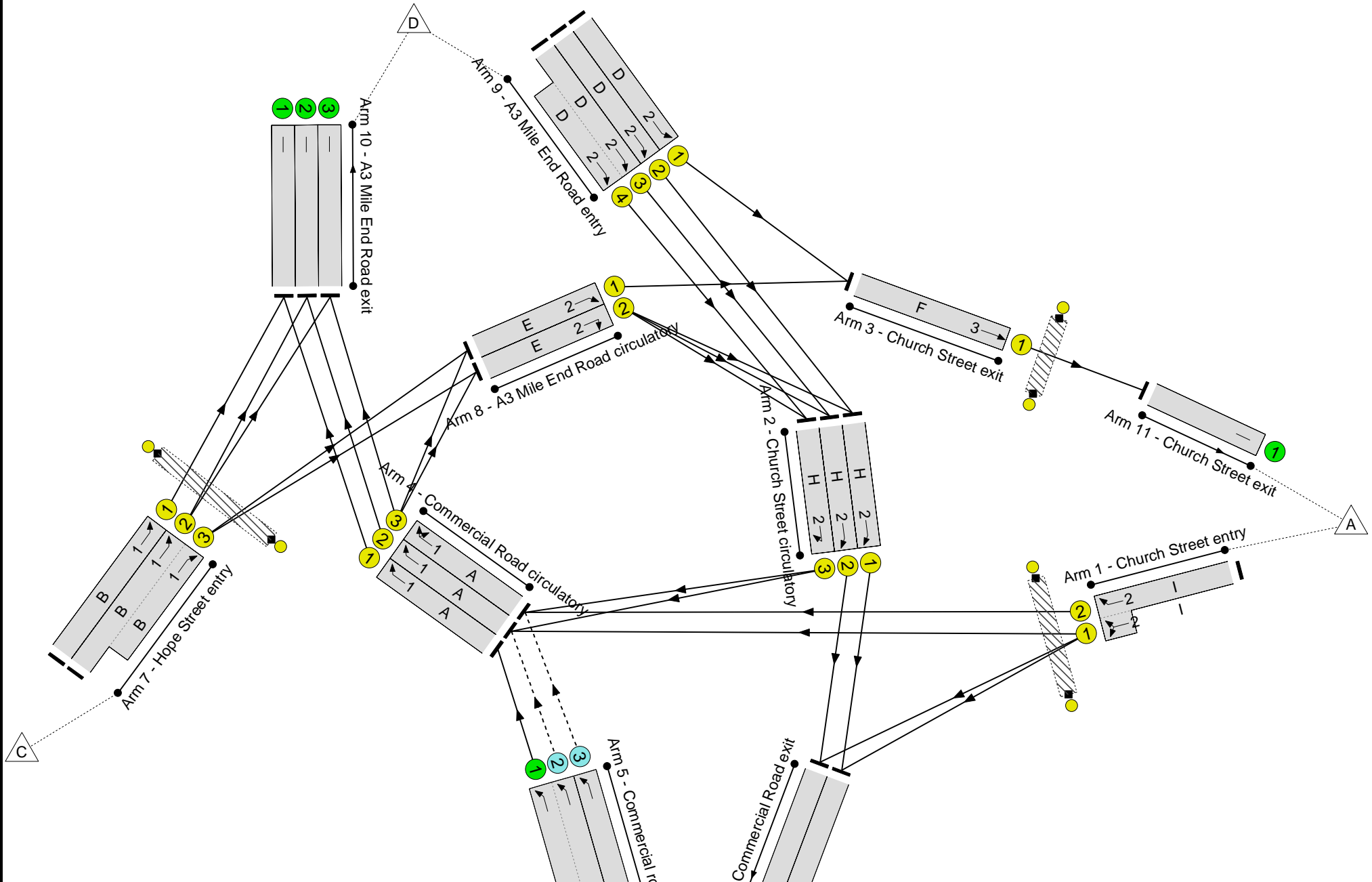
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout
 PRC: -34.2 %
 Total Traffic Delay: 487.1 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	120.8%
A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	-	-	N/A	-	-		-	-	-	-	-	-	120.8%
1/2+1/1	Church Street entry Right Left	U	2	N/A	I		1	112	-	1084	1859:1851	897	120.8%
2/1	Church Street circulatory Ahead	U	2	N/A	H		2	108	-	886	1965	901	90.0%
2/2	Church Street circulatory Ahead	U	2	N/A	H		2	108	-	917	1965	901	90.0%
2/3	Church Street circulatory Right	U	2	N/A	H		2	108	-	0	1965	-	-
3/1	Church Street exit Ahead	U	3	N/A	F		1	233	-	974	1940	1892	42.8%
4/1	Commercial Road circulatory Right	U	1	N/A	A		1	135	-	548	1883	1067	51.4%
4/2	Commercial Road circulatory Right	U	1	N/A	A		1	135	-	935	1883	1067	79.9%
4/3	Commercial Road circulatory Right Right2	U	1	N/A	A		1	135	-	929	1883	1067	79.5%
5/2+5/1	Commercial road entry Ahead	O+U	N/A	N/A	-		-	-	-	1007	1883:1883	1188	84.8%
5/3	Commercial road entry Ahead	O	N/A	N/A	-		-	-	-	460	1883	761	60.4%
6/1	Commercial Road exit	U	N/A	N/A	-		-	-	-	956	Inf	Inf	0.0%
6/2	Commercial Road exit	U	N/A	N/A	-		-	-	-	986	Inf	Inf	0.0%

Full Input Data And Results

7/1	Hope Street entry Ahead	U	1	N/A	B		1	91	-	616	1936	742	83.0%
7/2+7/3	Hope Street entry Ahead Ahead2	U	1	N/A	B		1	91	-	631	1936:1908	748	84.3%
8/1	A3 Mile End Road circulatory Ahead	U	2	N/A	E		1	121	-	14	1871	951	1.5%
8/2	A3 Mile End Road circulatory Right	U	2	N/A	E		1	121	-	0	1965	999	0.0%
9/1	A3 Mile End Road entry Ahead	U	2	N/A	D		1	101	-	960	1874	796	120.5%
9/2	A3 Mile End Road entry Ahead	U	2	N/A	D		1	101	-	886	1908	811	109.3%
9/3+9/4	A3 Mile End Road entry Ahead	U	2	N/A	D		1	101	-	917	1908:1965	811	113.1%
10/1	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	1164	Inf	Inf	0.0%
10/2	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	1245	Inf	Inf	0.0%
10/3	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	1236	Inf	Inf	0.0%
11/1	Church Street exit	U	N/A	N/A	-		-	-	-	974	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	2	-	J		1	101	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	1	-	C		1	135	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	3	-	G		1	5	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	919	0	185.1	302.0	0.0	487.1	-	-	-	-
A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	-	-	0	919	0	185.1	302.0	0.0	487.1	-	-	-	-
1/2+1/1	1084	897	-	-	-	43.2	96.2	-	139.4	462.8	83.7	96.2	179.9
2/1	811	811	-	-	-	1.5	4.1	-	5.6	24.9	2.9	4.1	7.0
2/2	811	811	-	-	-	1.5	4.1	-	5.6	24.9	2.9	4.1	7.0
2/3	-	-	-	-	-	-	-	-	-	-	-	-	-
3/1	810	810	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
4/1	548	548	-	-	-	5.0	0.5	-	5.5	36.1	20.6	0.5	21.1
4/2	853	853	-	-	-	6.6	2.0	-	8.5	35.9	37.2	2.0	39.2
4/3	848	848	-	-	-	6.3	1.9	-	8.2	34.8	34.6	1.9	36.5
5/2+5/1	1007	1007	0	459	0	7.0	2.7	-	9.7	34.6	40.9	2.7	43.6
5/3	460	460	0	460	0	5.0	0.8	-	5.8	45.0	21.2	0.8	22.0
6/1	869	869	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	868	868	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	616	616	-	-	-	11.5	2.4	-	13.8	80.7	37.1	2.4	39.5
7/2+7/3	631	631	-	-	-	11.8	2.6	-	14.4	81.9	38.1	2.6	40.6
8/1	14	14	-	-	-	0.1	0.0	-	0.1	26.3	0.5	0.0	0.6
8/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	960	796	-	-	-	34.0	84.6	-	118.6	444.8	74.9	84.6	159.5
9/2	886	811	-	-	-	24.1	42.7	-	66.9	271.8	64.1	42.7	106.8
9/3+9/4	917	811	-	-	-	27.7	57.1	-	84.8	332.8	70.8	57.1	127.8
10/1	1164	1164	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	1163	1163	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/3	1155	1155	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	810	810	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

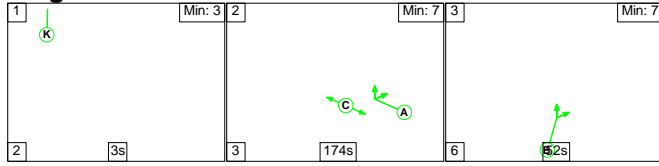
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-																												
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-																												
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-																												
<table> <tbody> <tr> <td>C1</td> <td>Stream: 1 PRC for Signalled Lanes (%)</td> <td>6.7</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>50.36</td> <td>Cycle Time (s):</td> <td>240</td> </tr> <tr> <td>C1</td> <td>Stream: 2 PRC for Signalled Lanes (%)</td> <td>-34.2</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>420.92</td> <td>Cycle Time (s):</td> <td>240</td> </tr> <tr> <td>C1</td> <td>Stream: 3 PRC for Signalled Lanes (%)</td> <td>110.0</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>0.37</td> <td>Cycle Time (s):</td> <td>240</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>-34.2</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>487.08</td> <td></td> <td></td> </tr> </tbody> </table>														C1	Stream: 1 PRC for Signalled Lanes (%)	6.7	Total Delay for Signalled Lanes (pcuHr):	50.36	Cycle Time (s):	240	C1	Stream: 2 PRC for Signalled Lanes (%)	-34.2	Total Delay for Signalled Lanes (pcuHr):	420.92	Cycle Time (s):	240	C1	Stream: 3 PRC for Signalled Lanes (%)	110.0	Total Delay for Signalled Lanes (pcuHr):	0.37	Cycle Time (s):	240		PRC Over All Lanes (%)	-34.2	Total Delay Over All Lanes(pcuHr):	487.08		
C1	Stream: 1 PRC for Signalled Lanes (%)	6.7	Total Delay for Signalled Lanes (pcuHr):	50.36	Cycle Time (s):	240																																			
C1	Stream: 2 PRC for Signalled Lanes (%)	-34.2	Total Delay for Signalled Lanes (pcuHr):	420.92	Cycle Time (s):	240																																			
C1	Stream: 3 PRC for Signalled Lanes (%)	110.0	Total Delay for Signalled Lanes (pcuHr):	0.37	Cycle Time (s):	240																																			
	PRC Over All Lanes (%)	-34.2	Total Delay Over All Lanes(pcuHr):	487.08																																					

Full Input Data And Results

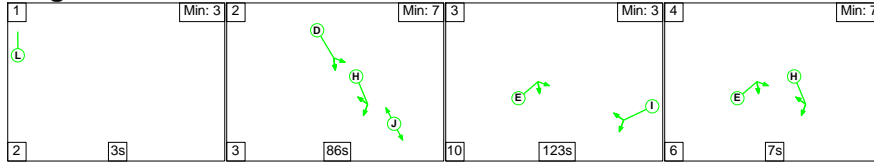
Scenario 3: 'EMM - DS1 AM' (FG3: 'EMM - DS1 AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

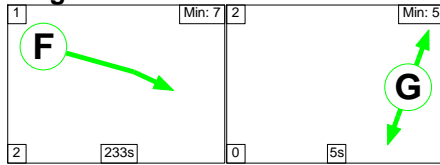
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	3	174	52
Change Point	0	5	182

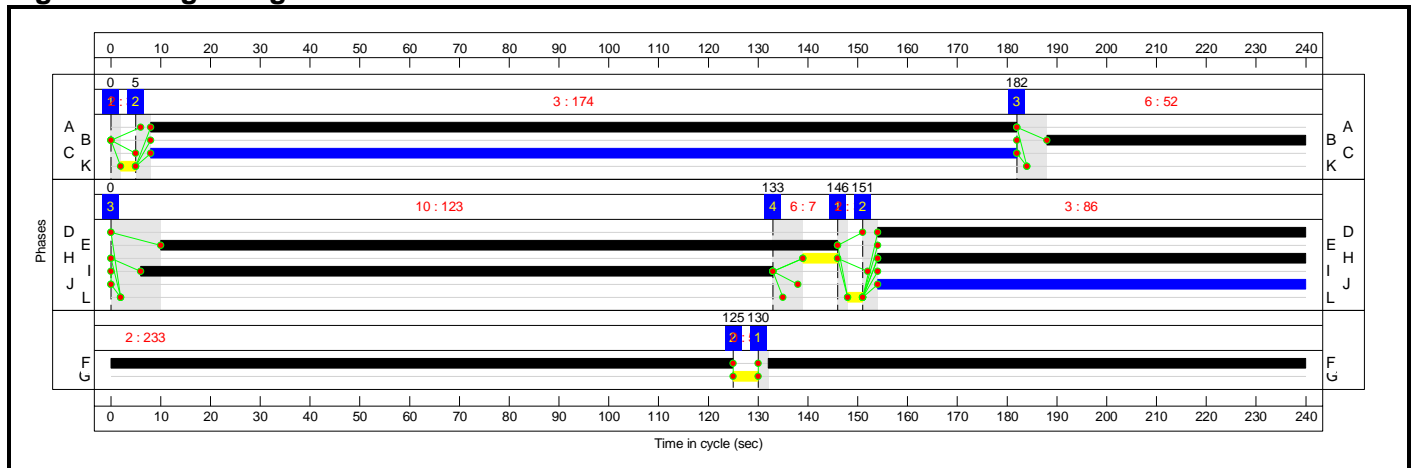
Stage Stream: 2

Stage	1	2	3	4
Duration	3	86	123	7
Change Point	146	151	0	133

Stage Stream: 3

Stage	1	2
Duration	233	5
Change Point	130	125

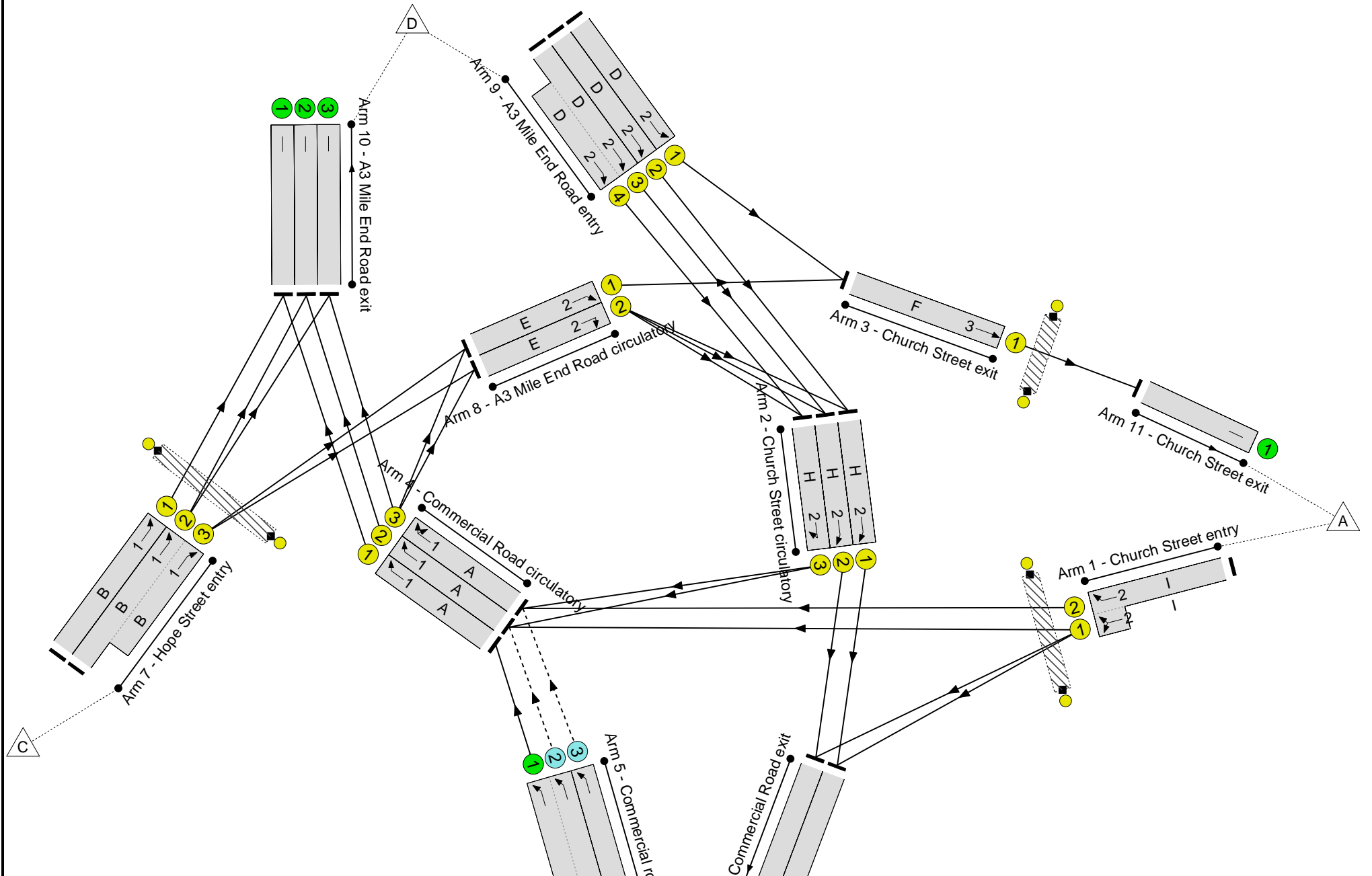
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout
 PRC: -72.9 %
 Total Traffic Delay: 1178.5 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	155.6%
A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	-	-	N/A	-	-		-	-	-	-	-	-	155.6%
1/2+1/1	Church Street entry Right Left	U	2	N/A	I		1	127	-	1589	1859:1855	1021	155.6%
2/1	Church Street circulatory Ahead	U	2	N/A	H		2	93	-	1030	1965	778	89.1%
2/2	Church Street circulatory Ahead	U	2	N/A	H		2	93	-	1073	1965	778	89.1%
2/3	Church Street circulatory Right	U	2	N/A	H		2	93	-	0	1965	-	-
3/1	Church Street exit Ahead	U	3	N/A	F		1	233	-	1044	1940	1892	36.3%
4/1	Commercial Road circulatory Right	U	1	N/A	A		1	174	-	433	1883	1373	31.5%
4/2	Commercial Road circulatory Right	U	1	N/A	A		1	174	-	1051	1883	1373	58.0%
4/3	Commercial Road circulatory Right Right2	U	1	N/A	A		1	174	-	1110	1883	1373	60.5%
5/2+5/1	Commercial road entry Ahead	O+U	N/A	N/A	-		-	-	-	770	1883:1883	1084	71.0%
5/3	Commercial road entry Ahead	O	N/A	N/A	-		-	-	-	328	1883	672	48.8%
6/1	Commercial Road exit	U	N/A	N/A	-		-	-	-	1077	Inf	Inf	0.0%
6/2	Commercial Road exit	U	N/A	N/A	-		-	-	-	1119	Inf	Inf	0.0%

Full Input Data And Results

7/1	Hope Street entry Ahead	U	1	N/A	B		1	52	-	277	1936	428	64.8%
7/2+7/3	Hope Street entry Ahead Ahead2	U	1	N/A	B		1	52	-	283	1936:1908	432	65.5%
8/1	A3 Mile End Road circulatory Ahead	U	2	N/A	E		1	136	-	7	1871	1068	0.7%
8/2	A3 Mile End Road circulatory Right	U	2	N/A	E		1	136	-	2	1871	1068	0.2%
9/1	A3 Mile End Road entry Ahead	U	2	N/A	D		1	86	-	1037	1874	679	152.7%
9/2	A3 Mile End Road entry Ahead	U	2	N/A	D		1	86	-	1029	1908	692	148.8%
9/3+9/4	A3 Mile End Road entry Ahead	U	2	N/A	D		1	86	-	1072	1908:1965	692	155.0%
10/1	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	710	Inf	Inf	0.0%
10/2	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	1191	Inf	Inf	0.0%
10/3	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	1244	Inf	Inf	0.0%
11/1	Church Street exit	U	N/A	N/A	-		-	-	-	1044	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	2	-	J		1	86	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	1	-	C		1	174	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	3	-	G		1	5	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	665	0	338.1	840.4	0.0	1178.5	-	-	-	-
A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	-	-	0	665	0	338.1	840.4	0.0	1178.5	-	-	-	-
1/2+1/1	1589	1021	-	-	-	88.6	285.4	-	374.0	847.3	142.6	285.4	428.0
2/1	693	693	-	-	-	1.7	3.7	-	5.4	28.1	2.9	3.7	6.7
2/2	693	693	-	-	-	1.7	3.7	-	5.4	28.1	2.9	3.7	6.7
2/3	-	-	-	-	-	-	-	-	-	-	-	-	-
3/1	686	686	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
4/1	433	433	-	-	-	1.4	0.2	-	1.6	13.5	10.2	0.2	10.4
4/2	796	796	-	-	-	1.2	0.7	-	1.9	8.5	12.7	0.7	13.4
4/3	830	830	-	-	-	1.2	0.8	-	1.9	8.4	13.3	0.8	14.1
5/2+5/1	770	770	0	337	0	4.7	1.2	-	6.0	27.8	23.7	1.2	24.9
5/3	328	328	0	328	0	4.0	0.5	-	4.5	49.4	15.0	0.5	15.5
6/1	723	723	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	722	722	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	277	277	-	-	-	6.5	0.9	-	7.5	96.8	16.8	0.9	17.7
7/2+7/3	283	283	-	-	-	6.7	0.9	-	7.6	97.1	17.0	0.9	18.0
8/1	7	7	-	-	-	0.1	0.0	-	0.1	56.0	0.3	0.0	0.3
8/2	2	2	-	-	-	0.0	0.0	-	0.0	44.3	0.1	0.0	0.1
9/1	1037	679	-	-	-	73.8	180.3	-	254.1	882.0	116.0	180.3	296.2
9/2	1029	692	-	-	-	70.7	170.2	-	240.9	842.7	112.7	170.2	282.9
9/3+9/4	1072	692	-	-	-	75.7	191.6	-	267.3	897.7	119.2	191.6	310.8
10/1	710	710	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	936	936	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/3	964	964	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	686	686	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

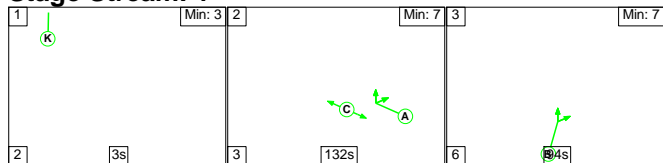
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-																												
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-																												
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-																												
<table> <tbody> <tr> <td>C1</td> <td>Stream: 1 PRC for Signalled Lanes (%)</td> <td>37.4</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>20.52</td> <td>Cycle Time (s):</td> <td>240</td> </tr> <tr> <td>C1</td> <td>Stream: 2 PRC for Signalled Lanes (%)</td> <td>-72.9</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>1147.24</td> <td>Cycle Time (s):</td> <td>240</td> </tr> <tr> <td>C1</td> <td>Stream: 3 PRC for Signalled Lanes (%)</td> <td>148.0</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>0.28</td> <td>Cycle Time (s):</td> <td>240</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>-72.9</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>1178.50</td> <td></td> <td></td> </tr> </tbody> </table>														C1	Stream: 1 PRC for Signalled Lanes (%)	37.4	Total Delay for Signalled Lanes (pcuHr):	20.52	Cycle Time (s):	240	C1	Stream: 2 PRC for Signalled Lanes (%)	-72.9	Total Delay for Signalled Lanes (pcuHr):	1147.24	Cycle Time (s):	240	C1	Stream: 3 PRC for Signalled Lanes (%)	148.0	Total Delay for Signalled Lanes (pcuHr):	0.28	Cycle Time (s):	240		PRC Over All Lanes (%)	-72.9	Total Delay Over All Lanes(pcuHr):	1178.50		
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Full Input Data And Results

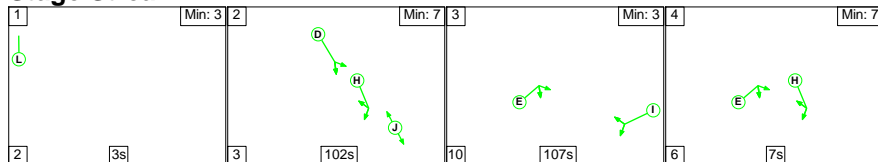
Scenario 4: 'EMM - DS1 PM' (FG4: 'EMM - DS1 PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

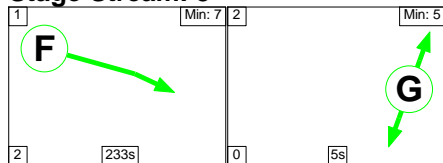
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	3	132	94
Change Point	0	5	140

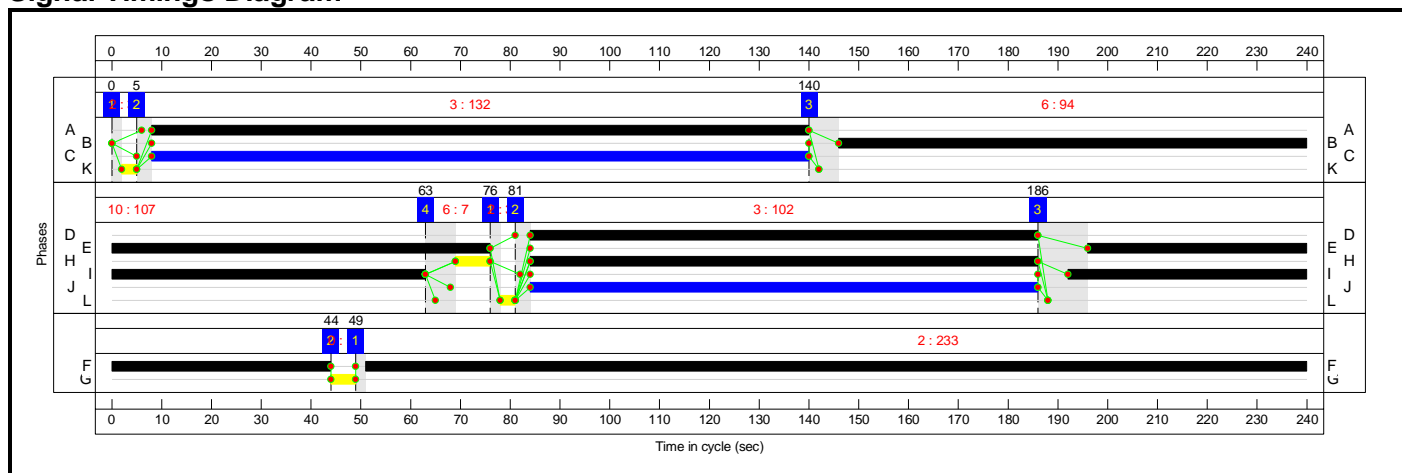
Stage Stream: 2

Stage	1	2	3	4
Duration	3	102	107	7
Change Point	76	81	186	63

Stage Stream: 3

Stage	1	2
Duration	233	5
Change Point	49	44

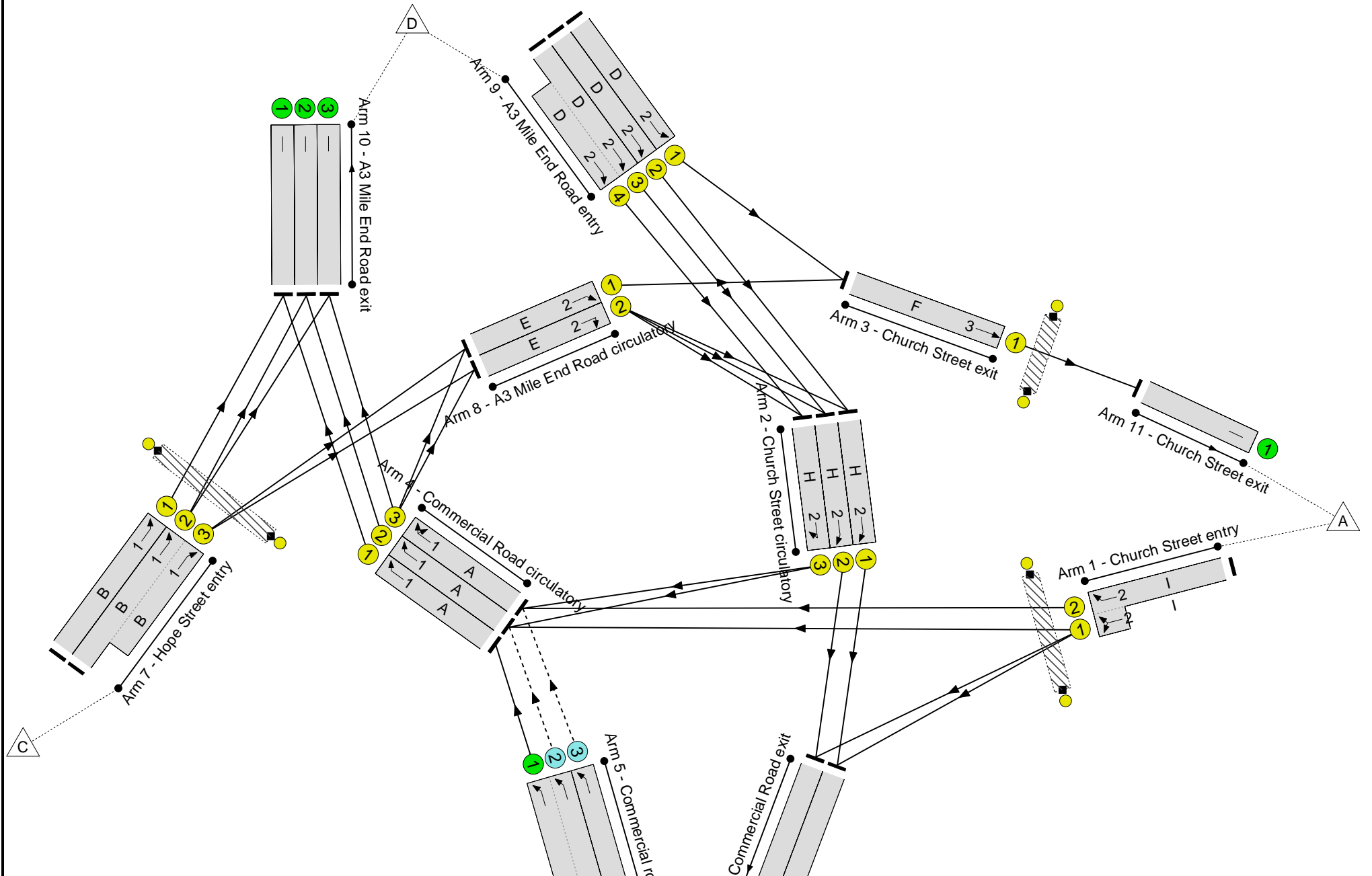
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout
 PRC: -39.1 %
 Total Traffic Delay: 516.2 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	125.2%
A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	-	-	N/A	-	-		-	-	-	-	-	-	125.2%
1/2+1/1	Church Street entry Right Left	U	2	N/A	I		1	111	-	1113	1859:1851	889	125.2%
2/1	Church Street circulatory Ahead	U	2	N/A	H		2	109	-	882	1965	909	90.1%
2/2	Church Street circulatory Ahead	U	2	N/A	H		2	109	-	912	1965	909	90.1%
2/3	Church Street circulatory Right	U	2	N/A	H		2	109	-	0	1965	-	-
3/1	Church Street exit Ahead	U	3	N/A	F		1	233	-	1018	1940	1892	43.3%
4/1	Commercial Road circulatory Right	U	1	N/A	A		1	132	-	540	1883	1043	51.7%
4/2	Commercial Road circulatory Right	U	1	N/A	A		1	132	-	939	1883	1043	80.6%
4/3	Commercial Road circulatory Right Right2	U	1	N/A	A		1	132	-	931	1883	1043	80.0%
5/2+5/1	Commercial road entry Ahead	O+U	N/A	N/A	-		-	-	-	992	1883:1883	1196	83.0%
5/3	Commercial road entry Ahead	O	N/A	N/A	-		-	-	-	454	1883	767	59.2%
6/1	Commercial Road exit	U	N/A	N/A	-		-	-	-	957	Inf	Inf	0.0%
6/2	Commercial Road exit	U	N/A	N/A	-		-	-	-	986	Inf	Inf	0.0%

Full Input Data And Results

7/1	Hope Street entry Ahead	U	1	N/A	B		1	94	-	616	1936	766	80.4%
7/2+7/3	Hope Street entry Ahead Ahead2	U	1	N/A	B		1	94	-	630	1936:1908	772	81.6%
8/1	A3 Mile End Road circulatory Ahead	U	2	N/A	E		1	120	-	14	1871	943	1.5%
8/2	A3 Mile End Road circulatory Right	U	2	N/A	E		1	120	-	0	1965	991	0.0%
9/1	A3 Mile End Road entry Ahead	U	2	N/A	D		1	102	-	1004	1874	804	124.8%
9/2	A3 Mile End Road entry Ahead	U	2	N/A	D		1	102	-	882	1908	819	107.7%
9/3+9/4	A3 Mile End Road entry Ahead	U	2	N/A	D		1	102	-	912	1908:1965	819	111.4%
10/1	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	1156	Inf	Inf	0.0%
10/2	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	1249	Inf	Inf	0.0%
10/3	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	1237	Inf	Inf	0.0%
11/1	Church Street exit	U	N/A	N/A	-		-	-	-	1018	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	2	-	J		1	102	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	1	-	C		1	132	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	3	-	G		1	5	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	906	0	190.5	325.7	0.0	516.2	-	-	-	-
A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	-	-	0	906	0	190.5	325.7	0.0	516.2	-	-	-	-
1/2+1/1	1113	889	-	-	-	48.7	114.4	-	163.0	527.4	88.2	114.4	202.5
2/1	819	819	-	-	-	1.5	4.2	-	5.6	24.7	2.9	4.2	7.0
2/2	819	819	-	-	-	1.5	4.2	-	5.6	24.7	2.9	4.2	7.0
2/3	-	-	-	-	-	-	-	-	-	-	-	-	-
3/1	818	818	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
4/1	540	540	-	-	-	5.1	0.5	-	5.6	37.3	20.9	0.5	21.4
4/2	841	841	-	-	-	6.6	2.0	-	8.6	36.9	37.1	2.0	39.2
4/3	835	835	-	-	-	6.4	2.0	-	8.3	36.0	34.5	2.0	36.5
5/2+5/1	992	992	0	452	0	6.5	2.4	-	8.9	32.3	38.8	2.4	41.2
5/3	454	454	0	454	0	4.8	0.7	-	5.5	43.9	20.6	0.7	21.3
6/1	879	879	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	878	878	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	616	616	-	-	-	11.0	2.0	-	13.0	75.9	36.3	2.0	38.3
7/2+7/3	630	630	-	-	-	11.3	2.2	-	13.4	76.8	37.1	2.2	39.3
8/1	14	14	-	-	-	0.1	0.0	-	0.1	31.9	0.6	0.0	0.6
8/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1004	804	-	-	-	38.1	102.3	-	140.5	503.6	80.2	102.3	182.6
9/2	882	819	-	-	-	22.8	37.5	-	60.3	246.0	63.0	37.5	100.5
9/3+9/4	912	819	-	-	-	26.2	51.0	-	77.3	305.0	69.5	51.0	120.6
10/1	1156	1156	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	1151	1151	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/3	1141	1141	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	818	818	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

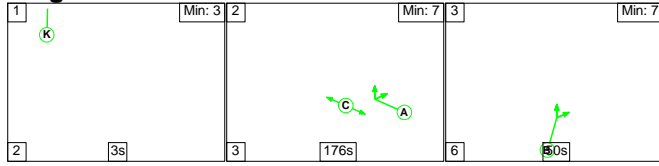
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-																												
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-																												
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-																												
<table> <tr> <td>C1</td> <td>Stream: 1 PRC for Signalled Lanes (%)</td> <td>10.3</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>48.97</td> <td>Cycle Time (s):</td> <td>240</td> </tr> <tr> <td>C1</td> <td>Stream: 2 PRC for Signalled Lanes (%)</td> <td>-39.1</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>452.39</td> <td>Cycle Time (s):</td> <td>240</td> </tr> <tr> <td>C1</td> <td>Stream: 3 PRC for Signalled Lanes (%)</td> <td>108.0</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>0.38</td> <td>Cycle Time (s):</td> <td>240</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>-39.1</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>516.17</td> <td></td> <td></td> </tr> </table>														C1	Stream: 1 PRC for Signalled Lanes (%)	10.3	Total Delay for Signalled Lanes (pcuHr):	48.97	Cycle Time (s):	240	C1	Stream: 2 PRC for Signalled Lanes (%)	-39.1	Total Delay for Signalled Lanes (pcuHr):	452.39	Cycle Time (s):	240	C1	Stream: 3 PRC for Signalled Lanes (%)	108.0	Total Delay for Signalled Lanes (pcuHr):	0.38	Cycle Time (s):	240		PRC Over All Lanes (%)	-39.1	Total Delay Over All Lanes(pcuHr):	516.17		
C1	Stream: 1 PRC for Signalled Lanes (%)	10.3	Total Delay for Signalled Lanes (pcuHr):	48.97	Cycle Time (s):	240																																			
C1	Stream: 2 PRC for Signalled Lanes (%)	-39.1	Total Delay for Signalled Lanes (pcuHr):	452.39	Cycle Time (s):	240																																			
C1	Stream: 3 PRC for Signalled Lanes (%)	108.0	Total Delay for Signalled Lanes (pcuHr):	0.38	Cycle Time (s):	240																																			
	PRC Over All Lanes (%)	-39.1	Total Delay Over All Lanes(pcuHr):	516.17																																					

Full Input Data And Results

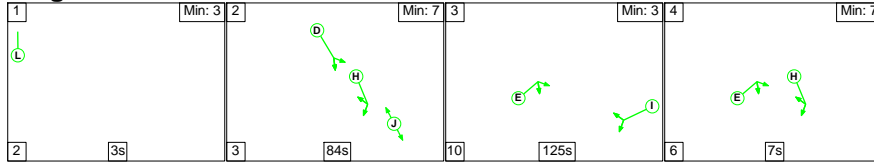
Scenario 5: 'EML - DS2 AM' (FG5: 'EML - DS2 AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

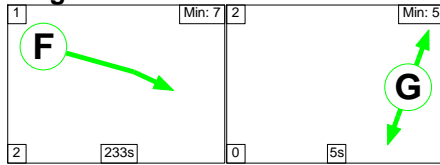
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	3	176	50
Change Point	39	44	223

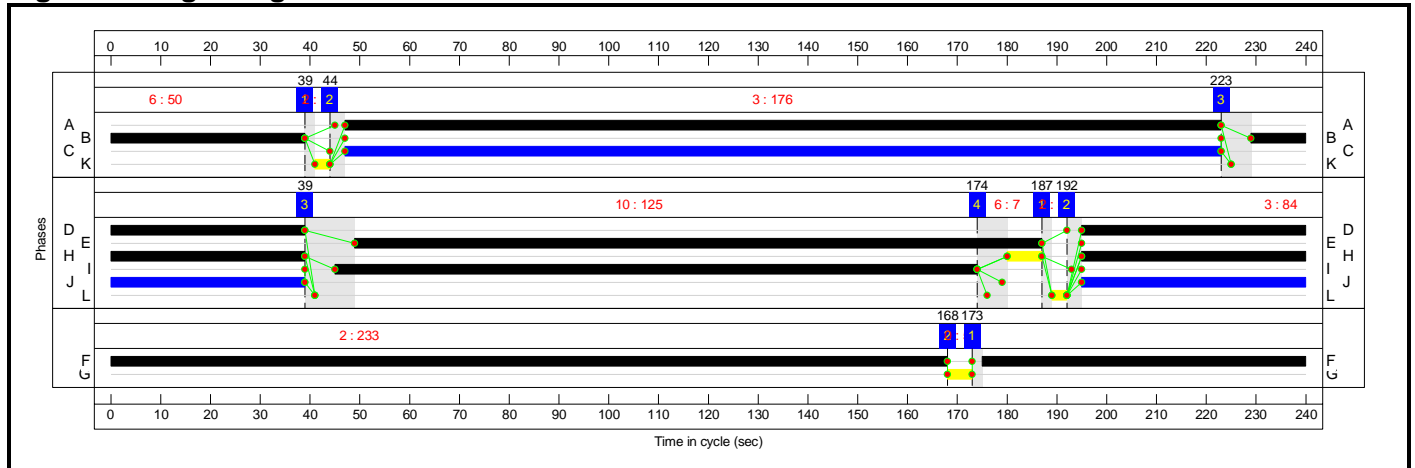
Stage Stream: 2

Stage	1	2	3	4
Duration	3	84	125	7
Change Point	187	192	39	174

Stage Stream: 3

Stage	1	2
Duration	233	5
Change Point	173	168

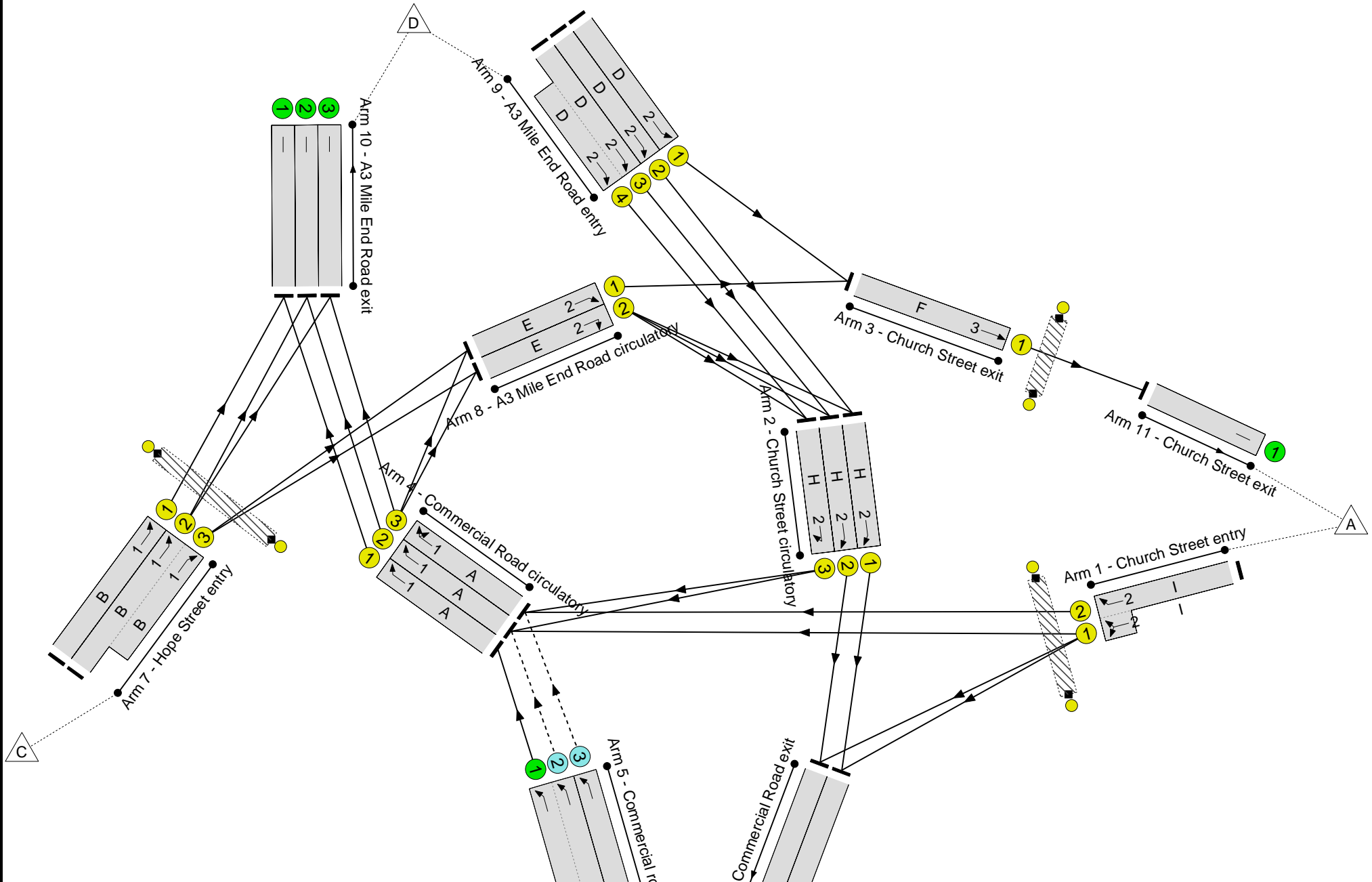
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout
 PRC: -73.0 %
 Total Traffic Delay: 1182.4 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	155.7%
A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	-	-	N/A	-	-		-	-	-	-	-	-	155.7%
1/2+1/1	Church Street entry Right Left	U	2	N/A	I		1	129	-	1589	1859:1856	1025	155.0%
2/1	Church Street circulatory Ahead	U	2	N/A	H		2	91	-	1054	1965	761	89.0%
2/2	Church Street circulatory Ahead	U	2	N/A	H		2	91	-	1052	1965	761	88.9%
2/3	Church Street circulatory Right	U	2	N/A	H		2	91	-	0	1965	-	-
3/1	Church Street exit Ahead	U	3	N/A	F		1	233	-	1025	1940	1892	35.5%
4/1	Commercial Road circulatory Right	U	1	N/A	A		1	176	-	1105	1883	1389	79.6%
4/2	Commercial Road circulatory Right	U	1	N/A	A		1	176	-	902	1883	1389	41.9%
4/3	Commercial Road circulatory Right Right2	U	1	N/A	A		1	176	-	604	1883	1389	28.2%
5/2+5/1	Commercial road entry Ahead	O+U	N/A	N/A	-		-	-	-	1105	1940:1883	1883	58.7%
5/3	Commercial road entry Ahead	O	N/A	N/A	-		-	-	-	5	1883	660	0.8%
6/1	Commercial Road exit	U	N/A	N/A	-		-	-	-	1098	Inf	Inf	0.0%
6/2	Commercial Road exit	U	N/A	N/A	-		-	-	-	1096	Inf	Inf	0.0%

Full Input Data And Results

7/1	Hope Street entry Ahead	U	1	N/A	B		1	50	-	280	1936	411	68.1%
7/2+7/3	Hope Street entry Ahead Ahead2	U	1	N/A	B		1	50	-	287	1936:1908	418	68.7%
8/1	A3 Mile End Road circulatory Ahead	U	2	N/A	E		1	138	-	7	1871	1084	0.6%
8/2	A3 Mile End Road circulatory Right	U	2	N/A	E		1	138	-	3	1871	1084	0.3%
9/1	A3 Mile End Road entry Ahead	U	2	N/A	D		1	84	-	1018	1874	664	153.4%
9/2	A3 Mile End Road entry Ahead	U	2	N/A	D		1	84	-	1052	1908	676	155.7%
9/3+9/4	A3 Mile End Road entry Ahead	U	2	N/A	D		1	84	-	1051	1908:1965	676	155.5%
10/1	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	1385	Inf	Inf	0.0%
10/2	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	1043	Inf	Inf	0.0%
10/3	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	740	Inf	Inf	0.0%
11/1	Church Street exit	U	N/A	N/A	-		-	-	-	1025	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	2	-	J		1	84	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	1	-	C		1	176	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	3	-	G		1	5	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	5	0	328.9	853.5	0.0	1182.4	-	-	-	-
A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	-	-	0	5	0	328.9	853.5	0.0	1182.4	-	-	-	-
1/2+1/1	1589	1025	-	-	-	90.6	283.4	-	373.9	847.2	152.0	283.4	435.4
2/1	678	678	-	-	-	1.7	3.7	-	5.5	29.0	3.0	3.7	6.7
2/2	677	677	-	-	-	1.7	3.7	-	5.4	28.6	2.9	3.7	6.6
2/3	-	-	-	-	-	-	-	-	-	-	-	-	-
3/1	671	671	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
4/1	1105	1105	-	-	-	6.1	1.9	-	8.1	26.3	46.7	1.9	48.6
4/2	582	582	-	-	-	0.0	0.4	-	0.4	2.2	0.0	0.4	0.4
4/3	391	391	-	-	-	0.0	0.2	-	0.2	1.9	0.1	0.2	0.3
5/2+5/1	1105	1105	0	0	0	0.0	0.7	-	0.7	2.3	0.0	0.7	0.7
5/3	5	5	0	5	0	0.0	0.0	-	0.1	38.2	0.2	0.0	0.2
6/1	706	706	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	705	705	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	280	280	-	-	-	6.8	1.0	-	7.8	100.5	17.1	1.0	18.2
7/2+7/3	287	287	-	-	-	6.9	1.1	-	8.0	100.6	17.4	1.1	18.5
8/1	7	7	-	-	-	0.1	0.0	-	0.1	27.9	0.2	0.0	0.2
8/2	3	3	-	-	-	0.0	0.0	-	0.0	42.3	0.2	0.0	0.2
9/1	1018	664	-	-	-	69.3	178.6	-	247.8	876.4	103.2	178.6	281.8
9/2	1052	676	-	-	-	72.9	189.5	-	262.4	898.1	108.0	189.5	297.5
9/3+9/4	1051	676	-	-	-	72.8	189.0	-	261.8	896.7	107.8	189.0	296.9
10/1	1385	1385	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	723	723	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/3	527	527	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	671	671	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

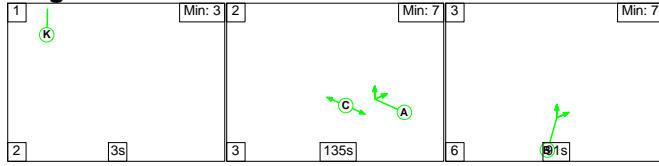
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-																																																
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-																																																
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-																																																
<table> <tbody> <tr> <td>C1</td> <td>Stream: 1 PRC for Signalled Lanes (%)</td> <td>13.1</td> <td colspan="4">Total Delay for Signalled Lanes (pcuHr):</td> <td>24.47</td> <td colspan="3">Cycle Time (s):</td> <td>240</td> </tr> <tr> <td>C1</td> <td>Stream: 2 PRC for Signalled Lanes (%)</td> <td>-73.0</td> <td colspan="4">Total Delay for Signalled Lanes (pcuHr):</td> <td>1156.90</td> <td colspan="3">Cycle Time (s):</td> <td>240</td> </tr> <tr> <td>C1</td> <td>Stream: 3 PRC for Signalled Lanes (%)</td> <td>153.8</td> <td colspan="4">Total Delay for Signalled Lanes (pcuHr):</td> <td>0.27</td> <td colspan="3">Cycle Time (s):</td> <td>240</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>-73.0</td> <td colspan="4">Total Delay Over All Lanes(pcuHr):</td> <td>1182.41</td> <td colspan="3"></td> <td></td> </tr> </tbody> </table>														C1	Stream: 1 PRC for Signalled Lanes (%)	13.1	Total Delay for Signalled Lanes (pcuHr):				24.47	Cycle Time (s):			240	C1	Stream: 2 PRC for Signalled Lanes (%)	-73.0	Total Delay for Signalled Lanes (pcuHr):				1156.90	Cycle Time (s):			240	C1	Stream: 3 PRC for Signalled Lanes (%)	153.8	Total Delay for Signalled Lanes (pcuHr):				0.27	Cycle Time (s):			240		PRC Over All Lanes (%)	-73.0	Total Delay Over All Lanes(pcuHr):				1182.41				
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Full Input Data And Results

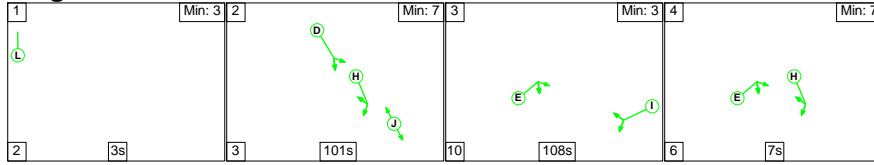
Scenario 6: 'EML - DS2 PM' (FG6: 'EML - DS2 PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

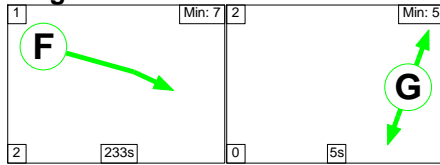
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	3	135	91
Change Point	0	5	143

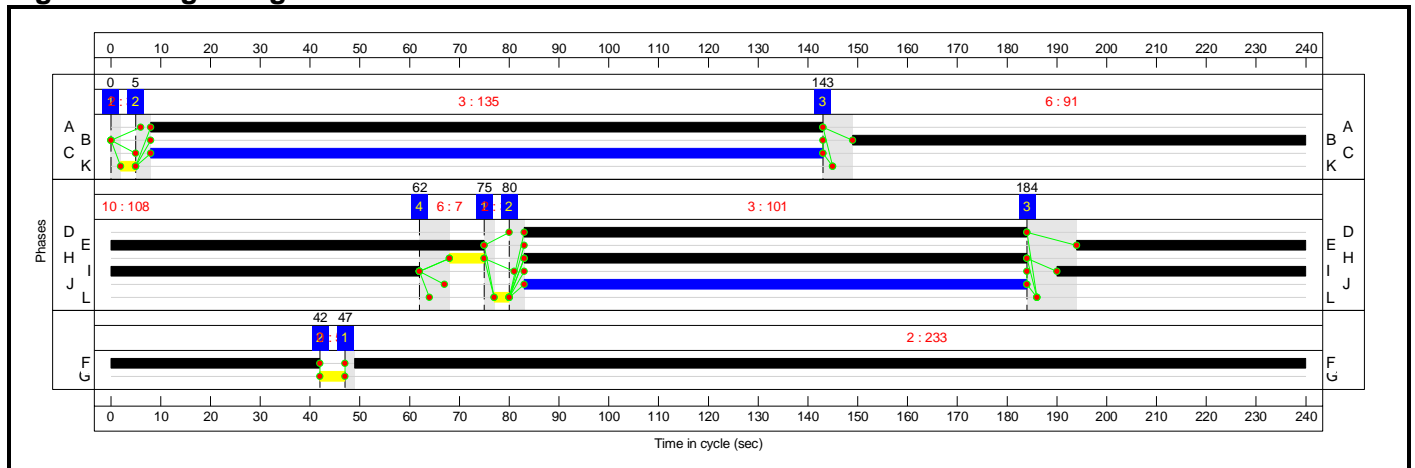
Stage Stream: 2

Stage	1	2	3	4
Duration	3	101	108	7
Change Point	75	80	184	62

Stage Stream: 3

Stage	1	2
Duration	233	5
Change Point	47	42

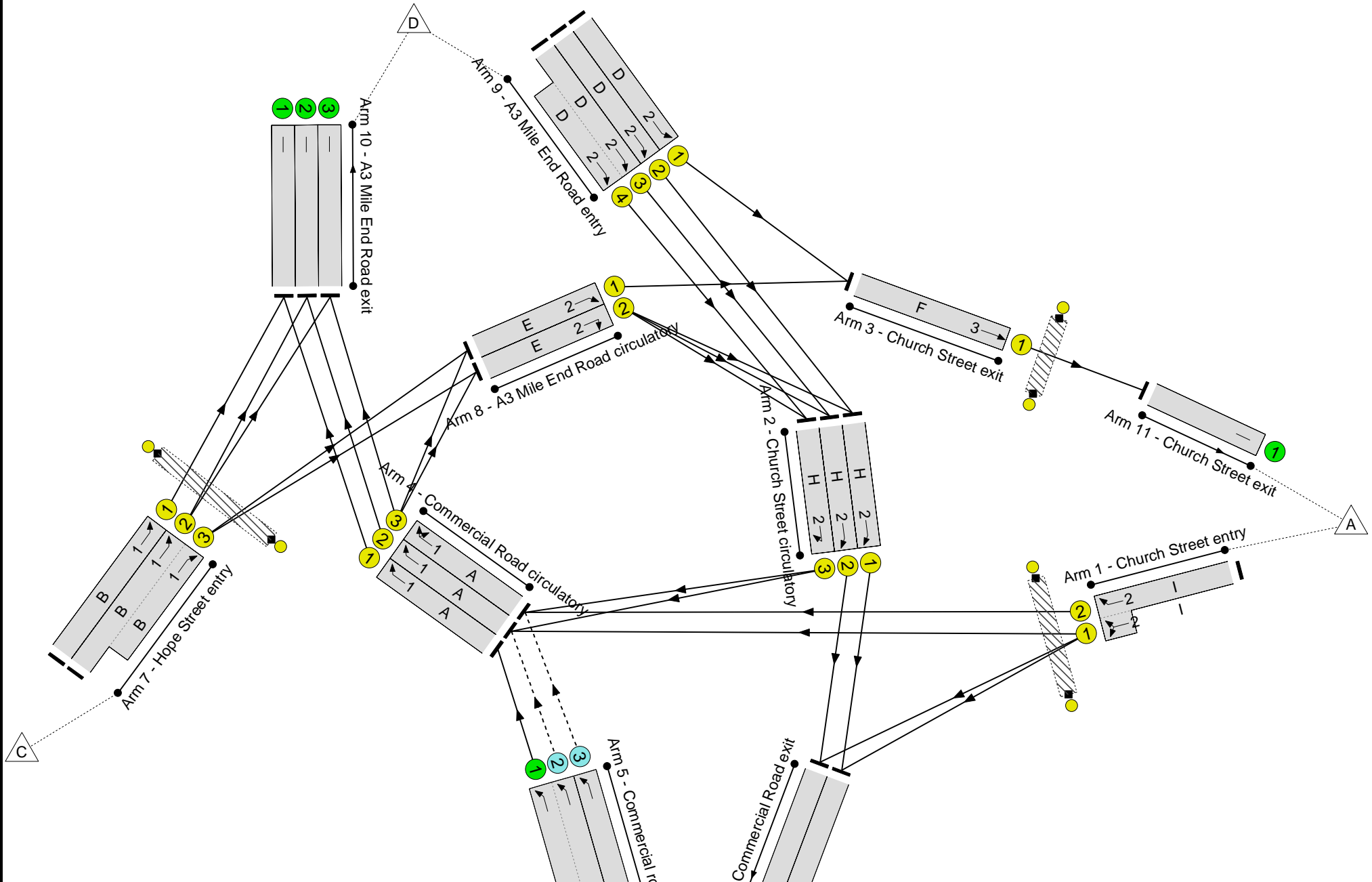
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout
 PRC: -34.3 %
 Total Traffic Delay: 489.2 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	120.9%
A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	-	-	N/A	-	-		-	-	-	-	-	-	120.9%
1/2+1/1	Church Street entry Right Left	U	2	N/A	I		1	112	-	1082	1859:1851	897	120.6%
2/1	Church Street circulatory Ahead	U	2	N/A	H		2	108	-	887	1965	901	90.0%
2/2	Church Street circulatory Ahead	U	2	N/A	H		2	108	-	918	1965	901	90.0%
2/3	Church Street circulatory Right	U	2	N/A	H		2	108	-	0	1965	901	0.0%
3/1	Church Street exit Ahead	U	3	N/A	F		1	233	-	979	1940	1892	43.0%
4/1	Commercial Road circulatory Right	U	1	N/A	A		1	135	-	548	1883	1067	51.4%
4/2	Commercial Road circulatory Right	U	1	N/A	A		1	135	-	936	1883	1067	80.1%
4/3	Commercial Road circulatory Right Right2	U	1	N/A	A		1	135	-	929	1883	1067	79.6%
5/2+5/1	Commercial road entry Ahead	O+U	N/A	N/A	-		-	-	-	1008	1883:1883	1187	84.9%
5/3	Commercial road entry Ahead	O	N/A	N/A	-		-	-	-	461	1883	761	60.5%
6/1	Commercial Road exit	U	N/A	N/A	-		-	-	-	956	Inf	Inf	0.0%
6/2	Commercial Road exit	U	N/A	N/A	-		-	-	-	987	Inf	Inf	0.0%

Full Input Data And Results

7/1	Hope Street entry Ahead	U	1	N/A	B		1	91	-	616	1936	742	83.0%
7/2+7/3	Hope Street entry Ahead Ahead2	U	1	N/A	B		1	91	-	634	1936:1908	748	84.7%
8/1	A3 Mile End Road circulatory Ahead	U	2	N/A	E		1	121	-	16	1871	951	1.7%
8/2	A3 Mile End Road circulatory Right	U	2	N/A	E		1	121	-	0	1965	999	0.0%
9/1	A3 Mile End Road entry Ahead	U	2	N/A	D		1	101	-	963	1874	796	120.9%
9/2	A3 Mile End Road entry Ahead	U	2	N/A	D		1	101	-	887	1908	811	109.4%
9/3+9/4	A3 Mile End Road entry Ahead	U	2	N/A	D		1	101	-	918	1908:1965	811	113.2%
10/1	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	1164	Inf	Inf	0.0%
10/2	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	1247	Inf	Inf	0.0%
10/3	A3 Mile End Road exit	U	N/A	N/A	-		-	-	-	1236	Inf	Inf	0.0%
11/1	Church Street exit	U	N/A	N/A	-		-	-	-	979	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	2	-	J		1	101	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	1	-	C		1	135	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	3	-	G		1	5	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	921	0	185.7	303.6	0.0	489.2	-	-	-	-
A3 Mile End Road / Church Street / Hope Street / Commercial Road roundabout	-	-	0	921	0	185.7	303.6	0.0	489.2	-	-	-	-
1/2+1/1	1082	897	-	-	-	42.9	95.2	-	138.1	459.6	83.4	95.2	178.6
2/1	811	811	-	-	-	1.5	4.1	-	5.6	24.9	2.9	4.1	7.0
2/2	811	811	-	-	-	1.5	4.1	-	5.6	24.9	2.9	4.1	7.0
2/3	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	812	812	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
4/1	548	548	-	-	-	4.9	0.5	-	5.4	35.7	20.3	0.5	20.8
4/2	855	855	-	-	-	6.6	2.0	-	8.6	36.1	38.3	2.0	40.3
4/3	849	849	-	-	-	6.3	1.9	-	8.3	35.0	35.7	1.9	37.6
5/2+5/1	1008	1008	0	460	0	7.0	2.7	-	9.7	34.7	41.2	2.7	43.9
5/3	461	461	0	461	0	5.0	0.8	-	5.8	45.1	21.3	0.8	22.0
6/1	868	868	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	868	868	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	616	616	-	-	-	11.5	2.4	-	13.8	80.7	37.1	2.4	39.5
7/2+7/3	634	634	-	-	-	11.9	2.6	-	14.5	82.4	38.2	2.6	40.9
8/1	16	16	-	-	-	0.1	0.0	-	0.1	28.2	0.6	0.0	0.6
8/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	963	796	-	-	-	34.4	86.1	-	120.5	450.3	75.3	86.1	161.4
9/2	887	811	-	-	-	24.3	43.2	-	67.5	273.8	64.2	43.2	107.4
9/3+9/4	918	811	-	-	-	27.8	57.5	-	85.4	334.8	70.9	57.5	128.4
10/1	1164	1164	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	1166	1166	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/3	1156	1156	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	812	812	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-																												
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-																												
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-																												
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Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk
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Filename: A3 Southampton Rd_A3 Northern Rd_Spur Rd_A397.j9
Path: \\uk.wspgroup.com\central data\Projects\62100xxx\62100616 - Aquind VO No.3\A DCO\D. EIA\5. WIP\12. Traffic and Transport\Transport Assessment\Analysis & Calcs\ARCADY\TA Models and Outputs
Report generation date: 29/10/2019 10:25:44

- »ELM - DM, AM
- »ELM - DM, PM
- »EMM - DS1, AM
- »EMM - DS1, PM
- »EML - DS2, AM
- »EML - DS2, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
ELM - DM								
Arm 1	1.9	6.96	0.63	A	0.8	4.23	0.43	A
Arm 2	2.4	7.19	0.69	A	2.2	5.70	0.67	A
Arm 3	1.3	3.85	0.55	A	3.5	9.29	0.76	A
Arm 4	2.7	7.41	0.71	A	2.9	9.07	0.73	A
EMM - DS1								
Arm 1	2.0	7.50	0.65	A	1.1	4.80	0.50	A
Arm 2	2.3	6.98	0.68	A	2.2	5.66	0.67	A
Arm 3	1.3	3.81	0.55	A	3.5	9.31	0.77	A
Arm 4	2.9	7.88	0.73	A	2.9	8.96	0.73	A
EML - DS2								
Arm 1	2.0	7.45	0.65	A	1.0	4.52	0.47	A
Arm 2	2.4	7.06	0.68	A	2.2	5.68	0.67	A
Arm 3	1.4	3.90	0.56	A	3.5	9.31	0.76	A
Arm 4	3.0	8.12	0.74	A	2.8	8.70	0.72	A

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

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

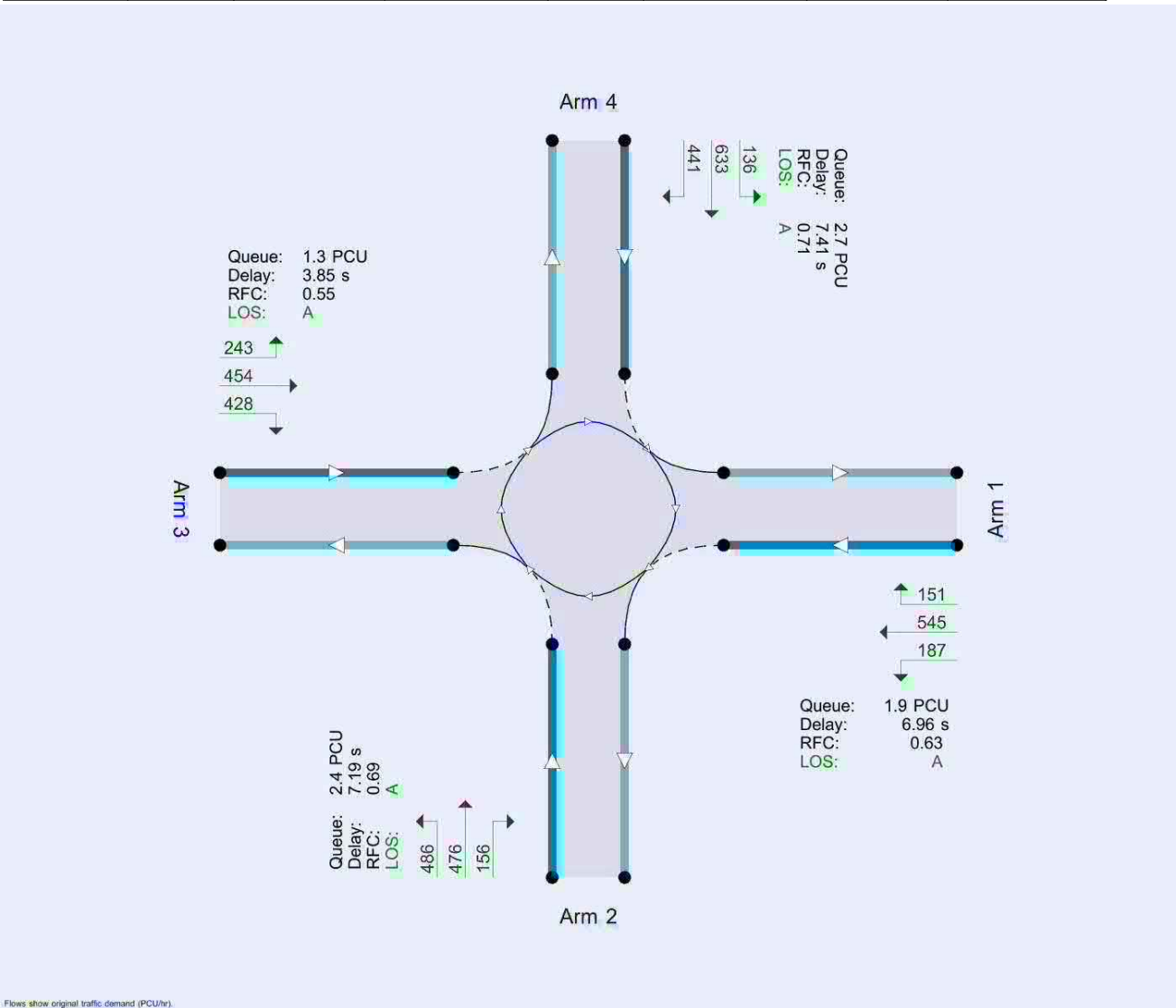
File summary

File Description

Title	A3 Southampton Road / A3 Northern Road / Spur Road / A397 roundabout
Location	
Site number	
Date	23/09/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	62100616
Enumerator	CORP\UKAJT009
Description	

Units

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



Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

ELM - DM, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	6.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Spur Road	
2	A397	
3	A3 Southampton Road	
4	A3 Northern Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	8.00	9.30	42.0	30.0	50.0	14.0	
2	6.70	11.70	17.5	10.0	50.0	18.0	
3	7.70	9.70	40.8	30.0	50.0	18.0	
4	9.00	9.00	0.0	20.0	50.0	21.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.872	2982
2	0.815	2801
3	0.875	3022
4	0.828	2812

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	883	100.000
2		✓	1118	100.000
3		✓	1125	100.000
4		✓	1210	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1	2	3	4
From	1	0	187	545	151
	2	156	0	486	476
	3	454	428	0	243
	4	136	633	441	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.63	6.96	1.9	A
2	0.69	7.19	2.4	A
3	0.55	3.85	1.3	A
4	0.71	7.41	2.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	665	1127	2000	0.332	663	0.5	2.956	A
2	842	853	2106	0.400	839	0.7	3.119	A
3	847	587	2508	0.338	845	0.6	2.377	A
4	911	779	2167	0.420	908	0.8	3.137	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	794	1348	1807	0.439	793	0.9	3.900	A
2	1005	1021	1969	0.510	1003	1.1	4.093	A
3	1011	703	2407	0.420	1010	0.8	2.834	A
4	1088	932	2040	0.533	1086	1.2	4.142	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	972	1648	1546	0.629	968	1.8	6.814	A
2	1231	1247	1785	0.690	1226	2.4	7.019	A
3	1239	859	2271	0.545	1237	1.3	3.820	A
4	1332	1141	1868	0.713	1327	2.7	7.243	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	972	1654	1541	0.631	972	1.9	6.963	A
2	1231	1252	1781	0.691	1231	2.4	7.191	A
3	1239	862	2268	0.546	1239	1.3	3.847	A
4	1332	1143	1866	0.714	1332	2.7	7.410	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	794	1356	1800	0.441	798	0.9	3.966	A
2	1005	1027	1964	0.512	1010	1.2	4.173	A
3	1011	707	2403	0.421	1013	0.8	2.855	A
4	1088	935	2038	0.534	1093	1.3	4.219	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	665	1133	1995	0.333	666	0.6	2.985	A
2	842	858	2102	0.400	843	0.7	3.149	A
3	847	591	2505	0.338	848	0.6	2.392	A
4	911	782	2164	0.421	913	0.8	3.170	A

ELM - DM, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	7.37	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	654	100.000
2		✓	1297	100.000
3		✓	1251	100.000
4		✓	1069	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	135	257	262
	2	204	0	293	800
	3	634	478	0	139
	4	166	666	237	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.43	4.23	0.8	A
2	0.67	5.70	2.2	A
3	0.76	9.29	3.5	A
4	0.73	9.07	2.9	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	492	1036	2079	0.237	491	0.3	2.491	A
2	976	567	2339	0.418	973	0.8	2.895	A
3	942	950	2191	0.430	939	0.8	3.155	A
4	805	987	1995	0.403	802	0.7	3.311	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	588	1239	1902	0.309	587	0.5	3.010	A
2	1166	679	2248	0.519	1164	1.2	3.650	A
3	1125	1137	2027	0.555	1122	1.4	4.365	A
4	961	1181	1834	0.524	959	1.2	4.516	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	720	1512	1664	0.433	719	0.8	4.182	A
2	1428	830	2125	0.672	1424	2.2	5.615	A
3	1377	1390	1805	0.763	1369	3.4	8.916	A
4	1177	1441	1619	0.727	1170	2.8	8.705	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	720	1520	1657	0.435	720	0.8	4.226	A
2	1428	832	2123	0.673	1428	2.2	5.696	A
3	1377	1394	1802	0.764	1377	3.5	9.294	A
4	1177	1449	1613	0.730	1177	2.9	9.067	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	588	1250	1892	0.311	589	0.5	3.042	A
2	1166	682	2245	0.519	1170	1.2	3.696	A
3	1125	1142	2023	0.556	1133	1.4	4.491	A
4	961	1191	1826	0.526	968	1.2	4.649	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	492	1042	2074	0.237	493	0.3	2.507	A
2	976	570	2337	0.418	978	0.8	2.917	A
3	942	955	2187	0.431	944	0.8	3.191	A
4	805	993	1990	0.404	807	0.8	3.351	A

EMM - DS1, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	6.52	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	900	100.000
2		✓	1107	100.000
3		✓	1140	100.000
4		✓	1239	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	198	579	123
	2	159	0	474	474
	3	426	453	0	261
	4	167	642	430	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.65	7.50	2.0	A
2	0.68	6.98	2.3	A
3	0.55	3.81	1.3	A
4	0.73	7.88	2.9	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	678	1144	1985	0.341	675	0.6	3.019	A
2	833	849	2109	0.395	831	0.7	3.091	A
3	858	567	2526	0.340	856	0.6	2.368	A
4	933	779	2167	0.430	929	0.8	3.193	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	809	1369	1789	0.452	808	0.9	4.032	A
2	995	1016	1973	0.504	994	1.1	4.036	A
3	1025	679	2428	0.422	1024	0.8	2.818	A
4	1114	932	2040	0.546	1112	1.3	4.257	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	991	1673	1524	0.650	987	2.0	7.310	A
2	1219	1241	1790	0.681	1214	2.3	6.821	A
3	1255	829	2297	0.547	1253	1.3	3.786	A
4	1364	1141	1868	0.730	1358	2.9	7.673	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	991	1679	1519	0.653	991	2.0	7.498	A
2	1219	1246	1786	0.683	1219	2.3	6.980	A
3	1255	832	2294	0.547	1255	1.3	3.811	A
4	1364	1143	1866	0.731	1364	2.9	7.881	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	809	1377	1781	0.454	814	0.9	4.111	A
2	995	1023	1967	0.506	1000	1.1	4.113	A
3	1025	683	2425	0.423	1027	0.8	2.836	A
4	1114	935	2038	0.547	1120	1.3	4.345	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	678	1150	1979	0.342	679	0.6	3.047	A
2	833	854	2105	0.396	835	0.7	3.123	A
3	858	570	2523	0.340	859	0.6	2.382	A
4	933	782	2164	0.431	935	0.8	3.227	A

EMM - DS1, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	7.38	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	751	100.000
2		✓	1287	100.000
3		✓	1255	100.000
4		✓	1080	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	203	282	266
	2	207	0	291	789
	3	628	462	0	165
	4	155	709	216	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.50	4.80	1.1	A
2	0.67	5.66	2.2	A
3	0.77	9.31	3.5	A
4	0.73	8.96	2.9	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	565	1040	2075	0.272	564	0.4	2.618	A
2	969	573	2334	0.415	966	0.8	2.889	A
3	945	947	2193	0.431	942	0.8	3.156	A
4	813	973	2006	0.405	810	0.7	3.301	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	675	1245	1897	0.356	674	0.6	3.237	A
2	1157	686	2242	0.516	1155	1.2	3.639	A
3	1128	1133	2031	0.556	1126	1.4	4.367	A
4	971	1164	1848	0.525	969	1.2	4.494	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	827	1519	1658	0.499	825	1.1	4.741	A
2	1417	838	2118	0.669	1413	2.2	5.586	A
3	1382	1386	1809	0.764	1374	3.4	8.924	A
4	1189	1420	1636	0.727	1183	2.8	8.609	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	827	1527	1651	0.501	827	1.1	4.803	A
2	1417	841	2116	0.670	1417	2.2	5.665	A
3	1382	1389	1806	0.765	1381	3.5	9.306	A
4	1189	1428	1630	0.730	1189	2.9	8.964	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	675	1256	1887	0.358	677	0.6	3.278	A
2	1157	690	2239	0.517	1161	1.2	3.688	A
3	1128	1138	2026	0.557	1137	1.4	4.494	A
4	971	1174	1840	0.528	978	1.2	4.625	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	565	1047	2070	0.273	566	0.4	2.636	A
2	969	576	2332	0.416	971	0.8	2.914	A
3	945	952	2189	0.432	947	0.8	3.192	A
4	813	979	2002	0.406	815	0.8	3.343	A

EML - DS2, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	6.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	911	100.000
2		✓	1105	100.000
3		✓	1158	100.000
4		✓	1237	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	200	588	123
	2	159	0	469	477
	3	451	447	0	260
	4	175	631	431	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.65	7.45	2.0	A
2	0.68	7.06	2.4	A
3	0.56	3.90	1.4	A
4	0.74	8.12	3.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	686	1132	1995	0.344	684	0.6	3.014	A
2	832	857	2103	0.396	829	0.7	3.102	A
3	872	569	2524	0.345	869	0.6	2.390	A
4	931	794	2155	0.432	928	0.8	3.219	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	819	1354	1801	0.455	818	0.9	4.019	A
2	993	1025	1966	0.505	992	1.1	4.058	A
3	1041	681	2426	0.429	1040	0.8	2.856	A
4	1112	949	2026	0.549	1110	1.3	4.312	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1003	1655	1539	0.652	999	2.0	7.264	A
2	1217	1252	1781	0.683	1212	2.3	6.899	A
3	1275	832	2294	0.556	1273	1.4	3.871	A
4	1362	1161	1851	0.736	1355	3.0	7.894	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1003	1661	1534	0.654	1003	2.0	7.452	A
2	1217	1257	1777	0.685	1216	2.4	7.065	A
3	1275	836	2291	0.557	1275	1.4	3.897	A
4	1362	1164	1849	0.737	1362	3.0	8.124	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	819	1363	1794	0.457	823	0.9	4.100	A
2	993	1032	1960	0.507	998	1.1	4.140	A
3	1041	686	2422	0.430	1043	0.8	2.877	A
4	1112	953	2023	0.550	1119	1.4	4.410	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	686	1138	1990	0.345	687	0.6	3.042	A
2	832	862	2099	0.396	834	0.7	3.135	A
3	872	573	2521	0.346	873	0.6	2.403	A
4	931	797	2152	0.433	933	0.8	3.255	A

EML - DS2, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	7.27	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	718	100.000
2		✓	1302	100.000
3		✓	1250	100.000
4		✓	1053	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	184	275	259
	2	213	0	293	796
	3	626	476	0	148
	4	157	683	213	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.47	4.52	1.0	A
2	0.67	5.68	2.2	A
3	0.76	9.31	3.5	A
4	0.72	8.70	2.8	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	541	1029	2085	0.259	539	0.4	2.559	A
2	980	561	2344	0.418	977	0.8	2.891	A
3	941	952	2189	0.430	938	0.8	3.156	A
4	793	987	1995	0.397	790	0.7	3.276	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	645	1231	1909	0.338	645	0.6	3.131	A
2	1170	671	2255	0.519	1169	1.2	3.643	A
3	1124	1138	2026	0.555	1122	1.4	4.368	A
4	947	1180	1835	0.516	945	1.2	4.439	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	791	1502	1672	0.473	789	1.0	4.473	A
2	1434	820	2133	0.672	1429	2.2	5.595	A
3	1376	1392	1804	0.763	1368	3.4	8.930	A
4	1159	1440	1620	0.716	1153	2.7	8.380	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	791	1510	1666	0.475	790	1.0	4.525	A
2	1434	822	2131	0.673	1433	2.2	5.675	A
3	1376	1396	1800	0.764	1376	3.5	9.313	A
4	1159	1448	1614	0.719	1159	2.8	8.700	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	645	1242	1899	0.340	647	0.6	3.167	A
2	1170	674	2252	0.520	1175	1.2	3.689	A
3	1124	1144	2021	0.556	1132	1.4	4.496	A
4	947	1190	1827	0.518	953	1.2	4.563	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	541	1035	2080	0.260	541	0.4	2.574	A
2	980	563	2342	0.419	982	0.8	2.916	A
3	941	956	2185	0.431	943	0.8	3.193	A
4	793	992	1991	0.398	795	0.7	3.315	A

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
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Filename: A3_Hulbert Rd.j9

Path: \\uk.wspgroup.com\central data\Projects\62100xxx\62100616 - Aquind VO No.3\A DCO\D. EIA\5. WIP\12. Traffic and Transport\Transport Assessment\Analysis & Calcs\ARCADY\TA Models and Outputs

Report generation date: 28/10/2019 16:06:36

- »ELM - DM, AM
- »ELM - DM, PM
- »EMM - DS1, AM
- »EMM - DS1, PM
- »EML - DS2, AM
- »EML - DS2, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
ELM - DM								
Arm 1	4.6	10.87	0.81	B	4.6	11.96	0.81	B
Arm 2	0.7	2.42	0.40	A	2.1	5.34	0.66	A
Arm 3	1.7	6.71	0.61	A	3.3	13.91	0.76	B
EMM - DS1								
Arm 1	4.4	10.15	0.80	B	3.3	8.30	0.75	A
Arm 2	0.3	1.94	0.22	A	0.5	2.71	0.32	A
Arm 3	1.2	4.58	0.52	A	1.1	4.62	0.50	A
EML - DS2								
Arm 1	4.3	9.99	0.80	A	3.2	8.27	0.75	A
Arm 2	0.3	1.95	0.22	A	0.5	2.71	0.32	A
Arm 3	1.2	4.59	0.52	A	1.1	4.63	0.50	A

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

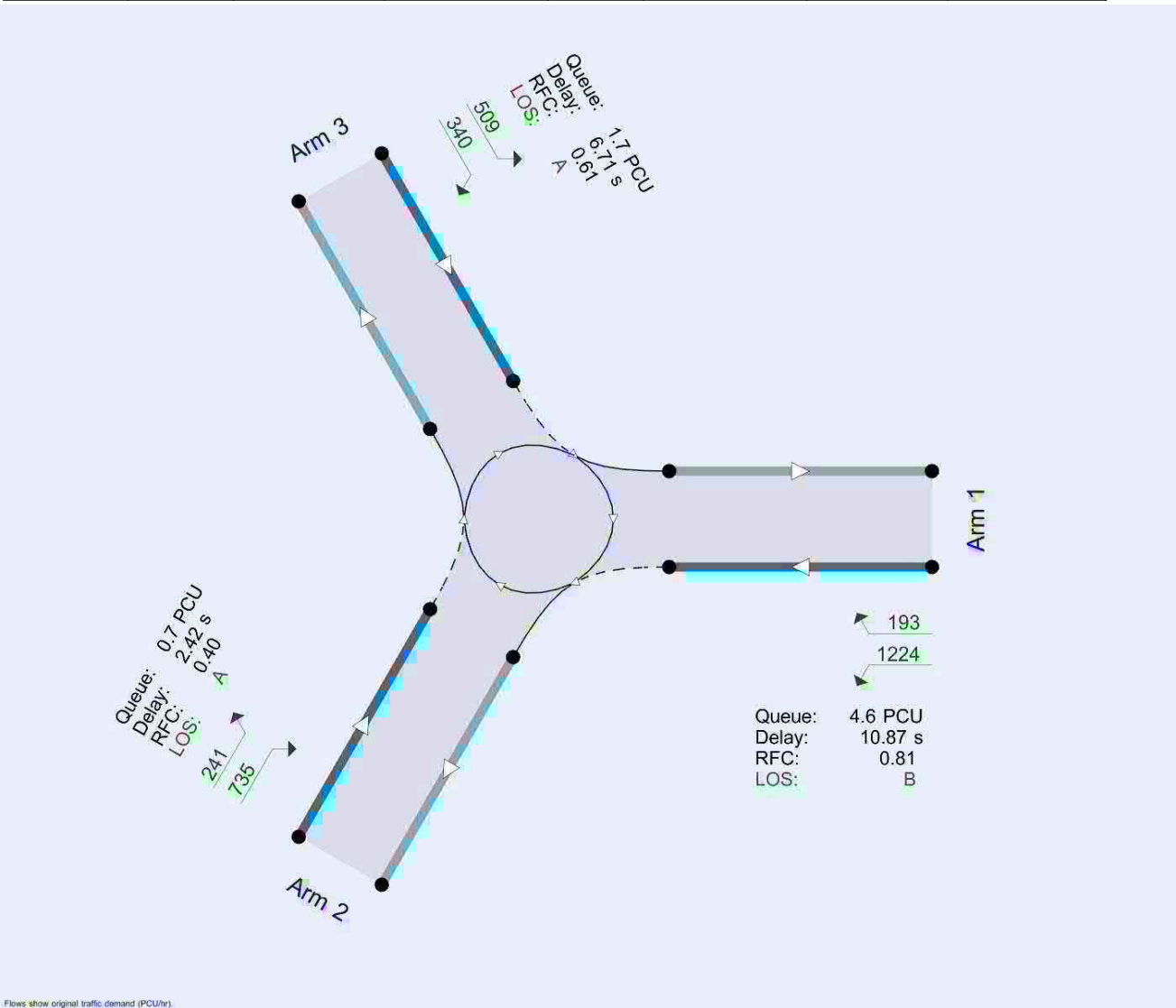
File summary

File Description

Title	A3 / Hulbert Road Roundabout
Location	
Site number	
Date	07/08/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	62100616
Enumerator	CORP\UKAJT009
Description	

Units

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



Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

ELM - DM, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	7.24	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Hulbert Road	
2	A3 Maurepas Way	
3	A3 London Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	6.50	7.00	15.3	25.0	30.0	18.0	
2	7.70	9.40	12.4	50.0	30.0	15.0	
3	3.50	14.30	14.6	35.0	30.0	20.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.779	2215
2	0.931	2910
3	0.766	2145

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1417	100.000
2		✓	977	100.000
3		✓	849	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	1224	193
	2	735	1	241
	3	509	340	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.81	10.87	4.6	B
2	0.40	2.42	0.7	A
3	0.61	6.71	1.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1067	256	2016	0.529	1062	1.2	4.131	A
2	736	145	2776	0.265	734	0.4	1.939	A
3	639	553	1722	0.371	637	0.6	3.639	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1274	306	1976	0.645	1271	2.0	5.589	A
2	878	173	2749	0.319	878	0.5	2.116	A
3	763	661	1639	0.466	762	1.0	4.510	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1560	374	1923	0.811	1550	4.5	10.341	B
2	1076	211	2714	0.396	1075	0.7	2.415	A
3	935	810	1525	0.613	932	1.7	6.640	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1560	375	1922	0.812	1560	4.6	10.871	B
2	1076	212	2712	0.397	1076	0.7	2.418	A
3	935	810	1525	0.613	935	1.7	6.711	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1274	308	1975	0.645	1284	2.0	5.811	A
2	878	175	2747	0.320	879	0.5	2.121	A
3	763	662	1638	0.466	766	1.0	4.559	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1067	257	2015	0.530	1070	1.3	4.205	A
2	736	146	2775	0.265	736	0.4	1.944	A
3	639	554	1721	0.371	640	0.7	3.669	A

ELM - DM, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	9.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1306	100.000
2		✓	1311	100.000
3		✓	795	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	597	709
	2	1169	1	141
	3	273	522	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.81	11.96	4.6	B
2	0.66	5.34	2.1	A
3	0.76	13.91	3.3	B

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	983	392	1910	0.515	979	1.2	4.232	A
2	987	531	2416	0.409	984	0.8	2.760	A
3	599	878	1473	0.406	596	0.7	4.500	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1174	469	1850	0.635	1171	1.9	5.813	A
2	1179	636	2318	0.508	1177	1.1	3.465	A
3	715	1050	1340	0.533	713	1.2	6.287	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1438	571	1770	0.812	1428	4.5	11.228	B
2	1443	775	2189	0.659	1440	2.1	5.258	A
3	875	1285	1161	0.754	868	3.2	13.160	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1438	576	1767	0.814	1437	4.6	11.964	B
2	1443	780	2184	0.661	1443	2.1	5.345	A
3	875	1288	1158	0.756	875	3.3	13.913	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1174	475	1845	0.637	1185	2.0	6.098	A
2	1179	643	2311	0.510	1182	1.2	3.518	A
3	715	1055	1337	0.535	723	1.3	6.529	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	983	395	1907	0.516	986	1.2	4.314	A
2	987	535	2412	0.409	989	0.8	2.784	A
3	599	882	1469	0.407	601	0.8	4.570	A

EMM - DS1, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	6.94	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1450	100.000
2		✓	531	100.000
3		✓	853	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	1168	282
	2	406	0	125
	3	585	268	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.80	10.15	4.4	B
2	0.22	1.94	0.3	A
3	0.52	4.58	1.2	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1092	201	2058	0.530	1087	1.2	4.056	A
2	400	211	2713	0.147	399	0.2	1.710	A
3	642	305	1912	0.336	640	0.6	3.108	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1304	241	2027	0.643	1301	1.9	5.426	A
2	477	253	2675	0.178	477	0.2	1.801	A
3	767	365	1866	0.411	766	0.8	3.599	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1596	295	1985	0.804	1587	4.3	9.718	A
2	585	309	2623	0.223	584	0.3	1.942	A
3	939	447	1803	0.521	937	1.2	4.564	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1596	295	1985	0.804	1596	4.4	10.146	B
2	585	310	2621	0.223	585	0.3	1.944	A
3	939	447	1803	0.521	939	1.2	4.584	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1304	241	2027	0.643	1313	2.0	5.619	A
2	477	255	2672	0.179	478	0.2	1.803	A
3	767	365	1866	0.411	768	0.8	3.614	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1092	202	2058	0.531	1095	1.3	4.126	A
2	400	213	2712	0.147	400	0.2	1.714	A
3	642	306	1911	0.336	643	0.6	3.126	A

EMM - DS1, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	5.95	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1304	100.000
2		✓	630	100.000
3		✓	771	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	564	740
	2	522	0	108
	3	418	353	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.75	8.30	3.3	A
2	0.32	2.71	0.5	A
3	0.50	4.62	1.1	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	982	265	2009	0.489	978	1.0	3.825	A
2	474	555	2394	0.198	473	0.3	2.061	A
3	580	392	1845	0.315	578	0.5	3.120	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1172	317	1968	0.596	1170	1.6	4.949	A
2	566	664	2292	0.247	566	0.4	2.294	A
3	693	469	1786	0.388	692	0.7	3.619	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1436	388	1913	0.751	1429	3.2	8.086	A
2	694	811	2155	0.322	693	0.5	2.706	A
3	849	574	1705	0.498	847	1.1	4.606	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1436	389	1912	0.751	1436	3.3	8.297	A
2	694	815	2152	0.322	694	0.5	2.714	A
3	849	575	1705	0.498	849	1.1	4.624	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1172	318	1967	0.596	1179	1.6	5.062	A
2	566	669	2288	0.248	567	0.4	2.303	A
3	693	470	1785	0.388	695	0.7	3.637	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	982	266	2008	0.489	984	1.1	3.878	A
2	474	558	2390	0.198	475	0.3	2.068	A
3	580	393	1844	0.315	581	0.5	3.139	A

EML - DS2, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	6.85	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1445	100.000
2		✓	532	100.000
3		✓	853	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	1162	283
	2	408	0	124
	3	586	267	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.80	9.99	4.3	A
2	0.22	1.95	0.3	A
3	0.52	4.59	1.2	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1088	200	2059	0.528	1083	1.2	4.038	A
2	401	212	2713	0.148	400	0.2	1.711	A
3	642	307	1911	0.336	640	0.6	3.111	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1299	240	2028	0.641	1296	1.9	5.390	A
2	478	254	2674	0.179	478	0.2	1.802	A
3	767	367	1865	0.411	766	0.8	3.603	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1591	293	1986	0.801	1582	4.2	9.579	A
2	586	310	2622	0.223	585	0.3	1.944	A
3	939	449	1801	0.521	937	1.2	4.574	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1591	294	1986	0.801	1591	4.3	9.987	A
2	586	312	2620	0.224	586	0.3	1.946	A
3	939	449	1801	0.521	939	1.2	4.593	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1299	241	2028	0.641	1308	2.0	5.574	A
2	478	256	2672	0.179	479	0.2	1.804	A
3	767	367	1864	0.411	769	0.8	3.621	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1088	201	2058	0.529	1091	1.2	4.107	A
2	401	214	2711	0.148	401	0.2	1.715	A
3	642	307	1910	0.336	643	0.6	3.127	A

EML - DS2, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	5.94	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1301	100.000
2		✓	628	100.000
3		✓	773	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	561	740
	2	520	0	108
	3	418	355	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.75	8.27	3.2	A
2	0.32	2.71	0.5	A
3	0.50	4.63	1.1	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	979	266	2007	0.488	975	1.0	3.821	A
2	473	555	2394	0.198	472	0.3	2.059	A
3	582	391	1846	0.315	580	0.5	3.121	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1170	319	1967	0.595	1167	1.6	4.940	A
2	565	664	2292	0.246	564	0.4	2.291	A
3	695	467	1787	0.389	694	0.7	3.620	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1432	390	1911	0.750	1426	3.2	8.061	A
2	691	811	2155	0.321	691	0.5	2.702	A
3	851	572	1707	0.499	850	1.1	4.609	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1432	391	1910	0.750	1432	3.2	8.269	A
2	691	815	2152	0.321	691	0.5	2.710	A
3	851	573	1707	0.499	851	1.1	4.627	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1170	320	1966	0.595	1176	1.6	5.053	A
2	565	669	2288	0.247	565	0.4	2.299	A
3	695	468	1787	0.389	696	0.7	3.638	A

18:00 - 18:15

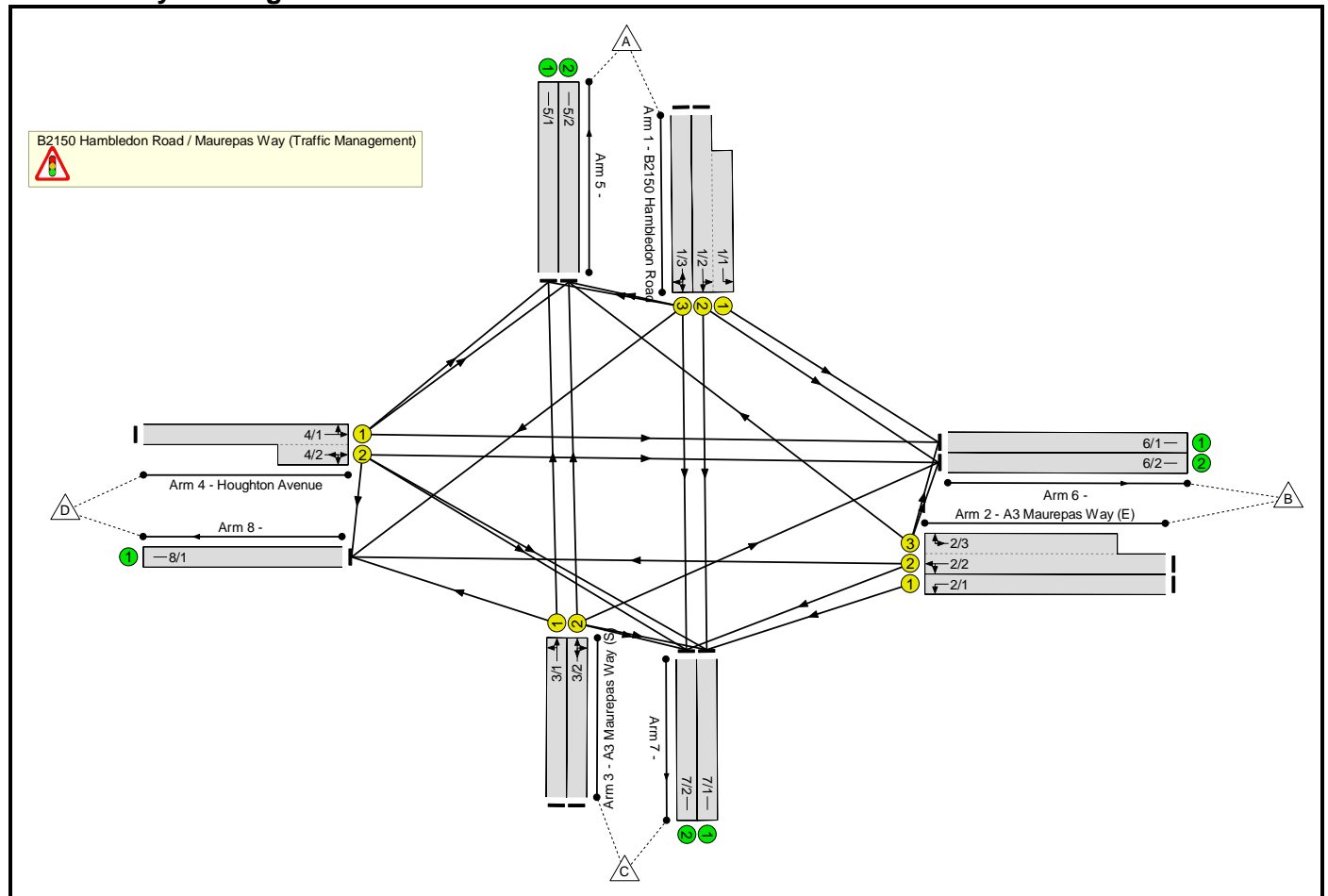
Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	979	268	2006	0.488	982	1.1	3.874	A
2	473	558	2390	0.198	473	0.3	2.067	A
3	582	392	1845	0.315	583	0.5	3.140	A

Full Input Data And Results
Full Input Data And Results

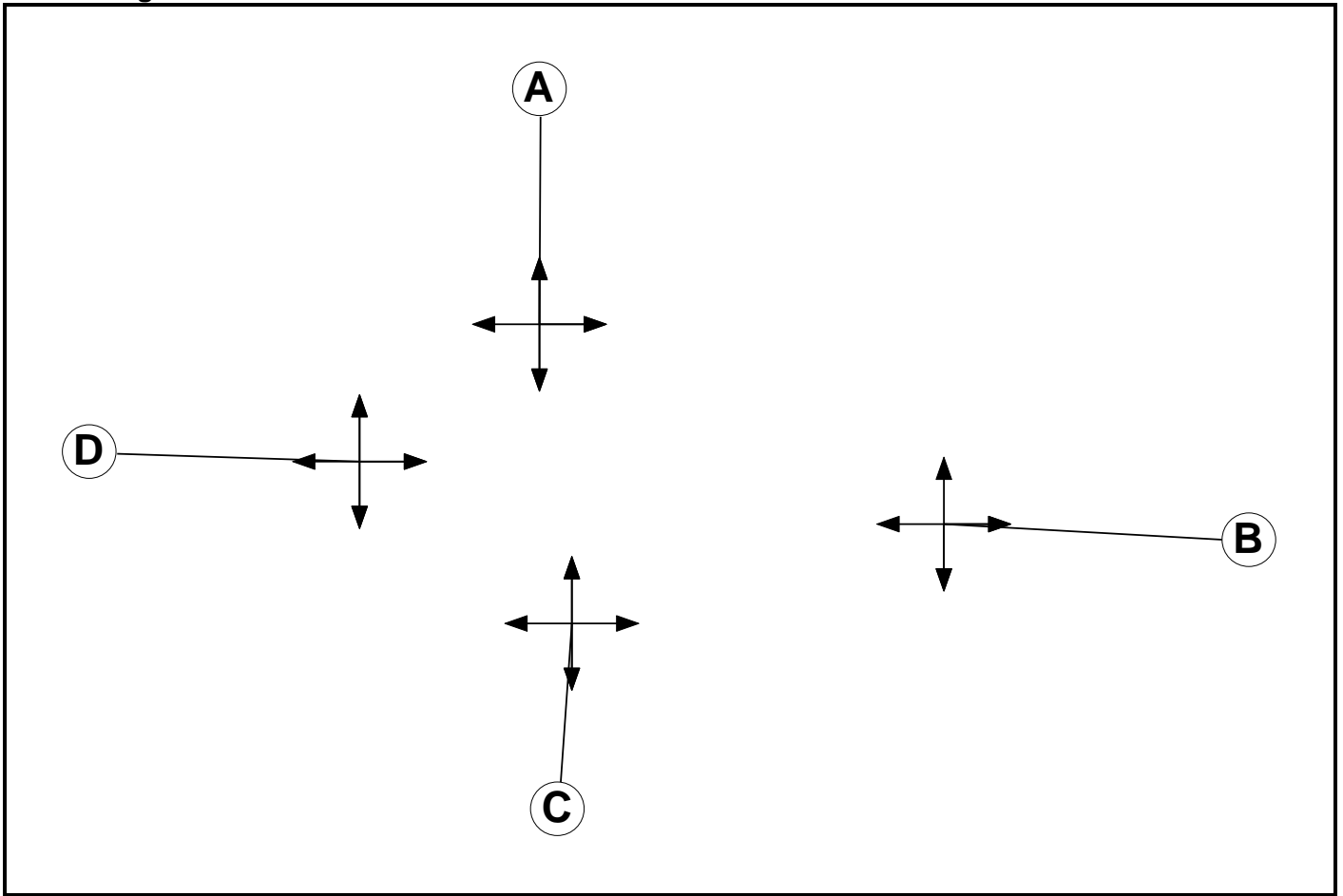
User and Project Details

Project:	
Title:	B2150 Hambledon Road / A3 Maurepas Way / Houghton Avenue traffic management signals
Location:	
Additional detail:	
File name:	B2150 Hambledon Rd_A3 Maurepas Way_Houghton Ave TM signals.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7

Full Input Data And Results

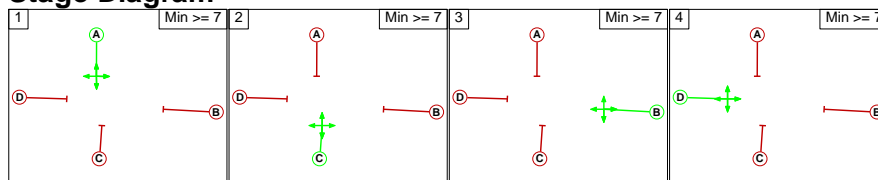
Phase Intergrens Matrix

		Starting Phase			
		A	B	C	D
Terminating Phase	A		10	14	19
	B	19		9	14
	C	14	19		9
	D	9	14	19	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	C
3	B
4	D

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage			
		1	2	3	4
From Stage	1		14	10	19
	2	14		19	9
	3	19	9		14
	4	9	19	14	

Full Input Data And Results

Give-Way Lane Input Data

Junction: B2150 Hambledon Road / Maurepas Way (Traffic Management)

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: B2150 Hambledon Road / Maurepas Way (Traffic Management)												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (B2150 Hambledon Road)	U	A	2	3	23.5	Geom	-	4.00	0.00	Y	Arm 6 Left	85.00
1/2 (B2150 Hambledon Road)	U	A	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 6 Left	85.00
1/3 (B2150 Hambledon Road)	U	A	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 7 Ahead	30.00
											Arm 5 U-Turn	30.00
											Arm 7 Ahead	30.00
1/3 (B2150 Hambledon Road)	U	A	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 8 Right	30.00
											Arm 7 Ahead	30.00
2/1 (A3 Maurepas Way (E))	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 7 Left	50.00
2/2 (A3 Maurepas Way (E))	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 7 Left	50.00
											Arm 8 Ahead	30.00
2/3 (A3 Maurepas Way (E))	U	B	2	3	20.0	Geom	-	3.50	0.00	Y	Arm 5 Right	30.00
											Arm 6 U-Turn	30.00
3/1 (A3 Maurepas Way (S))	U	C	2	3	60.0	Geom	-	3.80	0.00	Y	Arm 5 Ahead	30.00
											Arm 8 Left	50.00
3/2 (A3 Maurepas Way (S))	U	C	2	3	60.0	Geom	-	3.80	0.00	Y	Arm 5 Ahead	30.00
											Arm 6 Right	30.00
											Arm 7 U-Turn	30.00
4/1 (Houghton Avenue)	U	D	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 5 Left	30.00
											Arm 6 Ahead	30.00
											Arm 6 Ahead	30.00
4/2 (Houghton Avenue)	U	D	2	3	5.2	Geom	-	3.50	0.00	Y	Arm 7 Right	30.00
											Arm 8 U-Turn	30.00
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'EMM - DS1 AM'	08:00	09:00	01:00	
2: 'EMM - DS1 PM'	17:00	18:00	01:00	
3: 'EML - DS2 AM'	08:00	09:00	01:00	
4: 'EML - DS2 PM'	17:00	18:00	01:00	

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	333	402	0	735
	B	644	0	144	0	788
	C	251	222	0	0	473
	D	0	0	0	0	0
	Tot.	895	555	546	0	1996

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: EMM - DS1 AM
Junction: B2150 Hambledon Road / Maurepas Way (Traffic Management)	
1/1 (short)	271
1/2 (with short)	537(In) 266(Out)
1/3	198
2/1	144
2/2 (with short)	644(In) 0(Out)
2/3 (short)	644
3/1	236
3/2	237
4/1 (with short)	0(In) 0(Out)
4/2 (short)	0
5/1	236
5/2	659
6/1	271
6/2	284
7/1	348
7/2	198
8/1	0

Full Input Data And Results

Lane Saturation Flows

Junction: B2150 Hambledon Road / Maurepas Way (Traffic Management)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B2150 Hambledon Road)	4.00	0.00	Y	Arm 6 Left	85.00	100.0 %	1980	1980
1/2 (B2150 Hambledon Road)	4.00	0.00	Y	Arm 6 Left	85.00	23.3 %	1933	1933
				Arm 7 Ahead	30.00	76.7 %		
1/3 (B2150 Hambledon Road)	4.00	0.00	Y	Arm 5 U-Turn	30.00	0.0 %	1919	1919
				Arm 7 Ahead	30.00	100.0 %		
				Arm 8 Right	30.00	0.0 %		
2/1 (A3 Maurepas Way (E))	3.50	0.00	Y	Arm 7 Left	50.00	100.0 %	1908	1908
2/2 (A3 Maurepas Way (E))	3.50	0.00	Y	Arm 7 Left	50.00	0.0 %	1965	1965
				Arm 8 Ahead	30.00	0.0 %		
2/3 (A3 Maurepas Way (E))	3.50	0.00	Y	Arm 5 Right	30.00	100.0 %	1871	1871
				Arm 6 U-Turn	30.00	0.0 %		
3/1 (A3 Maurepas Way (S))	3.80	0.00	Y	Arm 5 Ahead	30.00	100.0 %	1900	1900
				Arm 8 Left	50.00	0.0 %		
3/2 (A3 Maurepas Way (S))	3.80	0.00	Y	Arm 5 Ahead	30.00	6.3 %	1900	1900
				Arm 6 Right	30.00	93.7 %		
				Arm 7 U-Turn	30.00	0.0 %		
4/1 (Houghton Avenue)	3.50	0.00	Y	Arm 5 Left	30.00	0.0 %	1965	1965
				Arm 6 Ahead	30.00	0.0 %		
4/2 (Houghton Avenue)	3.50	0.00	Y	Arm 6 Ahead	30.00	0.0 %	1965	1965
				Arm 7 Right	30.00	0.0 %		
				Arm 8 U-Turn	30.00	0.0 %		
5/1				Infinite Saturation Flow			Inf	Inf
5/2				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
6/2				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
7/2				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
	A	B	C	D	Tot.	
A	0	389	479	0	868	
B	521	0	209	0	730	
C	268	265	0	0	533	
D	0	0	0	0	0	
Tot.	789	654	688	0	2131	

Traffic Lane Flows

Lane	Scenario 2: EMM - DS1 PM
Junction: B2150 Hambledon Road / Maurepas Way (Traffic Management)	
1/1 (short)	315
1/2 (with short)	623(In) 308(Out)
1/3	245
2/1	209
2/2 (with short)	521(In) 0(Out)
2/3 (short)	521
3/1	266
3/2	267
4/1 (with short)	0(In) 0(Out)
4/2 (short)	0
5/1	266
5/2	523
6/1	315
6/2	339
7/1	443
7/2	245
8/1	0

Full Input Data And Results

Lane Saturation Flows

Junction: B2150 Hambledon Road / Maurepas Way (Traffic Management)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B2150 Hambledon Road)	4.00	0.00	Y	Arm 6 Left	85.00	100.0 %	1980	1980
1/2 (B2150 Hambledon Road)	4.00	0.00	Y	Arm 6 Left	85.00	24.0 %	1933	1933
				Arm 7 Ahead	30.00	76.0 %		
1/3 (B2150 Hambledon Road)	4.00	0.00	Y	Arm 5 U-Turn	30.00	0.0 %	1919	1919
				Arm 7 Ahead	30.00	100.0 %		
				Arm 8 Right	30.00	0.0 %		
2/1 (A3 Maurepas Way (E))	3.50	0.00	Y	Arm 7 Left	50.00	100.0 %	1908	1908
2/2 (A3 Maurepas Way (E))	3.50	0.00	Y	Arm 7 Left	50.00	0.0 %	1965	1965
				Arm 8 Ahead	30.00	0.0 %		
2/3 (A3 Maurepas Way (E))	3.50	0.00	Y	Arm 5 Right	30.00	100.0 %	1871	1871
				Arm 6 U-Turn	30.00	0.0 %		
3/1 (A3 Maurepas Way (S))	3.80	0.00	Y	Arm 5 Ahead	30.00	100.0 %	1900	1900
				Arm 8 Left	50.00	0.0 %		
3/2 (A3 Maurepas Way (S))	3.80	0.00	Y	Arm 5 Ahead	30.00	0.7 %	1900	1900
				Arm 6 Right	30.00	99.3 %		
				Arm 7 U-Turn	30.00	0.0 %		
4/1 (Houghton Avenue)	3.50	0.00	Y	Arm 5 Left	30.00	0.0 %	1965	1965
				Arm 6 Ahead	30.00	0.0 %		
4/2 (Houghton Avenue)	3.50	0.00	Y	Arm 6 Ahead	30.00	0.0 %	1965	1965
				Arm 7 Right	30.00	0.0 %		
				Arm 8 U-Turn	30.00	0.0 %		
5/1				Infinite Saturation Flow			Inf	Inf
5/2				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
6/2				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
7/2				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
	A	B	C	D	Tot.	
A	0	334	407	0	741	
B	641	0	143	0	784	
C	248	222	0	0	470	
D	0	0	0	0	0	
Tot.	889	556	550	0	1995	

Traffic Lane Flows

Lane	Scenario 3: EML - DS2 AM
Junction: B2150 Hambledon Road / Maurepas Way (Traffic Management)	
1/1 (short)	273
1/2 (with short)	541(In) 268(Out)
1/3	200
2/1	143
2/2 (with short)	641(In) 0(Out)
2/3 (short)	641
3/1	235
3/2	235
4/1 (with short)	0(In) 0(Out)
4/2 (short)	0
5/1	235
5/2	654
6/1	273
6/2	283
7/1	350
7/2	200
8/1	0

Full Input Data And Results

Lane Saturation Flows

Junction: B2150 Hambledon Road / Maurepas Way (Traffic Management)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B2150 Hambledon Road)	4.00	0.00	Y	Arm 6 Left	85.00	100.0 %	1980	1980
1/2 (B2150 Hambledon Road)	4.00	0.00	Y	Arm 6 Left	85.00	22.8 %	1933	1933
				Arm 7 Ahead	30.00	77.2 %		
1/3 (B2150 Hambledon Road)	4.00	0.00	Y	Arm 5 U-Turn	30.00	0.0 %	1919	1919
				Arm 7 Ahead	30.00	100.0 %		
				Arm 8 Right	30.00	0.0 %		
2/1 (A3 Maurepas Way (E))	3.50	0.00	Y	Arm 7 Left	50.00	100.0 %	1908	1908
2/2 (A3 Maurepas Way (E))	3.50	0.00	Y	Arm 7 Left	50.00	0.0 %	1965	1965
				Arm 8 Ahead	30.00	0.0 %		
2/3 (A3 Maurepas Way (E))	3.50	0.00	Y	Arm 5 Right	30.00	100.0 %	1871	1871
				Arm 6 U-Turn	30.00	0.0 %		
3/1 (A3 Maurepas Way (S))	3.80	0.00	Y	Arm 5 Ahead	30.00	100.0 %	1900	1900
				Arm 8 Left	50.00	0.0 %		
3/2 (A3 Maurepas Way (S))	3.80	0.00	Y	Arm 5 Ahead	30.00	5.5 %	1900	1900
				Arm 6 Right	30.00	94.5 %		
				Arm 7 U-Turn	30.00	0.0 %		
4/1 (Houghton Avenue)	3.50	0.00	Y	Arm 5 Left	30.00	0.0 %	1965	1965
				Arm 6 Ahead	30.00	0.0 %		
4/2 (Houghton Avenue)	3.50	0.00	Y	Arm 6 Ahead	30.00	0.0 %	1965	1965
				Arm 7 Right	30.00	0.0 %		
				Arm 8 U-Turn	30.00	0.0 %		
5/1				Infinite Saturation Flow			Inf	Inf
5/2				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
6/2				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
7/2				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
	A	B	C	D	Tot.	
A	0	389	479	0	868	
B	518	0	211	0	729	
C	267	263	0	0	530	
D	0	0	0	0	0	
Tot.	785	652	690	0	2127	

Traffic Lane Flows

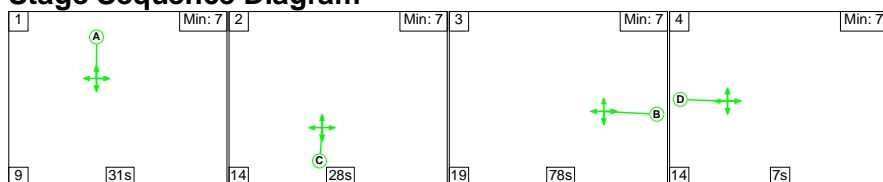
Lane	Scenario 4: EML - DS2 PM
Junction: B2150 Hambledon Road / Maurepas Way (Traffic Management)	
1/1 (short)	315
1/2 (with short)	623(In) 308(Out)
1/3	245
2/1	211
2/2 (with short)	518(In) 0(Out)
2/3 (short)	518
3/1	265
3/2	265
4/1 (with short)	0(In) 0(Out)
4/2 (short)	0
5/1	265
5/2	520
6/1	315
6/2	337
7/1	445
7/2	245
8/1	0

Lane Saturation Flows

Junction: B2150 Hambledon Road / Maurepas Way (Traffic Management)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B2150 Hambledon Road)	4.00	0.00	Y	Arm 6 Left	85.00	100.0 %	1980	1980
1/2 (B2150 Hambledon Road)	4.00	0.00	Y	Arm 6 Left	85.00	24.0 %	1933	1933
				Arm 7 Ahead	30.00	76.0 %		
1/3 (B2150 Hambledon Road)	4.00	0.00	Y	Arm 5 U-Turn	30.00	0.0 %	1919	1919
				Arm 7 Ahead	30.00	100.0 %		
				Arm 8 Right	30.00	0.0 %		
2/1 (A3 Maurepas Way (E))	3.50	0.00	Y	Arm 7 Left	50.00	100.0 %	1908	1908
2/2 (A3 Maurepas Way (E))	3.50	0.00	Y	Arm 7 Left	50.00	0.0 %	1965	1965
				Arm 8 Ahead	30.00	0.0 %		
2/3 (A3 Maurepas Way (E))	3.50	0.00	Y	Arm 5 Right	30.00	100.0 %	1871	1871
				Arm 6 U-Turn	30.00	0.0 %		
3/1 (A3 Maurepas Way (S))	3.80	0.00	Y	Arm 5 Ahead	30.00	100.0 %	1900	1900
				Arm 8 Left	50.00	0.0 %		
3/2 (A3 Maurepas Way (S))	3.80	0.00	Y	Arm 5 Ahead	30.00	0.8 %	1900	1900
				Arm 6 Right	30.00	99.2 %		
				Arm 7 U-Turn	30.00	0.0 %		
4/1 (Houghton Avenue)	3.50	0.00	Y	Arm 5 Left	30.00	0.0 %	1965	1965
				Arm 6 Ahead	30.00	0.0 %		
4/2 (Houghton Avenue)	3.50	0.00	Y	Arm 6 Ahead	30.00	0.0 %	1965	1965
				Arm 7 Right	30.00	0.0 %		
				Arm 8 U-Turn	30.00	0.0 %		
5/1				Infinite Saturation Flow			Inf	Inf
5/2				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
6/2				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
7/2				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

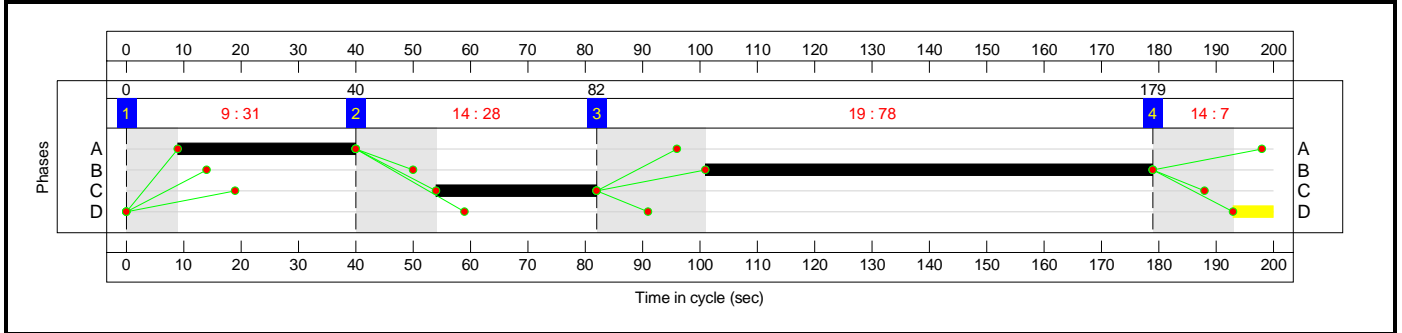


Full Input Data And Results

Stage Timings

Stage	1	2	3	4
Duration	31	28	78	7
Change Point	0	40	82	179

Signal Timings Diagram



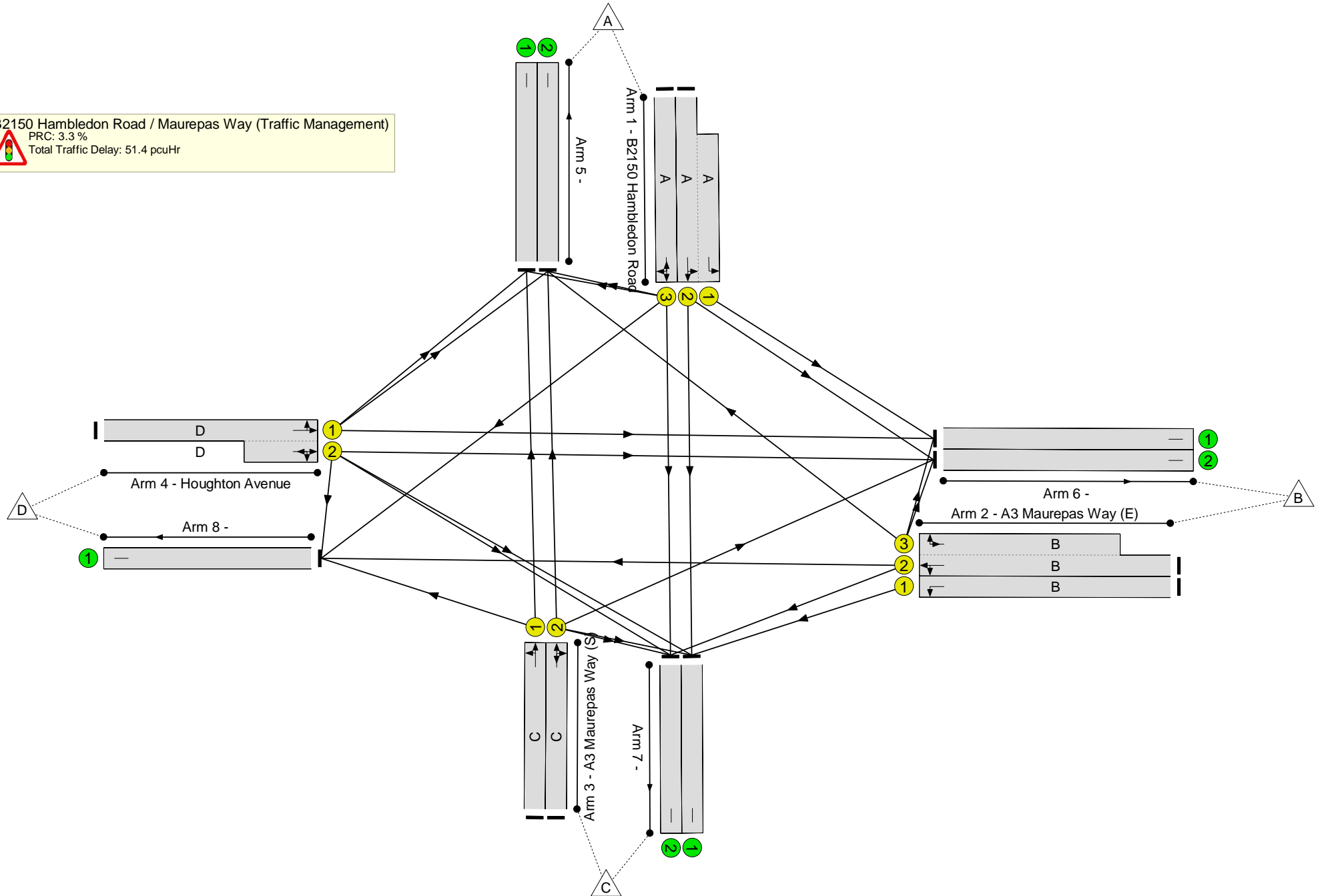
Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

B2150 Hambledon Road / Maurepas Way (Traffic Management)

PRC: 3.3 %

Total Traffic Delay: 51.4 pcuHr



Full Input Data And Results

Full Input Data And Results

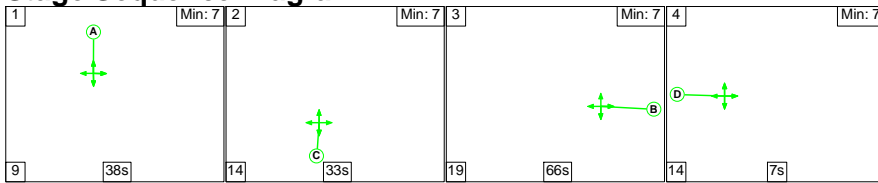
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	87.1%
B2150 Hambledon Road / Maurepas Way (Traffic Management)	-	-	N/A	-	-		-	-	-	-	-	-	87.1%
1/2+1/1	B2150 Hambledon Road Left Ahead	U	N/A	N/A	A		1	31	-	537	1933:1980	309+317	86.0 : 85.5%
1/3	B2150 Hambledon Road U-Turn Ahead Right	U	N/A	N/A	A		1	31	-	198	1919	307	64.5%
2/1	A3 Maurepas Way (E) Left	U	N/A	N/A	B		1	78	-	144	1908	754	19.1%
2/2+2/3	A3 Maurepas Way (E) Right U-Turn Left Ahead	U	N/A	N/A	B		1	78	-	644	1965:1871	0+739	0.0 : 87.1%
3/1	A3 Maurepas Way (S) Ahead Left	U	N/A	N/A	C		1	28	-	236	1900	276	85.7%
3/2	A3 Maurepas Way (S) Ahead Right U-Turn	U	N/A	N/A	C		1	28	-	237	1900	276	86.0%
4/1+4/2	Houghton Avenue Left Ahead Right U-Turn	U	N/A	N/A	D		1	7	-	0	1965:1965	79+79	0.0 : 0.0%
5/1		U	N/A	N/A	-		-	-	-	236	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	659	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	271	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	284	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	348	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	198	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM', Plan 1: 'Network Control Plan 1')

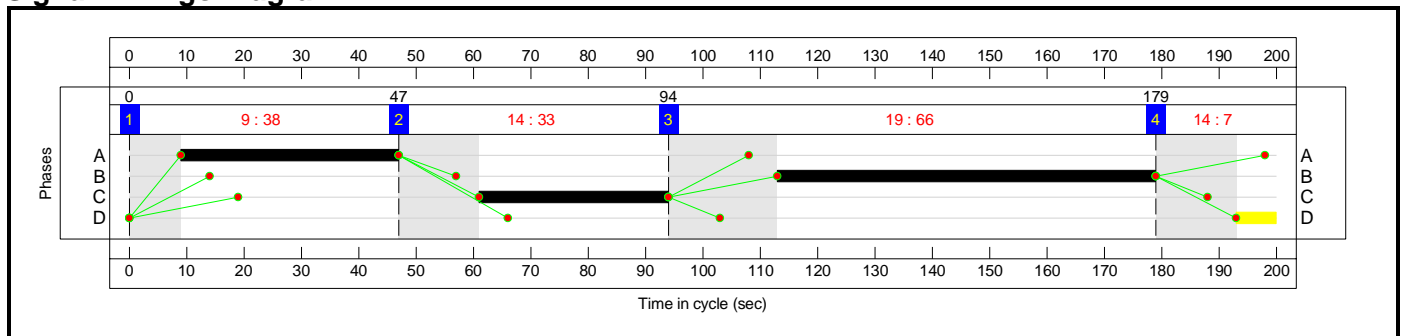
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	38	33	66	7
Change Point	0	47	94	179

Signal Timings Diagram



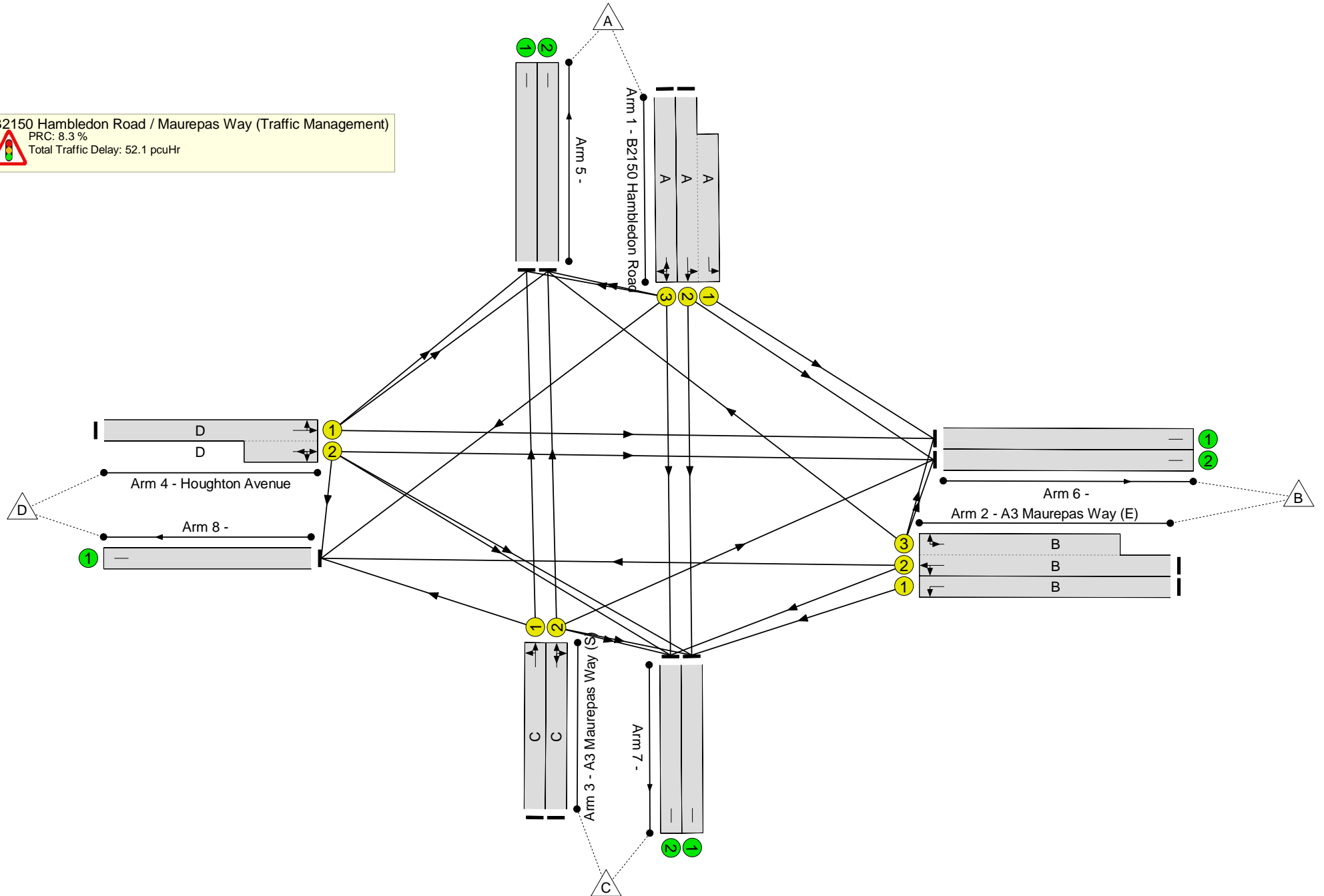
Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

B2150 Hambledon Road / Maurepas Way (Traffic Management)

PRC: 8.3 %

Total Traffic Delay: 52.1 pcuHr



Full Input Data And Results

Full Input Data And Results

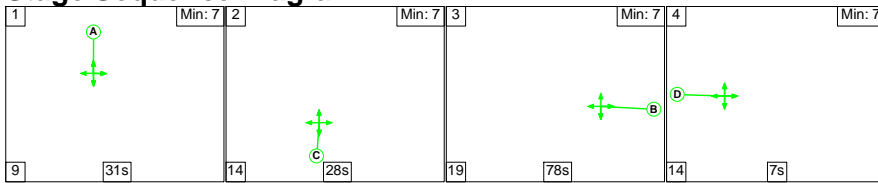
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	83.1%
B2150 Hambledon Road / Maurepas Way (Traffic Management)	-	-	N/A	-	-		-	-	-	-	-	-	83.1%
1/2+1/1	B2150 Hambledon Road Left Ahead	U	N/A	N/A	A		1	38	-	623	1933:1980	377+386	81.7 : 81.6%
1/3	B2150 Hambledon Road U-Turn Ahead Right	U	N/A	N/A	A		1	38	-	245	1919	374	65.5%
2/1	A3 Maurepas Way (E) Left	U	N/A	N/A	B		1	66	-	209	1908	639	32.7%
2/2+2/3	A3 Maurepas Way (E) Right U-Turn Left Ahead	U	N/A	N/A	B		1	66	-	521	1965:1871	0+627	0.0 : 83.1%
3/1	A3 Maurepas Way (S) Ahead Left	U	N/A	N/A	C		1	33	-	266	1900	323	82.4%
3/2	A3 Maurepas Way (S) Ahead Right U-Turn	U	N/A	N/A	C		1	33	-	267	1900	323	82.7%
4/1+4/2	Houghton Avenue Left Ahead Right U-Turn	U	N/A	N/A	D		1	7	-	0	1965:1965	79+79	0.0 : 0.0%
5/1		U	N/A	N/A	-		-	-	-	266	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	523	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	315	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	339	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	443	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	245	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM', Plan 1: 'Network Control Plan 1')

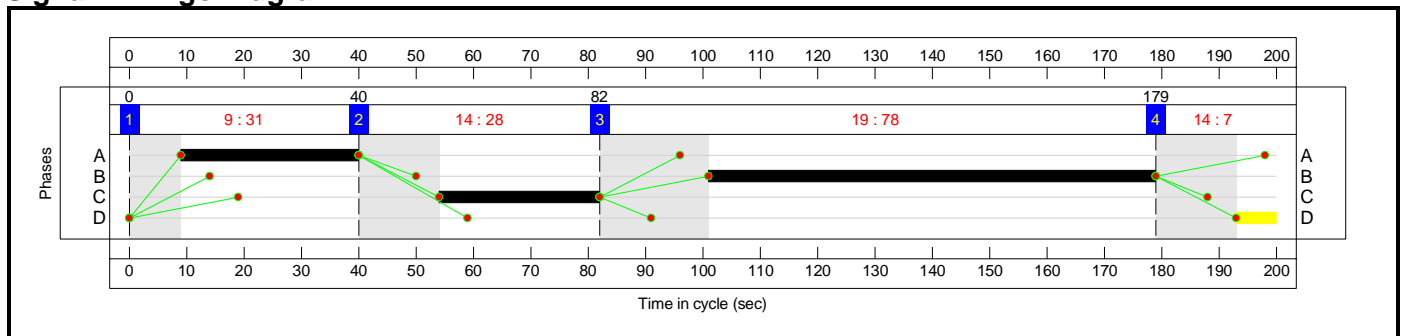
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	31	28	78	7
Change Point	0	40	82	179

Signal Timings Diagram



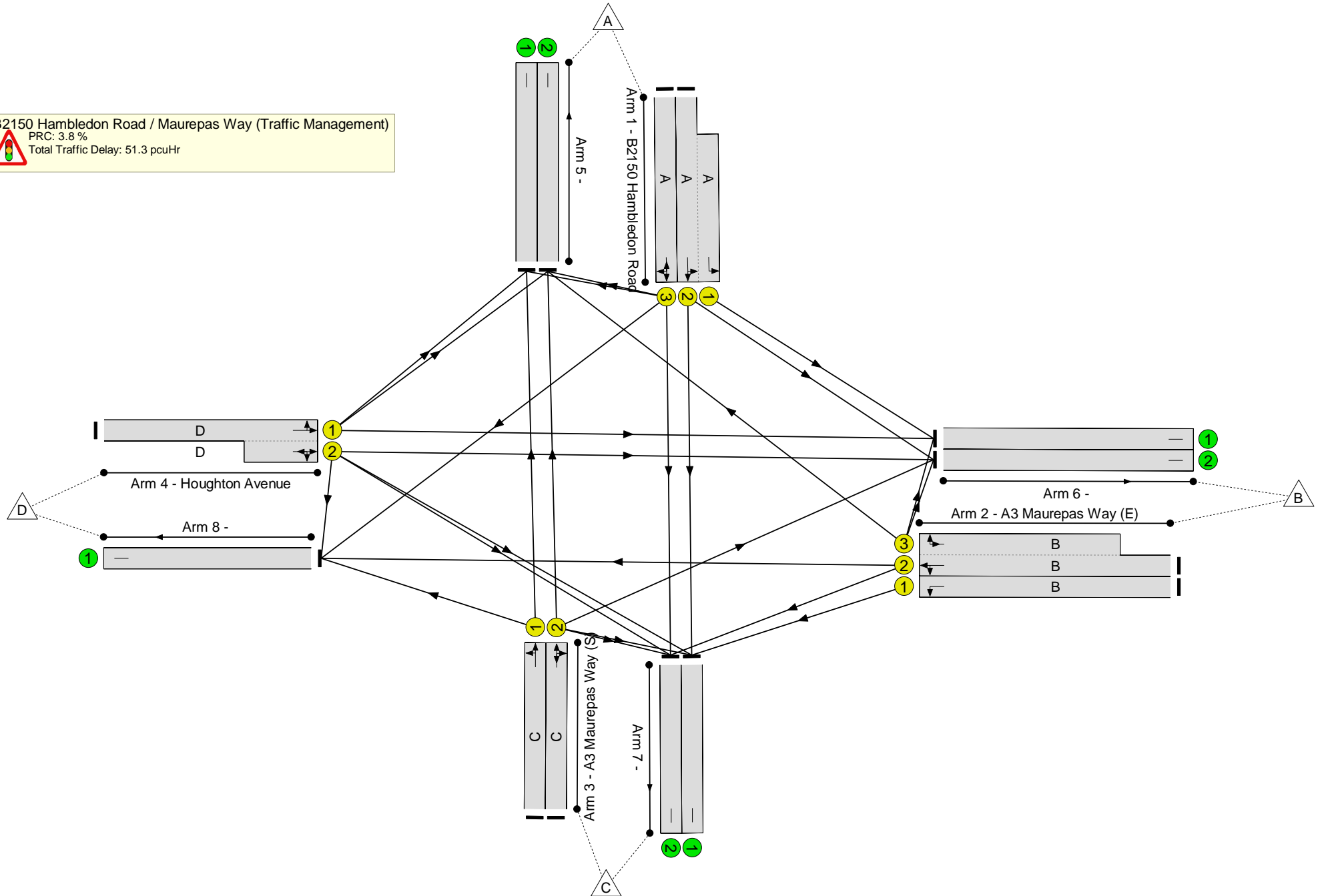
Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

B2150 Hambledon Road / Maurepas Way (Traffic Management)

PRC: 3.8 %

Total Traffic Delay: 51.3 pcuHr



Full Input Data And Results

Full Input Data And Results

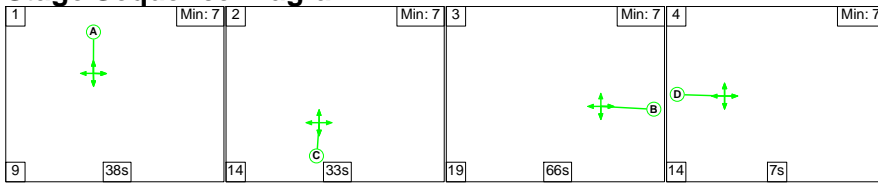
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	86.7%
B2150 Hambledon Road / Maurepas Way (Traffic Management)	-	-	N/A	-	-		-	-	-	-	-	-	86.7%
1/2+1/1	B2150 Hambledon Road Left Ahead	U	N/A	N/A	A		1	31	-	541	1933:1980	309+317	86.7 : 86.2%
1/3	B2150 Hambledon Road U-Turn Ahead Right	U	N/A	N/A	A		1	31	-	200	1919	307	65.1%
2/1	A3 Maurepas Way (E) Left	U	N/A	N/A	B		1	78	-	143	1908	754	19.0%
2/2+2/3	A3 Maurepas Way (E) Right U-Turn Left Ahead	U	N/A	N/A	B		1	78	-	641	1965:1871	0+739	0.0 : 86.7%
3/1	A3 Maurepas Way (S) Ahead Left	U	N/A	N/A	C		1	28	-	235	1900	276	85.3%
3/2	A3 Maurepas Way (S) Ahead Right U-Turn	U	N/A	N/A	C		1	28	-	235	1900	276	85.3%
4/1+4/2	Houghton Avenue Left Ahead Right U-Turn	U	N/A	N/A	D		1	7	-	0	1965:1965	79+79	0.0 : 0.0%
5/1		U	N/A	N/A	-		-	-	-	235	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	654	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	273	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	283	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	350	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	200	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM', Plan 1: 'Network Control Plan 1')

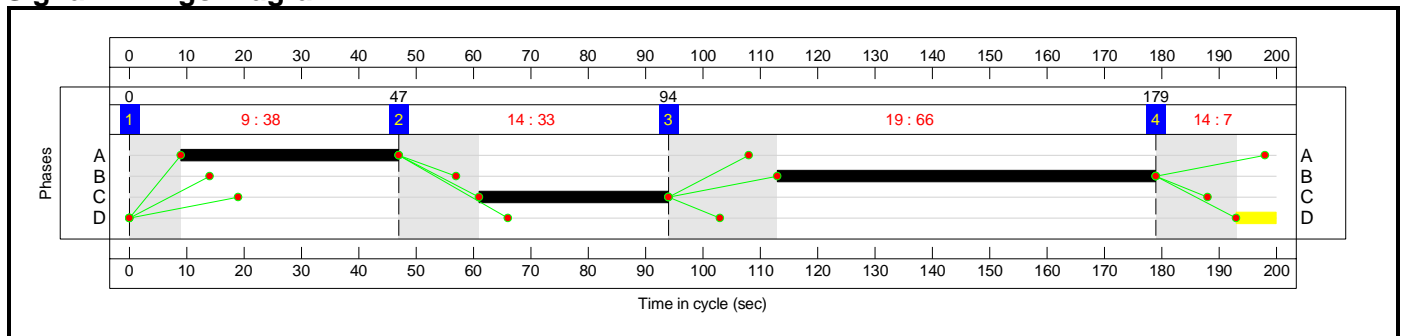
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	38	33	66	7
Change Point	0	47	94	179

Signal Timings Diagram



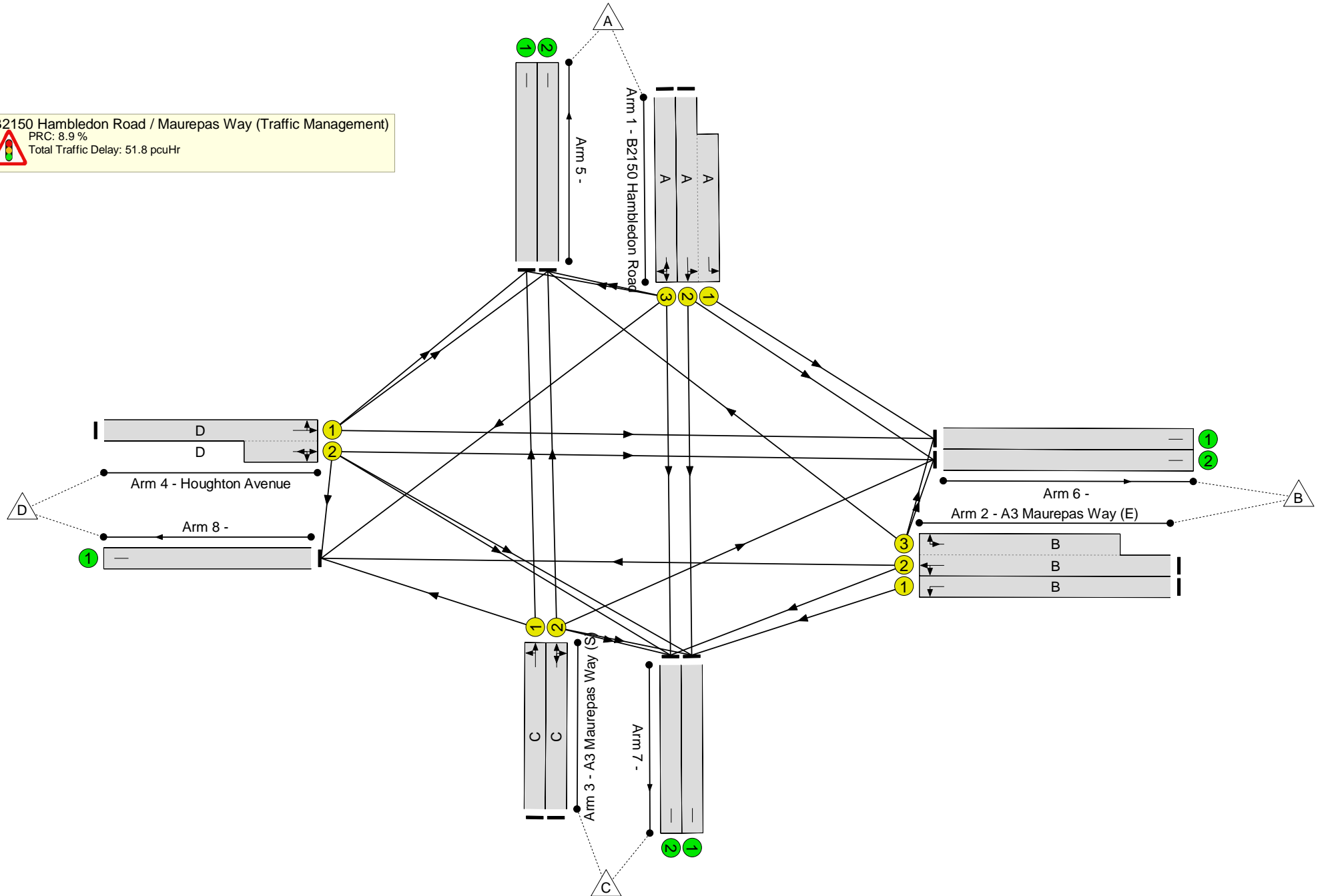
Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

B2150 Hambledon Road / Maurepas Way (Traffic Management)

PRC: 8.9 %

Total Traffic Delay: 51.8 pcuHr



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	82.6%
B2150 Hambledon Road / Maurepas Way (Traffic Management)	-	-	N/A	-	-		-	-	-	-	-	-	82.6%
1/2+1/1	B2150 Hambledon Road Left Ahead	U	N/A	N/A	A		1	38	-	623	1933:1980	377+386	81.7 : 81.6%
1/3	B2150 Hambledon Road U-Turn Ahead Right	U	N/A	N/A	A		1	38	-	245	1919	374	65.5%
2/1	A3 Maurepas Way (E) Left	U	N/A	N/A	B		1	66	-	211	1908	639	33.0%
2/2+2/3	A3 Maurepas Way (E) Right U-Turn Left Ahead	U	N/A	N/A	B		1	66	-	518	1965:1871	0+627	0.0 : 82.6%
3/1	A3 Maurepas Way (S) Ahead Left	U	N/A	N/A	C		1	33	-	265	1900	323	82.0%
3/2	A3 Maurepas Way (S) Ahead Right U-Turn	U	N/A	N/A	C		1	33	-	265	1900	323	82.0%
4/1+4/2	Houghton Avenue Left Ahead Right U-Turn	U	N/A	N/A	D		1	7	-	0	1965:1965	79+79	0.0 : 0.0%
5/1		U	N/A	N/A	-		-	-	-	265	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	520	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	315	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	445	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	245	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk
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Filename: B2177 Portsdown Hill Rd_Maylands Rd_Bedhampton Rd_Bedhampton Hill.j9
Path: \\uk.wspgroup.com\central data\Projects\62100xxx\62100616 - Aquind VO No.3\A DCO\D. EIA\5. WIP\12. Traffic and Transport\Transport Assessment\Analysis & Calcs\ARCADY\TA Models and Outputs
Report generation date: 29/10/2019 10:19:27

- »ELM - DM, AM
- »ELM - DM, PM
- »EMM - DS1, AM
- »EMM - DS1, PM
- »EML - DS2, AM
- »EML - DS2, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
ELM - DM								
Arm 1	1.9	5.27	0.63	A	1.4	4.46	0.56	A
Arm 2	3.7	19.90	0.78	C	5.6	27.38	0.85	D
Arm 3	1.3	14.11	0.55	B	11.8	79.97	0.96	F
Arm 4	0.0	0.00	0.00	A	0.0	0.00	0.00	A
EMM - DS1								
Arm 1	1.9	5.33	0.63	A	1.4	4.55	0.57	A
Arm 2	2.8	15.65	0.72	C	5.6	27.66	0.85	D
Arm 3	2.9	22.67	0.73	C	22.2	128.97	1.03	F
Arm 4	0.0	0.00	0.00	A	0.0	0.00	0.00	A
EML - DS2								
Arm 1	1.9	5.35	0.63	A	1.4	4.54	0.57	A
Arm 2	2.6	14.93	0.71	B	5.6	27.77	0.85	D
Arm 3	3.1	23.49	0.75	C	22.5	130.52	1.03	F
Arm 4	0.0	0.00	0.00	A	0.0	0.00	0.00	A

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

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

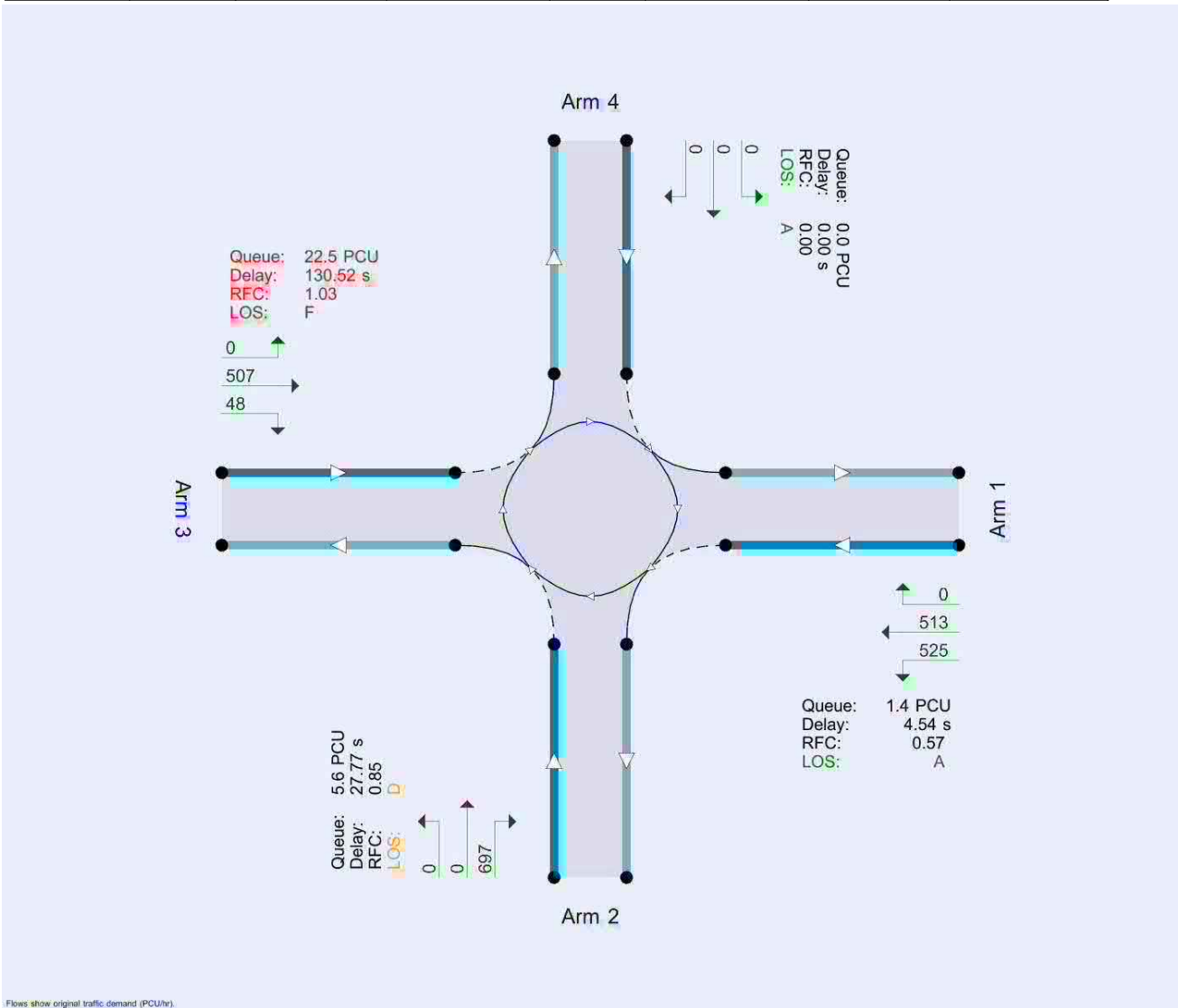
File summary

File Description

Title	B2177 Portsdown Hill Road / Maylands Road / B2177 Bedhampton Road / B2177 Bedhampton Hill roundabout
Location	
Site number	
Date	26/09/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	62100616
Enumerator	CORP\UKAJT009
Description	

Units

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



Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

ELM - DM, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	10.98	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	B2177 Bedhampton Road	
2	B2177 Bedhampton Hill	
3	B2177 Portsdown Hill Road	
4	Maylands Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	4.00	7.00	35.0	20.0	26.0	11.0	
2	4.20	4.20	0.0	12.0	26.0	34.0	
3	3.50	3.50	0.0	8.0	26.0	36.0	
4	2.75	3.20	0.8	12.0	26.0	25.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.754	2052
2	0.547	1213
3	0.480	961
4	0.485	868

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1168	100.000
2		✓	637	100.000
3		✓	314	100.000
4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1	2	3	4	
From	1	0	644	524	0
	2	634	0	3	0
	3	296	18	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.63	5.27	1.9	A
2	0.78	19.90	3.7	C
3	0.55	14.11	1.3	B
4	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	879	13	2042	0.431	876	0.8	3.386	A
2	480	393	999	0.480	476	1.0	7.515	A
3	236	473	734	0.322	234	0.5	7.901	A
4	0	708	525	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1050	16	2040	0.515	1049	1.2	3.989	A
2	573	470	956	0.599	570	1.6	10.194	B
3	282	568	688	0.410	281	0.8	9.700	A
4	0	849	456	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1286	20	2037	0.631	1283	1.9	5.230	A
2	701	576	899	0.780	693	3.6	18.597	C
3	346	690	629	0.549	344	1.3	13.742	B
4	0	1034	367	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1286	20	2037	0.631	1286	1.9	5.270	A
2	701	577	898	0.781	701	3.7	19.903	C
3	346	697	626	0.552	346	1.3	14.107	B
4	0	1043	362	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1050	16	2040	0.515	1053	1.2	4.022	A
2	573	472	955	0.599	581	1.7	10.797	B
3	282	578	683	0.413	284	0.8	9.982	A
4	0	863	450	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	879	14	2042	0.431	881	0.8	3.413	A
2	480	395	997	0.481	482	1.0	7.724	A
3	236	480	730	0.324	237	0.5	8.050	A
4	0	717	520	0.000	0	0.0	0.000	A

ELM - DM, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	28.94	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1016	100.000
2		✓	711	100.000
3		✓	509	100.000
4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	532	484	0
	2	711	0	0	0
	3	452	57	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.56	4.46	1.4	A
2	0.85	27.38	5.6	D
3	0.96	79.97	11.8	F
4	0.00	0.00	0.0	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	765	42	2020	0.379	762	0.7	3.141	A
2	535	363	1015	0.527	530	1.2	8.095	A
3	383	530	706	0.543	378	1.3	11.901	B
4	0	909	427	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	913	51	2014	0.454	912	0.9	3.591	A
2	639	435	976	0.655	636	2.0	11.537	B
3	458	636	655	0.698	453	2.4	19.145	C
4	0	1089	340	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1119	60	2007	0.557	1117	1.4	4.439	A
2	783	532	923	0.849	770	5.2	24.109	C
3	560	770	591	0.948	534	9.0	53.806	F
4	0	1304	235	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1119	61	2006	0.558	1119	1.4	4.462	A
2	783	533	922	0.849	781	5.6	27.381	D
3	560	781	586	0.957	549	11.8	79.968	F
4	0	1330	223	0.000	0	0.0	0.000	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	913	55	2011	0.454	915	0.9	3.620	A
2	639	436	975	0.656	653	2.2	12.788	B
3	458	653	647	0.707	493	2.9	30.440	D
4	0	1146	312	0.000	0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	765	44	2019	0.379	766	0.7	3.163	A
2	535	365	1014	0.528	539	1.3	8.400	A
3	383	539	702	0.546	389	1.4	12.896	B
4	0	928	418	0.000	0	0.0	0.000	A

EMM - DS1, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	11.57	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1162	100.000
2		✓	594	100.000
3		✓	434	100.000
4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	651	511	0
	2	587	0	7	0
	3	398	36	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.63	5.33	1.9	A
2	0.72	15.65	2.8	C
3	0.73	22.67	2.9	C
4	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	875	27	2032	0.431	872	0.8	3.402	A
2	447	383	1004	0.445	444	0.9	7.025	A
3	327	438	750	0.436	323	0.8	9.207	A
4	0	762	499	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1045	32	2028	0.515	1043	1.2	4.017	A
2	534	459	963	0.555	532	1.3	9.157	A
3	390	526	708	0.551	388	1.3	12.297	B
4	0	914	425	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1279	39	2023	0.633	1277	1.9	5.287	A
2	654	561	907	0.721	649	2.7	15.040	C
3	478	641	653	0.732	472	2.8	21.208	C
4	0	1113	328	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1279	40	2022	0.633	1279	1.9	5.328	A
2	654	563	906	0.722	654	2.8	15.650	C
3	478	646	651	0.734	477	2.9	22.672	C
4	0	1123	323	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1045	33	2027	0.515	1047	1.2	4.051	A
2	534	461	962	0.555	539	1.4	9.496	A
3	390	533	705	0.554	396	1.4	13.065	B
4	0	929	417	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	875	27	2032	0.431	876	0.8	3.430	A
2	447	385	1003	0.446	449	0.9	7.181	A
3	327	444	748	0.437	329	0.9	9.504	A
4	0	773	493	0.000	0	0.0	0.000	A

EMM - DS1, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	41.70	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1038	100.000
2		✓	697	100.000
3		✓	554	100.000
4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	526	512	0
	2	697	0	0	0
	3	505	49	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.57	4.55	1.4	A
2	0.85	27.66	5.6	D
3	1.03	128.97	22.2	F
4	0.00	0.00	0.0	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	781	36	2025	0.386	779	0.7	3.171	A
2	525	384	1003	0.523	520	1.2	8.115	A
3	417	520	711	0.587	411	1.5	12.954	B
4	0	931	416	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	933	44	2019	0.462	932	0.9	3.638	A
2	627	460	962	0.651	623	2.0	11.579	B
3	498	623	662	0.753	492	3.1	22.535	C
4	0	1115	327	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1143	50	2015	0.567	1141	1.4	4.522	A
2	767	563	906	0.847	755	5.2	24.341	C
3	610	755	599	1.019	564	14.4	73.920	F
4	0	1319	228	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1143	51	2014	0.568	1143	1.4	4.547	A
2	767	564	905	0.848	766	5.6	27.664	D
3	610	766	593	1.028	579	22.2	128.969	F
4	0	1345	216	0.000	0	0.0	0.000	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	933	50	2014	0.463	935	1.0	3.677	A
2	627	461	961	0.652	640	2.1	12.833	B
3	498	640	653	0.762	570	4.1	64.006	F
4	0	1211	281	0.000	0	0.0	0.000	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	781	38	2024	0.386	783	0.7	3.192	A
2	525	386	1002	0.523	528	1.2	8.416	A
3	417	528	707	0.590	427	1.6	14.601	B
4	0	955	405	0.000	0	0.0	0.000	A

EML - DS2, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	11.59	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1160	100.000
2		✓	585	100.000
3		✓	444	100.000
4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	653	507	0
	2	578	0	7	0
	3	402	42	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.63	5.35	1.9	A
2	0.71	14.93	2.6	B
3	0.75	23.49	3.1	C
4	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	873	31	2029	0.430	870	0.8	3.407	A
2	440	380	1006	0.438	437	0.8	6.926	A
3	334	432	753	0.444	331	0.9	9.297	A
4	0	763	498	0.000	0	0.0	0.000	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1043	38	2024	0.515	1041	1.2	4.024	A
2	526	455	965	0.545	524	1.3	8.955	A
3	399	518	712	0.560	397	1.4	12.490	B
4	0	915	424	0.000	0	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1277	46	2018	0.633	1274	1.9	5.306	A
2	644	557	909	0.709	639	2.5	14.410	B
3	489	631	658	0.743	483	2.9	21.872	C
4	0	1114	328	0.000	0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1277	46	2017	0.633	1277	1.9	5.348	A
2	644	558	908	0.709	644	2.6	14.932	B
3	489	636	655	0.746	488	3.1	23.489	C
4	0	1124	323	0.000	0	0.0	0.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1043	38	2023	0.515	1046	1.2	4.063	A
2	526	457	964	0.546	531	1.3	9.257	A
3	399	525	709	0.563	406	1.5	13.317	B
4	0	930	417	0.000	0	0.0	0.000	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	873	32	2028	0.431	875	0.8	3.438	A
2	440	382	1004	0.438	442	0.9	7.067	A
3	334	437	751	0.445	337	0.9	9.608	A
4	0	774	493	0.000	0	0.0	0.000	A

EML - DS2, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	42.14	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1038	100.000
2		✓	697	100.000
3		✓	555	100.000
4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	525	513	0
	2	697	0	0	0
	3	507	48	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.57	4.54	1.4	A
2	0.85	27.77	5.6	D
3	1.03	130.52	22.5	F
4	0.00	0.00	0.0	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	781	36	2025	0.386	779	0.7	3.170	A
2	525	385	1003	0.523	520	1.2	8.122	A
3	418	520	711	0.588	412	1.5	12.984	B
4	0	932	416	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	933	43	2020	0.462	932	0.9	3.636	A
2	627	461	962	0.652	623	2.0	11.596	B
3	499	623	662	0.754	493	3.1	22.632	C
4	0	1116	327	0.000	0	0.0	0.000	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1143	49	2015	0.567	1141	1.4	4.518	A
2	767	564	905	0.848	755	5.2	24.417	C
3	611	755	599	1.021	565	14.6	74.521	F
4	0	1320	228	0.000	0	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1143	50	2014	0.567	1143	1.4	4.542	A
2	767	565	905	0.848	766	5.6	27.771	D
3	611	766	593	1.030	579	22.5	130.518	F
4	0	1345	215	0.000	0	0.0	0.000	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	933	50	2015	0.463	935	1.0	3.672	A
2	627	462	961	0.652	640	2.1	12.856	B
3	499	640	653	0.764	572	4.2	65.560	F
4	0	1213	280	0.000	0	0.0	0.000	A

18:00 - 18:15

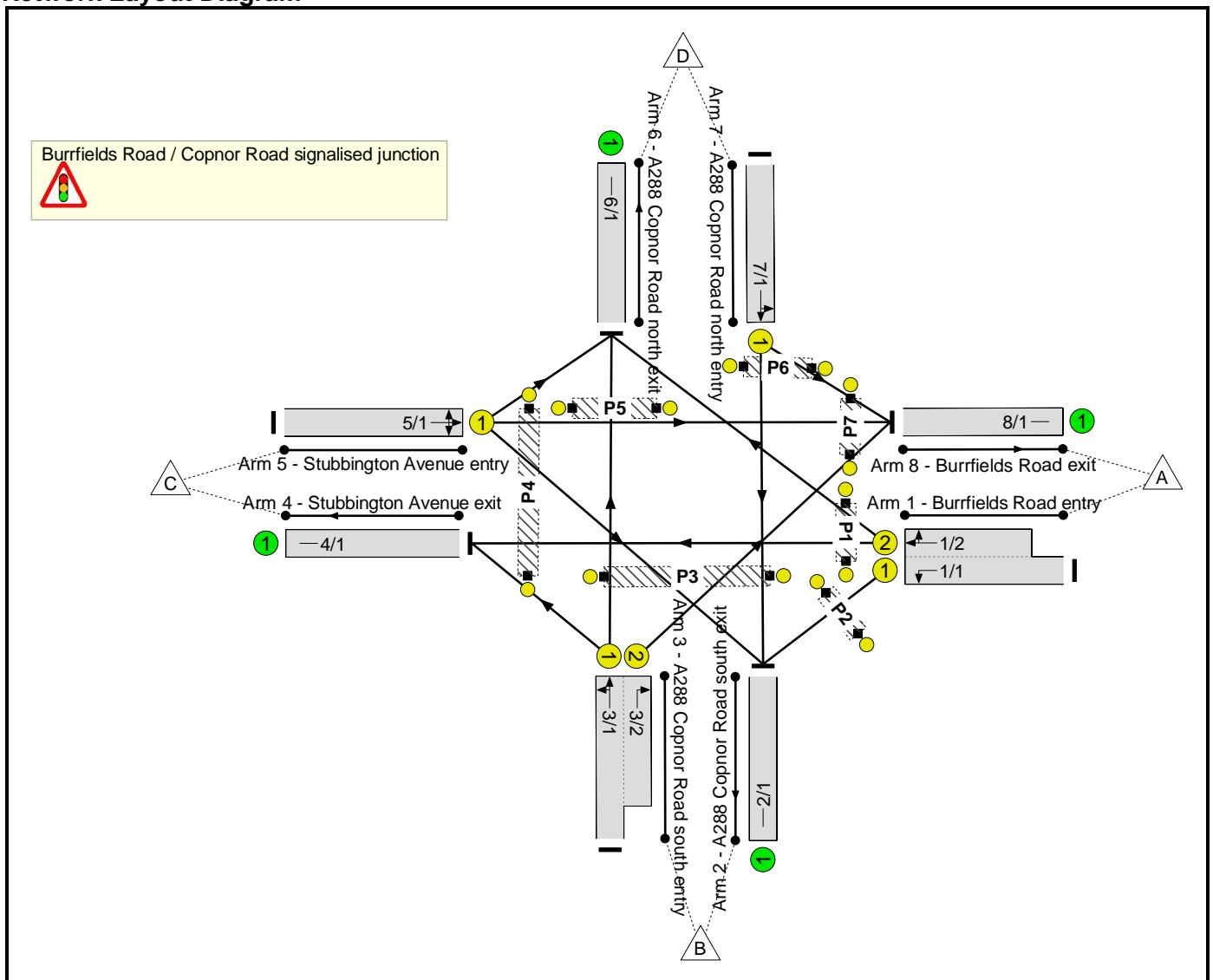
Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	781	37	2024	0.386	783	0.7	3.190	A
2	525	387	1002	0.524	528	1.2	8.424	A
3	418	528	707	0.591	428	1.6	14.657	B
4	0	956	404	0.000	0	0.0	0.000	A

Full Input Data And Results
Full Input Data And Results

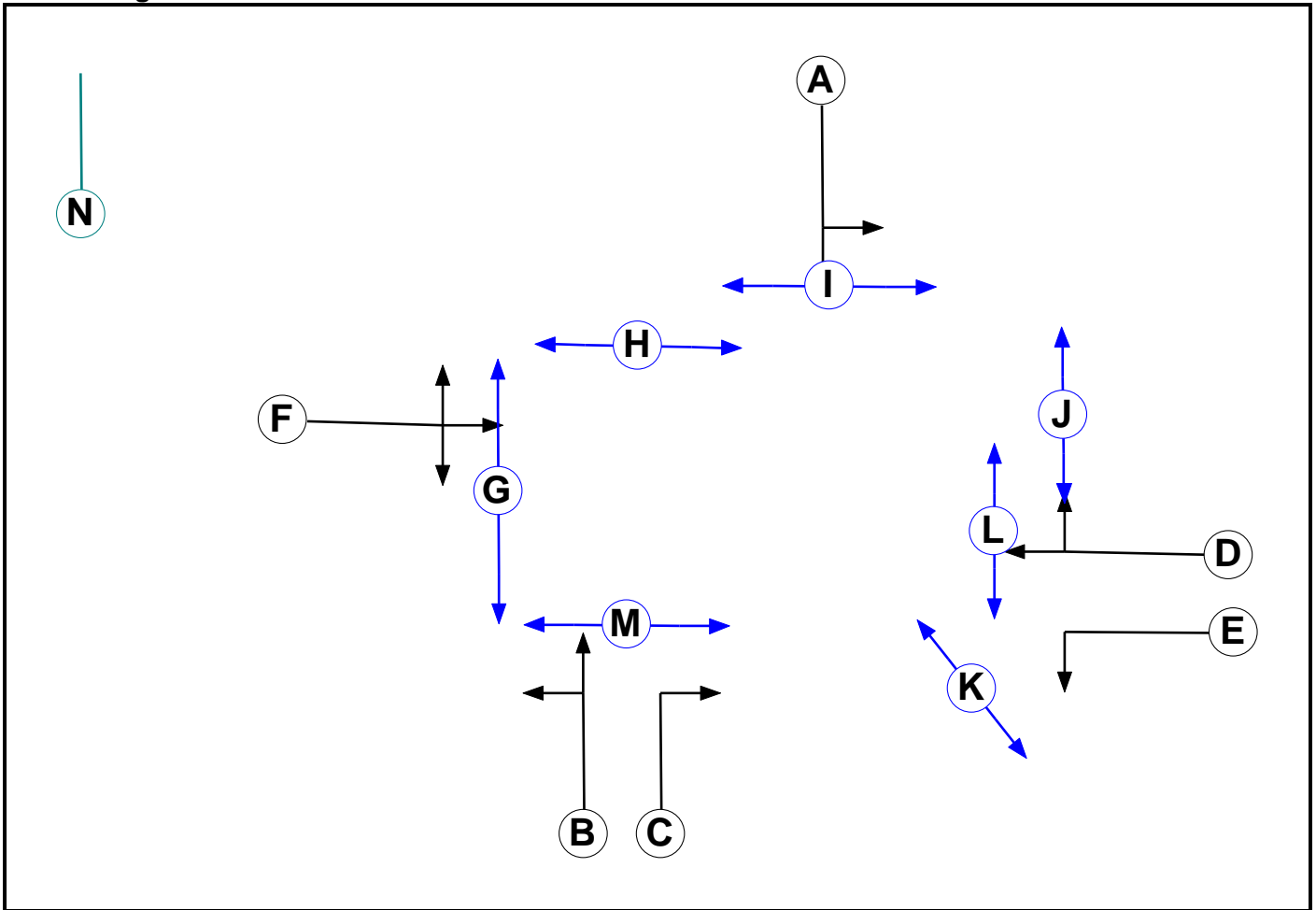
User and Project Details

Project:	
Title:	Burrfields Road / Copnor Road traffic signal junction
Location:	
Additional detail:	
File name:	Burrfields Rd_Copnor Rd.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Traffic		7	7
G	Pedestrian		6	6
H	Pedestrian		6	6
I	Pedestrian		6	6
J	Pedestrian		6	6
K	Pedestrian		6	6
L	Pedestrian		6	6
M	Pedestrian		6	6
N	Dummy		3	3

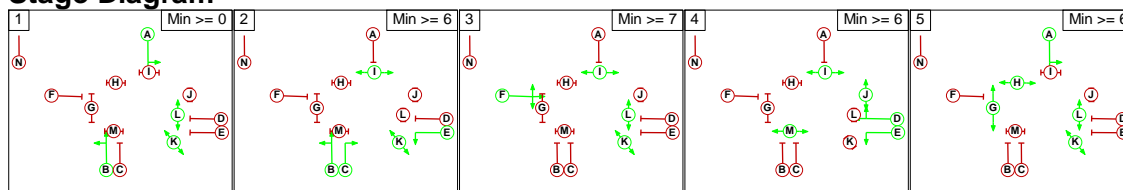
Phase Intergrens Matrix

		Starting Phase													
		A	B	C	D	E	F	G	H	I	J	K	L	M	N
Terminating Phase	A	-	-	7	6	8	5	-	-	5	8	-	-	8	3
	B	-	-	-	5	-	5	7	8	-	-	-	-	5	3
	C	5	-	-	5	-	5	-	-	-	8	-	-	5	3
	D	5	6	6	-	-	7	8	8	-	-	5	-	-	3
	E	5	-	-	-	-	5	-	-	-	-	-	5	-	3
	F	5	6	6	6	7	-	5	8	-	9	-	-	8	3
	G	-	5	-	5	-	5	-	-	-	-	-	-	-	3
	H	-	5	-	5	-	5	-	-	-	-	-	-	-	3
	I	5	-	-	-	-	-	-	-	-	-	-	-	-	3
	J	5	-	5	-	-	5	-	-	-	-	-	-	-	3
	K	-	-	-	5	-	-	-	-	-	-	-	-	-	3
	L	-	-	-	-	5	-	-	-	-	-	-	-	-	3
	M	0	0	0	-	-	0	-	-	-	-	-	-	-	3
	N	2	2	2	2	2	2	2	2	2	2	2	2	2	2

Phases in Stage

Stage No.	Phases in Stage
1	A B K L
2	B C E I K
3	F I K L
4	D E I J M
5	A G H K L

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Full Input Data And Results

Prohibited Stage Change

		To Stage				
		1	2	3	4	5
From Stage	1	8	5	8	8	
	2	5	5	8	8	
	3	6	7	9	8	
	4	6	6	7	8	
	5	5	8	5	8	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Burrfields Road / Copnor Road signalised junction

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Burrfields Road / Copnor Road signalised junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Burrfields Road entry)	U	E	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 2 Left	12.00
1/2 (Burrfields Road entry)	U	D	2	3	10.4	Geom	-	3.50	0.00	Y	Arm 4 Ahead	Inf
											Arm 6 Right	12.00
2/1 (A288 Copnor Road south exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
3/1 (A288 Copnor Road south entry)	U	B	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Left	8.00
											Arm 6 Ahead	Inf
3/2 (A288 Copnor Road south entry)	U	C	2	3	10.4	Geom	-	3.00	0.00	Y	Arm 8 Right	10.00
4/1 (Stubbington Avenue exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Stubbington Avenue entry)	U	F	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 2 Right	8.00
											Arm 6 Left	10.00
6/1 (A288 Copnor Road north exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (A288 Copnor Road north entry)	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 2 Ahead	Inf
											Arm 8 Left	12.00
8/1 (Burrfields Road exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'ELM - DM AM'	08:00	09:00	01:00	
2: 'ELM - DM PM'	17:00	18:00	01:00	
3: 'EMM - DS1 AM'	08:00	09:00	01:00	
4: 'EMM - DS1 PM'	17:00	18:00	01:00	
5: 'EML - DS2 AM'	08:00	09:00	01:00	
6: 'EML - DS2 PM'	17:00	18:00	01:00	

Scenario 1: 'ELM - DM AM' (FG1: 'ELM - DM AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	229	3	25	257
	B	642	0	23	750	1415
	C	74	3	0	3	80
	D	169	363	0	0	532
	Tot.	885	595	26	778	2284

Traffic Lane Flows

Lane	Scenario 1: ELM - DM AM
Junction: Burrfields Road / Copnor Road signalised junction	
1/1 (with short)	257(In) 229(Out)
1/2 (short)	28
2/1	595
3/1 (with short)	1415(In) 773(Out)
3/2 (short)	642
4/1	26
5/1	80
6/1	778
7/1	532
8/1	885

Full Input Data And Results

Lane Saturation Flows

Junction: Burrfields Road / Copnor Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Burrfields Road entry)	3.50	0.00	Y	Arm 2 Left	12.00	100.0 %	1747	1747
1/2 (Burrfields Road entry)	3.50	0.00	Y	Arm 4 Ahead Arm 6 Right	Inf 12.00	10.7 % 89.3 %	1768	1768
2/1 (A288 Copnor Road south exit Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A288 Copnor Road south entry)	3.00	0.00	Y	Arm 4 Left Arm 6 Ahead	8.00 Inf	3.0 % 97.0 %	1904	1904
3/2 (A288 Copnor Road south entry)	3.00	0.00	Y	Arm 8 Right	10.00	100.0 %	1665	1665
4/1 (Stubbington Avenue exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Stubbington Avenue entry)	3.00	0.00	Y	Arm 2 Right Arm 6 Left Arm 8 Ahead	8.00 10.00 Inf	3.8 % 3.8 % 92.5 %	1891	1891
6/1 (A288 Copnor Road north exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A288 Copnor Road north entry)	3.00	0.00	Y	Arm 2 Ahead Arm 8 Left	Inf 12.00	68.2 % 31.8 %	1842	1842
8/1 (Burrfields Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'ELM - DM PM' (FG2: 'ELM - DM PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
	A	B	C	D	Tot.	
A	0	457	31	77	565	
B	159	0	6	711	876	
C	70	6	0	21	97	
D	10	651	0	0	661	
Tot.	239	1114	37	809	2199	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: ELM - DM PM
Junction: Burrfields Road / Copnor Road signalised junction	
1/1 (with short)	565(In) 457(Out)
1/2 (short)	108
2/1	1114
3/1 (with short)	876(In) 717(Out)
3/2 (short)	159
4/1	37
5/1	97
6/1	809
7/1	661
8/1	239

Lane Saturation Flows

Junction: Burrfields Road / Copnor Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Burrfields Road entry)	3.50	0.00	Y	Arm 2 Left	12.00	100.0 %	1747	1747
1/2 (Burrfields Road entry)	3.50	0.00	Y	Arm 4 Ahead Arm 6 Right	Inf 12.00	28.7 % 71.3 %	1804	1804
2/1 (A288 Copnor Road south exit Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A288 Copnor Road south entry)	3.00	0.00	Y	Arm 4 Left Arm 6 Ahead	8.00 Inf	0.8 % 99.2 %	1912	1912
3/2 (A288 Copnor Road south entry)	3.00	0.00	Y	Arm 8 Right	10.00	100.0 %	1665	1665
4/1 (Stubbington Avenue exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Stubbington Avenue entry)	3.00	0.00	Y	Arm 2 Right Arm 6 Left Arm 8 Ahead	8.00 10.00 Inf	6.2 % 21.6 % 72.2 %	1834	1834
6/1 (A288 Copnor Road north exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A288 Copnor Road north entry)	3.00	0.00	Y	Arm 2 Ahead Arm 8 Left	Inf 12.00	98.5 % 1.5 %	1911	1911
8/1 (Burrfields Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: 'EMM - DS1 AM' (FG3: 'EMM - DS1 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
	A	B	C	D	Tot.
A	0	296	3	25	324
B	627	0	23	738	1388
C	71	3	0	5	79
D	149	391	0	0	540
Tot.	847	690	26	768	2331

Traffic Lane Flows

Lane	Scenario 3: EMM - DS1 AM
Junction: Burrfields Road / Copnor Road signalised junction	
1/1 (with short)	324(In) 296(Out)
1/2 (short)	28
2/1	690
3/1 (with short)	1388(In) 761(Out)
3/2 (short)	627
4/1	26
5/1	79
6/1	768
7/1	540
8/1	847

Full Input Data And Results

Lane Saturation Flows

Junction: Burrfields Road / Copnor Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Burrfields Road entry)	3.50	0.00	Y	Arm 2 Left	12.00	100.0 %	1747	1747
1/2 (Burrfields Road entry)	3.50	0.00	Y	Arm 4 Ahead Arm 6 Right	Inf 12.00	10.7 % 89.3 %	1768	1768
2/1 (A288 Copnor Road south exit Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A288 Copnor Road south entry)	3.00	0.00	Y	Arm 4 Left Arm 6 Ahead	8.00 Inf	3.0 % 97.0 %	1904	1904
3/2 (A288 Copnor Road south entry)	3.00	0.00	Y	Arm 8 Right	10.00	100.0 %	1665	1665
4/1 (Stubbington Avenue exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Stubbington Avenue entry)	3.00	0.00	Y	Arm 2 Right Arm 6 Left Arm 8 Ahead	8.00 10.00 Inf	3.8 % 6.3 % 89.9 %	1884	1884
6/1 (A288 Copnor Road north exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A288 Copnor Road north entry)	3.00	0.00	Y	Arm 2 Ahead Arm 8 Left	Inf 12.00	72.4 % 27.6 %	1851	1851
8/1 (Burrfields Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'EMM - DS1 PM' (FG4: 'EMM - DS1 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
	A	B	C	D	Tot.	
A	0	521	101	71	693	
B	160	0	6	713	879	
C	64	8	0	21	93	
D	10	743	0	0	753	
Tot.	234	1272	107	805	2418	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: EMM - DS1 PM
Junction: Burrfields Road / Copnor Road signalised junction	
1/1 (with short)	693(In) 521(Out)
1/2 (short)	172
2/1	1272
3/1 (with short)	879(In) 719(Out)
3/2 (short)	160
4/1	107
5/1	93
6/1	805
7/1	753
8/1	234

Lane Saturation Flows

Junction: Burrfields Road / Copnor Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Burrfields Road entry)	3.50	0.00	Y	Arm 2 Left	12.00	100.0 %	1747	1747
1/2 (Burrfields Road entry)	3.50	0.00	Y	Arm 4 Ahead Arm 6 Right	Inf 12.00	58.7 % 41.3 %	1869	1869
2/1 (A288 Copnor Road south exit Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A288 Copnor Road south entry)	3.00	0.00	Y	Arm 4 Left Arm 6 Ahead	8.00 Inf	0.8 % 99.2 %	1912	1912
3/2 (A288 Copnor Road south entry)	3.00	0.00	Y	Arm 8 Right	10.00	100.0 %	1665	1665
4/1 (Stubbington Avenue exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Stubbington Avenue entry)	3.00	0.00	Y	Arm 2 Right Arm 6 Left Arm 8 Ahead	8.00 10.00 Inf	8.6 % 22.6 % 68.8 %	1824	1824
6/1 (A288 Copnor Road north exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A288 Copnor Road north entry)	3.00	0.00	Y	Arm 2 Ahead Arm 8 Left	Inf 12.00	98.7 % 1.3 %	1912	1912
8/1 (Burrfields Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: 'EML- DS2 AM' (FG5: 'EML - DS2 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					Tot.
	A	B	C	D	Tot.	
A	0	227	3	25	255	
B	638	0	24	797	1459	
C	81	3	0	0	84	
D	150	382	0	0	532	
Tot.	869	612	27	822	2330	

Traffic Lane Flows

Lane	Scenario 5: EML- DS2 AM
Junction: Burrfields Road / Copnor Road signalised junction	
1/1 (with short)	255(In) 227(Out)
1/2 (short)	28
2/1	612
3/1 (with short)	1459(In) 821(Out)
3/2 (short)	638
4/1	27
5/1	84
6/1	822
7/1	532
8/1	869

Lane Saturation Flows

Junction: Burrfields Road / Copnor Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Burrfields Road entry)	3.50	0.00	Y	Arm 2 Left	12.00	100.0 %	1747	1747
1/2 (Burrfields Road entry)	3.50	0.00	Y	Arm 4 Ahead Arm 6 Right	Inf 12.00	10.7 % 89.3 %	1768	1768
2/1 (A288 Copnor Road south exit Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A288 Copnor Road south entry)	3.00	0.00	Y	Arm 4 Left Arm 6 Ahead	8.00 Inf	2.9 % 97.1 %	1905	1905
3/2 (A288 Copnor Road south entry)	3.00	0.00	Y	Arm 8 Right	10.00	100.0 %	1665	1665
4/1 (Stubbington Avenue exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Stubbington Avenue entry)	3.00	0.00	Y	Arm 2 Right Arm 6 Left Arm 8 Ahead	8.00 10.00 Inf	3.6 % 0.0 % 96.4 %	1902	1902
6/1 (A288 Copnor Road north exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A288 Copnor Road north entry)	3.00	0.00	Y	Arm 2 Ahead Arm 8 Left	Inf 12.00	71.8 % 28.2 %	1850	1850
8/1 (Burrfields Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'EML - DS2 PM' (FG6: 'EML - DS2 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
	A	B	C	D	Tot.	
A	0	487	31	78	596	
B	160	0	6	735	901	
C	68	7	0	21	96	
D	10	650	0	0	660	
Tot.	238	1144	37	834	2253	

Full Input Data And Results

Traffic Lane Flows

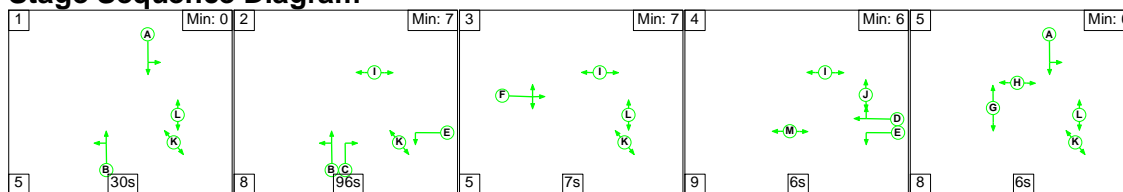
Lane	Scenario 6: EML - DS2 PM
Junction: Burrfields Road / Copnor Road signalised junction	
1/1 (with short)	596(In) 487(Out)
1/2 (short)	109
2/1	1144
3/1 (with short)	901(In) 741(Out)
3/2 (short)	160
4/1	37
5/1	96
6/1	834
7/1	660
8/1	238

Lane Saturation Flows

Junction: Burrfields Road / Copnor Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Burrfields Road entry)	3.50	0.00	Y	Arm 2 Left	12.00	100.0 %	1747	1747
1/2 (Burrfields Road entry)	3.50	0.00	Y	Arm 4 Ahead Arm 6 Right	Inf 12.00	28.4 % 71.6 %	1804	1804
2/1 (A288 Copnor Road south exit Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A288 Copnor Road south entry)	3.00	0.00	Y	Arm 4 Left Arm 6 Ahead	8.00 Inf	0.8 % 99.2 %	1912	1912
3/2 (A288 Copnor Road south entry)	3.00	0.00	Y	Arm 8 Right	10.00	100.0 %	1665	1665
4/1 (Stubbington Avenue exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Stubbington Avenue entry)	3.00	0.00	Y	Arm 2 Right Arm 6 Left Arm 8 Ahead	8.00 10.00 Inf	7.3 % 21.9 % 70.8 %	1830	1830
6/1 (A288 Copnor Road north exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A288 Copnor Road north entry)	3.00	0.00	Y	Arm 2 Ahead Arm 8 Left	Inf 12.00	98.5 % 1.5 %	1911	1911
8/1 (Burrfields Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'ELM - DM AM' (FG1: 'ELM - DM AM', Plan 1: 'Network Control Plan 1')

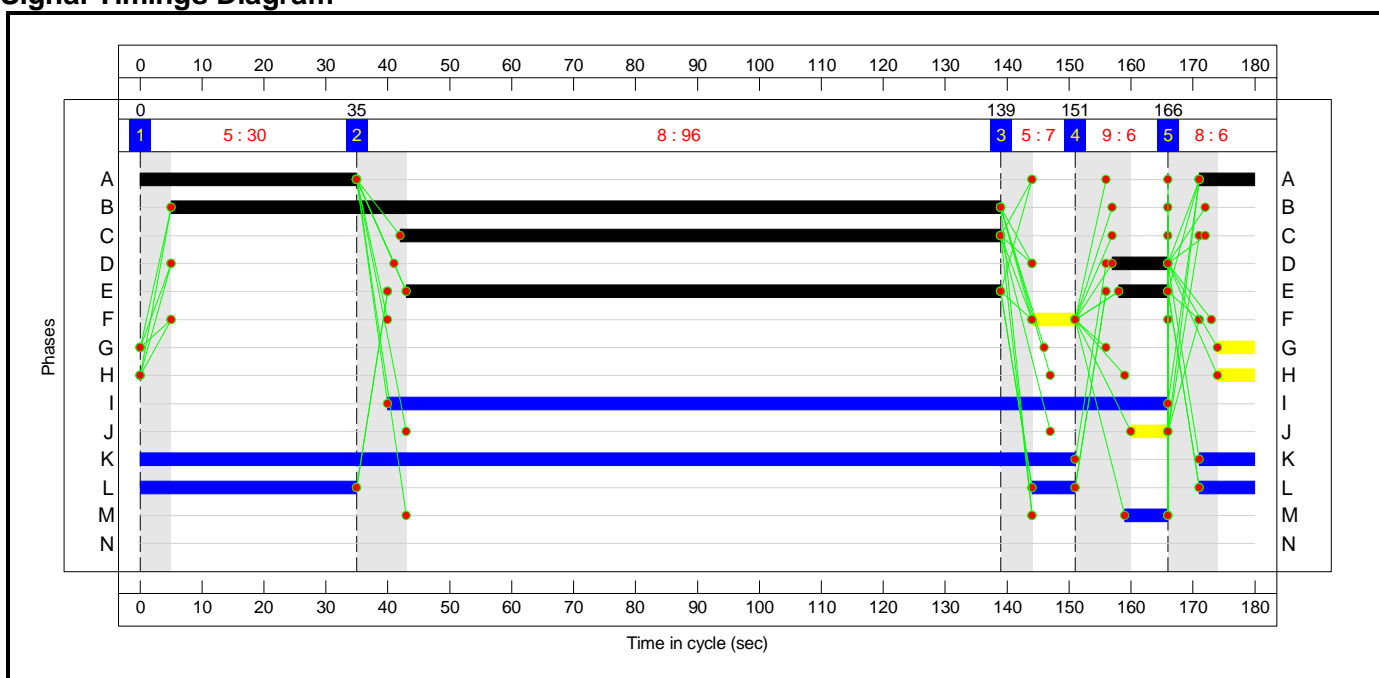
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	30	96	7	6	6
Change Point	0	35	139	151	166

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

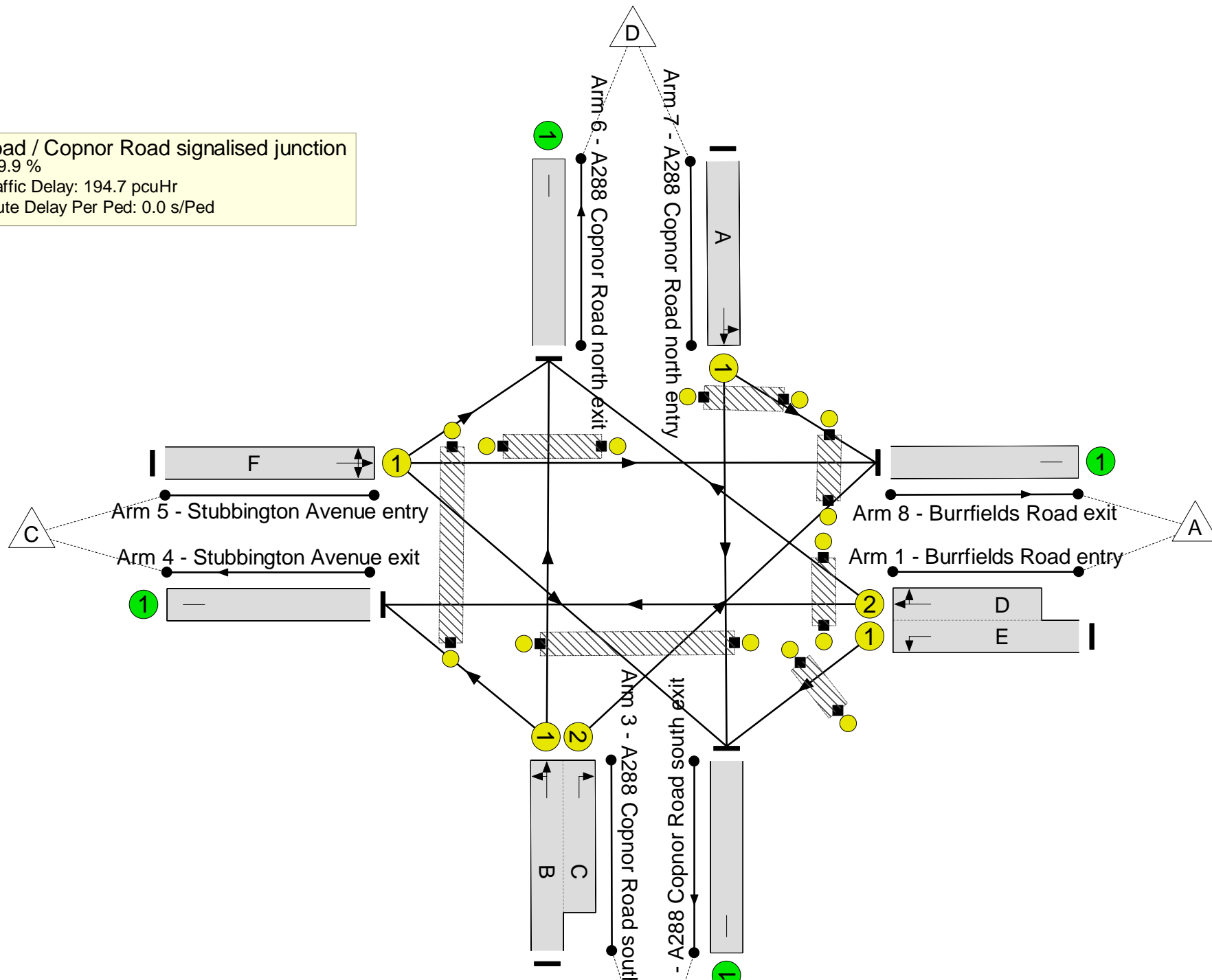
Burrfields Road / Copnor Road signalised junction



PRC: -29.9 %

Total Traffic Delay: 194.7 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	116.9%
Burrfields Road / Copnor Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	116.9%
1/1+1/2	Burrfields Road entry Left Ahead Right	U	N/A	N/A	E D		2:1	104:9	-	257	1747:1768	1048	24.5%
2/1	A288 Copnor Road south exit	U	N/A	N/A	-		-	-	-	595	Inf	Inf	0.0%
3/1+3/2	A288 Copnor Road south entry Left Ahead Right	U	N/A	N/A	B C		1	134:97	-	1415	1904:1665	1211	116.9%
4/1	Stubbington Avenue exit	U	N/A	N/A	-		-	-	-	26	Inf	Inf	0.0%
5/1	Stubbington Avenue entry Right Left Ahead	U	N/A	N/A	F		1	7	-	80	1891	84	95.2%
6/1	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	778	Inf	Inf	0.0%
7/1	A288 Copnor Road north entry Ahead Left	U	N/A	N/A	A		1	44	-	532	1842	461	115.5%
8/1	Burrfields Road exit	U	N/A	N/A	-		-	-	-	885	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	L		2	51	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		1	160	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	M		1	7	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%

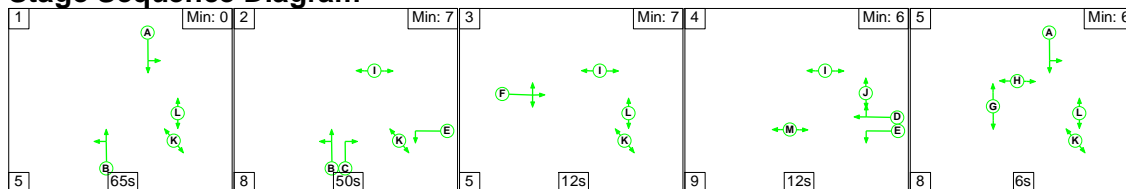
Full Input Data And Results

Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		1	126	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	J		1	6	-	0	-	0	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	46.3	148.4	0.0	194.7	-	-	-	-
Burrfields Road / Copnor Road signalised junction	-	-	0	0	0	46.3	148.4	0.0	194.7	-	-	-	-
1/1+1/2	257	257	-	-	-	1.3	0.2	-	1.5	21.0	4.1	0.2	4.2
2/1	546	546	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	1415	1211	-	-	-	26.3	105.5	-	131.7	335.2	75.6	105.5	181.0
4/1	23	23	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	80	80	-	-	-	1.9	3.6	-	5.5	246.6	4.0	3.6	7.6
6/1	670	670	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	532	461	-	-	-	16.8	39.1	-	56.0	378.8	30.2	39.1	69.3
8/1	770	770	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
C1		PRC for Signalled Lanes (%):		-29.9		Total Delay for Signalled Lanes (pcuHr):		194.70		Cycle Time (s): 180			
		PRC Over All Lanes (%):		-29.9		Total Delay Over All Lanes(pcuHr):		194.70					

Full Input Data And Results

Scenario 2: 'ELM - DM PM' (FG2: 'ELM - DM PM', Plan 1: 'Network Control Plan 1')

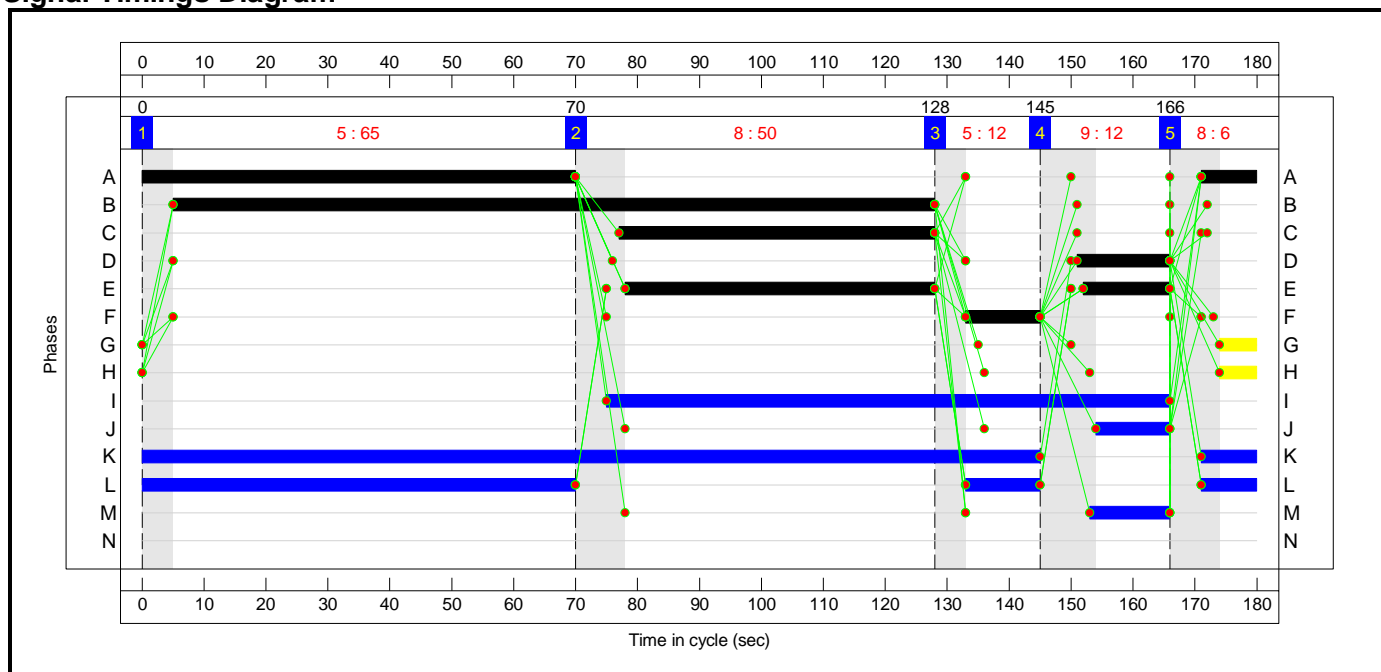
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	65	50	12	12	6
Change Point	0	70	128	145	166

Signal Timings Diagram

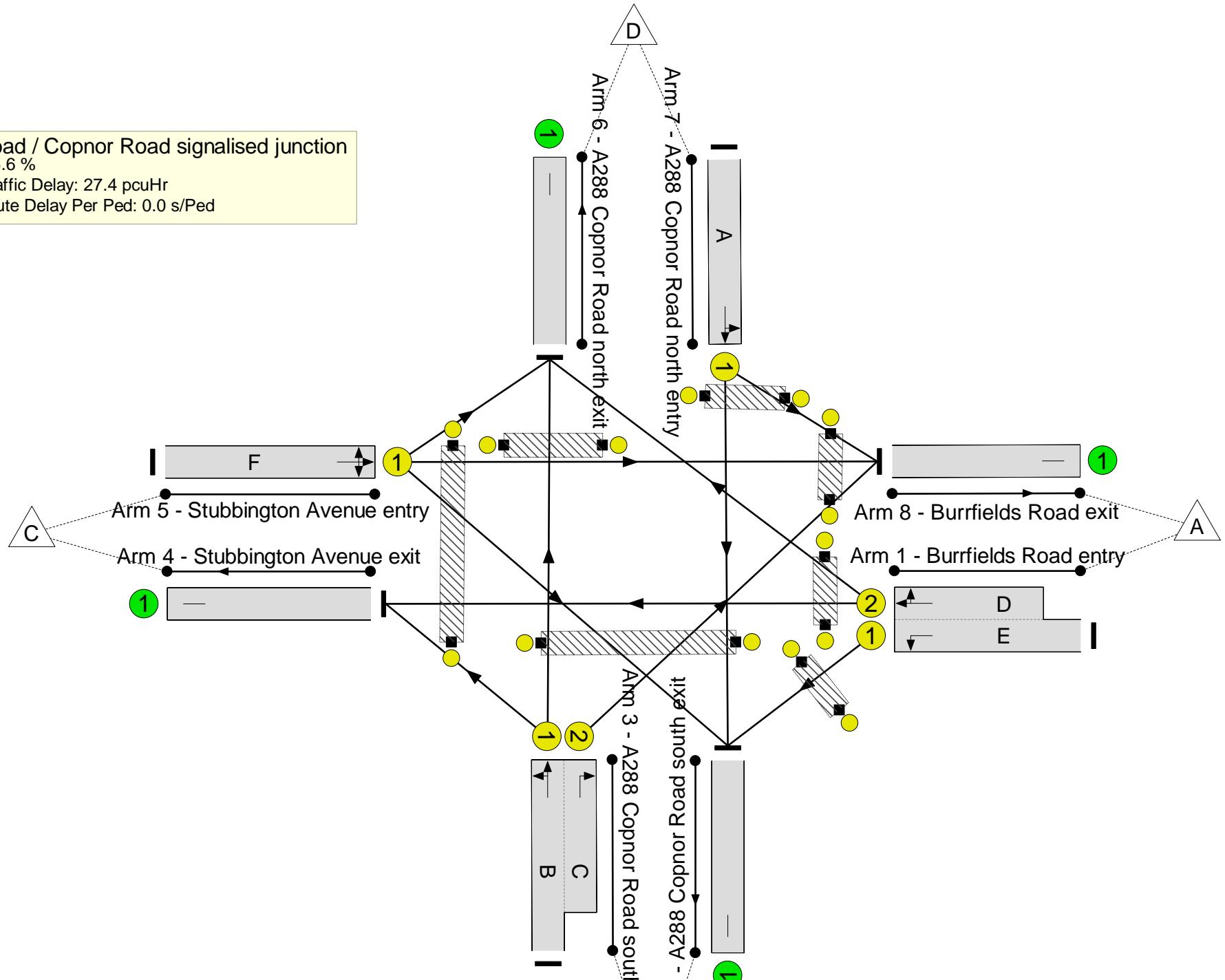


Full Input Data And Results
Network Layout Diagram

Burrfields Road / Copnor Road signalised junction



PRC: 15.6 %
 Total Traffic Delay: 27.4 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	77.8%
Burrfields Road / Copnor Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	77.8%
1/1+1/2	Burrfields Road entry Left Ahead Right	U	N/A	N/A	E D		2:1	64:15	-	565	1747:1804	727	77.8%
2/1	A288 Copnor Road south exit	U	N/A	N/A	-		-	-	-	1114	Inf	Inf	0.0%
3/1+3/2	A288 Copnor Road south entry Left Ahead Right	U	N/A	N/A	B C		1	123:51	-	876	1912:1665	1337	65.5%
4/1	Stubbington Avenue exit	U	N/A	N/A	-		-	-	-	37	Inf	Inf	0.0%
5/1	Stubbington Avenue entry Right Left Ahead	U	N/A	N/A	F		1	12	-	97	1834	132	73.2%
6/1	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	809	Inf	Inf	0.0%
7/1	A288 Copnor Road north entry Ahead Left	U	N/A	N/A	A		1	79	-	661	1911	849	77.8%
8/1	Burrfields Road exit	U	N/A	N/A	-		-	-	-	239	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	L		2	91	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		1	154	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	M		1	13	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%

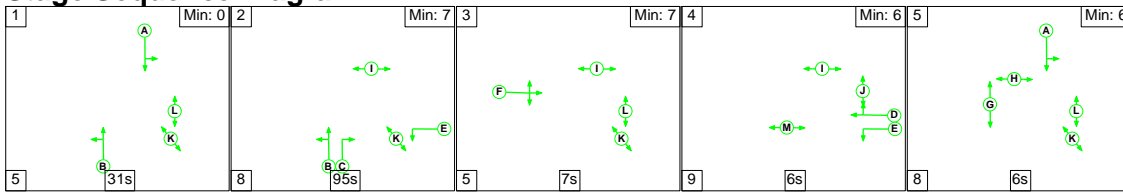
Full Input Data And Results

Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		1	91	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	J		1	12	-	0	-	0	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	21.7	5.7	0.0	27.4	-	-	-	-
Burrfields Road / Copnor Road signalised junction	-	-	0	0	0	21.7	5.7	0.0	27.4	-	-	-	-
1/1+1/2	565	565	-	-	-	6.6	1.7	-	8.3	53.1	17.3	1.7	19.0
2/1	1114	1114	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	876	876	-	-	-	5.1	0.9	-	6.0	24.7	20.8	0.9	21.8
4/1	37	37	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	97	97	-	-	-	2.2	1.3	-	3.5	129.2	4.7	1.3	6.0
6/1	809	809	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	661	661	-	-	-	7.8	1.7	-	9.5	51.9	27.9	1.7	29.6
8/1	239	239	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
C1		PRC for Signalled Lanes (%):		15.6	Total Delay for Signalled Lanes (pcuHr):		27.36	Cycle Time (s):		180			
		PRC Over All Lanes (%):		15.6	Total Delay Over All Lanes(pcuHr):		27.36						

Full Input Data And Results

Scenario 3: 'EMM - DS1 AM' (FG3: 'EMM - DS1 AM', Plan 1: 'Network Control Plan 1')

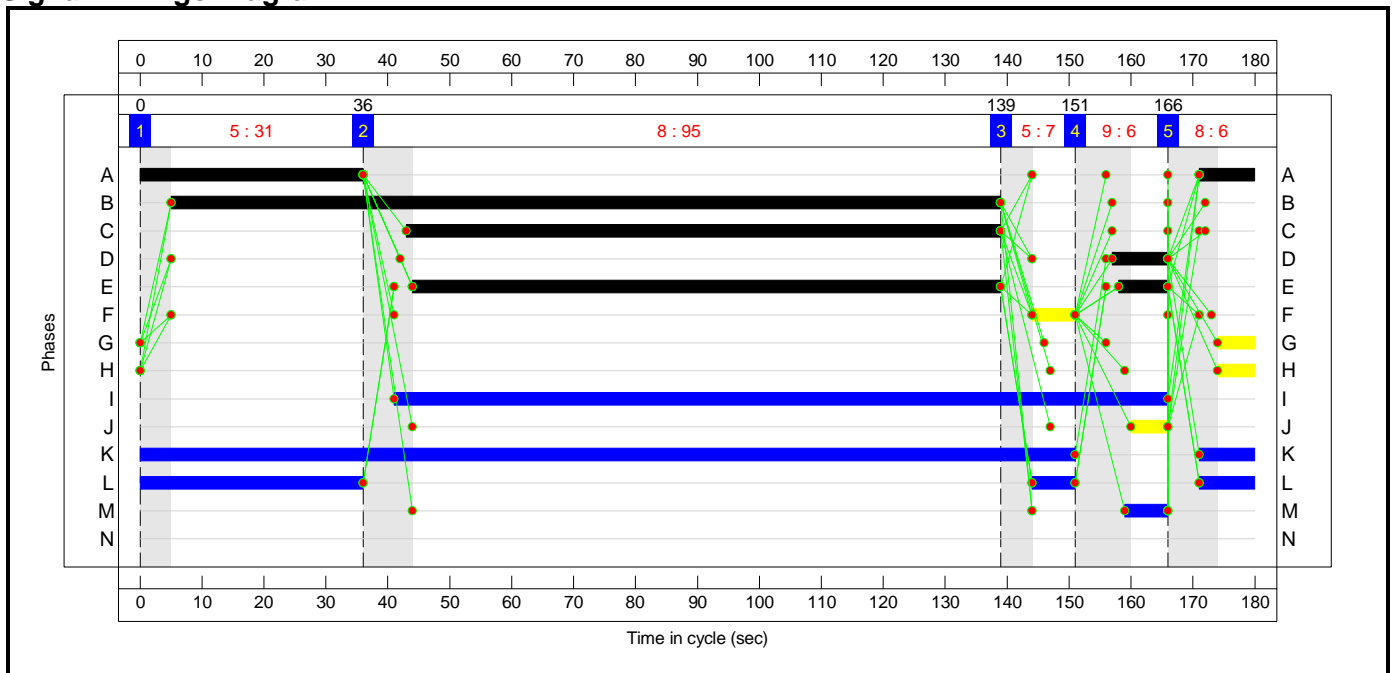
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	31	95	7	6	6
Change Point	0	36	139	151	166

Signal Timings Diagram

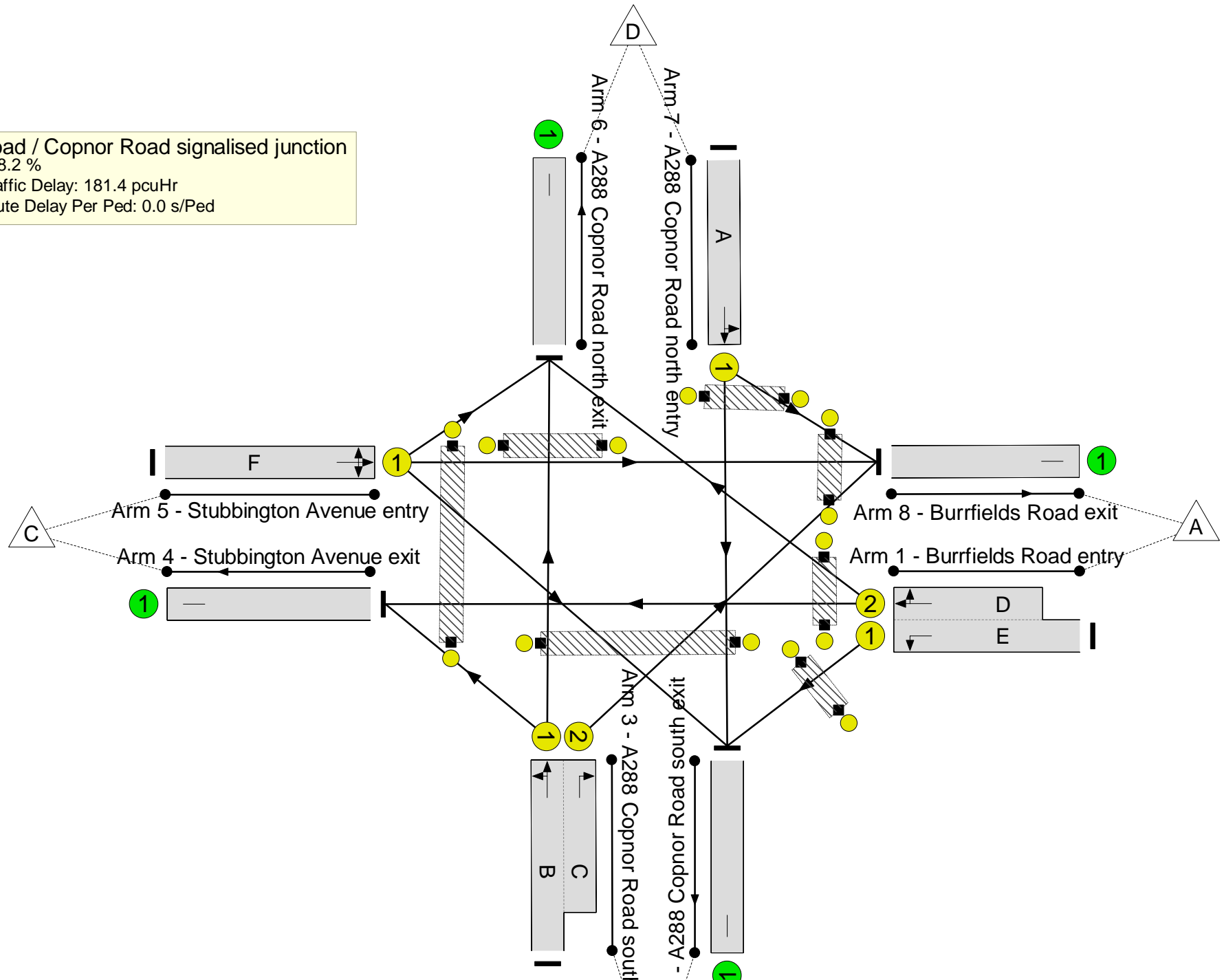


Full Input Data And Results
Network Layout Diagram

Burrfields Road / Copnor Road signalised junction



PRC: -28.2 %
 Total Traffic Delay: 181.4 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	115.4%
Burrfields Road / Copnor Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	115.4%
1/1+1/2	Burrfields Road entry Left Ahead Right	U	N/A	N/A	E D		2:1	103:9	-	324	1747:1768	1048	30.9%
2/1	A288 Copnor Road south exit	U	N/A	N/A	-		-	-	-	690	Inf	Inf	0.0%
3/1+3/2	A288 Copnor Road south entry Left Ahead Right	U	N/A	N/A	B C		1	134:96	-	1388	1904:1665	1203	115.4%
4/1	Stubbington Avenue exit	U	N/A	N/A	-		-	-	-	26	Inf	Inf	0.0%
5/1	Stubbington Avenue entry Right Left Ahead	U	N/A	N/A	F		1	7	-	79	1884	84	94.3%
6/1	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	768	Inf	Inf	0.0%
7/1	A288 Copnor Road north entry Ahead Left	U	N/A	N/A	A		1	45	-	540	1851	473	114.2%
8/1	Burrfields Road exit	U	N/A	N/A	-		-	-	-	847	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	L		2	52	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		1	160	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	M		1	7	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%

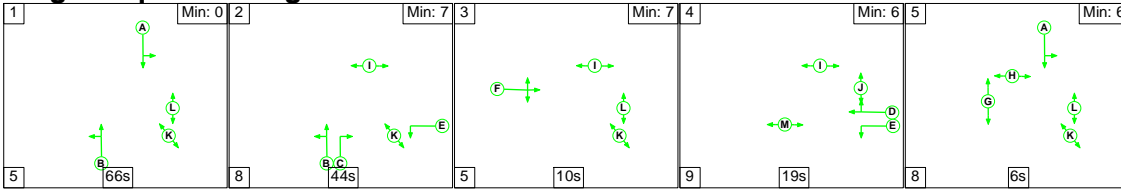
Full Input Data And Results

Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		1	125	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	J		1	6	-	0	-	0	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	44.6	136.8	0.0	181.4	-	-	-	-
Burrfields Road / Copnor Road signalised junction	-	-	0	0	0	44.6	136.8	0.0	181.4	-	-	-	-
1/1+1/2	324	324	-	-	-	1.6	0.2	-	1.8	20.5	5.6	0.2	5.8
2/1	642	642	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	1388	1203	-	-	-	24.6	96.1	-	120.7	313.1	73.2	96.1	169.3
4/1	23	23	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	79	79	-	-	-	1.9	3.4	-	5.3	241.4	3.9	3.4	7.3
6/1	670	670	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	540	473	-	-	-	16.5	37.1	-	53.6	357.2	30.3	37.1	67.5
8/1	745	745	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
C1		PRC for Signalled Lanes (%):		-28.2		Total Delay for Signalled Lanes (pcuHr):		181.42		Cycle Time (s): 180			
		PRC Over All Lanes (%):		-28.2		Total Delay Over All Lanes(pcuHr):		181.42					

Full Input Data And Results

Scenario 4: 'EMM - DS1 PM' (FG4: 'EMM - DS1 PM', Plan 1: 'Network Control Plan 1')

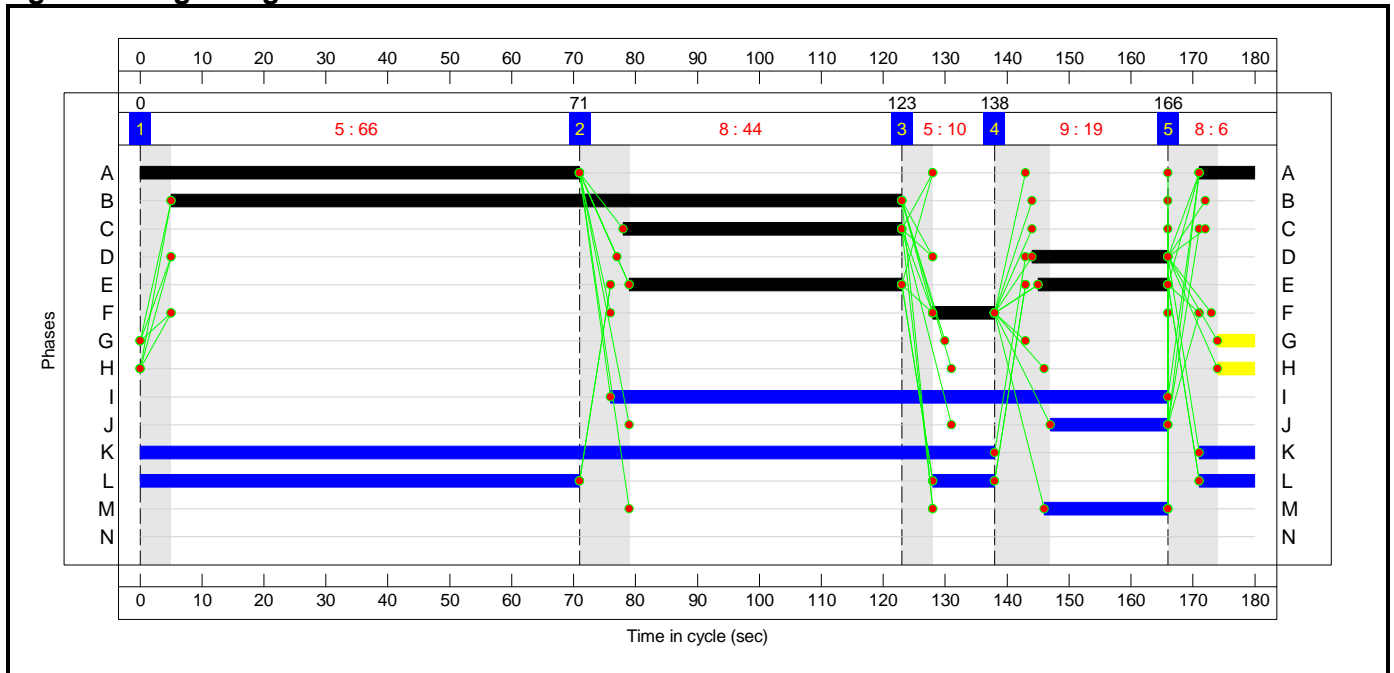
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	66	44	10	19	6
Change Point	0	71	123	138	166

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

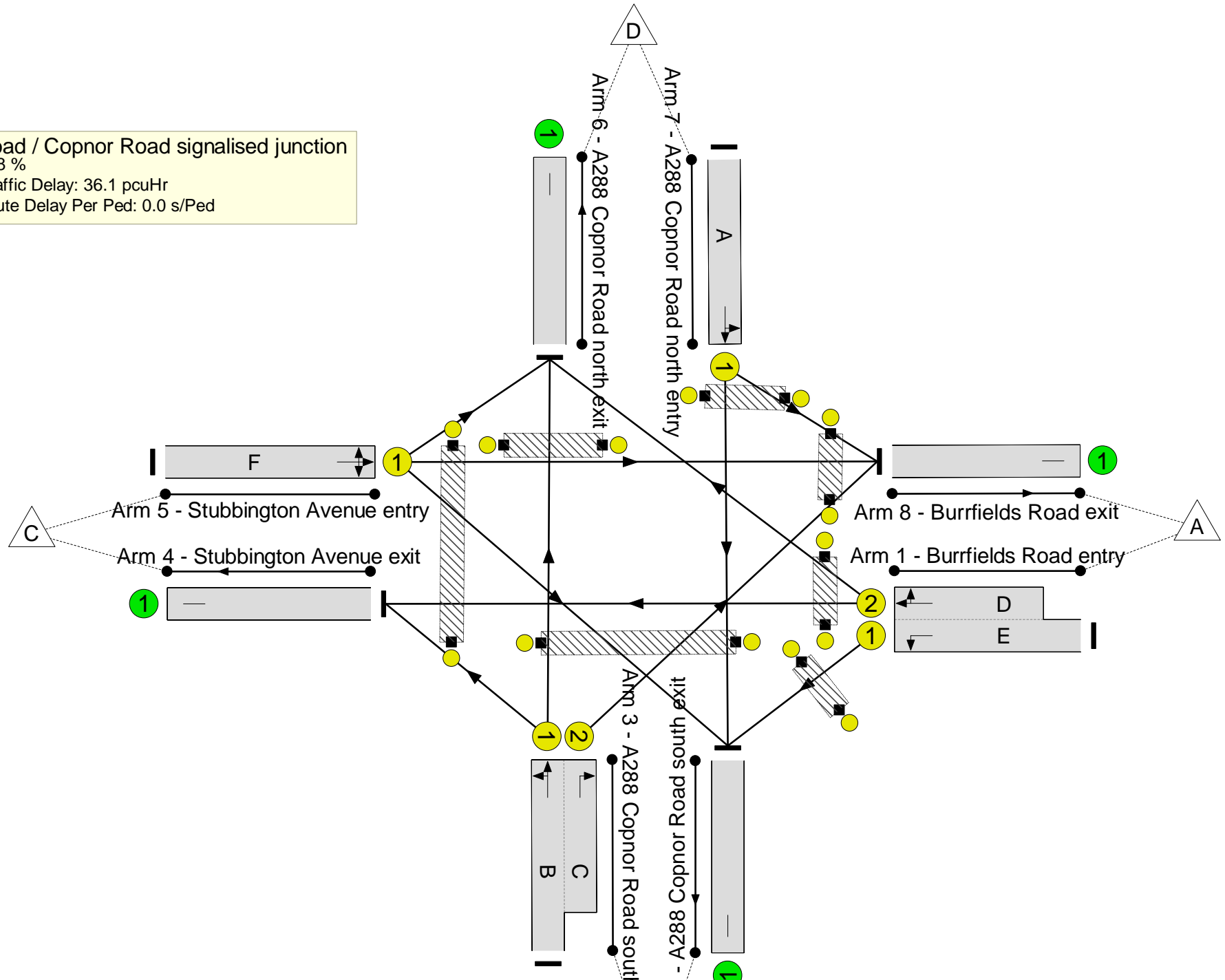
Burrfields Road / Copnor Road signalised junction



PRC: 2.8 %

Total Traffic Delay: 36.1 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	87.5%
Burrfields Road / Copnor Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	87.5%
1/1+1/2	Burrfields Road entry Left Ahead Right	U	N/A	N/A	E D		2:1	65:22	-	693	1747:1869	793	87.4%
2/1	A288 Copnor Road south exit	U	N/A	N/A	-		-	-	-	1272	Inf	Inf	0.0%
3/1+3/2	A288 Copnor Road south entry Left Ahead Right	U	N/A	N/A	B C		1	118:45	-	879	1912:1665	1285	68.4%
4/1	Stubbington Avenue exit	U	N/A	N/A	-		-	-	-	107	Inf	Inf	0.0%
5/1	Stubbington Avenue entry Right Left Ahead	U	N/A	N/A	F		1	10	-	93	1824	111	83.4%
6/1	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	805	Inf	Inf	0.0%
7/1	A288 Copnor Road north entry Ahead Left	U	N/A	N/A	A		1	80	-	753	1912	860	87.5%
8/1	Burrfields Road exit	U	N/A	N/A	-		-	-	-	234	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	L		2	90	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		1	147	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	M		1	20	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%

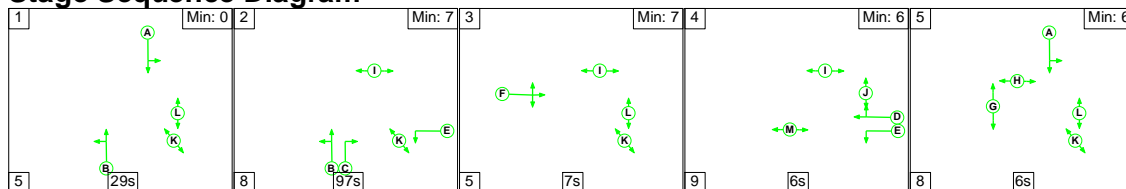
Full Input Data And Results

Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		1	90	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	J		1	19	-	0	-	0	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	26.4	9.7	0.0	36.1	-	-	-	-
Burrfields Road / Copnor Road signalised junction	-	-	0	0	0	26.4	9.7	0.0	36.1	-	-	-	-
1/1+1/2	693	693	-	-	-	9.0	3.2	-	12.2	63.4	23.3	3.2	26.6
2/1	1272	1272	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	879	879	-	-	-	5.9	1.1	-	7.0	28.5	23.3	1.1	24.4
4/1	107	107	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	93	93	-	-	-	2.2	2.1	-	4.2	163.3	4.6	2.1	6.7
6/1	805	805	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	753	753	-	-	-	9.4	3.3	-	12.7	60.7	34.1	3.3	37.4
8/1	234	234	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
C1		PRC for Signalled Lanes (%):		2.8	Total Delay for Signalled Lanes (pcuHr):		36.07	Cycle Time (s): 180					
		PRC Over All Lanes (%):		2.8	Total Delay Over All Lanes(pcuHr):		36.07						

Full Input Data And Results

Scenario 5: 'EML- DS2 AM' (FG5: 'EML - DS2 AM', Plan 1: 'Network Control Plan 1')

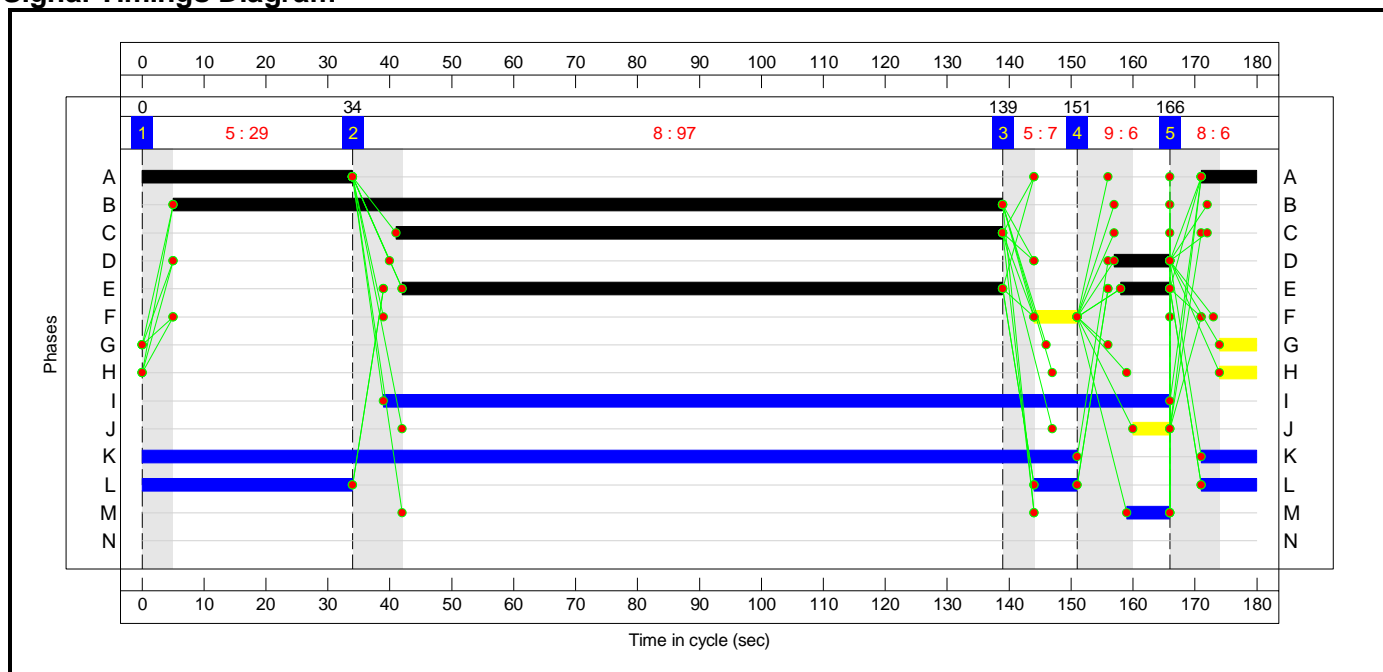
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	29	97	7	6	6
Change Point	0	34	139	151	166

Signal Timings Diagram

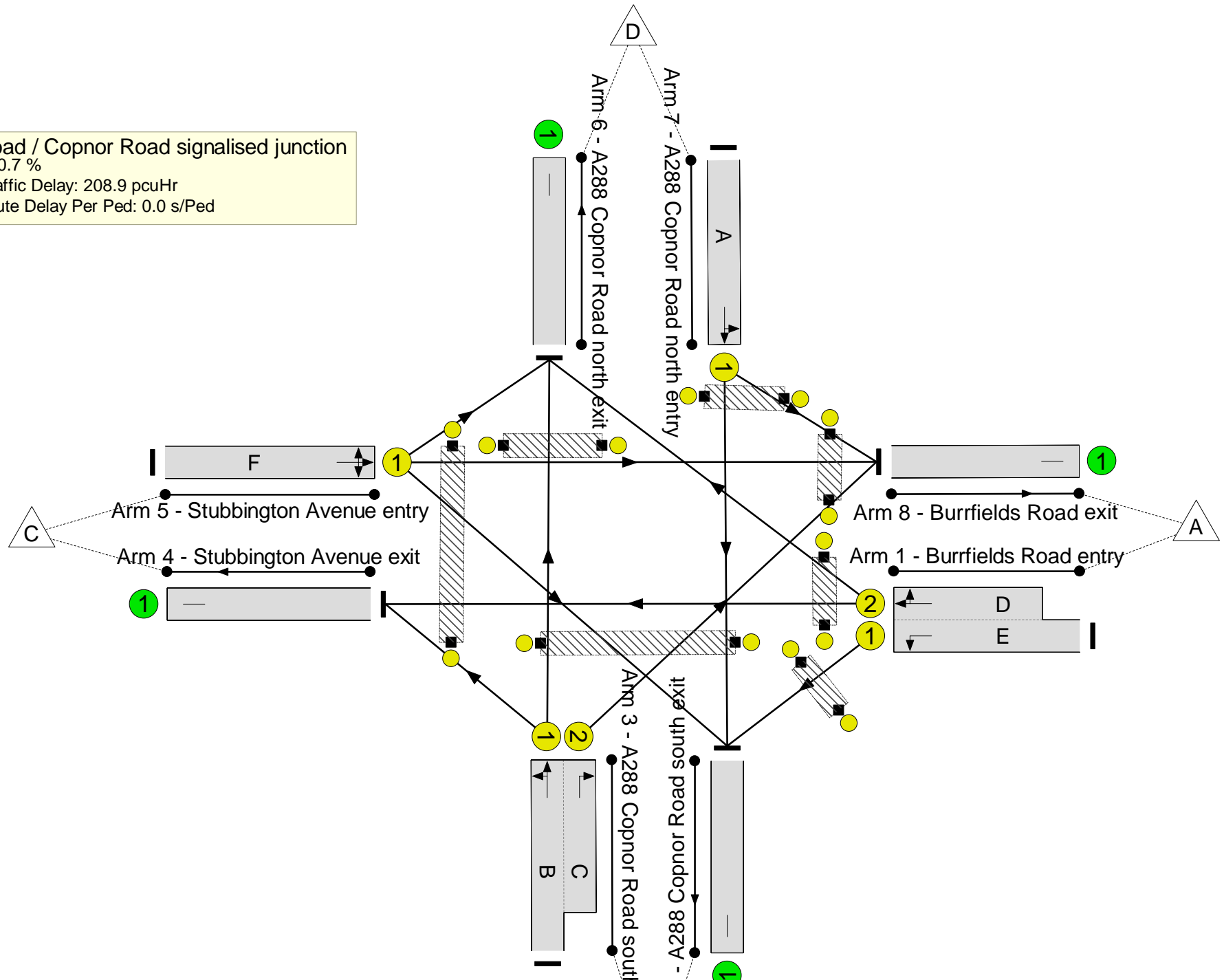


Full Input Data And Results
Network Layout Diagram

Burrfields Road / Copnor Road signalised junction



PRC: -30.7 %
 Total Traffic Delay: 208.9 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	117.7%
Burrfields Road / Copnor Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	117.7%
1/1+1/2	Burrfields Road entry Left Ahead Right	U	N/A	N/A	E D		2:1	105:9	-	255	1747:1768	1056	24.1%
2/1	A288 Copnor Road south exit	U	N/A	N/A	-		-	-	-	612	Inf	Inf	0.0%
3/1+3/2	A288 Copnor Road south entry Left Ahead Right	U	N/A	N/A	B C		1	134:98	-	1459	1905:1665	1240	117.7%
4/1	Stubbington Avenue exit	U	N/A	N/A	-		-	-	-	27	Inf	Inf	0.0%
5/1	Stubbington Avenue entry Right Left Ahead	U	N/A	N/A	F		1	7	-	84	1902	85	99.4%
6/1	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	822	Inf	Inf	0.0%
7/1	A288 Copnor Road north entry Ahead Left	U	N/A	N/A	A		1	43	-	532	1850	452	117.6%
8/1	Burrfields Road exit	U	N/A	N/A	-		-	-	-	869	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	L		2	50	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		1	160	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	M		1	7	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%

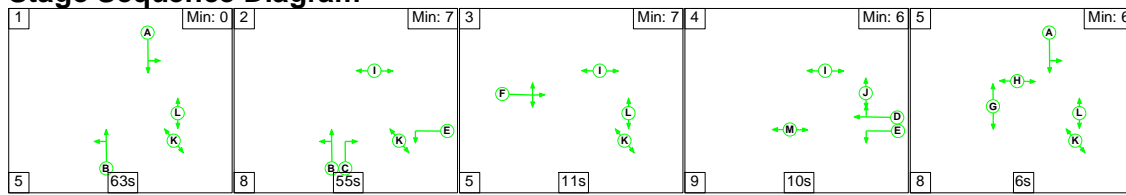
Full Input Data And Results

Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		1	127	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	J		1	6	-	0	-	0	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	48.5	160.4	0.0	208.9	-	-	-	-
Burrfields Road / Copnor Road signalised junction	-	-	0	0	0	48.5	160.4	0.0	208.9	-	-	-	-
1/1+1/2	255	255	-	-	-	1.3	0.2	-	1.5	20.7	4.0	0.2	4.1
2/1	555	555	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	1459	1240	-	-	-	27.5	112.8	-	140.3	346.1	79.2	112.8	192.0
4/1	23	23	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	84	84	-	-	-	2.0	4.5	-	6.5	276.7	4.2	4.5	8.6
6/1	702	702	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	532	452	-	-	-	17.7	43.0	-	60.7	410.7	30.6	43.0	73.6
8/1	751	751	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
C1		PRC for Signalled Lanes (%):		-30.7		Total Delay for Signalled Lanes (pcuHr):		208.88		Cycle Time (s): 180			
		PRC Over All Lanes (%):		-30.7		Total Delay Over All Lanes(pcuHr):		208.88					

Full Input Data And Results

Scenario 6: 'EML - DS2 PM' (FG6: 'EML - DS2 PM', Plan 1: 'Network Control Plan 1')

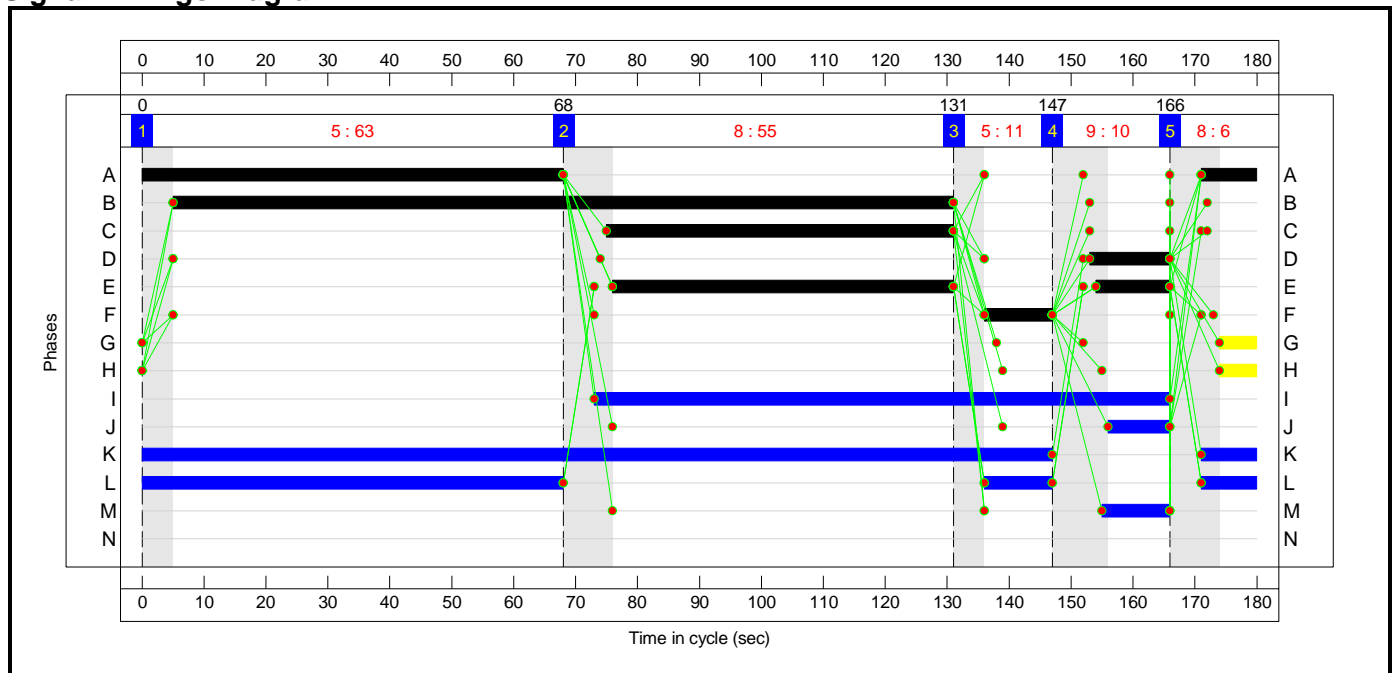
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	63	55	11	10	6
Change Point	0	68	131	147	166

Signal Timings Diagram

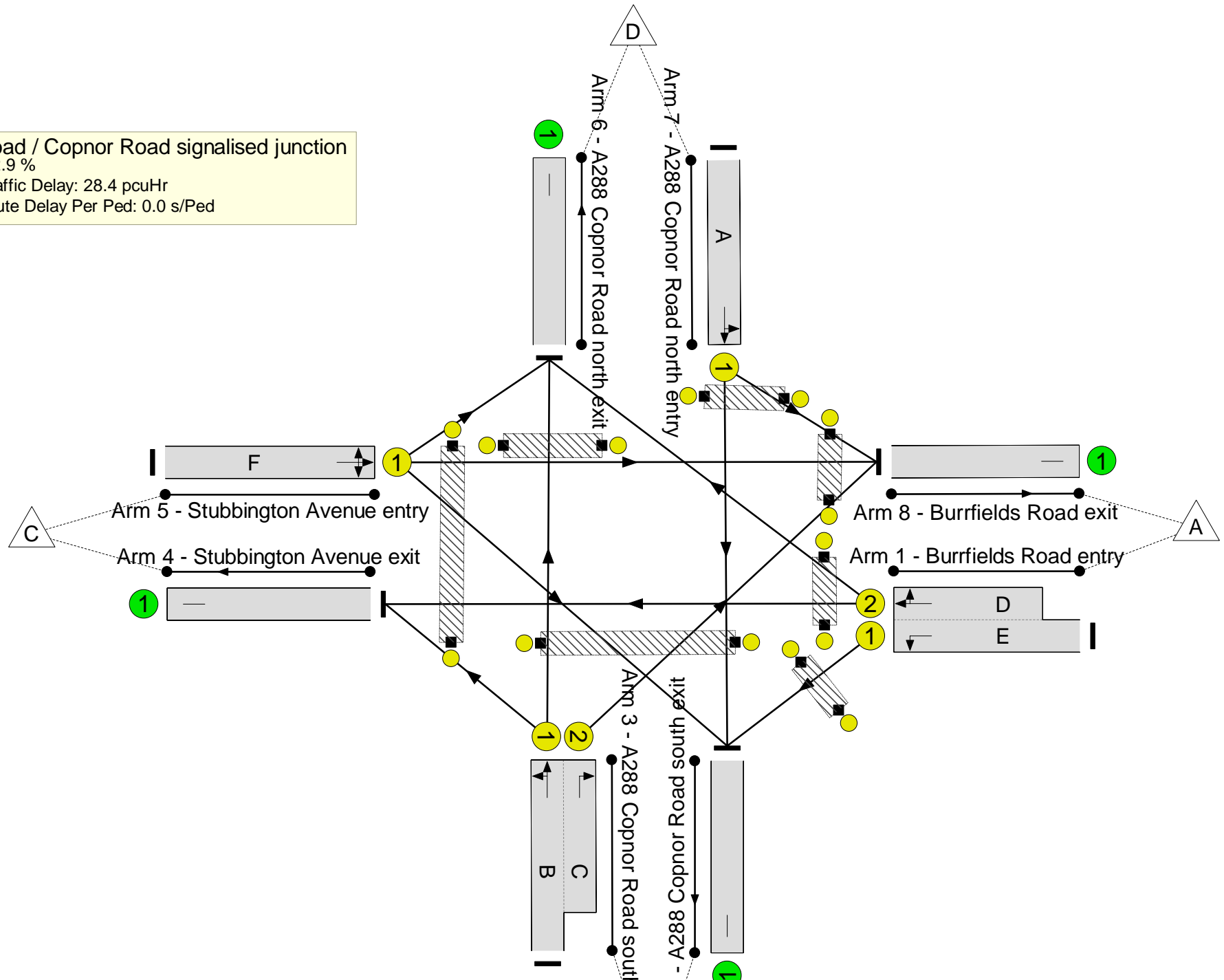


Full Input Data And Results
Network Layout Diagram

Burrfields Road / Copnor Road signalised junction



PRC: 12.9 %
 Total Traffic Delay: 28.4 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	79.7%
Burrfields Road / Copnor Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	79.7%
1/1+1/2	Burrfields Road entry Left Ahead Right	U	N/A	N/A	E D		2:1	67:13	-	596	1747:1804	751	79.4%
2/1	A288 Copnor Road south exit	U	N/A	N/A	-		-	-	-	1144	Inf	Inf	0.0%
3/1+3/2	A288 Copnor Road south entry Left Ahead Right	U	N/A	N/A	B C		1	126:56	-	901	1912:1665	1367	65.9%
4/1	Stubbington Avenue exit	U	N/A	N/A	-		-	-	-	37	Inf	Inf	0.0%
5/1	Stubbington Avenue entry Right Left Ahead	U	N/A	N/A	F		1	11	-	96	1830	122	78.7%
6/1	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	834	Inf	Inf	0.0%
7/1	A288 Copnor Road north entry Ahead Left	U	N/A	N/A	A		1	77	-	660	1911	828	79.7%
8/1	Burrfields Road exit	U	N/A	N/A	-		-	-	-	238	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	L		2	88	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		1	156	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	M		1	11	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%

Full Input Data And Results

Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		1	93	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	J		1	10	-	0	-	0	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	22.0	6.4	0.0	28.4	-	-	-	-
Burrfields Road / Copnor Road signalised junction	-	-	0	0	0	22.0	6.4	0.0	28.4	-	-	-	-
1/1+1/2	596	596	-	-	-	6.9	1.9	-	8.8	53.0	18.7	1.9	20.6
2/1	1144	1144	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	901	901	-	-	-	4.8	1.0	-	5.7	22.9	20.8	1.0	21.7
4/1	37	37	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	96	96	-	-	-	2.2	1.6	-	3.8	144.2	4.7	1.6	6.4
6/1	834	834	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	660	660	-	-	-	8.1	1.9	-	10.0	54.6	28.4	1.9	30.3
8/1	238	238	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
C1		PRC for Signalled Lanes (%):		12.9	Total Delay for Signalled Lanes (pcuHr):		28.36	Cycle Time (s): 180					
		PRC Over All Lanes (%):		12.9	Total Delay Over All Lanes(pcuHr):		28.36						

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
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Filename: Burrfields Rd_Moneyfield Ave_Dundas Ln.j9

Path: \\uk.wspgroup.com\central data\Projects\62100xxx\62100616 - Aquind VO No.3\A DCO\D. EIA\5. WIP\12. Traffic and Transport\Transport Assessment\Analysis & Calcs\ARCADY\TA Models and Outputs

Report generation date: 29/10/2019 10:27:33

- »ELM - DM, AM
- »ELM - DM, PM
- »EMM - DS1, AM
- »EMM - DS1, PM
- »EML - DS2, AM
- »EML - DS2, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
ELM - DM								
Arm 1	0.7	4.62	0.38	A	0.3	4.28	0.22	A
Arm 2	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Arm 3	2.6	9.88	0.71	A	0.2	3.07	0.17	A
Arm 4	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Arm 5	0.3	3.96	0.24	A	2.5	9.85	0.70	A
EMM - DS1								
Arm 1	0.4	4.10	0.28	A	0.0	3.99	0.04	A
Arm 2	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Arm 3	1.8	7.20	0.63	A	0.2	2.88	0.16	A
Arm 4	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Arm 5	0.3	3.83	0.24	A	2.6	9.59	0.70	A
EML - DS2								
Arm 1	1.2	5.95	0.52	A	0.3	4.46	0.23	A
Arm 2	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Arm 3	3.5	13.51	0.77	B	0.2	3.09	0.17	A
Arm 4	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Arm 5	0.3	3.59	0.21	A	1.4	6.66	0.56	A

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

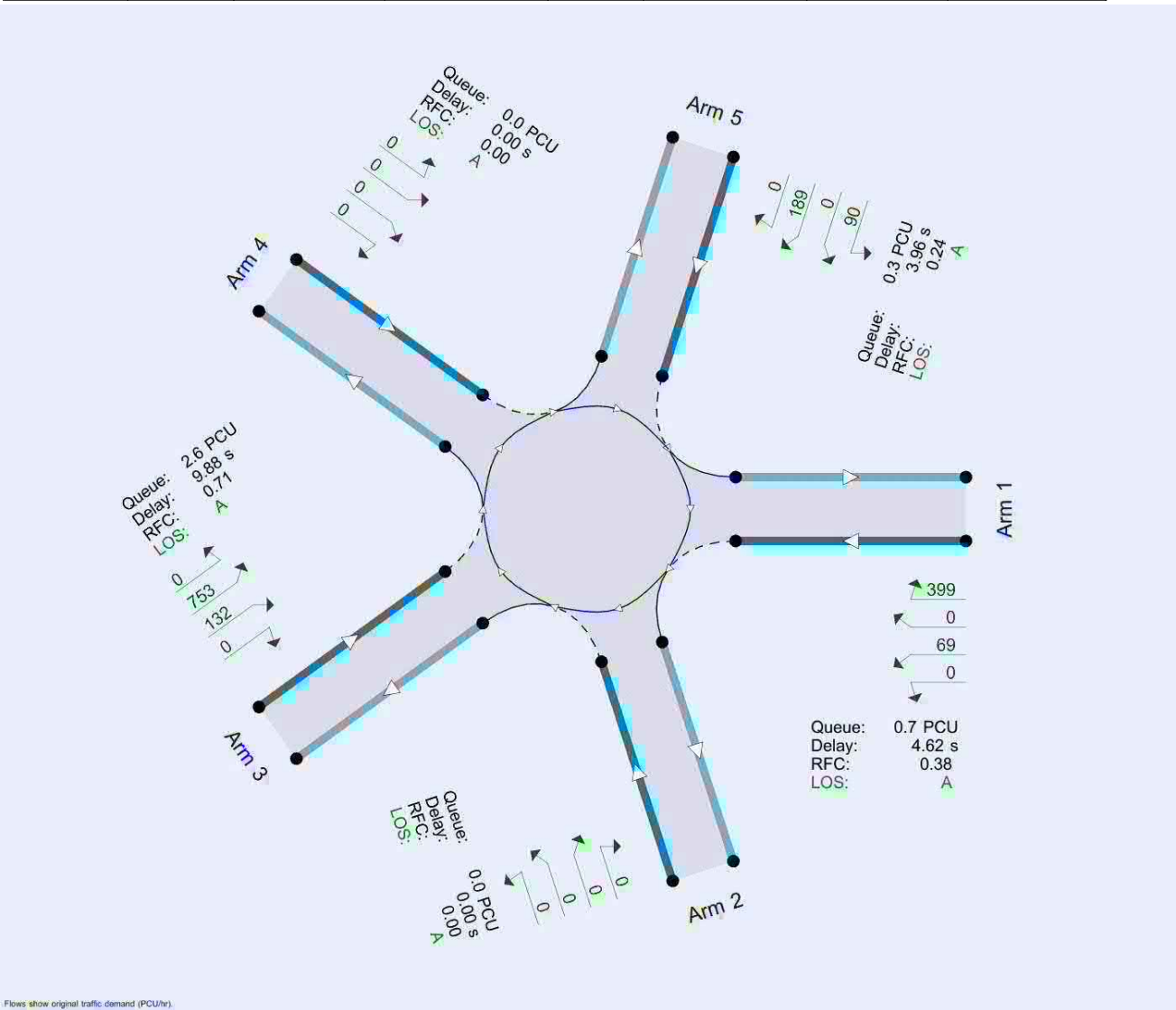
File summary

File Description

Title	Burrfields Road / Moneyfield Avenue / Dundas Lane roundabout
Location	
Site number	
Date	23/09/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	62100616
Enumerator	CORP\UKAJT009
Description	

Units

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



Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

ELM - DM, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	7.36	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Burrfields Road east	
2	Moneyfield Avenue	
3	Burrfields Road west	
4	Ocean Retail Park	
5	Dundas Lane	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	4.50	6.50	1.8	15.0	40.0	25.0	
2	2.00	4.40	3.1	10.0	40.0	25.0	
3	3.60	6.30	13.0	20.0	40.0	16.0	
4	3.50	6.20	5.3	8.0	40.0	23.0	
5	4.00	6.80	3.1	10.0	40.0	24.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.602	1498
2	0.451	789
3	0.648	1659
4	0.548	1304
5	0.572	1390

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	468	100.000
2		✓	0	100.000
3		✓	885	100.000
4		✓	0	100.000
5		✓	279	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	69	0	399
	2	0	0	0	0	0
	3	132	0	0	0	753
	4	0	0	0	0	0
	5	90	0	189	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.38	4.62	0.7	A
2	0.00	0.00	0.0	A
3	0.71	9.88	2.6	A
4	0.00	0.00	0.0	A
5	0.24	3.96	0.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	352	142	1413	0.249	351	0.4	3.724	A
2	0	493	567	0.000	0	0.0	0.000	A
3	666	299	1465	0.455	663	0.9	4.913	A
4	0	962	777	0.000	0	0.0	0.000	A
5	210	99	1333	0.158	209	0.2	3.521	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	421	170	1396	0.301	420	0.5	4.057	A
2	0	590	524	0.000	0	0.0	0.000	A
3	796	358	1427	0.558	794	1.4	6.238	A
4	0	1152	673	0.000	0	0.0	0.000	A
5	251	118	1322	0.190	251	0.3	3.694	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	515	208	1373	0.375	515	0.7	4.609	A
2	0	722	464	0.000	0	0.0	0.000	A
3	974	439	1375	0.709	970	2.6	9.657	A
4	0	1408	532	0.000	0	0.0	0.000	A
5	307	145	1307	0.235	307	0.3	3.957	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	515	208	1373	0.375	515	0.7	4.617	A
2	0	723	463	0.000	0	0.0	0.000	A
3	974	439	1374	0.709	974	2.6	9.885	A
4	0	1414	530	0.000	0	0.0	0.000	A
5	307	145	1307	0.235	307	0.3	3.960	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	421	170	1396	0.301	421	0.5	4.067	A
2	0	592	523	0.000	0	0.0	0.000	A
3	796	359	1426	0.558	800	1.4	6.377	A
4	0	1160	669	0.000	0	0.0	0.000	A
5	251	119	1322	0.190	251	0.3	3.699	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	352	142	1412	0.249	353	0.4	3.740	A
2	0	495	566	0.000	0	0.0	0.000	A
3	666	301	1464	0.455	668	0.9	4.988	A
4	0	969	773	0.000	0	0.0	0.000	A
5	210	100	1333	0.158	210	0.2	3.529	A

ELM - DM, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	7.66	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	230	100.000
2		✓	0	100.000
3		✓	239	100.000
4		✓	0	100.000
5		✓	855	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	83	0	147
	2	0	0	0	0	0
	3	75	0	0	0	164
	4	0	0	0	0	0
	5	371	0	484	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.22	4.28	0.3	A
2	0.00	0.00	0.0	A
3	0.17	3.07	0.2	A
4	0.00	0.00	0.0	A
5	0.70	9.85	2.5	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	173	362	1280	0.135	172	0.2	3.573	A
2	0	535	549	0.000	0	0.0	0.000	A
3	180	110	1588	0.113	179	0.1	2.810	A
4	0	290	1146	0.000	0	0.0	0.000	A
5	644	56	1358	0.474	640	1.0	5.486	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	207	434	1237	0.167	207	0.2	3.844	A
2	0	641	501	0.000	0	0.0	0.000	A
3	215	132	1574	0.137	215	0.2	2.913	A
4	0	347	1114	0.000	0	0.0	0.000	A
5	769	67	1351	0.569	767	1.4	6.754	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	253	530	1179	0.215	253	0.3	4.276	A
2	0	783	436	0.000	0	0.0	0.000	A
3	263	162	1554	0.169	263	0.2	3.066	A
4	0	425	1072	0.000	0	0.0	0.000	A
5	941	83	1343	0.701	937	2.5	9.658	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	253	533	1177	0.215	253	0.3	4.284	A
2	0	786	435	0.000	0	0.0	0.000	A
3	263	162	1554	0.169	263	0.2	3.066	A
4	0	425	1071	0.000	0	0.0	0.000	A
5	941	83	1343	0.701	941	2.5	9.850	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	207	438	1235	0.167	207	0.2	3.855	A
2	0	645	499	0.000	0	0.0	0.000	A
3	215	132	1573	0.137	215	0.2	2.917	A
4	0	347	1114	0.000	0	0.0	0.000	A
5	769	67	1351	0.569	773	1.5	6.893	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	173	365	1278	0.135	173	0.2	3.586	A
2	0	539	547	0.000	0	0.0	0.000	A
3	180	111	1587	0.113	180	0.1	2.813	A
4	0	291	1145	0.000	0	0.0	0.000	A
5	644	57	1358	0.474	646	1.0	5.577	A

EMM - DS1, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	5.81	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	348	100.000
2		✓	0	100.000
3		✓	847	100.000
4		✓	0	100.000
5		✓	294	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	100	0	248
	2	0	0	0	0	0
	3	52	0	0	0	795
	4	0	0	0	0	0
	5	70	0	224	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.28	4.10	0.4	A
2	0.00	0.00	0.0	A
3	0.63	7.20	1.8	A
4	0.00	0.00	0.0	A
5	0.24	3.83	0.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	262	168	1397	0.188	261	0.3	3.482	A
2	0	429	596	0.000	0	0.0	0.000	A
3	638	186	1539	0.414	635	0.8	4.366	A
4	0	821	855	0.000	0	0.0	0.000	A
5	221	39	1368	0.162	220	0.2	3.450	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	313	201	1377	0.227	313	0.3	3.720	A
2	0	514	558	0.000	0	0.0	0.000	A
3	761	223	1515	0.503	760	1.1	5.240	A
4	0	983	766	0.000	0	0.0	0.000	A
5	264	47	1363	0.194	264	0.3	3.602	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	383	246	1350	0.284	383	0.4	4.093	A
2	0	629	506	0.000	0	0.0	0.000	A
3	933	273	1482	0.629	930	1.8	7.126	A
4	0	1202	645	0.000	0	0.0	0.000	A
5	324	57	1357	0.238	323	0.3	3.830	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	383	247	1350	0.284	383	0.4	4.096	A
2	0	630	506	0.000	0	0.0	0.000	A
3	933	273	1482	0.629	932	1.8	7.202	A
4	0	1206	644	0.000	0	0.0	0.000	A
5	324	57	1357	0.239	324	0.3	3.830	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	313	202	1377	0.227	313	0.3	3.727	A
2	0	515	557	0.000	0	0.0	0.000	A
3	761	223	1514	0.503	764	1.1	5.301	A
4	0	988	763	0.000	0	0.0	0.000	A
5	264	47	1363	0.194	265	0.3	3.605	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	262	169	1396	0.188	262	0.3	3.491	A
2	0	431	595	0.000	0	0.0	0.000	A
3	638	187	1538	0.415	639	0.8	4.413	A
4	0	826	852	0.000	0	0.0	0.000	A
5	221	39	1368	0.162	222	0.2	3.458	A

EMM - DS1, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	8.06	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	38	100.000
2		✓	0	100.000
3		✓	234	100.000
4		✓	0	100.000
5		✓	888	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	0	0	38
	2	0	0	0	0	0
	3	0	0	0	0	234
	4	0	0	0	0	0
	5	186	0	702	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.04	3.99	0.0	A
2	0.00	0.00	0.0	A
3	0.16	2.88	0.2	A
4	0.00	0.00	0.0	A
5	0.70	9.59	2.6	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	29	525	1182	0.024	28	0.0	3.432	A
2	0	554	540	0.000	0	0.0	0.000	A
3	176	28	1641	0.107	176	0.1	2.703	A
4	0	204	1192	0.000	0	0.0	0.000	A
5	669	0	1390	0.481	665	1.0	5.434	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	34	630	1119	0.031	34	0.0	3.649	A
2	0	664	490	0.000	0	0.0	0.000	A
3	210	34	1637	0.129	210	0.2	2.775	A
4	0	244	1170	0.000	0	0.0	0.000	A
5	798	0	1390	0.574	796	1.5	6.653	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	42	770	1035	0.040	42	0.0	3.987	A
2	0	811	424	0.000	0	0.0	0.000	A
3	258	42	1632	0.158	257	0.2	2.880	A
4	0	299	1140	0.000	0	0.0	0.000	A
5	978	0	1390	0.703	973	2.5	9.411	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	42	773	1033	0.041	42	0.0	3.995	A
2	0	815	422	0.000	0	0.0	0.000	A
3	258	42	1632	0.158	258	0.2	2.880	A
4	0	299	1140	0.000	0	0.0	0.000	A
5	978	0	1390	0.703	978	2.6	9.593	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	34	634	1116	0.031	34	0.0	3.661	A
2	0	669	488	0.000	0	0.0	0.000	A
3	210	34	1637	0.129	211	0.2	2.778	A
4	0	245	1170	0.000	0	0.0	0.000	A
5	798	0	1390	0.574	803	1.5	6.790	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	29	530	1179	0.024	29	0.0	3.444	A
2	0	559	538	0.000	0	0.0	0.000	A
3	176	29	1641	0.107	176	0.1	2.706	A
4	0	205	1192	0.000	0	0.0	0.000	A
5	669	0	1390	0.481	670	1.0	5.518	A

EML - DS2, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	9.31	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	643	100.000
2		✓	0	100.000
3		✓	868	100.000
4		✓	0	100.000
5		✓	261	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	66	0	577
	2	0	0	0	0	0
	3	2	0	0	0	866
	4	0	0	0	0	0
	5	72	0	189	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.52	5.95	1.2	A
2	0.00	0.00	0.0	A
3	0.77	13.51	3.5	B
4	0.00	0.00	0.0	A
5	0.21	3.59	0.3	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	484	142	1413	0.343	482	0.6	4.243	A
2	0	624	508	0.000	0	0.0	0.000	A
3	653	432	1379	0.474	650	1.0	5.401	A
4	0	1082	711	0.000	0	0.0	0.000	A
5	196	1	1389	0.141	196	0.2	3.317	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	578	170	1396	0.414	577	0.8	4.832	A
2	0	747	453	0.000	0	0.0	0.000	A
3	780	518	1323	0.590	778	1.6	7.232	A
4	0	1296	594	0.000	0	0.0	0.000	A
5	235	2	1389	0.169	234	0.2	3.429	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	708	208	1373	0.516	706	1.2	5.928	A
2	0	914	377	0.000	0	0.0	0.000	A
3	956	634	1248	0.766	948	3.4	12.902	B
4	0	1582	437	0.000	0	0.0	0.000	A
5	287	2	1389	0.207	287	0.3	3.594	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	708	208	1373	0.516	708	1.2	5.955	A
2	0	916	377	0.000	0	0.0	0.000	A
3	956	635	1247	0.766	955	3.5	13.514	B
4	0	1591	433	0.000	0	0.0	0.000	A
5	287	2	1389	0.207	287	0.3	3.594	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	578	170	1396	0.414	580	0.8	4.860	A
2	0	750	452	0.000	0	0.0	0.000	A
3	780	520	1322	0.590	788	1.6	7.514	A
4	0	1308	587	0.000	0	0.0	0.000	A
5	235	2	1389	0.169	235	0.2	3.434	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	484	142	1412	0.343	485	0.6	4.274	A
2	0	627	507	0.000	0	0.0	0.000	A
3	653	435	1377	0.475	656	1.0	5.509	A
4	0	1091	706	0.000	0	0.0	0.000	A
5	196	2	1389	0.141	197	0.2	3.323	A

EML - DS2, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	5.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	241	100.000
2		✓	0	100.000
3		✓	238	100.000
4		✓	0	100.000
5		✓	700	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	76	0	165
	2	0	0	0	0	0
	3	40	0	0	0	198
	4	0	0	0	0	0
	5	180	0	520	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.23	4.46	0.3	A
2	0.00	0.00	0.0	A
3	0.17	3.09	0.2	A
4	0.00	0.00	0.0	A
5	0.56	6.66	1.4	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	181	389	1264	0.144	181	0.2	3.655	A
2	0	570	533	0.000	0	0.0	0.000	A
3	179	124	1579	0.113	179	0.1	2.826	A
4	0	302	1139	0.000	0	0.0	0.000	A
5	527	30	1373	0.384	524	0.7	4.652	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	217	467	1217	0.178	216	0.2	3.956	A
2	0	683	482	0.000	0	0.0	0.000	A
3	214	148	1563	0.137	214	0.2	2.934	A
4	0	362	1106	0.000	0	0.0	0.000	A
5	629	36	1369	0.460	628	0.9	5.337	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	265	571	1154	0.230	265	0.3	4.450	A
2	0	836	413	0.000	0	0.0	0.000	A
3	262	181	1541	0.170	262	0.2	3.094	A
4	0	443	1061	0.000	0	0.0	0.000	A
5	771	44	1365	0.565	769	1.4	6.623	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	265	572	1154	0.230	265	0.3	4.458	A
2	0	838	412	0.000	0	0.0	0.000	A
3	262	182	1541	0.170	262	0.2	3.094	A
4	0	444	1061	0.000	0	0.0	0.000	A
5	771	44	1365	0.565	771	1.4	6.665	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	217	469	1216	0.178	217	0.2	3.965	A
2	0	686	480	0.000	0	0.0	0.000	A
3	214	149	1563	0.137	214	0.2	2.936	A
4	0	363	1105	0.000	0	0.0	0.000	A
5	629	36	1369	0.460	631	0.9	5.377	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	181	392	1262	0.144	182	0.2	3.665	A
2	0	574	531	0.000	0	0.0	0.000	A
3	179	124	1578	0.114	179	0.1	2.832	A
4	0	304	1138	0.000	0	0.0	0.000	A
5	527	30	1373	0.384	528	0.7	4.695	A

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
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Filename: Hambledon Rd_A3 Maurepas Way.j9

Path: \\uk.wspgroup.com\central data\Projects\62100xxx\62100616 - Aquind VO No.3\A DCO\D. EIA\5. WIP\12. Traffic and Transport\Transport Assessment\Analysis & Calcs\ARCADY\TA Models and Outputs

Report generation date: 28/10/2019 15:46:32

»ELM - DM, AM

»ELM - DM, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	ELM - DM							
Arm 1	1.0	2.56	0.48	A	1.5	3.14	0.58	A
Arm 2	0.8	3.33	0.41	A	0.8	3.52	0.43	A
Arm 3	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Arm 4	0.5	1.70	0.31	A	0.8	2.07	0.42	A

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

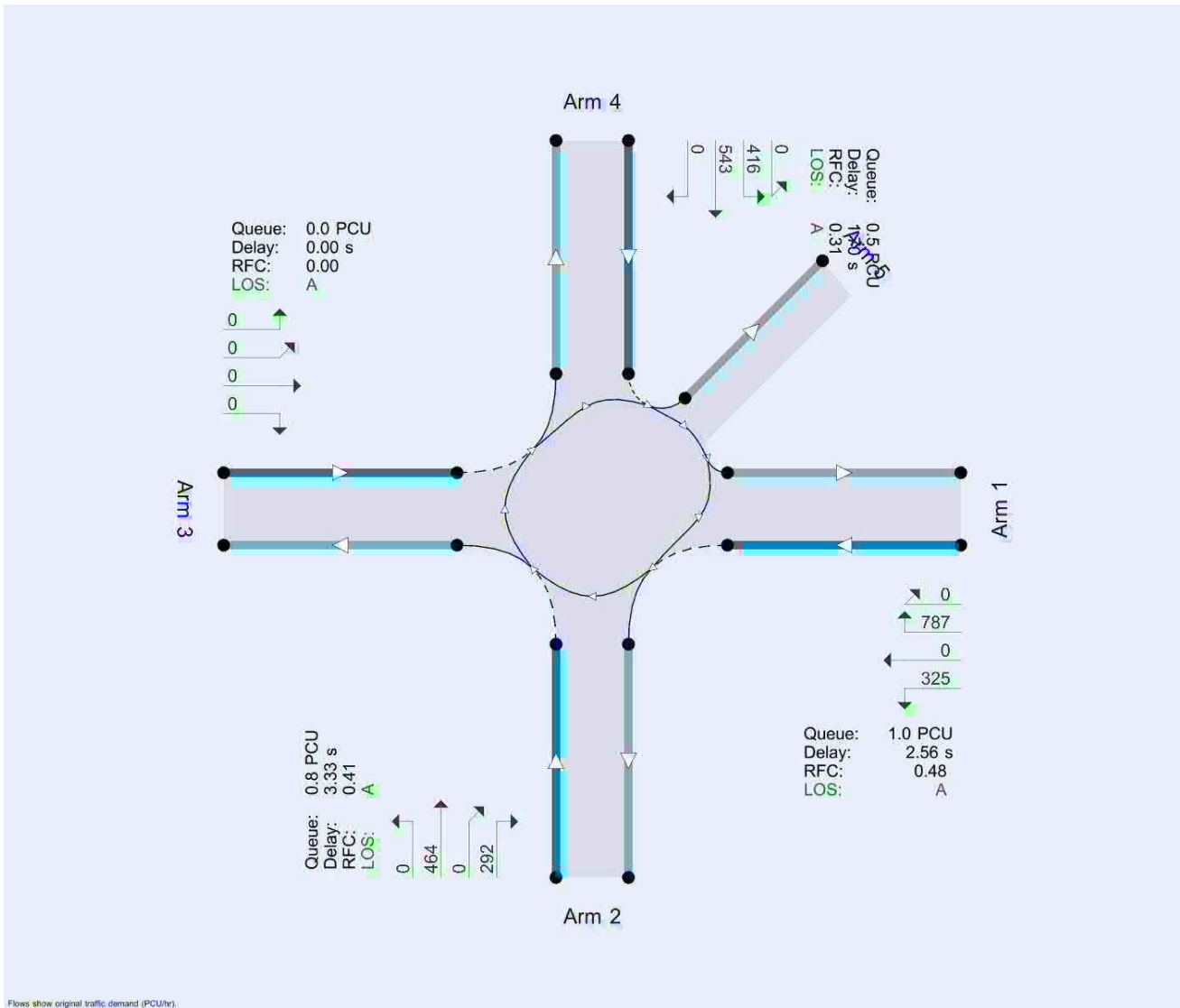
File summary

File Description

Title	Hambledon Road / A3 Maurepas Way Roundabout
Location	
Site number	
Date	06/08/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	62100616
Enumerator	CORP\UKAJT009
Description	

Units

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



Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

ELM - DM, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.48	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A3 Maurepas Way east	
2	A3 Maurepas Way south	
3	Houghton Avenue	
4	Hambledon Road	
5	Retail Park	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	10.50	11.00	4.0	45.0	65.0	20.0	
2	7.00	10.00	17.0	20.0	65.0	19.0	
3	3.50	9.00	30.0	25.0	65.0	20.0	
4	11.50	12.00	4.0	40.0	65.0	15.0	
5							✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.841	3493
2	0.721	2805
3	0.624	2205
4	0.906	3868
5		

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1312	100.000
2		✓	756	100.000
3		✓	0	100.000
4		✓	959	100.000
5				

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	200	325	0	787	0
	2	292	0	0	464	0
	3	0	0	0	0	0
	4	416	543	0	0	0
	5	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.48	2.56	1.0	A
2	0.41	3.33	0.8	A
3	0.00	0.00	0.0	A
4	0.31	1.70	0.5	A
5				

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	988	408	3150	0.314	986	0.5	1.827	A
2	569	742	2270	0.251	568	0.4	2.324	A
3	0	1309	1388	0.000	0	0.0	0.000	A
4	722	370	3533	0.204	721	0.3	1.408	A
5		1090						

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1179	488	3083	0.383	1179	0.7	2.080	A
2	680	887	2165	0.314	679	0.5	2.664	A
3	0	1566	1228	0.000	0	0.0	0.000	A
4	862	442	3467	0.249	862	0.4	1.519	A
5		1304						

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1445	598	2991	0.483	1443	1.0	2.556	A
2	832	1086	2022	0.412	831	0.8	3.323	A
3	0	1917	1008	0.000	0	0.0	0.000	A
4	1056	541	3377	0.313	1055	0.5	1.705	A
5		1596						

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1445	598	2991	0.483	1445	1.0	2.560	A
2	832	1087	2021	0.412	832	0.8	3.330	A
3	0	1919	1007	0.000	0	0.0	0.000	A
4	1056	542	3377	0.313	1056	0.5	1.705	A
5		1598						

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1179	488	3083	0.383	1181	0.7	2.083	A
2	680	888	2164	0.314	681	0.5	2.670	A
3	0	1569	1226	0.000	0	0.0	0.000	A
4	862	443	3466	0.249	863	0.4	1.522	A
5		1306						

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	988	409	3149	0.314	988	0.5	1.835	A
2	569	744	2269	0.251	570	0.4	2.333	A
3	0	1313	1385	0.000	0	0.0	0.000	A
4	722	371	3532	0.204	722	0.3	1.409	A
5		1093						

ELM - DM, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.85	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1579	100.000
2		✓	774	100.000
3		✓	0	100.000
4		✓	1257	100.000
5				

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	311	535	0	733	0
	2	266	0	0	508	0
	3	0	0	0	0	0
	4	722	535	0	0	0
	5	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.58	3.14	1.5	A
2	0.43	3.52	0.8	A
3	0.00	0.00	0.0	A
4	0.42	2.07	0.8	A
5				

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1189	402	3155	0.377	1186	0.7	2.008	A
2	583	784	2239	0.260	581	0.4	2.386	A
3	0	1365	1353	0.000	0	0.0	0.000	A
4	946	433	3475	0.272	945	0.4	1.565	A
5		1378						

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1419	481	3089	0.460	1418	0.9	2.369	A
2	696	938	2129	0.327	695	0.5	2.761	A
3	0	1633	1186	0.000	0	0.0	0.000	A
4	1130	518	3398	0.333	1129	0.5	1.745	A
5		1648						

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1739	589	2998	0.580	1736	1.5	3.132	A
2	852	1148	1977	0.431	851	0.8	3.514	A
3	0	1999	957	0.000	0	0.0	0.000	A
4	1384	634	3293	0.420	1383	0.8	2.072	A
5		2017						

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1739	589	2998	0.580	1738	1.5	3.143	A
2	852	1149	1976	0.431	852	0.8	3.523	A
3	0	2002	956	0.000	0	0.0	0.000	A
4	1384	635	3292	0.420	1384	0.8	2.075	A
5		2019						

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1419	481	3089	0.460	1422	0.9	2.378	A
2	696	940	2127	0.327	697	0.5	2.771	A
3	0	1637	1183	0.000	0	0.0	0.000	A
4	1130	520	3397	0.333	1131	0.5	1.750	A
5		1651						

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1189	403	3154	0.377	1190	0.7	2.016	A
2	583	787	2238	0.260	583	0.4	2.396	A
3	0	1370	1350	0.000	0	0.0	0.000	A
4	946	435	3474	0.272	947	0.4	1.569	A
5		1382						

Junctions 9
ARCADY 9 - Roundabout Module
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Filename: Hambledon Rd_Milton Rd.j9

Path: \\uk.wspgroup.com\central data\Projects\62100xxx\62100616 - Aquind VO No.3\A DCO\D. EIA\5. WIP\12. Traffic and Transport\Transport Assessment\Analysis & Calcs\ARCADY\TA Models and Outputs

Report generation date: 28/10/2019 15:17:36

- »ELM - DM, AM
- »ELM - DM, PM
- »EMM - DS1, AM
- »EMM - DS1, PM
- »EML - DS2, AM
- »EML - DS2, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
ELM - DM								
Arm 1	4.0	25.39	0.80	D	7.7	59.94	0.90	F
Arm 2	1.5	3.72	0.58	A	1.3	3.35	0.54	A
Arm 3	0.5	3.51	0.32	A	1.6	6.91	0.60	A
Arm 4	0.5	3.39	0.31	A	1.1	5.70	0.50	A
EMM - DS1								
Arm 1	1.2	10.63	0.52	B	0.8	9.07	0.44	A
Arm 2	1.0	3.01	0.47	A	0.9	2.82	0.45	A
Arm 3	0.4	3.06	0.28	A	1.3	5.39	0.54	A
Arm 4	0.4	3.06	0.29	A	0.3	3.30	0.21	A
EML - DS2								
Arm 1	1.2	10.91	0.53	B	0.9	9.14	0.44	A
Arm 2	1.0	2.99	0.46	A	0.9	2.80	0.45	A
Arm 3	0.4	3.05	0.28	A	1.2	5.34	0.53	A
Arm 4	0.4	3.07	0.29	A	0.3	3.30	0.21	A

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

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

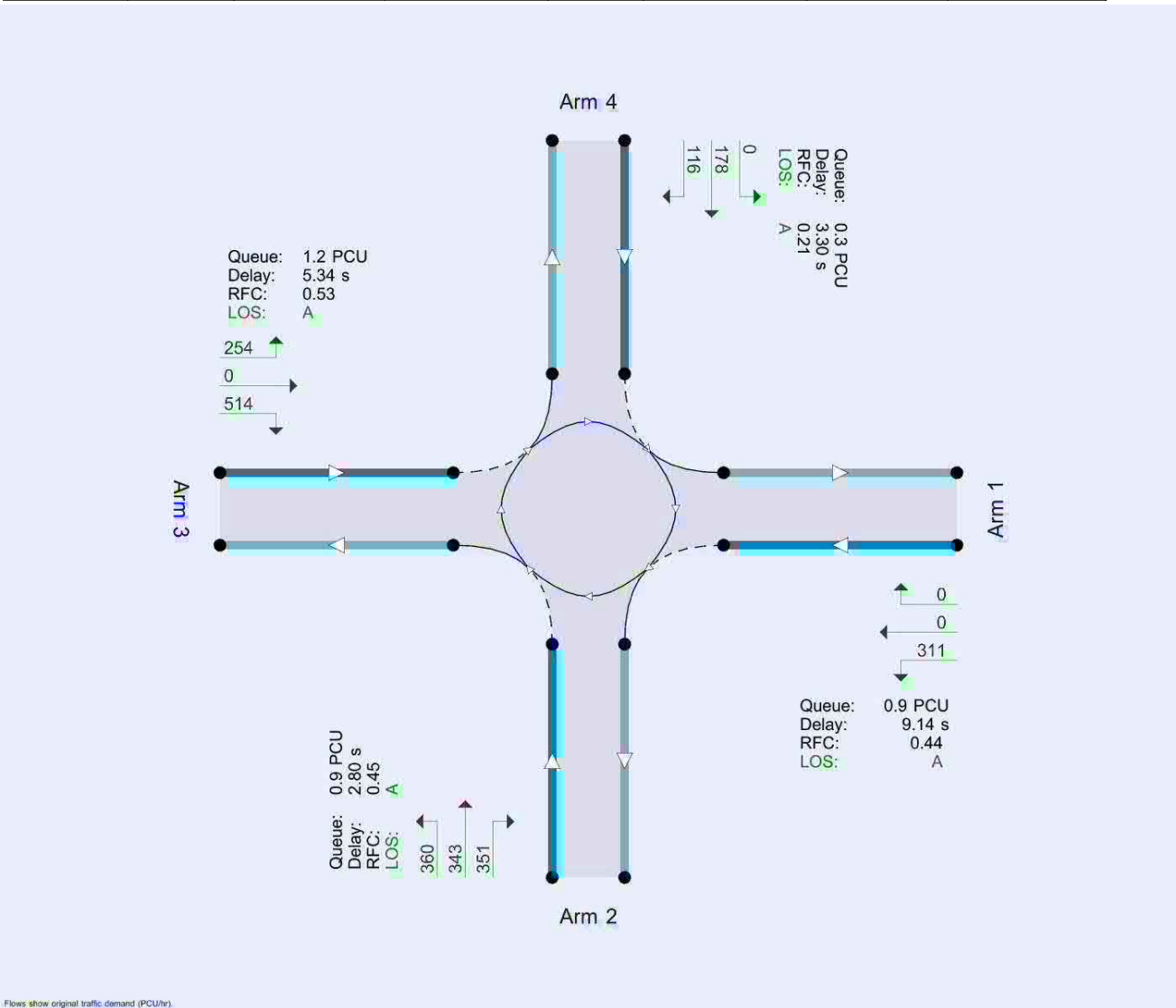
File summary

File Description

Title	Hambledon Road / Milton Road Roundabout
Location	
Site number	
Date	06/08/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	62100616
Enumerator	CORP\UKAJT009
Description	

Units

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



Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

ELM - DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	7.80	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Milton Road	
2	Hambledon Road south	
3	Elettra Avenue	
4	Hambledon Road north	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.40	4.20	8.0	25.0	47.0	21.0	
2	7.20	8.20	60.0	50.0	47.0	14.0	
3	5.00	7.60	17.5	20.0	47.0	18.0	
4	3.70	7.80	80.0	25.0	47.0	30.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.548	1264
2	0.835	2679
3	0.717	2134
4	0.722	2210

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	542	100.000
2		✓	1314	100.000
3		✓	477	100.000
4		✓	482	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	542	0	0
	2	276	0	704	334
	3	0	369	0	108
	4	0	299	183	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.80	25.39	4.0	D
2	0.58	3.72	1.5	A
3	0.32	3.51	0.5	A
4	0.31	3.39	0.5	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	408	639	913	0.447	405	0.9	7.733	A
2	989	137	2564	0.386	986	0.7	2.506	A
3	359	458	1806	0.199	358	0.3	2.734	A
4	363	484	1860	0.195	362	0.3	2.642	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	487	764	844	0.577	485	1.5	10.943	B
2	1181	164	2542	0.465	1180	0.9	2.909	A
3	429	548	1742	0.246	428	0.4	3.015	A
4	433	579	1791	0.242	433	0.3	2.915	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	597	936	750	0.795	587	3.8	23.086	C
2	1447	201	2511	0.576	1445	1.5	3.705	A
3	525	671	1654	0.318	525	0.5	3.505	A
4	531	709	1698	0.313	530	0.5	3.389	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	597	937	750	0.796	596	4.0	25.394	D
2	1447	201	2511	0.576	1447	1.5	3.721	A
3	525	672	1653	0.318	525	0.5	3.510	A
4	531	710	1697	0.313	531	0.5	3.394	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	487	766	843	0.578	497	1.5	11.742	B
2	1181	165	2541	0.465	1183	1.0	2.922	A
3	429	549	1741	0.246	429	0.4	3.023	A
4	433	581	1790	0.242	434	0.4	2.919	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	408	641	912	0.447	411	0.9	7.941	A
2	989	138	2564	0.386	990	0.7	2.518	A
3	359	460	1805	0.199	359	0.3	2.740	A
4	363	486	1859	0.195	363	0.3	2.649	A

ELM - DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	12.95	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	451	100.000
2		✓	1253	100.000
3		✓	773	100.000
4		✓	620	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	437	0	14
	2	485	0	367	401
	3	0	562	0	211
	4	0	507	113	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1	2	3	4
	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.90	59.94	7.7	F
2	0.54	3.35	1.3	A
3	0.60	6.91	1.6	A
4	0.50	5.70	1.1	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	340	886	777	0.437	336	0.8	8.910	A
2	943	95	2599	0.363	941	0.6	2.385	A
3	582	676	1650	0.353	580	0.6	3.692	A
4	467	786	1643	0.284	465	0.4	3.359	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	405	1061	682	0.595	403	1.6	14.043	B
2	1126	114	2584	0.436	1126	0.8	2.714	A
3	695	808	1555	0.447	694	0.9	4.593	A
4	557	940	1531	0.364	557	0.6	4.060	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	497	1298	552	0.900	477	6.5	44.588	E
2	1380	139	2563	0.538	1378	1.3	3.337	A
3	851	989	1425	0.597	848	1.6	6.828	A
4	683	1150	1379	0.495	681	1.1	5.655	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	497	1301	550	0.903	492	7.7	59.938	F
2	1380	140	2562	0.538	1380	1.3	3.347	A
3	851	991	1424	0.598	851	1.6	6.907	A
4	683	1153	1377	0.496	683	1.1	5.698	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	405	1066	679	0.597	429	1.7	17.283	C
2	1126	115	2583	0.436	1128	0.9	2.725	A
3	695	811	1553	0.447	698	0.9	4.647	A
4	557	944	1528	0.365	559	0.6	4.095	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	340	892	775	0.438	343	0.9	9.240	A
2	943	96	2599	0.363	944	0.6	2.396	A
3	582	678	1648	0.353	583	0.6	3.724	A
4	467	789	1640	0.285	468	0.4	3.382	A

EMM - DS1, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.22	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	369	100.000
2		✓	1050	100.000
3		✓	464	100.000
4		✓	474	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	369	0	0
	2	169	0	633	248
	3	0	329	0	135
	4	0	249	225	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.52	10.63	1.2	B
2	0.47	3.01	1.0	A
3	0.28	3.06	0.4	A
4	0.29	3.06	0.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	278	603	933	0.298	276	0.5	6.010	A
2	790	169	2538	0.311	789	0.5	2.262	A
3	349	313	1910	0.183	348	0.2	2.535	A
4	357	374	1940	0.184	356	0.2	2.499	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	332	721	868	0.382	331	0.7	7.360	A
2	944	202	2510	0.376	943	0.7	2.525	A
3	417	375	1866	0.224	417	0.3	2.733	A
4	426	447	1887	0.226	426	0.3	2.710	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	406	883	779	0.521	404	1.2	10.507	B
2	1156	247	2472	0.468	1155	1.0	3.003	A
3	511	459	1806	0.283	510	0.4	3.058	A
4	522	548	1814	0.288	521	0.4	3.063	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	406	884	779	0.522	406	1.2	10.626	B
2	1156	248	2472	0.468	1156	1.0	3.008	A
3	511	459	1805	0.283	511	0.4	3.058	A
4	522	548	1814	0.288	522	0.4	3.064	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	332	723	867	0.383	334	0.7	7.451	A
2	944	203	2510	0.376	945	0.7	2.534	A
3	417	375	1865	0.224	418	0.3	2.737	A
4	426	448	1886	0.226	427	0.3	2.715	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	278	605	932	0.298	279	0.5	6.073	A
2	790	170	2537	0.312	791	0.5	2.270	A
3	349	314	1909	0.183	350	0.2	2.539	A
4	357	375	1939	0.184	357	0.2	2.503	A

EMM - DS1, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.48	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	309	100.000
2		✓	1060	100.000
3		✓	769	100.000
4		✓	290	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	309	0	0
	2	352	0	360	348
	3	0	516	0	253
	4	0	174	116	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1	2	3	4
	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.44	9.07	0.8	A
2	0.45	2.82	0.9	A
3	0.54	5.39	1.3	A
4	0.21	3.30	0.3	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	233	605	932	0.250	231	0.4	5.640	A
2	798	87	2606	0.306	796	0.5	2.186	A
3	579	526	1757	0.329	577	0.5	3.348	A
4	218	651	1739	0.126	218	0.2	2.600	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	278	724	867	0.321	277	0.5	6.711	A
2	953	104	2592	0.368	952	0.6	2.415	A
3	691	629	1684	0.411	690	0.8	3.984	A
4	261	780	1647	0.158	261	0.2	2.856	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	340	886	778	0.437	339	0.8	8.996	A
2	1167	128	2572	0.454	1166	0.9	2.816	A
3	847	770	1582	0.535	845	1.3	5.354	A
4	319	954	1521	0.210	319	0.3	3.294	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	340	887	777	0.438	340	0.8	9.066	A
2	1167	128	2572	0.454	1167	0.9	2.817	A
3	847	771	1582	0.535	847	1.3	5.386	A
4	319	956	1520	0.210	319	0.3	3.297	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	278	726	865	0.321	279	0.5	6.769	A
2	953	104	2592	0.368	954	0.6	2.421	A
3	691	630	1683	0.411	693	0.8	4.011	A
4	261	782	1645	0.158	261	0.2	2.861	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	233	608	930	0.250	233	0.4	5.687	A
2	798	87	2606	0.306	799	0.5	2.193	A
3	579	527	1756	0.330	580	0.5	3.370	A
4	218	654	1737	0.126	219	0.2	2.607	A

EML - DS2, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	375	100.000
2		✓	1044	100.000
3		✓	465	100.000
4		✓	478	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	375	0	0
	2	166	0	632	246
	3	0	330	0	135
	4	0	253	225	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.53	10.91	1.2	B
2	0.46	2.99	1.0	A
3	0.28	3.05	0.4	A
4	0.29	3.07	0.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	282	607	931	0.303	280	0.5	6.071	A
2	786	169	2538	0.310	784	0.5	2.256	A
3	350	309	1912	0.183	349	0.2	2.532	A
4	360	372	1941	0.185	359	0.2	2.502	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	337	726	865	0.390	336	0.7	7.470	A
2	939	202	2510	0.374	938	0.7	2.517	A
3	418	370	1869	0.224	418	0.3	2.728	A
4	430	446	1888	0.228	429	0.3	2.714	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	413	889	776	0.532	411	1.2	10.775	B
2	1149	247	2472	0.465	1148	1.0	2.988	A
3	512	453	1809	0.283	512	0.4	3.051	A
4	526	546	1816	0.290	526	0.4	3.070	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	413	890	776	0.532	413	1.2	10.908	B
2	1149	248	2472	0.465	1149	1.0	2.993	A
3	512	454	1809	0.283	512	0.4	3.052	A
4	526	546	1815	0.290	526	0.4	3.071	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	337	727	865	0.390	339	0.7	7.563	A
2	939	203	2510	0.374	940	0.7	2.523	A
3	418	371	1868	0.224	418	0.3	2.733	A
4	430	446	1887	0.228	430	0.3	2.719	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	282	609	930	0.304	283	0.5	6.135	A
2	786	170	2537	0.310	787	0.5	2.264	A
3	350	310	1912	0.183	350	0.2	2.538	A
4	360	374	1940	0.186	360	0.3	2.508	A

EML - DS2, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	4.48	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	311	100.000
2		✓	1054	100.000
3		✓	768	100.000
4		✓	294	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	311	0	0
	2	351	0	360	343
	3	0	514	0	254
	4	0	178	116	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.44	9.14	0.9	A
2	0.45	2.80	0.9	A
3	0.53	5.34	1.2	A
4	0.21	3.30	0.3	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	234	606	931	0.251	233	0.4	5.658	A
2	794	87	2606	0.304	792	0.5	2.180	A
3	578	521	1761	0.328	576	0.5	3.337	A
4	221	649	1741	0.127	221	0.2	2.603	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	280	726	866	0.323	279	0.5	6.742	A
2	948	104	2592	0.366	947	0.6	2.407	A
3	690	623	1687	0.409	690	0.8	3.965	A
4	264	777	1649	0.160	264	0.2	2.859	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	342	888	777	0.441	341	0.9	9.065	A
2	1160	128	2572	0.451	1159	0.9	2.802	A
3	846	763	1587	0.533	844	1.2	5.312	A
4	324	951	1523	0.213	323	0.3	3.300	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	342	890	776	0.441	342	0.9	9.137	A
2	1160	128	2572	0.451	1160	0.9	2.804	A
3	846	764	1587	0.533	846	1.2	5.343	A
4	324	952	1522	0.213	324	0.3	3.303	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	280	728	864	0.323	281	0.5	6.801	A
2	948	104	2592	0.366	949	0.6	2.411	A
3	690	625	1687	0.409	692	0.8	3.991	A
4	264	779	1647	0.160	265	0.2	2.864	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	234	609	930	0.252	235	0.4	5.706	A
2	794	87	2606	0.305	794	0.5	2.186	A
3	578	523	1759	0.329	579	0.5	3.356	A
4	221	652	1739	0.127	222	0.2	2.611	A

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
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Filename: Hulbert Rd_Frendstaple Rd.j9

Path: \\uk.wspgroup.com\central data\Projects\62100xxx\62100616 - Aquind VO No.3\A DCO\D. EIA\5. WIP\12. Traffic and Transport\Transport Assessment\Analysis & Calcs\ARCADY\TA Models and Outputs

Report generation date: 28/10/2019 16:02:12

- »ELM - DM, AM
- »ELM - DM, PM
- »EMM - DS1, AM
- »EMM - DS1, PM
- »EML - DS2, AM
- »EML - DS2, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
ELM - DM								
Arm 1	2.8	5.85	0.72	A	12.5	22.63	0.93	C
Arm 2	0.5	6.40	0.31	A	1.7	14.31	0.61	B
Arm 3	2.2	5.18	0.67	A	4.4	10.42	0.80	B
Arm 4	3.2	18.24	0.75	C	2.1	13.48	0.66	B
EMM - DS1								
Arm 1	3.5	6.93	0.76	A	14.3	25.33	0.94	D
Arm 2	1.5	10.80	0.57	B	3.4	23.30	0.77	C
Arm 3	1.6	4.57	0.59	A	1.3	4.71	0.55	A
Arm 4	3.2	18.12	0.75	C	1.6	9.85	0.59	A
EML - DS2								
Arm 1	3.4	6.90	0.76	A	14.1	25.05	0.94	D
Arm 2	1.4	10.65	0.57	B	3.4	23.17	0.77	C
Arm 3	1.6	4.59	0.59	A	1.3	4.72	0.55	A
Arm 4	3.2	18.08	0.75	C	1.6	10.01	0.60	B

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

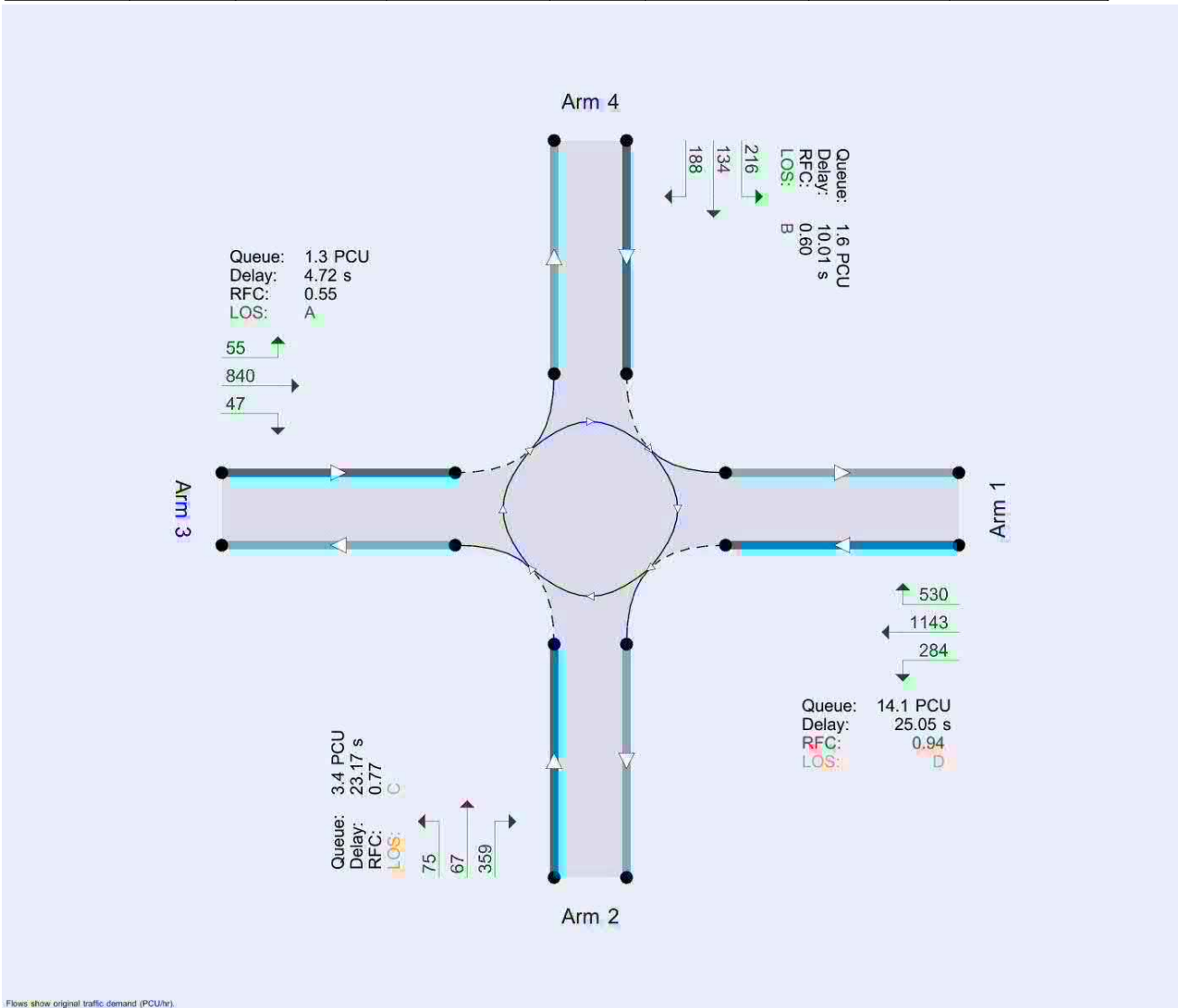
File summary

File Description

Title	Hulbert Road / Frendstaple Road Roundabout
Location	
Site number	
Date	08/08/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	62100616
Enumerator	CORP\UKAJT009
Description	

Units

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



Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

ELM - DM, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	7.57	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Hulbert Road east	
2	Frendstaple Road	
3	Hulbert Road west	
4	Tempest Avenue	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	7.00	9.70	4.2	30.0	70.0	14.0	
2	3.50	8.00	12.8	30.0	70.0	13.0	
3	7.10	8.00	10.0	30.0	70.0	9.0	
4	3.25	8.00	13.0	15.0	70.0	19.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.658	2560
2	0.544	1830
3	0.664	2574
4	0.508	1684

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1562	100.000
2		✓	250	100.000
3		✓	1380	100.000
4		✓	587	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	66	1279	217
	2	151	0	70	29
	3	1217	102	0	61
	4	463	56	68	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.72	5.85	2.8	A
2	0.31	6.40	0.5	A
3	0.67	5.18	2.2	A
4	0.75	18.24	3.2	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1176	169	2449	0.480	1172	1.0	3.091	A
2	188	1173	1192	0.158	187	0.2	3.938	A
3	1039	298	2376	0.437	1036	0.8	2.947	A
4	442	1103	1124	0.393	439	0.7	5.762	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1404	203	2427	0.579	1402	1.5	3.858	A
2	225	1404	1067	0.211	224	0.3	4.699	A
3	1241	356	2337	0.531	1239	1.2	3.602	A
4	528	1320	1013	0.521	526	1.2	8.090	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1720	247	2398	0.717	1715	2.7	5.759	A
2	275	1716	897	0.307	274	0.5	6.357	A
3	1519	436	2284	0.665	1516	2.1	5.128	A
4	646	1615	864	0.748	639	3.0	17.077	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1720	249	2397	0.718	1720	2.8	5.848	A
2	275	1722	894	0.308	275	0.5	6.403	A
3	1519	437	2283	0.665	1519	2.2	5.182	A
4	646	1618	862	0.750	646	3.2	18.241	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1404	205	2425	0.579	1409	1.5	3.917	A
2	225	1412	1062	0.212	226	0.3	4.737	A
3	1241	358	2336	0.531	1244	1.3	3.641	A
4	528	1325	1011	0.522	535	1.2	8.468	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1176	171	2448	0.480	1178	1.0	3.125	A
2	188	1180	1189	0.158	189	0.2	3.962	A
3	1039	299	2375	0.437	1041	0.9	2.972	A
4	442	1108	1121	0.394	444	0.7	5.868	A

ELM - DM, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	16.66	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1914	100.000
2		✓	397	100.000
3		✓	1410	100.000
4		✓	526	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	314	962	638
	2	192	0	153	52
	3	1233	27	0	150
	4	147	109	270	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.93	22.63	12.5	C
2	0.61	14.31	1.7	B
3	0.80	10.42	4.4	B
4	0.66	13.48	2.1	B

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1441	304	2360	0.611	1434	1.7	4.246	A
2	299	1401	1068	0.280	297	0.4	5.124	A
3	1062	661	2135	0.497	1057	1.1	3.659	A
4	396	1088	1131	0.350	394	0.6	5.353	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1721	364	2321	0.741	1715	3.1	6.480	A
2	357	1676	919	0.388	356	0.7	7.023	A
3	1268	790	2049	0.619	1265	1.8	5.035	A
4	473	1302	1022	0.463	471	0.9	7.173	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	2107	444	2268	0.929	2075	11.1	18.097	C
2	437	2030	726	0.602	433	1.6	13.365	B
3	1552	958	1937	0.801	1543	4.2	9.797	A
4	579	1588	877	0.660	575	2.1	12.909	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	2107	447	2266	0.930	2102	12.5	22.626	C
2	437	2054	713	0.613	437	1.7	14.311	B
3	1552	969	1930	0.804	1552	4.4	10.424	B
4	579	1598	872	0.664	579	2.1	13.478	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1721	368	2318	0.742	1757	3.3	7.511	A
2	357	1714	898	0.398	361	0.7	7.424	A
3	1268	808	2037	0.622	1278	1.8	5.282	A
4	473	1316	1015	0.466	477	1.0	7.424	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1441	307	2358	0.611	1447	1.7	4.375	A
2	299	1414	1061	0.282	300	0.4	5.210	A
3	1062	667	2131	0.498	1064	1.1	3.725	A
4	396	1096	1127	0.351	397	0.6	5.440	A

EMM - DS1, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	8.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1660	100.000
2		✓	448	100.000
3		✓	1141	100.000
4		✓	599	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	68	1347	245
	2	313	0	75	60
	3	1018	113	0	10
	4	488	82	29	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.76	6.93	3.5	A
2	0.57	10.80	1.5	B
3	0.59	4.57	1.6	A
4	0.75	18.12	3.2	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1250	168	2450	0.510	1245	1.1	3.276	A
2	337	1216	1169	0.289	336	0.4	4.742	A
3	859	463	2266	0.379	856	0.7	2.804	A
4	451	1083	1134	0.398	448	0.7	5.752	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1492	201	2428	0.615	1490	1.7	4.210	A
2	403	1455	1039	0.388	402	0.7	6.207	A
3	1026	554	2205	0.465	1025	0.9	3.350	A
4	538	1296	1025	0.525	537	1.2	8.064	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1828	245	2399	0.762	1821	3.4	6.773	A
2	493	1778	863	0.572	490	1.4	10.539	B
3	1256	677	2124	0.591	1254	1.6	4.537	A
4	660	1585	878	0.751	652	3.1	16.948	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1828	247	2398	0.762	1827	3.5	6.935	A
2	493	1785	860	0.574	493	1.5	10.800	B
3	1256	680	2122	0.592	1256	1.6	4.574	A
4	660	1590	876	0.753	659	3.2	18.123	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1492	203	2427	0.615	1499	1.8	4.299	A
2	403	1464	1034	0.390	406	0.7	6.333	A
3	1026	559	2202	0.466	1028	1.0	3.378	A
4	538	1303	1022	0.527	546	1.2	8.455	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1250	169	2449	0.510	1252	1.2	3.315	A
2	337	1223	1165	0.289	338	0.5	4.795	A
3	859	466	2264	0.379	860	0.7	2.825	A
4	451	1089	1131	0.399	453	0.7	5.859	A

EMM - DS1, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	18.04	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1961	100.000
2		✓	502	100.000
3		✓	943	100.000
4		✓	533	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	287	1146	528
	2	358	0	77	67
	3	839	47	0	57
	4	214	132	187	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.94	25.33	14.3	D
2	0.77	23.30	3.4	C
3	0.55	4.71	1.3	A
4	0.59	9.85	1.6	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1476	274	2380	0.620	1469	1.8	4.316	A
2	378	1394	1072	0.353	376	0.6	5.668	A
3	710	714	2100	0.338	708	0.6	2.839	A
4	401	933	1210	0.332	399	0.5	4.870	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1763	328	2344	0.752	1757	3.2	6.679	A
2	451	1668	923	0.489	450	1.0	8.330	A
3	848	854	2007	0.422	847	0.8	3.410	A
4	479	1116	1117	0.429	478	0.8	6.189	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	2159	401	2296	0.940	2122	12.5	19.576	C
2	553	2016	733	0.754	545	3.1	20.155	C
3	1038	1032	1888	0.550	1036	1.3	4.637	A
4	587	1362	992	0.592	584	1.6	9.633	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	2159	403	2295	0.941	2152	14.3	25.329	D
2	553	2043	719	0.769	551	3.4	23.299	C
3	1038	1046	1879	0.553	1038	1.3	4.710	A
4	587	1369	989	0.594	587	1.6	9.847	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1763	331	2342	0.753	1806	3.5	7.952	A
2	451	1711	900	0.502	460	1.1	9.197	A
3	848	876	1992	0.426	850	0.8	3.473	A
4	479	1127	1111	0.431	482	0.8	6.322	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1476	276	2378	0.621	1483	1.8	4.455	A
2	378	1407	1065	0.355	380	0.6	5.798	A
3	710	721	2095	0.339	711	0.6	2.865	A
4	401	939	1207	0.332	402	0.6	4.928	A

EML - DS2, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	8.39	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1657	100.000
2		✓	446	100.000
3		✓	1144	100.000
4		✓	597	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	69	1343	245
	2	313	0	73	60
	3	1019	115	0	10
	4	487	82	28	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.76	6.90	3.4	A
2	0.57	10.65	1.4	B
3	0.59	4.59	1.6	A
4	0.75	18.08	3.2	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1247	169	2449	0.509	1243	1.1	3.271	A
2	336	1212	1171	0.287	334	0.4	4.722	A
3	861	463	2266	0.380	859	0.7	2.809	A
4	449	1085	1133	0.397	447	0.7	5.749	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1490	202	2427	0.614	1487	1.7	4.201	A
2	401	1450	1041	0.385	400	0.7	6.166	A
3	1028	554	2205	0.466	1027	1.0	3.358	A
4	537	1299	1024	0.524	535	1.2	8.064	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1824	246	2398	0.761	1818	3.4	6.743	A
2	491	1773	866	0.567	488	1.4	10.400	B
3	1260	677	2124	0.593	1257	1.6	4.555	A
4	657	1589	877	0.750	650	3.1	16.917	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1824	248	2397	0.761	1824	3.4	6.904	A
2	491	1779	863	0.569	491	1.4	10.649	B
3	1260	680	2122	0.594	1260	1.6	4.591	A
4	657	1593	875	0.752	657	3.2	18.081	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1490	204	2426	0.614	1496	1.8	4.291	A
2	401	1460	1036	0.387	404	0.7	6.291	A
3	1028	559	2202	0.467	1031	1.0	3.386	A
4	537	1305	1021	0.526	545	1.2	8.447	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1247	170	2448	0.510	1250	1.2	3.312	A
2	336	1219	1167	0.288	337	0.4	4.774	A
3	861	466	2264	0.380	862	0.7	2.827	A
4	449	1091	1130	0.398	451	0.7	5.858	A

EML - DS2, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	17.89	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1957	100.000
2		✓	501	100.000
3		✓	942	100.000
4		✓	538	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	284	1143	530
	2	359	0	75	67
	3	840	47	0	55
	4	216	134	188	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.94	25.05	14.1	D
2	0.77	23.17	3.4	C
3	0.55	4.72	1.3	A
4	0.60	10.01	1.6	B

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1473	276	2378	0.619	1466	1.8	4.310	A
2	377	1394	1072	0.352	375	0.6	5.662	A
3	709	716	2098	0.338	707	0.6	2.841	A
4	405	934	1209	0.335	403	0.5	4.897	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1759	331	2342	0.751	1753	3.2	6.658	A
2	450	1668	923	0.488	449	1.0	8.316	A
3	847	856	2005	0.422	846	0.8	3.413	A
4	484	1118	1116	0.433	483	0.8	6.239	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	2155	404	2294	0.939	2118	12.4	19.426	C
2	552	2017	733	0.752	543	3.1	20.073	C
3	1037	1036	1886	0.550	1035	1.3	4.644	A
4	592	1364	991	0.598	589	1.6	9.785	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	2155	406	2293	0.940	2148	14.1	25.046	D
2	552	2043	719	0.767	550	3.4	23.169	C
3	1037	1050	1877	0.553	1037	1.3	4.717	A
4	592	1371	987	0.600	592	1.6	10.012	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1759	334	2341	0.752	1802	3.4	7.902	A
2	450	1710	900	0.501	459	1.1	9.171	A
3	847	879	1990	0.426	849	0.8	3.475	A
4	484	1129	1111	0.435	487	0.9	6.379	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1473	279	2377	0.620	1480	1.8	4.445	A
2	377	1407	1065	0.354	379	0.6	5.791	A
3	709	723	2093	0.339	710	0.6	2.864	A
4	405	940	1206	0.336	406	0.6	4.958	A

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
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Filename: Junction 2_A3(M).j9

Path: \\uk.wspgroup.com\central data\Projects\62100xxx\62100616 - Aquind VO No.3\A DCO\D. EIA\5. WIP\12. Traffic and Transport\Transport Assessment\Analysis & Calcs\ARCADY\TA Models and Outputs

Report generation date: 29/10/2019 10:10:15

- »ELM - DM, AM
- »ELM - DM, PM
- »EMM - DS1, AM
- »EMM - DS1, PM
- »EML - DS2, AM
- »EML - DS2, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	ELM - DM							
Arm 1	0.6	3.03	0.36	A	0.7	3.94	0.40	A
Arm 2	4.8	15.36	0.82	C	7.6	23.08	0.89	C
Arm 3	4.2	7.63	0.80	A	1.7	3.55	0.61	A
Arm 4	8.5	30.17	0.90	D	11.5	27.32	0.93	D
	EMM - DS1							
Arm 1	0.6	2.99	0.37	A	0.8	4.12	0.43	A
Arm 2	9.1	27.32	0.91	D	19.5	54.14	0.98	F
Arm 3	4.1	7.58	0.79	A	1.4	3.25	0.56	A
Arm 4	5.8	20.77	0.85	C	10.7	25.70	0.92	D
	EML - DS2							
Arm 1	0.6	3.00	0.37	A	0.8	4.09	0.43	A
Arm 2	8.9	26.77	0.90	D	19.1	53.00	0.97	F
Arm 3	4.2	7.63	0.79	A	1.4	3.26	0.56	A
Arm 4	5.9	20.88	0.85	C	10.9	26.02	0.92	D

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

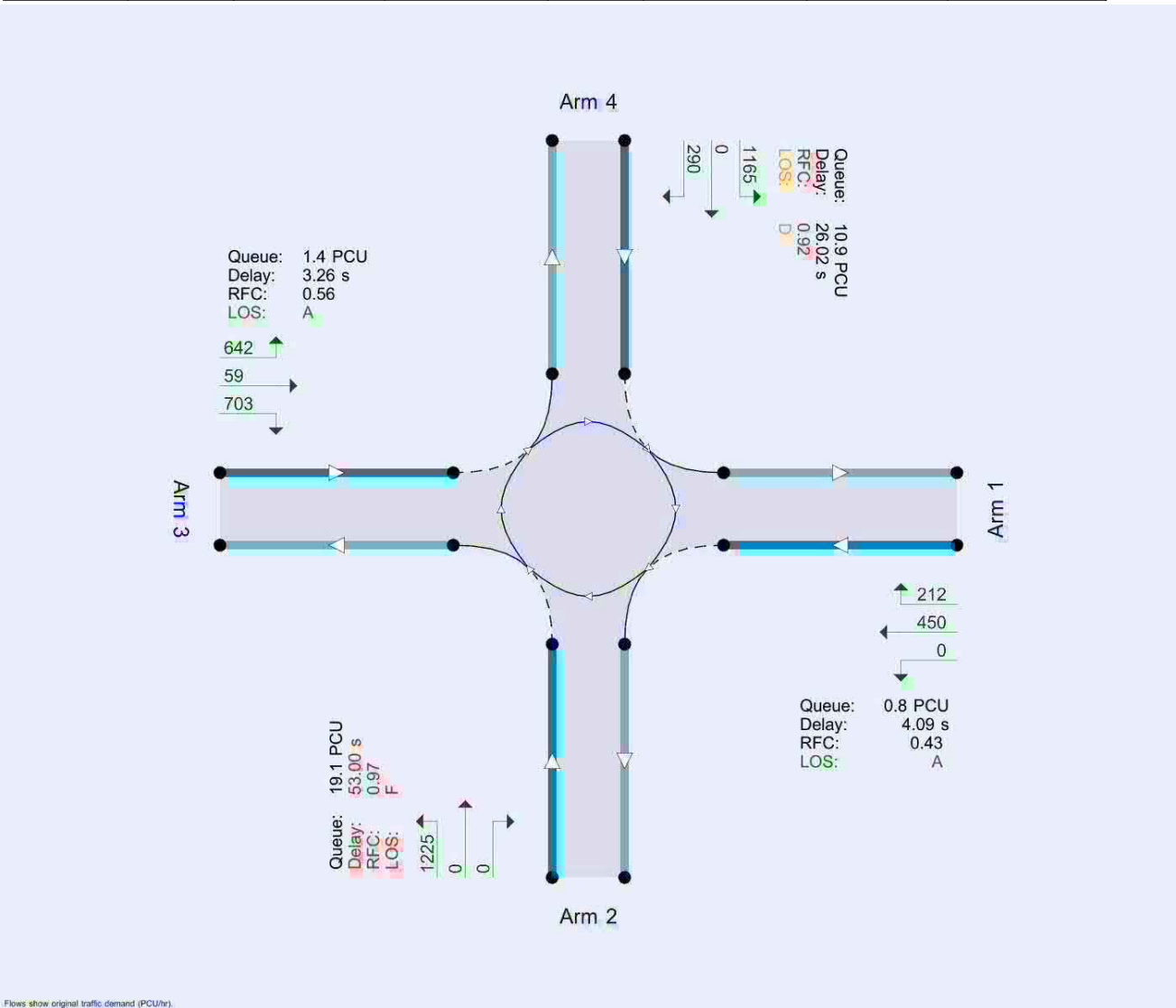
File summary

File Description

Title	Junction 2, A3(M)
Location	
Site number	
Date	26/09/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	62100616
Enumerator	CORP\UKAJT009
Description	

Units

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



Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15	✓
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15	✓
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15	✓
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15	✓
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15	✓
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

ELM - DM, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout	1,2,3,4	13.67	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Dell Piece East	
2	A3(M) south	
3	B2149 Dell Piece West	
4	A3(M) north	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.50	7.60	23.4	45.0	125.0	7.0	
2	6.00	6.20	0.1	999.0	125.0	5.0	
3	3.50	8.50	26.4	50.0	125.0	10.0	
4	6.00	6.50	22.0	999.0	125.0	5.0	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	1093	0.00
2	1048	165.00
3	233	0.00
4	839	150.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.891	2671
2	0.914	2342
3	1.100	3017
4	0.994	2574

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	661	100.000
2		ONE HOUR	✓	1063	100.000
3		ONE HOUR	✓	1826	100.000
4		ONE HOUR	✓	985	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	257	404
	2	0	0	1063	0
	3	853	399	0	574
	4	733	1	251	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.36	3.03	0.6	A	607	910
2	0.82	15.36	4.8	C	975	1463
3	0.80	7.63	4.2	A	1676	2513
4	0.90	30.17	8.5	D	904	1356

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	498	124	488	2236	0.223	496	1189	0.0	0.3	2.276	A
2	800	200	684	1716	0.466	796	300	0.0	1.0	4.289	A
3	1375	344	303	2684	0.512	1370	1178	0.0	1.1	3.005	A
4	742	185	939	1640	0.452	738	734	0.0	0.9	4.371	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	594	149	584	2150	0.276	594	1422	0.3	0.4	2.544	A
2	956	239	819	1593	0.600	953	359	1.0	1.6	6.156	A
3	1642	410	363	2618	0.627	1639	1409	1.1	1.8	4.032	A
4	885	221	1124	1457	0.608	882	878	0.9	1.7	6.855	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	728	182	709	2039	0.357	727	1725	0.4	0.6	3.016	A
2	1170	293	997	1430	0.818	1159	438	1.6	4.6	14.018	B
3	2010	503	444	2529	0.795	2001	1712	1.8	4.1	7.384	A
4	1085	271	1372	1210	0.896	1061	1073	1.7	7.5	23.723	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	728	182	716	2033	0.358	728	1743	0.6	0.6	3.033	A
2	1170	293	1003	1425	0.821	1169	440	4.6	4.8	15.360	C
3	2010	503	445	2528	0.795	2010	1728	4.1	4.2	7.630	A
4	1085	271	1378	1204	0.901	1080	1077	7.5	8.5	30.171	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	594	149	594	2141	0.278	595	1450	0.6	0.4	2.563	A
2	956	239	828	1585	0.603	968	362	4.8	1.7	6.541	A
3	1642	410	364	2617	0.627	1651	1432	4.2	1.9	4.134	A
4	885	221	1132	1449	0.611	913	883	8.5	1.8	7.746	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	498	124	492	2233	0.223	498	1198	0.4	0.3	2.283	A
2	800	200	688	1713	0.467	803	302	1.7	1.0	4.365	A
3	1375	344	304	2683	0.512	1378	1187	1.9	1.2	3.042	A
4	742	185	945	1635	0.454	745	737	1.8	0.9	4.464	A

ELM - DM, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout	1,2,3,4	15.54	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	1093	0.00
2	1048	165.00
3	233	0.00
4	839	150.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	605	100.000
2		ONE HOUR	✓	1139	100.000
3		ONE HOUR	✓	1573	100.000
4		ONE HOUR	✓	1470	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	464	141
	2	0	0	1139	0
	3	52	703	0	818
	4	1154	1	315	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.40	3.94	0.7	A	555	833
2	0.89	23.08	7.6	C	1045	1568
3	0.61	3.55	1.7	A	1443	2165
4	0.93	27.32	11.5	D	1349	2023

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	455	114	765	1989	0.229	454	904	0.0	0.3	2.577	A
2	857	214	690	1711	0.501	853	529	0.0	1.1	4.594	A
3	1184	296	106	2901	0.408	1181	1437	0.0	0.8	2.299	A
4	1107	277	567	2011	0.550	1101	720	0.0	1.3	4.331	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	544	136	915	1856	0.293	543	1081	0.3	0.5	3.015	A
2	1024	256	826	1587	0.645	1020	632	1.1	2.0	6.945	A
3	1414	354	127	2878	0.491	1413	1719	0.8	1.1	2.700	A
4	1321	330	678	1900	0.696	1317	861	1.3	2.5	6.740	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	666	167	1114	1678	0.397	665	1303	0.5	0.7	3.905	A
2	1254	314	1005	1423	0.881	1234	774	2.0	6.9	19.282	C
3	1732	433	155	2847	0.608	1729	2085	1.1	1.7	3.536	A
4	1619	405	830	1749	0.925	1588	1054	2.5	10.2	21.387	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	666	167	1121	1672	0.398	666	1324	0.7	0.7	3.936	A
2	1254	314	1012	1417	0.885	1251	775	6.9	7.6	23.076	C
3	1732	433	155	2847	0.608	1732	2108	1.7	1.7	3.551	A
4	1619	405	831	1748	0.926	1613	1056	10.2	11.5	27.318	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	544	136	925	1847	0.295	545	1112	0.7	0.5	3.043	A
2	1024	256	836	1578	0.649	1046	634	7.6	2.1	7.742	A
3	1414	354	127	2878	0.491	1417	1755	1.7	1.1	2.716	A
4	1321	330	680	1898	0.696	1357	864	11.5	2.6	7.787	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	455	114	769	1986	0.229	456	912	0.5	0.3	2.589	A
2	857	214	694	1707	0.502	861	531	2.1	1.1	4.701	A
3	1184	296	106	2900	0.408	1185	1449	1.1	0.8	2.312	A
4	1107	277	569	2009	0.551	1112	723	2.6	1.4	4.439	A

EMM - DS1, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout	1,2,3,4	14.56	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	1093	0.00
2	1048	165.00
3	233	0.00
4	839	150.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	704	100.000
2		ONE HOUR	✓	1159	100.000
3		ONE HOUR	✓	1812	100.000
4		ONE HOUR	✓	964	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	290	414
	2	0	0	1159	0
	3	853	360	0	599
	4	741	0	223	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.37	2.99	0.6	A	646	969
2	0.91	27.32	9.1	D	1064	1595
3	0.79	7.58	4.1	A	1663	2494
4	0.85	20.77	5.8	C	885	1327

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	530	133	437	2281	0.232	529	1195	0.0	0.3	2.259	A
2	873	218	696	1706	0.512	868	270	0.0	1.1	4.701	A
3	1364	341	311	2675	0.510	1360	1253	0.0	1.1	3.000	A
4	726	181	910	1669	0.435	722	760	0.0	0.8	4.168	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	633	158	523	2205	0.287	632	1430	0.3	0.4	2.518	A
2	1042	260	832	1581	0.659	1038	323	1.1	2.1	7.244	A
3	1629	407	372	2608	0.625	1626	1499	1.1	1.8	4.021	A
4	867	217	1089	1492	0.581	864	910	0.8	1.5	6.281	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	775	194	637	2104	0.368	774	1739	0.4	0.6	2.977	A
2	1276	319	1016	1413	0.903	1252	395	2.1	8.1	21.962	C
3	1995	499	455	2517	0.793	1986	1813	1.8	4.1	7.343	A
4	1061	265	1330	1252	0.848	1046	1112	1.5	5.4	17.988	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	775	194	641	2099	0.369	775	1754	0.6	0.6	2.990	A
2	1276	319	1020	1409	0.906	1272	396	8.1	9.1	27.325	D
3	1995	499	456	2516	0.793	1995	1837	4.1	4.1	7.585	A
4	1061	265	1335	1247	0.851	1060	1115	5.4	5.8	20.766	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	633	158	530	2199	0.288	634	1450	0.6	0.4	2.531	A
2	1042	260	838	1576	0.661	1070	325	9.1	2.2	8.233	A
3	1629	407	373	2608	0.625	1638	1535	4.1	1.9	4.123	A
4	867	217	1097	1484	0.584	884	914	5.8	1.6	6.777	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	530	133	440	2279	0.233	530	1204	0.4	0.3	2.265	A
2	873	218	699	1703	0.512	877	272	2.2	1.2	4.818	A
3	1364	341	312	2674	0.510	1367	1264	1.9	1.2	3.037	A
4	726	181	915	1664	0.436	729	764	1.6	0.9	4.245	A

EMM - DS1, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout	1,2,3,4	23.35	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	1093	0.00
2	1048	165.00
3	233	0.00
4	839	150.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	668	100.000
2		ONE HOUR	✓	1220	100.000
3		ONE HOUR	✓	1400	100.000
4		ONE HOUR	✓	1455	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	456	212
	2	0	0	1220	0
	3	57	703	0	640
	4	1163	0	292	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.43	4.12	0.8	A	613	919
2	0.98	54.14	19.5	F	1119	1679
3	0.56	3.25	1.4	A	1285	1927
4	0.92	25.70	10.7	D	1335	2003

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	503	126	747	2005	0.251	501	914	0.0	0.4	2.631	A
2	918	230	720	1683	0.546	913	528	0.0	1.3	5.107	A
3	1054	263	159	2842	0.371	1051	1474	0.0	0.6	2.208	A
4	1095	274	571	2007	0.546	1090	640	0.0	1.3	4.297	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	601	150	893	1875	0.320	600	1093	0.4	0.5	3.104	A
2	1097	274	862	1554	0.706	1092	631	1.3	2.6	8.470	A
3	1259	315	190	2808	0.448	1258	1763	0.6	0.9	2.553	A
4	1308	327	683	1895	0.690	1304	765	1.3	2.4	6.642	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	735	184	1089	1701	0.432	734	1320	0.5	0.8	4.092	A
2	1343	336	1050	1382	0.972	1295	773	2.6	14.7	34.380	D
3	1541	385	233	2761	0.558	1539	2112	0.9	1.4	3.235	A
4	1602	400	836	1743	0.919	1573	937	2.4	9.6	20.528	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	735	184	1095	1695	0.434	735	1340	0.8	0.8	4.124	A
2	1343	336	1056	1376	0.976	1324	774	14.7	19.5	54.135	F
3	1541	385	233	2761	0.558	1541	2147	1.4	1.4	3.247	A
4	1602	400	837	1742	0.919	1597	938	9.6	10.7	25.703	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	601	150	902	1867	0.322	602	1123	0.8	0.5	3.132	A
2	1097	274	871	1546	0.710	1164	633	19.5	2.8	12.155	B
3	1259	315	191	2807	0.448	1261	1844	1.4	0.9	2.562	A
4	1308	327	684	1894	0.691	1341	767	10.7	2.5	7.573	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	503	126	751	2002	0.251	504	922	0.5	0.4	2.645	A
2	918	230	724	1680	0.547	924	530	2.8	1.3	5.280	A
3	1054	263	160	2842	0.371	1055	1489	0.9	0.7	2.219	A
4	1095	274	573	2005	0.546	1100	642	2.5	1.3	4.399	A

EML - DS2, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout	1,2,3,4	14.45	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	1093	0.00
2	1048	165.00
3	233	0.00
4	839	150.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	705	100.000
2		ONE HOUR	✓	1154	100.000
3		ONE HOUR	✓	1813	100.000
4		ONE HOUR	✓	965	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	
From	1	0	0	289	416	
	2	0	0	1154	0	
	3	852	361	0	600	
	4	741	0	224	0	

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	
From	1	10	10	10	10	
	2	10	10	10	10	
	3	10	10	10	10	
	4	10	10	10	10	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.37	3.00	0.6	A	647	970
2	0.90	26.77	8.9	D	1059	1588
3	0.79	7.63	4.2	A	1664	2495
4	0.85	20.88	5.9	C	886	1328

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	531	133	439	2280	0.233	529	1195	0.0	0.3	2.261	A
2	869	217	697	1704	0.510	864	271	0.0	1.1	4.688	A
3	1365	341	312	2674	0.510	1360	1249	0.0	1.1	3.006	A
4	727	182	910	1669	0.435	723	763	0.0	0.8	4.172	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	634	158	525	2203	0.288	633	1429	0.3	0.4	2.522	A
2	1037	259	834	1579	0.657	1034	324	1.1	2.1	7.208	A
3	1630	407	374	2606	0.625	1627	1494	1.1	1.8	4.032	A
4	868	217	1089	1492	0.582	865	912	0.8	1.5	6.290	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	776	194	639	2102	0.369	775	1738	0.4	0.6	2.984	A
2	1271	318	1018	1411	0.901	1247	396	2.1	8.0	21.649	C
3	1996	499	458	2514	0.794	1987	1808	1.8	4.1	7.390	A
4	1062	266	1329	1252	0.848	1047	1115	1.5	5.4	18.059	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	776	194	644	2097	0.370	776	1752	0.6	0.6	2.997	A
2	1271	318	1022	1407	0.903	1267	397	8.0	8.9	26.772	D
3	1996	499	458	2514	0.794	1996	1831	4.1	4.2	7.632	A
4	1062	266	1335	1247	0.852	1061	1119	5.4	5.9	20.877	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	634	158	532	2197	0.288	635	1450	0.6	0.4	2.537	A
2	1037	259	840	1574	0.659	1064	326	8.9	2.2	8.159	A
3	1630	407	374	2606	0.626	1639	1530	4.2	1.9	4.136	A
4	868	217	1097	1484	0.585	885	917	5.9	1.6	6.791	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	531	133	442	2277	0.233	531	1203	0.4	0.3	2.268	A
2	869	217	701	1701	0.511	873	272	2.2	1.2	4.803	A
3	1365	341	313	2673	0.511	1368	1260	1.9	1.2	3.043	A
4	727	182	915	1664	0.437	729	766	1.6	0.9	4.249	A

EML - DS2, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout	1,2,3,4	23.19	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	1093	0.00
2	1048	165.00
3	233	0.00
4	839	150.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	662	100.000
2		ONE HOUR	✓	1225	100.000
3		ONE HOUR	✓	1404	100.000
4		ONE HOUR	✓	1455	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	
From	1	0	0	450	212	
	2	0	0	1225	0	
	3	59	703	0	642	
	4	1165	0	290	0	

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	
From	1	10	10	10	10	
	2	10	10	10	10	
	3	10	10	10	10	
	4	10	10	10	10	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.43	4.09	0.8	A	607	911
2	0.97	53.00	19.1	F	1124	1686
3	0.56	3.26	1.4	A	1288	1933
4	0.92	26.02	10.9	D	1335	2003

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	498	125	745	2007	0.248	497	917	0.0	0.4	2.620	A
2	922	231	714	1689	0.546	917	528	0.0	1.3	5.094	A
3	1057	264	159	2842	0.372	1054	1472	0.0	0.6	2.212	A
4	1095	274	572	2005	0.546	1090	641	0.0	1.3	4.304	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	595	149	891	1877	0.317	595	1097	0.4	0.5	3.087	A
2	1101	275	854	1561	0.706	1096	631	1.3	2.6	8.434	A
3	1262	316	190	2808	0.450	1261	1760	0.6	0.9	2.559	A
4	1308	327	684	1894	0.691	1304	767	1.3	2.4	6.662	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	729	182	1086	1703	0.428	728	1324	0.5	0.8	4.056	A
2	1349	337	1041	1390	0.970	1301	773	2.6	14.5	33.892	D
3	1546	386	233	2761	0.560	1544	2109	0.9	1.4	3.247	A
4	1602	400	838	1741	0.920	1573	939	2.4	9.7	20.705	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	729	182	1092	1697	0.429	729	1344	0.8	0.8	4.088	A
2	1349	337	1047	1385	0.974	1330	774	14.5	19.1	52.998	F
3	1546	386	233	2761	0.560	1546	2144	1.4	1.4	3.259	A
4	1602	400	839	1740	0.921	1597	940	9.7	10.9	26.018	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	595	149	900	1869	0.319	596	1127	0.8	0.5	3.115	A
2	1101	275	864	1552	0.709	1167	633	19.1	2.8	11.984	B
3	1262	316	191	2807	0.450	1264	1839	1.4	0.9	2.568	A
4	1308	327	686	1892	0.691	1341	769	10.9	2.5	7.612	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	498	125	749	2003	0.249	499	925	0.5	0.4	2.634	A
2	922	231	718	1685	0.547	928	530	2.8	1.3	5.267	A
3	1057	264	160	2842	0.372	1058	1486	0.9	0.7	2.221	A
4	1095	274	574	2003	0.547	1100	644	2.5	1.3	4.406	A

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
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Filename: Junction 3_A3(M).j9

Path: \\uk.wspgroup.com\central data\Projects\62100xxx\62100616 - Aquind VO No.3\A DCO\D. EIA\5. WIP\12. Traffic and Transport\Transport Assessment\Analysis & Calcs\ARCADY\TA Models and Outputs

Report generation date: 29/10/2019 10:12:39

- »ELM - DM, AM
- »ELM - DM, PM
- »EMM - DS1, AM
- »EMM - DS1, PM
- »EML - DS2, AM
- »EML - DS2, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
ELM - DM								
Arm 1	0.6	2.99	0.35	A	0.7	3.65	0.38	A
Arm 2	3.0	9.28	0.73	A	3.9	11.58	0.79	B
Arm 3	2.6	4.72	0.71	A	1.3	2.70	0.54	A
Arm 4	7.7	27.22	0.89	D	29.3	65.28	1.00	F
EMM - DS1								
Arm 1	0.6	2.97	0.37	A	0.8	3.84	0.42	A
Arm 2	4.5	12.97	0.81	B	6.8	19.00	0.87	C
Arm 3	2.6	4.72	0.70	A	1.1	2.53	0.50	A
Arm 4	5.6	19.99	0.85	C	25.5	58.61	0.99	F
EML - DS2								
Arm 1	0.6	2.97	0.37	A	0.8	3.80	0.41	A
Arm 2	4.4	12.74	0.80	B	6.8	18.83	0.87	C
Arm 3	2.6	4.73	0.70	A	1.1	2.54	0.50	A
Arm 4	5.6	19.99	0.85	C	26.4	60.21	0.99	F

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

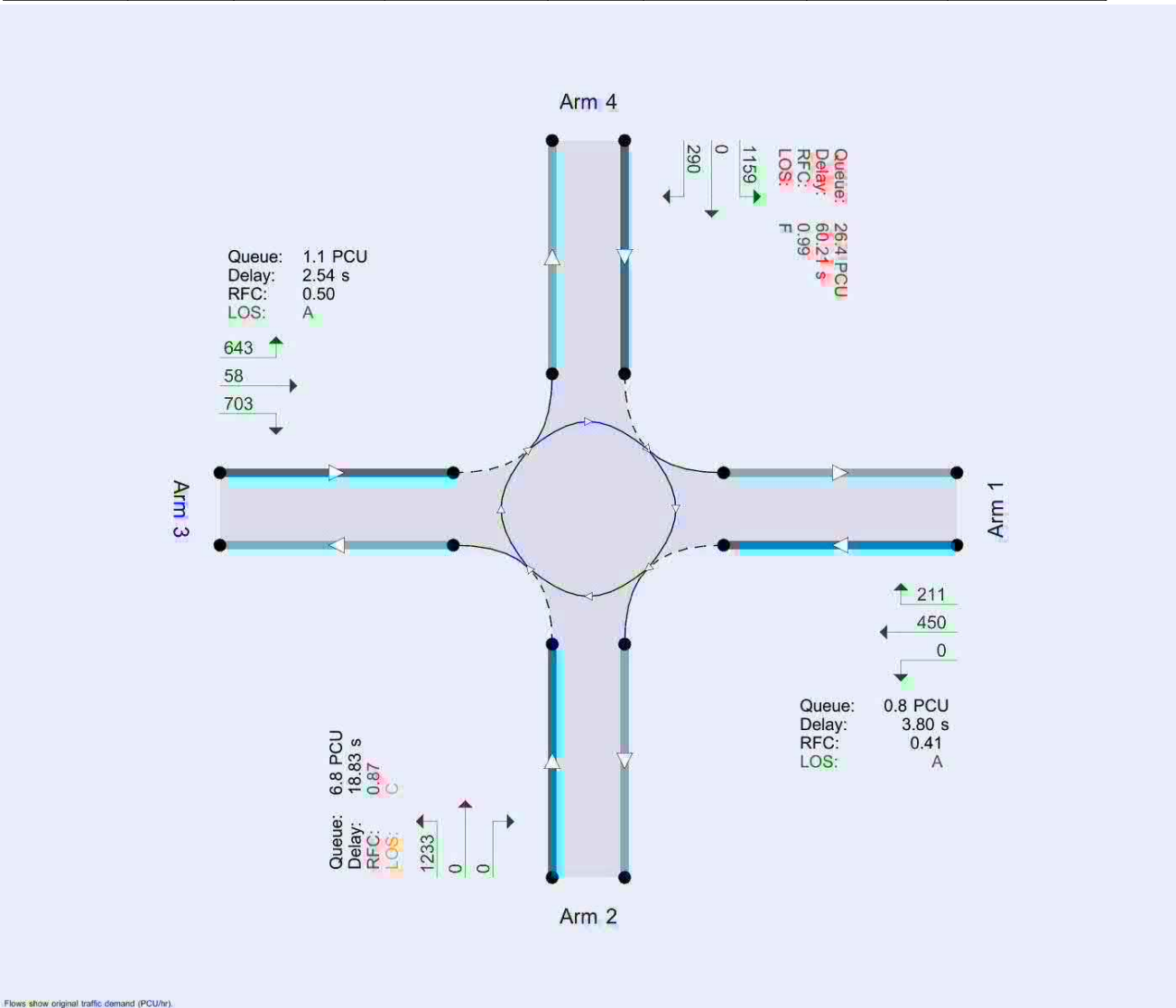
File summary

File Description

Title	Junction 3, A3(M)
Location	
Site number	
Date	26/09/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	62100616
Enumerator	CORP\UKAJT009
Description	

Units

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



Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15	✓
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15	✓
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15	✓
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15	✓
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15	✓
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

ELM - DM, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout	1,2,3,4	10.42	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Hulbert Road east	
2	A3(M) south	
3	Hulbert Road west	
4	A3(M) north	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	4.10	7.50	24.9	40.0	145.0	9.0	
2	6.00	6.90	5.7	50.0	145.0	5.0	
3	7.60	7.60	0.0	45.0	145.0	4.0	
4	6.50	6.50	0.0	50.0	145.0	26.0	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	1822	0.00
2	1020	145.00
3	252	0.00
4	1878	130.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.762	2597
2	0.951	2551
3	1.208	3386
4	0.716	2207

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	661	100.000
2		ONE HOUR	✓	1063	100.000
3		ONE HOUR	✓	1826	100.000
4		ONE HOUR	✓	985	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	257	404
	2	0	0	1063	0
	3	853	399	0	574
	4	733	0	252	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.35	2.99	0.6	A	607	910
2	0.73	9.28	3.0	A	975	1463
3	0.71	4.72	2.6	A	1676	2513
4	0.89	27.22	7.7	D	904	1356

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	498	124	488	2225	0.224	496	1189	0.0	0.3	2.290	A
2	800	200	685	1900	0.421	797	300	0.0	0.8	3.580	A
3	1375	344	303	3019	0.455	1371	1179	0.0	0.9	2.398	A
4	742	185	940	1535	0.483	737	734	0.0	1.0	4.944	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	594	149	584	2152	0.276	594	1422	0.3	0.4	2.541	A
2	956	239	820	1772	0.539	954	358	0.8	1.3	4.824	A
3	1642	410	363	2947	0.557	1640	1410	0.9	1.4	3.024	A
4	885	221	1124	1403	0.631	882	878	1.0	1.8	7.558	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	728	182	710	2056	0.354	727	1729	0.4	0.6	2.979	A
2	1170	293	999	1601	0.731	1164	438	1.3	2.9	8.929	A
3	2010	503	444	2849	0.706	2006	1719	1.4	2.6	4.668	A
4	1085	271	1375	1223	0.887	1064	1075	1.8	7.0	22.463	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	728	182	716	2051	0.355	728	1744	0.6	0.6	2.991	A
2	1170	293	1004	1596	0.733	1170	439	2.9	3.0	9.279	A
3	2010	503	445	2848	0.706	2010	1730	2.6	2.6	4.723	A
4	1085	271	1378	1221	0.888	1082	1077	7.0	7.7	27.220	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	594	149	592	2146	0.277	595	1445	0.6	0.4	2.556	A
2	956	239	827	1765	0.542	962	360	3.0	1.3	4.974	A
3	1642	410	364	2947	0.557	1646	1426	2.6	1.4	3.058	A
4	885	221	1129	1399	0.633	909	881	7.7	1.9	8.433	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	498	124	491	2222	0.224	498	1198	0.4	0.3	2.296	A
2	800	200	689	1896	0.422	802	301	1.3	0.8	3.624	A
3	1375	344	304	3018	0.455	1377	1187	1.4	0.9	2.416	A
4	742	185	944	1532	0.484	745	737	1.9	1.0	5.057	A

ELM - DM, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout	1,2,3,4	24.09	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	1822	0.00
2	1020	145.00
3	252	0.00
4	1878	130.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	605	100.000
2		ONE HOUR	✓	1141	100.000
3		ONE HOUR	✓	1573	100.000
4		ONE HOUR	✓	1464	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	464	141
	2	0	0	1141	0
	3	52	703	0	818
	4	1150	0	314	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.38	3.65	0.7	A	555	833
2	0.79	11.58	3.9	B	1047	1571
3	0.54	2.70	1.3	A	1443	2165
4	1.00	65.28	29.3	F	1343	2015

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	455	114	763	2015	0.226	454	899	0.0	0.3	2.534	A
2	859	215	689	1896	0.453	855	528	0.0	0.9	3.793	A
3	1184	296	106	3258	0.363	1182	1439	0.0	0.6	1.905	A
4	1102	276	567	1801	0.612	1095	720	0.0	1.7	5.556	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	544	136	912	1902	0.286	543	1075	0.3	0.4	2.915	A
2	1026	256	824	1768	0.580	1023	632	0.9	1.5	5.304	A
3	1414	354	127	3233	0.437	1413	1721	0.6	0.9	2.175	A
4	1316	329	678	1722	0.764	1309	862	1.7	3.4	9.441	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	666	167	1104	1756	0.379	665	1269	0.4	0.7	3.628	A
2	1256	314	996	1604	0.783	1247	773	1.5	3.8	10.829	B
3	1732	433	155	3199	0.541	1730	2088	0.9	1.3	2.693	A
4	1612	403	830	1613	0.999	1543	1055	3.4	20.7	38.476	E

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	666	167	1112	1749	0.381	666	1297	0.7	0.7	3.654	A
2	1256	314	1004	1596	0.787	1256	774	3.8	3.9	11.577	B
3	1732	433	155	3198	0.542	1732	2105	1.3	1.3	2.699	A
4	1612	403	831	1612	1.000	1578	1056	20.7	29.3	65.285	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	544	136	937	1883	0.289	545	1161	0.7	0.4	2.960	A
2	1026	256	849	1744	0.588	1035	633	3.9	1.6	5.656	A
3	1414	354	127	3232	0.437	1416	1757	1.3	0.9	2.183	A
4	1316	329	680	1721	0.765	1418	863	29.3	3.8	17.362	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	455	114	768	2012	0.226	456	911	0.4	0.3	2.545	A
2	859	215	694	1891	0.454	862	530	1.6	0.9	3.855	A
3	1184	296	106	3257	0.364	1185	1450	0.9	0.6	1.913	A
4	1102	276	569	1800	0.612	1110	723	3.8	1.8	5.805	A

EMM - DS1, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout	1,2,3,4	9.69	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	1822	0.00
2	1020	145.00
3	252	0.00
4	1878	130.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	705	100.000
2		ONE HOUR	✓	1160	100.000
3		ONE HOUR	✓	1812	100.000
4		ONE HOUR	✓	964	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	
From	1	0	0	290	415	
	2	0	0	1160	0	
	3	851	358	0	603	
	4	741	0	223	0	

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	
From	1	10	10	10	10	
	2	10	10	10	10	
	3	10	10	10	10	
	4	10	10	10	10	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.37	2.97	0.6	A	647	970
2	0.81	12.97	4.5	B	1064	1597
3	0.70	4.72	2.6	A	1663	2494
4	0.85	19.99	5.6	C	885	1327

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	531	133	436	2265	0.234	529	1194	0.0	0.3	2.281	A
2	873	218	696	1889	0.462	870	269	0.0	0.9	3.870	A
3	1364	341	312	3009	0.453	1361	1254	0.0	0.9	2.397	A
4	726	181	908	1558	0.466	722	764	0.0	1.0	4.718	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	634	158	521	2200	0.288	633	1428	0.3	0.4	2.528	A
2	1043	261	833	1759	0.593	1040	321	0.9	1.6	5.489	A
3	1629	407	373	2935	0.555	1627	1501	0.9	1.4	3.023	A
4	867	217	1086	1430	0.606	864	914	1.0	1.7	6.954	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	776	194	635	2113	0.367	775	1739	0.4	0.6	2.960	A
2	1277	319	1018	1584	0.806	1266	393	1.6	4.3	12.088	B
3	1995	499	456	2834	0.704	1990	1827	1.4	2.6	4.664	A
4	1061	265	1328	1257	0.844	1047	1119	1.7	5.3	17.744	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	776	194	639	2110	0.368	776	1752	0.6	0.6	2.969	A
2	1277	319	1021	1580	0.808	1276	394	4.3	4.5	12.973	B
3	1995	499	457	2834	0.704	1995	1841	2.6	2.6	4.719	A
4	1061	265	1331	1255	0.846	1060	1121	5.3	5.6	19.995	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	634	158	527	2195	0.289	635	1445	0.6	0.4	2.537	A
2	1043	261	839	1754	0.595	1054	323	4.5	1.6	5.749	A
3	1629	407	374	2935	0.555	1634	1519	2.6	1.4	3.057	A
4	867	217	1090	1427	0.607	882	917	5.6	1.7	7.467	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	531	133	438	2263	0.235	531	1202	0.4	0.3	2.287	A
2	873	218	700	1886	0.463	876	270	1.6	1.0	3.933	A
3	1364	341	313	3008	0.454	1366	1263	1.4	0.9	2.415	A
4	726	181	911	1555	0.467	729	767	1.7	1.0	4.809	A

EMM - DS1, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout	1,2,3,4	24.09	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	1822	0.00
2	1020	145.00
3	252	0.00
4	1878	130.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	668	100.000
2		ONE HOUR	✓	1226	100.000
3		ONE HOUR	✓	1400	100.000
4		ONE HOUR	✓	1447	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	457	211
	2	0	0	1226	0
	3	56	703	0	641
	4	1155	0	292	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.42	3.84	0.8	A	613	919
2	0.87	19.00	6.8	C	1125	1687
3	0.50	2.53	1.1	A	1285	1927
4	0.99	58.61	25.5	F	1328	1992

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	503	126	747	2028	0.248	501	906	0.0	0.4	2.592	A
2	923	231	720	1867	0.494	919	528	0.0	1.1	4.159	A
3	1054	263	158	3195	0.330	1052	1480	0.0	0.5	1.846	A
4	1089	272	570	1799	0.605	1083	640	0.0	1.7	5.477	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	601	150	893	1917	0.313	600	1083	0.4	0.5	3.005	A
2	1102	276	861	1732	0.636	1099	632	1.1	1.9	6.218	A
3	1259	315	190	3157	0.399	1258	1771	0.5	0.7	2.084	A
4	1301	325	682	1719	0.757	1294	765	1.7	3.3	9.179	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	735	184	1082	1772	0.415	734	1284	0.5	0.8	3.812	A
2	1350	337	1043	1559	0.866	1332	773	1.9	6.2	16.361	C
3	1541	385	232	3106	0.496	1540	2144	0.7	1.1	2.527	A
4	1593	398	835	1610	0.990	1531	937	3.3	18.8	35.944	E

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	735	184	1090	1766	0.416	735	1312	0.8	0.8	3.841	A
2	1350	337	1051	1551	0.870	1348	774	6.2	6.8	19.004	C
3	1541	385	232	3105	0.496	1541	2167	1.1	1.1	2.531	A
4	1593	398	836	1609	0.990	1566	938	18.8	25.5	58.609	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	601	150	913	1901	0.316	602	1159	0.8	0.5	3.048	A
2	1102	276	882	1713	0.643	1121	633	6.8	2.0	6.899	A
3	1259	315	190	3156	0.399	1260	1813	1.1	0.7	2.089	A
4	1301	325	683	1718	0.757	1389	767	25.5	3.6	15.095	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	503	126	751	2025	0.248	503	918	0.5	0.4	2.605	A
2	923	231	725	1862	0.496	927	530	2.0	1.1	4.251	A
3	1054	263	159	3194	0.330	1055	1493	0.7	0.5	1.853	A
4	1089	272	572	1798	0.606	1097	642	3.6	1.7	5.708	A

EML - DS2, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout	1,2,3,4	9.63	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	1822	0.00
2	1020	145.00
3	252	0.00
4	1878	130.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	705	100.000
2		ONE HOUR	✓	1154	100.000
3		ONE HOUR	✓	1813	100.000
4		ONE HOUR	✓	964	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	289	416
	2	0	0	1154	0
	3	849	360	0	604
	4	740	0	224	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.37	2.97	0.6	A	647	970
2	0.80	12.74	4.4	B	1059	1588
3	0.70	4.73	2.6	A	1664	2495
4	0.85	19.99	5.6	C	885	1327

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	531	133	438	2263	0.235	529	1192	0.0	0.3	2.283	A
2	869	217	697	1888	0.460	865	270	0.0	0.9	3.856	A
3	1365	341	312	3008	0.454	1361	1250	0.0	0.9	2.399	A
4	726	181	908	1558	0.466	722	766	0.0	1.0	4.718	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	634	158	524	2198	0.288	633	1425	0.3	0.4	2.531	A
2	1037	259	834	1758	0.590	1035	323	0.9	1.6	5.456	A
3	1630	407	374	2934	0.555	1628	1495	0.9	1.4	3.027	A
4	867	217	1086	1430	0.606	864	916	1.0	1.7	6.954	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	776	194	639	2110	0.368	775	1736	0.4	0.6	2.965	A
2	1271	318	1019	1583	0.803	1260	395	1.6	4.2	11.907	B
3	1996	499	458	2833	0.705	1991	1821	1.4	2.6	4.678	A
4	1061	265	1328	1257	0.844	1047	1121	1.7	5.3	17.743	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	776	194	643	2107	0.368	776	1748	0.6	0.6	2.974	A
2	1271	318	1023	1579	0.805	1270	396	4.2	4.4	12.744	B
3	1996	499	458	2832	0.705	1996	1834	2.6	2.6	4.732	A
4	1061	265	1331	1255	0.846	1060	1123	5.3	5.6	19.995	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	634	158	530	2193	0.289	635	1443	0.6	0.4	2.543	A
2	1037	259	840	1753	0.592	1048	325	4.4	1.6	5.704	A
3	1630	407	374	2933	0.556	1635	1514	2.6	1.4	3.062	A
4	867	217	1090	1427	0.607	882	919	5.6	1.7	7.467	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	531	133	441	2261	0.235	531	1199	0.4	0.3	2.291	A
2	869	217	701	1885	0.461	871	271	1.6	0.9	3.916	A
3	1365	341	313	3007	0.454	1367	1259	1.4	0.9	2.418	A
4	726	181	911	1555	0.467	729	769	1.7	1.0	4.811	A

EML - DS2, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Large Roundabout	1,2,3,4	24.55	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
1	1822	0.00
2	1020	145.00
3	252	0.00
4	1878	130.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	661	100.000
2		ONE HOUR	✓	1233	100.000
3		ONE HOUR	✓	1404	100.000
4		ONE HOUR	✓	1449	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	0	450	211
	2	0	0	1233	0
	3	58	703	0	643
	4	1159	0	290	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.41	3.80	0.8	A	607	910
2	0.87	18.83	6.8	C	1131	1697
3	0.50	2.54	1.1	A	1288	1933
4	0.99	60.21	26.4	F	1330	1994

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	498	124	745	2029	0.245	496	911	0.0	0.4	2.581	A
2	928	232	713	1873	0.496	924	528	0.0	1.1	4.154	A
3	1057	264	158	3195	0.331	1055	1479	0.0	0.5	1.848	A
4	1091	273	572	1798	0.607	1084	641	0.0	1.7	5.497	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	594	149	891	1918	0.310	594	1089	0.4	0.5	2.988	A
2	1108	277	853	1740	0.637	1105	632	1.1	1.9	6.204	A
3	1262	316	190	3157	0.400	1261	1769	0.5	0.7	2.088	A
4	1303	326	684	1718	0.758	1296	767	1.7	3.3	9.242	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	728	182	1080	1774	0.410	727	1289	0.5	0.8	3.777	A
2	1358	339	1033	1569	0.865	1340	773	1.9	6.2	16.240	C
3	1546	386	232	3106	0.498	1544	2142	0.7	1.1	2.534	A
4	1595	399	837	1608	0.992	1532	939	3.3	19.2	36.570	E

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	728	182	1088	1768	0.412	728	1317	0.8	0.8	3.805	A
2	1358	339	1041	1561	0.870	1355	774	6.2	6.8	18.833	C
3	1546	386	232	3105	0.498	1546	2164	1.1	1.1	2.539	A
4	1595	399	838	1608	0.992	1567	940	19.2	26.4	60.214	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	594	149	912	1902	0.312	595	1167	0.8	0.5	3.031	A
2	1108	277	874	1720	0.644	1127	633	6.8	2.0	6.888	A
3	1262	316	190	3156	0.400	1264	1812	1.1	0.7	2.093	A
4	1303	326	685	1717	0.759	1394	769	26.4	3.6	15.575	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	498	124	749	2026	0.246	498	922	0.5	0.4	2.592	A
2	928	232	718	1869	0.497	932	530	2.0	1.1	4.244	A
3	1057	264	159	3194	0.331	1058	1491	0.7	0.5	1.853	A
4	1091	273	573	1797	0.607	1099	643	3.6	1.7	5.731	A

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
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Filename: Milton Rd_St Marys Rd.j9

Path: \\uk.wspgroup.com\central data\Projects\62100xxx\62100616 - Aquind VO No.3\A DCO\D. EIA\5. WIP\12. Traffic and Transport\Transport Assessment\Analysis & Calcs\ARCADY\TA Models and Outputs

Report generation date: 29/10/2019 09:53:31

- »ELM - DM, AM
- »ELM - DM, PM
- »EMM - DS1, AM
- »EMM - DS1, PM
- »EML - DS2, AM
- »EML - DS2, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
ELM - DM								
Arm 1	93.1	713.62	1.43	F	90.0	775.88	1.51	F
Arm 2	2.3	8.93	0.68	A	1.8	7.38	0.62	A
Arm 3	0.7	4.19	0.37	A	1.0	5.27	0.47	A
Arm 5	2.7	9.80	0.72	A	6.8	20.91	0.87	C
EMM - DS1								
Arm 1	78.6	609.87	1.38	F	60.8	531.22	1.37	F
Arm 2	2.2	8.73	0.67	A	1.7	7.12	0.60	A
Arm 3	0.7	4.17	0.38	A	1.1	5.69	0.51	A
Arm 5	3.4	11.72	0.76	B	12.5	37.84	0.94	E
EML - DS2								
Arm 1	93.7	719.14	1.43	F	89.6	784.74	1.52	F
Arm 2	2.3	8.94	0.68	A	1.8	7.66	0.63	A
Arm 3	0.6	4.05	0.35	A	1.0	5.38	0.48	A
Arm 5	2.9	10.08	0.73	B	8.6	26.28	0.90	D

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

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

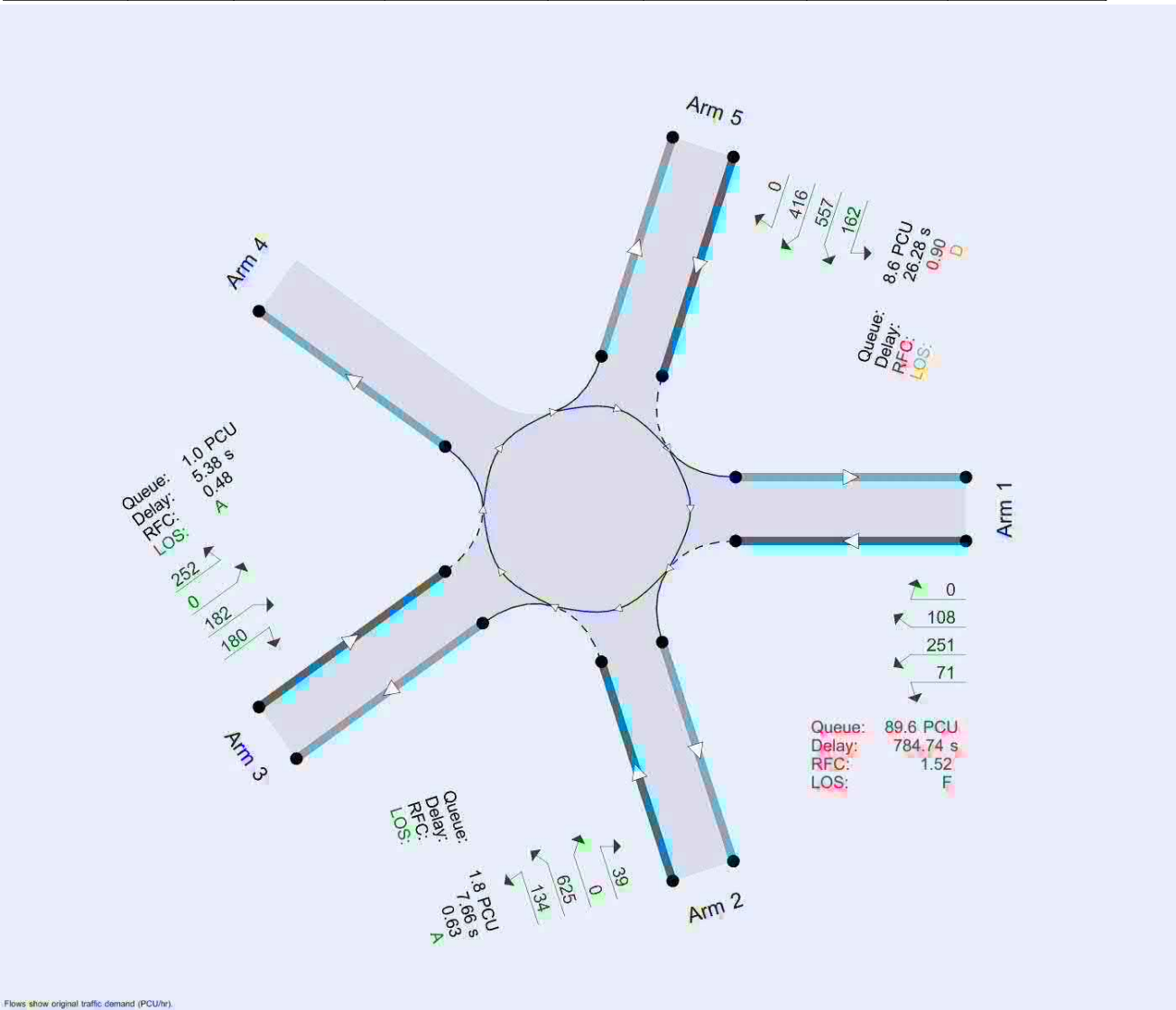
File summary

File Description

Title	Milton Road / St Marys Road Roundabout
Location	
Site number	
Date	08/08/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	62100616
Enumerator	CORP\UKAJT009
Description	

Units

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



Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

ELM - DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	134.73	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Langstone Road	
2	Milton Road south	
3	St Marys Road	
4	Milton Road north	
5	Baffins Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.70	4.00	0.3	3.0	34.0	43.0	
2	5.50	6.20	2.2	30.0	34.0	12.0	
3	4.00	7.40	49.0	10.0	34.0	27.0	
4							✓
5	3.75	6.50	39.0	10.0	34.0	40.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.366	775
2	0.720	1911
3	0.697	1976
4		
5	0.620	1664

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	500	100.000
2		✓	846	100.000
3		✓	512	100.000
4				
5		✓	930	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	94	297	109	0
	2	47	0	312	487	0
	3	153	147	0	212	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	110	427	393	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1.43	713.62	93.1	F
2	0.68	8.93	2.3	A
3	0.37	4.19	0.7	A
4				
5	0.72	9.80	2.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	376	724	510	0.739	365	2.8	25.797	D
2	637	591	1486	0.429	634	0.8	4.631	A
3	385	480	1642	0.235	384	0.3	3.147	A
4		260						
5	700	260	1503	0.466	696	0.9	4.888	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	449	868	457	0.983	420	10.1	75.813	F
2	761	694	1412	0.539	759	1.3	6.048	A
3	460	571	1578	0.292	460	0.5	3.538	A
4		312						
5	836	312	1471	0.568	834	1.4	6.198	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	551	1060	387	1.424	385	51.6	310.529	F
2	931	743	1376	0.677	928	2.2	8.751	A
3	564	669	1509	0.374	563	0.7	4.181	A
4		381						
5	1024	381	1428	0.717	1019	2.7	9.565	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	551	1065	385	1.430	385	93.1	646.358	F
2	931	745	1375	0.678	931	2.3	8.925	A
3	564	672	1508	0.374	564	0.7	4.195	A
4		382						
5	1024	382	1427	0.717	1024	2.7	9.798	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	449	874	455	0.988	449	93.1	713.615	F
2	761	720	1392	0.546	764	1.3	6.341	A
3	460	580	1571	0.293	461	0.5	3.568	A
4		313						
5	836	313	1470	0.569	841	1.5	6.344	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	376	730	507	0.742	502	61.8	558.063	F
2	637	704	1404	0.454	639	0.9	5.183	A
3	385	512	1619	0.238	386	0.3	3.215	A
4		262						
5	700	262	1502	0.466	702	1.0	4.964	A

ELM - DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	126.20	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	437	100.000
2		✓	788	100.000
3		✓	607	100.000
4				
5		✓	1110	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	73	260	104	0
	2	33	0	132	623	0
	3	164	182	0	261	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	158	552	400	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1	2	3	4	5
1	10	10	10	10	10
2	10	10	10	10	10
3	10	10	10	10	10
4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1.51	775.88	90.0	F
2	0.62	7.38	1.8	A
3	0.47	5.27	1.0	A
4				
5	0.87	20.91	6.8	C

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	329	848	464	0.709	319	2.4	25.886	D
2	593	565	1504	0.394	590	0.7	4.321	A
3	457	567	1580	0.289	455	0.4	3.513	A
4		284						
5	836	284	1488	0.562	830	1.4	5.969	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	393	1016	403	0.975	366	9.1	78.575	F
2	708	663	1433	0.494	707	1.1	5.438	A
3	546	676	1505	0.363	545	0.6	4.123	A
4		340						
5	998	340	1453	0.687	994	2.3	8.550	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	481	1234	323	1.490	321	49.1	351.813	F
2	868	702	1406	0.617	865	1.7	7.288	A
3	668	796	1421	0.470	667	1.0	5.244	A
4		416						
5	1222	416	1406	0.869	1206	6.3	18.489	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	481	1247	318	1.512	318	89.9	728.459	F
2	868	705	1404	0.618	868	1.8	7.383	A
3	668	798	1420	0.471	668	1.0	5.270	A
4		417						
5	1222	417	1406	0.870	1220	6.8	20.914	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	393	1034	396	0.992	392	90.0	775.875	F
2	708	693	1412	0.502	711	1.1	5.668	A
3	546	685	1498	0.364	547	0.6	4.170	A
4		342						
5	998	342	1452	0.687	1015	2.5	9.382	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	329	858	461	0.714	455	58.5	589.846	F
2	593	682	1420	0.418	595	0.8	4.805	A
3	457	603	1555	0.294	458	0.5	3.609	A
4		286						
5	836	286	1487	0.562	840	1.4	6.157	A

EMM - DS1, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	108.34	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	462	100.000
2		✓	831	100.000
3		✓	519	100.000
4				
5		✓	982	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	93	261	108	0
	2	52	0	316	463	0
	3	162	147	0	210	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	118	445	419	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1	2	3	4	5
1	10	10	10	10	10
2	10	10	10	10	10
3	10	10	10	10	10
4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1.38	609.87	78.6	F
2	0.67	8.73	2.2	A
3	0.38	4.17	0.7	A
4				
5	0.76	11.72	3.4	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	348	757	498	0.699	338	2.3	23.693	C
2	626	584	1491	0.420	622	0.8	4.545	A
3	391	465	1652	0.237	389	0.3	3.134	A
4		271						
5	739	271	1496	0.494	735	1.1	5.172	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	415	907	443	0.938	394	7.6	63.481	F
2	747	690	1414	0.528	745	1.2	5.907	A
3	467	554	1590	0.294	466	0.5	3.522	A
4		324						
5	883	324	1463	0.603	880	1.6	6.767	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	509	1107	370	1.377	366	43.2	272.807	F
2	915	751	1370	0.668	911	2.2	8.557	A
3	571	650	1522	0.375	571	0.7	4.157	A
4		397						
5	1081	397	1418	0.762	1074	3.4	11.291	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	509	1113	367	1.385	367	78.6	574.236	F
2	915	754	1368	0.669	915	2.2	8.731	A
3	571	653	1521	0.376	571	0.7	4.170	A
4		397						
5	1081	397	1418	0.763	1081	3.4	11.719	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	415	915	440	0.945	434	74.1	609.872	F
2	747	726	1388	0.538	751	1.3	6.245	A
3	467	567	1581	0.295	467	0.5	3.560	A
4		325						
5	883	325	1463	0.604	890	1.7	6.995	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	348	763	495	0.702	488	39.0	421.016	F
2	626	706	1403	0.446	627	0.9	5.118	A
3	391	503	1625	0.240	391	0.3	3.211	A
4		272						
5	739	272	1496	0.494	742	1.1	5.272	A

EMM - DS1, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	85.60	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	379	100.000
2		✓	770	100.000
3		✓	665	100.000
4				
5		✓	1158	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	72	204	103	0
	2	37	0	132	601	0
	3	214	195	0	256	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	181	558	419	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1	2	3	4	5
1	10	10	10	10	10
2	10	10	10	10	10
3	10	10	10	10	10
4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1.37	531.22	60.8	F
2	0.60	7.12	1.7	A
3	0.51	5.69	1.1	A
4				
5	0.94	37.84	12.5	E

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	285	876	454	0.629	278	1.7	21.791	C
2	580	539	1523	0.381	577	0.7	4.173	A
3	501	554	1590	0.315	499	0.5	3.623	A
4		334						
5	872	334	1457	0.598	865	1.6	6.624	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	341	1049	391	0.872	327	5.1	53.631	F
2	692	640	1450	0.477	691	1.0	5.206	A
3	598	661	1515	0.395	597	0.7	4.311	A
4		400						
5	1041	400	1416	0.735	1036	2.9	10.268	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	417	1264	312	1.337	308	32.5	247.979	F
2	848	699	1407	0.602	845	1.6	7.010	A
3	732	784	1429	0.512	730	1.1	5.653	A
4		490						
5	1275	490	1361	0.937	1244	10.7	28.437	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	417	1284	305	1.370	304	60.8	531.223	F
2	848	705	1403	0.604	848	1.7	7.123	A
3	732	785	1429	0.513	732	1.1	5.685	A
4		491						
5	1275	491	1360	0.938	1268	12.5	37.840	E

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	341	1086	377	0.903	371	53.3	529.741	F
2	692	690	1414	0.490	695	1.1	5.524	A
3	598	676	1504	0.397	599	0.7	4.383	A
4		402						
5	1041	402	1415	0.736	1078	3.2	12.961	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	285	888	450	0.634	441	14.5	285.289	F
2	580	675	1425	0.407	581	0.8	4.698	A
3	501	601	1557	0.322	501	0.5	3.757	A
4		336						
5	872	336	1456	0.599	878	1.7	6.923	A

EML - DS2, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	136.90	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	501	100.000
2		✓	845	100.000
3		✓	474	100.000
4				
5		✓	951	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	95	287	119	0
	2	46	0	307	492	0
	3	137	147	0	190	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	131	424	396	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1	2	3	4	5
1	10	10	10	10	10
2	10	10	10	10	10
3	10	10	10	10	10
4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1.43	719.14	93.7	F
2	0.68	8.94	2.3	A
3	0.35	4.05	0.6	A
4				
5	0.73	10.08	2.9	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	377	724	510	0.740	366	2.8	25.901	D
2	636	593	1484	0.429	633	0.8	4.635	A
3	357	490	1634	0.218	356	0.3	3.094	A
4		248						
5	716	248	1511	0.474	712	1.0	4.935	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	450	867	457	0.985	421	10.3	76.431	F
2	760	696	1410	0.539	758	1.3	6.056	A
3	426	582	1570	0.271	426	0.4	3.461	A
4		296						
5	855	296	1481	0.577	853	1.5	6.289	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	552	1060	387	1.426	385	52.0	312.705	F
2	930	746	1374	0.677	926	2.2	8.767	A
3	522	681	1501	0.348	521	0.6	4.039	A
4		363						
5	1047	363	1439	0.727	1042	2.8	9.823	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	552	1064	385	1.433	385	93.7	650.536	F
2	930	748	1373	0.678	930	2.3	8.942	A
3	522	684	1499	0.348	522	0.6	4.051	A
4		363						
5	1047	363	1439	0.728	1047	2.9	10.084	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	450	874	455	0.991	450	93.7	719.139	F
2	760	723	1390	0.546	763	1.3	6.354	A
3	426	593	1562	0.273	427	0.4	3.490	A
4		297						
5	855	297	1480	0.578	860	1.5	6.447	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	377	730	507	0.743	502	62.6	563.530	F
2	636	705	1403	0.453	638	0.9	5.185	A
3	357	525	1610	0.222	357	0.3	3.164	A
4		249						
5	716	249	1510	0.474	718	1.0	5.013	A

EML - DS2, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 5 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	126.53	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	430	100.000
2		✓	798	100.000
3		✓	614	100.000
4				
5		✓	1135	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	71	251	108	0
	2	39	0	134	625	0
	3	182	180	0	252	0
	4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	5	162	557	416	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	1	2	3	4	5
1	10	10	10	10	10
2	10	10	10	10	10
3	10	10	10	10	10
4	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	1.52	784.74	89.6	F
2	0.63	7.66	1.8	A
3	0.48	5.38	1.0	A
4				
5	0.90	26.28	8.6	D

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	324	862	459	0.705	314	2.4	25.905	D
2	601	573	1498	0.401	598	0.7	4.384	A
3	462	576	1574	0.294	460	0.5	3.549	A
4		301						
5	854	301	1478	0.578	849	1.5	6.235	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	387	1033	397	0.974	360	9.0	78.933	F
2	717	673	1426	0.503	716	1.1	5.563	A
3	552	686	1497	0.369	551	0.6	4.185	A
4		360						
5	1020	360	1441	0.708	1016	2.6	9.219	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	473	1251	317	1.495	315	48.6	355.301	F
2	879	713	1397	0.629	876	1.8	7.548	A
3	676	808	1413	0.479	675	1.0	5.354	A
4		441						
5	1250	441	1391	0.898	1229	7.8	21.998	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	473	1267	311	1.522	311	89.3	737.739	F
2	879	716	1395	0.630	879	1.8	7.661	A
3	676	809	1412	0.479	676	1.0	5.381	A
4		441						
5	1250	441	1391	0.899	1247	8.6	26.276	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	387	1057	388	0.997	385	89.6	784.735	F
2	717	704	1404	0.511	720	1.2	5.811	A
3	552	696	1491	0.370	553	0.7	4.230	A
4		361						
5	1020	361	1440	0.709	1044	2.8	10.533	B

18:00 - 18:15

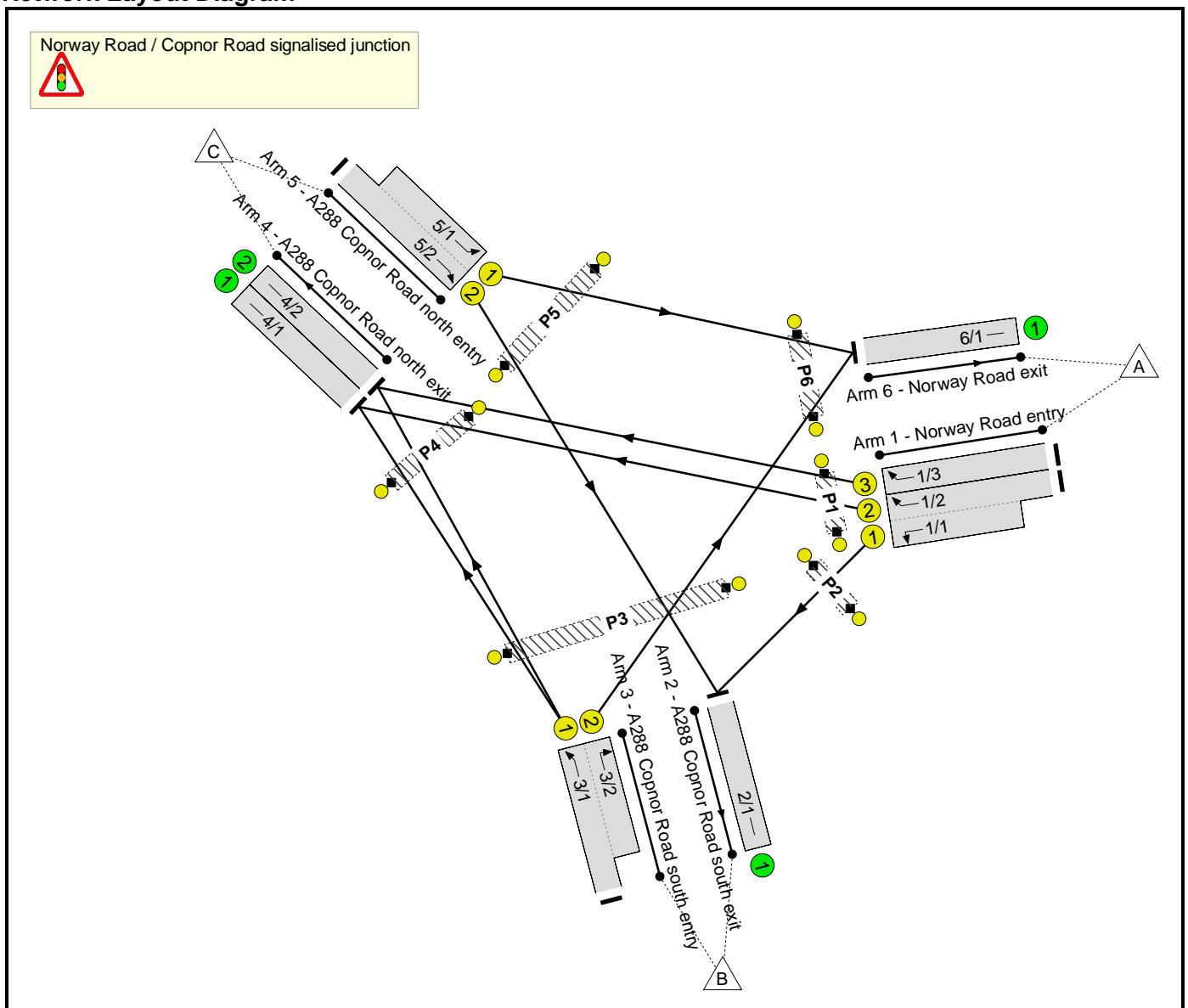
Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	324	872	455	0.711	450	58.1	594.064	F
2	601	691	1414	0.425	602	0.8	4.888	A
3	462	614	1548	0.299	463	0.5	3.654	A
4		302						
5	854	302	1477	0.579	859	1.5	6.464	A

Full Input Data And Results
Full Input Data And Results

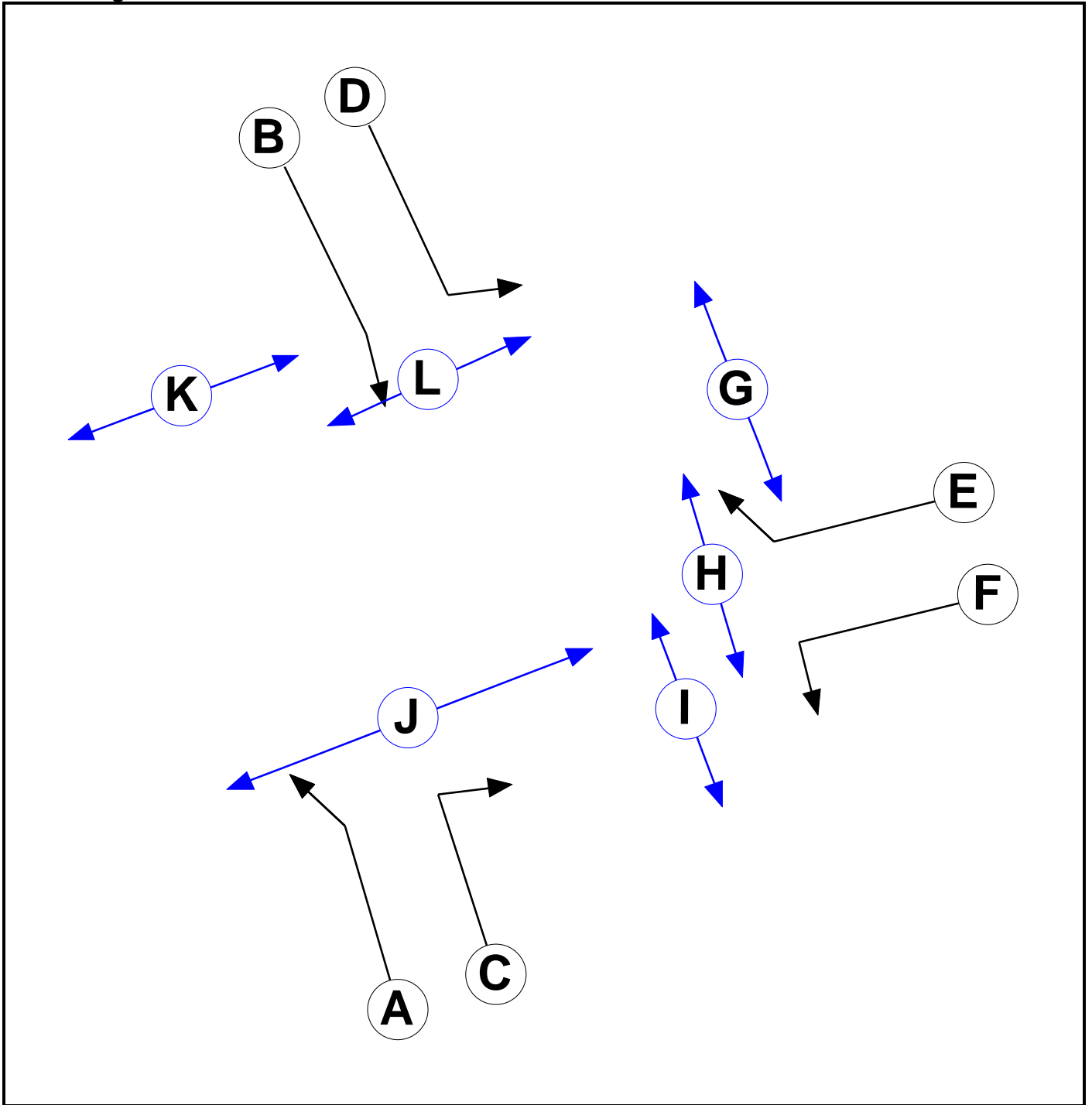
User and Project Details

Project:	
Title:	Norway Road / Copnor Road traffic signal junction
Location:	
Additional detail:	
File name:	Norway Rd_Copnor Rd.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Traffic		7	7
G	Pedestrian		5	5
H	Pedestrian		5	5
I	Pedestrian		5	5
J	Pedestrian		6	6
K	Pedestrian		5	5
L	Pedestrian		6	6

Phase Intergreens Matrix

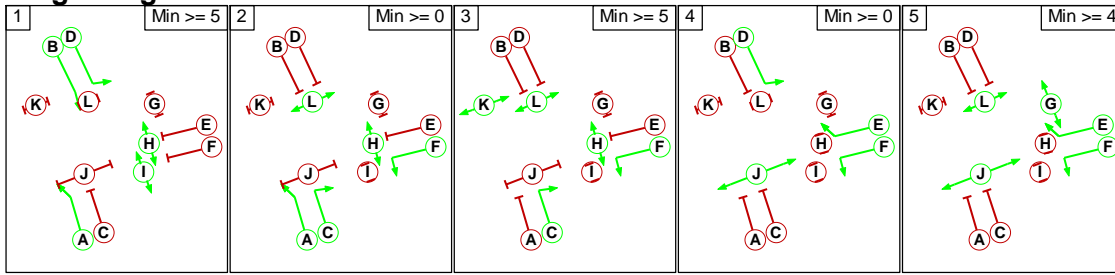
		Starting Phase											
		A	B	C	D	E	F	G	H	I	J	K	L
Terminating Phase	A	-	-	-	5	-	-	-	-	-	5	9	-
	B	-	-	5	-	7	8	-	-	-	9	-	5
	C	-	7	-	9	5	-	12	-	-	5	-	-
	D	-	-	5	-	-	-	8	-	-	-	-	5
	E	5	5	5	-	-	-	-	5	-	-	11	-
	F	-	5	-	-	-	-	-	-	5	-	-	-
	G	-	-	5	5	-	-	-	-	-	-	-	-
	H	-	-	-	-	5	-	-	-	-	-	-	-
	I	-	-	-	-	-	5	-	-	-	-	-	-
	J	5	5	5	-	-	-	-	-	-	-	-	-
	K	5	-	-	-	5	-	-	-	-	-	-	-
	L	-	5	-	5	-	-	-	-	-	-	-	-

Phases in Stage

Stage No.	Phases in Stage
1	A B D H I
2	A C F H L
3	C F H K L
4	D E F J
5	E F G J L

Full Input Data And Results

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage				
		1	2	3	4	5
From Stage	1		8	9	9	9
	2	9		9	9	12
	3	9	5		9	12
	4	5	5	11		8
	5	5	5	11	5	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Norway Road / Copnor Road signalised junction

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Norway Road / Copnor Road signalised junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Norway Road entry)	U	F	2	3	10.4	Geom	-	3.50	0.00	Y	Arm 2 Left	30.00
1/2 (Norway Road entry)	U	E	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 4 Right	8.00
1/3 (Norway Road entry)	U	E	2	3	10.4	Geom	-	3.50	0.00	Y	Arm 4 Right	8.00
2/1 (A288 Copnor Road south exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
3/1 (A288 Copnor Road south entry)	U	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 4 Ahead	140.00
3/2 (A288 Copnor Road south entry)	U	C	2	3	26.1	Geom	-	3.50	0.00	Y	Arm 6 Right	Inf
4/1 (A288 Copnor Road north exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2 (A288 Copnor Road north exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (A288 Copnor Road north entry)	U	D	2	3	24.3	Geom	-	3.50	0.00	Y	Arm 6 Left	Inf
5/2 (A288 Copnor Road north entry)	U	B	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 2 Ahead	140.00
6/1 (Norway Road exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'ELM - DM AM'	08:00	09:00	01:00	
2: 'ELM - DM PM'	17:00	18:00	01:00	
3: 'EMM - DS1 AM'	08:00	09:00	01:00	
4: 'EMM - DS1 PM'	17:00	18:00	01:00	
5: 'EML - DS2 AM'	08:00	09:00	01:00	
6: 'EML - DS2 PM'	17:00	18:00	01:00	

Full Input Data And Results

Scenario 1: 'ELM - DM AM' (FG1: 'ELM - DM AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	60	426	486
	B	121	0	774	895
	C	743	325	0	1068
	Tot.	864	385	1200	2449

Traffic Lane Flows

Lane	Scenario 1: ELM - DM AM
Junction: Norway Road / Copnor Road signalised junction	
1/1 (short)	60
1/2 (with short)	284(In) 224(Out)
1/3	202
2/1	385
3/1 (with short)	895(In) 774(Out)
3/2 (short)	121
4/1	611
4/2	589
5/1 (short)	743
5/2 (with short)	1068(In) 325(Out)
6/1	864

Full Input Data And Results

Lane Saturation Flows

Junction: Norway Road / Copnor Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Norway Road entry)	3.50	0.00	Y	Arm 2 Left	30.00	100.0 %	1871	1871
1/2 (Norway Road entry)	3.50	0.00	Y	Arm 4 Right	8.00	100.0 %	1655	1655
1/3 (Norway Road entry)	3.50	0.00	Y	Arm 4 Right	8.00	100.0 %	1655	1655
2/1 (A288 Copnor Road south exit Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A288 Copnor Road south entry)	3.50	0.00	Y	Arm 4 Ahead	140.00	100.0 %	1944	1944
3/2 (A288 Copnor Road south entry)	3.50	0.00	Y	Arm 6 Right	Inf	100.0 %	1965	1965
4/1 (A288 Copnor Road north exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A288 Copnor Road north exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A288 Copnor Road north entry)	3.50	0.00	Y	Arm 6 Left	Inf	100.0 %	1965	1965
5/2 (A288 Copnor Road north entry)	4.00	0.00	Y	Arm 2 Ahead	140.00	100.0 %	1994	1994
6/1 (Norway Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'ELM - DM PM' (FG2: 'ELM - DM PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	174	810	984
	B	154	0	379	533
	C	632	521	0	1153
	Tot.	786	695	1189	2670

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: ELM - DM PM
Junction: Norway Road / Copnor Road signalised junction	
1/1 (short)	174
1/2 (with short)	573(In) 399(Out)
1/3	411
2/1	695
3/1 (with short)	533(In) 379(Out)
3/2 (short)	154
4/1	589
4/2	600
5/1 (short)	632
5/2 (with short)	1153(In) 521(Out)
6/1	786

Lane Saturation Flows

Junction: Norway Road / Copnor Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Norway Road entry)	3.50	0.00	Y	Arm 2 Left	30.00	100.0 %	1871	1871
1/2 (Norway Road entry)	3.50	0.00	Y	Arm 4 Right	8.00	100.0 %	1655	1655
1/3 (Norway Road entry)	3.50	0.00	Y	Arm 4 Right	8.00	100.0 %	1655	1655
2/1 (A288 Copnor Road south exit Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A288 Copnor Road south entry)	3.50	0.00	Y	Arm 4 Ahead	140.00	100.0 %	1944	1944
3/2 (A288 Copnor Road south entry)	3.50	0.00	Y	Arm 6 Right	Inf	100.0 %	1965	1965
4/1 (A288 Copnor Road north exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A288 Copnor Road north exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A288 Copnor Road north entry)	3.50	0.00	Y	Arm 6 Left	Inf	100.0 %	1965	1965
5/2 (A288 Copnor Road north entry)	4.00	0.00	Y	Arm 2 Ahead	140.00	100.0 %	1994	1994
6/1 (Norway Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: 'EMM - DS1 AM' (FG3: 'EMM - DS1 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	59	428	487
	B	123	0	761	884
	C	745	336	0	1081
	Tot.	868	395	1189	2452

Traffic Lane Flows

Lane	Scenario 3: EMM - DS1 AM
Junction: Norway Road / Copnor Road signalised junction	
1/1 (short)	59
1/2 (with short)	283(In) 224(Out)
1/3	204
2/1	395
3/1 (with short)	884(In) 761(Out)
3/2 (short)	123
4/1	605
4/2	584
5/1 (short)	745
5/2 (with short)	1081(In) 336(Out)
6/1	868

Full Input Data And Results

Lane Saturation Flows

Junction: Norway Road / Copnor Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Norway Road entry)	3.50	0.00	Y	Arm 2 Left	30.00	100.0 %	1871	1871
1/2 (Norway Road entry)	3.50	0.00	Y	Arm 4 Right	8.00	100.0 %	1655	1655
1/3 (Norway Road entry)	3.50	0.00	Y	Arm 4 Right	8.00	100.0 %	1655	1655
2/1 (A288 Copnor Road south exit Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A288 Copnor Road south entry)	3.50	0.00	Y	Arm 4 Ahead	140.00	100.0 %	1944	1944
3/2 (A288 Copnor Road south entry)	3.50	0.00	Y	Arm 6 Right	Inf	100.0 %	1965	1965
4/1 (A288 Copnor Road north exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A288 Copnor Road north exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A288 Copnor Road north entry)	3.50	0.00	Y	Arm 6 Left	Inf	100.0 %	1965	1965
5/2 (A288 Copnor Road north entry)	4.00	0.00	Y	Arm 2 Ahead	140.00	100.0 %	1994	1994
6/1 (Norway Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'EMM - DS1 PM' (FG4: 'EMM - DS1 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	277	775	1052
	B	159	0	295	454
	C	579	524	0	1103
	Tot.	738	801	1070	2609

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: EMM - DS1 PM
Junction: Norway Road / Copnor Road signalised junction	
1/1 (short)	277
1/2 (with short)	657(In) 380(Out)
1/3	395
2/1	801
3/1 (with short)	454(In) 295(Out)
3/2 (short)	159
4/1	528
4/2	542
5/1 (short)	579
5/2 (with short)	1103(In) 524(Out)
6/1	738

Lane Saturation Flows

Junction: Norway Road / Copnor Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Norway Road entry)	3.50	0.00	Y	Arm 2 Left	30.00	100.0 %	1871	1871
1/2 (Norway Road entry)	3.50	0.00	Y	Arm 4 Right	8.00	100.0 %	1655	1655
1/3 (Norway Road entry)	3.50	0.00	Y	Arm 4 Right	8.00	100.0 %	1655	1655
2/1 (A288 Copnor Road south exit Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A288 Copnor Road south entry)	3.50	0.00	Y	Arm 4 Ahead	140.00	100.0 %	1944	1944
3/2 (A288 Copnor Road south entry)	3.50	0.00	Y	Arm 6 Right	Inf	100.0 %	1965	1965
4/1 (A288 Copnor Road north exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A288 Copnor Road north exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A288 Copnor Road north entry)	3.50	0.00	Y	Arm 6 Left	Inf	100.0 %	1965	1965
5/2 (A288 Copnor Road north entry)	4.00	0.00	Y	Arm 2 Ahead	140.00	100.0 %	1994	1994
6/1 (Norway Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: 'EML - DS2 AM' (FG5: 'EML - DS2 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination			
	A	B	C	Tot.
A	0	59	386	445
B	134	0	809	943
C	738	327	0	1065
Tot.	872	386	1195	2453

Traffic Lane Flows

Lane	Scenario 5: EML - DS2 AM
Junction: Norway Road / Copnor Road signalised junction	
1/1 (short)	59
1/2 (with short)	264(In) 205(Out)
1/3	181
2/1	386
3/1 (with short)	943(In) 809(Out)
3/2 (short)	134
4/1	610
4/2	585
5/1 (short)	738
5/2 (with short)	1065(In) 327(Out)
6/1	872

Full Input Data And Results

Lane Saturation Flows

Junction: Norway Road / Copnor Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Norway Road entry)	3.50	0.00	Y	Arm 2 Left	30.00	100.0 %	1871	1871
1/2 (Norway Road entry)	3.50	0.00	Y	Arm 4 Right	8.00	100.0 %	1655	1655
1/3 (Norway Road entry)	3.50	0.00	Y	Arm 4 Right	8.00	100.0 %	1655	1655
2/1 (A288 Copnor Road south exit Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A288 Copnor Road south entry)	3.50	0.00	Y	Arm 4 Ahead	140.00	100.0 %	1944	1944
3/2 (A288 Copnor Road south entry)	3.50	0.00	Y	Arm 6 Right	Inf	100.0 %	1965	1965
4/1 (A288 Copnor Road north exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A288 Copnor Road north exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A288 Copnor Road north entry)	3.50	0.00	Y	Arm 6 Left	Inf	100.0 %	1965	1965
5/2 (A288 Copnor Road north entry)	4.00	0.00	Y	Arm 2 Ahead	140.00	100.0 %	1994	1994
6/1 (Norway Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'EML - DS2 PM' (FG6: 'EML - DS2 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	168	805	973
	B	160	0	365	525
	C	651	522	0	1173
	Tot.	811	690	1170	2671

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: EML - DS2 PM
Junction: Norway Road / Copnor Road signalised junction	
1/1 (short)	168
1/2 (with short)	565(In) 397(Out)
1/3	408
2/1	690
3/1 (with short)	525(In) 365(Out)
3/2 (short)	160
4/1	580
4/2	590
5/1 (short)	651
5/2 (with short)	1173(In) 522(Out)
6/1	811

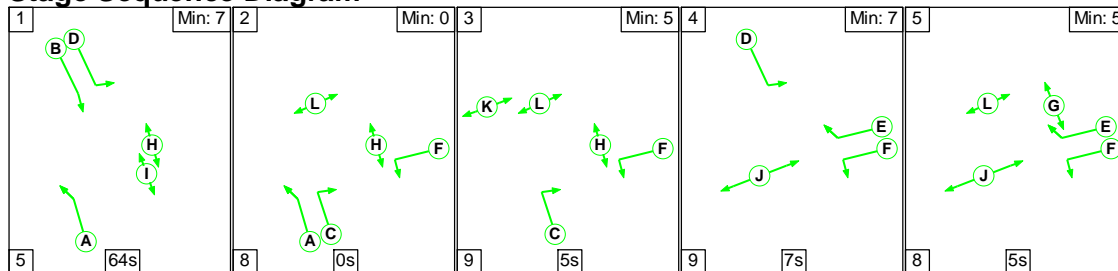
Lane Saturation Flows

Junction: Norway Road / Copnor Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Norway Road entry)	3.50	0.00	Y	Arm 2 Left	30.00	100.0 %	1871	1871
1/2 (Norway Road entry)	3.50	0.00	Y	Arm 4 Right	8.00	100.0 %	1655	1655
1/3 (Norway Road entry)	3.50	0.00	Y	Arm 4 Right	8.00	100.0 %	1655	1655
2/1 (A288 Copnor Road south exit Lane 1)	Infinite Saturation Flow						Inf	Inf
3/1 (A288 Copnor Road south entry)	3.50	0.00	Y	Arm 4 Ahead	140.00	100.0 %	1944	1944
3/2 (A288 Copnor Road south entry)	3.50	0.00	Y	Arm 6 Right	Inf	100.0 %	1965	1965
4/1 (A288 Copnor Road north exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A288 Copnor Road north exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A288 Copnor Road north entry)	3.50	0.00	Y	Arm 6 Left	Inf	100.0 %	1965	1965
5/2 (A288 Copnor Road north entry)	4.00	0.00	Y	Arm 2 Ahead	140.00	100.0 %	1994	1994
6/1 (Norway Road exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 1: 'ELM - DM AM' (FG1: 'ELM - DM AM', Plan 1: 'Network Control Plan 1')

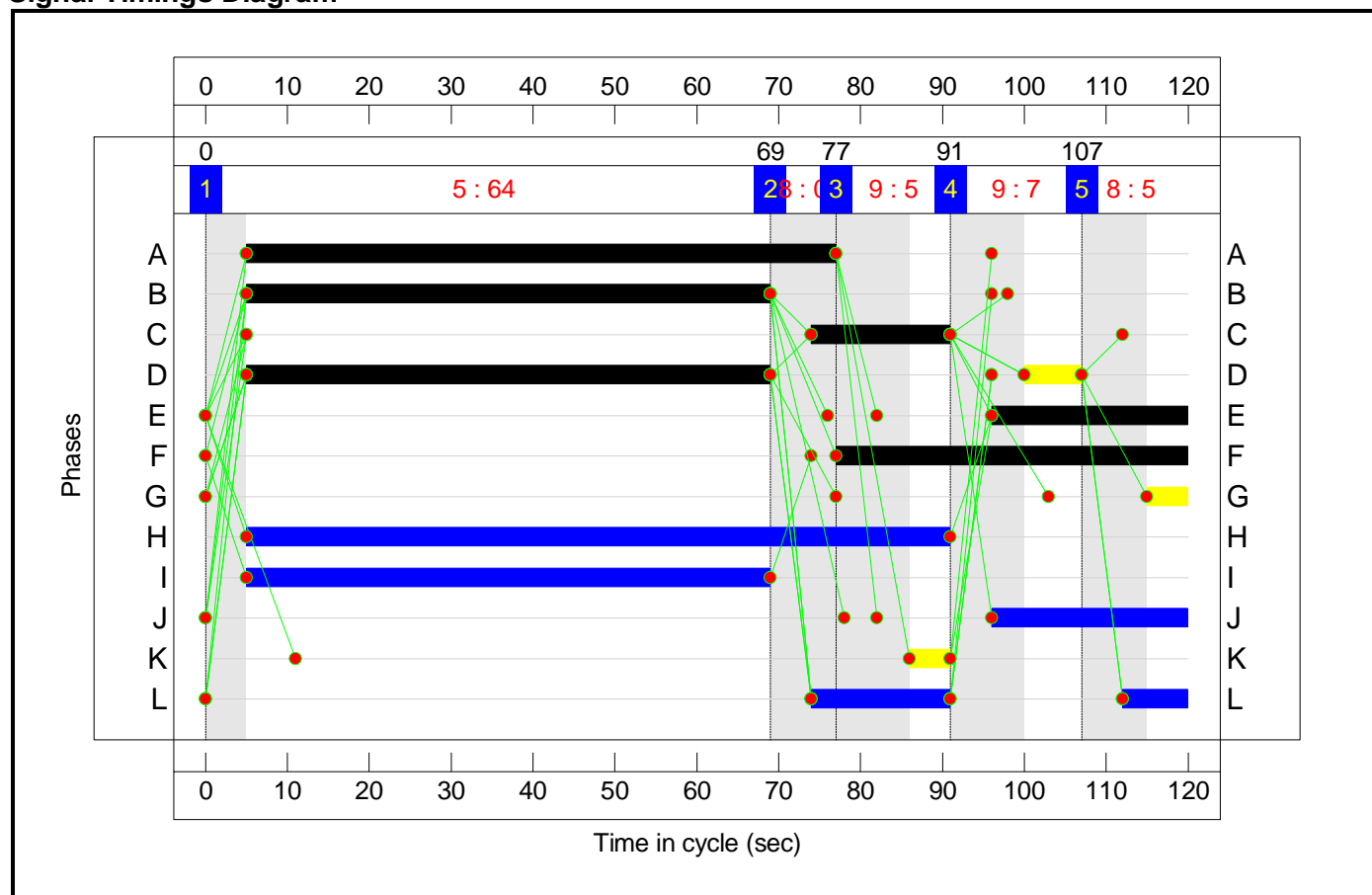
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	64	0	5	7	5
Change Point	0	69	77	91	107

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

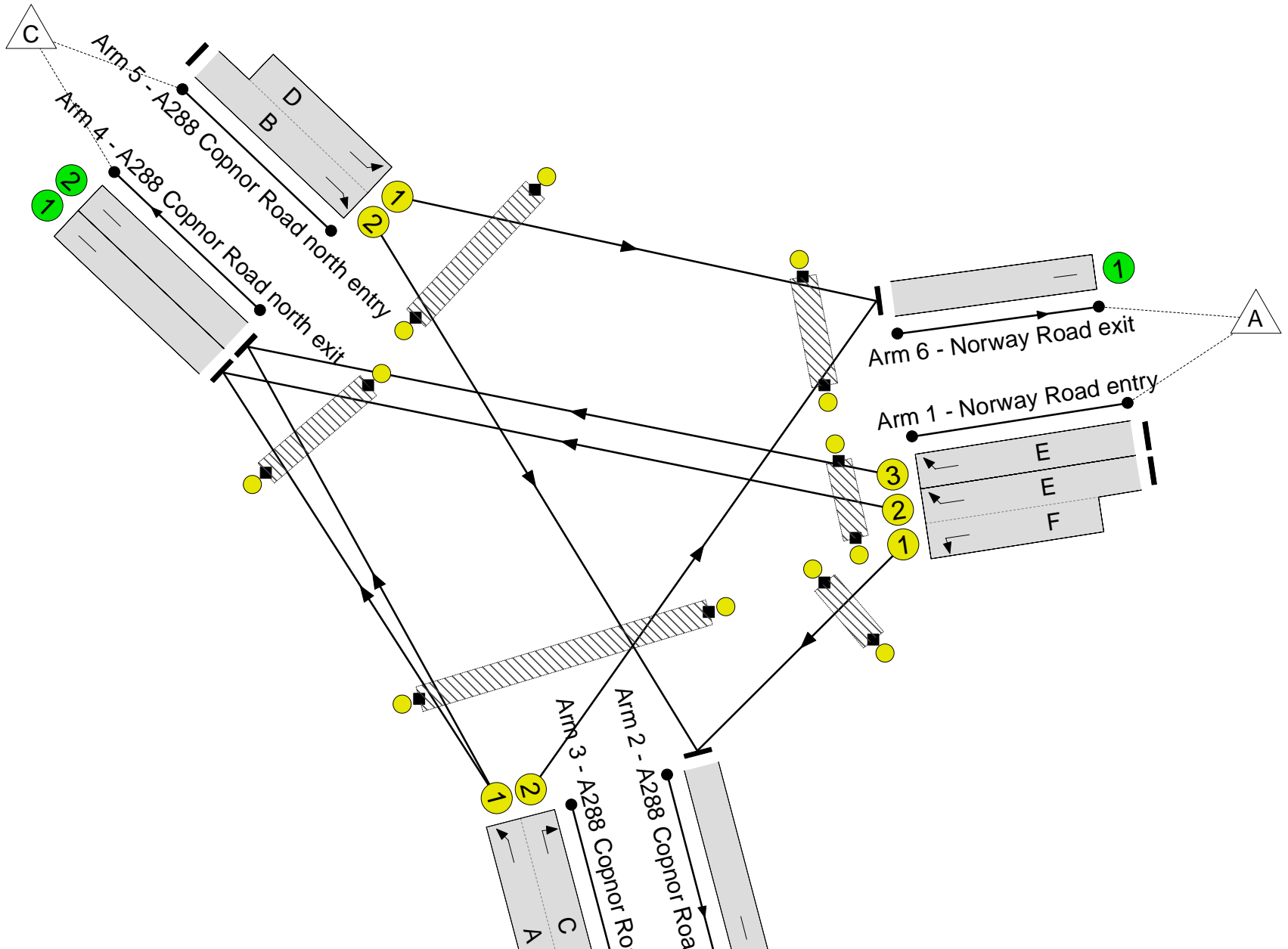
Norway Road / Copnor Road signalised junction



PRC: 31.7 %

Total Traffic Delay: 17.9 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	68.3%
Norway Road / Copnor Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	68.3%
1/2+1/1	Norway Road entry Left Right	U	N/A	N/A	E F		1	24:43	-	284	1655:1871	433	65.6%
1/3	Norway Road entry Right	U	N/A	N/A	E		1	24	-	202	1655	345	58.6%
2/1	A288 Copnor Road south exit	U	N/A	N/A	-		-	-	-	385	Inf	Inf	0.0%
3/1+3/2	A288 Copnor Road south entry Ahead Right	U	N/A	N/A	A C		1	72:17	-	895	1944:1965	1310	68.3%
4/1	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	611	Inf	Inf	0.0%
4/2	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	589	Inf	Inf	0.0%
5/2+5/1	A288 Copnor Road north entry Ahead Left	U	N/A	N/A	B D		1:2	64:71	-	1068	1994:1965	1578	67.7%
6/1	Norway Road exit	U	N/A	N/A	-		-	-	-	864	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	86	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	64	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	J		1	24	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	K		1	5	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	L		2	25	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%

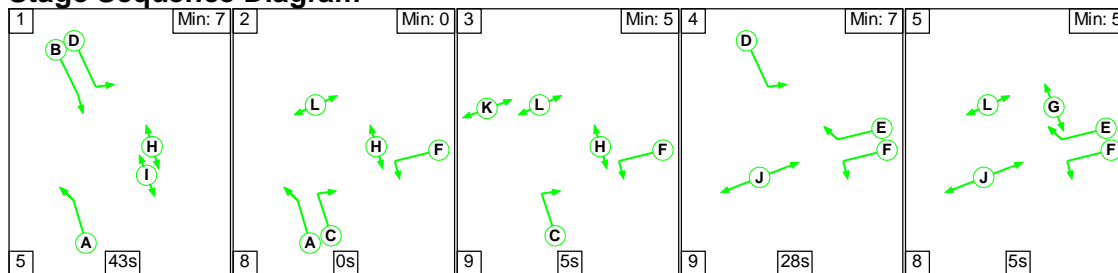
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	14.2	3.8	0.0	17.9	-	-	-	-
Norway Road / Copnor Road signalised junction	-	-	0	0	0	14.2	3.8	0.0	17.9	-	-	-	-
1/2+1/1	284	284	-	-	-	3.1	0.9	-	4.1	51.5	6.8	0.9	7.7
1/3	202	202	-	-	-	2.4	0.7	-	3.1	55.3	6.1	0.7	6.8
2/1	385	385	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	895	895	-	-	-	4.8	1.1	-	5.9	23.8	16.8	1.1	17.8
4/1	611	611	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	589	589	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	1068	1068	-	-	-	3.8	1.0	-	4.8	16.3	11.1	1.0	12.2
6/1	864	864	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		31.7	Total Delay for Signalled Lanes (pcuHr):		17.92	Cycle Time (s): 120				
			PRC Over All Lanes (%):		31.7	Total Delay Over All Lanes(pcuHr):		17.92					

Full Input Data And Results

Scenario 2: 'ELM - DM PM' (FG2: 'ELM - DM PM', Plan 1: 'Network Control Plan 1')

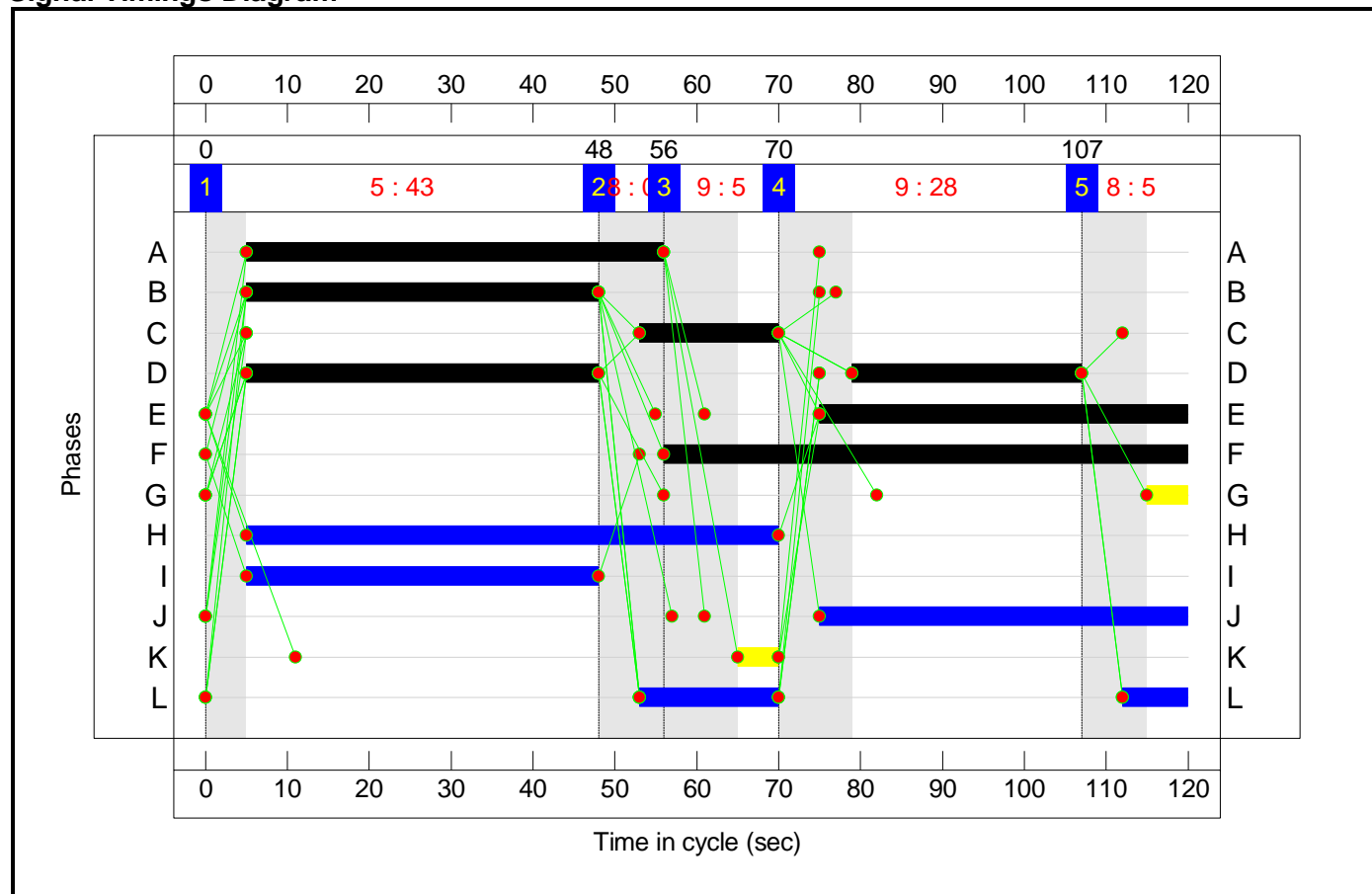
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	43	0	5	28	5
Change Point	0	48	56	70	107

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

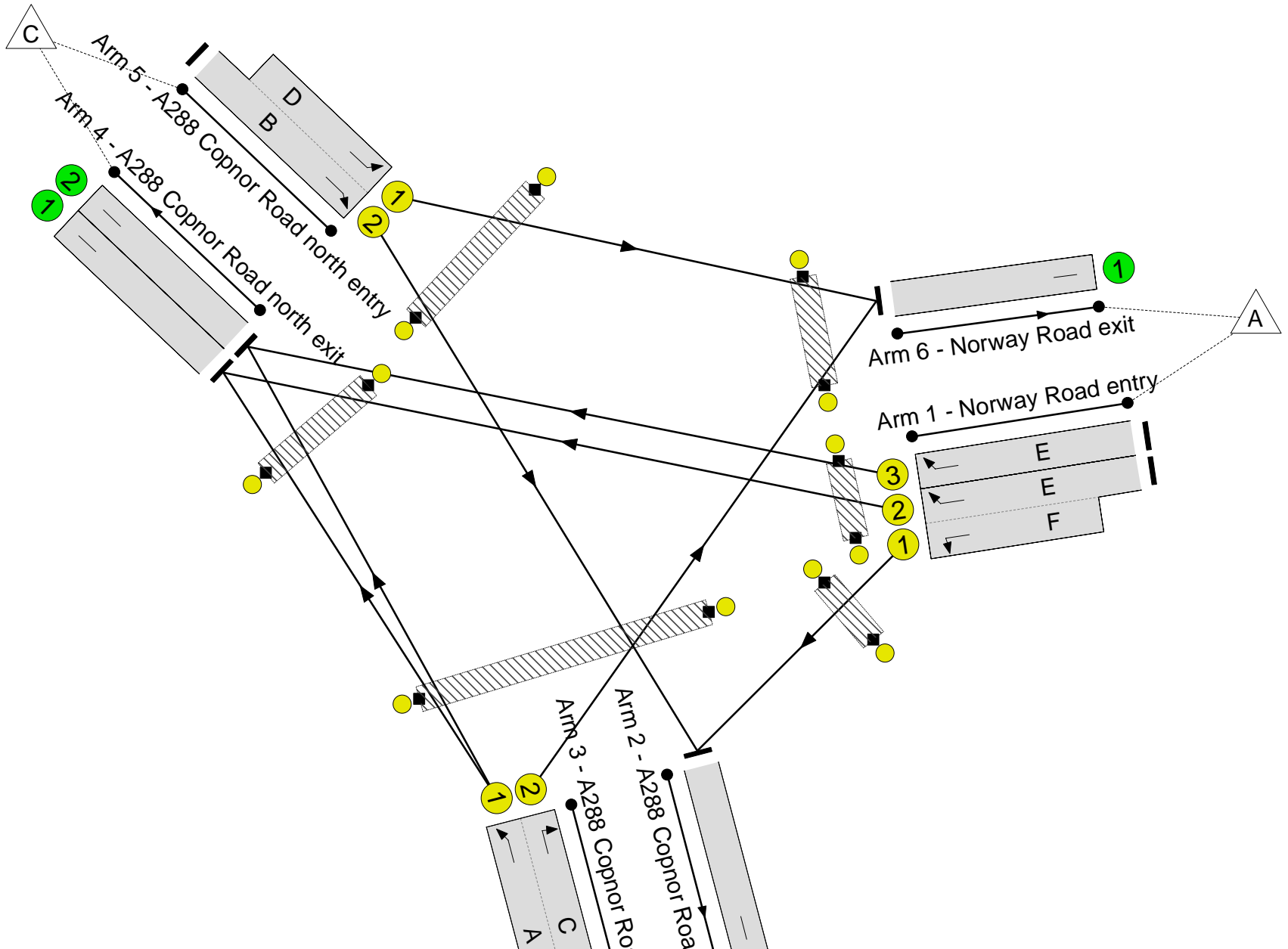
Norway Road / Copnor Road signalised junction



PRC: 23.5 %

Total Traffic Delay: 21.9 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	72.9%
Norway Road / Copnor Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	72.9%
1/2+1/1	Norway Road entry Left Right	U	N/A	N/A	E F		1	45:64	-	573	1655:1871	786	72.9%
1/3	Norway Road entry Right	U	N/A	N/A	E		1	45	-	411	1655	634	64.8%
2/1	A288 Copnor Road south exit	U	N/A	N/A	-		-	-	-	695	Inf	Inf	0.0%
3/1+3/2	A288 Copnor Road south entry Ahead Right	U	N/A	N/A	A C		1	51:17	-	533	1944:1965	1123	47.5%
4/1	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	589	Inf	Inf	0.0%
4/2	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	600	Inf	Inf	0.0%
5/2+5/1	A288 Copnor Road north entry Ahead Left	U	N/A	N/A	B D		1:2	43:71	-	1153	1994:1965	1618	71.3%
6/1	Norway Road exit	U	N/A	N/A	-		-	-	-	786	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	65	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	43	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	J		1	45	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	K		1	5	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	L		2	25	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%

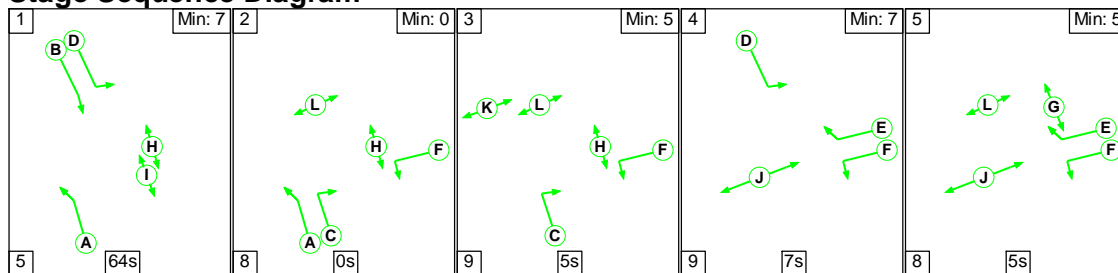
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	18.0	3.9	0.0	21.9	-	-	-	-
Norway Road / Copnor Road signalised junction	-	-	0	0	0	18.0	3.9	0.0	21.9	-	-	-	-
1/2+1/1	573	573	-	-	-	4.0	1.3	-	5.3	33.5	11.0	1.3	12.4
1/3	411	411	-	-	-	3.5	0.9	-	4.4	38.3	11.2	0.9	12.1
2/1	695	695	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	533	533	-	-	-	4.5	0.5	-	5.0	33.7	8.8	0.5	9.3
4/1	589	589	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	600	600	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	1153	1153	-	-	-	6.0	1.2	-	7.2	22.6	14.8	1.2	16.0
6/1	786	786	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		23.5	Total Delay for Signalled Lanes (pcuHr):		21.92	Cycle Time (s): 120				
			PRC Over All Lanes (%):		23.5	Total Delay Over All Lanes(pcuHr):		21.92					

Full Input Data And Results

Scenario 3: 'EMM - DS1 AM' (FG3: 'EMM - DS1 AM', Plan 1: 'Network Control Plan 1')

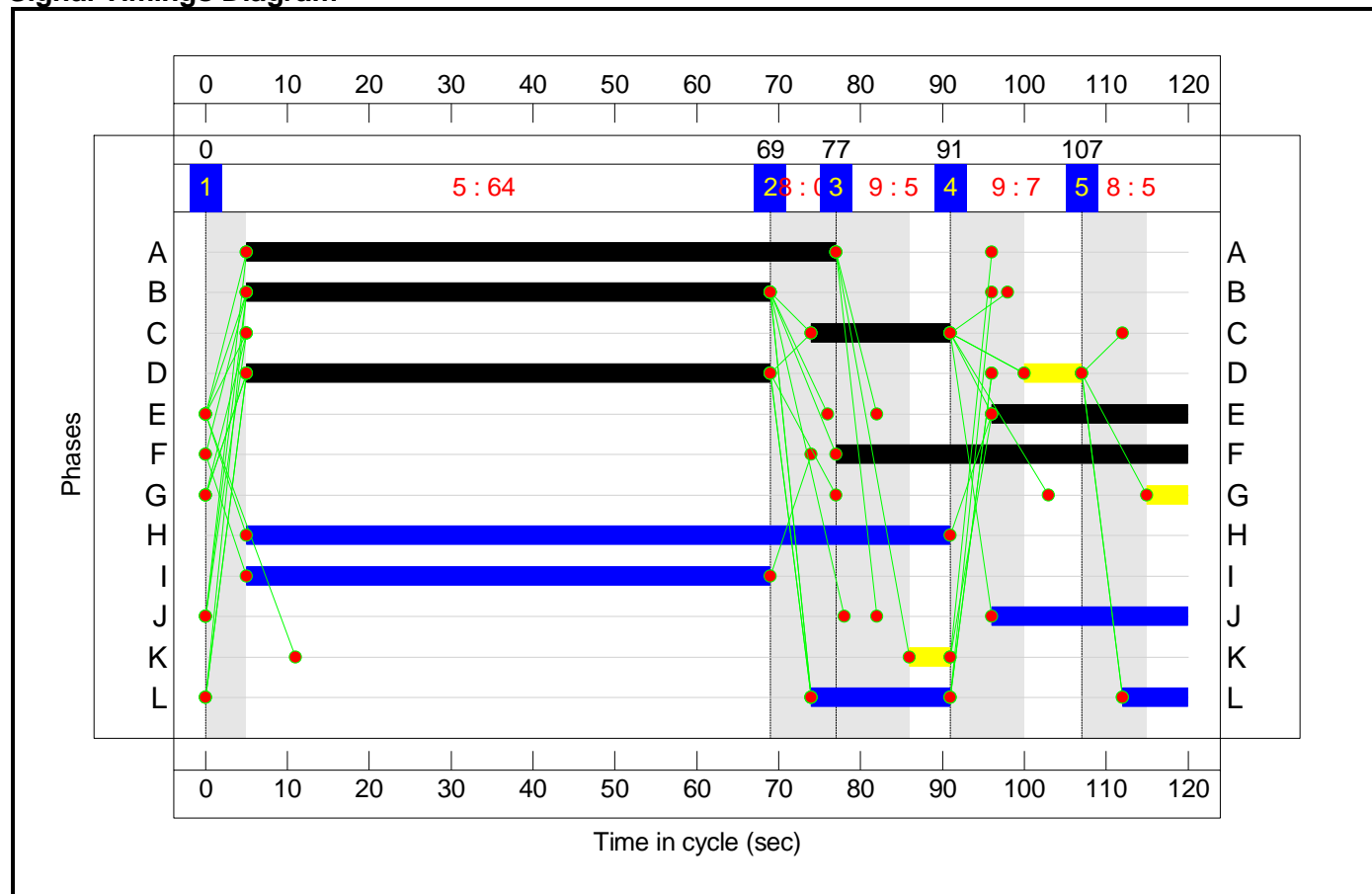
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	64	0	5	7	5
Change Point	0	69	77	91	107

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

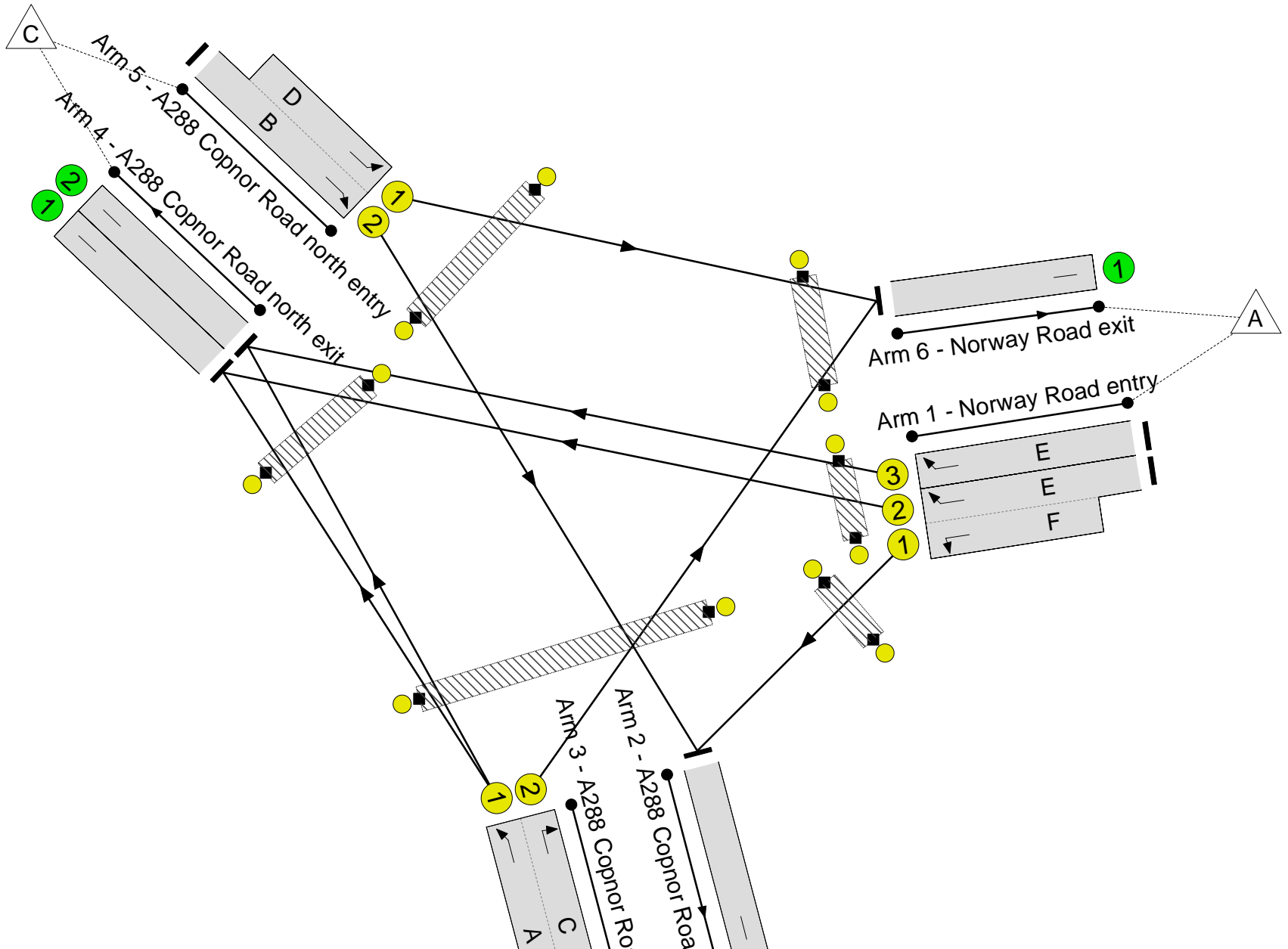
Norway Road / Copnor Road signalised junction



PRC: 32.3 %

Total Traffic Delay: 17.9 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	68.0%
Norway Road / Copnor Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	68.0%
1/2+1/1	Norway Road entry Left Right	U	N/A	N/A	E F		1	24:43	-	283	1655:1871	432	65.6%
1/3	Norway Road entry Right	U	N/A	N/A	E		1	24	-	204	1655	345	59.2%
2/1	A288 Copnor Road south exit	U	N/A	N/A	-		-	-	-	395	Inf	Inf	0.0%
3/1+3/2	A288 Copnor Road south entry Ahead Right	U	N/A	N/A	A C		1	72:17	-	884	1944:1965	1314	67.3%
4/1	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	605	Inf	Inf	0.0%
4/2	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	584	Inf	Inf	0.0%
5/2+5/1	A288 Copnor Road north entry Ahead Left	U	N/A	N/A	B D		1:2	64:71	-	1081	1994:1965	1590	68.0%
6/1	Norway Road exit	U	N/A	N/A	-		-	-	-	868	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	86	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	64	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	J		1	24	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	K		1	5	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	L		2	25	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%

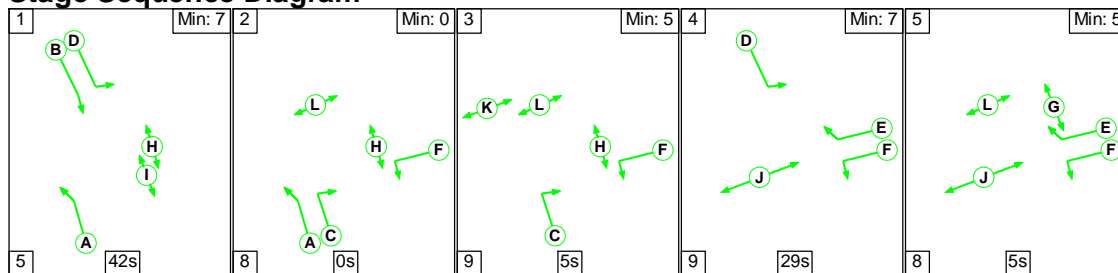
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	14.2	3.7	0.0	17.9	-	-	-	-
Norway Road / Copnor Road signalised junction	-	-	0	0	0	14.2	3.7	0.0	17.9	-	-	-	-
1/2+1/1	283	283	-	-	-	3.1	0.9	-	4.1	51.6	6.8	0.9	7.7
1/3	204	204	-	-	-	2.4	0.7	-	3.1	55.6	6.1	0.7	6.8
2/1	395	395	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	884	884	-	-	-	4.8	1.0	-	5.8	23.6	16.3	1.0	17.3
4/1	605	605	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	584	584	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	1081	1081	-	-	-	3.9	1.1	-	4.9	16.4	11.2	1.1	12.2
6/1	868	868	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		32.3	Total Delay for Signalled Lanes (pcuHr):		17.93	Cycle Time (s): 120				
			PRC Over All Lanes (%):		32.3	Total Delay Over All Lanes(pcuHr):		17.93					

Full Input Data And Results

Scenario 4: 'EMM - DS1 PM' (FG4: 'EMM - DS1 PM', Plan 1: 'Network Control Plan 1')

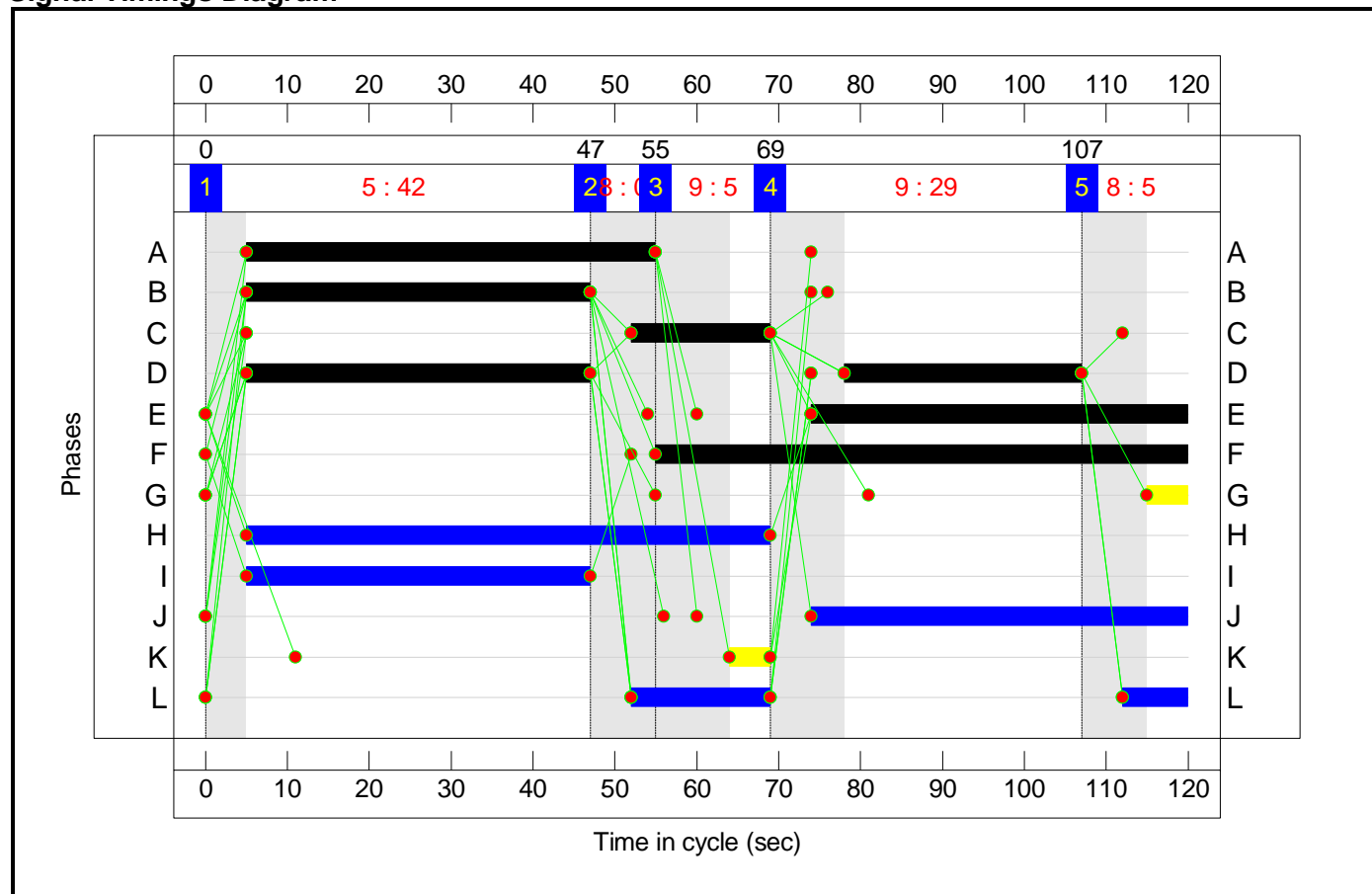
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	42	0	5	29	5
Change Point	0	47	55	69	107

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

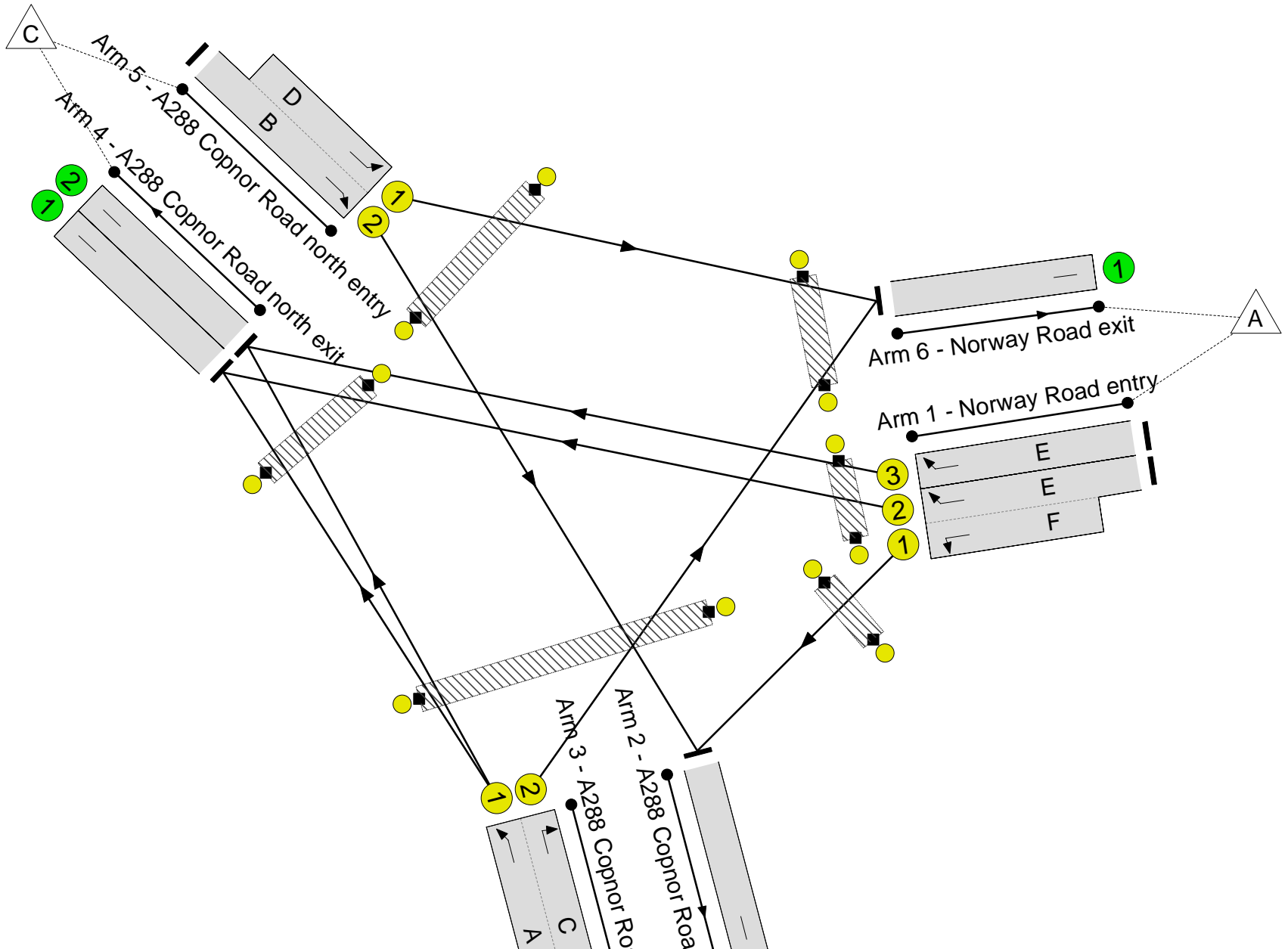
Norway Road / Copnor Road signalised junction



PRC: 22.7 %

Total Traffic Delay: 21.2 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	73.3%
Norway Road / Copnor Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	73.3%
1/2+1/1	Norway Road entry Left Right	U	N/A	N/A	E F		1	46:65	-	657	1655:1871	898	73.2%
1/3	Norway Road entry Right	U	N/A	N/A	E		1	46	-	395	1655	648	60.9%
2/1	A288 Copnor Road south exit	U	N/A	N/A	-		-	-	-	801	Inf	Inf	0.0%
3/1+3/2	A288 Copnor Road south entry Ahead Right	U	N/A	N/A	A C		1	50:17	-	454	1944:1965	1109	40.9%
4/1	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	528	Inf	Inf	0.0%
4/2	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	542	Inf	Inf	0.0%
5/2+5/1	A288 Copnor Road north entry Ahead Left	U	N/A	N/A	B D		1:2	42:71	-	1103	1994:1965	1504	73.3%
6/1	Norway Road exit	U	N/A	N/A	-		-	-	-	738	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	64	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	42	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	J		1	46	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	K		1	5	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	L		2	25	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%

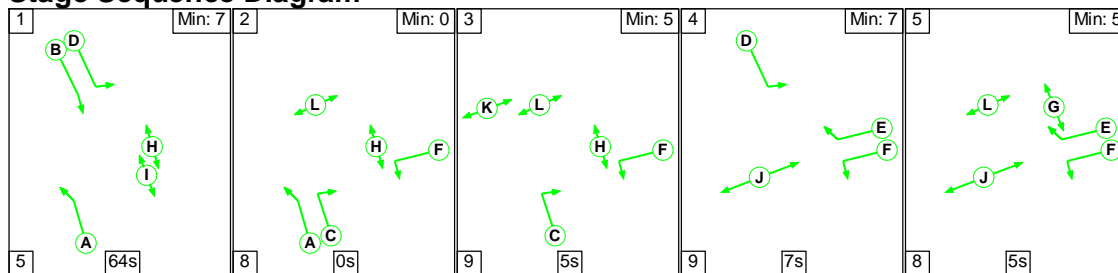
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	17.3	3.8	0.0	21.2	-	-	-	-
Norway Road / Copnor Road signalised junction	-	-	0	0	0	17.3	3.8	0.0	21.2	-	-	-	-
1/2+1/1	657	657	-	-	-	4.1	1.3	-	5.5	30.1	9.9	1.3	11.3
1/3	395	395	-	-	-	3.2	0.8	-	4.0	36.2	10.4	0.8	11.2
2/1	801	801	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	454	454	-	-	-	4.0	0.3	-	4.3	34.5	6.6	0.3	7.0
4/1	528	528	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	542	542	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	1103	1103	-	-	-	6.0	1.4	-	7.4	24.1	15.1	1.4	16.5
6/1	738	738	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		22.7	Total Delay for Signalled Lanes (pcuHr):		21.19	Cycle Time (s): 120				
			PRC Over All Lanes (%):		22.7	Total Delay Over All Lanes(pcuHr):		21.19					

Full Input Data And Results

Scenario 5: 'EML - DS2 AM' (FG5: 'EML - DS2 AM', Plan 1: 'Network Control Plan 1')

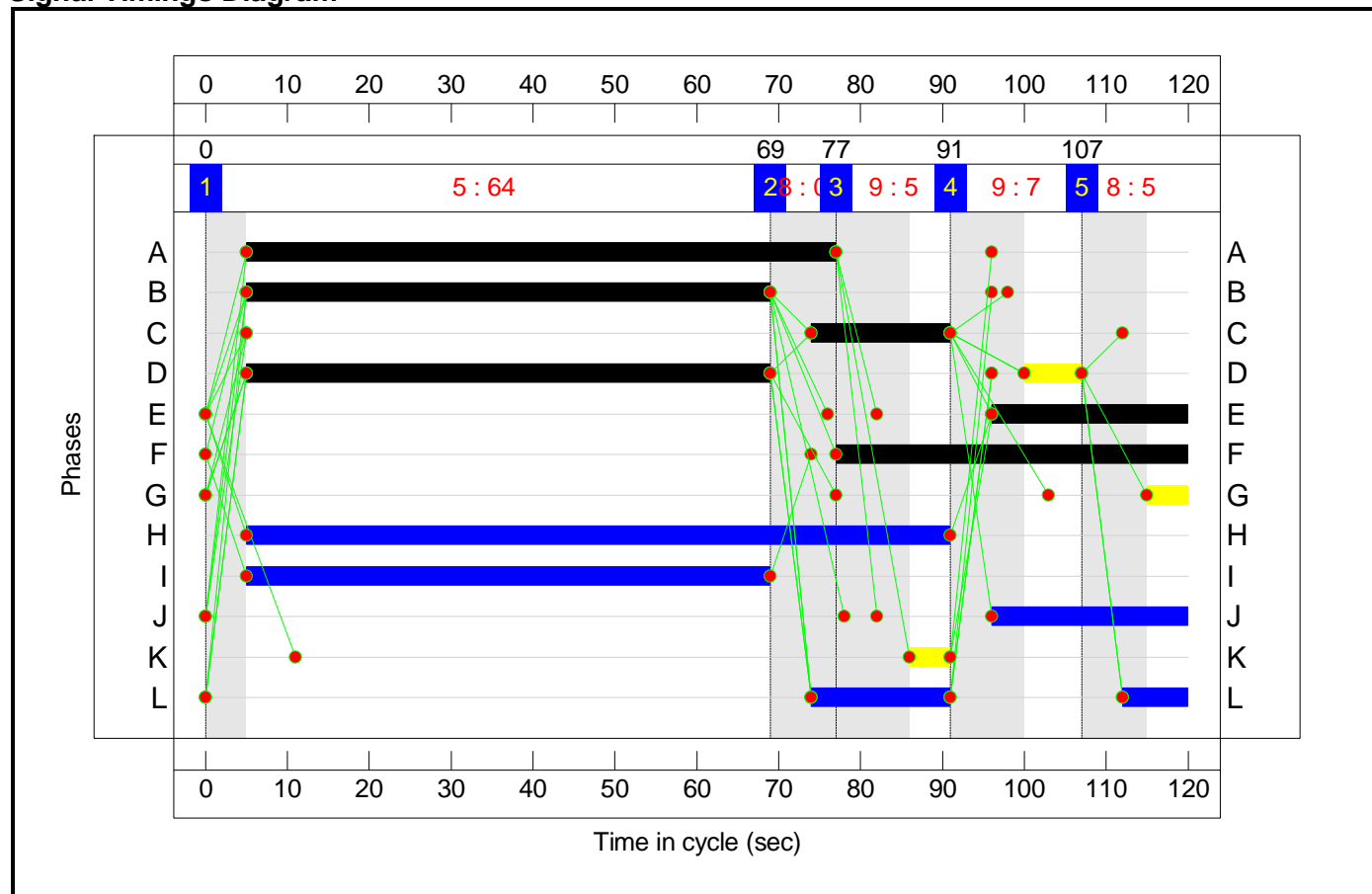
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	64	0	5	7	5
Change Point	0	69	77	91	107

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

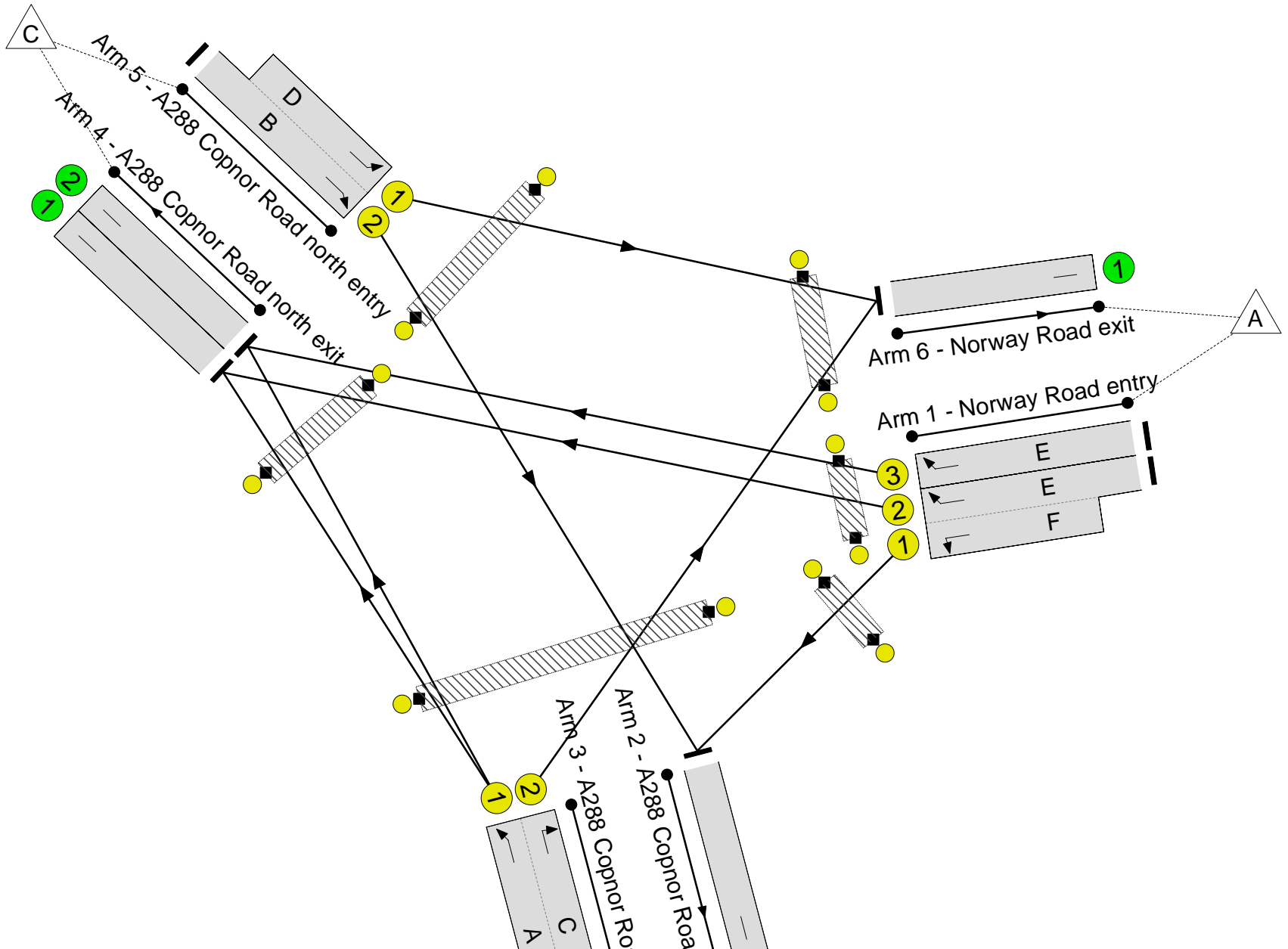
Norway Road / Copnor Road signalised junction



PRC: 25.7 %

Total Traffic Delay: 17.6 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	71.6%
Norway Road / Copnor Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	71.6%
1/2+1/1	Norway Road entry Left Right	U	N/A	N/A	E F		1	24:43	-	264	1655:1871	439	60.1%
1/3	Norway Road entry Right	U	N/A	N/A	E		1	24	-	181	1655	345	52.5%
2/1	A288 Copnor Road south exit	U	N/A	N/A	-		-	-	-	386	Inf	Inf	0.0%
3/1+3/2	A288 Copnor Road south entry Ahead Right	U	N/A	N/A	A C		1	72:17	-	943	1944:1965	1317	71.6%
4/1	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	610	Inf	Inf	0.0%
4/2	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	585	Inf	Inf	0.0%
5/2+5/1	A288 Copnor Road north entry Ahead Left	U	N/A	N/A	B D		1:2	64:71	-	1065	1994:1965	1583	67.3%
6/1	Norway Road exit	U	N/A	N/A	-		-	-	-	872	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	86	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	64	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	J		1	24	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	K		1	5	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	L		2	25	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%

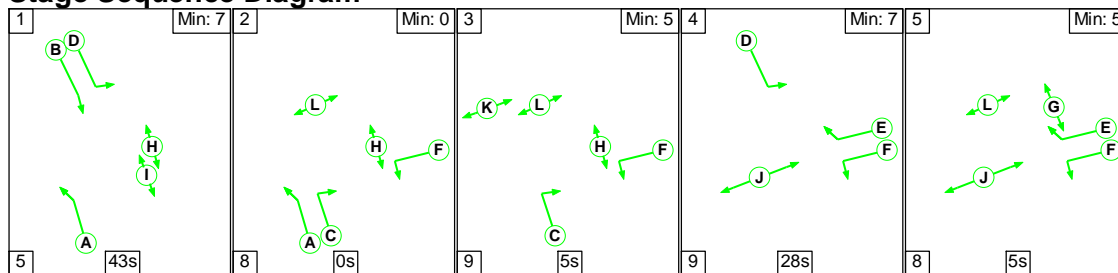
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	14.0	3.6	0.0	17.6	-	-	-	-
Norway Road / Copnor Road signalised junction	-	-	0	0	0	14.0	3.6	0.0	17.6	-	-	-	-
1/2+1/1	264	264	-	-	-	2.9	0.7	-	3.6	49.1	6.1	0.7	6.9
1/3	181	181	-	-	-	2.1	0.5	-	2.7	53.1	5.3	0.5	5.9
2/1	386	386	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	943	943	-	-	-	5.3	1.3	-	6.5	24.9	18.0	1.3	19.2
4/1	610	610	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	585	585	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	1065	1065	-	-	-	3.8	1.0	-	4.8	16.2	11.0	1.0	12.0
6/1	872	872	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		25.7	Total Delay for Signalled Lanes (pcuHr):		17.60	Cycle Time (s): 120				
			PRC Over All Lanes (%):		25.7	Total Delay Over All Lanes(pcuHr):		17.60					

Full Input Data And Results

Scenario 6: 'EML - DS2 PM' (FG6: 'EML - DS2 PM', Plan 1: 'Network Control Plan 1')

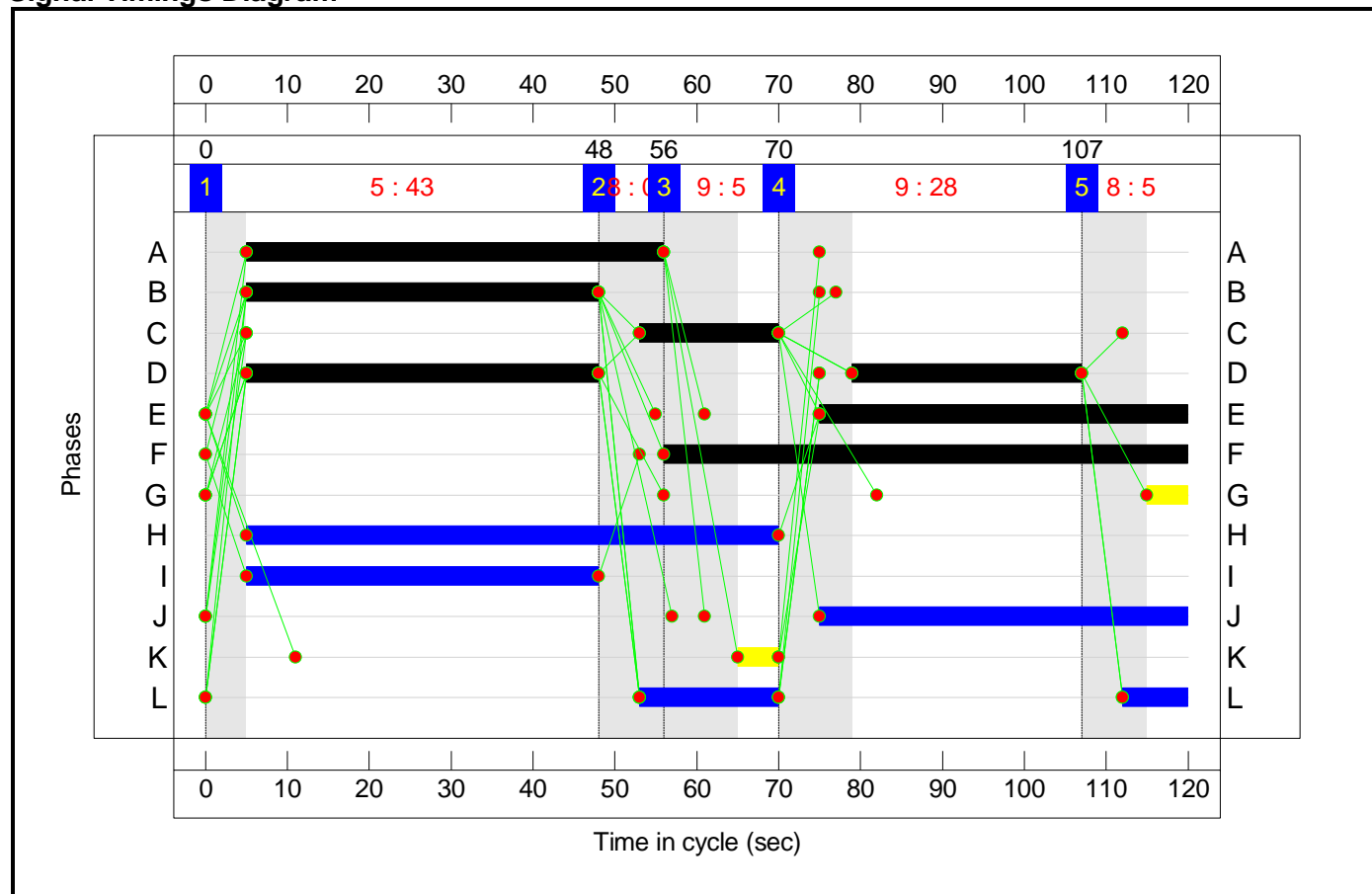
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	43	0	5	28	5
Change Point	0	48	56	70	107

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

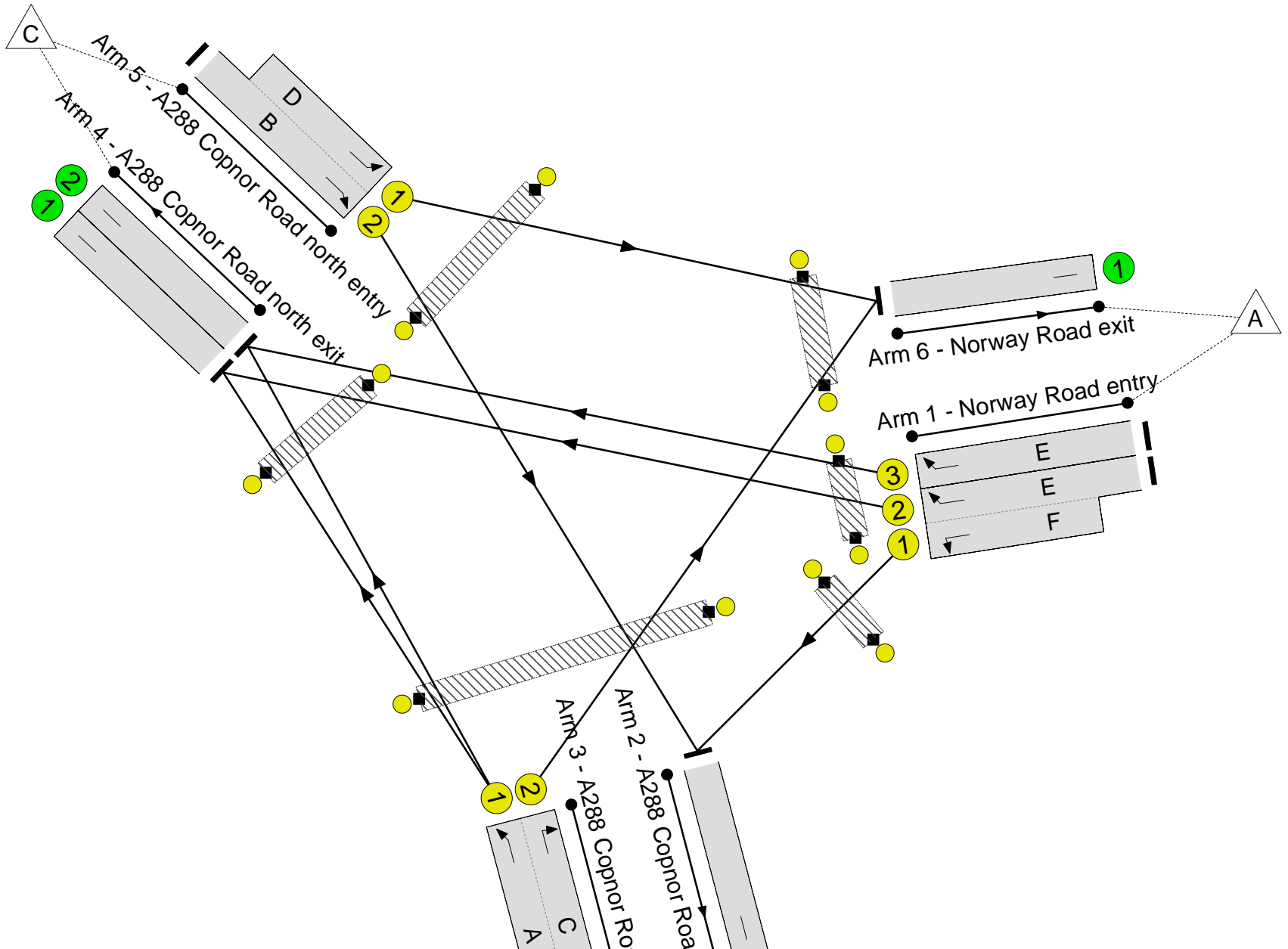
Norway Road / Copnor Road signalised junction



PRC: 24.6 %

Total Traffic Delay: 21.8 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	72.2%
Norway Road / Copnor Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	72.2%
1/2+1/1	Norway Road entry Left Right	U	N/A	N/A	E F		1	45:64	-	565	1655:1871	782	72.2%
1/3	Norway Road entry Right	U	N/A	N/A	E		1	45	-	408	1655	634	64.3%
2/1	A288 Copnor Road south exit	U	N/A	N/A	-		-	-	-	690	Inf	Inf	0.0%
3/1+3/2	A288 Copnor Road south entry Ahead Right	U	N/A	N/A	A C		1	51:17	-	525	1944:1965	1122	46.8%
4/1	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	580	Inf	Inf	0.0%
4/2	A288 Copnor Road north exit	U	N/A	N/A	-		-	-	-	590	Inf	Inf	0.0%
5/2+5/1	A288 Copnor Road north entry Ahead Left	U	N/A	N/A	B D		1:2	43:71	-	1173	1994:1965	1643	71.4%
6/1	Norway Road exit	U	N/A	N/A	-		-	-	-	811	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	65	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	43	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	J		1	45	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	K		1	5	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	L		2	25	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	G		1	5	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	18.0	3.9	0.0	21.8	-	-	-	-
Norway Road / Copnor Road signalised junction	-	-	0	0	0	18.0	3.9	0.0	21.8	-	-	-	-
1/2+1/1	565	565	-	-	-	4.0	1.3	-	5.2	33.4	10.9	1.3	12.2
1/3	408	408	-	-	-	3.4	0.9	-	4.3	38.2	11.1	0.9	12.0
2/1	690	690	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	525	525	-	-	-	4.5	0.4	-	4.9	33.9	8.4	0.4	8.9
4/1	580	580	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	590	590	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	1173	1173	-	-	-	6.1	1.2	-	7.3	22.4	14.8	1.2	16.0
6/1	811	811	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):		24.6	Total Delay for Signalled Lanes (pcuHr):		21.82	Cycle Time (s): 120				
			PRC Over All Lanes (%):		24.6	Total Delay Over All Lanes(pcuHr):		21.82					

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
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Filename: Purbrook Way_College Rd.j9

Path: \\uk.wspgroup.com\central data\Projects\62100xxx\62100616 - Aquind VO No.3\A DCO\D. EIA\5. WIP\12. Traffic and Transport\Transport Assessment\Analysis & Calcs\PICADY\TA Models and Outputs

Report generation date: 28/10/2019 16:11:22

- »ELM - DM, AM
- »ELM - DM, PM
- »EMM - DS1, AM
- »EMM - DS1, PM
- »EML - DS2, AM
- »EML - DS2, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
ELM - DM								
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	3.2	73.55	0.77	F	1.2	48.42	0.54	E
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
EMM - DS1								
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	5.5	114.52	0.88	F	1.7	52.27	0.62	F
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
EML - DS2								
Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream B-A	5.1	106.72	0.87	F	1.7	53.51	0.62	F
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A

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

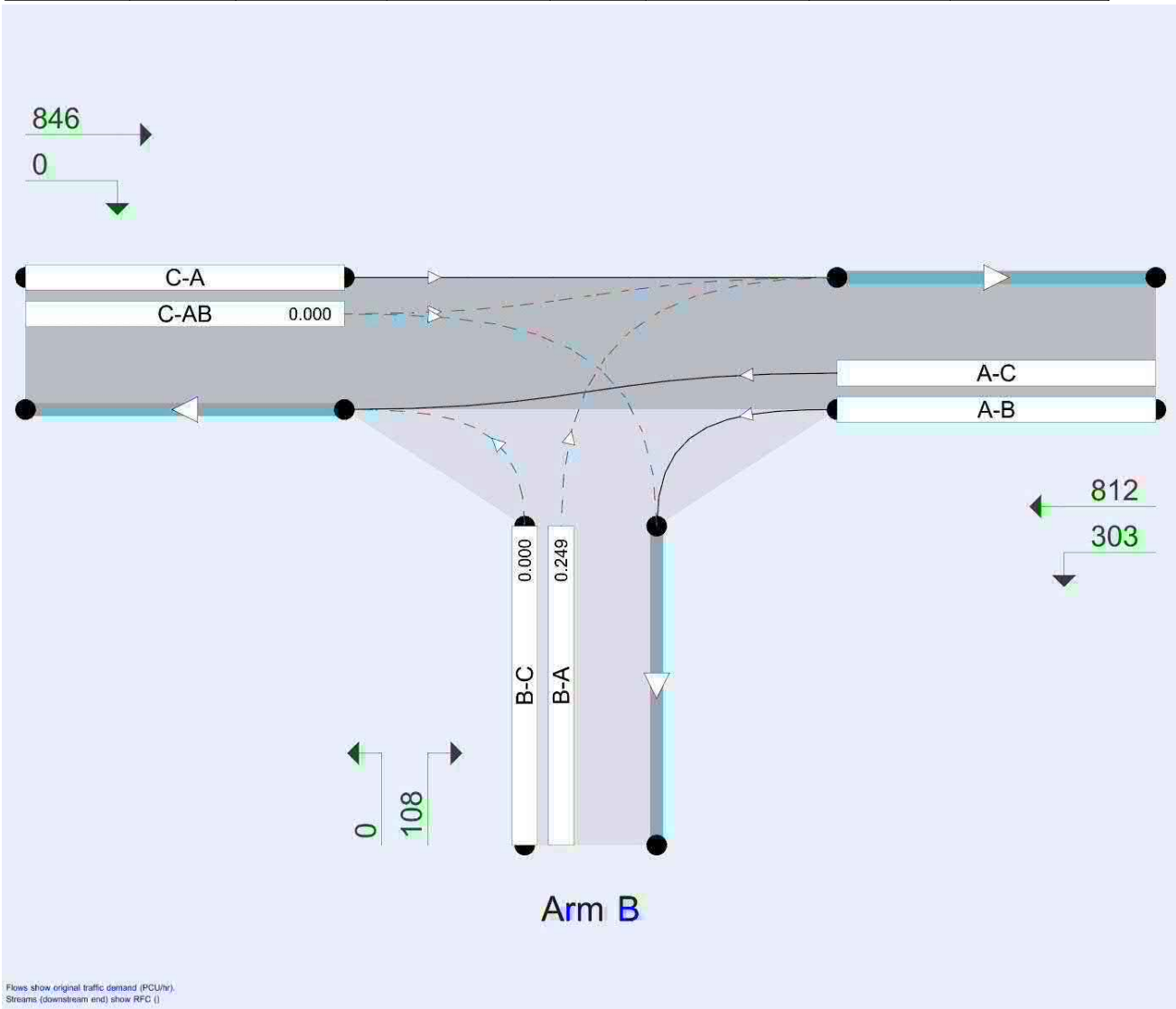
File summary

File Description

Title	Purbrook Way / College Road priority T-junction
Location	
Site number	
Date	29/08/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	62100616
Enumerator	CORP\UKAJT009
Description	

Units

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



Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

ELM - DM, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	5.14	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Purbrook Way east		Major
B	College Road		Minor
C	Purbrook Way west		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.60		✓	3.50	250.0	✓	19.00

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	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 plus flare	10.00	7.60	5.60	4.80	4.40		4.00	70	45

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	619	0.105	0.265	0.167	0.379
1	B-C	563	0.080	0.203	-	-
1	C-B	820	0.296	0.296	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	819	100.000
B		✓	155	100.000
C		✓	1242	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	389	430
	B	155	0	0
	C	1242	0	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.77	73.55	3.2	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	434	0.000	0	0.0	0.000	A
B-A	117	346	0.337	115	0.5	16.926	C
C-AB	0	1276	0.000	0	0.0	0.000	A
C-A	935			935			
A-B	293			293			
A-C	324			324			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	402	0.000	0	0.0	0.000	A
B-A	139	294	0.475	138	0.9	25.146	D
C-AB	0	1205	0.000	0	0.0	0.000	A
C-A	1117			1117			
A-B	350			350			
A-C	387			387			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	347	0.000	0	0.0	0.000	A
B-A	171	220	0.774	163	2.9	62.076	F
C-AB	0	1107	0.000	0	0.0	0.000	A
C-A	1367			1367			
A-B	428			428			
A-C	473			473			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	343	0.000	0	0.0	0.000	A
B-A	171	220	0.774	169	3.2	73.550	F
C-AB	0	1107	0.000	0	0.0	0.000	A
C-A	1367			1367			
A-B	428			428			
A-C	473			473			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	398	0.000	0	0.0	0.000	A
B-A	139	294	0.475	148	1.0	28.643	D
C-AB	0	1205	0.000	0	0.0	0.000	A
C-A	1117			1117			
A-B	350			350			
A-C	387			387			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	433	0.000	0	0.0	0.000	A
B-A	117	346	0.337	119	0.6	17.519	C
C-AB	0	1276	0.000	0	0.0	0.000	A
C-A	935			935			
A-B	293			293			
A-C	324			324			

ELM - DM, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.99	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1230	100.000
B		✓	85	100.000
C		✓	750	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	297	933
	B	85	0	0
	C	750	0	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.54	48.42	1.2	E
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	382	0.000	0	0.0	0.000	A
B-A	64	315	0.203	63	0.3	15.639	C
C-AB	0	1093	0.000	0	0.0	0.000	A
C-A	565			565			
A-B	224			224			
A-C	702			702			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	344	0.000	0	0.0	0.000	A
B-A	76	256	0.298	76	0.5	21.863	C
C-AB	0	987	0.000	0	0.0	0.000	A
C-A	674			674			
A-B	267			267			
A-C	839			839			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	284	0.000	0	0.0	0.000	A
B-A	94	175	0.536	91	1.1	45.858	E
C-AB	0	840	0.000	0	0.0	0.000	A
C-A	826			826			
A-B	327			327			
A-C	1027			1027			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	282	0.000	0	0.0	0.000	A
B-A	94	175	0.536	93	1.2	48.422	E
C-AB	0	840	0.000	0	0.0	0.000	A
C-A	826			826			
A-B	327			327			
A-C	1027			1027			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	342	0.000	0	0.0	0.000	A
B-A	76	256	0.298	79	0.5	22.734	C
C-AB	0	987	0.000	0	0.0	0.000	A
C-A	674			674			
A-B	267			267			
A-C	839			839			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	382	0.000	0	0.0	0.000	A
B-A	64	315	0.203	65	0.3	15.871	C
C-AB	0	1093	0.000	0	0.0	0.000	A
C-A	565			565			
A-B	224			224			
A-C	702			702			

EMM - DS1, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	8.79	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	855	100.000
B		✓	172	100.000
C		✓	1215	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	386	469
	B	172	0	0
	C	1215	0	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.88	114.52	5.5	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	424	0.000	0	0.0	0.000	A
B-A	129	342	0.378	127	0.6	18.182	C
C-AB	0	1260	0.000	0	0.0	0.000	A
C-A	915			915			
A-B	291			291			
A-C	353			353			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	389	0.000	0	0.0	0.000	A
B-A	155	289	0.536	152	1.2	28.630	D
C-AB	0	1186	0.000	0	0.0	0.000	A
C-A	1092			1092			
A-B	347			347			
A-C	422			422			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	328	0.000	0	0.0	0.000	A
B-A	189	214	0.884	176	4.5	84.496	F
C-AB	0	1084	0.000	0	0.0	0.000	A
C-A	1338			1338			
A-B	425			425			
A-C	516			516			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	322	0.000	0	0.0	0.000	A
B-A	189	214	0.884	185	5.5	114.520	F
C-AB	0	1084	0.000	0	0.0	0.000	A
C-A	1338			1338			
A-B	425			425			
A-C	516			516			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	381	0.000	0	0.0	0.000	A
B-A	155	289	0.536	171	1.4	37.647	E
C-AB	0	1186	0.000	0	0.0	0.000	A
C-A	1092			1092			
A-B	347			347			
A-C	422			422			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	422	0.000	0	0.0	0.000	A
B-A	129	342	0.378	132	0.7	19.076	C
C-AB	0	1260	0.000	0	0.0	0.000	A
C-A	915			915			
A-B	291			291			
A-C	353			353			

EMM - DS1, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.77	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1112	100.000
B		✓	109	100.000
C		✓	835	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	303	809
	B	109	0	0
	C	835	0	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.62	52.27	1.7	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	395	0.000	0	0.0	0.000	A
B-A	82	329	0.250	81	0.4	15.878	C
C-AB	0	1146	0.000	0	0.0	0.000	A
C-A	629			629			
A-B	228			228			
A-C	609			609			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	358	0.000	0	0.0	0.000	A
B-A	98	272	0.360	97	0.6	22.463	C
C-AB	0	1050	0.000	0	0.0	0.000	A
C-A	751			751			
A-B	272			272			
A-C	727			727			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	300	0.000	0	0.0	0.000	A
B-A	120	194	0.617	116	1.6	48.410	E
C-AB	0	917	0.000	0	0.0	0.000	A
C-A	919			919			
A-B	334			334			
A-C	891			891			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	298	0.000	0	0.0	0.000	A
B-A	120	194	0.617	120	1.7	52.272	F
C-AB	0	917	0.000	0	0.0	0.000	A
C-A	919			919			
A-B	334			334			
A-C	891			891			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	356	0.000	0	0.0	0.000	A
B-A	98	272	0.360	102	0.6	23.754	C
C-AB	0	1050	0.000	0	0.0	0.000	A
C-A	751			751			
A-B	272			272			
A-C	727			727			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	394	0.000	0	0.0	0.000	A
B-A	82	329	0.250	83	0.4	16.197	C
C-AB	0	1146	0.000	0	0.0	0.000	A
C-A	629			629			
A-B	228			228			
A-C	609			609			

EML - DS2, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	8.18	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	851	100.000
B		✓	171	100.000
C		✓	1208	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	386	465
	B	171	0	0
	C	1208	0	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.87	106.72	5.1	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	425	0.000	0	0.0	0.000	A
B-A	129	344	0.374	126	0.6	17.987	C
C-AB	0	1262	0.000	0	0.0	0.000	A
C-A	909			909			
A-B	291			291			
A-C	350			350			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	390	0.000	0	0.0	0.000	A
B-A	154	291	0.529	152	1.2	28.071	D
C-AB	0	1188	0.000	0	0.0	0.000	A
C-A	1086			1086			
A-B	347			347			
A-C	418			418			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	331	0.000	0	0.0	0.000	A
B-A	188	217	0.868	176	4.3	80.499	F
C-AB	0	1087	0.000	0	0.0	0.000	A
C-A	1330			1330			
A-B	425			425			
A-C	512			512			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	325	0.000	0	0.0	0.000	A
B-A	188	217	0.868	185	5.1	106.718	F
C-AB	0	1087	0.000	0	0.0	0.000	A
C-A	1330			1330			
A-B	425			425			
A-C	512			512			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	383	0.000	0	0.0	0.000	A
B-A	154	291	0.529	169	1.3	35.879	E
C-AB	0	1188	0.000	0	0.0	0.000	A
C-A	1086			1086			
A-B	347			347			
A-C	418			418			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	423	0.000	0	0.0	0.000	A
B-A	129	344	0.374	131	0.7	18.838	C
C-AB	0	1262	0.000	0	0.0	0.000	A
C-A	909			909			
A-B	291			291			
A-C	350			350			

EML - DS2, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	2.79	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1115	100.000
B		✓	108	100.000
C		✓	846	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	303	812
	B	108	0	0
	C	846	0	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.62	53.51	1.7	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	395	0.000	0	0.0	0.000	A
B-A	81	327	0.249	80	0.4	15.958	C
C-AB	0	1144	0.000	0	0.0	0.000	A
C-A	637			637			
A-B	228			228			
A-C	611			611			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	357	0.000	0	0.0	0.000	A
B-A	97	270	0.360	96	0.6	22.651	C
C-AB	0	1048	0.000	0	0.0	0.000	A
C-A	761			761			
A-B	272			272			
A-C	730			730			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	299	0.000	0	0.0	0.000	A
B-A	119	192	0.621	115	1.6	49.420	E
C-AB	0	915	0.000	0	0.0	0.000	A
C-A	931			931			
A-B	334			334			
A-C	894			894			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	297	0.000	0	0.0	0.000	A
B-A	119	192	0.621	119	1.7	53.507	F
C-AB	0	915	0.000	0	0.0	0.000	A
C-A	931			931			
A-B	334			334			
A-C	894			894			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	355	0.000	0	0.0	0.000	A
B-A	97	270	0.360	101	0.6	23.987	C
C-AB	0	1048	0.000	0	0.0	0.000	A
C-A	761			761			
A-B	272			272			
A-C	730			730			

18:00 - 18:15

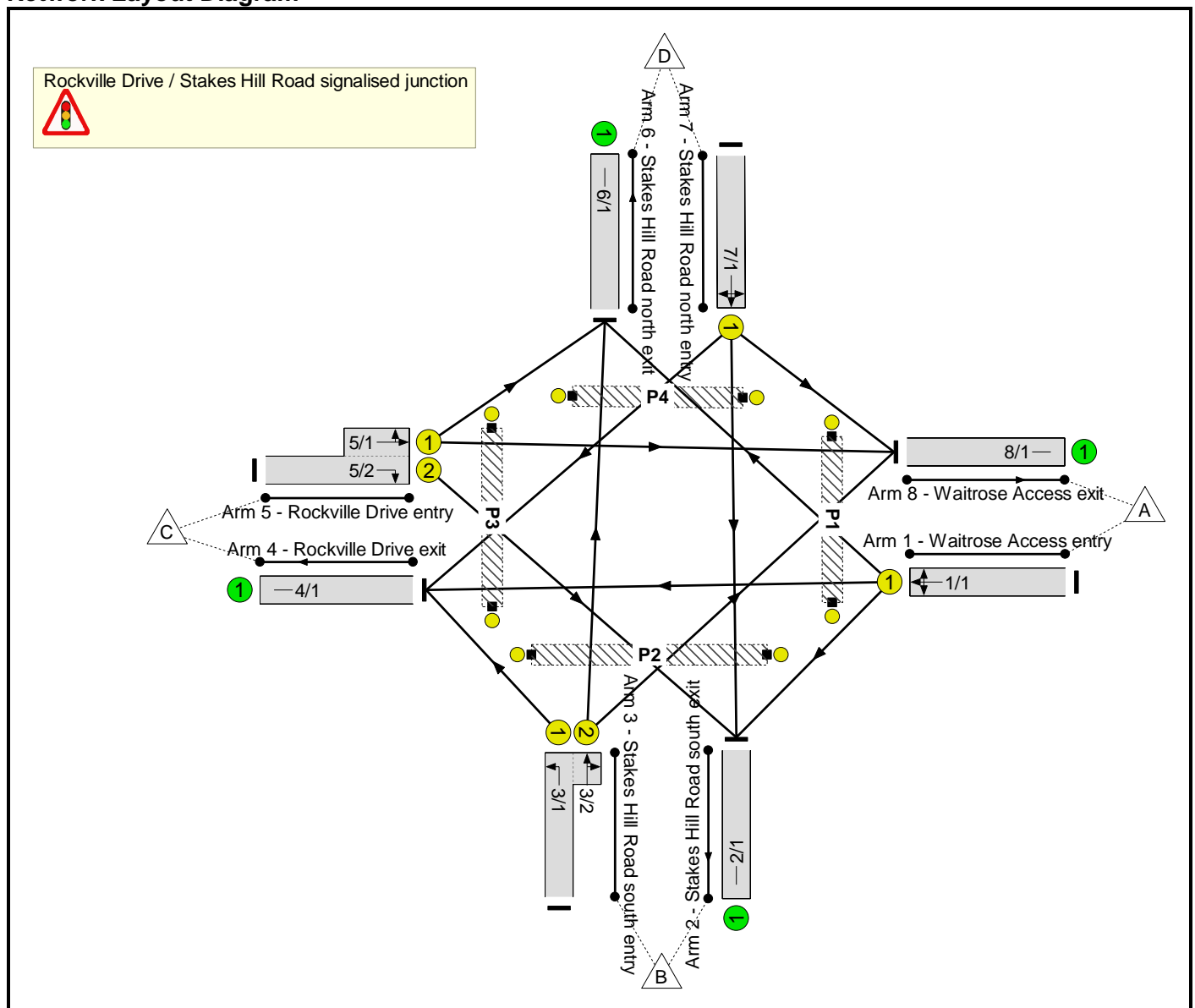
Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	0	394	0.000	0	0.0	0.000	A
B-A	81	327	0.249	82	0.4	16.278	C
C-AB	0	1144	0.000	0	0.0	0.000	A
C-A	637			637			
A-B	228			228			
A-C	611			611			

Full Input Data And Results
Full Input Data And Results

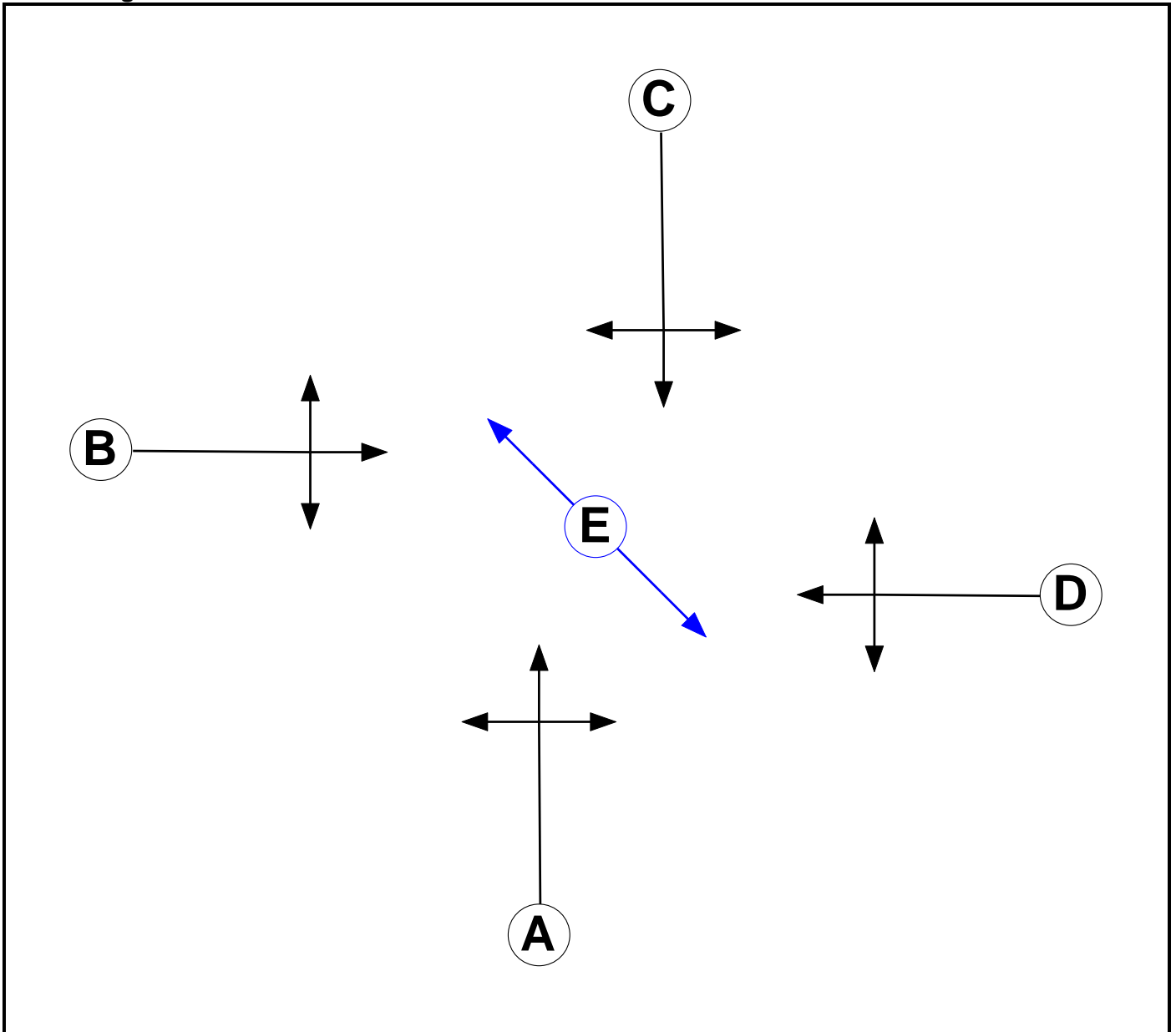
User and Project Details

Project:	
Title:	Rockville Drive / Stakes Hill Road traffic signal junction
Location:	
Additional detail:	
File name:	Rockville Dr_Stakes Hill Rd.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		7	7

Full Input Data And Results

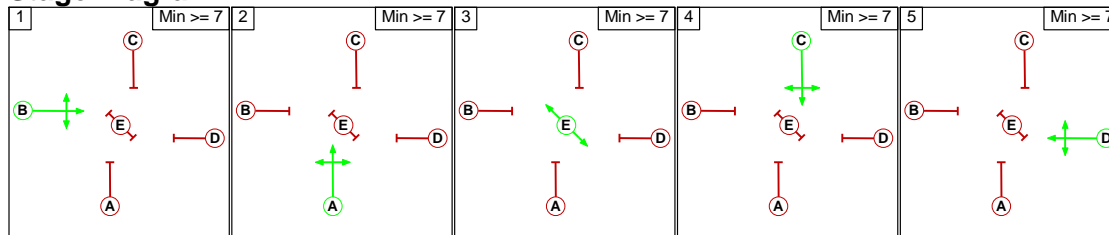
Phase Intergrens Matrix

		Starting Phase				
		A	B	C	D	E
Terminating Phase	A		6	6	5	7
	B	6		6	5	7
	C	7	7		5	7
	D	7	7	5		7
	E	0	0	0	0	

Phases in Stage

Stage No.	Phases in Stage
1	B
2	A
3	E
4	C
5	D

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage				
		1	2	3	4	5
From Stage	1		6	7	6	5
	2	6		7	6	5
	3	2	2		2	2
	4	7	7	7		5
	5	7	7	7	5	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Rockville Drive / Stakes Hill Road signalised junction

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Rockville Drive / Stakes Hill Road signalised junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Waitrose Access entry)	U	D	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 2 Left	15.00
											Arm 4 Ahead	15.00
											Arm 6 Right	10.00
2/1 (Stakes Hill Road south exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
3/1 (Stakes Hill Road south entry)	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Left	60.00
3/2 (Stakes Hill Road south entry)	U	A	2	3	1.7	Geom	-	3.00	0.00	Y	Arm 6 Ahead	15.00
											Arm 8 Right	15.00
4/1 (Rockville Drive exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Rockville Drive entry)	U	B	2	3	3.5	Geom	-	3.25	0.00	Y	Arm 6 Left	12.00
											Arm 8 Ahead	70.00
5/2 (Rockville Drive entry)	U	B	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 2 Right	35.00
6/1 (Stakes Hill Road north exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (Stakes Hill Road north entry)	U	C	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 2 Ahead	35.00
											Arm 4 Right	15.00
											Arm 8 Left	10.00
8/1 (Waitrose Access exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'ELM - DM AM'	08:00	09:00	01:00	
2: 'ELM - DM PM'	17:00	18:00	01:00	
3: 'EMM - DS1 AM'	08:00	09:00	01:00	
4: 'EMM - DS1 PM'	17:00	18:00	01:00	
5: 'EML - DS2 AM'	08:00	09:00	01:00	
6: 'EML - DS2 PM'	17:00	18:00	01:00	

Scenario 1: 'ELM - DM AM' (FG1: 'ELM - DM AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	84	24	108
	C	0	433	0	0	433
	D	0	24	0	0	24
	Tot.	0	457	84	24	565

Traffic Lane Flows

Lane	Scenario 1: ELM - DM AM
Junction: Rockville Drive / Stakes Hill Road signalised junction	
1/1	0
2/1	457
3/1 (with short)	108(In) 84(Out)
3/2 (short)	24
4/1	84
5/1 (short)	0
5/2 (with short)	433(In) 433(Out)
6/1	24
7/1	24
8/1	0

Lane Saturation Flows

Junction: Rockville Drive / Stakes Hill Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Waitrose Access entry)	3.00	0.00	Y	Arm 2 Left	15.00	0.0 %	1915	1915
				Arm 4 Ahead	15.00	0.0 %		
				Arm 6 Right	10.00	0.0 %		
2/1 (Stakes Hill Road south exit Lane 1)				Infinite Saturation Flow			Inf	Inf
3/1 (Stakes Hill Road south entry)	3.00	0.00	Y	Arm 4 Left	60.00	100.0 %	1868	1868
3/2 (Stakes Hill Road south entry)	3.00	0.00	Y	Arm 6 Ahead	15.00	100.0 %	1741	1741
				Arm 8 Right	15.00	0.0 %		
4/1 (Rockville Drive exit Lane 1)				Infinite Saturation Flow			Inf	Inf
5/1 (Rockville Drive entry)	3.25	0.00	Y	Arm 6 Left	12.00	0.0 %	1940	1940
				Arm 8 Ahead	70.00	0.0 %		
5/2 (Rockville Drive entry)	3.25	0.00	Y	Arm 2 Right	35.00	100.0 %	1860	1860
6/1 (Stakes Hill Road north exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (Stakes Hill Road north entry)	3.25	0.00	Y	Arm 2 Ahead	35.00	100.0 %	1860	1860
				Arm 4 Right	15.00	0.0 %		
				Arm 8 Left	10.00	0.0 %		
8/1 (Waitrose Access exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 2: 'ELM - DM PM' (FG2: 'ELM - DM PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
	A	B	C	D	Tot.	
A	0	0	0	0	0	
B	0	0	220	23	243	
C	0	364	0	0	364	
D	0	23	0	0	23	
Tot.	0	387	220	23	630	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: ELM - DM PM
Junction: Rockville Drive / Stakes Hill Road signalised junction	
1/1	0
2/1	387
3/1 (with short)	243(In) 220(Out)
3/2 (short)	23
4/1	220
5/1 (short)	0
5/2 (with short)	364(In) 364(Out)
6/1	23
7/1	23
8/1	0

Lane Saturation Flows

Junction: Rockville Drive / Stakes Hill Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Waitrose Access entry)	3.00	0.00	Y	Arm 2 Left	15.00	0.0 %	1915	1915
				Arm 4 Ahead	15.00	0.0 %		
				Arm 6 Right	10.00	0.0 %		
2/1 (Stakes Hill Road south exit Lane 1)				Infinite Saturation Flow			Inf	Inf
3/1 (Stakes Hill Road south entry)	3.00	0.00	Y	Arm 4 Left	60.00	100.0 %	1868	1868
3/2 (Stakes Hill Road south entry)	3.00	0.00	Y	Arm 6 Ahead	15.00	100.0 %	1741	1741
				Arm 8 Right	15.00	0.0 %		
4/1 (Rockville Drive exit Lane 1)				Infinite Saturation Flow			Inf	Inf
5/1 (Rockville Drive entry)	3.25	0.00	Y	Arm 6 Left	12.00	0.0 %	1940	1940
				Arm 8 Ahead	70.00	0.0 %		
5/2 (Rockville Drive entry)	3.25	0.00	Y	Arm 2 Right	35.00	100.0 %	1860	1860
6/1 (Stakes Hill Road north exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (Stakes Hill Road north entry)	3.25	0.00	Y	Arm 2 Ahead	35.00	100.0 %	1860	1860
				Arm 4 Right	15.00	0.0 %		
				Arm 8 Left	10.00	0.0 %		
8/1 (Waitrose Access exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 3: 'EMM - DS1 AM' (FG3: 'EMM - DS1 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
	A	B	C	D	Tot.	
A	0	0	0	0	0	
B	0	0	140	24	164	
C	0	383	0	0	383	
D	0	24	0	0	24	
Tot.	0	407	140	24	571	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: EMM - DS1 AM
Junction: Rockville Drive / Stakes Hill Road signalised junction	
1/1	0
2/1	407
3/1 (with short)	164(In) 140(Out)
3/2 (short)	24
4/1	140
5/1 (short)	0
5/2 (with short)	383(In) 383(Out)
6/1	24
7/1	24
8/1	0

Lane Saturation Flows

Junction: Rockville Drive / Stakes Hill Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Waitrose Access entry)	3.00	0.00	Y	Arm 2 Left	15.00	0.0 %	1915	1915
				Arm 4 Ahead	15.00	0.0 %		
				Arm 6 Right	10.00	0.0 %		
2/1 (Stakes Hill Road south exit Lane 1)				Infinite Saturation Flow			Inf	Inf
3/1 (Stakes Hill Road south entry)	3.00	0.00	Y	Arm 4 Left	60.00	100.0 %	1868	1868
3/2 (Stakes Hill Road south entry)	3.00	0.00	Y	Arm 6 Ahead	15.00	100.0 %	1741	1741
				Arm 8 Right	15.00	0.0 %		
4/1 (Rockville Drive exit Lane 1)				Infinite Saturation Flow			Inf	Inf
5/1 (Rockville Drive entry)	3.25	0.00	Y	Arm 6 Left	12.00	0.0 %	1940	1940
				Arm 8 Ahead	70.00	0.0 %		
5/2 (Rockville Drive entry)	3.25	0.00	Y	Arm 2 Right	35.00	100.0 %	1860	1860
6/1 (Stakes Hill Road north exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (Stakes Hill Road north entry)	3.25	0.00	Y	Arm 2 Ahead	35.00	100.0 %	1860	1860
				Arm 4 Right	15.00	0.0 %		
				Arm 8 Left	10.00	0.0 %		
8/1 (Waitrose Access exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 4: 'EMM - DS1 PM' (FG4: 'EMM - DS1 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
	A	B	C	D	Tot.	
A	0	0	0	0	0	
B	0	0	246	24	270	
C	0	323	0	0	323	
D	0	23	0	0	23	
Tot.	0	346	246	24	616	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: EMM - DS1 PM
Junction: Rockville Drive / Stakes Hill Road signalised junction	
1/1	0
2/1	346
3/1 (with short)	270(In) 246(Out)
3/2 (short)	24
4/1	246
5/1 (short)	0
5/2 (with short)	323(In) 323(Out)
6/1	24
7/1	23
8/1	0

Lane Saturation Flows

Junction: Rockville Drive / Stakes Hill Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Waitrose Access entry)	3.00	0.00	Y	Arm 2 Left	15.00	0.0 %	1915	1915
				Arm 4 Ahead	15.00	0.0 %		
				Arm 6 Right	10.00	0.0 %		
2/1 (Stakes Hill Road south exit Lane 1)				Infinite Saturation Flow			Inf	Inf
3/1 (Stakes Hill Road south entry)	3.00	0.00	Y	Arm 4 Left	60.00	100.0 %	1868	1868
3/2 (Stakes Hill Road south entry)	3.00	0.00	Y	Arm 6 Ahead	15.00	100.0 %	1741	1741
				Arm 8 Right	15.00	0.0 %		
4/1 (Rockville Drive exit Lane 1)				Infinite Saturation Flow			Inf	Inf
5/1 (Rockville Drive entry)	3.25	0.00	Y	Arm 6 Left	12.00	0.0 %	1940	1940
				Arm 8 Ahead	70.00	0.0 %		
5/2 (Rockville Drive entry)	3.25	0.00	Y	Arm 2 Right	35.00	100.0 %	1860	1860
6/1 (Stakes Hill Road north exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (Stakes Hill Road north entry)	3.25	0.00	Y	Arm 2 Ahead	35.00	100.0 %	1860	1860
				Arm 4 Right	15.00	0.0 %		
				Arm 8 Left	10.00	0.0 %		
8/1 (Waitrose Access exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 5: 'EML - DS2 AM' (FG5: 'EML - DS2 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
	A	B	C	D	Tot.	
A	0	0	0	0	0	
B	0	0	145	24	169	
C	0	381	0	0	381	
D	0	24	0	0	24	
Tot.	0	405	145	24	574	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: EML - DS2 AM
Junction: Rockville Drive / Stakes Hill Road signalised junction	
1/1	0
2/1	405
3/1 (with short)	169(In) 145(Out)
3/2 (short)	24
4/1	145
5/1 (short)	0
5/2 (with short)	381(In) 381(Out)
6/1	24
7/1	24
8/1	0

Lane Saturation Flows

Junction: Rockville Drive / Stakes Hill Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Waitrose Access entry)	3.00	0.00	Y	Arm 2 Left	15.00	0.0 %	1915	1915
				Arm 4 Ahead	15.00	0.0 %		
				Arm 6 Right	10.00	0.0 %		
2/1 (Stakes Hill Road south exit Lane 1)				Infinite Saturation Flow			Inf	Inf
3/1 (Stakes Hill Road south entry)	3.00	0.00	Y	Arm 4 Left	60.00	100.0 %	1868	1868
3/2 (Stakes Hill Road south entry)	3.00	0.00	Y	Arm 6 Ahead	15.00	100.0 %	1741	1741
				Arm 8 Right	15.00	0.0 %		
4/1 (Rockville Drive exit Lane 1)				Infinite Saturation Flow			Inf	Inf
5/1 (Rockville Drive entry)	3.25	0.00	Y	Arm 6 Left	12.00	0.0 %	1940	1940
				Arm 8 Ahead	70.00	0.0 %		
5/2 (Rockville Drive entry)	3.25	0.00	Y	Arm 2 Right	35.00	100.0 %	1860	1860
6/1 (Stakes Hill Road north exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (Stakes Hill Road north entry)	3.25	0.00	Y	Arm 2 Ahead	35.00	100.0 %	1860	1860
				Arm 4 Right	15.00	0.0 %		
				Arm 8 Left	10.00	0.0 %		
8/1 (Waitrose Access exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 6: 'EML - DS2 PM' (FG6: 'EML - DS2 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
	A	B	C	D	Tot.	
A	0	0	0	0	0	
B	0	0	250	24	274	
C	0	320	0	0	320	
D	0	23	0	0	23	
Tot.	0	343	250	24	617	

Full Input Data And Results

Traffic Lane Flows

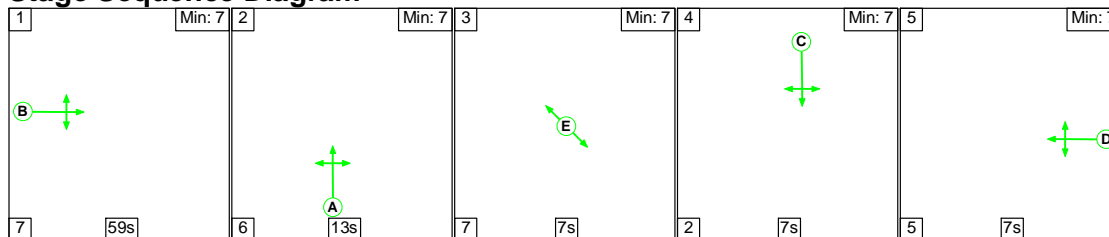
Lane	Scenario 6: EML - DS2 PM
Junction: Rockville Drive / Stakes Hill Road signalised junction	
1/1	0
2/1	343
3/1 (with short)	274(In) 250(Out)
3/2 (short)	24
4/1	250
5/1 (short)	0
5/2 (with short)	320(In) 320(Out)
6/1	24
7/1	23
8/1	0

Lane Saturation Flows

Junction: Rockville Drive / Stakes Hill Road signalised junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Waitrose Access entry)	3.00	0.00	Y	Arm 2 Left	15.00	0.0 %	1915	1915
				Arm 4 Ahead	15.00	0.0 %		
				Arm 6 Right	10.00	0.0 %		
2/1 (Stakes Hill Road south exit Lane 1)				Infinite Saturation Flow			Inf	Inf
3/1 (Stakes Hill Road south entry)	3.00	0.00	Y	Arm 4 Left	60.00	100.0 %	1868	1868
3/2 (Stakes Hill Road south entry)	3.00	0.00	Y	Arm 6 Ahead	15.00	100.0 %	1741	1741
				Arm 8 Right	15.00	0.0 %		
4/1 (Rockville Drive exit Lane 1)				Infinite Saturation Flow			Inf	Inf
5/1 (Rockville Drive entry)	3.25	0.00	Y	Arm 6 Left	12.00	0.0 %	1940	1940
				Arm 8 Ahead	70.00	0.0 %		
5/2 (Rockville Drive entry)	3.25	0.00	Y	Arm 2 Right	35.00	100.0 %	1860	1860
6/1 (Stakes Hill Road north exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (Stakes Hill Road north entry)	3.25	0.00	Y	Arm 2 Ahead	35.00	100.0 %	1860	1860
				Arm 4 Right	15.00	0.0 %		
				Arm 8 Left	10.00	0.0 %		
8/1 (Waitrose Access exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 1: 'ELM - DM AM' (FG1: 'ELM - DM AM', Plan 1: 'Network Control Plan 1')

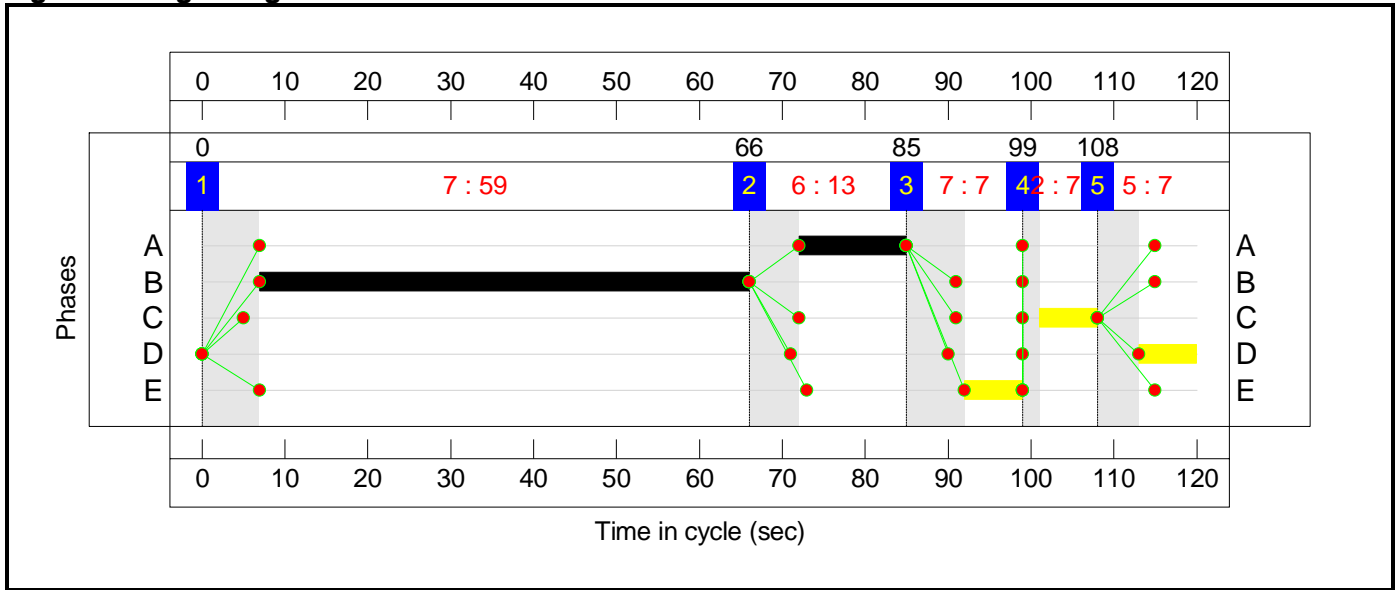
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	59	13	7	7	7
Change Point	0	66	85	99	108

Signal Timings Diagram

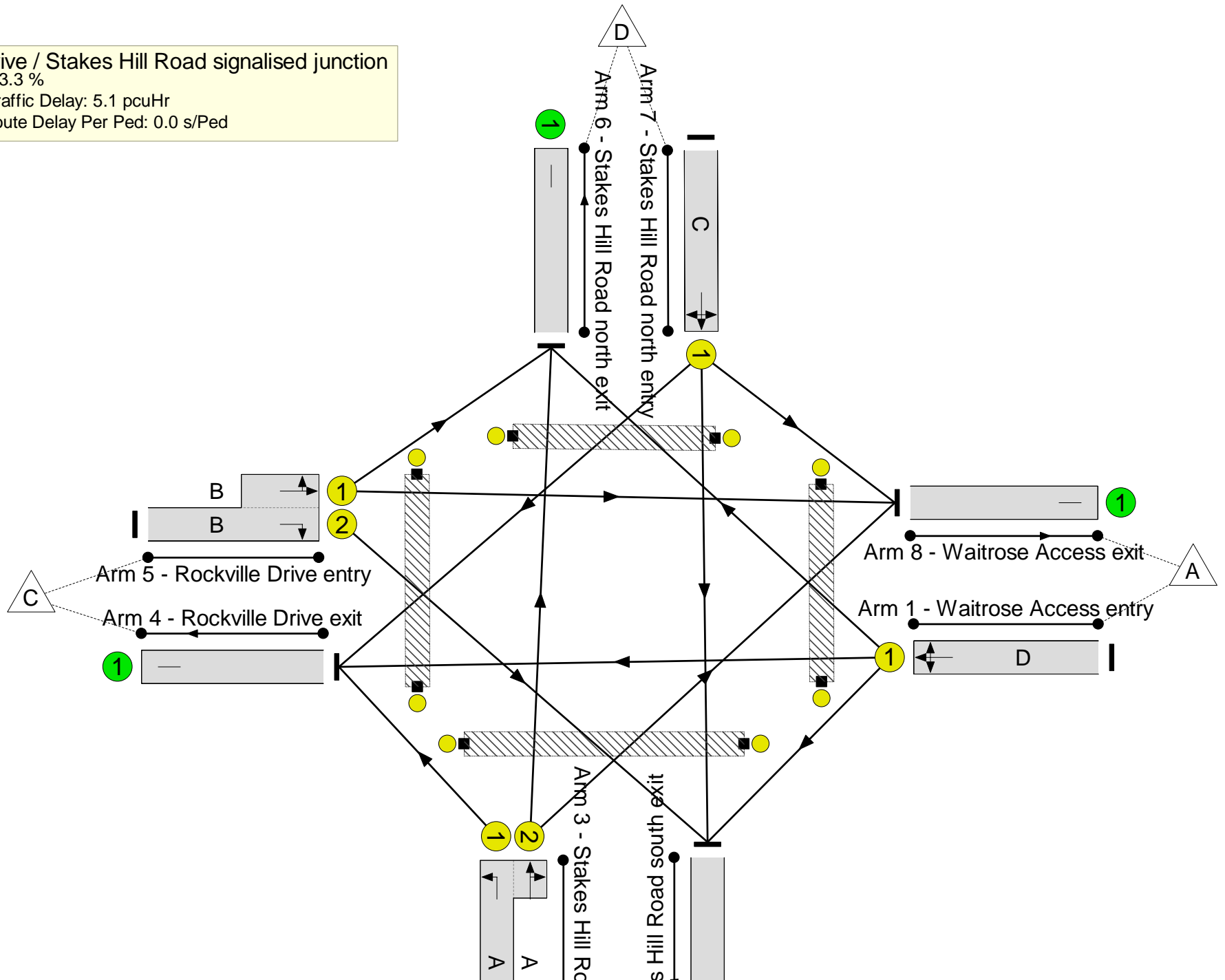


Full Input Data And Results
Network Layout Diagram

Rockville Drive / Stakes Hill Road signalised junction



PRC: 93.3 %
 Total Traffic Delay: 5.1 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

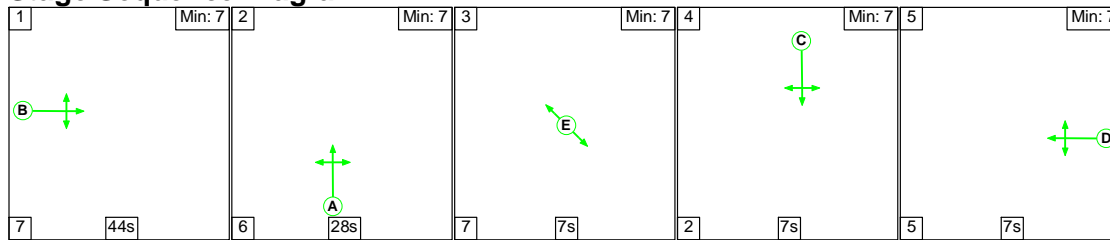
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	46.6%
Rockville Drive / Stakes Hill Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	46.6%
1/1	Waitrose Access entry Left Ahead Right	U	N/A	N/A	D		1	7	-	0	1915	128	0.0%
2/1	Stakes Hill Road south exit	U	N/A	N/A	-		-	-	-	457	Inf	Inf	0.0%
3/1+3/2	Stakes Hill Road south entry Left Ahead Right	U	N/A	N/A	A		1	13	-	108	1868:1741	240	45.1%
4/1	Rockville Drive exit	U	N/A	N/A	-		-	-	-	84	Inf	Inf	0.0%
5/2+5/1	Rockville Drive entry Right Left Ahead	U	N/A	N/A	B		1	59	-	433	1860:1940	930	46.6%
6/1	Stakes Hill Road north exit	U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
7/1	Stakes Hill Road north entry Ahead Right Left	U	N/A	N/A	C		1	7	-	24	1860	124	19.4%
8/1	Waitrose Access exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%

Full Input Data And Results

Scenario 2: 'ELM - DM PM' (FG2: 'ELM - DM PM', Plan 1: 'Network Control Plan 1')

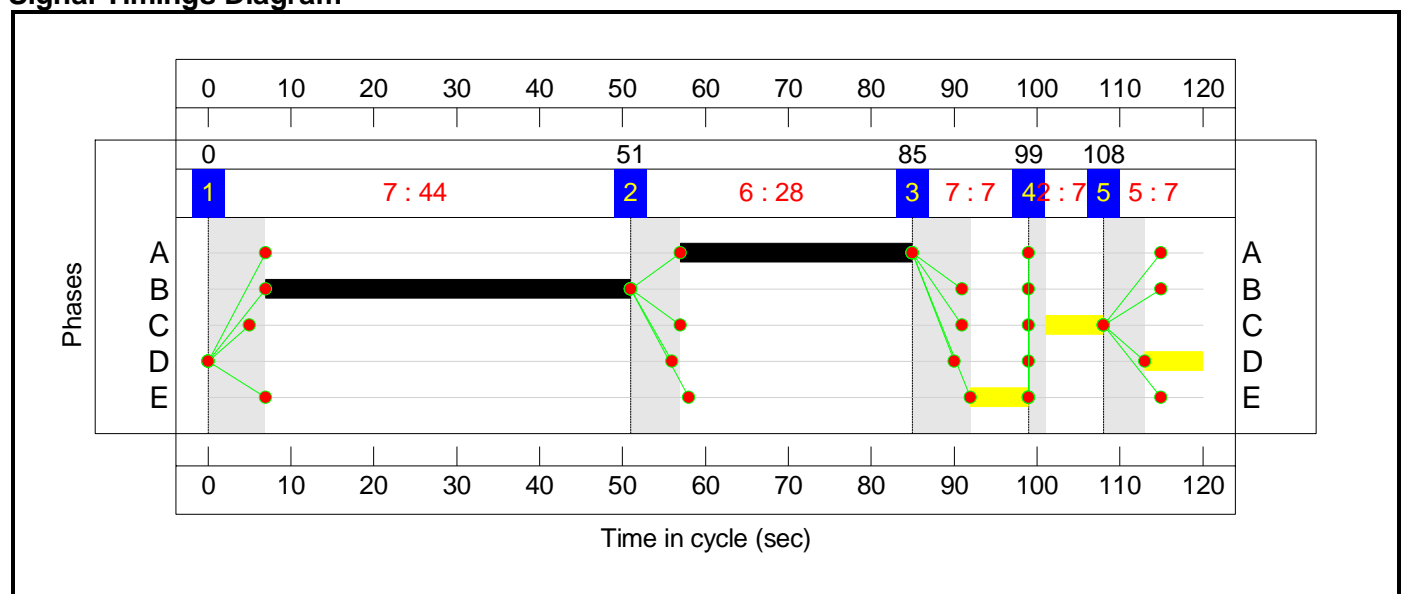
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	44	28	7	7	7
Change Point	0	51	85	99	108

Signal Timings Diagram

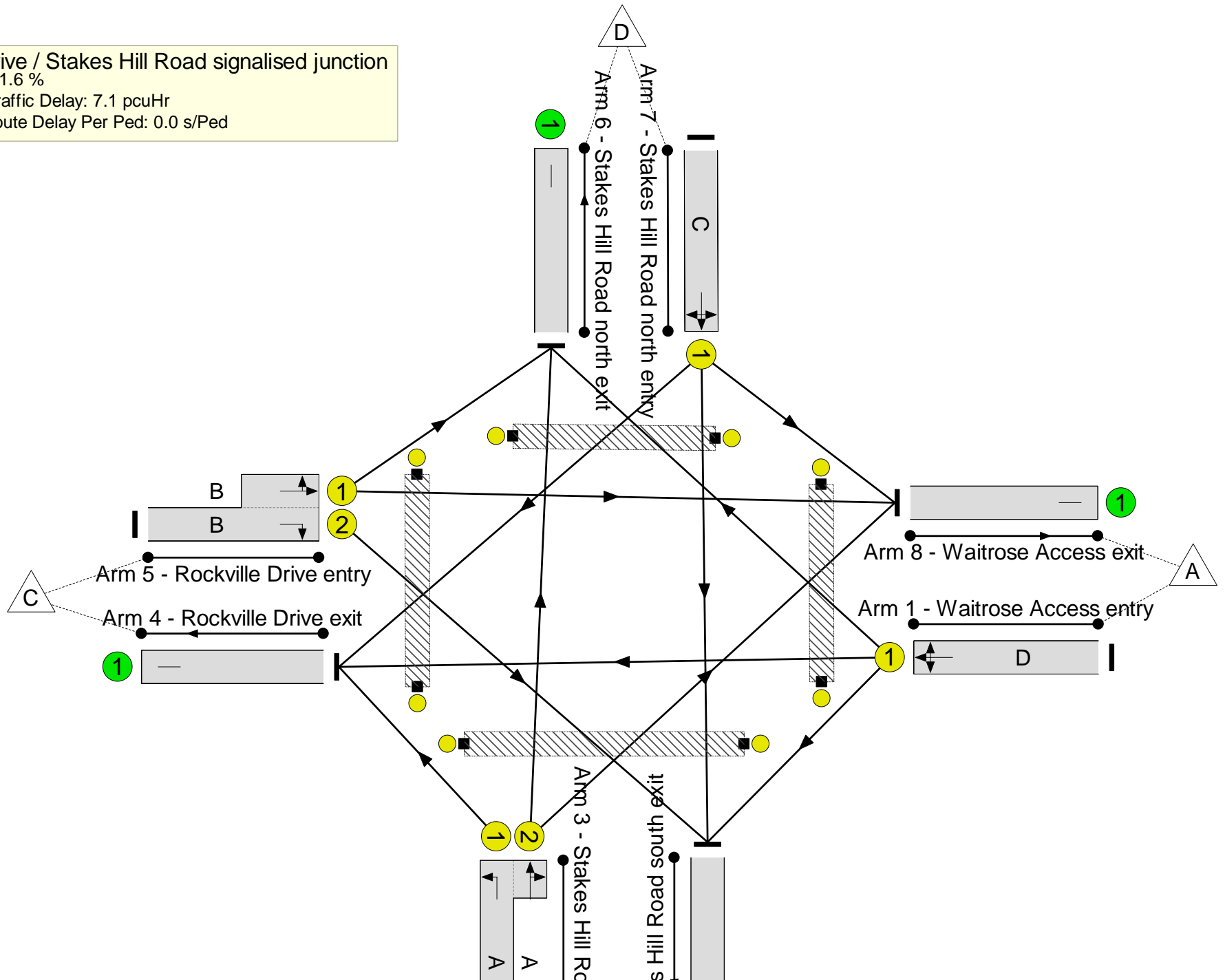


Full Input Data And Results
Network Layout Diagram

Rockville Drive / Stakes Hill Road signalised junction



PRC: 71.6 %
 Total Traffic Delay: 7.1 pcuHr
 Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

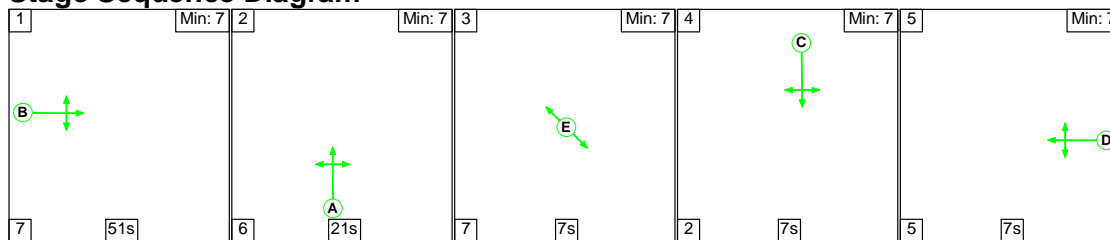
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	52.5%
Rockville Drive / Stakes Hill Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	52.5%
1/1	Waitrose Access entry Left Ahead Right	U	N/A	N/A	D		1	7	-	0	1915	128	0.0%
2/1	Stakes Hill Road south exit	U	N/A	N/A	-		-	-	-	387	Inf	Inf	0.0%
3/1+3/2	Stakes Hill Road south entry Left Ahead Right	U	N/A	N/A	A		1	28	-	243	1868:1741	463	52.5%
4/1	Rockville Drive exit	U	N/A	N/A	-		-	-	-	220	Inf	Inf	0.0%
5/2+5/1	Rockville Drive entry Right Left Ahead	U	N/A	N/A	B		1	44	-	364	1860:1940	698	52.2%
6/1	Stakes Hill Road north exit	U	N/A	N/A	-		-	-	-	23	Inf	Inf	0.0%
7/1	Stakes Hill Road north entry Ahead Right Left	U	N/A	N/A	C		1	7	-	23	1860	124	18.5%
8/1	Waitrose Access exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%

Full Input Data And Results

Scenario 3: 'EMM - DS1 AM' (FG3: 'EMM - DS1 AM', Plan 1: 'Network Control Plan 1')

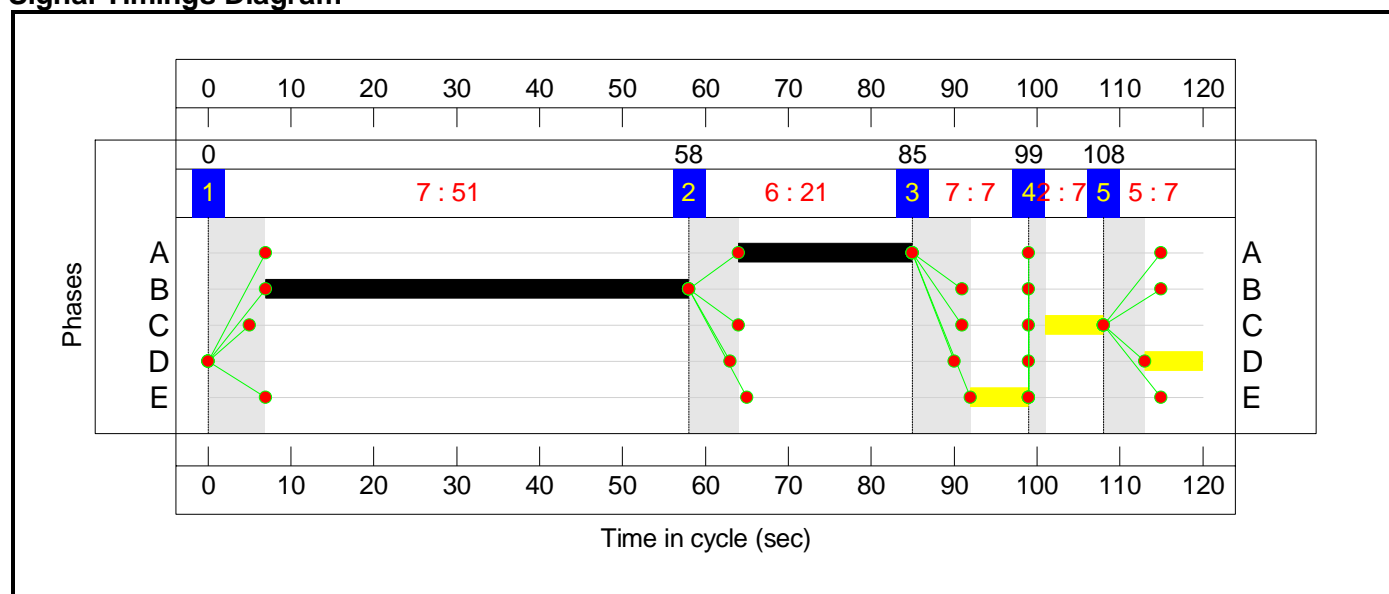
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	51	21	7	7	7
Change Point	0	58	85	99	108

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

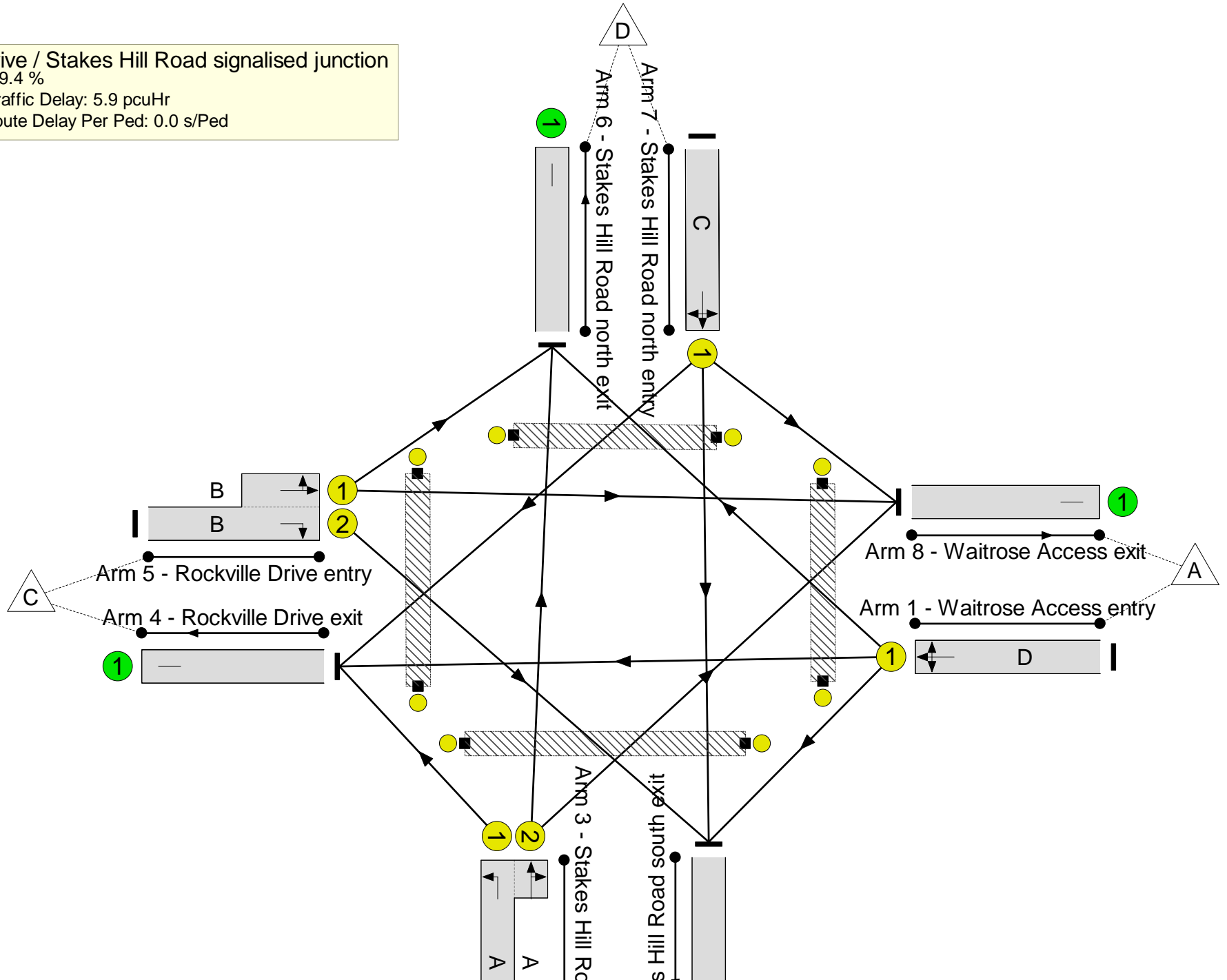
Rockville Drive / Stakes Hill Road signalised junction



PRC: 89.4 %

Total Traffic Delay: 5.9 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

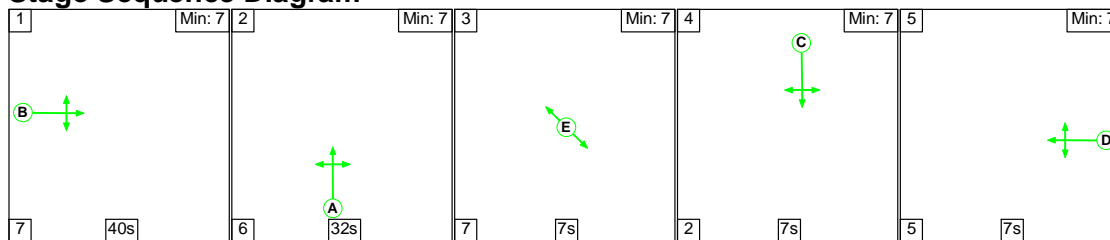
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	47.5%
Rockville Drive / Stakes Hill Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	47.5%
1/1	Waitrose Access entry Left Ahead Right	U	N/A	N/A	D		1	7	-	0	1915	128	0.0%
2/1	Stakes Hill Road south exit	U	N/A	N/A	-		-	-	-	407	Inf	Inf	0.0%
3/1+3/2	Stakes Hill Road south entry Left Ahead Right	U	N/A	N/A	A		1	21	-	164	1868:1741	358	45.9%
4/1	Rockville Drive exit	U	N/A	N/A	-		-	-	-	140	Inf	Inf	0.0%
5/2+5/1	Rockville Drive entry Right Left Ahead	U	N/A	N/A	B		1	51	-	383	1860:1940	806	47.5%
6/1	Stakes Hill Road north exit	U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
7/1	Stakes Hill Road north entry Ahead Right Left	U	N/A	N/A	C		1	7	-	24	1860	124	19.4%
8/1	Waitrose Access exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%

Full Input Data And Results

Scenario 4: 'EMM - DS1 PM' (FG4: 'EMM - DS1 PM', Plan 1: 'Network Control Plan 1')

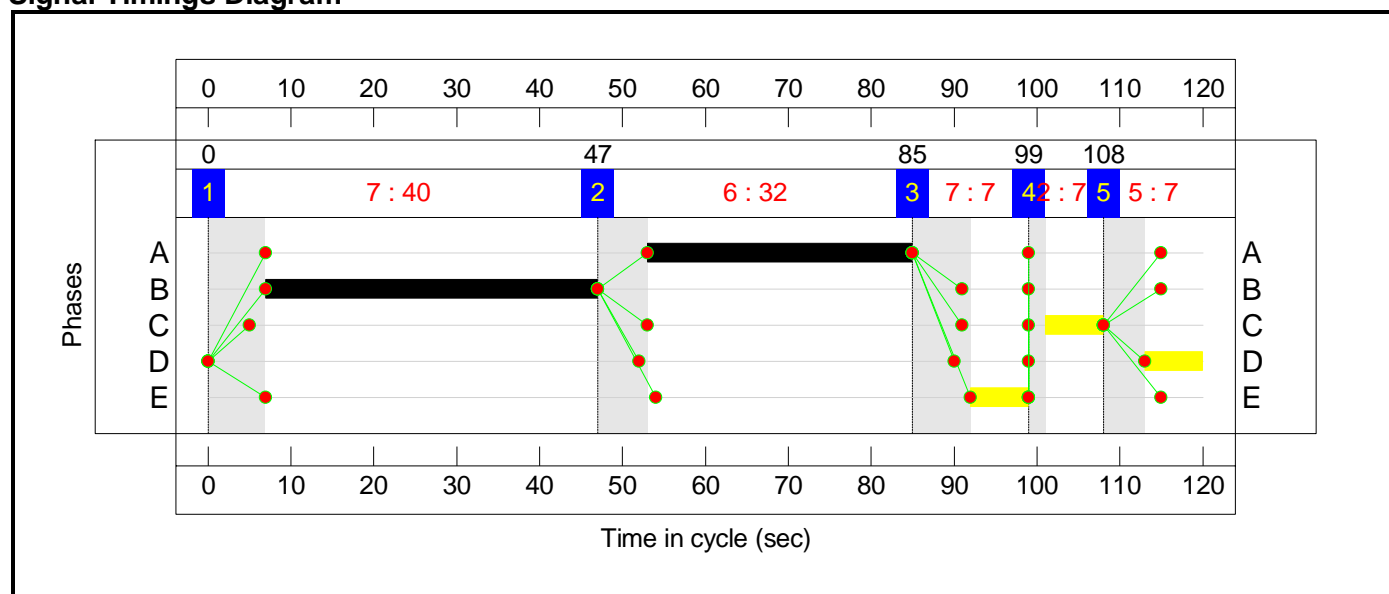
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	40	32	7	7	7
Change Point	0	47	85	99	108

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

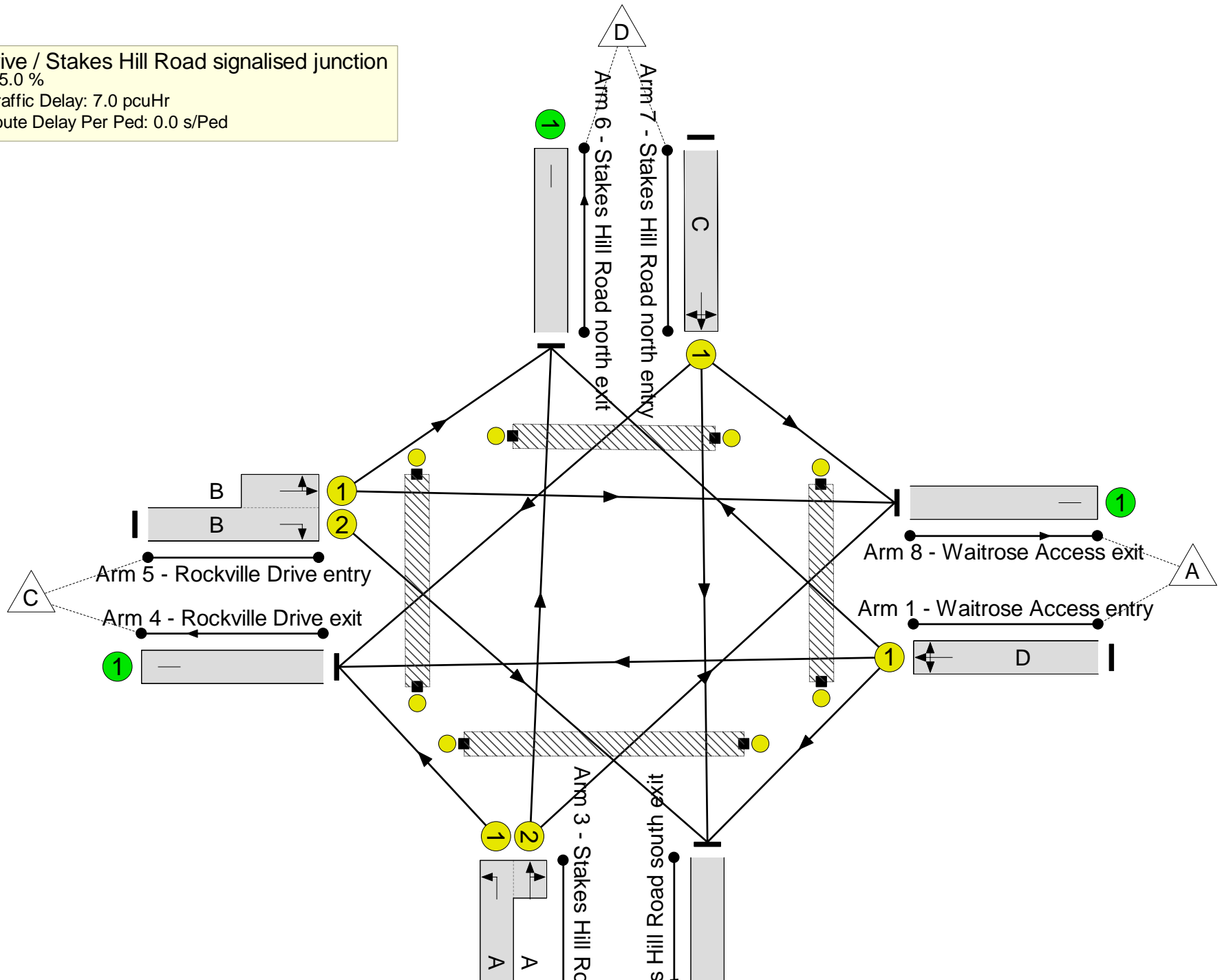
Rockville Drive / Stakes Hill Road signalised junction



PRC: 75.0 %

Total Traffic Delay: 7.0 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

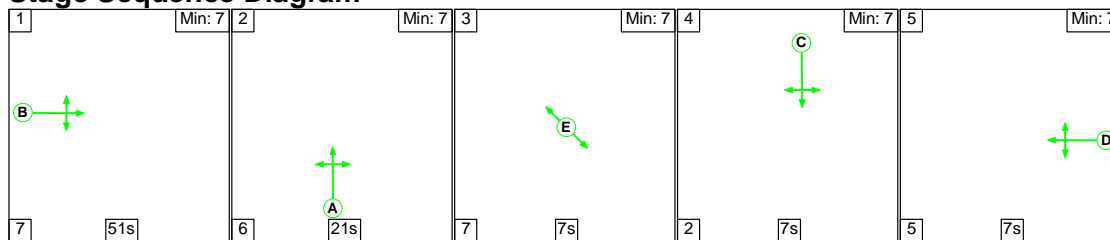
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	51.4%
Rockville Drive / Stakes Hill Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	51.4%
1/1	Waitrose Access entry Left Ahead Right	U	N/A	N/A	D		1	7	-	0	1915	128	0.0%
2/1	Stakes Hill Road south exit	U	N/A	N/A	-		-	-	-	346	Inf	Inf	0.0%
3/1+3/2	Stakes Hill Road south entry Left Ahead Right	U	N/A	N/A	A		1	32	-	270	1868:1741	525	51.4%
4/1	Rockville Drive exit	U	N/A	N/A	-		-	-	-	246	Inf	Inf	0.0%
5/2+5/1	Rockville Drive entry Right Left Ahead	U	N/A	N/A	B		1	40	-	323	1860:1940	636	50.8%
6/1	Stakes Hill Road north exit	U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
7/1	Stakes Hill Road north entry Ahead Right Left	U	N/A	N/A	C		1	7	-	23	1860	124	18.5%
8/1	Waitrose Access exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%

Full Input Data And Results

Scenario 5: 'EML - DS2 AM' (FG5: 'EML - DS2 AM', Plan 1: 'Network Control Plan 1')

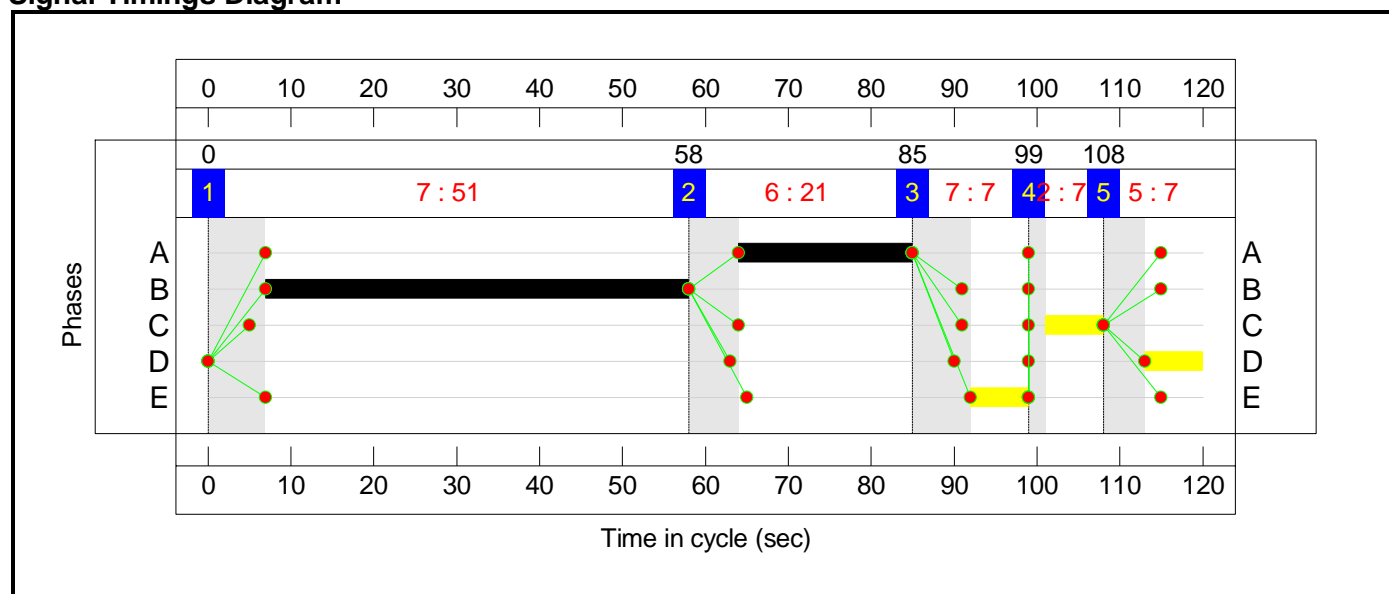
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	51	21	7	7	7
Change Point	0	58	85	99	108

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

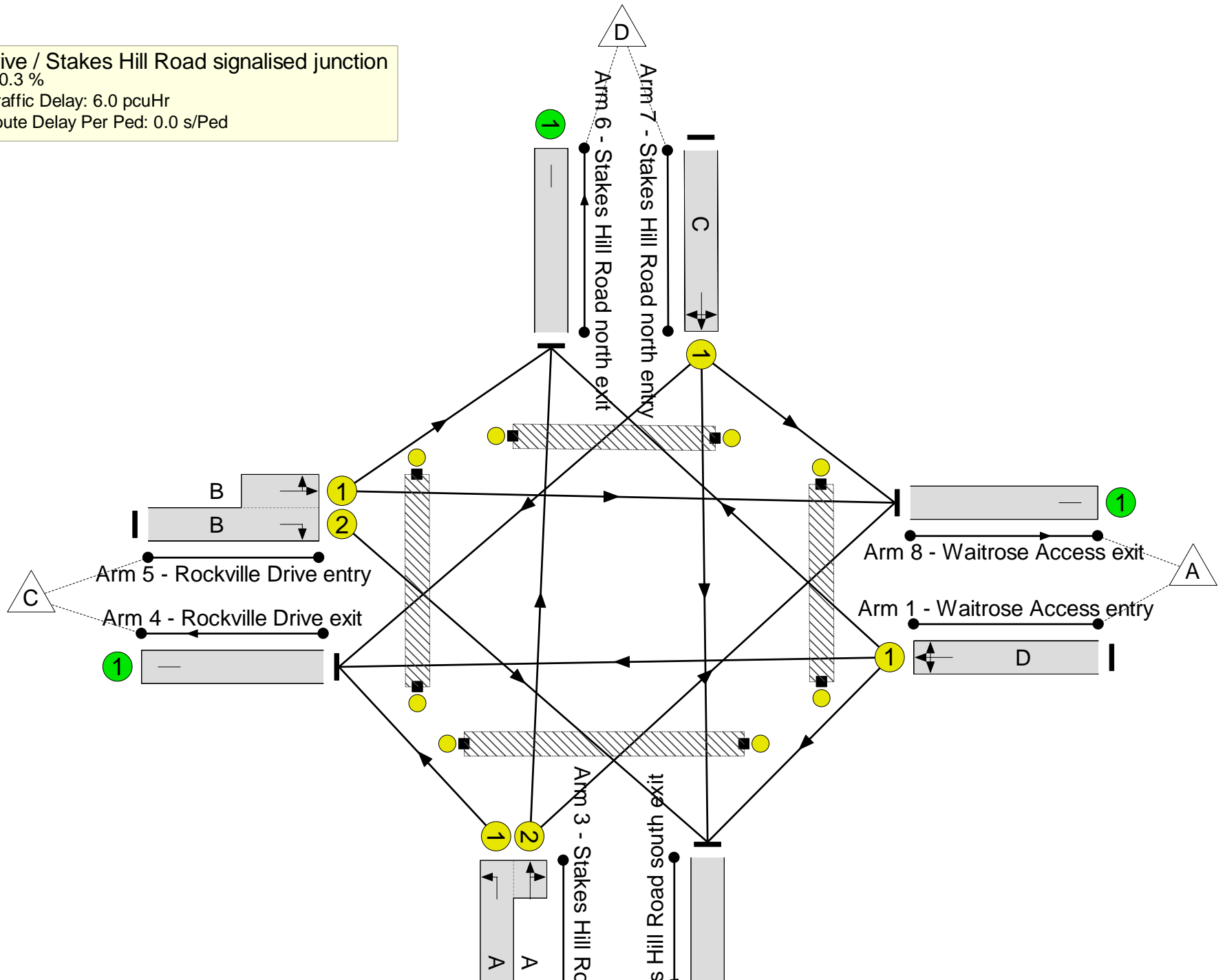
Rockville Drive / Stakes Hill Road signalised junction



PRC: 90.3 %

Total Traffic Delay: 6.0 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

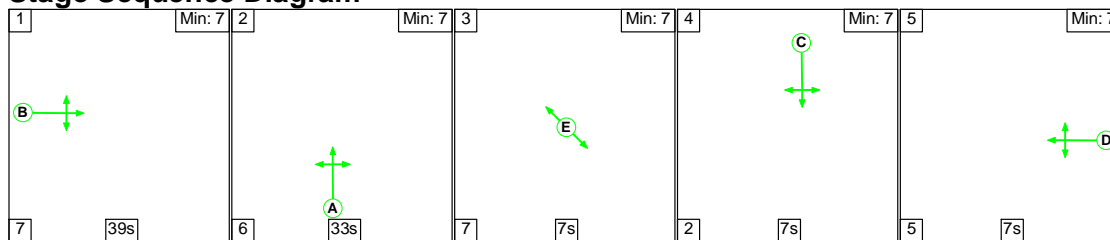
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	47.3%
Rockville Drive / Stakes Hill Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	47.3%
1/1	Waitrose Access entry Left Ahead Right	U	N/A	N/A	D		1	7	-	0	1915	128	0.0%
2/1	Stakes Hill Road south exit	U	N/A	N/A	-		-	-	-	405	Inf	Inf	0.0%
3/1+3/2	Stakes Hill Road south entry Left Ahead Right	U	N/A	N/A	A		1	21	-	169	1868:1741	357	47.3%
4/1	Rockville Drive exit	U	N/A	N/A	-		-	-	-	145	Inf	Inf	0.0%
5/2+5/1	Rockville Drive entry Right Left Ahead	U	N/A	N/A	B		1	51	-	381	1860:1940	806	47.3%
6/1	Stakes Hill Road north exit	U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
7/1	Stakes Hill Road north entry Ahead Right Left	U	N/A	N/A	C		1	7	-	24	1860	124	19.4%
8/1	Waitrose Access exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%

Full Input Data And Results

Scenario 6: 'EML - DS2 PM' (FG6: 'EML - DS2 PM', Plan 1: 'Network Control Plan 1')

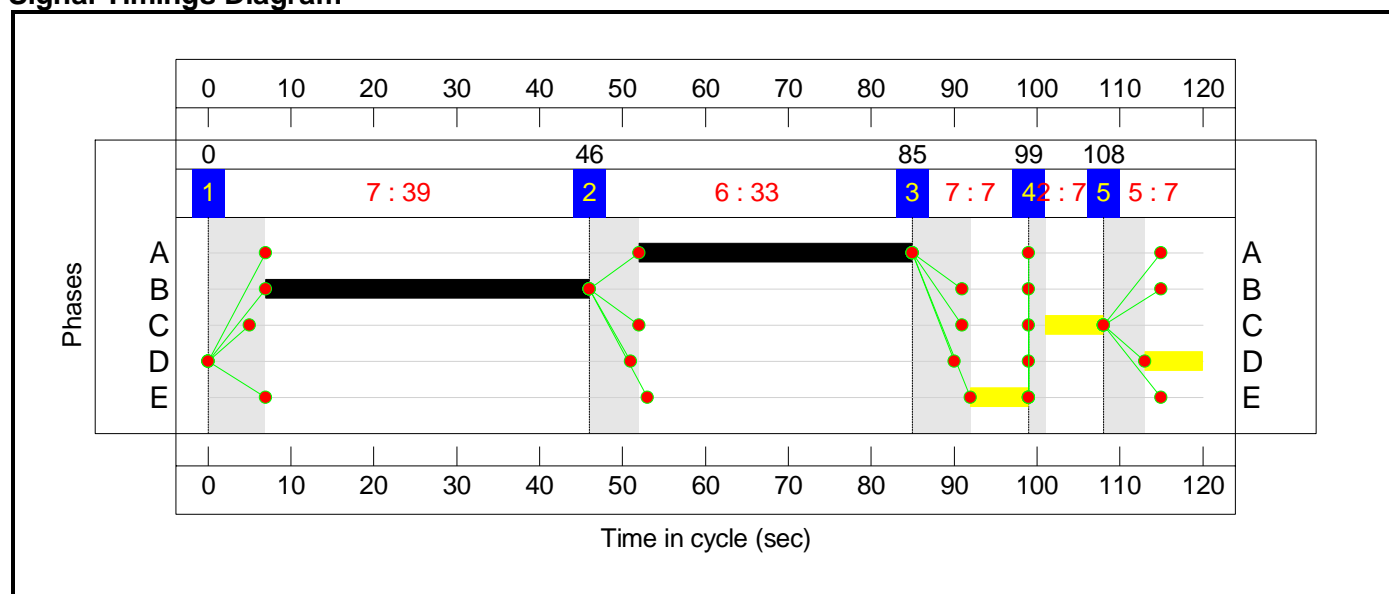
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	39	33	7	7	7
Change Point	0	46	85	99	108

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

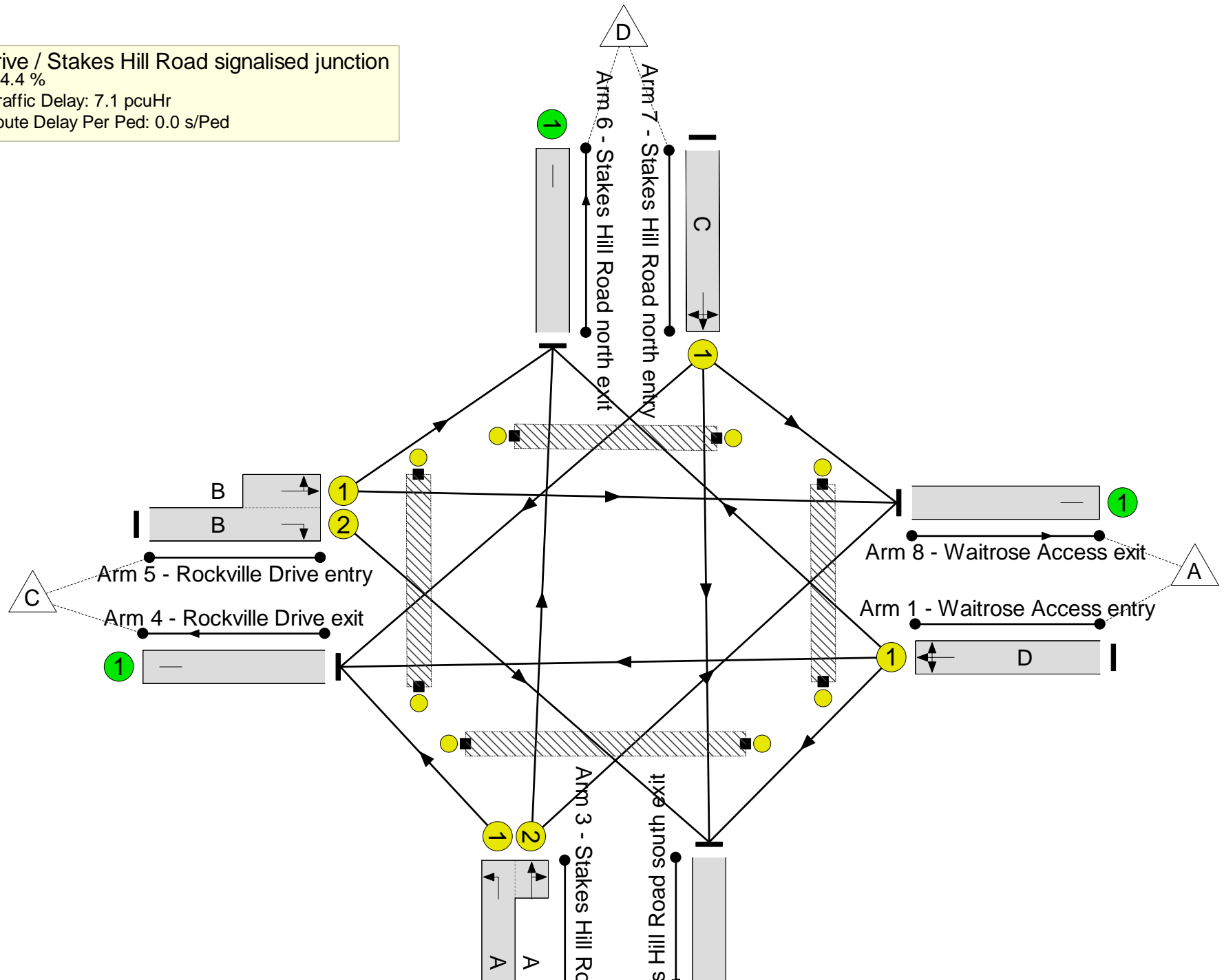
Rockville Drive / Stakes Hill Road signalised junction



PRC: 74.4 %

Total Traffic Delay: 7.1 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	51.6%
Rockville Drive / Stakes Hill Road signalised junction	-	-	N/A	-	-		-	-	-	-	-	-	51.6%
1/1	Waitrose Access entry Left Ahead Right	U	N/A	N/A	D		1	7	-	0	1915	128	0.0%
2/1	Stakes Hill Road south exit	U	N/A	N/A	-		-	-	-	343	Inf	Inf	0.0%
3/1+3/2	Stakes Hill Road south entry Left Ahead Right	U	N/A	N/A	A		1	33	-	274	1868:1741	540	50.7%
4/1	Rockville Drive exit	U	N/A	N/A	-		-	-	-	250	Inf	Inf	0.0%
5/2+5/1	Rockville Drive entry Right Left Ahead	U	N/A	N/A	B		1	39	-	320	1860:1940	620	51.6%
6/1	Stakes Hill Road north exit	U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
7/1	Stakes Hill Road north entry Ahead Right Left	U	N/A	N/A	C		1	7	-	23	1860	124	18.5%
8/1	Waitrose Access exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	E		1	7	-	0	-	0	0.0%

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
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Filename: Stakes Hill Rd_Frendstaple Rd.j9

Path: \\uk.wspgroup.com\central data\Projects\62100xxx\62100616 - Aquind VO No.3\A DCO\D. EIA\5. WIP\12. Traffic and Transport\Transport Assessment\Analysis & Calcs\ARCADY\TA Models and Outputs

Report generation date: 28/10/2019 15:59:01

- »ELM - DM, AM
- »ELM - DM, PM
- »EMM - DS1, AM
- »EMM - DS1, PM
- »EML - DS2, AM
- »EML - DS2, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
ELM - DM								
Arm 1	0.1	2.50	0.10	A	0.1	2.41	0.09	A
Arm 2	0.2	2.25	0.18	A	0.4	2.58	0.29	A
Arm 3	0.6	3.24	0.34	A	0.5	3.10	0.33	A
EMM - DS1								
Arm 1	0.1	2.61	0.10	A	0.2	2.67	0.13	A
Arm 2	0.3	2.38	0.23	A	0.4	2.52	0.26	A
Arm 3	0.7	3.53	0.40	A	0.7	3.49	0.40	A
EML - DS2								
Arm 1	0.1	2.61	0.10	A	0.2	2.67	0.13	A
Arm 2	0.3	2.38	0.23	A	0.4	2.51	0.25	A
Arm 3	0.7	3.51	0.39	A	0.7	3.49	0.40	A

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

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

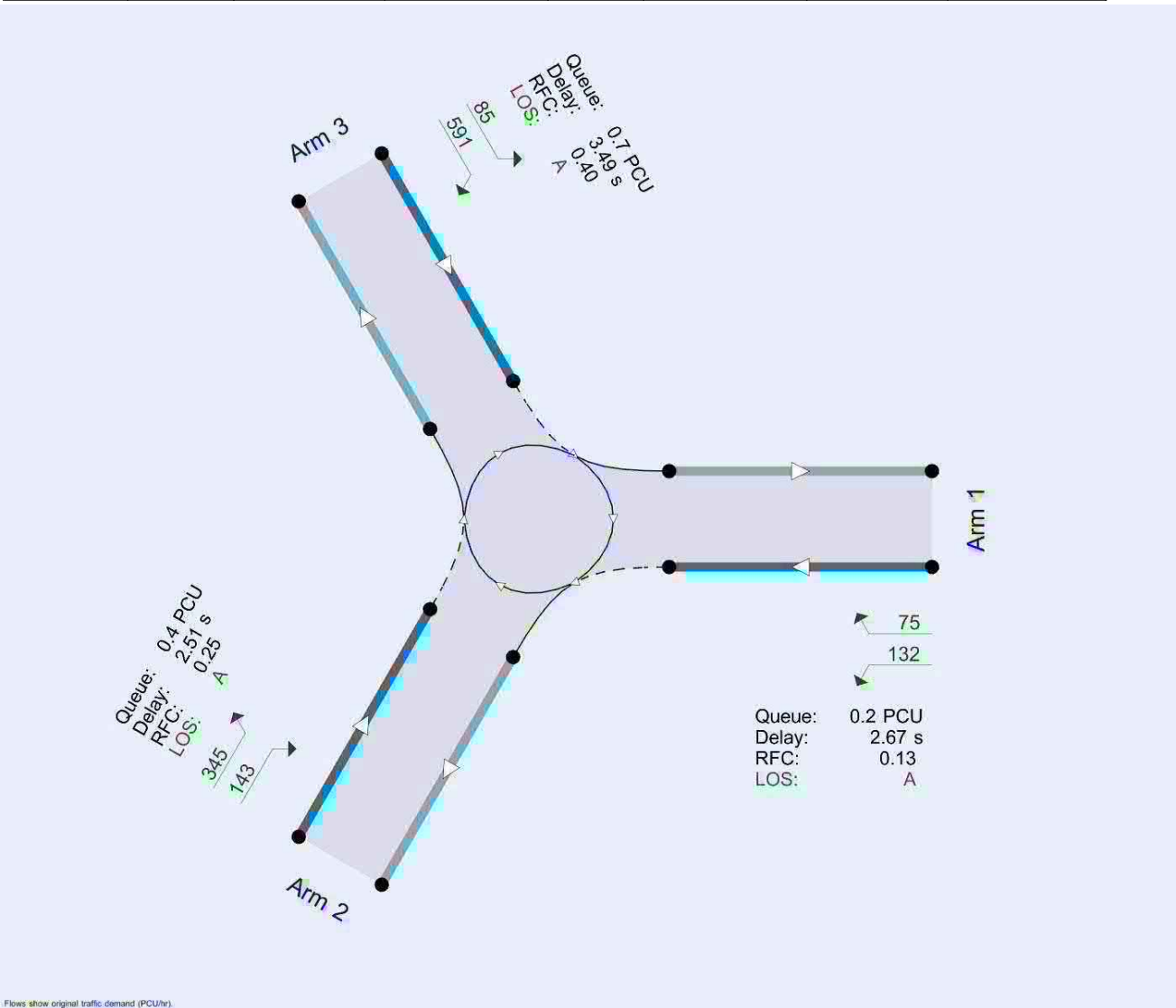
File summary

File Description

Title	Stakes Hill Road / Frendstaple Road Roundabout
Location	
Site number	
Date	07/08/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	62100616
Enumerator	CORP\UKAJT009
Description	

Units

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



Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

ELM - DM, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.81	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Frendstaple Road	
2	Stakes Hill Road south	
3	Stakes Hill Road north	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.80	7.20	49.0	50.0	48.0	10.0	
2	4.50	7.20	26.0	50.0	48.0	10.0	
3	3.20	7.60	24.0	50.0	48.0	10.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.740	2191
2	0.736	2173
3	0.701	1989

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	151	100.000
2		✓	355	100.000
3		✓	577	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1	2	3
1	0	124	27
2	168	0	187
3	35	542	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	1	2	3
1	10	10	10
2	10	10	10
3	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.10	2.50	0.1	A
2	0.18	2.25	0.2	A
3	0.34	3.24	0.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	114	407	1890	0.060	113	0.1	2.228	A
2	267	20	2158	0.124	267	0.2	2.094	A
3	434	126	1900	0.229	433	0.3	2.696	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	136	487	1831	0.074	136	0.1	2.335	A
2	319	24	2155	0.148	319	0.2	2.156	A
3	519	151	1883	0.276	518	0.4	2.902	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	166	596	1750	0.095	166	0.1	2.499	A
2	391	30	2151	0.182	391	0.2	2.249	A
3	635	185	1859	0.342	635	0.6	3.232	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	166	597	1750	0.095	166	0.1	2.500	A
2	391	30	2151	0.182	391	0.2	2.249	A
3	635	185	1859	0.342	635	0.6	3.235	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	136	488	1830	0.074	136	0.1	2.338	A
2	319	24	2155	0.148	319	0.2	2.157	A
3	519	151	1883	0.276	519	0.4	2.905	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	114	408	1889	0.060	114	0.1	2.230	A
2	267	20	2158	0.124	267	0.2	2.096	A
3	434	127	1900	0.229	435	0.3	2.705	A

ELM - DM, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	2.80	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	145	100.000
2		✓	563	100.000
3		✓	564	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	119	26
	2	120	0	443
	3	87	477	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.09	2.41	0.1	A
2	0.29	2.58	0.4	A
3	0.33	3.10	0.5	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	109	358	1926	0.057	109	0.1	2.178	A
2	424	20	2158	0.196	423	0.3	2.280	A
3	425	90	1925	0.221	423	0.3	2.633	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	130	429	1874	0.070	130	0.1	2.270	A
2	506	23	2156	0.235	506	0.3	2.400	A
3	507	108	1913	0.265	507	0.4	2.815	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	160	525	1803	0.089	160	0.1	2.409	A
2	620	29	2152	0.288	619	0.4	2.584	A
3	621	132	1896	0.328	620	0.5	3.102	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	160	525	1803	0.089	160	0.1	2.409	A
2	620	29	2152	0.288	620	0.4	2.584	A
3	621	132	1896	0.328	621	0.5	3.105	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	130	429	1874	0.070	130	0.1	2.273	A
2	506	23	2156	0.235	507	0.3	2.403	A
3	507	108	1913	0.265	508	0.4	2.818	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	109	359	1925	0.057	109	0.1	2.181	A
2	424	20	2158	0.196	424	0.3	2.283	A
3	425	90	1925	0.221	425	0.3	2.641	A

EMM - DS1, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	3.02	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	155	100.000
2		✓	441	100.000
3		✓	668	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	124	31
	2	170	0	271
	3	47	621	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.10	2.61	0.1	A
2	0.23	2.38	0.3	A
3	0.40	3.53	0.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	117	466	1847	0.063	116	0.1	2.288	A
2	332	23	2156	0.154	331	0.2	2.169	A
3	503	128	1899	0.265	501	0.4	2.831	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	139	558	1779	0.078	139	0.1	2.415	A
2	396	28	2152	0.184	396	0.2	2.254	A
3	601	153	1881	0.319	600	0.5	3.090	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	171	683	1686	0.101	171	0.1	2.612	A
2	486	34	2148	0.226	485	0.3	2.382	A
3	735	187	1857	0.396	735	0.7	3.525	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	171	684	1685	0.101	171	0.1	2.613	A
2	486	34	2148	0.226	486	0.3	2.382	A
3	735	187	1857	0.396	735	0.7	3.528	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	139	559	1778	0.078	139	0.1	2.418	A
2	396	28	2152	0.184	397	0.2	2.255	A
3	601	153	1881	0.319	601	0.5	3.097	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	117	468	1845	0.063	117	0.1	2.290	A
2	332	23	2156	0.154	332	0.2	2.173	A
3	503	128	1899	0.265	503	0.4	2.838	A

EMM - DS1, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	3.02	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	204	100.000
2		✓	491	100.000
3		✓	676	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	131	73
	2	143	0	348
	3	85	591	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.13	2.67	0.2	A
2	0.26	2.52	0.4	A
3	0.40	3.49	0.7	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	154	444	1863	0.082	153	0.1	2.315	A
2	370	55	2132	0.173	369	0.2	2.244	A
3	509	107	1913	0.266	507	0.4	2.814	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	183	531	1799	0.102	183	0.1	2.451	A
2	441	66	2125	0.208	441	0.3	2.352	A
3	608	128	1898	0.320	607	0.5	3.067	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	225	650	1710	0.131	224	0.2	2.664	A
2	541	80	2114	0.256	540	0.4	2.516	A
3	744	157	1878	0.396	743	0.7	3.488	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	225	651	1710	0.131	225	0.2	2.665	A
2	541	80	2114	0.256	541	0.4	2.516	A
3	744	157	1878	0.396	744	0.7	3.491	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	183	532	1798	0.102	184	0.1	2.453	A
2	441	66	2124	0.208	442	0.3	2.355	A
3	608	129	1898	0.320	609	0.5	3.073	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	154	445	1862	0.082	154	0.1	2.318	A
2	370	55	2132	0.173	370	0.2	2.248	A
3	509	108	1913	0.266	509	0.4	2.821	A

EML - DS2, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	3.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	155	100.000
2		✓	440	100.000
3		✓	662	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	124	31
	2	170	0	270
	3	46	616	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.10	2.61	0.1	A
2	0.23	2.38	0.3	A
3	0.39	3.51	0.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	117	462	1849	0.063	116	0.1	2.285	A
2	331	23	2156	0.154	330	0.2	2.168	A
3	498	128	1899	0.262	497	0.4	2.822	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	139	553	1782	0.078	139	0.1	2.410	A
2	396	28	2152	0.184	395	0.2	2.253	A
3	595	153	1881	0.316	595	0.5	3.077	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	171	677	1690	0.101	171	0.1	2.605	A
2	484	34	2148	0.226	484	0.3	2.380	A
3	729	187	1857	0.392	728	0.7	3.505	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	171	678	1690	0.101	171	0.1	2.606	A
2	484	34	2148	0.226	484	0.3	2.380	A
3	729	187	1857	0.392	729	0.7	3.508	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	139	555	1781	0.078	139	0.1	2.413	A
2	396	28	2152	0.184	396	0.2	2.256	A
3	595	153	1881	0.316	596	0.5	3.084	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	117	464	1848	0.063	117	0.1	2.289	A
2	331	23	2156	0.154	331	0.2	2.172	A
3	498	128	1899	0.262	499	0.4	2.829	A

EML - DS2, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	3.02	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	207	100.000
2		✓	488	100.000
3		✓	676	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	132	75
	2	143	0	345
	3	85	591	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.13	2.67	0.2	A
2	0.25	2.51	0.4	A
3	0.40	3.49	0.7	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	156	444	1863	0.084	155	0.1	2.319	A
2	367	56	2131	0.172	366	0.2	2.242	A
3	509	107	1913	0.266	507	0.4	2.814	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	186	531	1799	0.103	186	0.1	2.455	A
2	439	67	2123	0.207	438	0.3	2.350	A
3	608	128	1898	0.320	607	0.5	3.067	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	228	650	1710	0.133	228	0.2	2.670	A
2	537	83	2112	0.254	537	0.4	2.514	A
3	744	157	1878	0.396	743	0.7	3.488	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	228	651	1710	0.133	228	0.2	2.671	A
2	537	83	2112	0.254	537	0.4	2.514	A
3	744	157	1878	0.396	744	0.7	3.491	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	186	532	1798	0.104	186	0.1	2.459	A
2	439	67	2123	0.207	439	0.3	2.353	A
3	608	129	1898	0.320	609	0.5	3.071	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	156	445	1862	0.084	156	0.1	2.322	A
2	367	57	2131	0.172	368	0.2	2.247	A
3	509	108	1913	0.266	509	0.4	2.821	A

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
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Filename: Stakes Rd_Stakes Hill Rd_Purbrook Way.j9

Path: \\uk.wspgroup.com\central data\Projects\62100xxx\62100616 - Aquind VO No.3\A DCO\D. EIA\5. WIP\12. Traffic and Transport\Transport Assessment\Analysis & Calcs\ARCADY\TA Models and Outputs

Report generation date: 28/10/2019 15:56:34

- »ELM - DM, AM
- »ELM - DM, PM
- »EMM - DS1, AM
- »EMM - DS1, PM
- »EML - DS2, AM
- »EML - DS2, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
ELM - DM								
Arm 1	0.5	3.83	0.31	A	2.3	8.29	0.68	A
Arm 2	0.2	6.07	0.18	A	0.3	9.15	0.21	A
Arm 3	25.5	109.48	1.02	F	1.8	15.83	0.63	C
Arm 4	3.8	18.59	0.78	C	1.2	6.93	0.52	A
EMM - DS1								
Arm 1	0.6	4.05	0.35	A	1.6	6.59	0.60	A
Arm 2	0.3	6.77	0.24	A	0.3	8.12	0.20	A
Arm 3	62.3	247.07	1.13	F	2.0	15.66	0.65	C
Arm 4	2.9	14.82	0.73	B	1.7	8.48	0.60	A
EML - DS2								
Arm 1	0.6	4.04	0.34	A	1.6	6.61	0.60	A
Arm 2	0.3	6.67	0.23	A	0.3	8.12	0.20	A
Arm 3	61.1	240.17	1.13	F	2.1	16.19	0.66	C
Arm 4	2.8	14.56	0.72	B	1.7	8.61	0.61	A

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

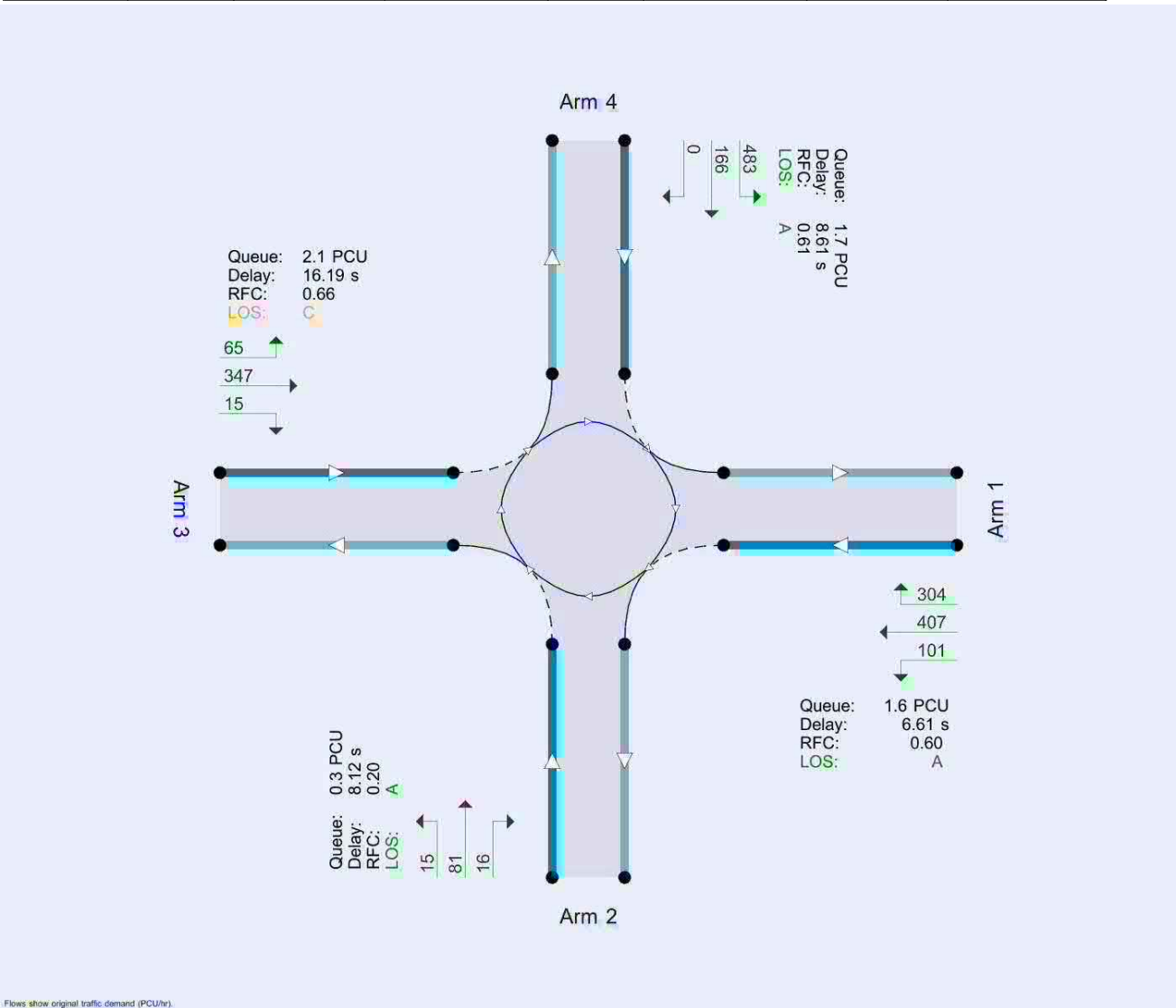
File summary

File Description

Title	Stakes Road / Stakes Hill Road / Purbrook Way Roundabout
Location	
Site number	
Date	07/08/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	62100616
Enumerator	CORP\UKAJT009
Description	

Units

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



Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

ELM - DM, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	48.96	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Purbrook Way	
2	Crookhorn Lane	
3	Stakes Road	
4	Stakes Hill Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.20	7.00	20.0	12.0	26.0	32.0	
2	3.80	3.80	0.0	5.0	26.0	32.0	
3	3.50	3.50	0.0	5.0	26.0	27.0	
4	3.00	6.70	10.0	25.0	26.0	32.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.632	1619
2	0.464	974
3	0.458	916
4	0.606	1426

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	430	100.000
2		✓	127	100.000
3		✓	756	100.000
4		✓	688	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	1	2	3	4
1	0	73	273	84
2	32	0	15	80
3	668	15	0	73
4	542	146	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	1	2	3	4
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.31	3.83	0.5	A
2	0.18	6.07	0.2	A
3	1.02	109.48	25.5	F
4	0.78	18.59	3.8	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	324	120	1543	0.210	323	0.3	3.242	A
2	96	268	850	0.112	95	0.1	5.241	A
3	569	147	849	0.671	561	2.1	13.375	B
4	518	530	1105	0.469	514	1.0	6.660	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	387	144	1528	0.253	386	0.4	3.468	A
2	114	321	826	0.138	114	0.2	5.563	A
3	680	176	835	0.814	671	4.3	22.955	C
4	618	635	1042	0.594	616	1.6	9.251	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	473	175	1509	0.314	473	0.5	3.821	A
2	140	393	792	0.177	140	0.2	6.066	A
3	832	215	817	1.018	780	17.4	65.244	F
4	758	740	978	0.774	750	3.5	16.791	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	473	176	1507	0.314	473	0.5	3.828	A
2	140	393	792	0.177	140	0.2	6.070	A
3	832	216	817	1.019	800	25.5	109.480	F
4	758	758	967	0.783	756	3.8	18.593	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	387	148	1525	0.253	387	0.4	3.481	A
2	114	321	825	0.138	114	0.2	5.573	A
3	680	177	835	0.814	759	5.8	64.241	F
4	618	714	994	0.622	626	1.9	10.984	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	324	122	1542	0.210	324	0.3	3.252	A
2	96	269	850	0.113	96	0.1	5.255	A
3	569	148	848	0.671	583	2.3	15.629	C
4	518	551	1093	0.474	521	1.0	6.975	A

ELM - DM, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	9.40	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	932	100.000
2		✓	106	100.000
3		✓	382	100.000
4		✓	563	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	100	435	397
	2	12	0	15	79
	3	326	15	0	41
	4	412	151	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.68	8.29	2.3	A
2	0.21	9.15	0.3	A
3	0.63	15.83	1.8	C
4	0.52	6.93	1.2	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	702	124	1540	0.456	698	0.9	4.682	A
2	80	623	685	0.116	79	0.1	6.529	A
3	288	365	749	0.384	285	0.7	8.488	A
4	424	263	1267	0.335	422	0.5	4.673	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	838	149	1525	0.549	836	1.3	5.736	A
2	95	746	628	0.152	95	0.2	7.431	A
3	343	438	716	0.480	342	1.0	10.565	B
4	506	316	1235	0.410	505	0.8	5.423	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1026	182	1504	0.682	1022	2.3	8.157	A
2	117	913	551	0.212	116	0.3	9.103	A
3	421	535	671	0.627	417	1.8	15.426	C
4	620	386	1193	0.520	618	1.2	6.875	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	1026	183	1503	0.683	1026	2.3	8.288	A
2	117	916	549	0.212	117	0.3	9.152	A
3	421	537	670	0.628	420	1.8	15.828	C
4	620	389	1191	0.520	620	1.2	6.933	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	838	150	1524	0.550	842	1.4	5.835	A
2	95	751	626	0.152	96	0.2	7.478	A
3	343	441	714	0.481	346	1.0	10.852	B
4	506	320	1232	0.411	508	0.8	5.476	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	702	125	1540	0.456	703	0.9	4.745	A
2	80	628	683	0.117	80	0.1	6.570	A
3	288	368	747	0.385	289	0.7	8.664	A
4	424	267	1265	0.335	425	0.6	4.721	A

EMM - DS1, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	100.46	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	469	100.000
2		✓	169	100.000
3		✓	796	100.000
4		✓	650	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	71	268	130
	2	72	0	15	82
	3	662	15	0	119
	4	482	168	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.35	4.05	0.6	A
2	0.24	6.77	0.3	A
3	1.13	247.07	62.3	F
4	0.73	14.82	2.9	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	353	137	1533	0.230	352	0.3	3.351	A
2	127	299	836	0.152	126	0.2	5.576	A
3	599	213	819	0.732	588	2.8	16.465	C
4	489	554	1091	0.449	486	0.9	6.509	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	422	164	1516	0.278	421	0.4	3.619	A
2	152	357	809	0.188	152	0.3	6.027	A
3	716	255	799	0.895	699	6.9	34.705	D
4	584	659	1027	0.569	582	1.4	8.860	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	516	198	1494	0.346	516	0.6	4.046	A
2	186	438	771	0.241	186	0.3	6.757	A
3	876	312	773	1.134	761	35.8	117.204	F
4	716	726	986	0.726	710	2.8	14.078	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	516	199	1493	0.346	516	0.6	4.054	A
2	186	438	771	0.241	186	0.3	6.768	A
3	876	313	773	1.134	770	62.3	240.112	F
4	716	734	981	0.729	715	2.9	14.821	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	422	167	1513	0.279	422	0.4	3.633	A
2	152	358	808	0.188	152	0.3	6.040	A
3	716	256	799	0.896	785	44.9	247.074	F
4	584	733	983	0.595	589	1.7	10.187	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	353	141	1530	0.231	353	0.3	3.367	A
2	127	300	835	0.152	127	0.2	5.598	A
3	599	214	818	0.733	764	3.7	103.284	F
4	489	704	1000	0.490	492	1.1	7.832	A

EMM - DS1, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	9.20	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	810	100.000
2		✓	113	100.000
3		✓	418	100.000
4		✓	647	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	101	403	306
	2	18	0	15	80
	3	338	15	0	65
	4	480	167	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.60	6.59	1.6	A
2	0.20	8.12	0.3	A
3	0.65	15.66	2.0	C
4	0.60	8.48	1.7	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	610	136	1533	0.398	607	0.7	4.264	A
2	85	531	728	0.117	84	0.1	6.149	A
3	315	303	778	0.405	312	0.7	8.450	A
4	487	277	1259	0.387	484	0.7	5.098	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	728	163	1516	0.480	727	1.0	5.013	A
2	102	636	679	0.150	101	0.2	6.853	A
3	376	363	750	0.501	374	1.1	10.500	B
4	582	332	1225	0.475	580	1.0	6.132	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	892	200	1493	0.597	889	1.6	6.537	A
2	124	779	613	0.203	124	0.3	8.091	A
3	460	444	713	0.645	457	1.9	15.260	C
4	712	406	1181	0.603	710	1.6	8.362	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	892	200	1492	0.598	892	1.6	6.593	A
2	124	781	612	0.203	124	0.3	8.118	A
3	460	445	712	0.646	460	2.0	15.658	C
4	712	408	1179	0.604	712	1.7	8.481	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	728	164	1515	0.481	731	1.0	5.062	A
2	102	639	678	0.150	102	0.2	6.880	A
3	376	364	749	0.502	379	1.1	10.790	B
4	582	336	1223	0.476	584	1.0	6.230	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	610	137	1532	0.398	611	0.7	4.304	A
2	85	535	726	0.117	85	0.1	6.181	A
3	315	305	777	0.405	316	0.8	8.631	A
4	487	281	1256	0.388	488	0.7	5.165	A

EML - DS2, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	98.36	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	465	100.000
2		✓	163	100.000
3		✓	797	100.000
4		✓	647	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	71	265	129
	2	66	0	15	82
	3	664	15	0	118
	4	479	168	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.34	4.04	0.6	A
2	0.23	6.67	0.3	A
3	1.13	240.17	61.1	F
4	0.72	14.56	2.8	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	350	137	1533	0.228	349	0.3	3.342	A
2	123	296	837	0.147	122	0.2	5.530	A
3	600	207	821	0.731	589	2.8	16.360	C
4	487	551	1092	0.446	484	0.9	6.468	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	418	164	1516	0.276	418	0.4	3.607	A
2	147	354	810	0.181	146	0.2	5.963	A
3	716	249	802	0.893	700	6.8	34.253	D
4	582	656	1029	0.565	580	1.4	8.768	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	512	198	1494	0.343	511	0.6	4.028	A
2	179	433	773	0.232	179	0.3	6.659	A
3	878	304	777	1.130	764	35.2	115.196	F
4	712	724	988	0.721	707	2.7	13.843	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	512	199	1493	0.343	512	0.6	4.036	A
2	179	434	773	0.232	179	0.3	6.669	A
3	878	305	776	1.130	774	61.1	235.184	F
4	712	732	983	0.725	712	2.8	14.560	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	418	167	1513	0.276	419	0.4	3.621	A
2	147	355	810	0.181	147	0.2	5.977	A
3	716	249	802	0.894	788	43.3	240.173	F
4	582	730	984	0.591	586	1.6	10.077	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	350	141	1530	0.229	350	0.3	3.361	A
2	123	297	837	0.147	123	0.2	5.551	A
3	600	209	820	0.731	759	3.6	96.588	F
4	487	696	1004	0.485	489	1.1	7.723	A

EML - DS2, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	9.39	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	812	100.000
2		✓	112	100.000
3		✓	427	100.000
4		✓	649	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	101	407	304
	2	16	0	15	81
	3	347	15	0	65
	4	483	166	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	10	10	10	10
	2	10	10	10	10
	3	10	10	10	10
	4	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.60	6.61	1.6	A
2	0.20	8.12	0.3	A
3	0.66	16.19	2.1	C
4	0.61	8.61	1.7	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	611	135	1533	0.399	608	0.7	4.269	A
2	84	533	727	0.116	84	0.1	6.149	A
3	321	300	779	0.413	318	0.8	8.551	A
4	489	282	1256	0.389	486	0.7	5.126	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	730	162	1516	0.481	729	1.0	5.021	A
2	101	638	678	0.148	100	0.2	6.852	A
3	384	360	751	0.511	382	1.1	10.692	B
4	583	339	1221	0.478	582	1.0	6.186	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	894	198	1494	0.599	892	1.6	6.553	A
2	123	781	612	0.201	123	0.3	8.090	A
3	470	440	715	0.658	467	2.0	15.741	C
4	715	413	1176	0.608	712	1.7	8.481	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	894	199	1493	0.599	894	1.6	6.610	A
2	123	783	611	0.202	123	0.3	8.117	A
3	470	441	714	0.658	470	2.1	16.191	C
4	715	416	1174	0.608	714	1.7	8.608	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	730	164	1516	0.482	732	1.0	5.072	A
2	101	641	677	0.149	101	0.2	6.882	A
3	384	362	750	0.511	387	1.2	11.010	B
4	583	343	1219	0.479	586	1.0	6.288	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	611	137	1533	0.399	613	0.7	4.310	A
2	84	536	726	0.116	85	0.1	6.181	A
3	321	303	778	0.413	323	0.8	8.743	A
4	489	286	1253	0.390	490	0.7	5.196	A

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2019
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Filename: Stubbington Ave_A2047_Gladys Ave_Angerstein Rd.j9
Path: \\uk.wspgroup.com\central data\Projects\62100xxx\62100616 - Aquind VO No.3\A DCO\D. EIA\5. WIP\12. Traffic and Transport\Transport Assessment\Analysis & Calcs\ARCADY\TA Models and Outputs
Report generation date: 29/10/2019 10:07:51

- »ELM - DM, AM
- »ELM - DM, PM
- »EMM - DS1, AM
- »EMM - DS1, PM
- »EML - DS2, AM
- »EML - DS2, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
ELM - DM								
Arm 1	0.1	7.86	0.05	A	0.1	6.92	0.05	A
Arm 2	2.0	9.45	0.64	A	4.9	18.90	0.82	C
Arm 3	0.6	8.69	0.34	A	0.0	0.00	0.00	A
Arm 4	1.7	10.71	0.60	B	1.9	11.32	0.64	B
Arm 5	2.1	12.63	0.66	B	2.0	11.84	0.65	B
EMM - DS1								
Arm 1	0.1	7.88	0.05	A	0.1	7.20	0.05	A
Arm 2	2.0	9.55	0.65	A	4.8	18.67	0.82	C
Arm 3	0.6	8.73	0.34	A	0.0	0.00	0.00	A
Arm 4	1.7	10.82	0.61	B	2.7	14.31	0.71	B
Arm 5	2.1	12.56	0.66	B	1.9	12.15	0.64	B
EML - DS2								
Arm 1	0.1	7.86	0.06	A	0.1	6.96	0.05	A
Arm 2	2.1	9.88	0.66	A	4.9	19.05	0.83	C
Arm 3	0.6	8.75	0.34	A	0.0	0.00	0.00	A
Arm 4	1.6	10.63	0.60	B	2.0	11.51	0.65	B
Arm 5	2.1	12.61	0.66	B	1.9	11.74	0.64	B

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

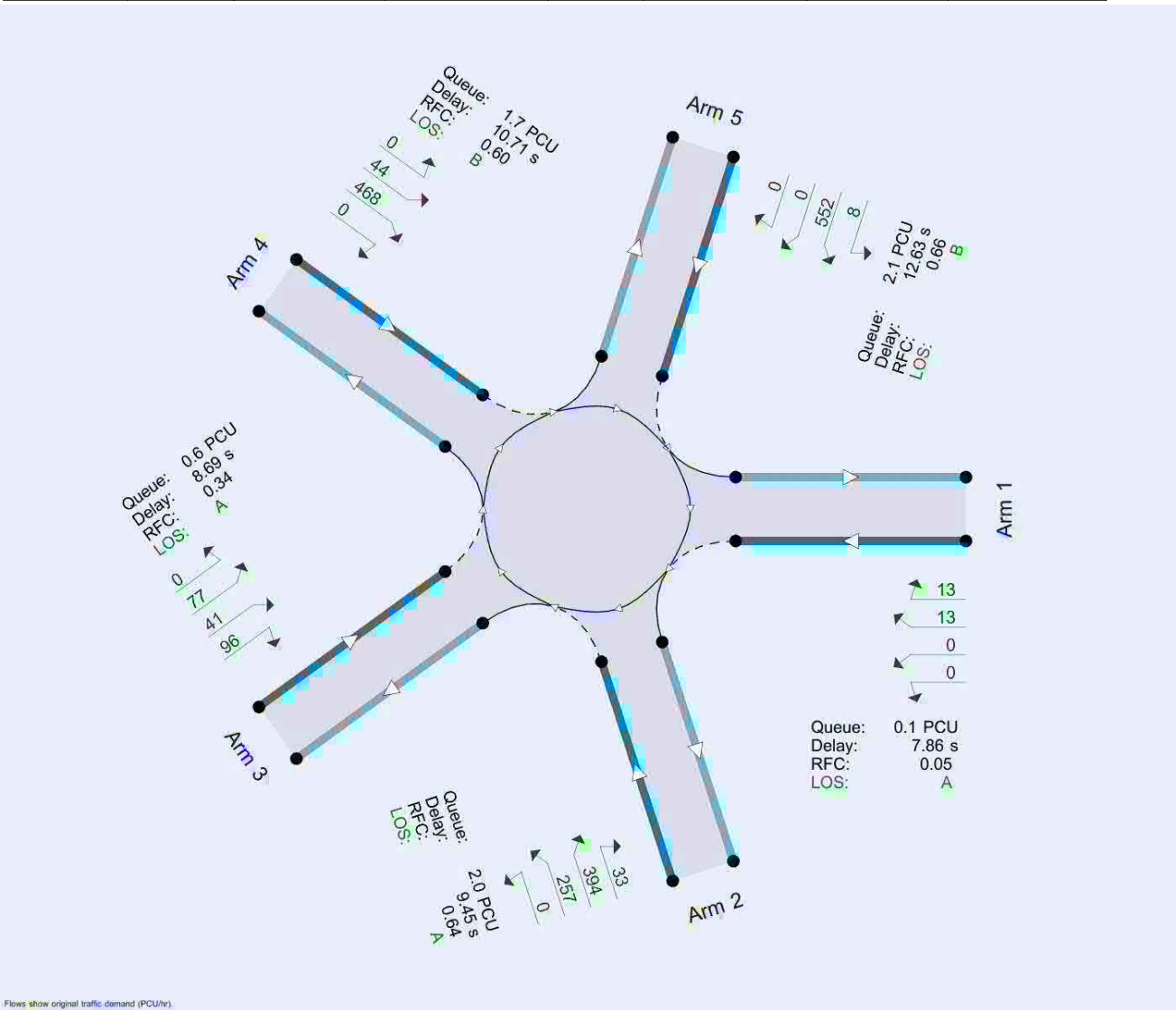
File summary

File Description

Title	Stubbington Avenue / A2047 / Gladys Avenue / Angerstein Road roundabout
Location	
Site number	
Date	26/09/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	62100616
Enumerator	CORP\UKAJT009
Description	

Units

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



Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

ELM - DM, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	10.56	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Stubbington Avenue	
2	A2047 London Road south	
3	Angerstein Road	
4	Gladys Avenue	
5	A2047 London Road north	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	4.00	4.70	0.7	10.0	25.0	30.0	
2	2.70	4.00	30.0	10.0	25.0	10.0	
3	4.00	6.10	0.9	6.0	25.0	47.0	
4	4.00	9.70	3.2	12.0	25.0	47.0	
5	4.80	4.80	0.0	10.0	25.0	35.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.544	1201
2	0.563	1188
3	0.477	1064
4	0.558	1335
5	0.571	1358

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	ELM - DM	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	26	100.000
2		✓	684	100.000
3		✓	214	100.000
4		✓	512	100.000
5		✓	560	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	0	13	13
	2	33	0	0	257	394
	3	41	96	0	0	77
	4	44	468	0	0	0
	5	8	552	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.05	7.86	0.1	A
2	0.64	9.45	2.0	A
3	0.34	8.69	0.6	A
4	0.60	10.71	1.7	B
5	0.66	12.63	2.1	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	20	835	747	0.026	19	0.0	5.444	A
2	515	19	1177	0.438	512	0.8	5.922	A
3	161	531	811	0.199	160	0.3	6.073	A
4	385	489	1062	0.363	383	0.6	5.810	A
5	422	510	1067	0.395	419	0.7	6.083	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	23	1001	657	0.036	23	0.0	6.253	A
2	615	23	1175	0.523	614	1.2	7.039	A
3	192	637	761	0.253	192	0.4	6.960	A
4	460	587	1008	0.457	459	0.9	7.202	A
5	503	612	1009	0.499	502	1.1	7.790	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	29	1222	536	0.053	29	0.1	7.799	A
2	753	29	1172	0.643	750	1.9	9.325	A
3	236	779	693	0.340	235	0.6	8.631	A
4	564	717	935	0.603	561	1.6	10.511	B
5	617	747	931	0.662	613	2.1	12.268	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	29	1228	533	0.054	29	0.1	7.856	A
2	753	29	1172	0.643	753	2.0	9.450	A
3	236	782	691	0.341	236	0.6	8.686	A
4	564	720	933	0.604	564	1.7	10.705	B
5	617	751	929	0.663	616	2.1	12.628	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	23	1010	651	0.036	23	0.0	6.309	A
2	615	23	1175	0.523	618	1.2	7.149	A
3	192	641	758	0.254	193	0.4	7.013	A
4	460	591	1005	0.458	463	0.9	7.340	A
5	503	617	1006	0.500	507	1.1	8.003	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	20	843	742	0.026	20	0.0	5.479	A
2	515	20	1177	0.438	516	0.9	6.008	A
3	161	536	809	0.199	162	0.3	6.124	A
4	385	494	1060	0.364	387	0.6	5.897	A
5	422	515	1064	0.396	423	0.7	6.193	A

ELM - DM, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	14.70	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	ELM - DM	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	25	100.000
2		✓	878	100.000
3		✓	2	100.000
4		✓	562	100.000
5		✓	556	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	1	0	21	3
	2	94	0	0	283	501
	3	1	0	0	0	1
	4	94	468	0	0	0
	5	20	536	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.05	6.92	0.1	A
2	0.82	18.90	4.9	C
3	0.00	0.00	0.0	A
4	0.64	11.32	1.9	B
5	0.65	11.84	2.0	B

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	19	751	792	0.024	19	0.0	5.118	A
2	661	18	1178	0.561	655	1.4	7.506	A
3	0	673	743	0.000	0	0.0	0.000	A
4	423	446	1086	0.390	420	0.7	5.924	A
5	419	491	1078	0.388	416	0.7	5.955	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	22	900	711	0.032	22	0.0	5.749	A
2	789	22	1176	0.671	786	2.2	10.078	B
3	0	808	679	0.000	0	0.0	0.000	A
4	505	535	1036	0.488	504	1.0	7.418	A
5	500	588	1022	0.489	498	1.0	7.539	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	28	1099	603	0.046	27	0.1	6.881	A
2	967	26	1173	0.824	957	4.7	17.532	C
3	0	983	595	0.000	0	0.0	0.000	A
4	619	652	971	0.637	615	1.9	11.020	B
5	612	718	948	0.646	609	1.9	11.535	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	28	1105	600	0.046	28	0.1	6.920	A
2	967	26	1173	0.824	966	4.9	18.900	C
3	0	992	591	0.000	0	0.0	0.000	A
4	619	658	968	0.639	619	1.9	11.323	B
5	612	722	946	0.647	612	2.0	11.844	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	22	909	706	0.032	23	0.0	5.792	A
2	789	22	1176	0.671	800	2.3	10.795	B
3	0	821	673	0.000	0	0.0	0.000	A
4	505	545	1031	0.490	509	1.1	7.627	A
5	500	594	1019	0.491	503	1.1	7.735	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	19	758	788	0.024	19	0.0	5.148	A
2	661	18	1178	0.561	665	1.4	7.769	A
3	0	683	739	0.000	0	0.0	0.000	A
4	423	453	1082	0.391	425	0.7	6.031	A
5	419	496	1075	0.389	420	0.7	6.058	A

EMM - DS1, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	10.60	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	EMM - DS1	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	26	100.000
2		✓	688	100.000
3		✓	214	100.000
4		✓	521	100.000
5		✓	554	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	0	13	13
	2	32	0	0	271	385
	3	41	96	0	0	77
	4	45	476	0	0	0
	5	8	546	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.05	7.88	0.1	A
2	0.65	9.55	2.0	A
3	0.34	8.73	0.6	A
4	0.61	10.82	1.7	B
5	0.66	12.56	2.1	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	20	836	746	0.026	19	0.0	5.450	A
2	518	19	1177	0.440	515	0.9	5.951	A
3	161	534	810	0.199	160	0.3	6.086	A
4	392	482	1066	0.368	390	0.6	5.832	A
5	417	516	1063	0.392	414	0.7	6.075	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	23	1002	656	0.036	23	0.0	6.262	A
2	618	23	1175	0.526	617	1.2	7.081	A
3	192	640	759	0.254	192	0.4	6.981	A
4	468	578	1013	0.463	467	0.9	7.243	A
5	498	619	1005	0.496	497	1.1	7.769	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	29	1224	535	0.054	29	0.1	7.818	A
2	758	29	1172	0.646	754	2.0	9.419	A
3	236	783	691	0.341	235	0.6	8.670	A
4	574	706	941	0.610	571	1.7	10.614	B
5	610	756	926	0.658	606	2.0	12.212	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	29	1231	531	0.054	29	0.1	7.875	A
2	758	29	1172	0.646	757	2.0	9.549	A
3	236	786	689	0.342	236	0.6	8.726	A
4	574	709	939	0.611	574	1.7	10.816	B
5	610	760	924	0.660	610	2.1	12.564	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	23	1012	650	0.036	23	0.0	6.319	A
2	618	23	1175	0.527	621	1.2	7.197	A
3	192	645	757	0.254	193	0.4	7.038	A
4	468	582	1011	0.463	471	1.0	7.385	A
5	498	624	1002	0.497	502	1.1	7.982	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	20	845	741	0.026	20	0.0	5.486	A
2	518	20	1177	0.440	519	0.9	6.036	A
3	161	539	807	0.200	162	0.3	6.138	A
4	392	486	1064	0.369	393	0.6	5.918	A
5	417	521	1061	0.393	419	0.7	6.182	A

EMM - DS1, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	15.54	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	EMM - DS1	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	25	100.000
2		✓	875	100.000
3		✓	0	100.000
4		✓	625	100.000
5		✓	517	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	0	22	3
	2	113	0	0	273	489
	3	0	0	0	0	0
	4	80	545	0	0	0
	5	21	496	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.05	7.20	0.1	A
2	0.82	18.67	4.8	C
3	0.00	0.00	0.0	A
4	0.71	14.31	2.7	B
5	0.64	12.15	1.9	B

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	19	778	777	0.024	19	0.0	5.219	A
2	659	19	1177	0.560	653	1.4	7.479	A
3	0	672	744	0.000	0	0.0	0.000	A
4	471	452	1083	0.434	467	0.8	6.396	A
5	389	552	1043	0.373	387	0.6	6.009	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	22	933	693	0.032	22	0.0	5.902	A
2	787	22	1175	0.669	783	2.2	10.023	B
3	0	806	680	0.000	0	0.0	0.000	A
4	562	542	1033	0.544	560	1.3	8.345	A
5	465	661	981	0.474	463	1.0	7.637	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	28	1138	582	0.047	27	0.1	7.145	A
2	963	27	1172	0.822	954	4.6	17.353	C
3	0	981	596	0.000	0	0.0	0.000	A
4	688	659	967	0.712	683	2.6	13.692	B
5	569	806	898	0.634	566	1.8	11.801	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	28	1146	578	0.048	28	0.1	7.197	A
2	963	28	1172	0.822	963	4.8	18.668	C
3	0	990	592	0.000	0	0.0	0.000	A
4	688	666	964	0.714	688	2.7	14.311	B
5	569	812	894	0.636	569	1.9	12.154	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	22	944	687	0.033	23	0.0	5.957	A
2	787	23	1175	0.669	797	2.3	10.720	B
3	0	819	674	0.000	0	0.0	0.000	A
4	562	551	1028	0.547	567	1.4	8.694	A
5	465	670	976	0.476	468	1.0	7.859	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	19	787	773	0.024	19	0.0	5.251	A
2	659	19	1177	0.560	662	1.4	7.740	A
3	0	681	739	0.000	0	0.0	0.000	A
4	471	458	1080	0.436	473	0.9	6.546	A
5	389	558	1039	0.374	391	0.7	6.115	A

EML - DS2, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	10.69	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	EML - DS2	AM	ONE HOUR	07:45	09:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	27	100.000
2		✓	700	100.000
3		✓	209	100.000
4		✓	508	100.000
5		✓	563	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	0	13	14
	2	34	0	0	266	400
	3	38	96	0	0	75
	4	44	464	0	0	0
	5	8	555	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.06	7.86	0.1	A
2	0.66	9.88	2.1	A
3	0.34	8.75	0.6	A
4	0.60	10.63	1.6	B
5	0.66	12.61	2.1	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	20	834	747	0.027	20	0.0	5.447	A
2	527	20	1177	0.448	523	0.9	6.031	A
3	157	544	805	0.195	156	0.3	6.094	A
4	382	491	1061	0.361	380	0.6	5.795	A
5	424	506	1069	0.396	421	0.7	6.080	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	24	1000	657	0.037	24	0.0	6.257	A
2	629	24	1174	0.536	628	1.2	7.225	A
3	188	652	753	0.249	187	0.4	6.994	A
4	457	589	1006	0.454	456	0.9	7.177	A
5	506	606	1012	0.500	505	1.1	7.782	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	30	1221	537	0.055	30	0.1	7.807	A
2	771	30	1171	0.658	767	2.1	9.728	A
3	230	797	684	0.336	229	0.5	8.693	A
4	559	721	933	0.600	557	1.6	10.442	B
5	620	741	935	0.663	616	2.1	12.251	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	30	1227	533	0.056	30	0.1	7.864	A
2	771	30	1171	0.658	771	2.1	9.875	A
3	230	800	683	0.337	230	0.6	8.752	A
4	559	723	931	0.601	559	1.6	10.632	B
5	620	744	933	0.664	620	2.1	12.609	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	24	1009	652	0.037	24	0.0	6.310	A
2	629	24	1174	0.536	632	1.3	7.351	A
3	188	657	751	0.250	189	0.4	7.052	A
4	457	593	1004	0.455	459	0.9	7.312	A
5	506	611	1009	0.502	510	1.1	7.997	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	20	842	743	0.027	20	0.0	5.484	A
2	527	20	1176	0.448	529	0.9	6.126	A
3	157	549	802	0.196	158	0.3	6.145	A
4	382	496	1058	0.361	384	0.6	5.880	A
5	424	510	1067	0.397	425	0.7	6.192	A

EML - DS2, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	14.79	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	EML - DS2	PM	ONE HOUR	16:45	18:15	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	25	100.000
2		✓	879	100.000
3		✓	0	100.000
4		✓	574	100.000
5		✓	550	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	0	22	3
	2	88	0	0	296	495
	3	0	0	0	0	0
	4	94	480	0	0	0
	5	20	530	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
	1	2	3	4	5	
From	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.05	6.96	0.1	A
2	0.83	19.05	4.9	C
3	0.00	0.00	0.0	A
4	0.65	11.51	2.0	B
5	0.64	11.74	1.9	B

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	19	755	790	0.024	19	0.0	5.134	A
2	662	19	1177	0.562	656	1.4	7.522	A
3	0	675	742	0.000	0	0.0	0.000	A
4	432	437	1091	0.396	429	0.7	5.960	A
5	414	495	1075	0.385	411	0.7	5.939	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	22	905	708	0.032	22	0.0	5.773	A
2	790	22	1175	0.672	787	2.2	10.112	B
3	0	809	678	0.000	0	0.0	0.000	A
4	516	525	1042	0.495	515	1.1	7.485	A
5	494	593	1019	0.485	493	1.0	7.505	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	28	1106	599	0.046	27	0.1	6.923	A
2	968	27	1172	0.825	958	4.7	17.651	C
3	0	985	594	0.000	0	0.0	0.000	A
4	632	639	979	0.646	628	1.9	11.193	B
5	606	724	945	0.641	602	1.9	11.444	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	28	1112	596	0.046	28	0.1	6.963	A
2	968	28	1172	0.825	967	4.9	19.049	C
3	0	994	590	0.000	0	0.0	0.000	A
4	632	645	975	0.648	632	2.0	11.513	B
5	606	729	942	0.643	605	1.9	11.744	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	22	914	703	0.032	23	0.0	5.817	A
2	790	23	1175	0.672	801	2.3	10.845	B
3	0	823	672	0.000	0	0.0	0.000	A
4	516	534	1037	0.497	520	1.1	7.699	A
5	494	600	1016	0.487	498	1.1	7.699	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	19	763	786	0.024	19	0.0	5.163	A
2	662	19	1177	0.562	665	1.4	7.788	A
3	0	684	738	0.000	0	0.0	0.000	A
4	432	444	1088	0.397	434	0.7	6.068	A
5	414	500	1072	0.386	416	0.7	6.042	A

Appendix I – SHUTTLE WORKING SIGNAL MODELLING OUTPUTS

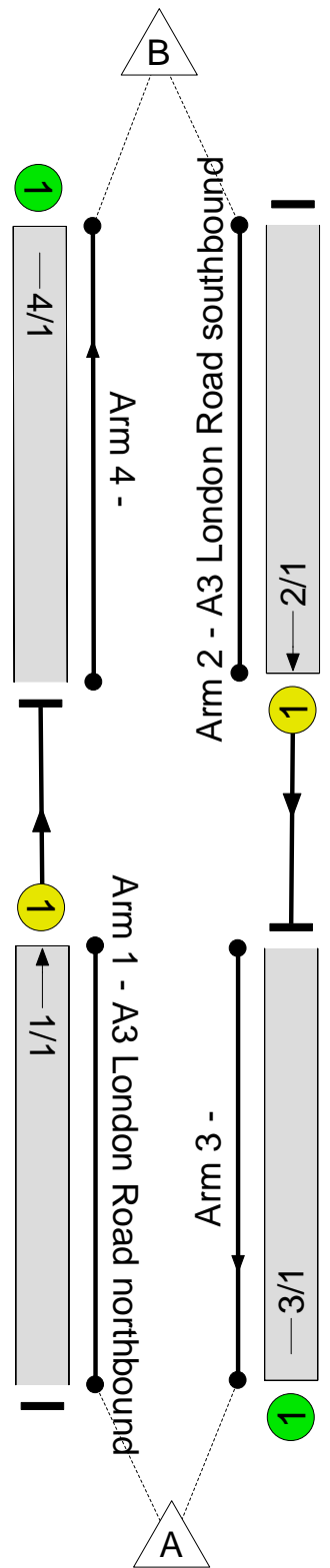
Full Input Data And Results
Full Input Data And Results

User and Project Details

Project:	
Title:	A3 London Road (north of Ladybridge Roundabout) shuttle working analysis
Location:	
Additional detail:	
File name:	A3 London Road (north of Ladybridge Roundabout).lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram

A3 London Road (north of Ladybridge Roundabout)



Full Input Data And Results

Phase Diagram

B



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7

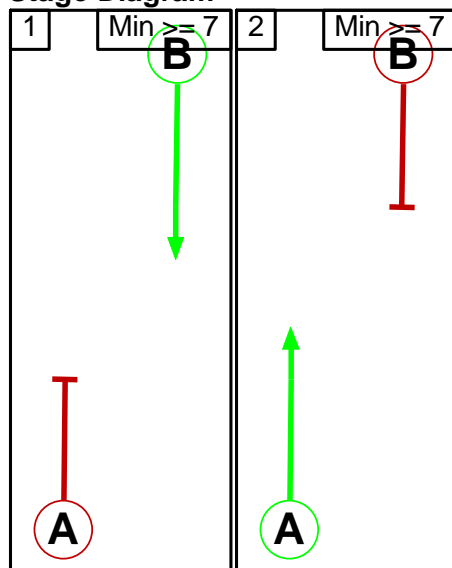
Phase Intergreens Matrix

		Starting Phase	
Terminating Phase		A	B
	A		17
	B	17	

Phases in Stage

Stage No.	Phases in Stage
1	B
2	A

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage	
From Stage		1	2
	1		17
	2	17	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A3 London Road (north of Ladybridge Roundabout)

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: A3 London Road (north of Ladybridge Roundabout)												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A3 London Road northbound)	U	A	2	3	60.0	User	1900	-	-	-	-	-
2/1 (A3 London Road southbound)	U	B	2	3	60.0	User	1900	-	-	-	-	-
3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'EMM - DS1 AM Peak'	08:00	09:00	01:00	
2: 'EMM - DS1 PM Peak'	17:00	18:00	01:00	
3: 'EML - DS2 AM Peak'	08:00	09:00	01:00	
4: 'EML - DS2 PM Peak'	17:00	18:00	01:00	

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination			Tot.
	A	B	Tot.	
Origin	A	0	451	451
	B	607	0	607
	Tot.	607	451	1058

Traffic Lane Flows

Lane	Scenario 1: EMM - DS1 AM
Junction: A3 London Road (north of Ladybridge Roundabout)	
1/1	451
2/1	607
3/1	607
4/1	451

Lane Saturation Flows

Junction: A3 London Road (north of Ladybridge Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A3 London Road northbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
2/1 (A3 London Road southbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
3/1				Infinite Saturation Flow			Inf	Inf
4/1				Infinite Saturation Flow			Inf	Inf

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination			
	A	B	Tot.	
A	0	562	562	
B	514	0	514	
Tot.	514	562	1076	

Traffic Lane Flows

Lane	Scenario 2: EMM - DS1 PM
Junction: A3 London Road (north of Ladybridge Roundabout)	
1/1	562
2/1	514
3/1	514
4/1	562

Lane Saturation Flows

Junction: A3 London Road (north of Ladybridge Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A3 London Road northbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
2/1 (A3 London Road southbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
3/1				Infinite Saturation Flow			Inf	Inf
4/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination			Tot.
	A	B	Tot.	
A	0	448	448	
B	620	0	620	
Tot.	620	448	1068	

Traffic Lane Flows

Lane	Scenario 3: EML - DS2 AM
Junction: A3 London Road (north of Ladybridge Roundabout)	
1/1	448
2/1	620
3/1	620
4/1	448

Lane Saturation Flows

Junction: A3 London Road (north of Ladybridge Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A3 London Road northbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (A3 London Road southbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination			Tot.
	A	B	Tot.	
A	0	559	559	
B	514	0	514	
Tot.	514	559	1073	

Traffic Lane Flows

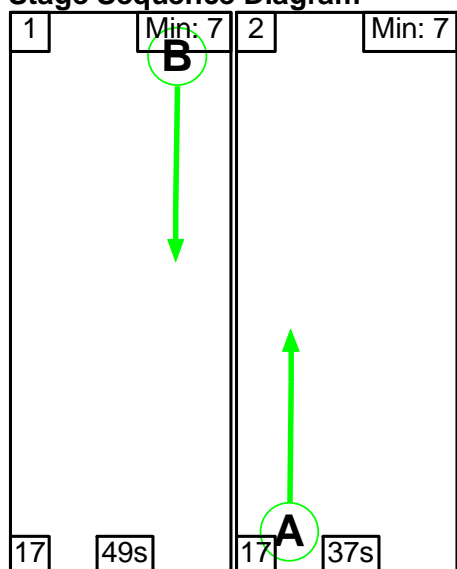
Lane	Scenario 4: EML - DS2 PM
Junction: A3 London Road (north of Ladybridge Roundabout)	
1/1	559
2/1	514
3/1	514
4/1	559

Lane Saturation Flows

Junction: A3 London Road (north of Ladybridge Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A3 London Road northbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
2/1 (A3 London Road southbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
3/1				Infinite Saturation Flow			Inf	Inf
4/1				Infinite Saturation Flow			Inf	Inf

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

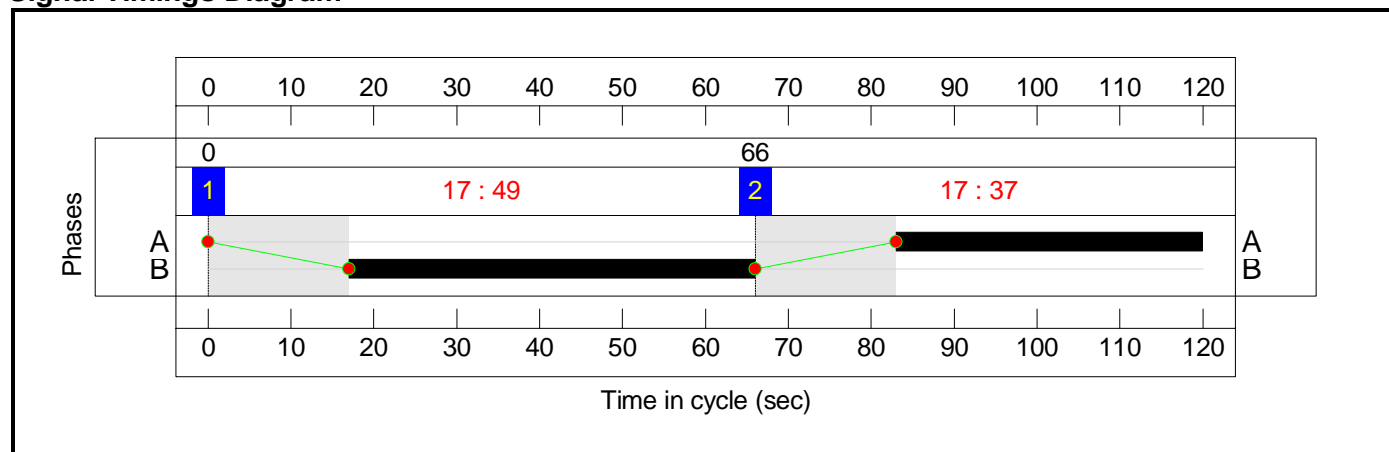
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	49	37
Change Point	0	66

Signal Timings Diagram



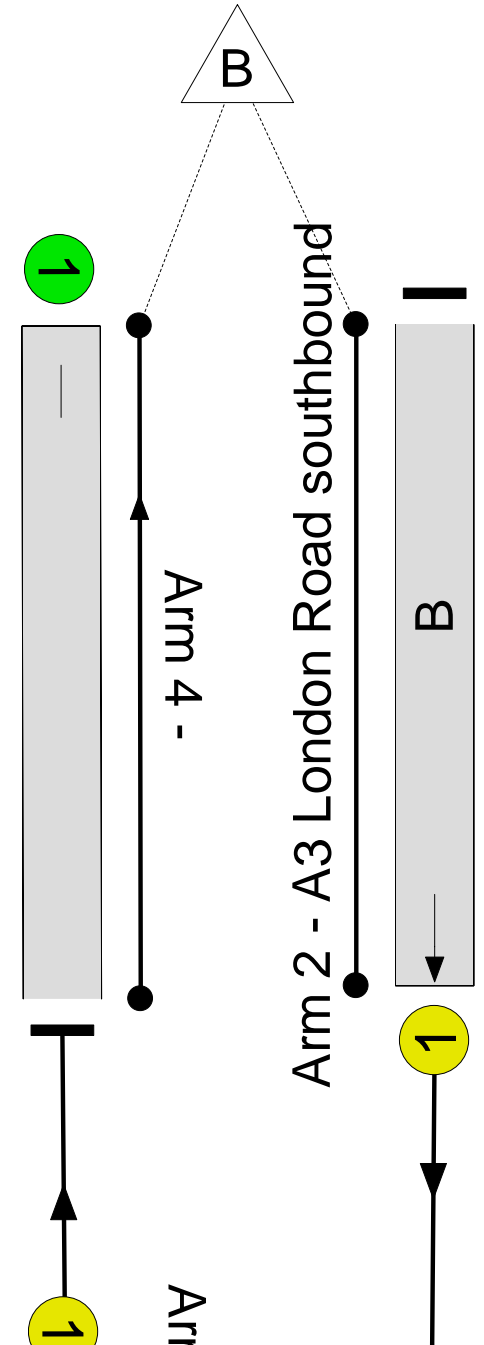
Full Input Data And Results
Network Layout Diagram

A3 London Road (north of Ladybridge Roundabout)



PRC: 17.4 %

Total Traffic Delay: 12.7 pcuHr



Full Input Data And Results

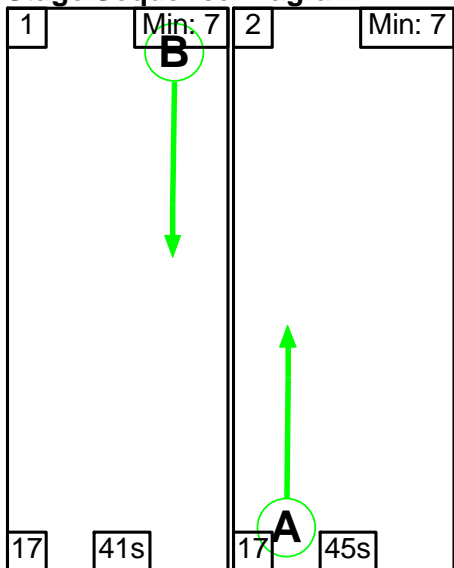
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	76.7%
A3 London Road (north of Ladybridge Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	76.7%
1/1	A3 London Road northbound Ahead	U	N/A	N/A	A		1	37	-	451	1900	602	75.0%
2/1	A3 London Road southbound Ahead	U	N/A	N/A	B		1	49	-	607	1900	792	76.7%
3/1		U	N/A	N/A	-		-	-	-	607	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	451	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	9.7	3.1	0.0	12.7	-	-	-	-
A3 London Road (north of Ladybridge Roundabout)	-	-	0	0	0	9.7	3.1	0.0	12.7	-	-	-	-
1/1	451	451	-	-	-	4.6	1.5	-	6.1	48.5	13.4	1.5	14.9
2/1	607	607	-	-	-	5.1	1.6	-	6.7	39.6	17.2	1.6	18.8
3/1	607	607	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	451	451	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 17.4		Total Delay for Signalled Lanes (pcuHr): 12.74		Cycle Time (s): 120						
			PRC Over All Lanes (%): 17.4		Total Delay Over All Lanes(pcuHr): 12.74								

Full Input Data And Results

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

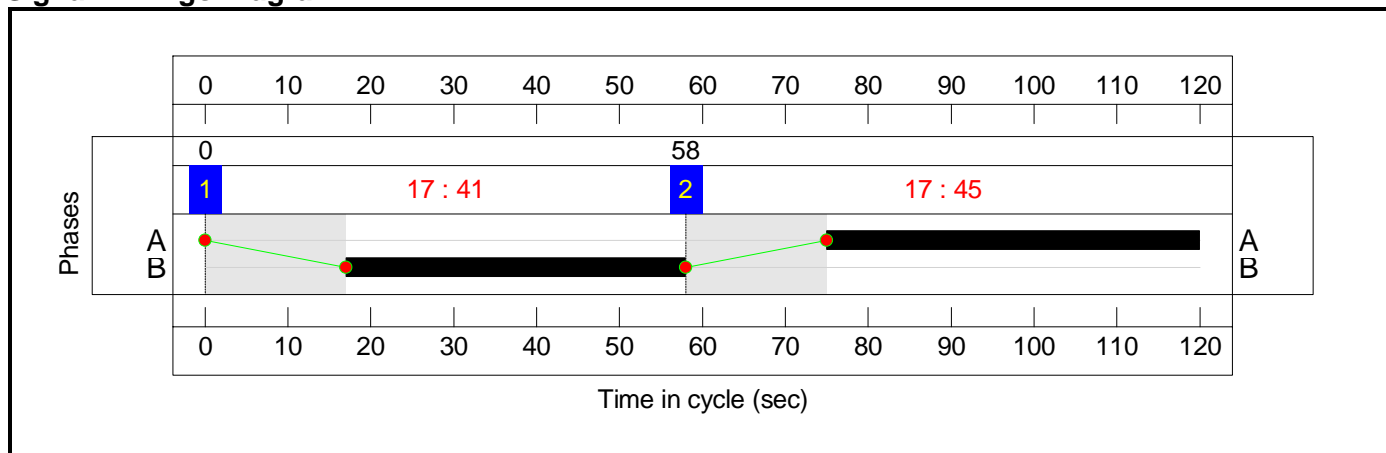
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	41	45
Change Point	0	58

Signal Timings Diagram



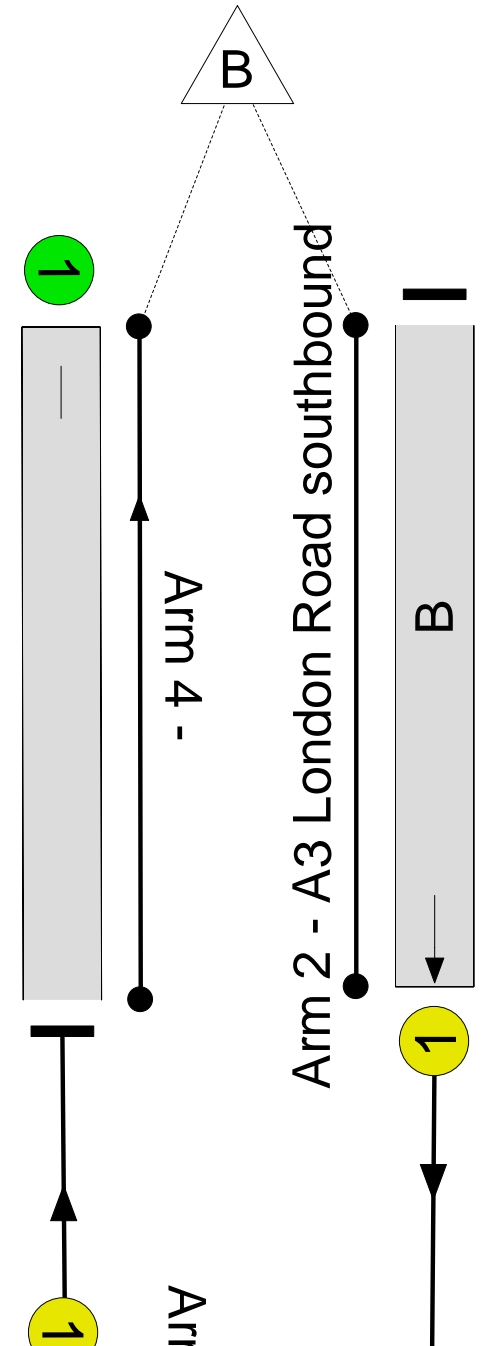
Full Input Data And Results
Network Layout Diagram

A3 London Road (north of Ladybridge Roundabout)



PRC: 16.4 %

Total Traffic Delay: 13.3 pcuHr



Full Input Data And Results

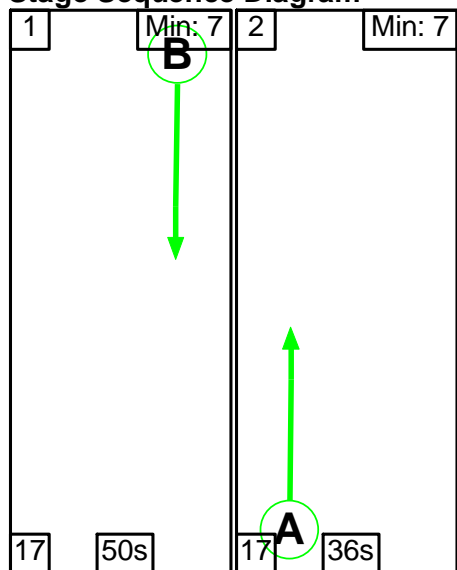
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	77.3%
A3 London Road (north of Ladybridge Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	77.3%
1/1	A3 London Road northbound Ahead	U	N/A	N/A	A		1	45	-	562	1900	728	77.2%
2/1	A3 London Road southbound Ahead	U	N/A	N/A	B		1	41	-	514	1900	665	77.3%
3/1		U	N/A	N/A	-		-	-	-	514	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	562	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	10.0	3.3	0.0	13.3	-	-	-	-
A3 London Road (north of Ladybridge Roundabout)	-	-	0	0	0	10.0	3.3	0.0	13.3	-	-	-	-
1/1	562	562	-	-	-	5.1	1.7	-	6.7	43.0	16.4	1.7	18.0
2/1	514	514	-	-	-	5.0	1.7	-	6.6	46.4	15.1	1.7	16.8
3/1	514	514	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	562	562	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 16.4		Total Delay for Signalled Lanes (pcuHr): 13.34		Cycle Time (s): 120						
			PRC Over All Lanes (%): 16.4		Total Delay Over All Lanes(pcuHr): 13.34								

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

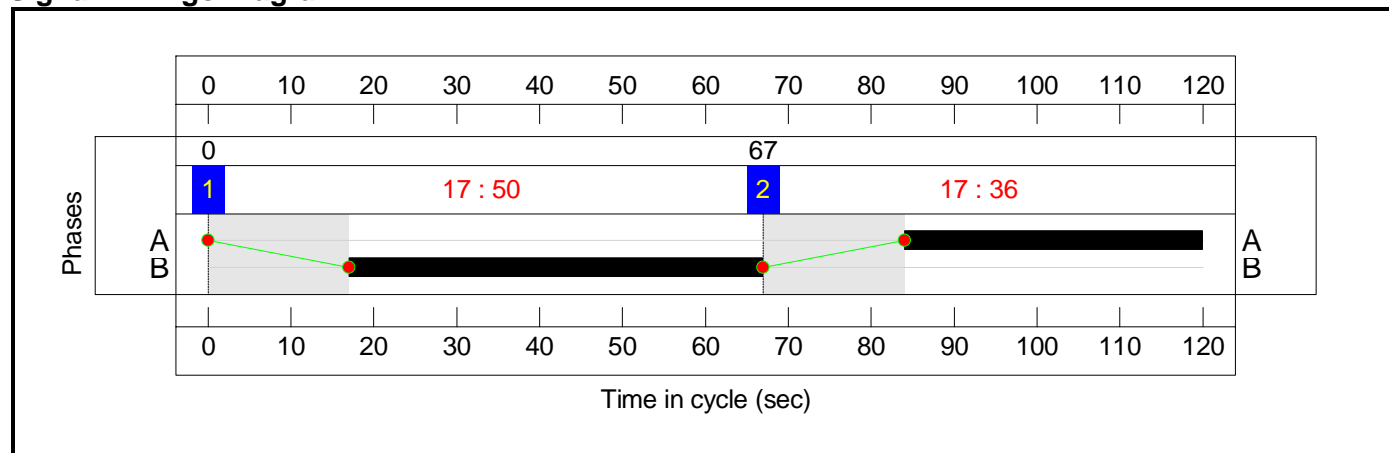
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	50	36
Change Point	0	67

Signal Timings Diagram



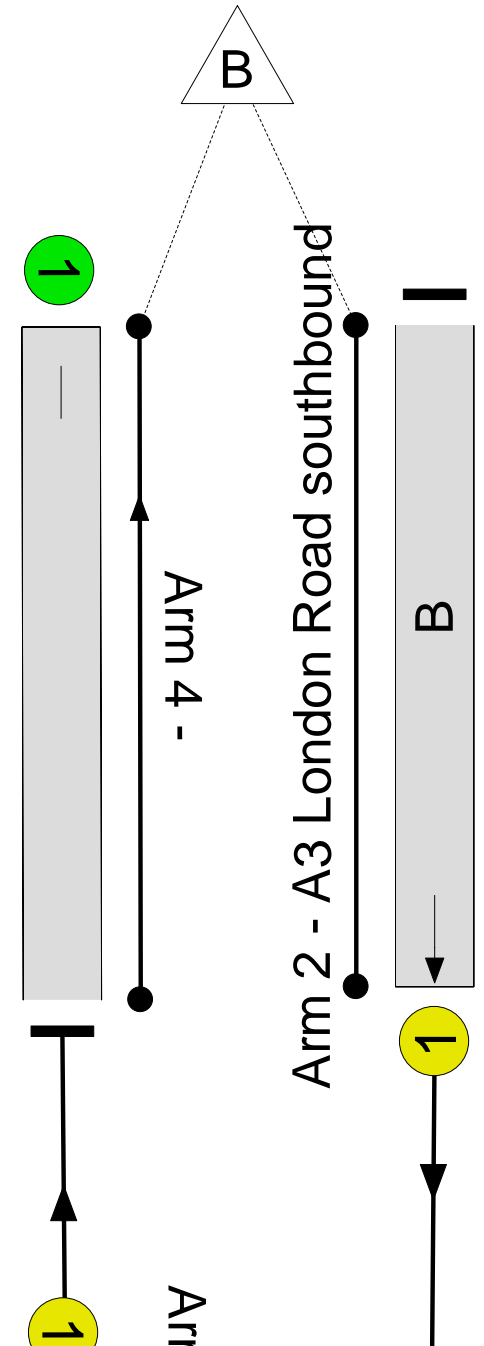
Full Input Data And Results
Network Layout Diagram

A3 London Road (north of Ladybridge Roundabout)



PRC: 17.2 %

Total Traffic Delay: 13.0 pcuHr



Full Input Data And Results

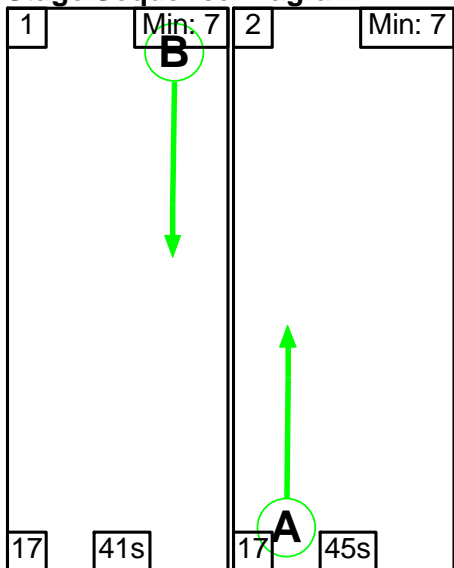
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	76.8%
A3 London Road (north of Ladybridge Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	76.8%
1/1	A3 London Road northbound Ahead	U	N/A	N/A	A		1	36	-	448	1900	586	76.5%
2/1	A3 London Road southbound Ahead	U	N/A	N/A	B		1	50	-	620	1900	808	76.8%
3/1		U	N/A	N/A	-		-	-	-	620	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	448	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	9.7	3.2	0.0	13.0	-	-	-	-
A3 London Road (north of Ladybridge Roundabout)	-	-	0	0	0	9.7	3.2	0.0	13.0	-	-	-	-
1/1	448	448	-	-	-	4.7	1.6	-	6.3	50.3	13.4	1.6	15.0
2/1	620	620	-	-	-	5.1	1.6	-	6.7	38.9	17.6	1.6	19.2
3/1	620	620	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	448	448	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 17.2		Total Delay for Signalled Lanes (pcuHr): 12.96		Cycle Time (s): 120						
			PRC Over All Lanes (%): 17.2		Total Delay Over All Lanes(pcuHr): 12.96								

Full Input Data And Results

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

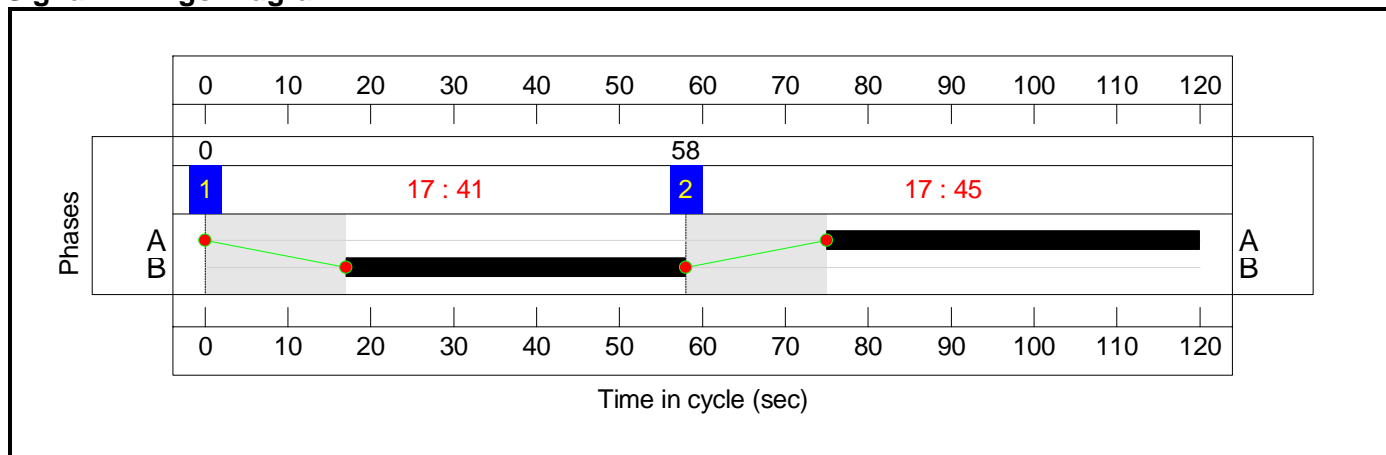
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	41	45
Change Point	0	58

Signal Timings Diagram



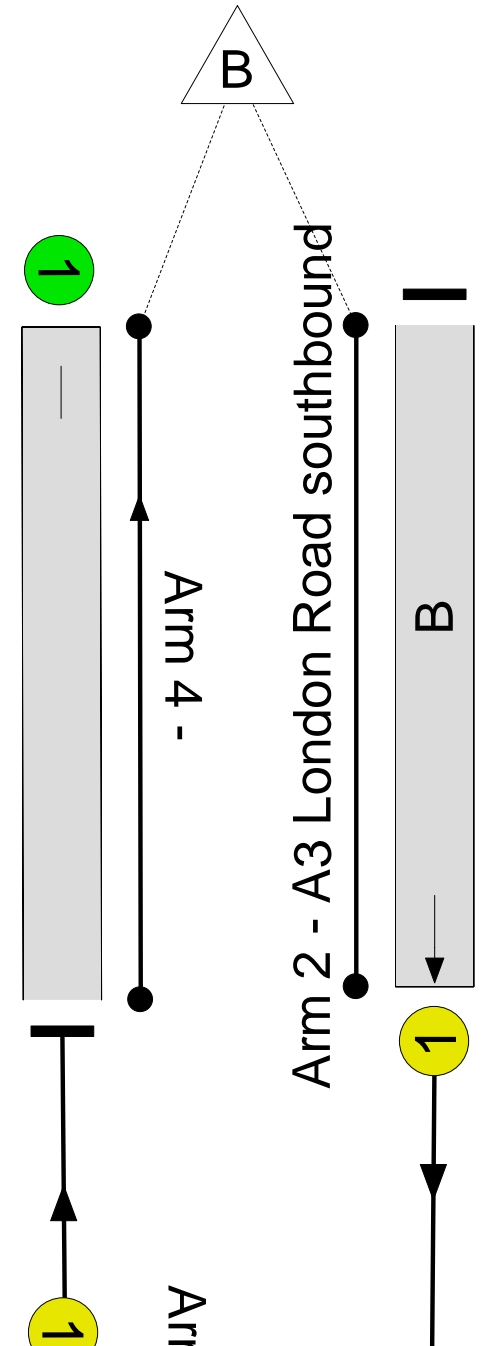
Full Input Data And Results
Network Layout Diagram

A3 London Road (north of Ladybridge Roundabout)



PRC: 16.4 %

Total Traffic Delay: 13.3 pcuHr



Full Input Data And Results

Network Results

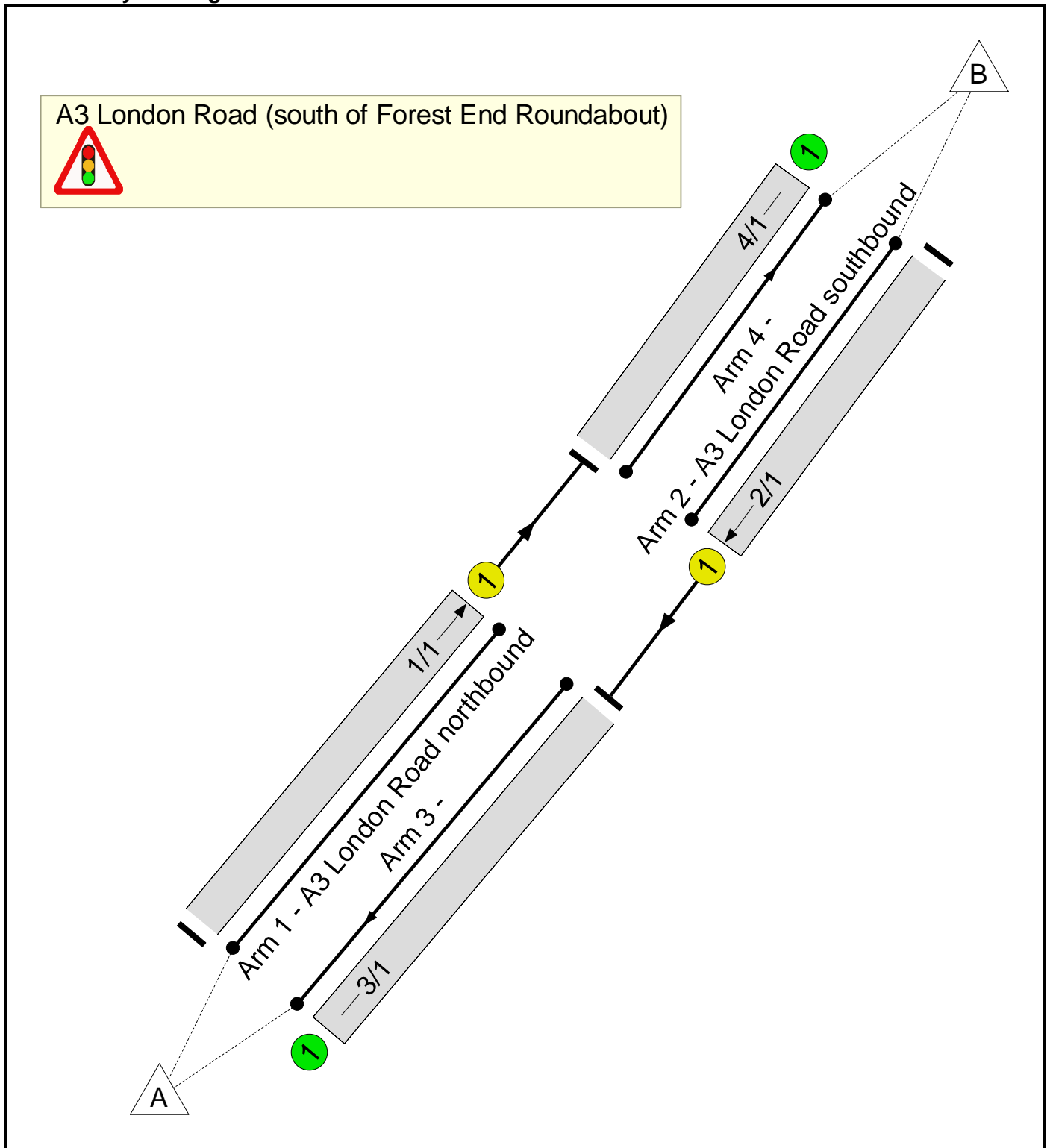
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	77.3%
A3 London Road (north of Ladybridge Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	77.3%
1/1	A3 London Road northbound Ahead	U	N/A	N/A	A		1	45	-	559	1900	728	76.8%
2/1	A3 London Road southbound Ahead	U	N/A	N/A	B		1	41	-	514	1900	665	77.3%
3/1		U	N/A	N/A	-		-	-	-	514	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	559	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	10.0	3.3	0.0	13.3	-	-	-	-
A3 London Road (north of Ladybridge Roundabout)	-	-	0	0	0	10.0	3.3	0.0	13.3	-	-	-	-
1/1	559	559	-	-	-	5.0	1.6	-	6.6	42.8	16.1	1.6	17.8
2/1	514	514	-	-	-	5.0	1.7	-	6.6	46.4	15.1	1.7	16.8
3/1	514	514	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	559	559	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 16.4		Total Delay for Signalled Lanes (pcuHr): 13.27		Cycle Time (s): 120						
			PRC Over All Lanes (%): 16.4		Total Delay Over All Lanes(pcuHr): 13.27								

Full Input Data And Results
Full Input Data And Results

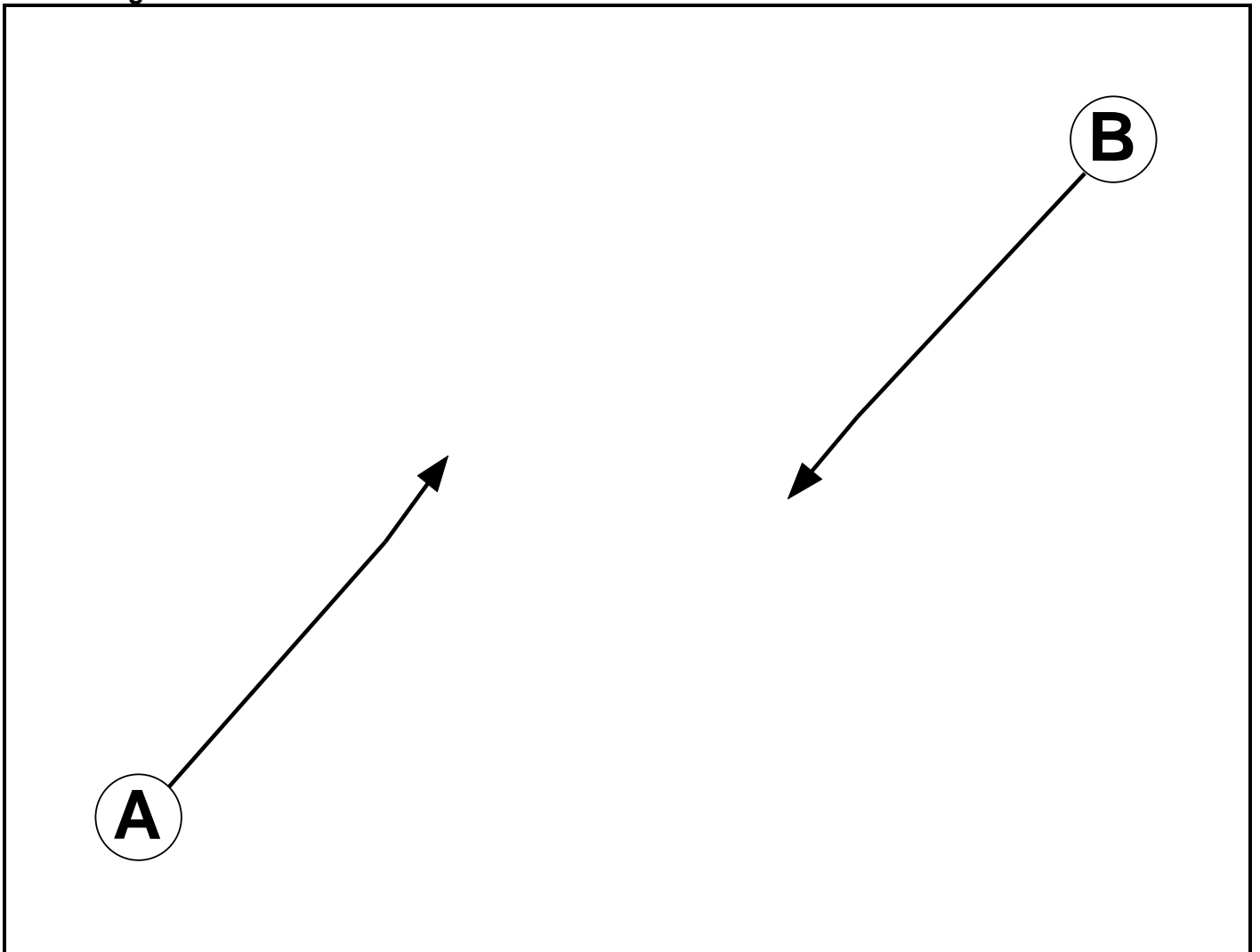
User and Project Details

Project:	
Title:	A3 London Road (south of Forest End Roundabout) shuttle working analysis
Location:	
Additional detail:	
File name:	A3 London Road (south of Forest End Roundabout).lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7

Phase Intergreens Matrix

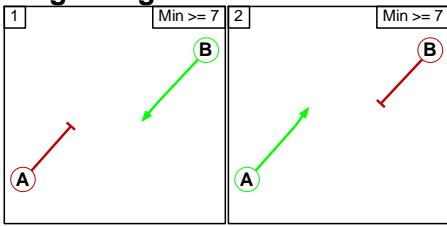
		Starting Phase	
Terminating Phase	A	17	
	B		17

Phases in Stage

Stage No.	Phases in Stage
1	B
2	A

Full Input Data And Results

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage	
		1	2
From Stage	1		17
	2	17	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A3 London Road (south of Forest End Roundabout)

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: A3 London Road (south of Forest End Roundabout)												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A3 London Road northbound)	U	A	2	3	60.0	User	1900	-	-	-	-	-
2/1 (A3 London Road southbound)	U	B	2	3	60.0	User	1900	-	-	-	-	-
3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'EMM - DS1 AM Peak'	08:00	09:00	01:00	
2: 'EMM - DS1 PM Peak'	17:00	18:00	01:00	
3: 'EML - DS2 AM Peak'	08:00	09:00	01:00	
4: 'EML - DS2 PM Peak'	17:00	18:00	01:00	

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination			Tot.
	A	B	Tot.	
Origin	A	0	596	596
	B	428	0	428
	Tot.	428	596	1024

Traffic Lane Flows

Lane	Scenario 1: EMM - DS1 AM
Junction: A3 London Road (south of Forest End Roundabout)	
1/1	596
2/1	428
3/1	428
4/1	596

Lane Saturation Flows

Junction: A3 London Road (south of Forest End Roundabout)									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1 (A3 London Road northbound Lane 1)		This lane uses a directly entered Saturation Flow						1900	1900
2/1 (A3 London Road southbound Lane 1)		This lane uses a directly entered Saturation Flow						1900	1900
3/1		Infinite Saturation Flow						Inf	Inf
4/1		Infinite Saturation Flow						Inf	Inf

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination			
	A	B	Tot.	
A	0	521	521	
B	598	0	598	
Tot.	598	521	1119	

Traffic Lane Flows

Lane	Scenario 2: EMM - DS1 PM
Junction: A3 London Road (south of Forest End Roundabout)	
1/1	521
2/1	598
3/1	598
4/1	521

Lane Saturation Flows

Junction: A3 London Road (south of Forest End Roundabout)									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1 (A3 London Road northbound Lane 1)		This lane uses a directly entered Saturation Flow						1900	1900
2/1 (A3 London Road southbound Lane 1)		This lane uses a directly entered Saturation Flow						1900	1900
3/1		Infinite Saturation Flow						Inf	Inf
4/1		Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination		
	A	B	Tot.
A	0	592	592
B	439	0	439
Tot.	439	592	1031

Traffic Lane Flows

Lane	Scenario 3: EML - DS2 AM
Junction: A3 London Road (south of Forest End Roundabout)	
1/1	592
2/1	439
3/1	439
4/1	592

Lane Saturation Flows

Junction: A3 London Road (south of Forest End Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A3 London Road northbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (A3 London Road southbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination		
	A	B	Tot.
A	0	513	513
B	602	0	602
Tot.	602	513	1115

Traffic Lane Flows

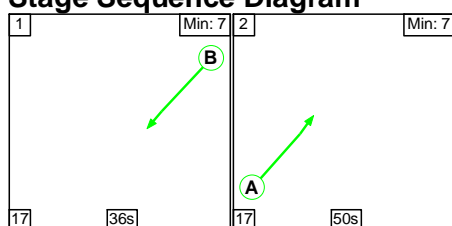
Lane	Scenario 4: EML - DS2 PM
Junction: A3 London Road (south of Forest End Roundabout)	
1/1	513
2/1	602
3/1	602
4/1	513

Lane Saturation Flows

Junction: A3 London Road (south of Forest End Roundabout)									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1 (A3 London Road northbound Lane 1)		This lane uses a directly entered Saturation Flow						1900	1900
2/1 (A3 London Road southbound Lane 1)		This lane uses a directly entered Saturation Flow						1900	1900
3/1		Infinite Saturation Flow						Inf	Inf
4/1		Infinite Saturation Flow						Inf	Inf

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

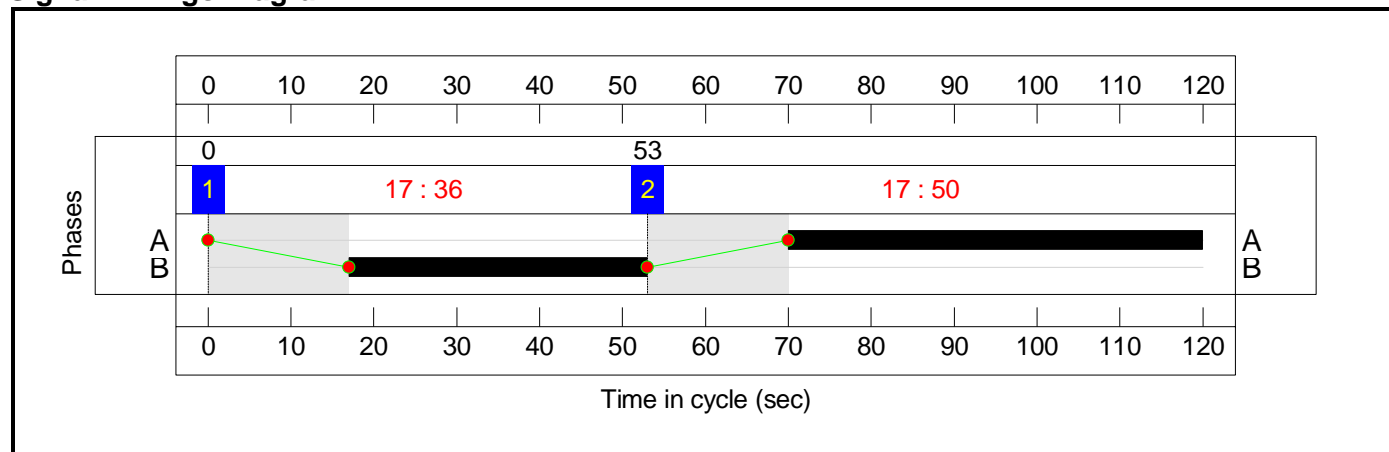
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	36	50
Change Point	0	53

Signal Timings Diagram



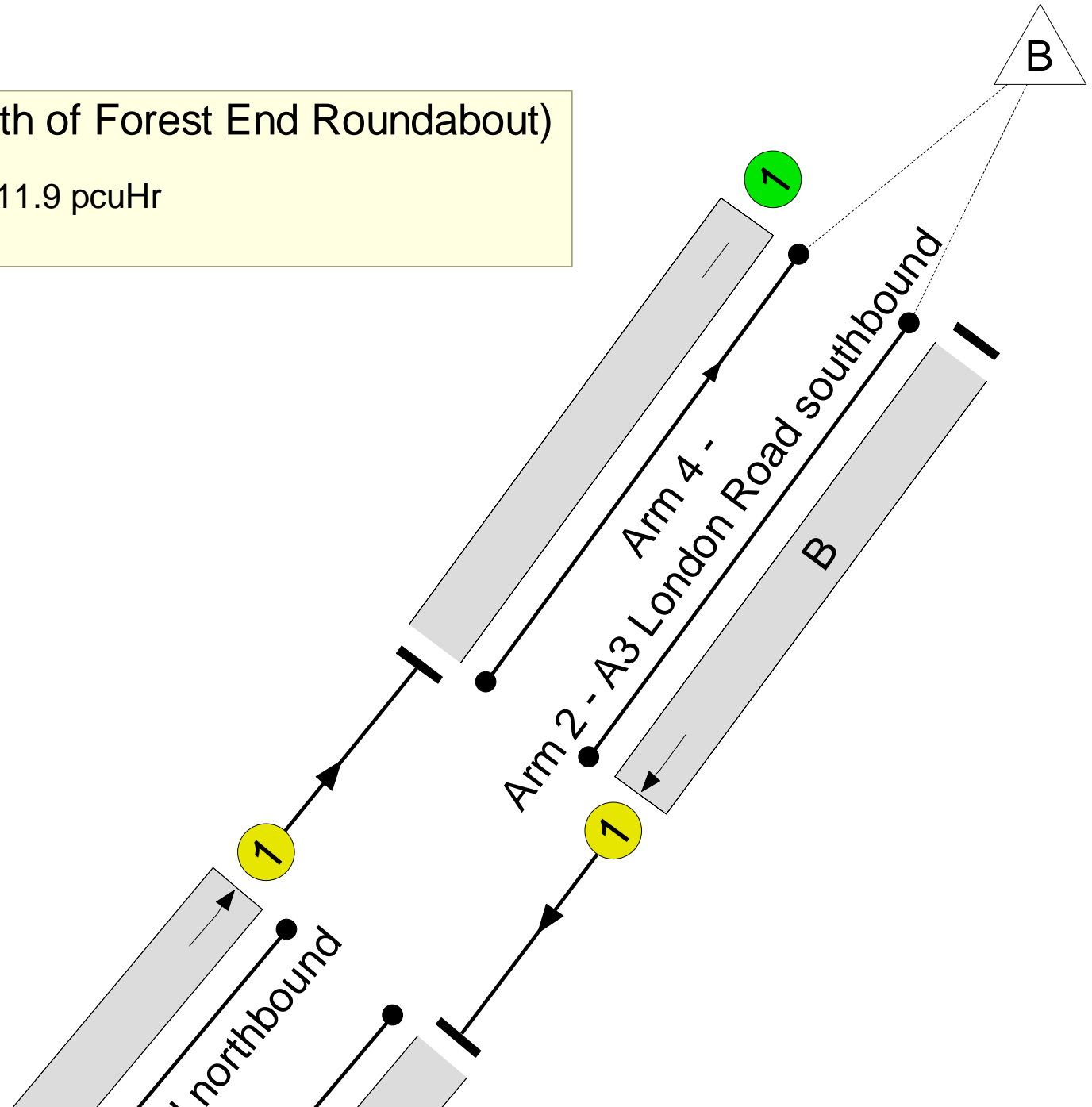
Full Input Data And Results
Network Layout Diagram

A3 London Road (south of Forest End Roundabout)



PRC: 21.9 %

Total Traffic Delay: 11.9 pcuHr



Full Input Data And Results

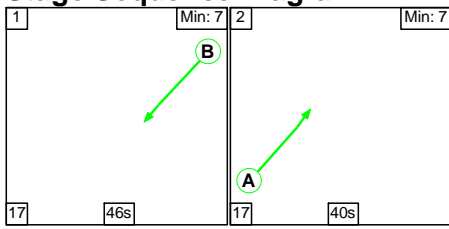
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	73.8%
A3 London Road (south of Forest End Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	73.8%
1/1	A3 London Road northbound Ahead	U	N/A	N/A	A		1	50	-	596	1900	808	73.8%
2/1	A3 London Road southbound Ahead	U	N/A	N/A	B		1	36	-	428	1900	586	73.1%
3/1		U	N/A	N/A	-		-	-	-	428	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	596	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	9.2	2.7	0.0	11.9	-	-	-	-
A3 London Road (south of Forest End Roundabout)	-	-	0	0	0	9.2	2.7	0.0	11.9	-	-	-	-
1/1	596	596	-	-	-	4.8	1.4	-	6.2	37.3	16.6	1.4	17.9
2/1	428	428	-	-	-	4.4	1.3	-	5.7	48.3	12.7	1.3	14.1
3/1	428	428	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	596	596	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 21.9		Total Delay for Signalled Lanes (pcuHr): 11.91		Cycle Time (s): 120						
			PRC Over All Lanes (%): 21.9		Total Delay Over All Lanes(pcuHr): 11.91								

Full Input Data And Results

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

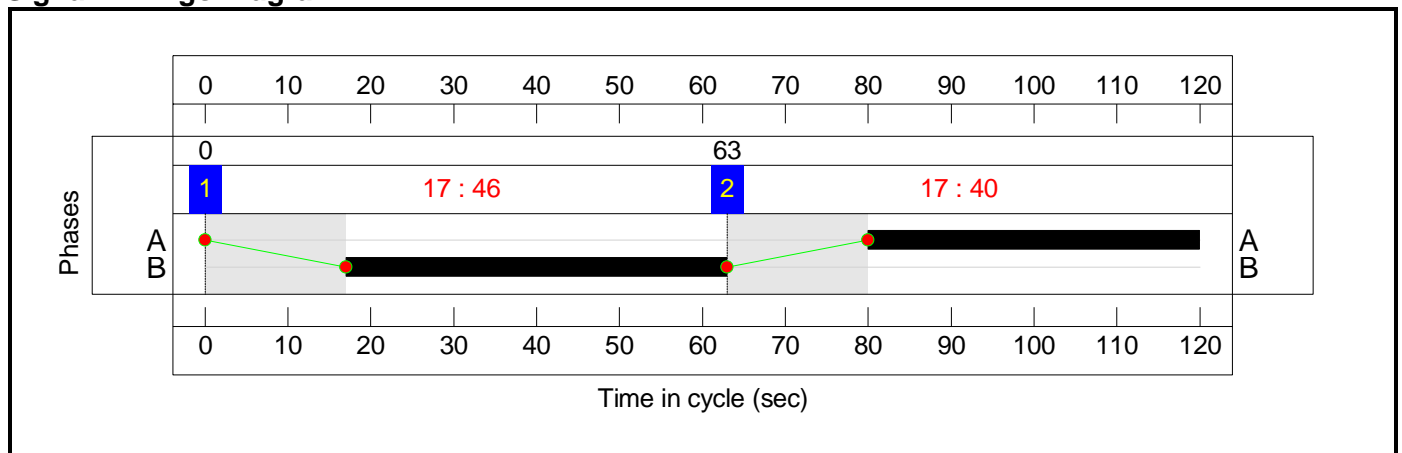
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	46	40
Change Point	0	63

Signal Timings Diagram



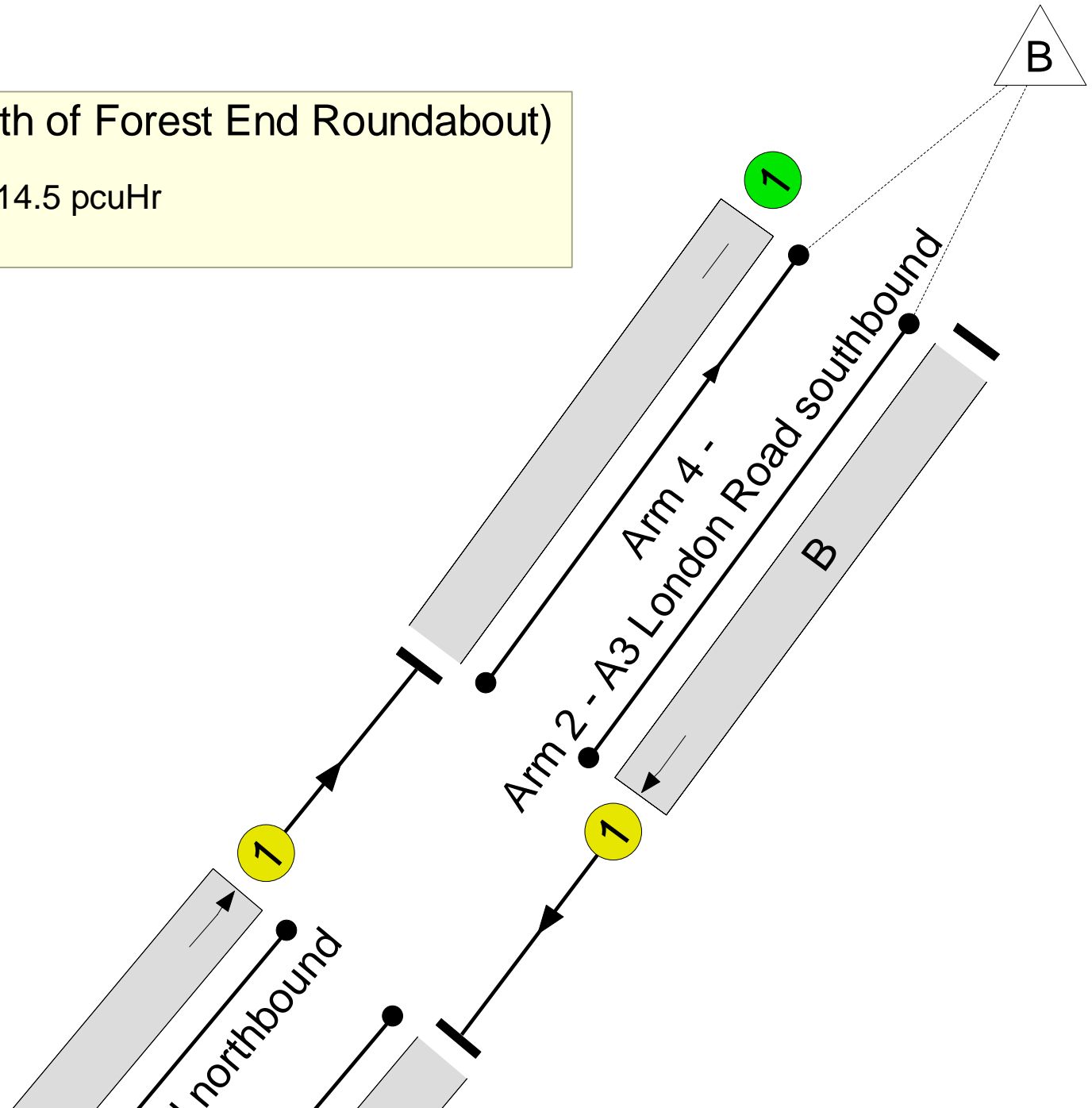
Full Input Data And Results
Network Layout Diagram

A3 London Road (south of Forest End Roundabout)



PRC: 12.0 %

Total Traffic Delay: 14.5 pcuHr



Full Input Data And Results

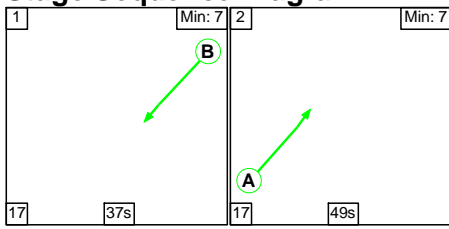
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	80.4%
A3 London Road (south of Forest End Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	80.4%
1/1	A3 London Road northbound Ahead	U	N/A	N/A	A		1	40	-	521	1900	649	80.3%
2/1	A3 London Road southbound Ahead	U	N/A	N/A	B		1	46	-	598	1900	744	80.4%
3/1		U	N/A	N/A	-		-	-	-	598	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	521	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	10.6	4.0	0.0	14.5	-	-	-	-
A3 London Road (south of Forest End Roundabout)	-	-	0	0	0	10.6	4.0	0.0	14.5	-	-	-	-
1/1	521	521	-	-	-	5.2	2.0	-	7.2	49.5	15.6	2.0	17.6
2/1	598	598	-	-	-	5.4	2.0	-	7.4	44.4	17.6	2.0	19.6
3/1	598	598	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	521	521	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 12.0		Total Delay for Signalled Lanes (pcuHr): 14.53		Cycle Time (s): 120						
			PRC Over All Lanes (%): 12.0		Total Delay Over All Lanes(pcuHr): 14.53								

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

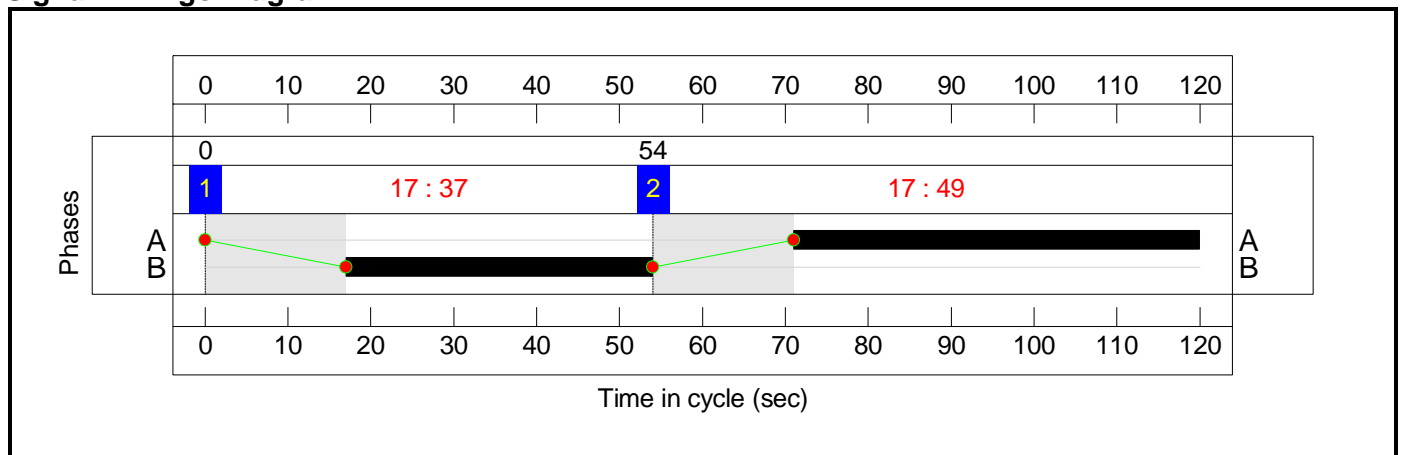
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	37	49
Change Point	0	54

Signal Timings Diagram



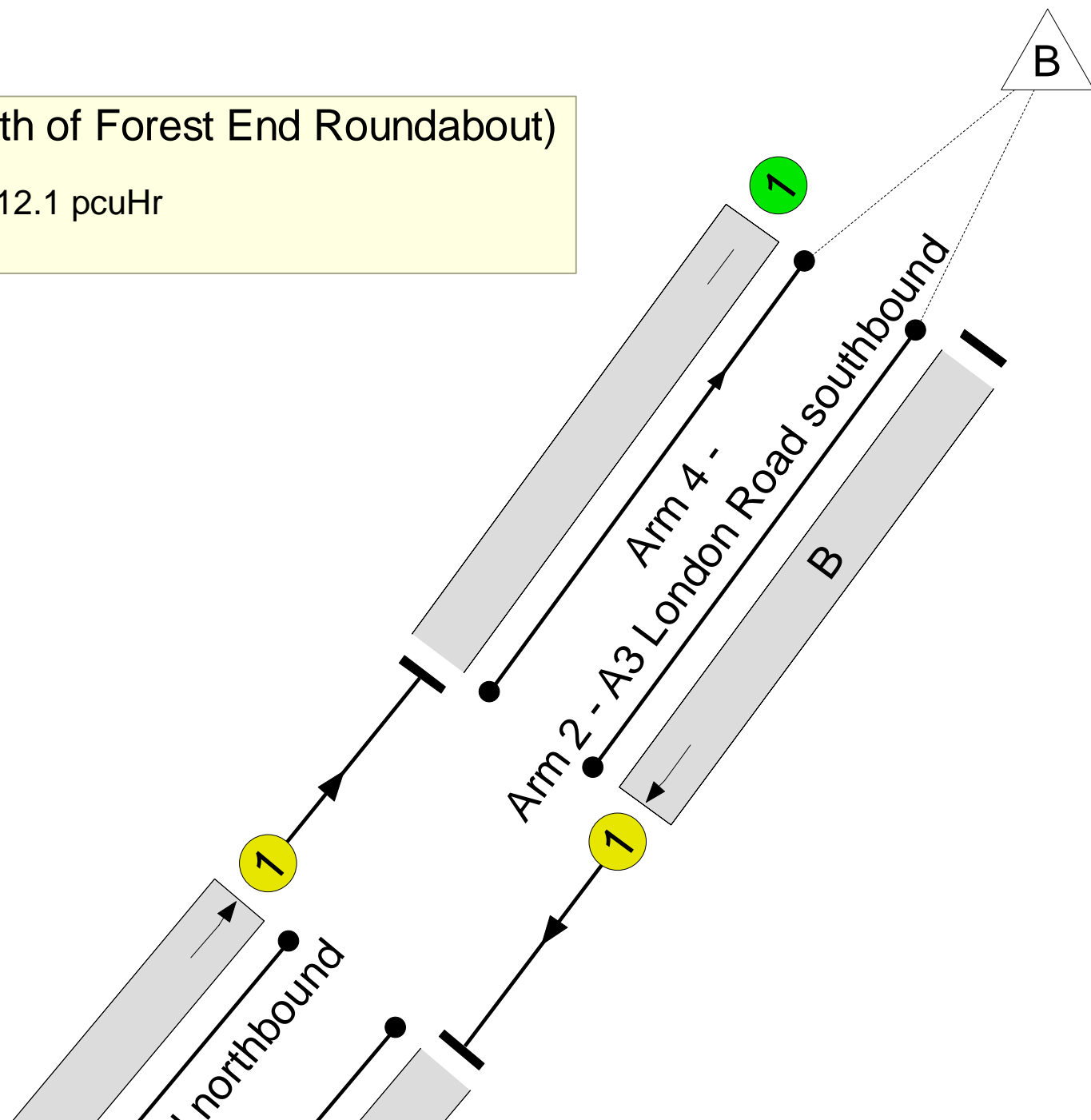
Full Input Data And Results
Network Layout Diagram

A3 London Road (south of Forest End Roundabout)



PRC: 20.4 %

Total Traffic Delay: 12.1 pcuHr



Full Input Data And Results

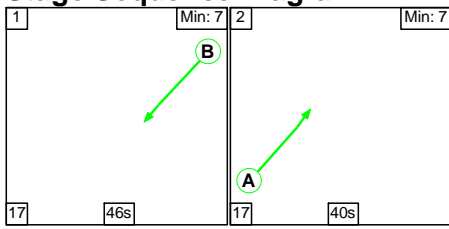
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	74.8%
A3 London Road (south of Forest End Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	74.8%
1/1	A3 London Road northbound Ahead	U	N/A	N/A	A		1	49	-	592	1900	792	74.8%
2/1	A3 London Road southbound Ahead	U	N/A	N/A	B		1	37	-	439	1900	602	73.0%
3/1		U	N/A	N/A	-		-	-	-	439	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	592	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	9.3	2.8	0.0	12.1	-	-	-	-
A3 London Road (south of Forest End Roundabout)	-	-	0	0	0	9.3	2.8	0.0	12.1	-	-	-	-
1/1	592	592	-	-	-	4.9	1.5	-	6.3	38.5	16.6	1.5	18.1
2/1	439	439	-	-	-	4.4	1.3	-	5.8	47.3	12.9	1.3	14.3
3/1	439	439	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	592	592	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 20.4		Total Delay for Signalled Lanes (pcuHr): 12.11		Cycle Time (s): 120						
			PRC Over All Lanes (%): 20.4		Total Delay Over All Lanes(pcuHr): 12.11								

Full Input Data And Results

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

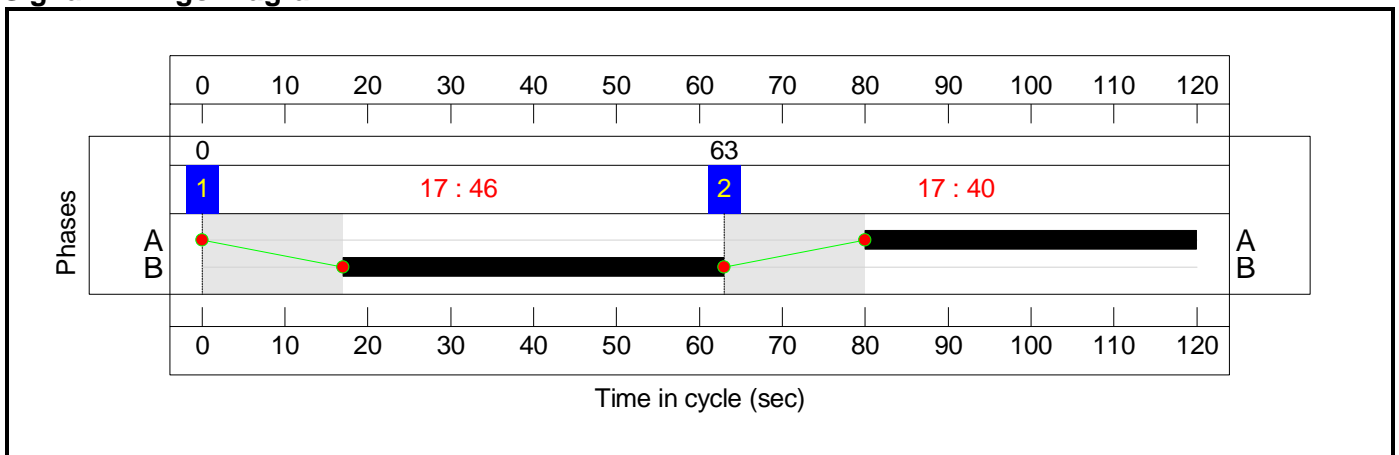
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	46	40
Change Point	0	63

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)		
Network	-	-	N/A	-	-		-	-	-	-	-	-	80.9%		
A3 London Road (south of Forest End Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	80.9%		
1/1	A3 London Road northbound Ahead	U	N/A	N/A	A		1	40	-	513	1900	649	79.0%		
2/1	A3 London Road southbound Ahead	U	N/A	N/A	B		1	46	-	602	1900	744	80.9%		
3/1		U	N/A	N/A	-		-	-	-	602	Inf	Inf	0.0%		
4/1		U	N/A	N/A	-		-	-	-	513	Inf	Inf	0.0%		
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)		
Network	-	-	0	0	0	10.5	3.9	0.0	14.4	-	-	-	-		
A3 London Road (south of Forest End Roundabout)	-	-	0	0	0	10.5	3.9	0.0	14.4	-	-	-	-		
1/1	513	513	-	-	-	5.1	1.8	-	6.9	48.5	15.4	1.8	17.2		
2/1	602	602	-	-	-	5.4	2.1	-	7.5	44.8	17.7	2.1	19.8		
3/1	602	602	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0		
4/1	513	513	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0		
C1			PRC for Signalled Lanes (%): 11.3		Total Delay for Signalled Lanes (pcuHr): 14.40		Cycle Time (s): 120			PRC Over All Lanes (%): 11.3				Total Delay Over All Lanes(pcuHr): 14.40	

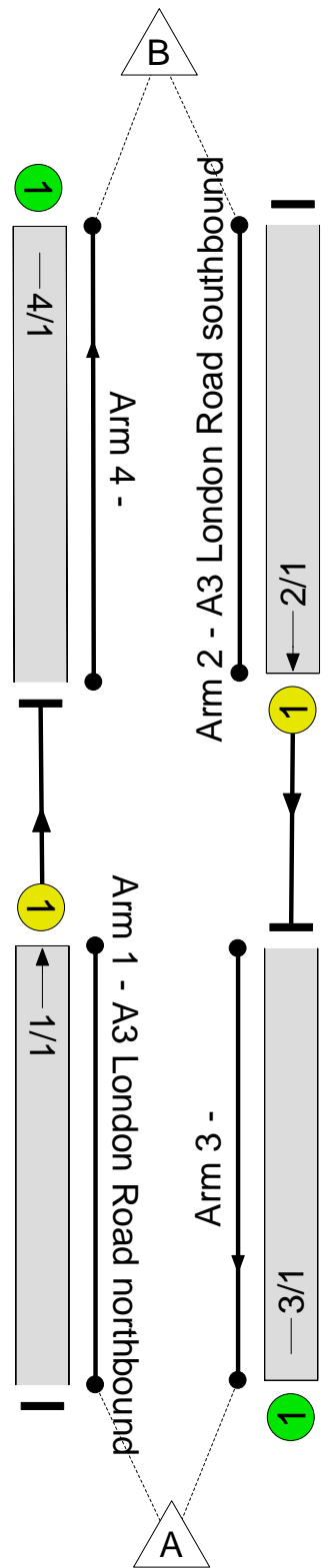
Full Input Data And Results
Full Input Data And Results

User and Project Details

Project:	
Title:	A3 London Road (south of Ladybridge Roundabout) shuttle working analysis
Location:	
Additional detail:	
File name:	A3 London Road (south of Ladybridge Roundabout).lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram

A3 London Road (south of Ladybridge Roundabout)



Full Input Data And Results

Phase Diagram

B



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7

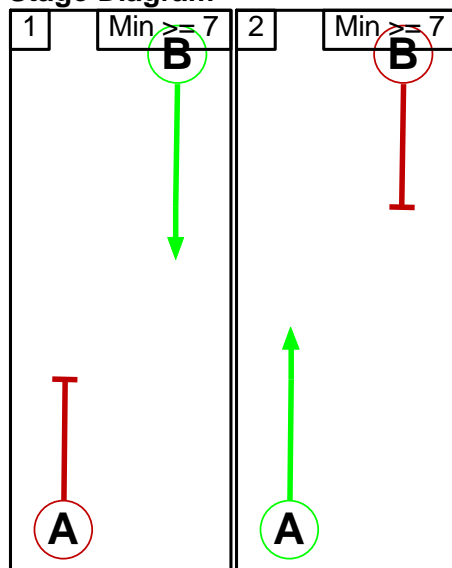
Phase Intergreens Matrix

		Starting Phase	
		A	B
Terminating Phase	A		17
	B	17	

Phases in Stage

Stage No.	Phases in Stage
1	B
2	A

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage	
		1	2
From Stage	1		17
	2	17	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A3 London Road (south of Ladybridge Roundabout)

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: A3 London Road (south of Ladybridge Roundabout)												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A3 London Road northbound)	U	A	2	3	60.0	User	1900	-	-	-	-	-
2/1 (A3 London Road southbound)	U	B	2	3	60.0	User	1900	-	-	-	-	-
3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'EMM - DS1 AM Peak'	08:00	09:00	01:00	
2: 'EMM - DS1 PM Peak'	17:00	18:00	01:00	
3: 'EML - DS2 AM Peak'	08:00	09:00	01:00	
4: 'EML - DS2 PM Peak'	17:00	18:00	01:00	

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination			Tot.
	A	B	Tot.	
Origin	A	0	537	537
	B	564	0	564
	Tot.	564	537	1101

Traffic Lane Flows

Lane	Scenario 1: EMM - DS1 AM
Junction: A3 London Road (south of Ladybridge Roundabout)	
1/1	537
2/1	564
3/1	564
4/1	537

Lane Saturation Flows

Junction: A3 London Road (south of Ladybridge Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A3 London Road northbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
2/1 (A3 London Road southbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
3/1				Infinite Saturation Flow			Inf	Inf
4/1				Infinite Saturation Flow			Inf	Inf

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination			
	A	B	Tot.	
A	0	604	604	
B	549	0	549	
Tot.	549	604	1153	

Traffic Lane Flows

Lane	Scenario 2: EMM - DS1 PM
Junction: A3 London Road (south of Ladybridge Roundabout)	
1/1	604
2/1	549
3/1	549
4/1	604

Lane Saturation Flows

Junction: A3 London Road (south of Ladybridge Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A3 London Road northbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
2/1 (A3 London Road southbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
3/1				Infinite Saturation Flow			Inf	Inf
4/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination			Tot.
	A	B	Tot.	
A	0	533	533	
B	577	0	577	
Tot.	577	533	1110	

Traffic Lane Flows

Lane	Scenario 3: EML - DS2 AM
Junction: A3 London Road (south of Ladybridge Roundabout)	
1/1	533
2/1	577
3/1	577
4/1	533

Lane Saturation Flows

Junction: A3 London Road (south of Ladybridge Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A3 London Road northbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (A3 London Road southbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination			Tot.
	A	B	Tot.	
A	0	596	596	
B	558	0	558	
Tot.	558	596	1154	

Traffic Lane Flows

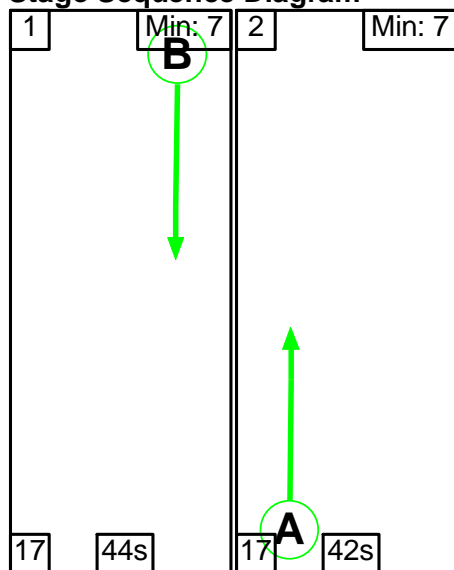
Lane	Scenario 4: EML - DS2 PM
Junction: A3 London Road (south of Ladybridge Roundabout)	
1/1	596
2/1	558
3/1	558
4/1	596

Lane Saturation Flows

Junction: A3 London Road (south of Ladybridge Roundabout)									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1 (A3 London Road northbound Lane 1)		This lane uses a directly entered Saturation Flow						1900	1900
2/1 (A3 London Road southbound Lane 1)		This lane uses a directly entered Saturation Flow						1900	1900
3/1		Infinite Saturation Flow						Inf	Inf
4/1		Infinite Saturation Flow						Inf	Inf

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

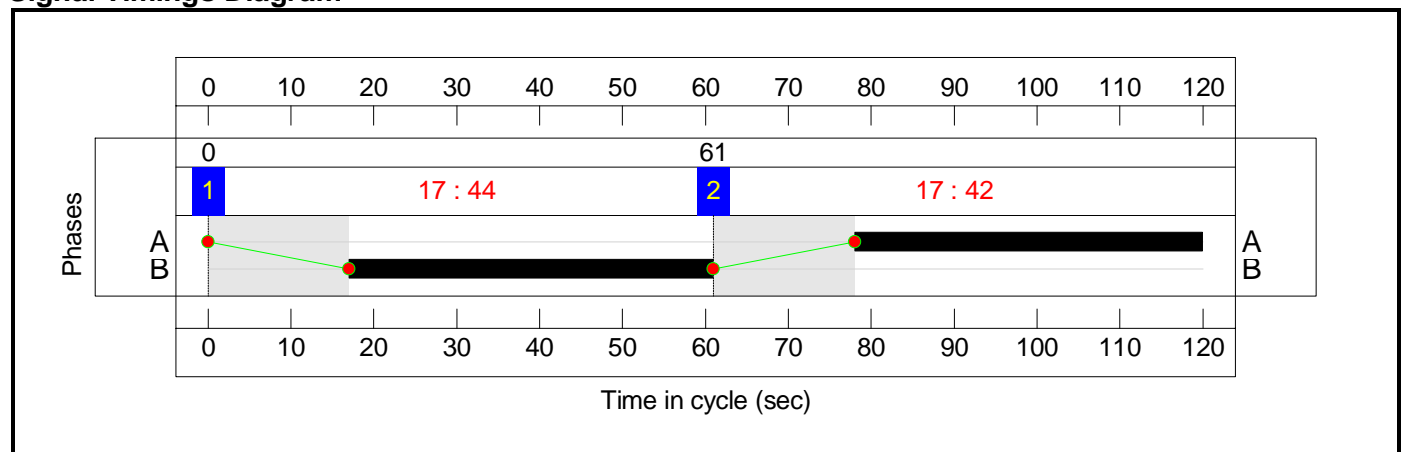
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	44	42
Change Point	0	61

Signal Timings Diagram



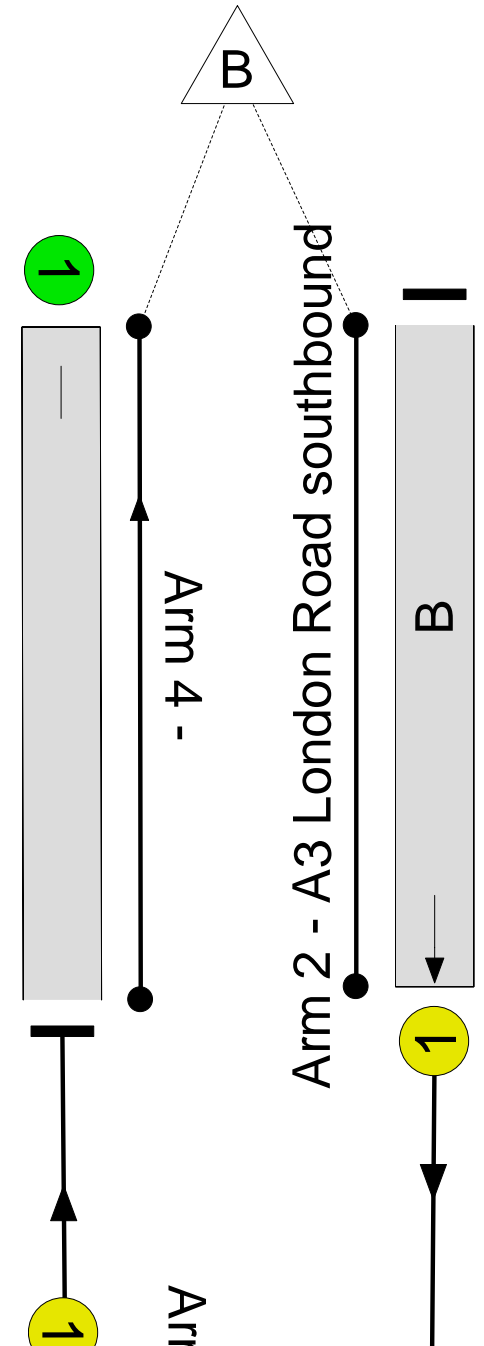
Full Input Data And Results
Network Layout Diagram

A3 London Road (south of Ladybridge Roundabout)



PRC: 13.7 %

Total Traffic Delay: 14.0 pcuHr



Full Input Data And Results

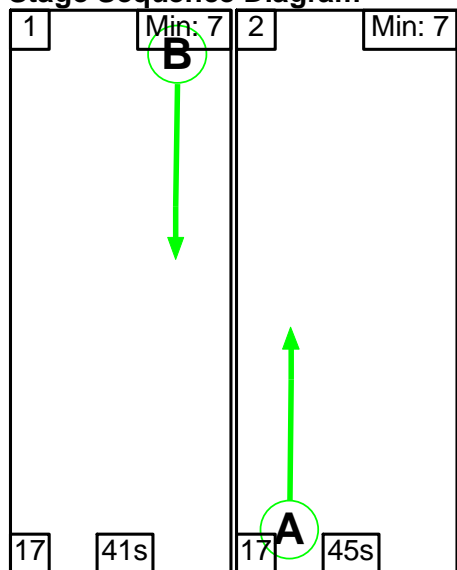
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	79.2%
A3 London Road (south of Ladybridge Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	79.2%
1/1	A3 London Road northbound Ahead	U	N/A	N/A	A		1	42	-	537	1900	681	78.9%
2/1	A3 London Road southbound Ahead	U	N/A	N/A	B		1	44	-	564	1900	713	79.2%
3/1		U	N/A	N/A	-		-	-	-	564	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	537	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	10.4	3.7	0.0	14.0	-	-	-	-
A3 London Road (south of Ladybridge Roundabout)	-	-	0	0	0	10.4	3.7	0.0	14.0	-	-	-	-
1/1	537	537	-	-	-	5.1	1.8	-	7.0	46.6	16.0	1.8	17.8
2/1	564	564	-	-	-	5.2	1.9	-	7.1	45.2	16.6	1.9	18.5
3/1	564	564	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	537	537	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 13.7		Total Delay for Signalled Lanes (pcuHr): 14.03		Cycle Time (s): 120						
			PRC Over All Lanes (%): 13.7		Total Delay Over All Lanes(pcuHr): 14.03								

Full Input Data And Results

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

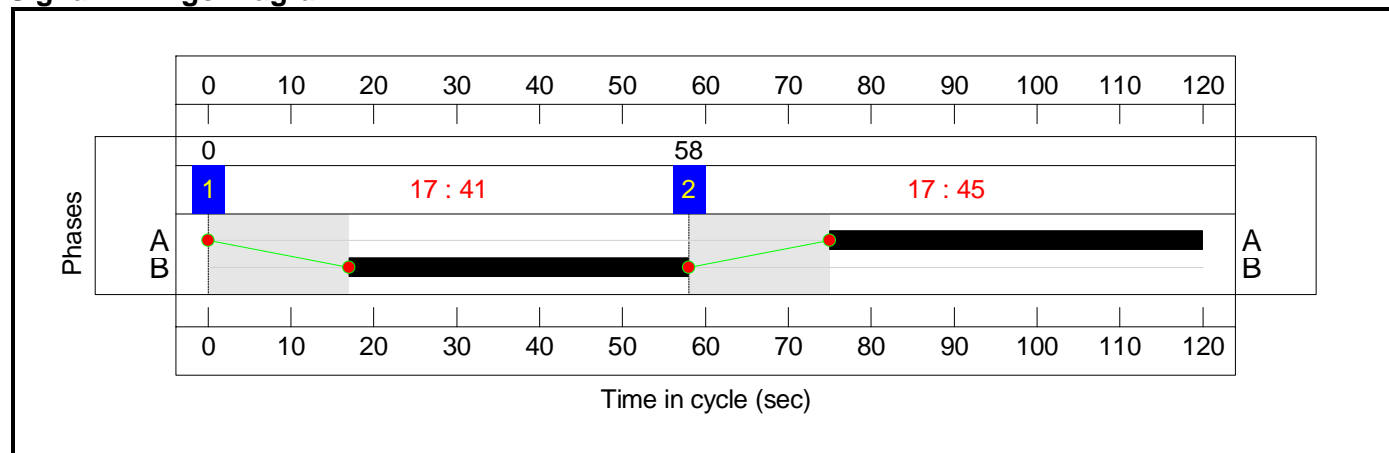
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	41	45
Change Point	0	58

Signal Timings Diagram



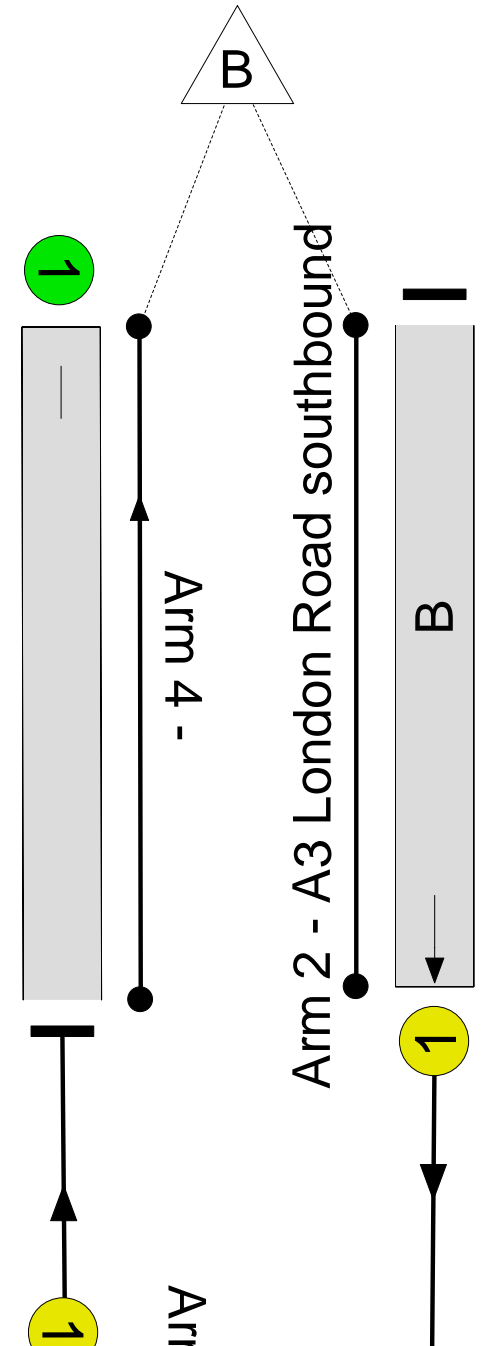
Full Input Data And Results
Network Layout Diagram

A3 London Road (south of Ladybridge Roundabout)



PRC: 8.5 %

Total Traffic Delay: 15.7 pcuHr



Full Input Data And Results

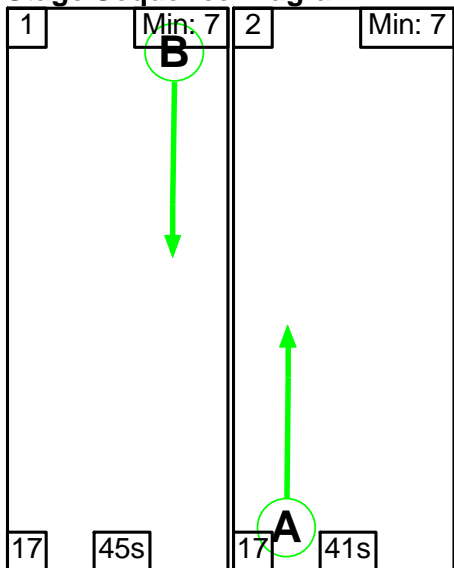
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	82.9%
A3 London Road (south of Ladybridge Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	82.9%
1/1	A3 London Road northbound Ahead	U	N/A	N/A	A		1	45	-	604	1900	728	82.9%
2/1	A3 London Road southbound Ahead	U	N/A	N/A	B		1	41	-	549	1900	665	82.6%
3/1		U	N/A	N/A	-		-	-	-	549	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	604	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	11.0	4.6	0.0	15.7	-	-	-	-
A3 London Road (south of Ladybridge Roundabout)	-	-	0	0	0	11.0	4.6	0.0	15.7	-	-	-	-
1/1	604	604	-	-	-	5.6	2.3	-	8.0	47.4	18.1	2.3	20.5
2/1	549	549	-	-	-	5.4	2.3	-	7.7	50.6	16.6	2.3	18.9
3/1	549	549	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	604	604	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 8.5		8.5		Total Delay for Signalled Lanes (pcuHr): 15.67		15.67		Cycle Time (s): 120		
			PRC Over All Lanes (%): 8.5		8.5		Total Delay Over All Lanes(pcuHr): 15.67		15.67				

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

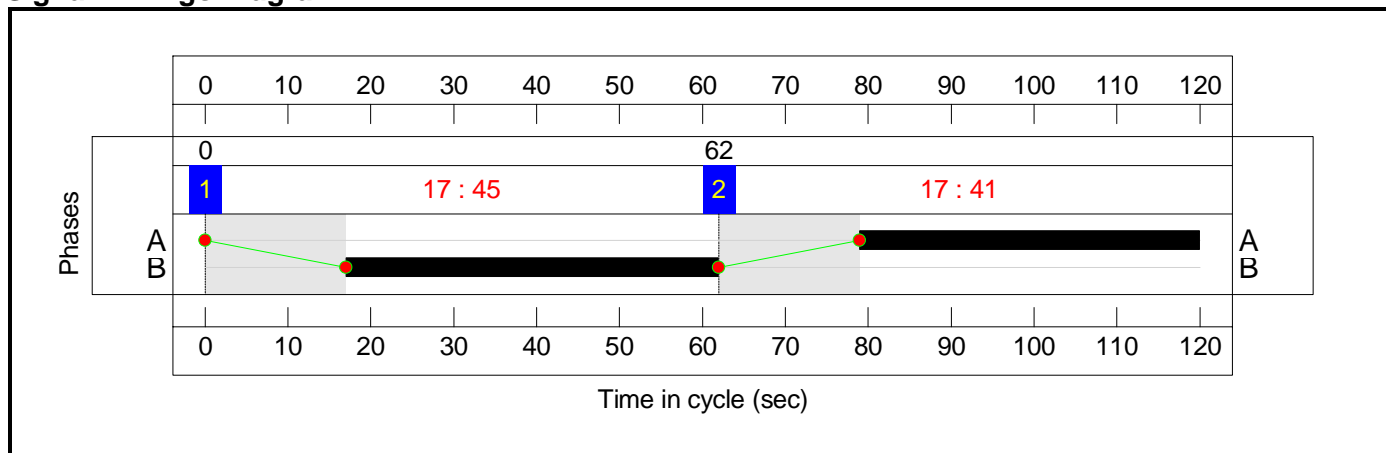
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	45	41
Change Point	0	62

Signal Timings Diagram



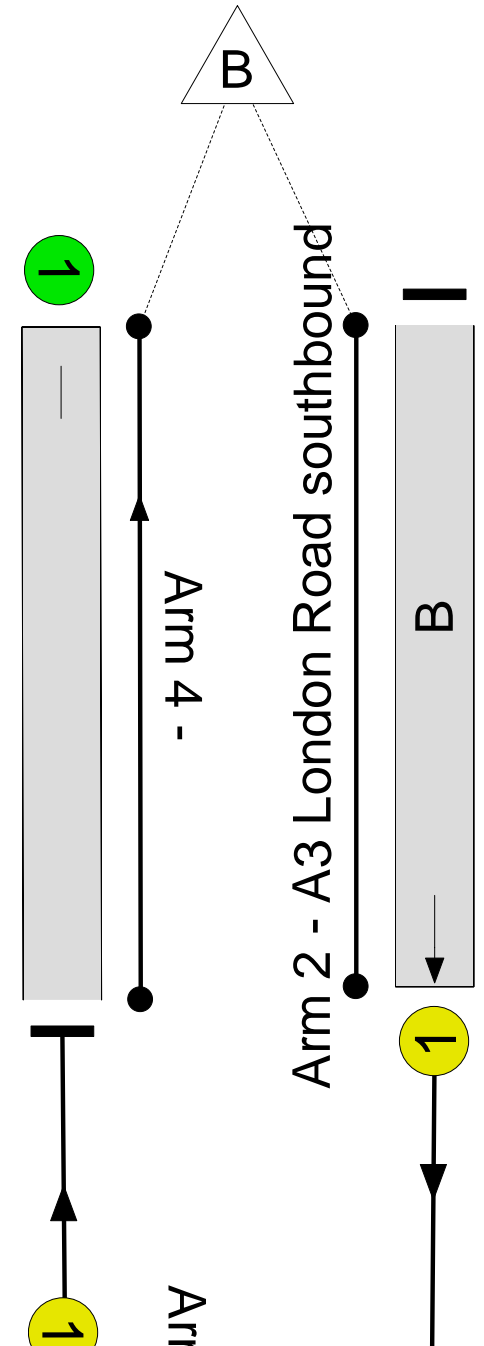
Full Input Data And Results
Network Layout Diagram

A3 London Road (south of Ladybridge Roundabout)



PRC: 12.3 %

Total Traffic Delay: 14.3 pcuHr



Full Input Data And Results

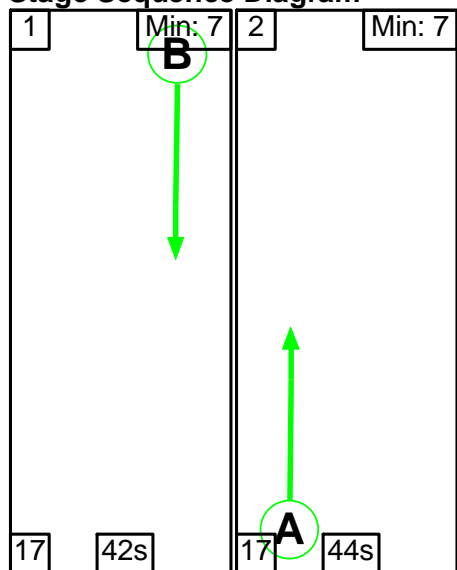
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	80.2%
A3 London Road (south of Ladybridge Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	80.2%
1/1	A3 London Road northbound Ahead	U	N/A	N/A	A		1	41	-	533	1900	665	80.2%
2/1	A3 London Road southbound Ahead	U	N/A	N/A	B		1	45	-	577	1900	728	79.2%
3/1		U	N/A	N/A	-		-	-	-	577	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	533	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	10.5	3.8	0.0	14.3	-	-	-	-
A3 London Road (south of Ladybridge Roundabout)	-	-	0	0	0	10.5	3.8	0.0	14.3	-	-	-	-
1/1	533	533	-	-	-	5.2	2.0	-	7.2	48.5	16.0	2.0	18.0
2/1	577	577	-	-	-	5.3	1.9	-	7.1	44.4	17.0	1.9	18.9
3/1	577	577	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	533	533	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 12.3		Total Delay for Signalled Lanes (pcuHr): 14.29		Cycle Time (s): 120						
			PRC Over All Lanes (%): 12.3		Total Delay Over All Lanes(pcuHr): 14.29								

Full Input Data And Results

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

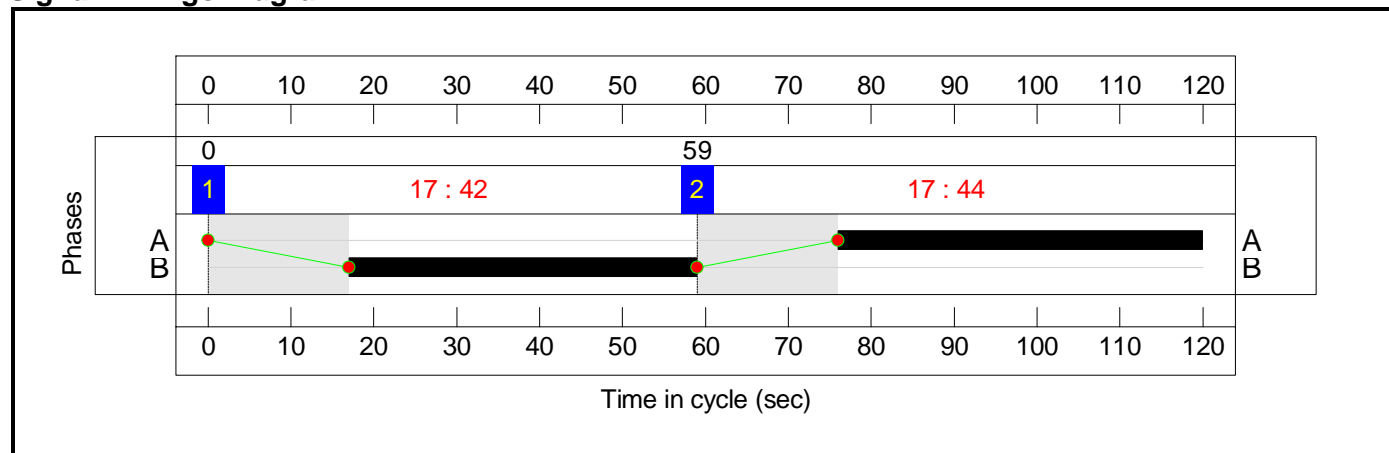
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	42	44
Change Point	0	59

Signal Timings Diagram



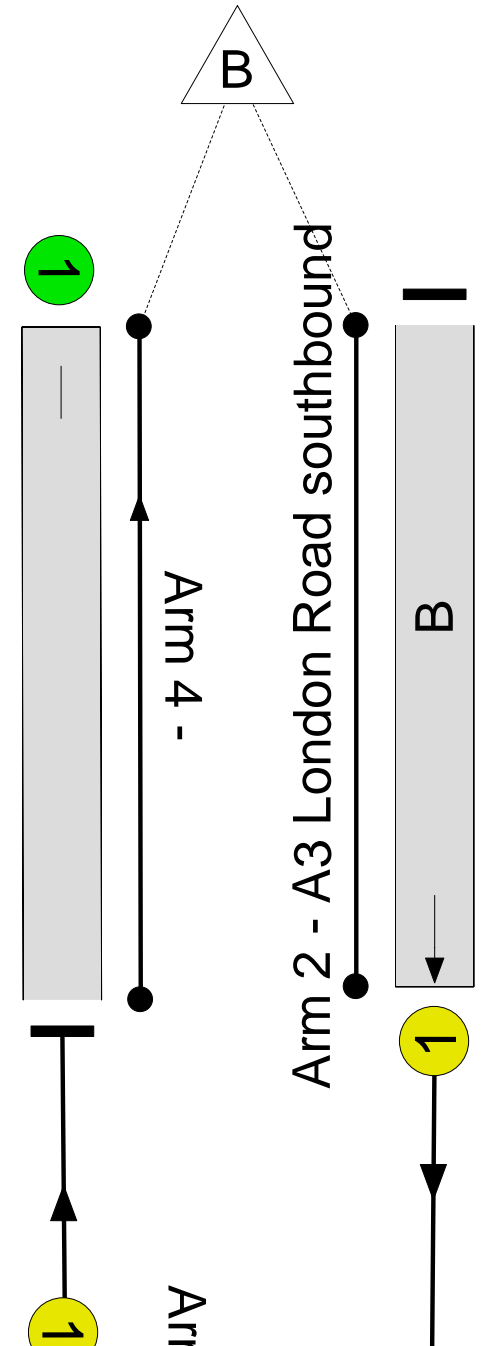
Full Input Data And Results
Network Layout Diagram

A3 London Road (south of Ladybridge Roundabout)



PRC: 7.6 %

Total Traffic Delay: 15.7 pcuHr



Full Input Data And Results

Network Results

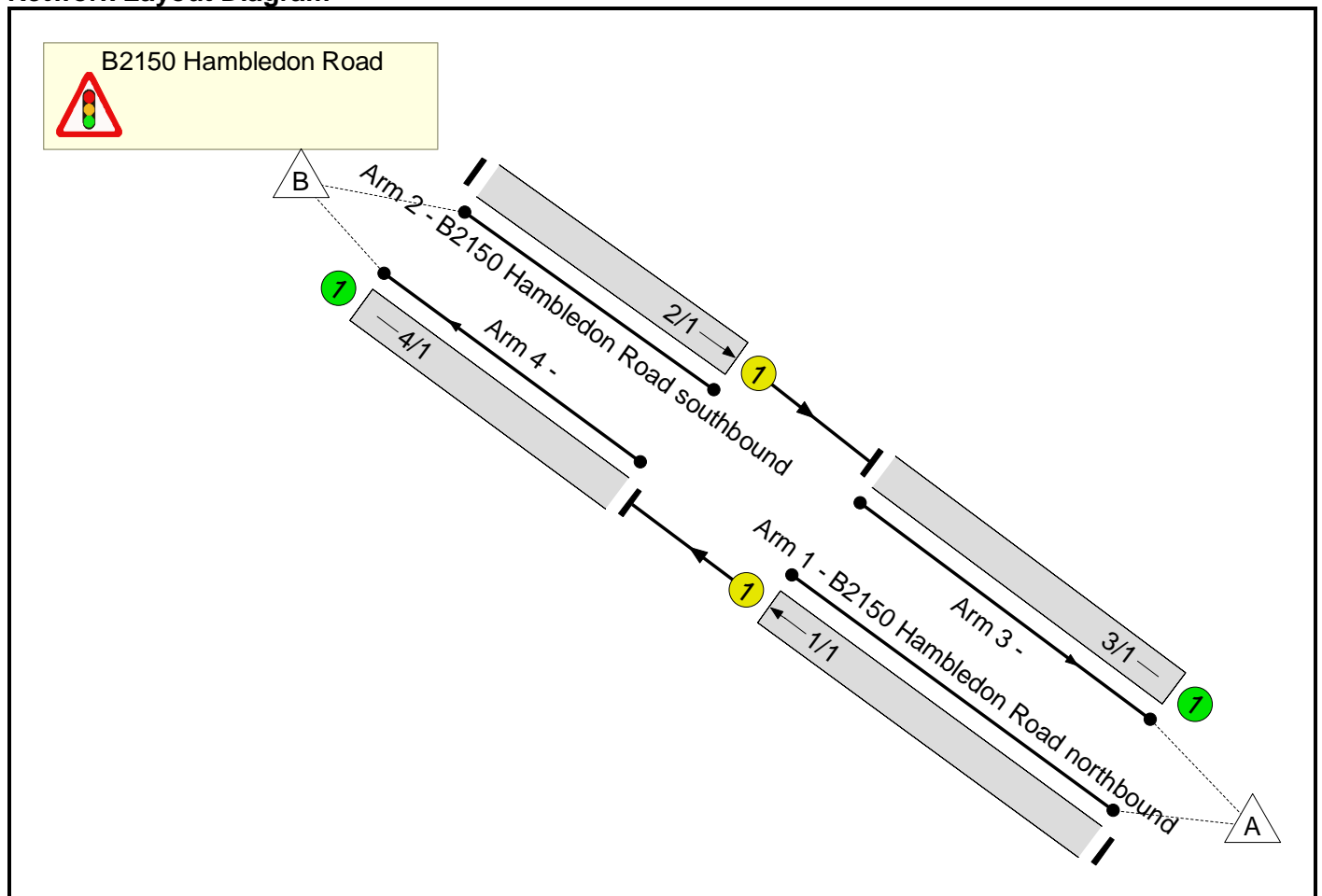
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	83.6%
A3 London Road (south of Ladybridge Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	83.6%
1/1	A3 London Road northbound Ahead	U	N/A	N/A	A		1	44	-	596	1900	713	83.6%
2/1	A3 London Road southbound Ahead	U	N/A	N/A	B		1	42	-	558	1900	681	82.0%
3/1		U	N/A	N/A	-		-	-	-	558	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	596	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	11.1	4.6	0.0	15.7	-	-	-	-
A3 London Road (south of Ladybridge Roundabout)	-	-	0	0	0	11.1	4.6	0.0	15.7	-	-	-	-
1/1	596	596	-	-	-	5.7	2.5	-	8.1	49.0	18.0	2.5	20.5
2/1	558	558	-	-	-	5.4	2.2	-	7.6	49.1	16.9	2.2	19.1
3/1	558	558	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	596	596	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 7.6		Total Delay for Signalled Lanes (pcuHr): 15.72		Cycle Time (s): 120						
			PRC Over All Lanes (%): 7.6		Total Delay Over All Lanes(pcuHr): 15.72								

Full Input Data And Results
Full Input Data And Results

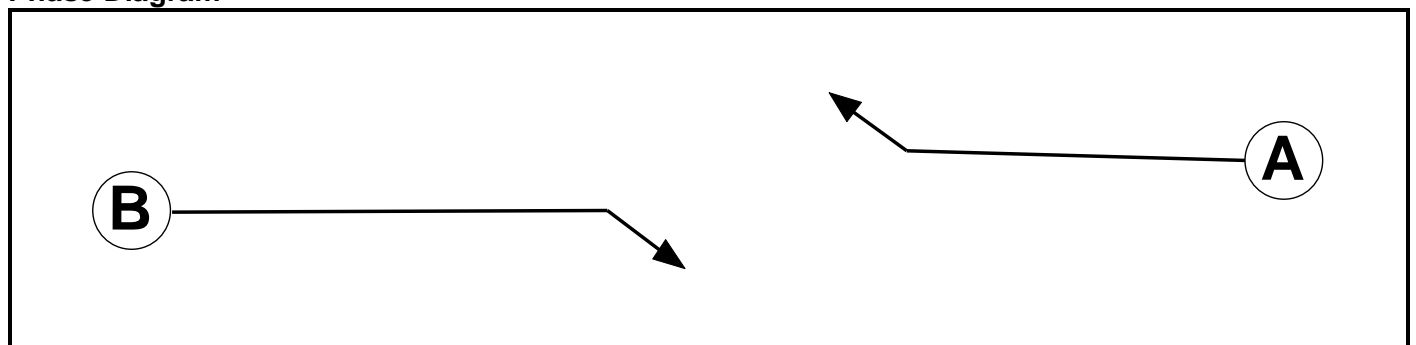
User and Project Details

Project:	
Title:	B2150 Hambledon Road shuttle working analysis
Location:	
Additional detail:	
File name:	B2150 Hambledon Road.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7

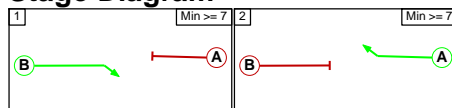
Phase Intergreens Matrix

		Starting Phase	
		A	B
Terminating Phase	A		17
	B	17	

Phases in Stage

Stage No.	Phases in Stage
1	B
2	A

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage	
		1	2
From Stage	1		17
	2	17	

Full Input Data And Results

Give-Way Lane Input Data

Junction: B2150 Hambledon Road

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: B2150 Hambledon Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (B2150 Hambledon Road northbound)	U	A	2	3	60.0	User	1900	-	-	-	-	-
2/1 (B2150 Hambledon Road southbound)	U	B	2	3	60.0	User	1900	-	-	-	-	-
3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'EMM - DS1 AM Peak'	08:00	09:00	01:00	
2: 'EMM - DS1 PM Peak'	17:00	18:00	01:00	
3: 'EML - DS2 AM Peak'	08:00	09:00	01:00	
4: 'EML - DS2 PM Peak'	17:00	18:00	01:00	

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination			Tot.
	A	B	Tot.	
A	0	719	719	
B	533	0	533	
Tot.	533	719	1252	

Traffic Lane Flows

Lane	Scenario 1: EMM - DS1 AM
Junction: B2150 Hambledon Road	
1/1	719
2/1	533
3/1	533
4/1	719

Full Input Data And Results

Lane Saturation Flows

Junction: B2150 Hambledon Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B2150 Hambledon Road northbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B2150 Hambledon Road southbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Origin	Destination		
		A	B	Tot.
	A	0	660	660
	B	671	0	671
	Tot.	671	660	1331

Traffic Lane Flows

Lane	Scenario 2: EMM - DS1 PM
Junction: B2150 Hambledon Road	
1/1	660
2/1	671
3/1	671
4/1	660

Lane Saturation Flows

Junction: B2150 Hambledon Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B2150 Hambledon Road northbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B2150 Hambledon Road southbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination		
	A	B	Tot.
A	0	719	719
B	534	0	534
Tot.	534	719	1253

Traffic Lane Flows

Lane	Scenario 3: EML - DS2 AM
Junction: B2150 Hambledon Road	
1/1	719
2/1	534
3/1	534
4/1	719

Lane Saturation Flows

Junction: B2150 Hambledon Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B2150 Hambledon Road northbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B2150 Hambledon Road southbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination		
	A	B	Tot.
A	0	659	659
B	674	0	674
Tot.	674	659	1333

Full Input Data And Results

Traffic Lane Flows

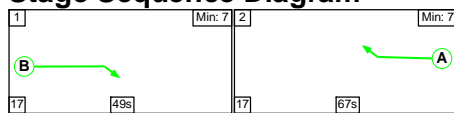
Lane	Scenario 4: EML - DS2 PM
Junction: B2150 Hambledon Road	
1/1	659
2/1	674
3/1	674
4/1	659

Lane Saturation Flows

Junction: B2150 Hambledon Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B2150 Hambledon Road northbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B2150 Hambledon Road southbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

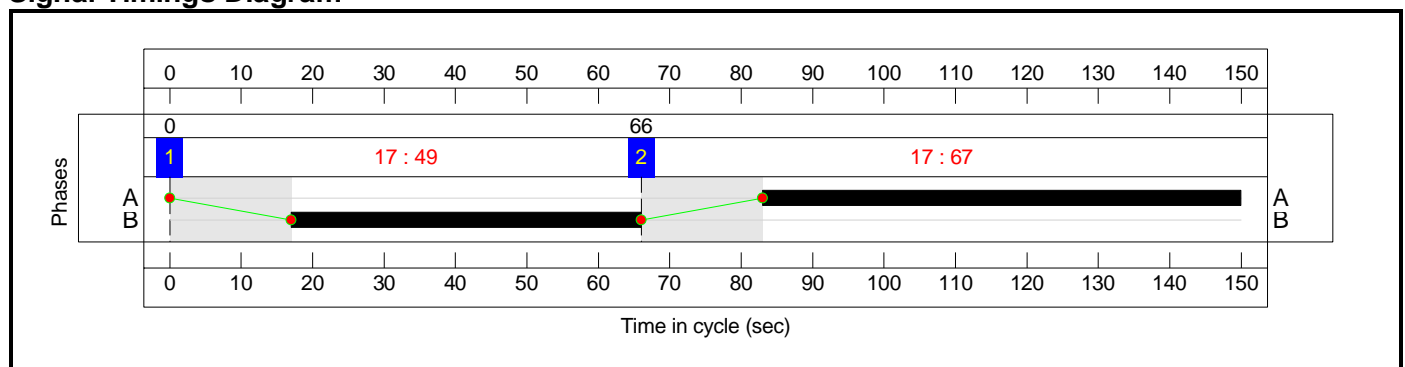
Stage Sequence Diagram



Stage Timings

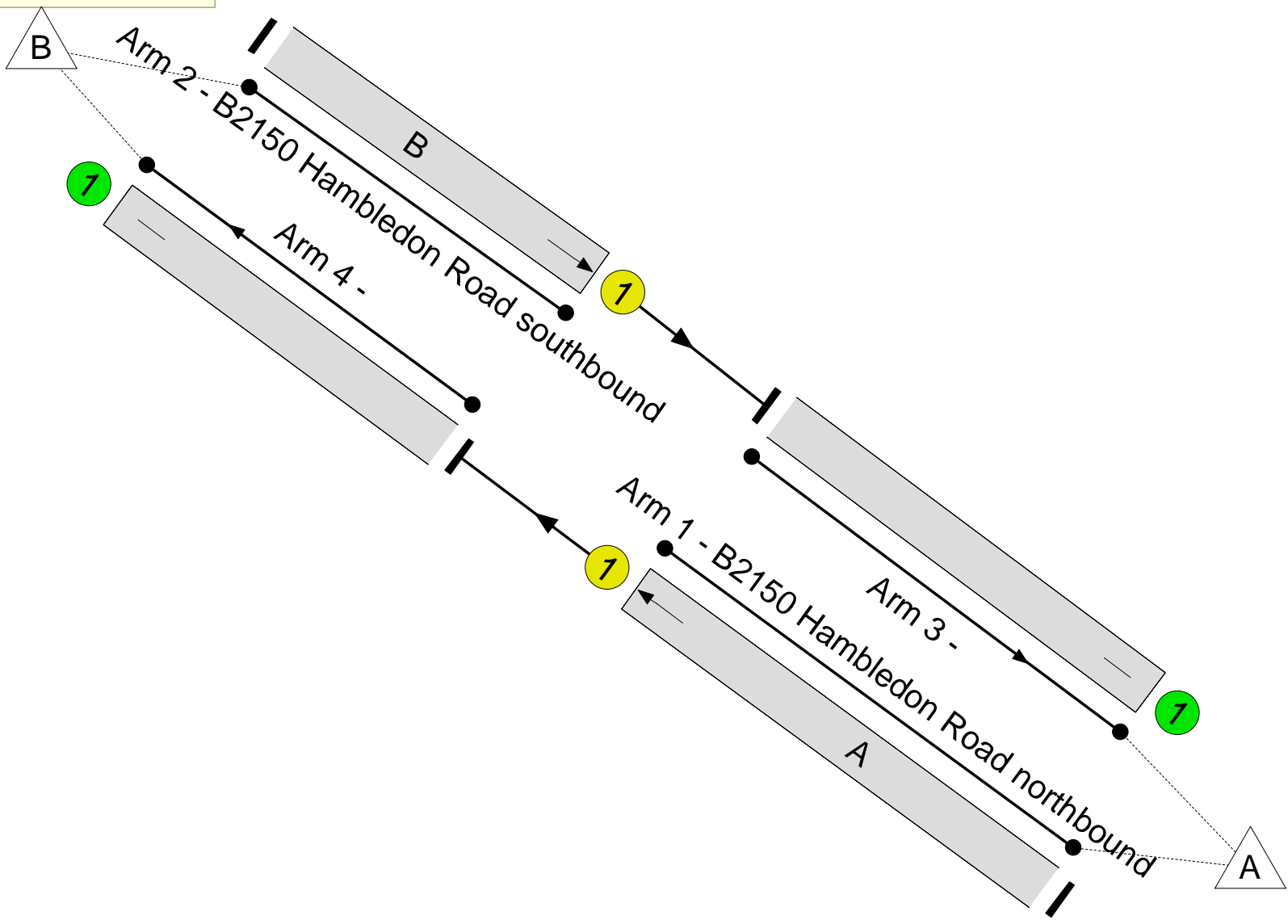

Stage	1	2
Duration	49	67
Change Point	0	66

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

B2150 Hambledon Road
PRC: 6.9 %
Total Traffic Delay: 19.0 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	84.2%
B2150 Hambledon Road	-	-	N/A	-	-		-	-	-	-	-	-	84.2%
1/1	B2150 Hambledon Road northbound Ahead	U	N/A	N/A	A		1	67	-	719	1900	861	83.5%
2/1	B2150 Hambledon Road southbound Ahead	U	N/A	N/A	B		1	49	-	533	1900	633	84.2%
3/1		U	N/A	N/A	-		-	-	-	533	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	719	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	14.1	5.0	0.0	19.0	-	-	-	-
B2150 Hambledon Road	-	-	0	0	0	14.1	5.0	0.0	19.0	-	-	-	-
1/1	719	719	-	-	-	7.2	2.4	-	9.6	48.3	26.2	2.4	28.6
2/1	533	533	-	-	-	6.9	2.5	-	9.4	63.4	20.4	2.5	23.0
3/1	533	533	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	719	719	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):	6.9	Total Delay for Signalled Lanes (pcuHr):	19.03	Cycle Time (s):	150					
			PRC Over All Lanes (%):	6.9	Total Delay Over All Lanes(pcuHr):	19.03							

Full Input Data And Results

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

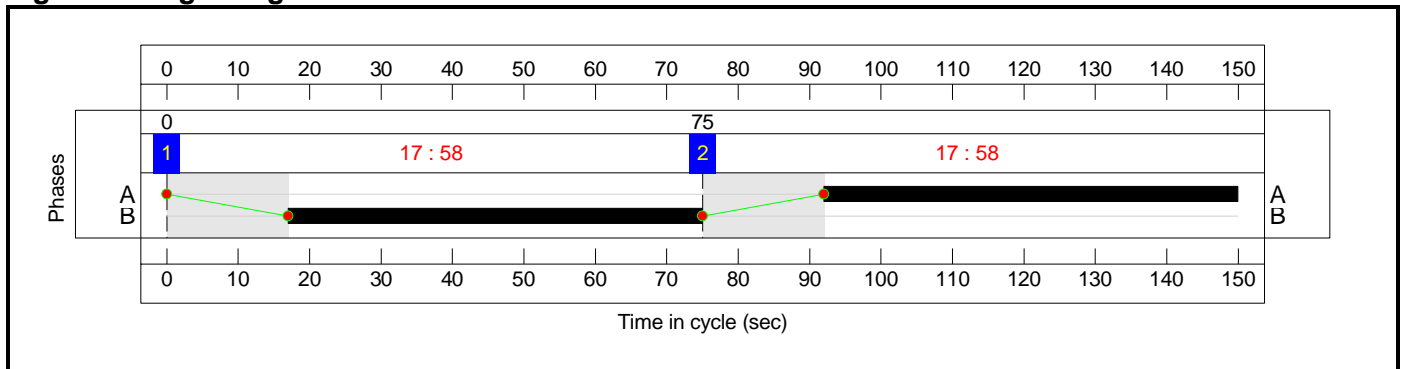
Stage Sequence Diagram



Stage Timings

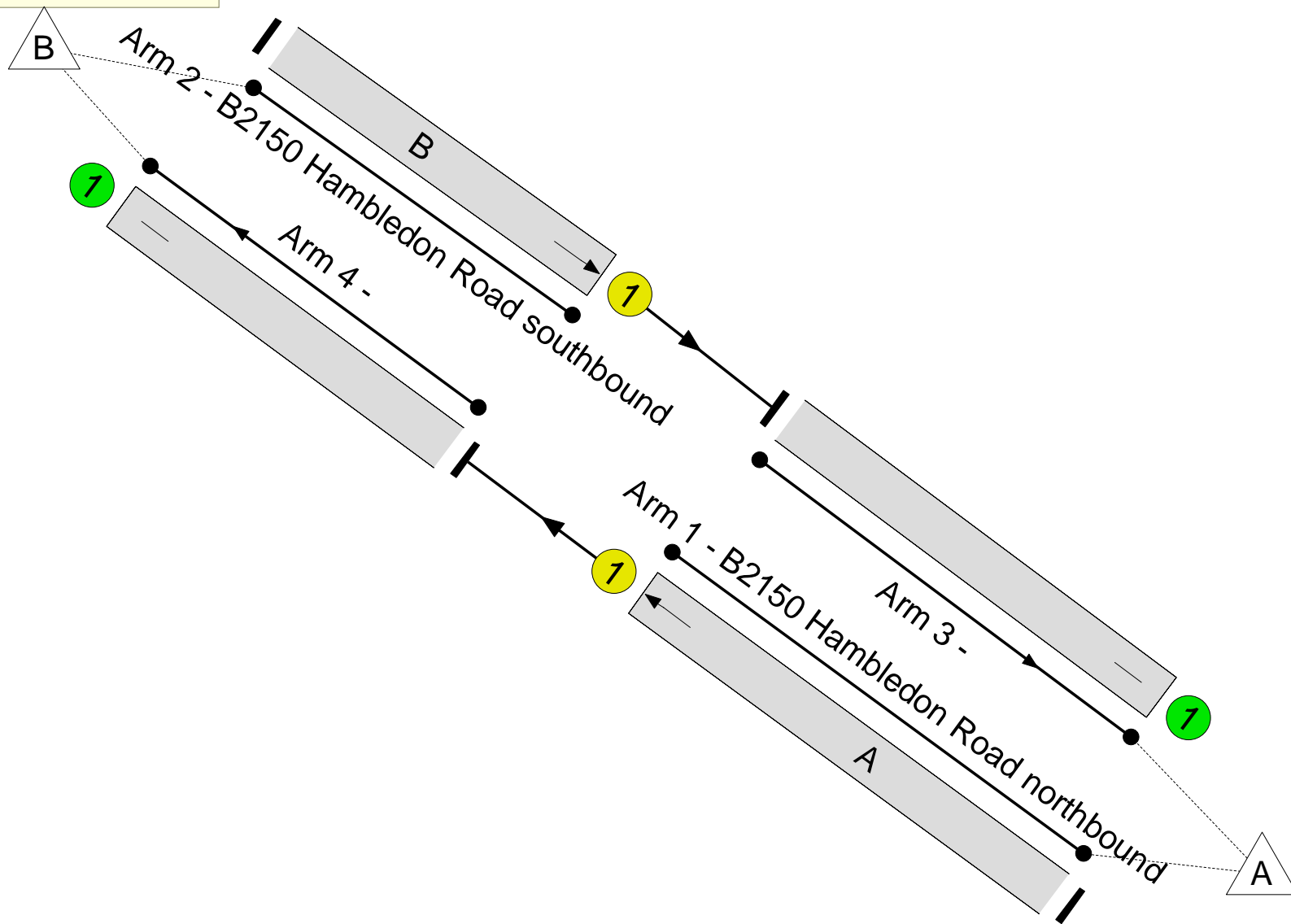

Stage	1	2
Duration	58	58
Change Point	0	75

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

B2150 Hambledon Road
PRC: 0.2 %
Total Traffic Delay: 23.2 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	89.8%
B2150 Hambledon Road	-	-	N/A	-	-		-	-	-	-	-	-	89.8%
1/1	B2150 Hambledon Road northbound Ahead	U	N/A	N/A	A		1	58	-	660	1900	747	88.3%
2/1	B2150 Hambledon Road southbound Ahead	U	N/A	N/A	B		1	58	-	671	1900	747	89.8%
3/1		U	N/A	N/A	-		-	-	-	671	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	660	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	15.7	7.5	0.0	23.2	-	-	-	-
B2150 Hambledon Road	-	-	0	0	0	15.7	7.5	0.0	23.2	-	-	-	-
1/1	660	660	-	-	-	7.8	3.5	-	11.3	61.4	25.5	3.5	29.0
2/1	671	671	-	-	-	8.0	4.0	-	11.9	64.0	26.1	4.0	30.1
3/1	671	671	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	660	660	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):	0.2	Total Delay for Signalled Lanes (pcuHr):	23.19	Cycle Time (s):	150					
			PRC Over All Lanes (%):	0.2	Total Delay Over All Lanes(pcuHr):	23.19							

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

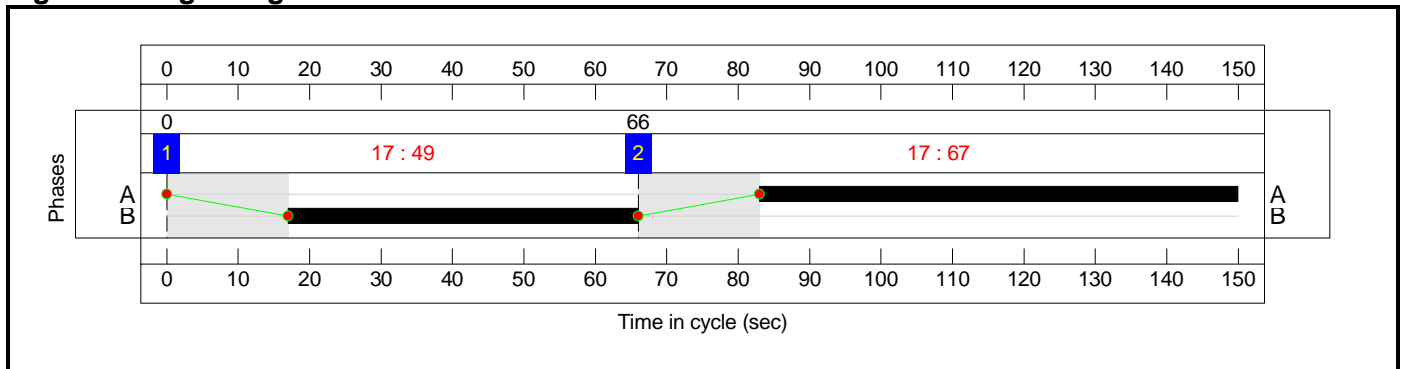
Stage Sequence Diagram



Stage Timings

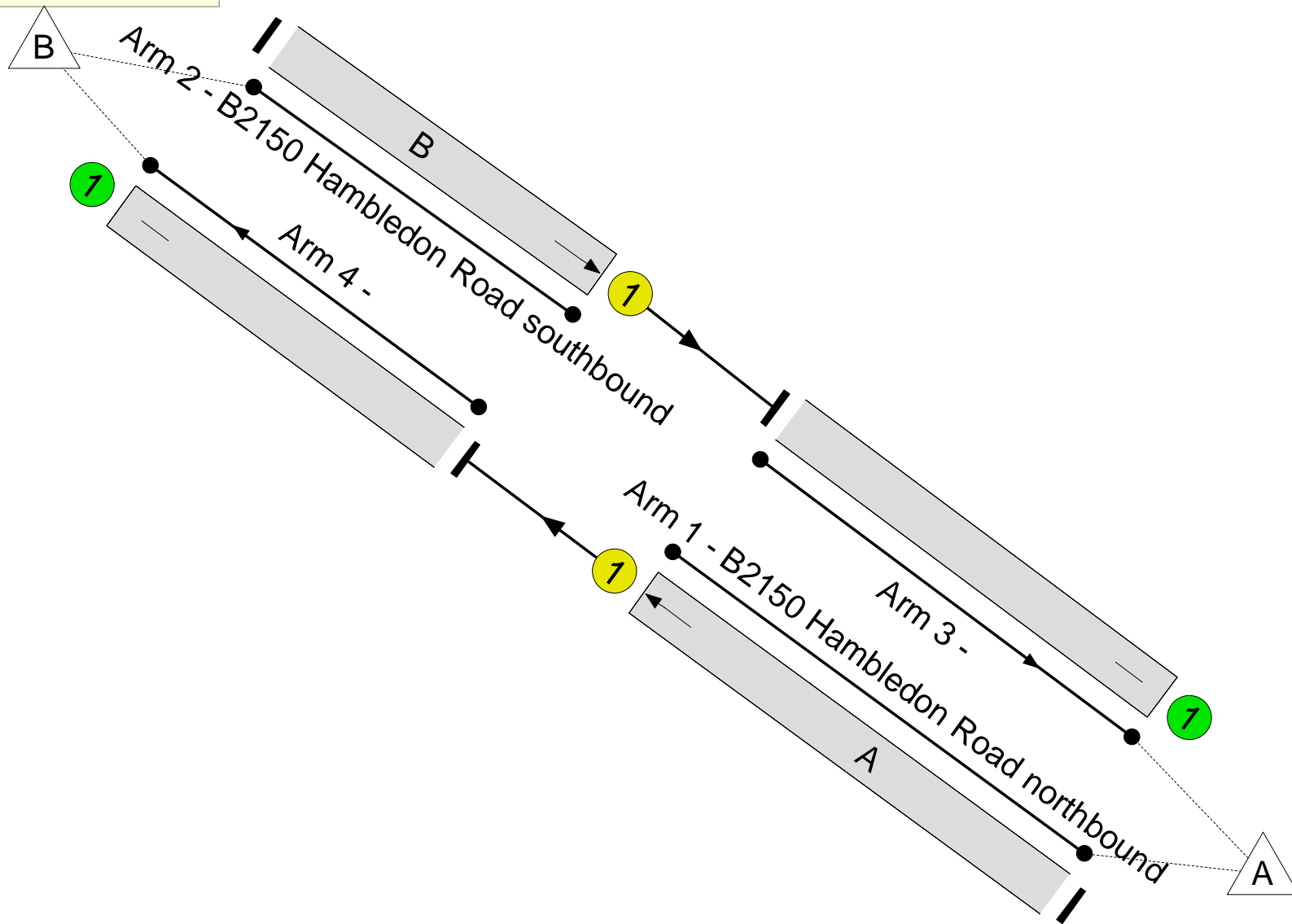

Stage	1	2
Duration	49	67
Change Point	0	66

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

B2150 Hambledon Road
PRC: 6.7 %
Total Traffic Delay: 19.1 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	84.3%
B2150 Hambledon Road	-	-	N/A	-	-		-	-	-	-	-	-	84.3%
1/1	B2150 Hambledon Road northbound Ahead	U	N/A	N/A	A		1	67	-	719	1900	861	83.5%
2/1	B2150 Hambledon Road southbound Ahead	U	N/A	N/A	B		1	49	-	534	1900	633	84.3%
3/1		U	N/A	N/A	-		-	-	-	534	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	719	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	14.1	5.0	0.0	19.1	-	-	-	-
B2150 Hambledon Road	-	-	0	0	0	14.1	5.0	0.0	19.1	-	-	-	-
1/1	719	719	-	-	-	7.2	2.4	-	9.6	48.3	26.2	2.4	28.6
2/1	534	534	-	-	-	6.9	2.6	-	9.4	63.6	20.6	2.6	23.2
3/1	534	534	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	719	719	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
<p>C1 PRC for Signalled Lanes (%): 6.7 Total Delay for Signalled Lanes (pcuHr): 19.08 Cycle Time (s): 150 PRC Over All Lanes (%): 6.7 Total Delay Over All Lanes(pcuHr): 19.08</p>													

Full Input Data And Results

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

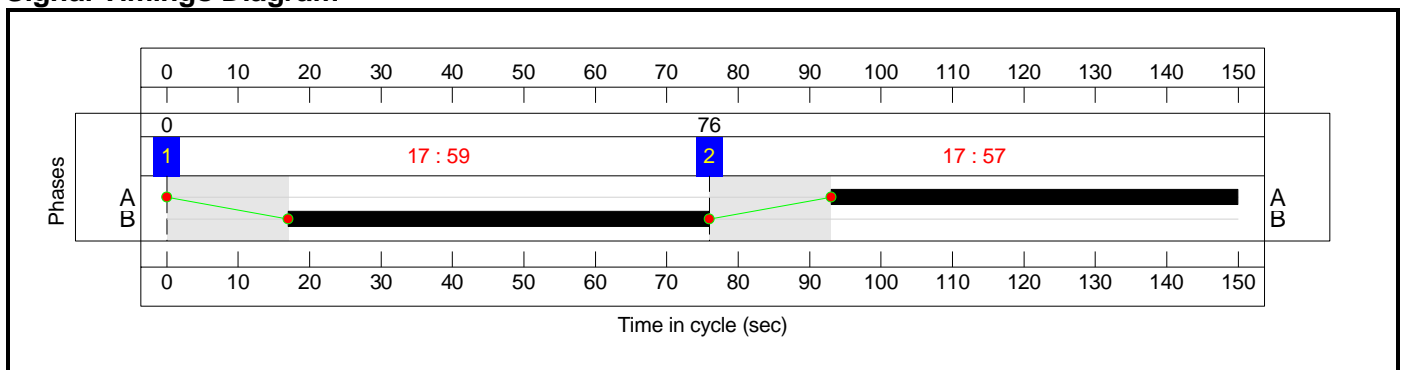
Stage Sequence Diagram



Stage Timings

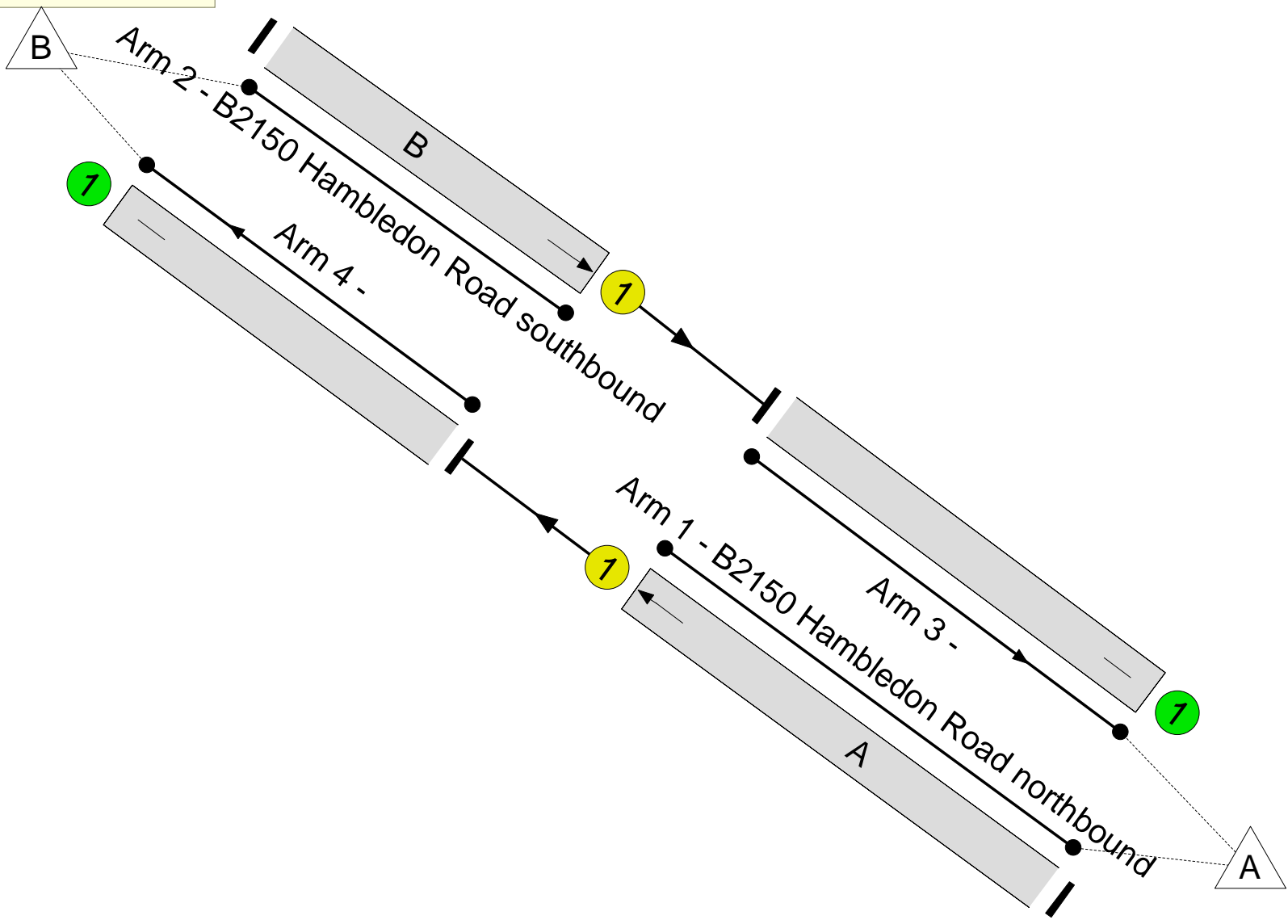

Stage	1	2
Duration	59	57
Change Point	0	76

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

B2150 Hambledon Road
PRC: 0.3 %
Total Traffic Delay: 23.3 pcuHr



Full Input Data And Results

Network Results

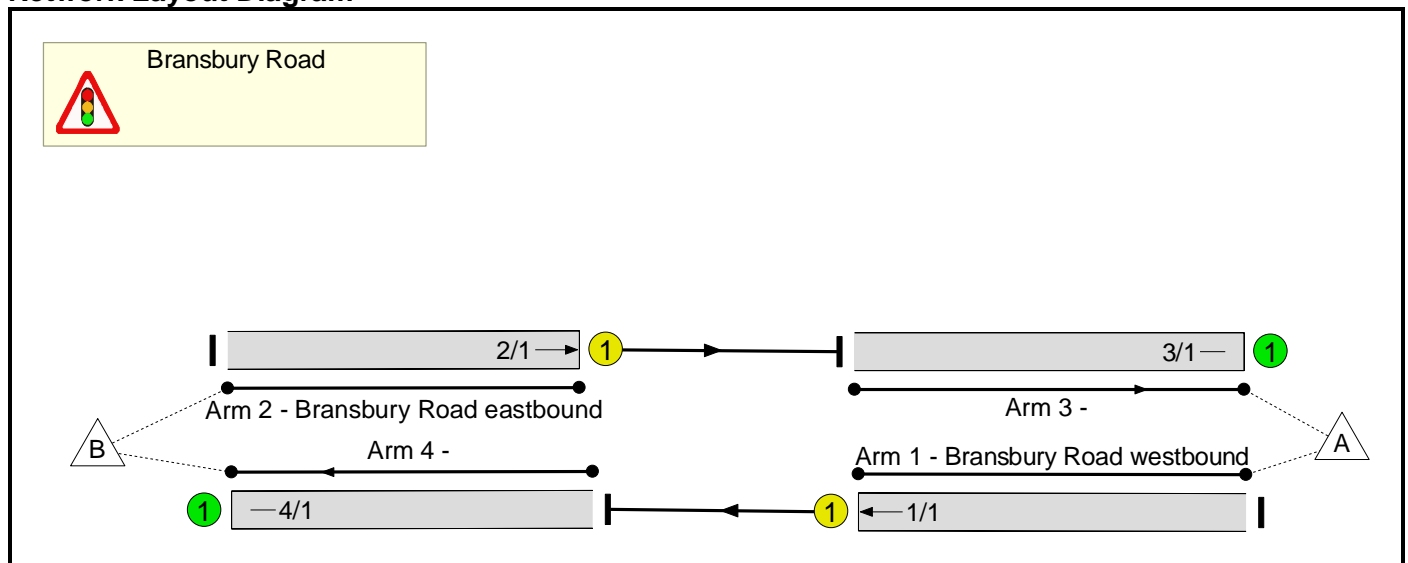
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	89.7%
B2150 Hambledon Road	-	-	N/A	-	-		-	-	-	-	-	-	89.7%
1/1	B2150 Hambledon Road northbound Ahead	U	N/A	N/A	A		1	57	-	659	1900	735	89.7%
2/1	B2150 Hambledon Road southbound Ahead	U	N/A	N/A	B		1	59	-	674	1900	760	88.7%
3/1		U	N/A	N/A	-		-	-	-	674	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	659	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	15.7	7.6	0.0	23.3	-	-	-	-
B2150 Hambledon Road	-	-	0	0	0	15.7	7.6	0.0	23.3	-	-	-	-
1/1	659	659	-	-	-	7.9	3.9	-	11.9	64.7	25.6	3.9	29.6
2/1	674	674	-	-	-	7.8	3.6	-	11.4	61.2	26.0	3.6	29.6
3/1	674	674	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	659	659	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		0.3	Total Delay for Signalled Lanes (pcuHr):		23.30	Cycle Time (s): 150				
			PRC Over All Lanes (%):		0.3	Total Delay Over All Lanes(pcuHr):		23.30					

Full Input Data And Results
Full Input Data And Results

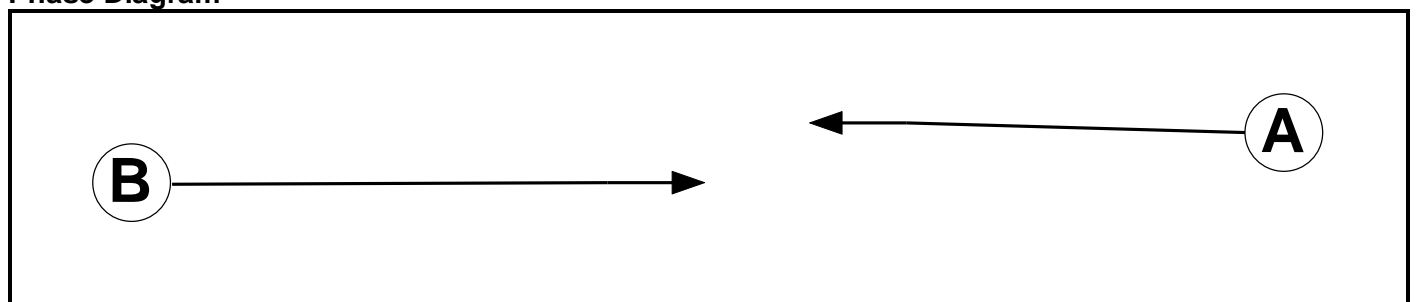
User and Project Details

Project:	
Title:	Bransbury Road shuttle working analysis
Location:	
Additional detail:	
File name:	Bransbury Road.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7

Full Input Data And Results

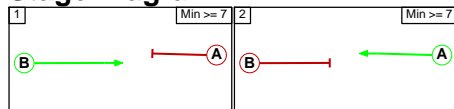
Phase Intergrens Matrix

		Starting Phase	
Terminating Phase		A	B
	A		17
	B	17	

Phases in Stage

Stage No.	Phases in Stage
1	B
2	A

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage	
From Stage		1	2
	1		17
	2	17	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Bransbury Road

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Bransbury Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Bransbury Road westbound)	U	A	2	3	60.0	User	1900	-	-	-	-	-
2/1 (Bransbury Road eastbound)	U	B	2	3	60.0	User	1900	-	-	-	-	-
3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'EMM - DS1 AM Peak'	08:00	09:00	01:00	
2: 'EMM - DS1 PM Peak'	17:00	18:00	01:00	
3: 'EML - DS2 AM Peak'	08:00	09:00	01:00	
4: 'EML - DS2 PM Peak'	17:00	18:00	01:00	

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination			Tot.
	A	B	Tot.	
Origin	A	0	266	266
	B	137	0	137
	Tot.	137	266	403

Traffic Lane Flows

Lane	Scenario 1: EMM - DS1 AM
Junction: Bransbury Road	
1/1	266
2/1	137
3/1	137
4/1	266

Full Input Data And Results

Lane Saturation Flows

Junction: Bransbury Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bransbury Road westbound Lane 1)							1900	1900
2/1 (Bransbury Road eastbound Lane 1)							1900	1900
3/1							Inf	Inf
4/1							Inf	Inf

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination			
	A	B	Tot.	
Origin	A	0	109	109
	B	234	0	234
	Tot.	234	109	343

Traffic Lane Flows

Lane	Scenario 2: EMM - DS1 PM
Junction: Bransbury Road	
1/1	109
2/1	234
3/1	234
4/1	109

Lane Saturation Flows

Junction: Bransbury Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bransbury Road westbound Lane 1)							1900	1900
2/1 (Bransbury Road eastbound Lane 1)							1900	1900
3/1							Inf	Inf
4/1							Inf	Inf

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination		
	A	B	Tot.
A	0	262	262
B	137	0	137
Tot.	137	262	399

Traffic Lane Flows

Lane	Scenario 3: EML - DS2 AM
Junction: Bransbury Road	
1/1	262
2/1	137
3/1	137
4/1	262

Lane Saturation Flows

Junction: Bransbury Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bransbury Road westbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
2/1 (Bransbury Road eastbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
3/1				Infinite Saturation Flow			Inf	Inf
4/1				Infinite Saturation Flow			Inf	Inf

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination		
	A	B	Tot.
A	0	107	107
B	238	0	238
Tot.	238	107	345

Traffic Lane Flows

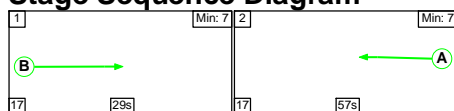
Lane	Scenario 4: EML - DS2 PM
Junction: Bransbury Road	
1/1	107
2/1	238
3/1	238
4/1	107

Lane Saturation Flows

Junction: Bransbury Road									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1 (Bransbury Road westbound Lane 1)		This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Bransbury Road eastbound Lane 1)		This lane uses a directly entered Saturation Flow						1900	1900
3/1		Infinite Saturation Flow						Inf	Inf
4/1		Infinite Saturation Flow						Inf	Inf

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

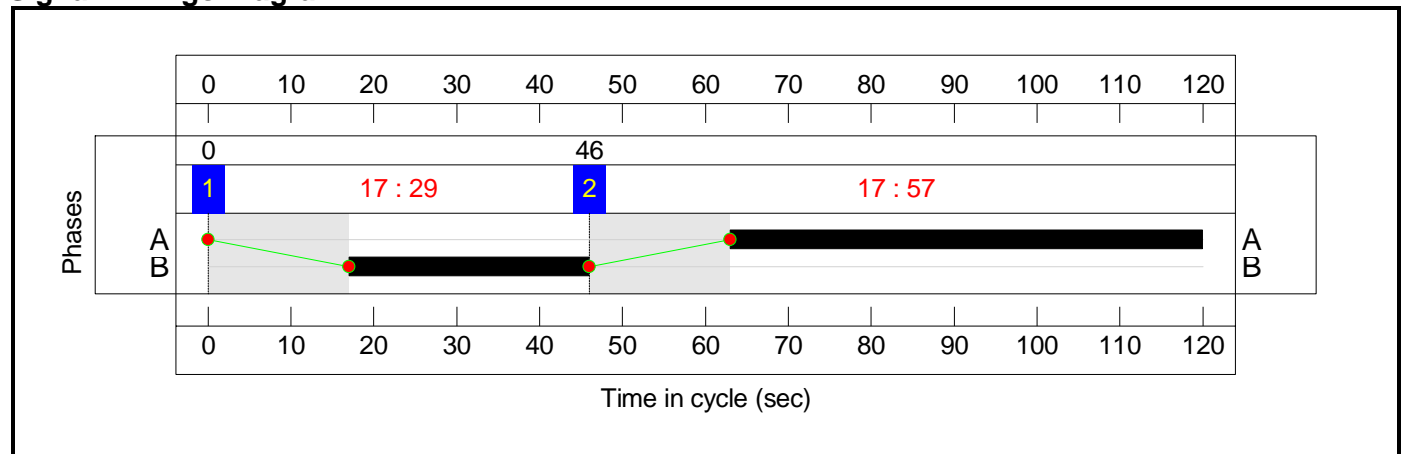
Stage Sequence Diagram




Stage Timings

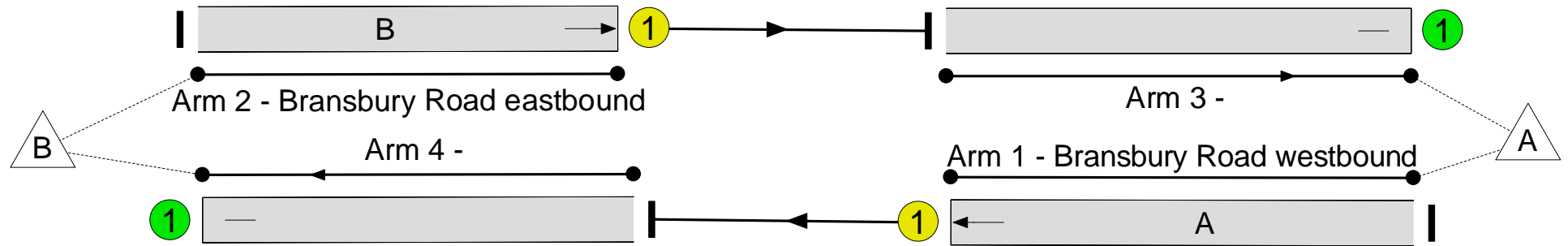
Stage	1	2
Duration	29	57
Change Point	0	46

Signal Timings Diagram



Network Layout Diagram

 **Bransbury Road**
PRC: 210.7 %
Total Traffic Delay: 3.2 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	29.0%
Bransbury Road	-	-	N/A	-	-		-	-	-	-	-	-	29.0%
1/1	Bransbury Road westbound Ahead	U	N/A	N/A	A		1	57	-	266	1900	918	29.0%
2/1	Bransbury Road eastbound Ahead	U	N/A	N/A	B		1	29	-	137	1900	475	28.8%
3/1		U	N/A	N/A	-		-	-	-	137	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	266	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	2.8	0.4	0.0	3.2	-	-	-	-
Bransbury Road	-	-	0	0	0	2.8	0.4	0.0	3.2	-	-	-	-
1/1	266	266	-	-	-	1.4	0.2	-	1.6	21.4	5.3	0.2	5.5
2/1	137	137	-	-	-	1.4	0.2	-	1.6	41.7	3.7	0.2	3.9
3/1	137	137	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	266	266	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		210.7	Total Delay for Signalled Lanes (pcuHr):		3.17	Cycle Time (s): 120				
			PRC Over All Lanes (%):		210.7	Total Delay Over All Lanes(pcuHr):		3.17					

Full Input Data And Results

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

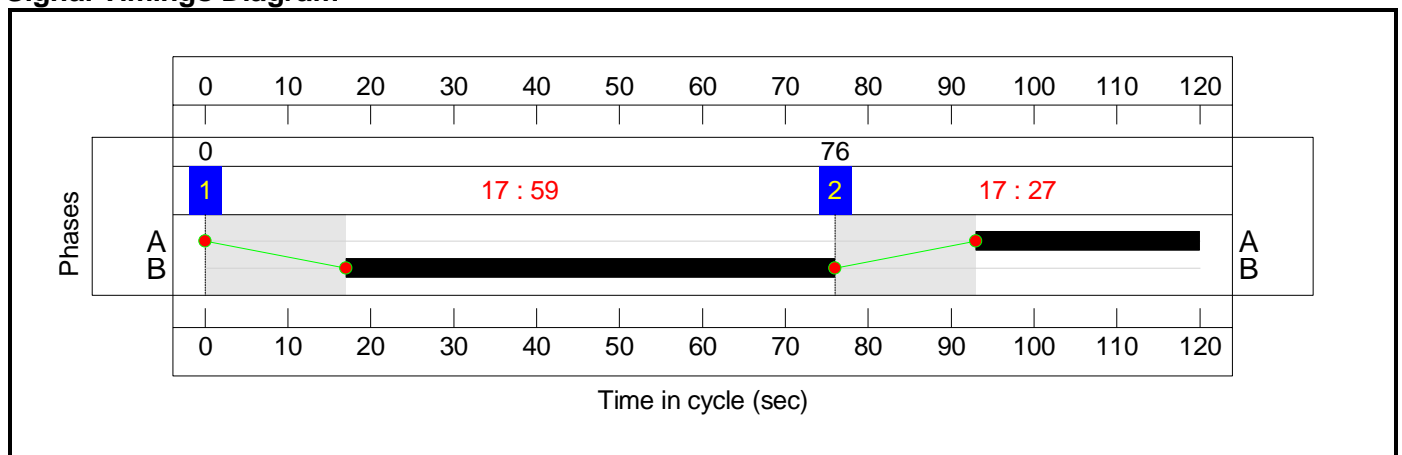
Stage Sequence Diagram




Stage Timings

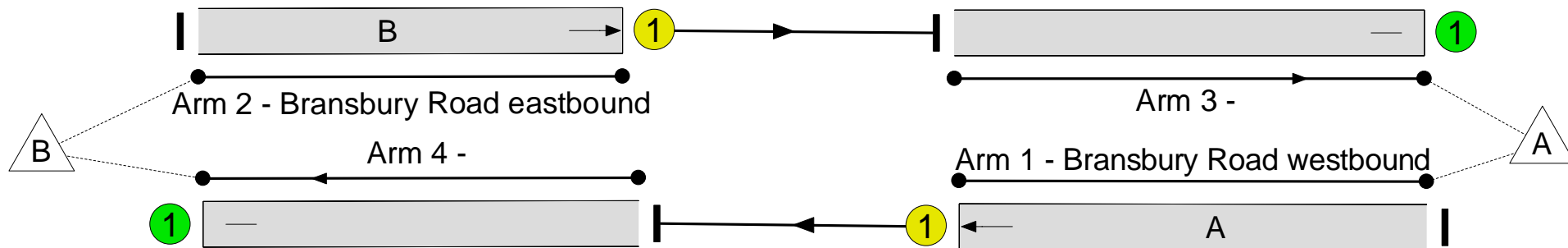
Stage	1	2
Duration	59	27
Change Point	0	76

Signal Timings Diagram



Network Layout Diagram

 **Bransbury Road**
PRC: 265.4 %
Total Traffic Delay: 2.6 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	24.6%
Bransbury Road	-	-	N/A	-	-		-	-	-	-	-	-	24.6%
1/1	Bransbury Road westbound Ahead	U	N/A	N/A	A		1	27	-	109	1900	443	24.6%
2/1	Bransbury Road eastbound Ahead	U	N/A	N/A	B		1	59	-	234	1900	950	24.6%
3/1		U	N/A	N/A	-		-	-	-	234	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	109	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	2.2	0.3	0.0	2.6	-	-	-	-
Bransbury Road	-	-	0	0	0	2.2	0.3	0.0	2.6	-	-	-	-
1/1	109	109	-	-	-	1.1	0.2	-	1.3	42.8	2.9	0.2	3.1
2/1	234	234	-	-	-	1.1	0.2	-	1.3	19.6	4.4	0.2	4.6
3/1	234	234	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	109	109	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 265.4		Total Delay for Signalled Lanes (pcuHr): 2.57		Cycle Time (s): 120						
			PRC Over All Lanes (%): 265.4		Total Delay Over All Lanes(pcuHr): 2.57								

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

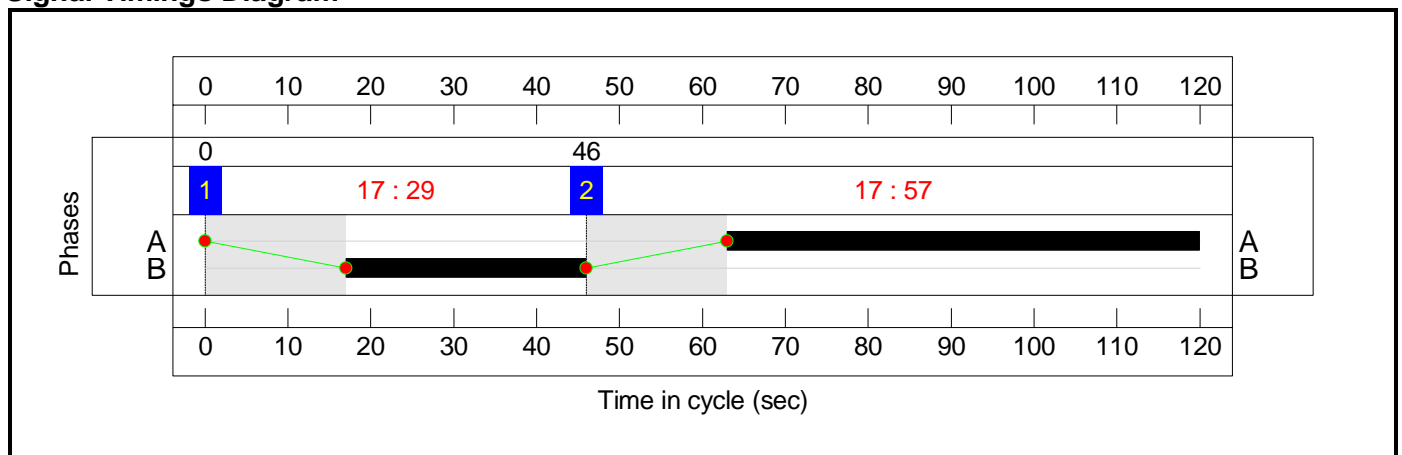
Stage Sequence Diagram




Stage Timings

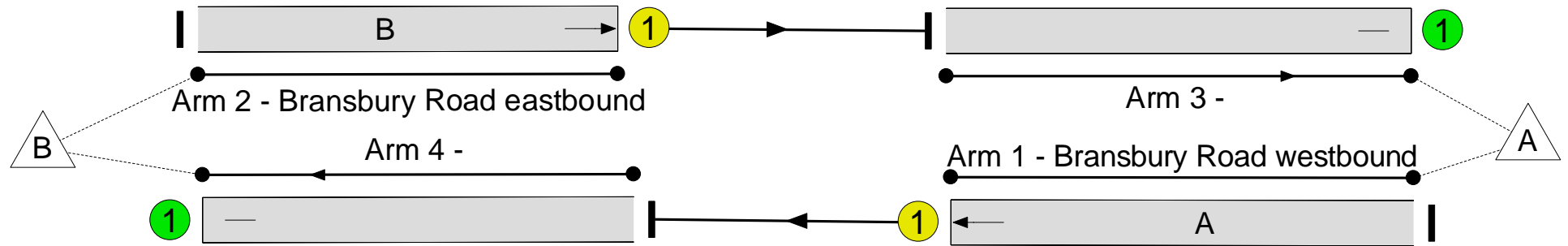
Stage	1	2
Duration	29	57
Change Point	0	46

Signal Timings Diagram



Network Layout Diagram

 **Bransbury Road**
PRC: 212.0 %
Total Traffic Delay: 3.1 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	28.8%
Bransbury Road	-	-	N/A	-	-		-	-	-	-	-	-	28.8%
1/1	Bransbury Road westbound Ahead	U	N/A	N/A	A		1	57	-	262	1900	918	28.5%
2/1	Bransbury Road eastbound Ahead	U	N/A	N/A	B		1	29	-	137	1900	475	28.8%
3/1		U	N/A	N/A	-		-	-	-	137	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	262	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	2.7	0.4	0.0	3.1	-	-	-	-
Bransbury Road	-	-	0	0	0	2.7	0.4	0.0	3.1	-	-	-	-
1/1	262	262	-	-	-	1.4	0.2	-	1.6	21.3	5.2	0.2	5.4
2/1	137	137	-	-	-	1.4	0.2	-	1.6	41.7	3.7	0.2	3.9
3/1	137	137	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	262	262	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		212.0	Total Delay for Signalled Lanes (pcuHr):			3.14	Cycle Time (s): 120			
			PRC Over All Lanes (%):		212.0	Total Delay Over All Lanes(pcuHr):			3.14				

Full Input Data And Results

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

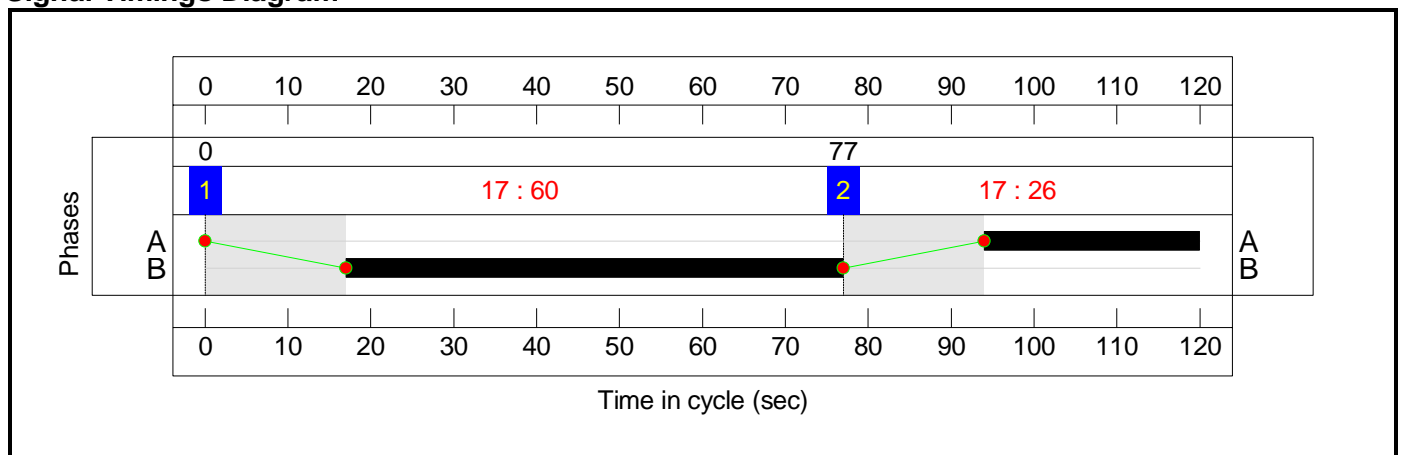
Stage Sequence Diagram




Stage Timings

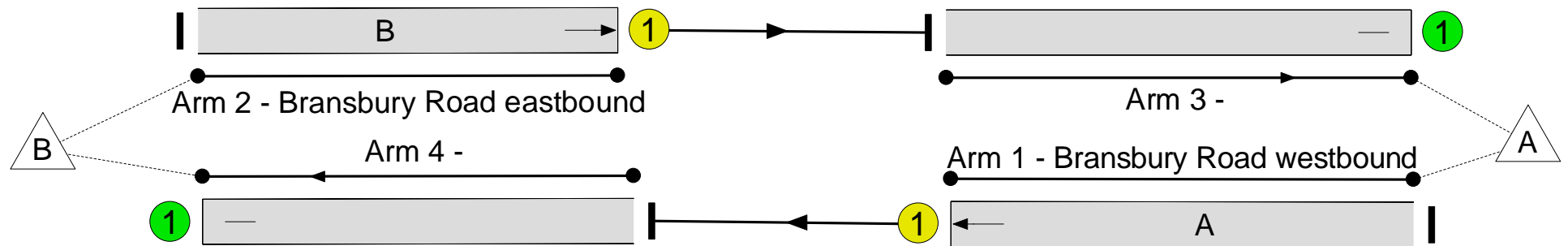
Stage	1	2
Duration	60	26
Change Point	0	77

Signal Timings Diagram



Network Layout Diagram

 **Bransbury Road**
PRC: 259.6 %
Total Traffic Delay: 2.6 pcuHr



Full Input Data And Results

Network Results

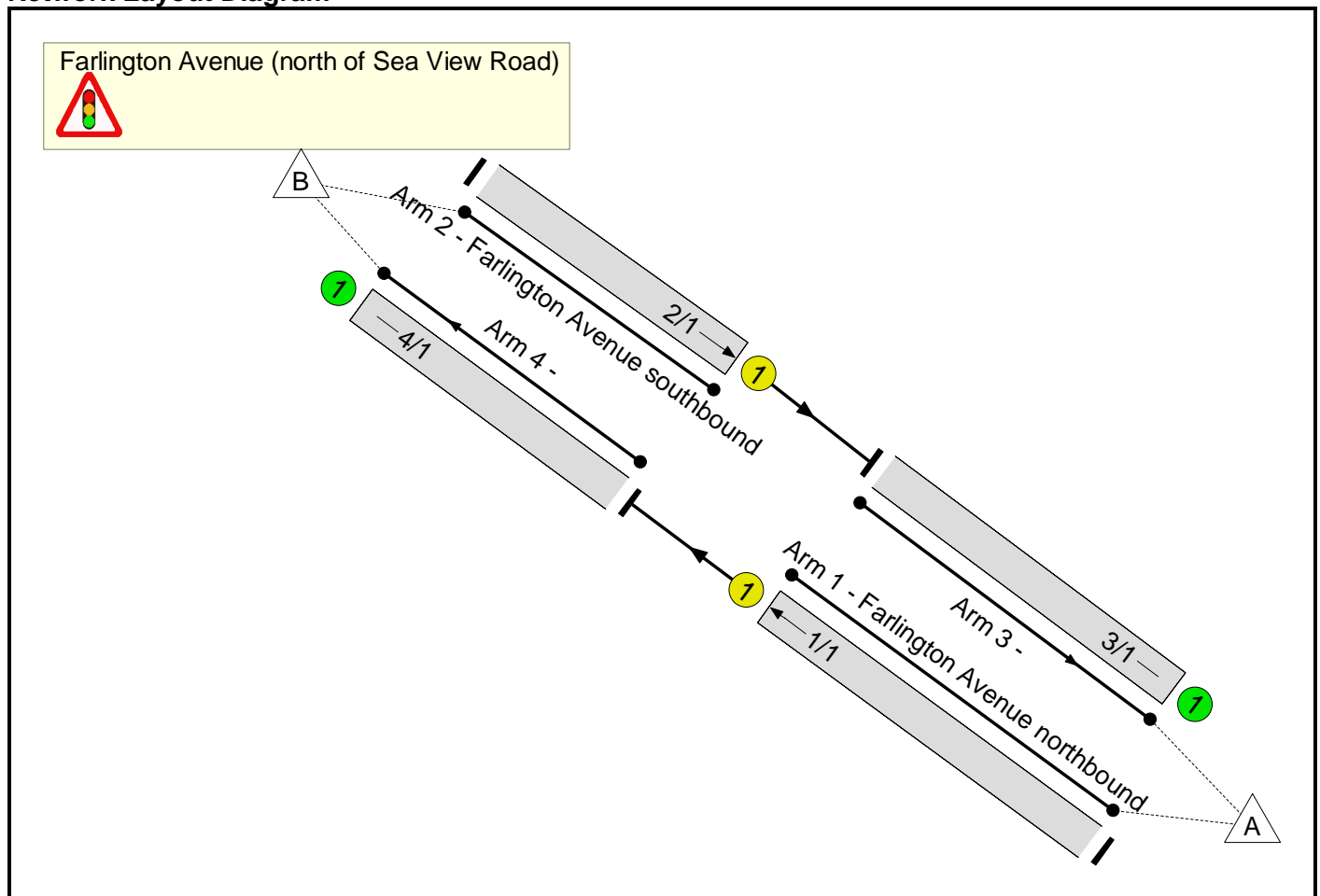
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	25.0%
Bransbury Road	-	-	N/A	-	-		-	-	-	-	-	-	25.0%
1/1	Bransbury Road westbound Ahead	U	N/A	N/A	A		1	26	-	107	1900	428	25.0%
2/1	Bransbury Road eastbound Ahead	U	N/A	N/A	B		1	60	-	238	1900	966	24.6%
3/1		U	N/A	N/A	-		-	-	-	238	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	107	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	2.2	0.3	0.0	2.6	-	-	-	-
Bransbury Road	-	-	0	0	0	2.2	0.3	0.0	2.6	-	-	-	-
1/1	107	107	-	-	-	1.1	0.2	-	1.3	43.8	2.9	0.2	3.1
2/1	238	238	-	-	-	1.1	0.2	-	1.3	19.1	4.4	0.2	4.6
3/1	238	238	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	107	107	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 259.6		Total Delay for Signalled Lanes (pcuHr): 2.56		Cycle Time (s): 120						
			PRC Over All Lanes (%): 259.6		Total Delay Over All Lanes(pcuHr): 2.56								

Full Input Data And Results
Full Input Data And Results

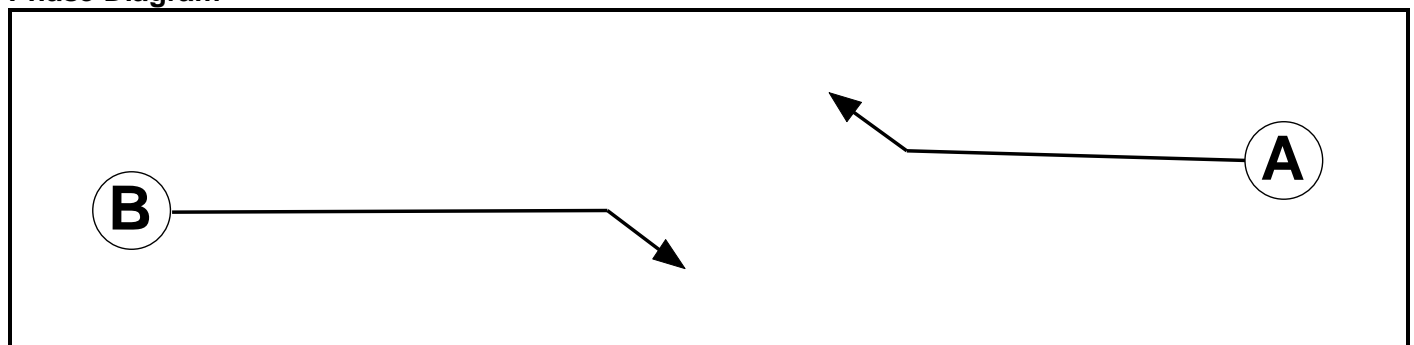
User and Project Details

Project:	
Title:	Farlington Avenue (north of Sea View Road) shuttle working analysis
Location:	
Additional detail:	
File name:	Farlington Avenue (north of Sea View Road).lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7

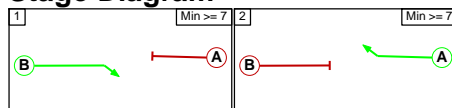
Phase Intergreens Matrix

		Starting Phase	
		A	B
Terminating Phase	A		17
	B	17	

Phases in Stage

Stage No.	Phases in Stage
1	B
2	A

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage	
		1	2
From Stage	1		17
	2	17	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Farlington Avenue (north of Sea View Road)

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Farlington Avenue (north of Sea View Road)												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Farlington Avenue northbound)	U	A	2	3	60.0	User	1900	-	-	-	-	-
2/1 (Farlington Avenue southbound)	U	B	2	3	60.0	User	1900	-	-	-	-	-
3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'EMM - DS1 AM Peak'	08:00	09:00	01:00	
2: 'EMM - DS1 PM Peak'	17:00	18:00	01:00	
3: 'EML - DS2 AM Peak'	08:00	09:00	01:00	
4: 'EML - DS2 PM Peak'	17:00	18:00	01:00	

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination			
	A	B	Tot.	
Origin	A	0	205	205
	B	76	0	76
	Tot.	76	205	281

Traffic Lane Flows

Lane	Scenario 1: EMM - DS1 AM
Junction: Farlington Avenue (north of Sea View Road)	
1/1	205
2/1	76
3/1	76
4/1	205

Full Input Data And Results

Lane Saturation Flows

Junction: Farlington Avenue (north of Sea View Road)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Farlington Avenue northbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Farlington Avenue southbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination	Destination		
		A	B	Tot.
Origin	A	0	264	264
	B	130	0	130
	Tot.	130	264	394

Traffic Lane Flows

Lane	Scenario 2: EMM - DS1 PM
Junction: Farlington Avenue (north of Sea View Road)	
1/1	264
2/1	130
3/1	130
4/1	264

Lane Saturation Flows

Junction: Farlington Avenue (north of Sea View Road)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Farlington Avenue northbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Farlington Avenue southbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination		
	A	B	Tot.
A	0	204	204
B	76	0	76
Tot.	76	204	280

Traffic Lane Flows

Lane	Scenario 3: EML - DS2 AM
Junction: Farlington Avenue (north of Sea View Road)	
1/1	204
2/1	76
3/1	76
4/1	204

Lane Saturation Flows

Junction: Farlington Avenue (north of Sea View Road)									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1 (Farlington Avenue northbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900	
2/1 (Farlington Avenue southbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900	
3/1	Infinite Saturation Flow						Inf	Inf	
4/1	Infinite Saturation Flow						Inf	Inf	

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination		
	A	B	Tot.
A	0	238	238
B	135	0	135
Tot.	135	238	373

Full Input Data And Results

Traffic Lane Flows

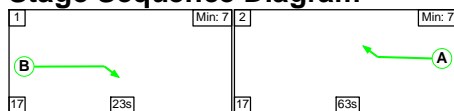
Lane	Scenario 4: EML - DS2 PM
Junction: Farlington Avenue (north of Sea View Road)	
1/1	238
2/1	135
3/1	135
4/1	238

Lane Saturation Flows

Junction: Farlington Avenue (north of Sea View Road)									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1 (Farlington Avenue northbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900	
2/1 (Farlington Avenue southbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900	
3/1	Infinite Saturation Flow						Inf	Inf	
4/1	Infinite Saturation Flow						Inf	Inf	

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

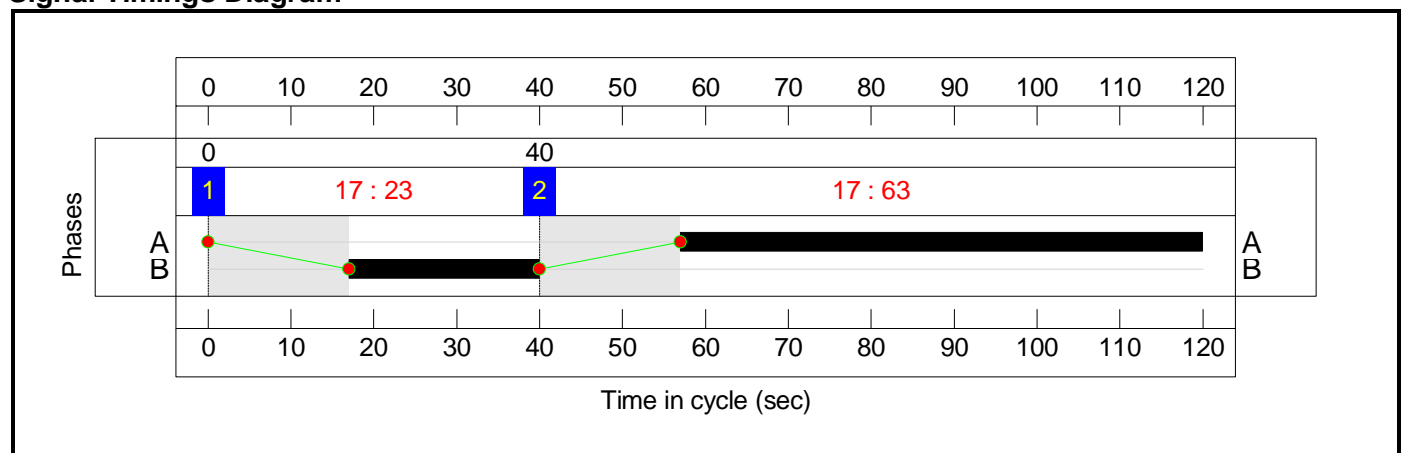
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	23	63
Change Point	0	40

Signal Timings Diagram



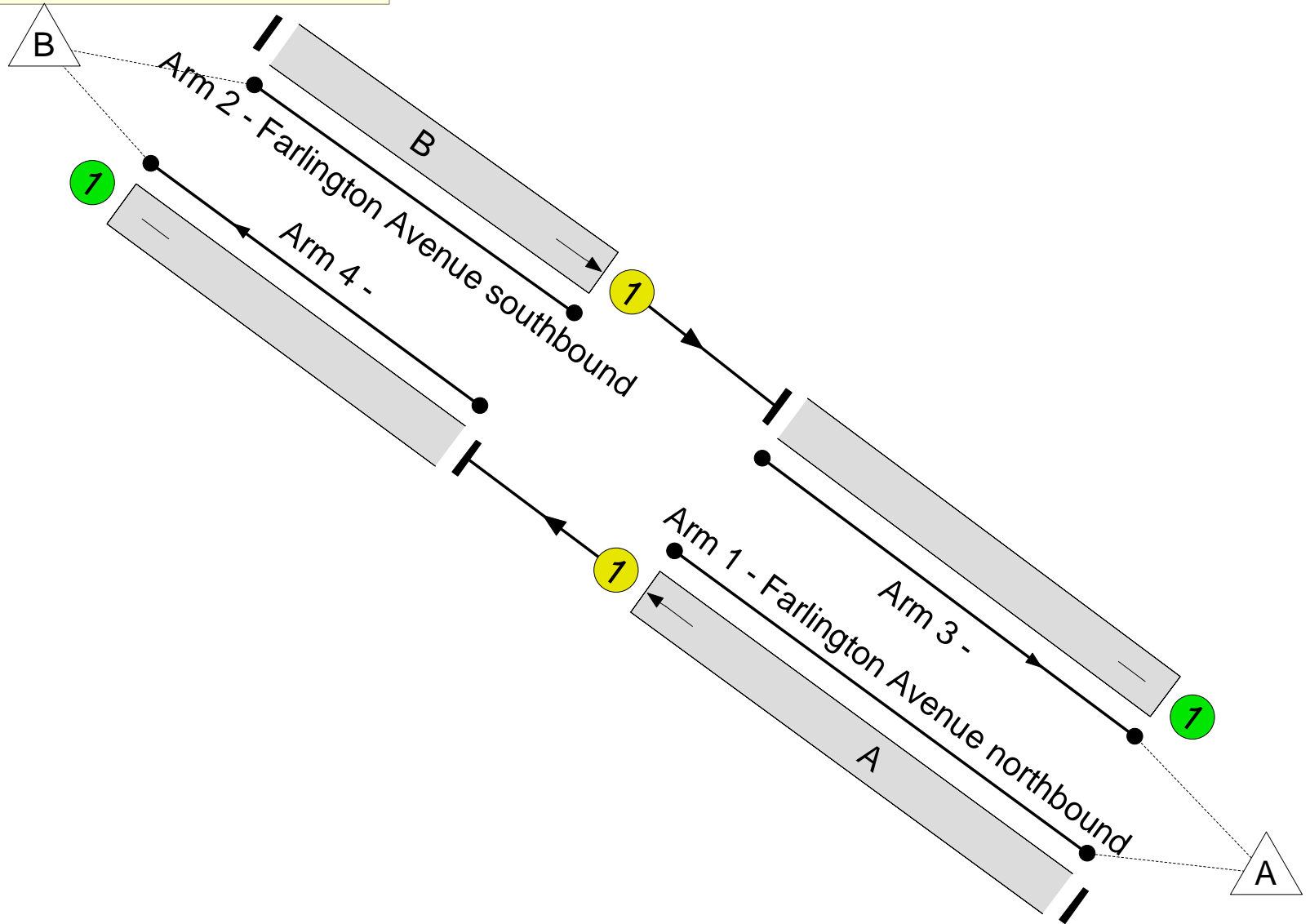
Full Input Data And Results
Network Layout Diagram

Farlington Avenue (north of Sea View Road)



PRC: 344.9 %

Total Traffic Delay: 1.9 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	20.2%
Farlington Avenue (north of Sea View Road)	-	-	N/A	-	-		-	-	-	-	-	-	20.2%
1/1	Farlington Avenue northbound Ahead	U	N/A	N/A	A		1	63	-	205	1900	1013	20.2%
2/1	Farlington Avenue southbound Ahead	U	N/A	N/A	B		1	23	-	76	1900	380	20.0%
3/1		U	N/A	N/A	-		-	-	-	76	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	205	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	1.7	0.3	0.0	1.9	-	-	-	-
Farlington Avenue (north of Sea View Road)	-	-	0	0	0	1.7	0.3	0.0	1.9	-	-	-	-
1/1	205	205	-	-	-	0.8	0.1	-	1.0	16.9	3.5	0.1	3.7
2/1	76	76	-	-	-	0.8	0.1	-	1.0	45.9	2.1	0.1	2.2
3/1	76	76	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	205	205	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1		PRC for Signalled Lanes (%):		344.9		Total Delay for Signalled Lanes (pcuHr):		1.93		Cycle Time (s): 120			
		PRC Over All Lanes (%):		344.9		Total Delay Over All Lanes(pcuHr):		1.93					

Full Input Data And Results

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

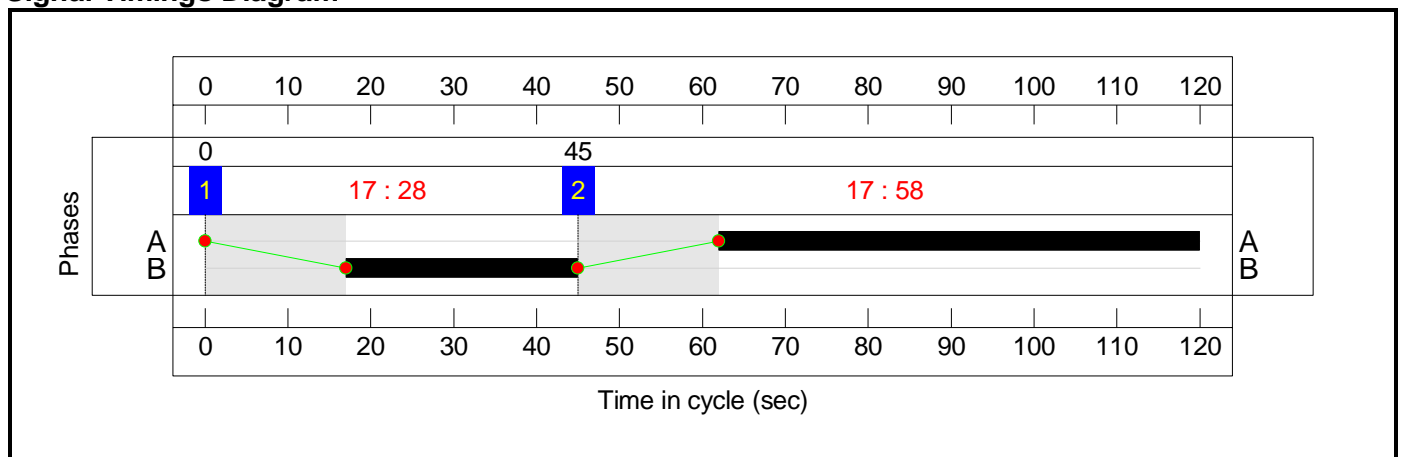
Stage Sequence Diagram



Stage Timings

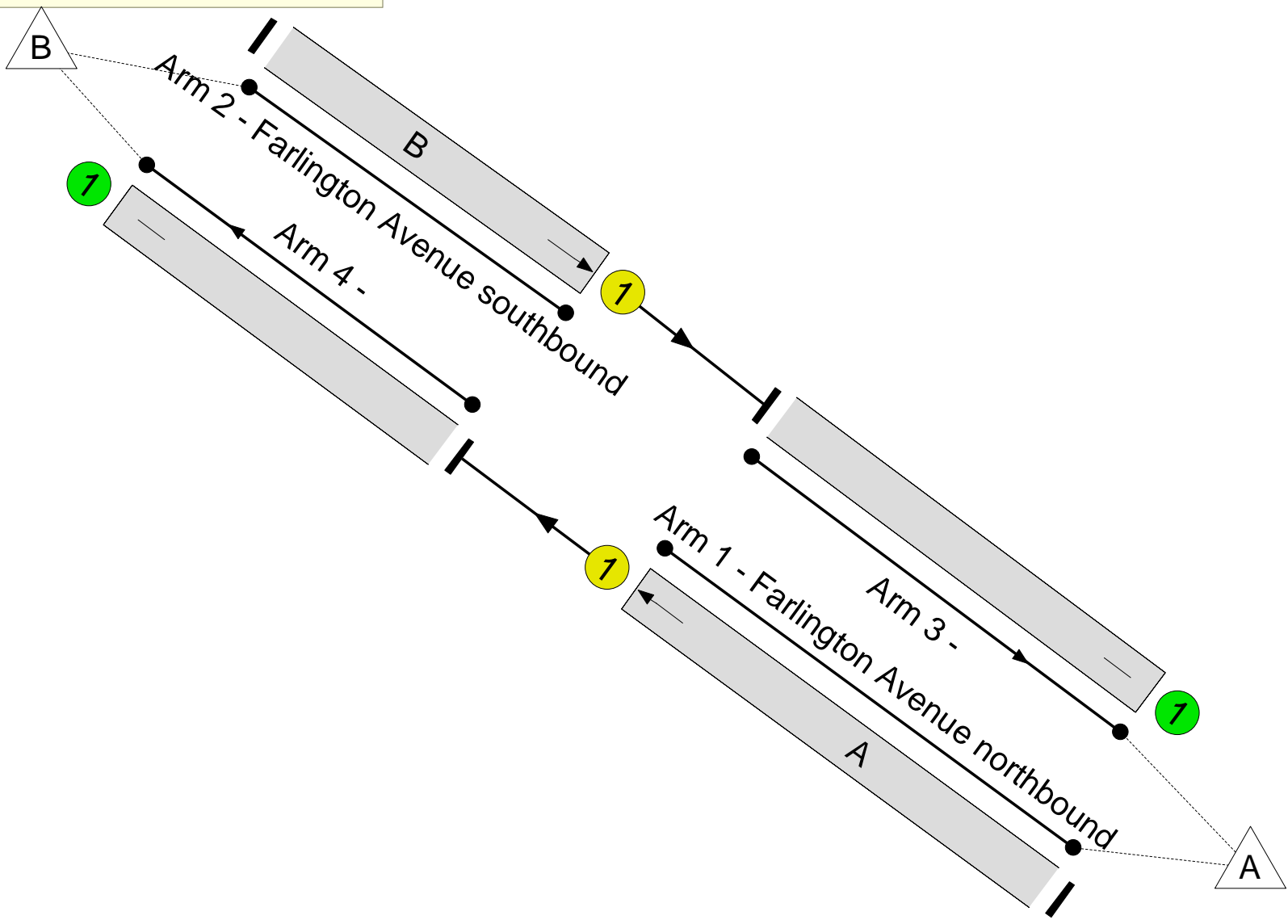
Stage	1	2
Duration	28	58
Change Point	0	45

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Farlington Avenue (north of Sea View Road)
PRC: 217.9 %
Total Traffic Delay: 3.1 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	28.3%
Farlington Avenue (north of Sea View Road)	-	-	N/A	-	-		-	-	-	-	-	-	28.3%
1/1	Farlington Avenue northbound Ahead	U	N/A	N/A	A		1	58	-	264	1900	934	28.3%
2/1	Farlington Avenue southbound Ahead	U	N/A	N/A	B		1	28	-	130	1900	459	28.3%
3/1		U	N/A	N/A	-		-	-	-	130	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	264	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	2.7	0.4	0.0	3.1	-	-	-	-
Farlington Avenue (north of Sea View Road)	-	-	0	0	0	2.7	0.4	0.0	3.1	-	-	-	-
1/1	264	264	-	-	-	1.3	0.2	-	1.5	20.7	5.1	0.2	5.3
2/1	130	130	-	-	-	1.3	0.2	-	1.5	42.5	3.5	0.2	3.7
3/1	130	130	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	264	264	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
<p>C1 PRC for Signalled Lanes (%): 217.9 Total Delay for Signalled Lanes (pcuHr): 3.05 Cycle Time (s): 120 PRC Over All Lanes (%): 217.9 Total Delay Over All Lanes(pcuHr): 3.05</p>													

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

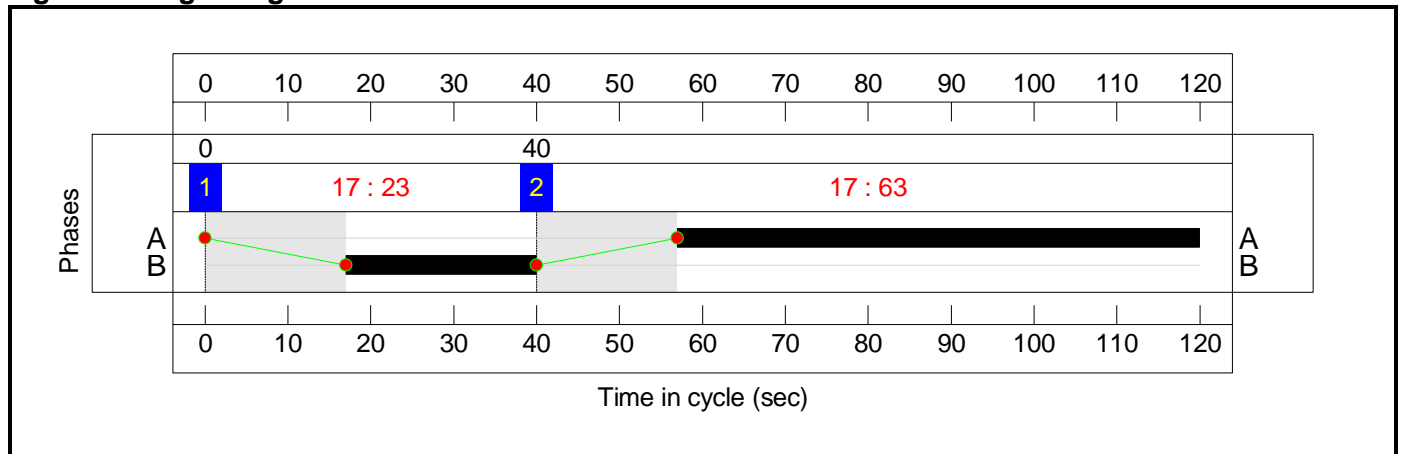
Stage Sequence Diagram



Stage Timings

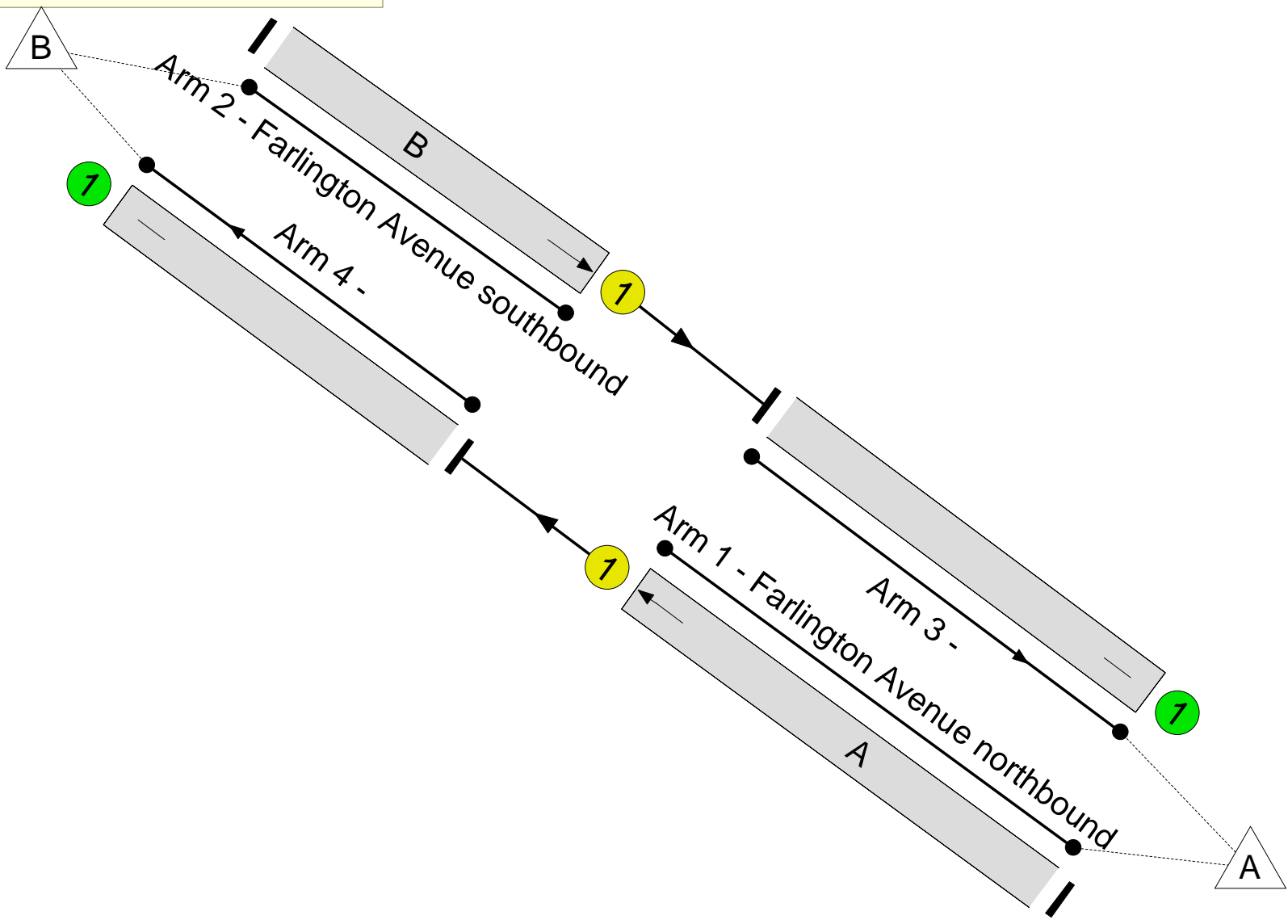

Stage	1	2
Duration	23	63
Change Point	0	40

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Farlington Avenue (north of Sea View Road)
PRC: 347.1 %
Total Traffic Delay: 1.9 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	20.1%
Farlington Avenue (north of Sea View Road)	-	-	N/A	-	-		-	-	-	-	-	-	20.1%
1/1	Farlington Avenue northbound Ahead	U	N/A	N/A	A		1	63	-	204	1900	1013	20.1%
2/1	Farlington Avenue southbound Ahead	U	N/A	N/A	B		1	23	-	76	1900	380	20.0%
3/1		U	N/A	N/A	-		-	-	-	76	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	204	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	1.7	0.3	0.0	1.9	-	-	-	-
Farlington Avenue (north of Sea View Road)	-	-	0	0	0	1.7	0.3	0.0	1.9	-	-	-	-
1/1	204	204	-	-	-	0.8	0.1	-	1.0	16.9	3.5	0.1	3.6
2/1	76	76	-	-	-	0.8	0.1	-	1.0	45.9	2.1	0.1	2.2
3/1	76	76	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	204	204	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1		PRC for Signalled Lanes (%):		347.1	Total Delay for Signalled Lanes (pcuHr):		1.93	Cycle Time (s):		120			
		PRC Over All Lanes (%):		347.1	Total Delay Over All Lanes(pcuHr):		1.93						

Full Input Data And Results

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

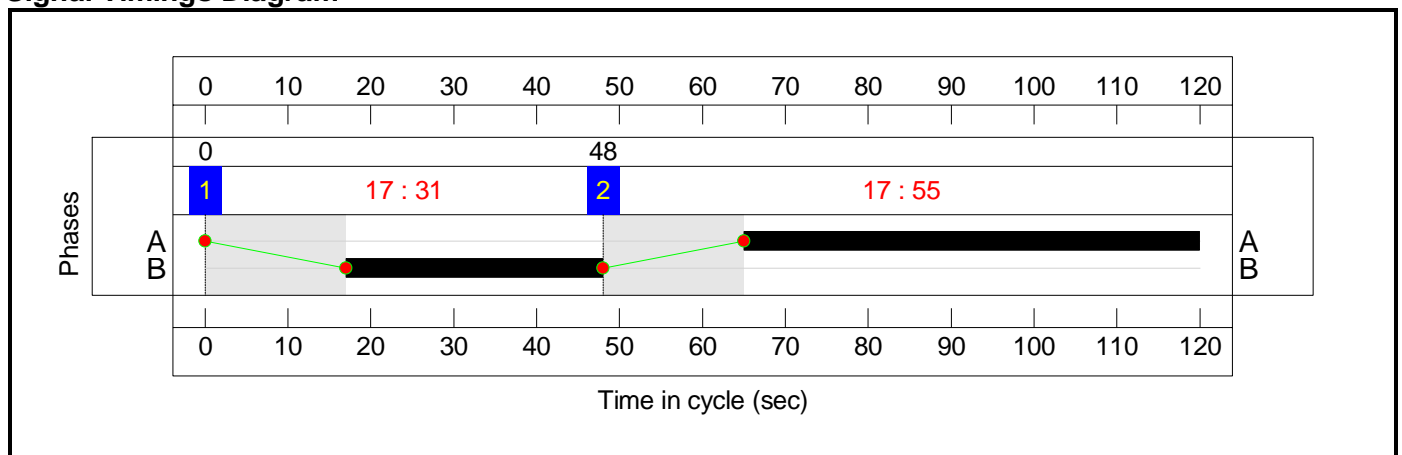
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	31	55
Change Point	0	48

Signal Timings Diagram



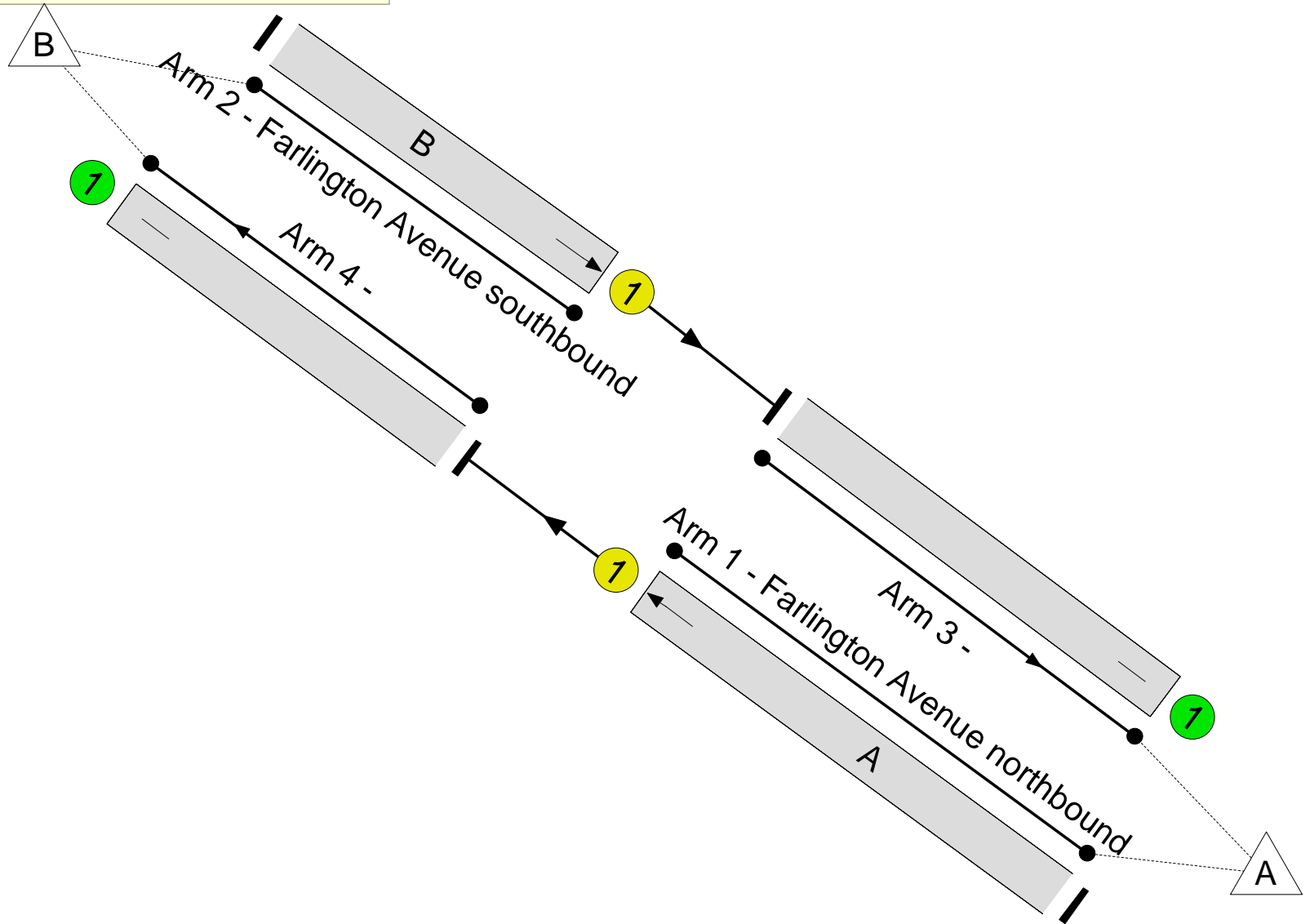
Full Input Data And Results
Network Layout Diagram

Farlington Avenue (north of Sea View Road)



PRC: 235.3 %

Total Traffic Delay: 3.0 pcuHr



Full Input Data And Results

Network Results

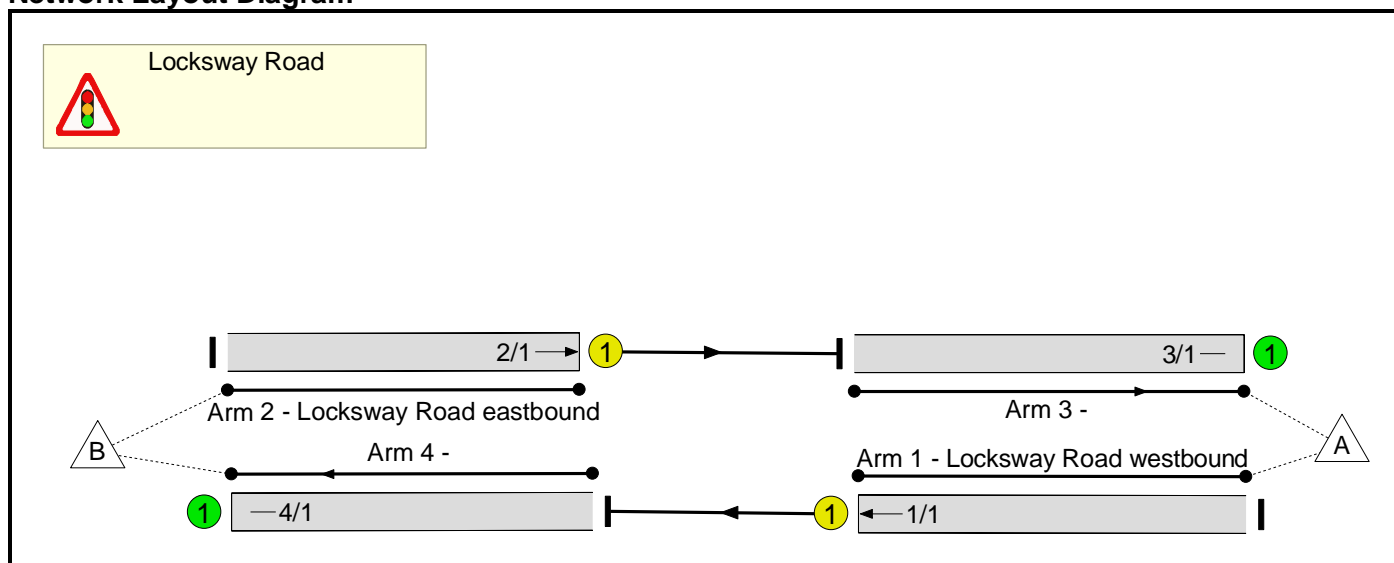
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	26.8%
Farlington Avenue (north of Sea View Road)	-	-	N/A	-	-		-	-	-	-	-	-	26.8%
1/1	Farlington Avenue northbound Ahead	U	N/A	N/A	A		1	55	-	238	1900	887	26.8%
2/1	Farlington Avenue southbound Ahead	U	N/A	N/A	B		1	31	-	135	1900	507	26.6%
3/1		U	N/A	N/A	-		-	-	-	135	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	238	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	2.6	0.4	0.0	3.0	-	-	-	-
Farlington Avenue (north of Sea View Road)	-	-	0	0	0	2.6	0.4	0.0	3.0	-	-	-	-
1/1	238	238	-	-	-	1.3	0.2	-	1.5	22.3	4.8	0.2	5.0
2/1	135	135	-	-	-	1.3	0.2	-	1.5	39.6	3.5	0.2	3.7
3/1	135	135	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	238	238	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
<p>C1 PRC for Signalled Lanes (%): 235.3 Total Delay for Signalled Lanes (pcuHr): 2.96 Cycle Time (s): 120 PRC Over All Lanes (%): 235.3 Total Delay Over All Lanes(pcuHr): 2.96</p>													

Full Input Data And Results
Full Input Data And Results

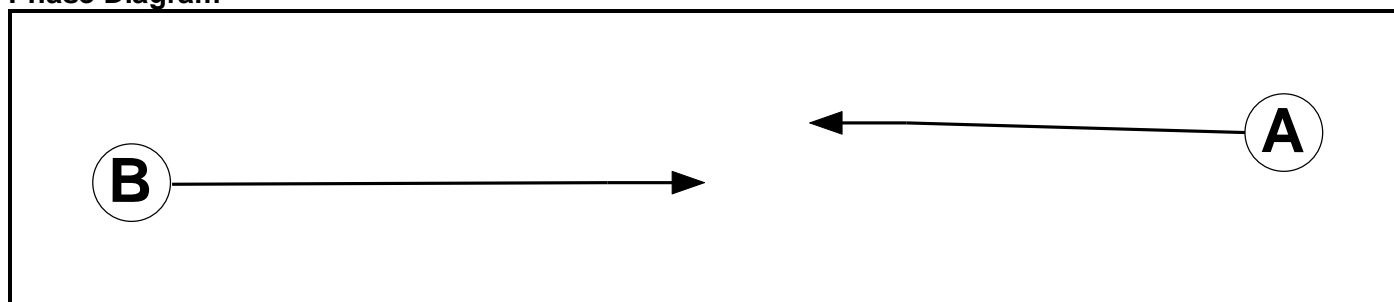
User and Project Details

Project:	
Title:	Locksway Road shuttle working analysis
Location:	
Additional detail:	
File name:	Locksway Road.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7

Full Input Data And Results

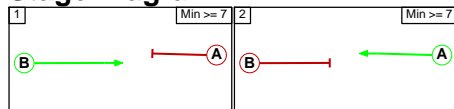
Phase Intergrens Matrix

		Starting Phase	
Terminating Phase		A	B
	A		17
	B	17	

Phases in Stage

Stage No.	Phases in Stage
1	B
2	A

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage	
From Stage		1	2
	1		17
	2	17	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Locksway Road

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Locksway Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Locksway Road westbound)	U	A	2	3	60.0	User	1900	-	-	-	-	-
2/1 (Locksway Road eastbound)	U	B	2	3	60.0	User	1900	-	-	-	-	-
3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'EMM - DS1 AM Peak'	08:00	09:00	01:00	
2: 'EMM - DS1 PM Peak'	17:00	18:00	01:00	
3: 'EML - DS2 AM Peak'	08:00	09:00	01:00	
4: 'EML - DS2 PM Peak'	17:00	18:00	01:00	

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination			Tot.
	A	B	Tot.	
A	0	17	17	
B	13	0	13	
Tot.	13	17	30	

Traffic Lane Flows

Lane	Scenario 1: EMM - DS1 AM
Junction: Locksway Road	
1/1	17
2/1	13
3/1	13
4/1	17

Full Input Data And Results

Lane Saturation Flows

Junction: Locksway Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Locksway Road westbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Locksway Road eastbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination			
	A	B	Tot.	
Origin	A	0	13	13
	B	17	0	17
	Tot.	17	13	30

Traffic Lane Flows

Lane	Scenario 2: EMM - DS1 PM
Junction: Locksway Road	
1/1	13
2/1	17
3/1	17
4/1	13

Lane Saturation Flows

Junction: Locksway Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Locksway Road westbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Locksway Road eastbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination			Tot.
	A	B	Tot.	
A	0	17	17	
B	13	0	13	
Tot.	13	17	30	

Traffic Lane Flows

Lane	Scenario 3: EML - DS2 AM
Junction: Locksway Road	
1/1	17
2/1	13
3/1	13
4/1	17

Lane Saturation Flows

Junction: Locksway Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Locksway Road westbound Lane 1)							1900	1900
2/1 (Locksway Road eastbound Lane 1)							1900	1900
3/1				Infinite Saturation Flow			Inf	Inf
4/1				Infinite Saturation Flow			Inf	Inf

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination			Tot.
	A	B	Tot.	
A	0	13	13	
B	17	0	17	
Tot.	17	13	30	

Traffic Lane Flows

Lane	Scenario 4: EML - DS2 PM
Junction: Locksway Road	
1/1	13
2/1	17
3/1	17
4/1	13

Full Input Data And Results

Lane Saturation Flows

Junction: Locksway Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Locksway Road westbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
2/1 (Locksway Road eastbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
3/1				Infinite Saturation Flow			Inf	Inf
4/1				Infinite Saturation Flow			Inf	Inf

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

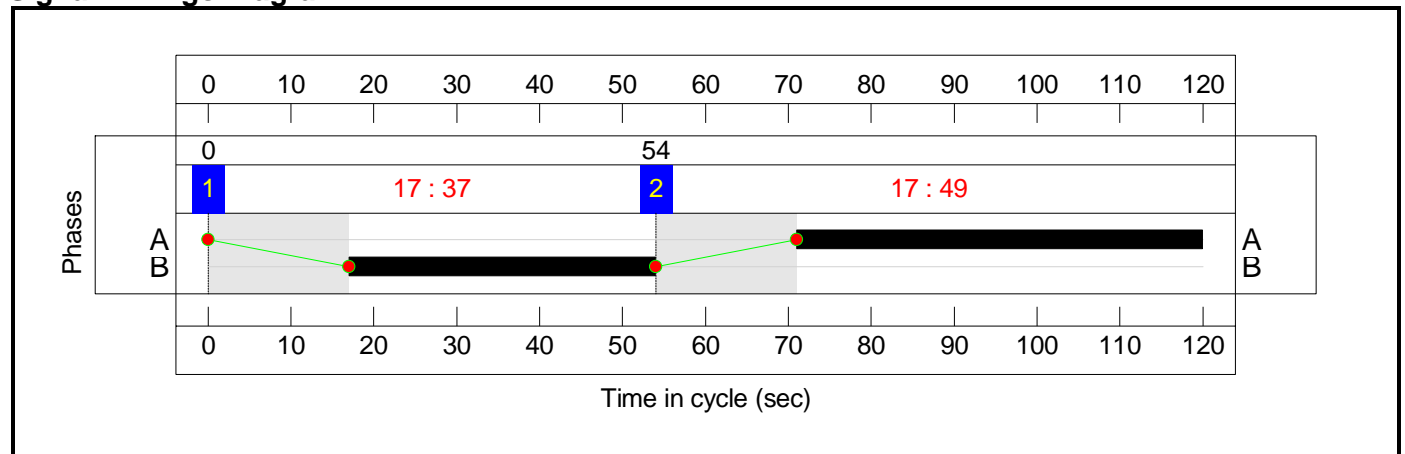
Stage Sequence Diagram




Stage Timings

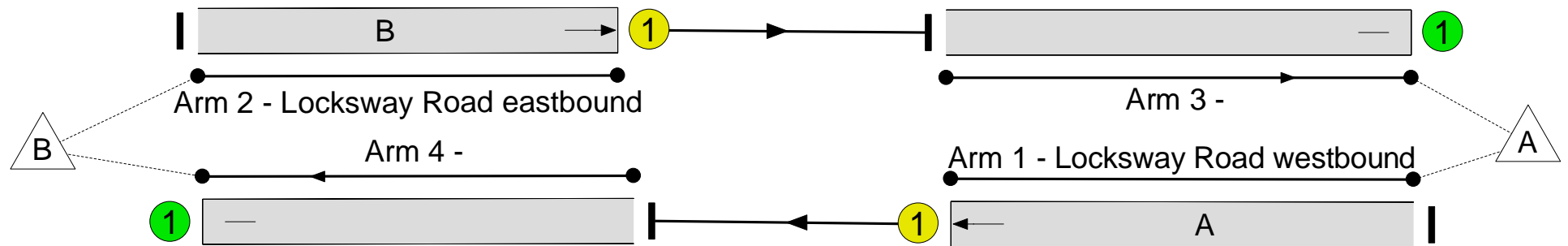
Stage	1	2
Duration	37	49
Change Point	0	54

Signal Timings Diagram



Network Layout Diagram

 **Locksway Road**
PRC: 4065.4 %
Total Traffic Delay: 0.2 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	2.2%
Locksway Road	-	-	N/A	-	-		-	-	-	-	-	-	2.2%
1/1	Locksway Road westbound Ahead	U	N/A	N/A	A		1	49	-	17	1900	792	2.1%
2/1	Locksway Road eastbound Ahead	U	N/A	N/A	B		1	37	-	13	1900	602	2.2%
3/1		U	N/A	N/A	-		-	-	-	13	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	17	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	0.2	0.0	0.0	0.2	-	-	-	-
Locksway Road	-	-	0	0	0	0.2	0.0	0.0	0.2	-	-	-	-
1/1	17	17	-	-	-	0.1	0.0	-	0.1	23.0	0.3	0.0	0.3
2/1	13	13	-	-	-	0.1	0.0	-	0.1	31.4	0.3	0.0	0.3
3/1	13	13	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	17	17	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 4065.4		Total Delay for Signalled Lanes (pcuHr): 0.22		Cycle Time (s): 120						
			PRC Over All Lanes (%): 4065.4		Total Delay Over All Lanes(pcuHr): 0.22								

Full Input Data And Results

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

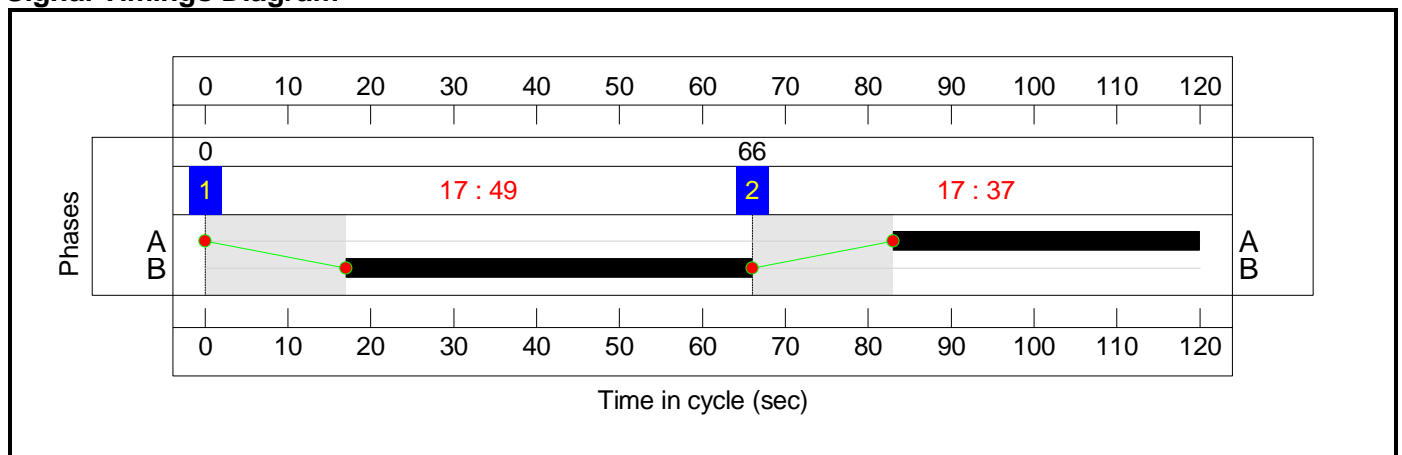
Stage Sequence Diagram




Stage Timings

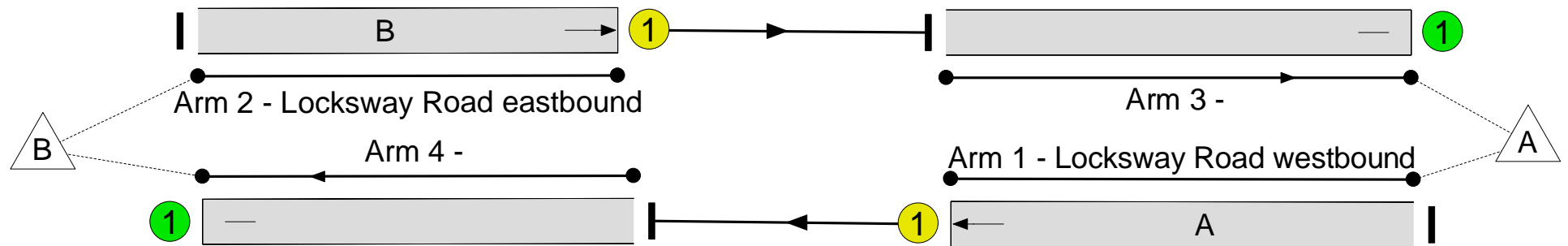
Stage	1	2
Duration	49	37
Change Point	0	66

Signal Timings Diagram



Network Layout Diagram

 **Locksway Road**
PRC: 4065.4 %
Total Traffic Delay: 0.2 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	2.2%
Locksway Road	-	-	N/A	-	-		-	-	-	-	-	-	2.2%
1/1	Locksway Road westbound Ahead	U	N/A	N/A	A		1	37	-	13	1900	602	2.2%
2/1	Locksway Road eastbound Ahead	U	N/A	N/A	B		1	49	-	17	1900	792	2.1%
3/1		U	N/A	N/A	-		-	-	-	17	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	13	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	0.2	0.0	0.0	0.2	-	-	-	-
Locksway Road	-	-	0	0	0	0.2	0.0	0.0	0.2	-	-	-	-
1/1	13	13	-	-	-	0.1	0.0	-	0.1	31.4	0.3	0.0	0.3
2/1	17	17	-	-	-	0.1	0.0	-	0.1	23.0	0.3	0.0	0.3
3/1	17	17	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	13	13	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 4065.4		Total Delay for Signalled Lanes (pcuHr): 0.22		Cycle Time (s): 120						
			PRC Over All Lanes (%): 4065.4		Total Delay Over All Lanes(pcuHr): 0.22								

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

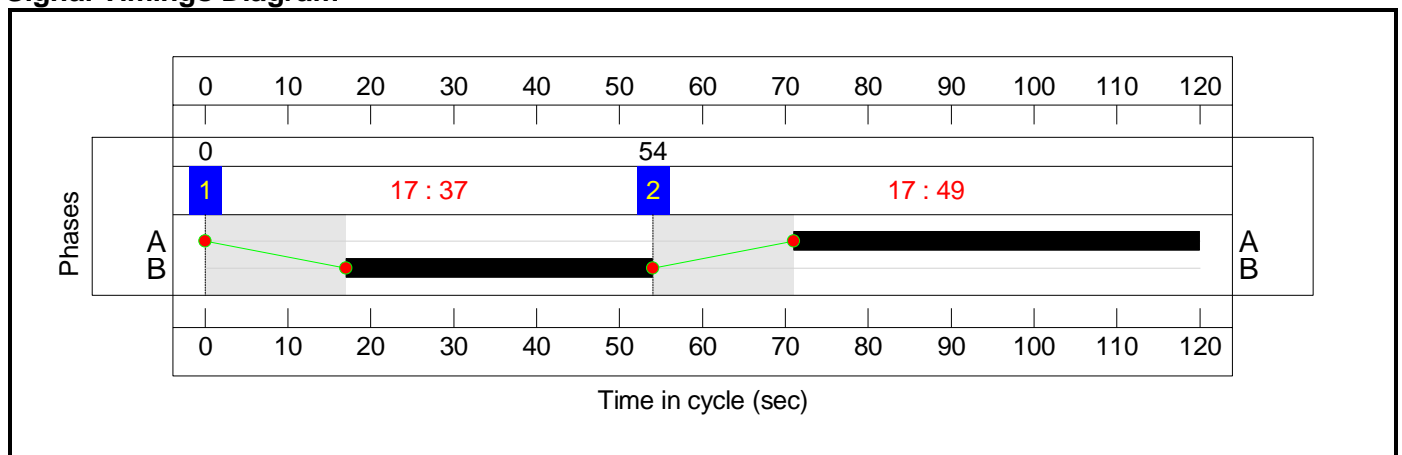
Stage Sequence Diagram




Stage Timings

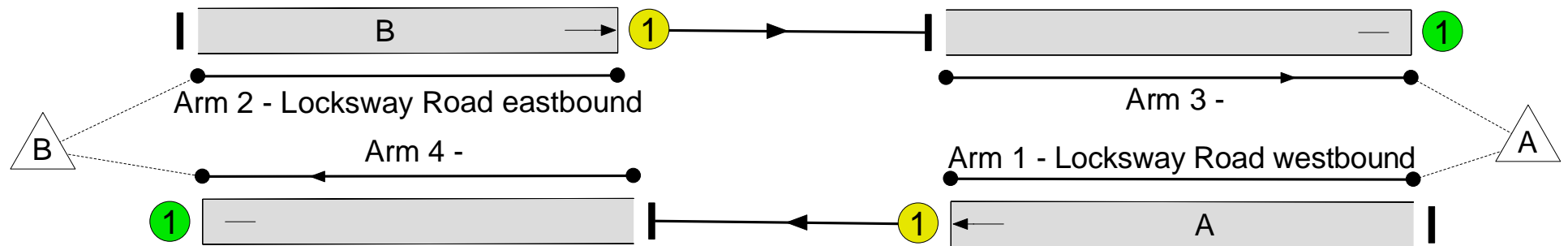
Stage	1	2
Duration	37	49
Change Point	0	54

Signal Timings Diagram



Network Layout Diagram

 **Locksway Road**
PRC: 4065.4 %
Total Traffic Delay: 0.2 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	2.2%
Locksway Road	-	-	N/A	-	-		-	-	-	-	-	-	2.2%
1/1	Locksway Road westbound Ahead	U	N/A	N/A	A		1	49	-	17	1900	792	2.1%
2/1	Locksway Road eastbound Ahead	U	N/A	N/A	B		1	37	-	13	1900	602	2.2%
3/1		U	N/A	N/A	-		-	-	-	13	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	17	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	0.2	0.0	0.0	0.2	-	-	-	-
Locksway Road	-	-	0	0	0	0.2	0.0	0.0	0.2	-	-	-	-
1/1	17	17	-	-	-	0.1	0.0	-	0.1	23.0	0.3	0.0	0.3
2/1	13	13	-	-	-	0.1	0.0	-	0.1	31.4	0.3	0.0	0.3
3/1	13	13	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	17	17	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 4065.4		Total Delay for Signalled Lanes (pcuHr): 0.22		Cycle Time (s): 120						
			PRC Over All Lanes (%): 4065.4		Total Delay Over All Lanes(pcuHr): 0.22								

Full Input Data And Results

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

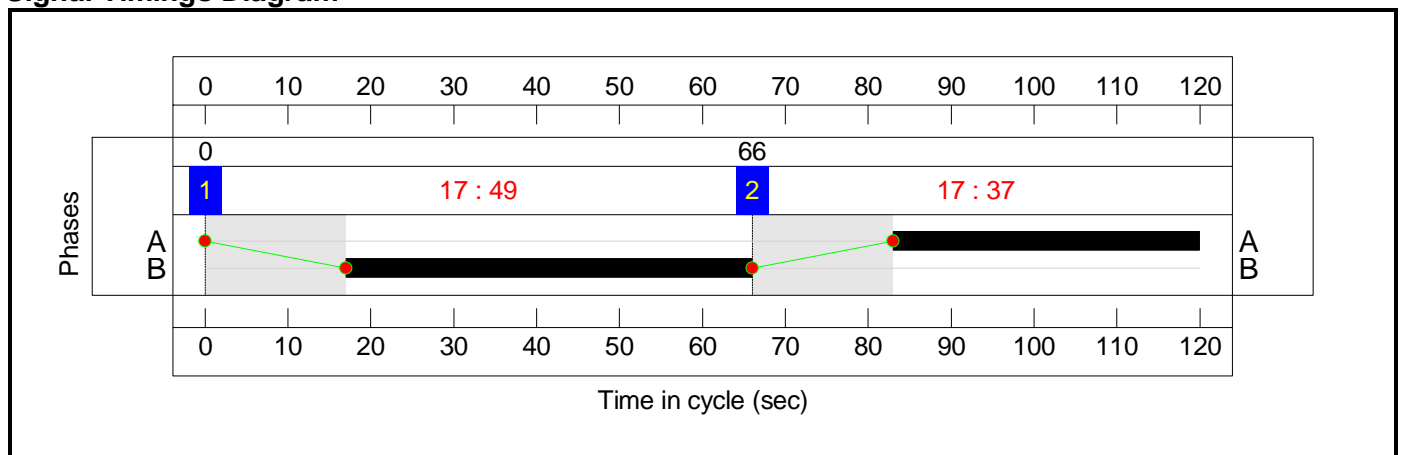
Stage Sequence Diagram




Stage Timings

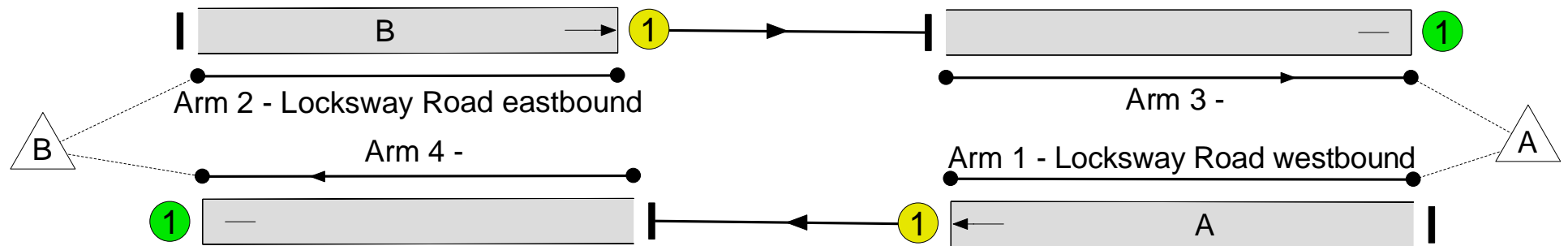
Stage	1	2
Duration	49	37
Change Point	0	66

Signal Timings Diagram



Network Layout Diagram

 Locksway Road
PRC: 4065.4 %
Total Traffic Delay: 0.2 pcuHr



Full Input Data And Results

Network Results

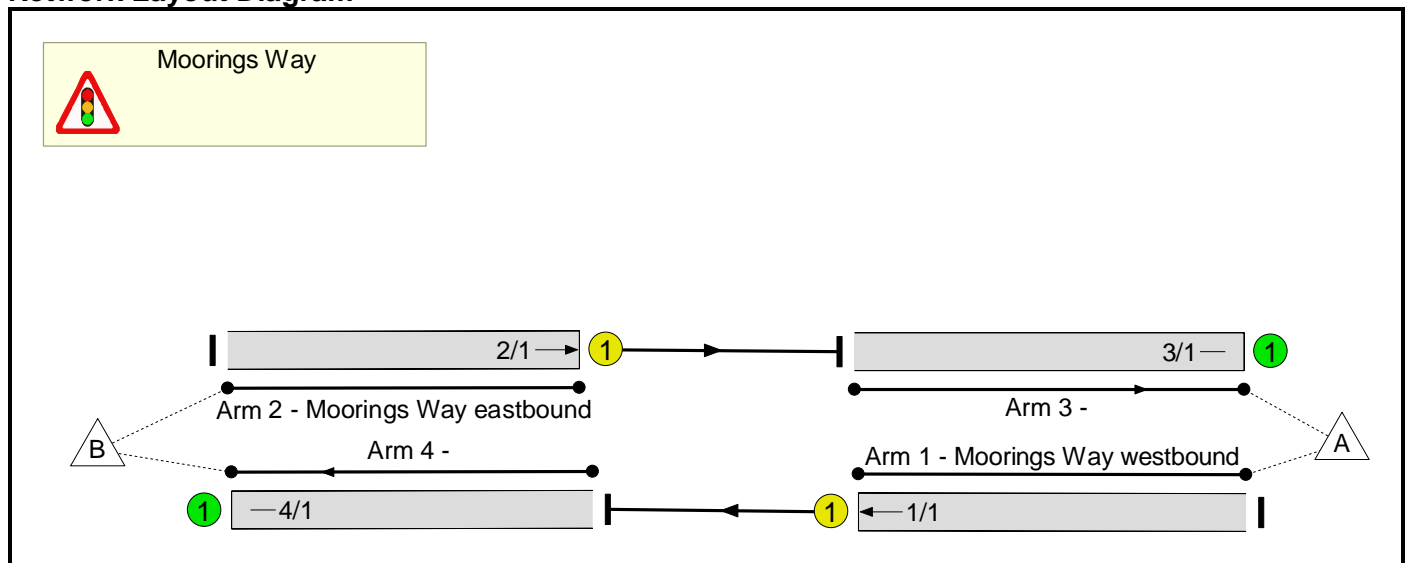
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	2.2%
Locksway Road	-	-	N/A	-	-		-	-	-	-	-	-	2.2%
1/1	Locksway Road westbound Ahead	U	N/A	N/A	A		1	37	-	13	1900	602	2.2%
2/1	Locksway Road eastbound Ahead	U	N/A	N/A	B		1	49	-	17	1900	792	2.1%
3/1		U	N/A	N/A	-		-	-	-	17	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	13	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	0.2	0.0	0.0	0.2	-	-	-	-
Locksway Road	-	-	0	0	0	0.2	0.0	0.0	0.2	-	-	-	-
1/1	13	13	-	-	-	0.1	0.0	-	0.1	31.4	0.3	0.0	0.3
2/1	17	17	-	-	-	0.1	0.0	-	0.1	23.0	0.3	0.0	0.3
3/1	17	17	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	13	13	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 4065.4		Total Delay for Signalled Lanes (pcuHr): 0.22		Cycle Time (s): 120						
			PRC Over All Lanes (%): 4065.4		Total Delay Over All Lanes(pcuHr): 0.22								

Full Input Data And Results
Full Input Data And Results

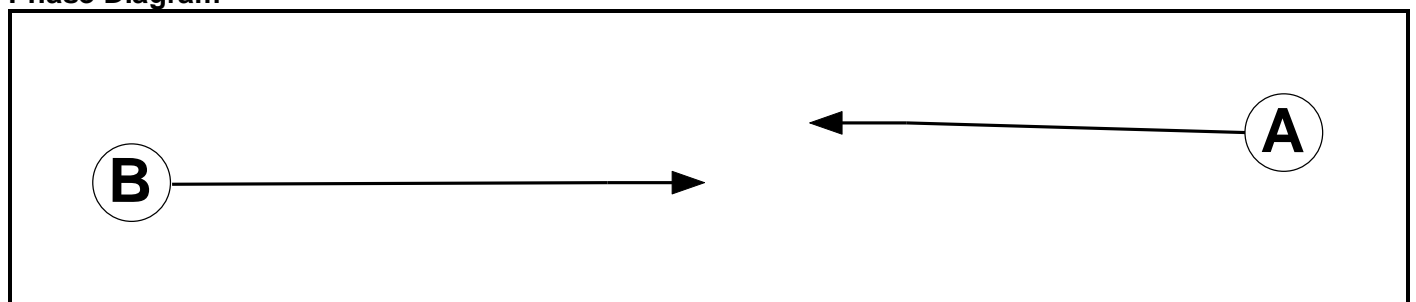
User and Project Details

Project:	
Title:	Moorings Way shuttle working analysis
Location:	
Additional detail:	
File name:	Moorings Way.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7

Full Input Data And Results

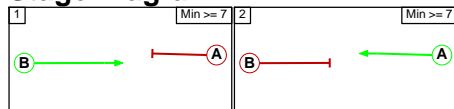
Phase Intergrens Matrix

		Starting Phase	
Terminating Phase		A	B
	A		17
	B	17	

Phases in Stage

Stage No.	Phases in Stage
1	B
2	A

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage	
From Stage		1	2
	1		17
	2	17	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Moorings Way

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Moorings Way												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Moorings Way westbound)	U	A	2	3	60.0	User	1900	-	-	-	-	-
2/1 (Moorings Way eastbound)	U	B	2	3	60.0	User	1900	-	-	-	-	-
3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'EMM - DS1 AM Peak'	08:00	09:00	01:00	
2: 'EMM - DS1 PM Peak'	17:00	18:00	01:00	
3: 'EML - DS2 AM Peak'	08:00	09:00	01:00	
4: 'EML - DS2 PM Peak'	17:00	18:00	01:00	

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination			Tot.
	A	B	Tot.	
A	0	192	192	
B	131	0	131	
Tot.	131	192	323	

Traffic Lane Flows

Lane	Scenario 1: EMM - DS1 AM
Junction: Moorings Way	
1/1	192
2/1	131
3/1	131
4/1	192

Full Input Data And Results

Lane Saturation Flows

Junction: Moorings Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Moorings Way westbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
2/1 (Moorings Way eastbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
3/1				Infinite Saturation Flow			Inf	Inf
4/1				Infinite Saturation Flow			Inf	Inf

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination			
	A	B	Tot.	
Origin	A	0	148	148
	B	169	0	169
	Tot.	169	148	317

Traffic Lane Flows

Lane	Scenario 2: EMM - DS1 PM
Junction: Moorings Way	
1/1	148
2/1	169
3/1	169
4/1	148

Lane Saturation Flows

Junction: Moorings Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Moorings Way westbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
2/1 (Moorings Way eastbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
3/1				Infinite Saturation Flow			Inf	Inf
4/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination			Tot.
	A	B	Tot.	
A	0	192	192	
B	131	0	131	
Tot.	131	192	323	

Traffic Lane Flows

Lane	Scenario 3: EML - DS2 AM
Junction: Moorings Way	
1/1	192
2/1	131
3/1	131
4/1	192

Lane Saturation Flows

Junction: Moorings Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Moorings Way westbound Lane 1)							1900	1900
2/1 (Moorings Way eastbound Lane 1)							1900	1900
3/1							Inf	Inf
4/1							Inf	Inf

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination			Tot.
	A	B	Tot.	
A	0	148	148	
B	176	0	176	
Tot.	176	148	324	

Traffic Lane Flows

Lane	Scenario 4: EML - DS2 PM
Junction: Moorings Way	
1/1	148
2/1	176
3/1	176
4/1	148

Lane Saturation Flows

Junction: Moorings Way								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Moorings Way westbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
2/1 (Moorings Way eastbound Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
3/1				Infinite Saturation Flow			Inf	Inf
4/1				Infinite Saturation Flow			Inf	Inf

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

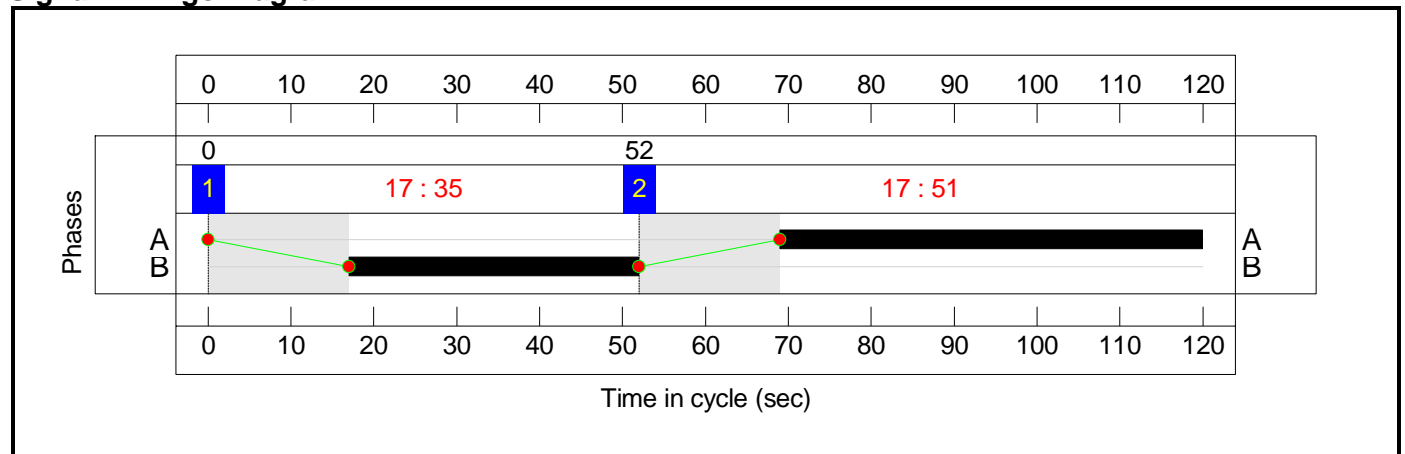
Stage Sequence Diagram




Stage Timings

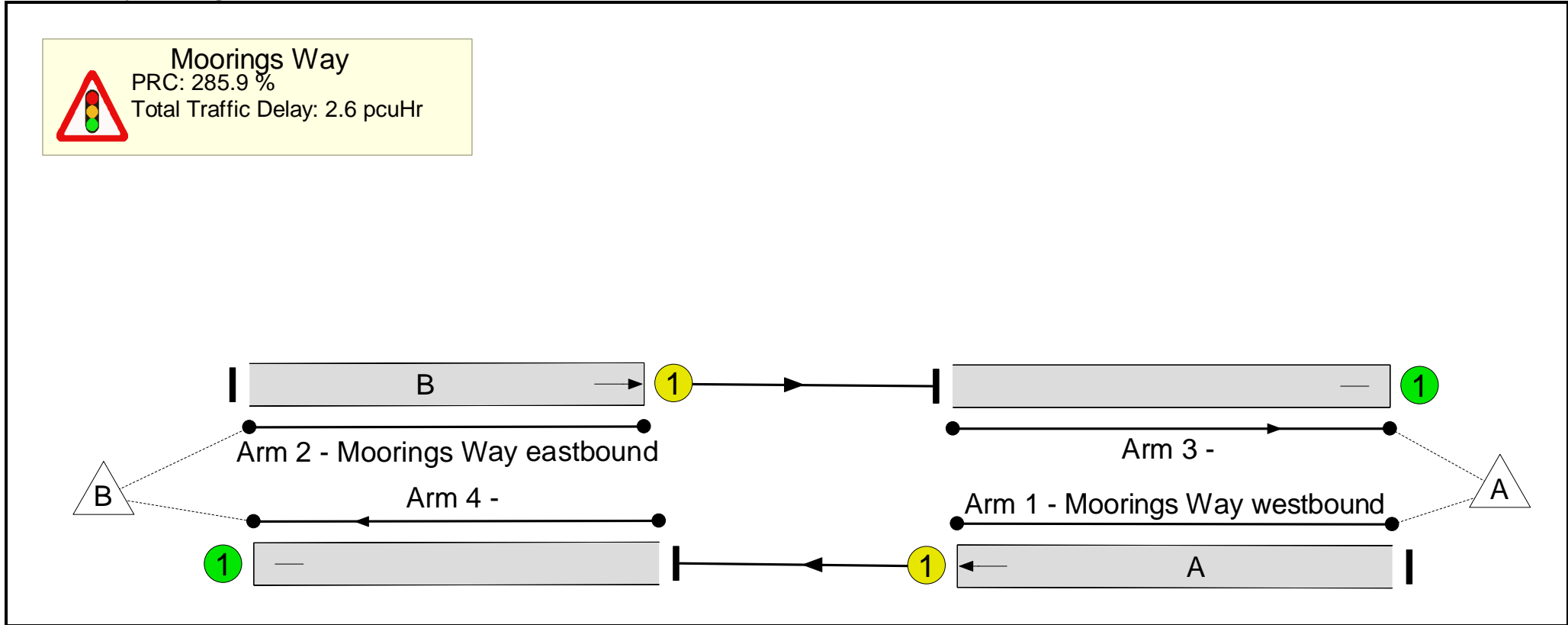
Stage	1	2
Duration	35	51
Change Point	0	52

Signal Timings Diagram



Network Layout Diagram

 **Moorings Way**
PRC: 285.9 %
Total Traffic Delay: 2.6 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	23.3%
Moorings Way	-	-	N/A	-	-		-	-	-	-	-	-	23.3%
1/1	Moorings Way westbound Ahead	U	N/A	N/A	A		1	51	-	192	1900	823	23.3%
2/1	Moorings Way eastbound Ahead	U	N/A	N/A	B		1	35	-	131	1900	570	23.0%
3/1		U	N/A	N/A	-		-	-	-	131	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	192	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	2.3	0.3	0.0	2.6	-	-	-	-
Moorings Way	-	-	0	0	0	2.3	0.3	0.0	2.6	-	-	-	-
1/1	192	192	-	-	-	1.1	0.2	-	1.3	24.3	4.0	0.2	4.2
2/1	131	131	-	-	-	1.1	0.1	-	1.3	35.7	3.3	0.1	3.4
3/1	131	131	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	192	192	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		285.9	Total Delay for Signalled Lanes (pcuHr):			2.59	Cycle Time (s): 120			
			PRC Over All Lanes (%):		285.9	Total Delay Over All Lanes(pcuHr):			2.59				

Full Input Data And Results

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

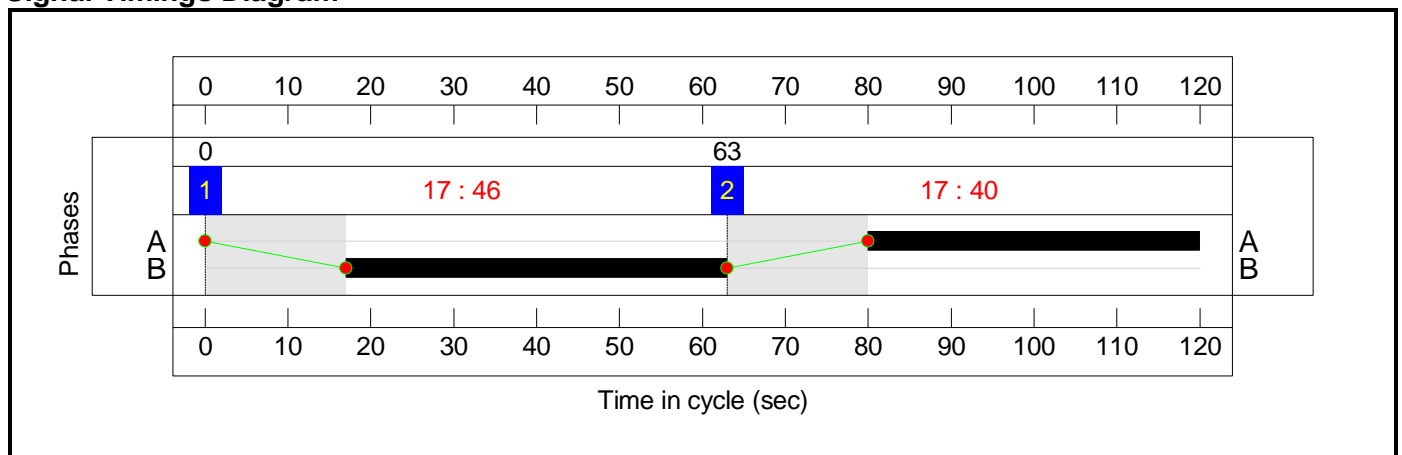
Stage Sequence Diagram




Stage Timings

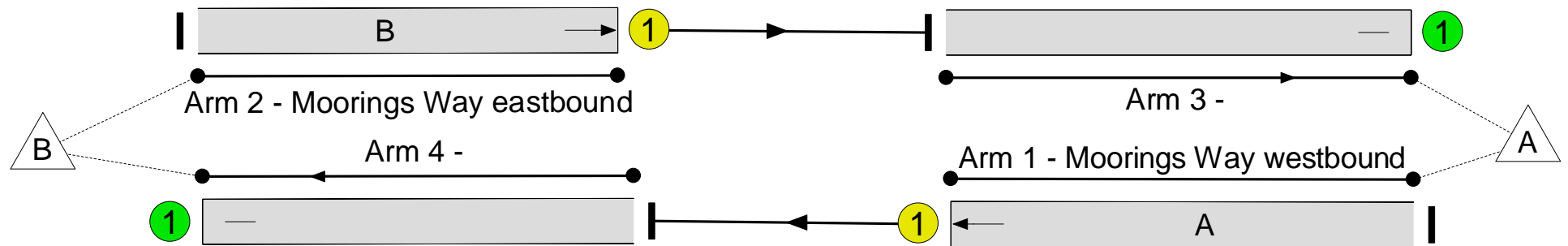
Stage	1	2
Duration	46	40
Change Point	0	63

Signal Timings Diagram



Network Layout Diagram

 **Moorings Way**
PRC: 294.8 %
Total Traffic Delay: 2.6 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	22.8%
Moorings Way	-	-	N/A	-	-		-	-	-	-	-	-	22.8%
1/1	Moorings Way westbound Ahead	U	N/A	N/A	A		1	40	-	148	1900	649	22.8%
2/1	Moorings Way eastbound Ahead	U	N/A	N/A	B		1	46	-	169	1900	744	22.7%
3/1		U	N/A	N/A	-		-	-	-	169	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	148	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	2.3	0.3	0.0	2.6	-	-	-	-
Moorings Way	-	-	0	0	0	2.3	0.3	0.0	2.6	-	-	-	-
1/1	148	148	-	-	-	1.2	0.1	-	1.3	31.8	3.5	0.1	3.6
2/1	169	169	-	-	-	1.1	0.1	-	1.3	27.5	3.8	0.1	3.9
3/1	169	169	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	148	148	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 294.8		Total Delay for Signalled Lanes (pcuHr): 2.60		Cycle Time (s): 120						
			PRC Over All Lanes (%): 294.8		Total Delay Over All Lanes(pcuHr): 2.60								

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

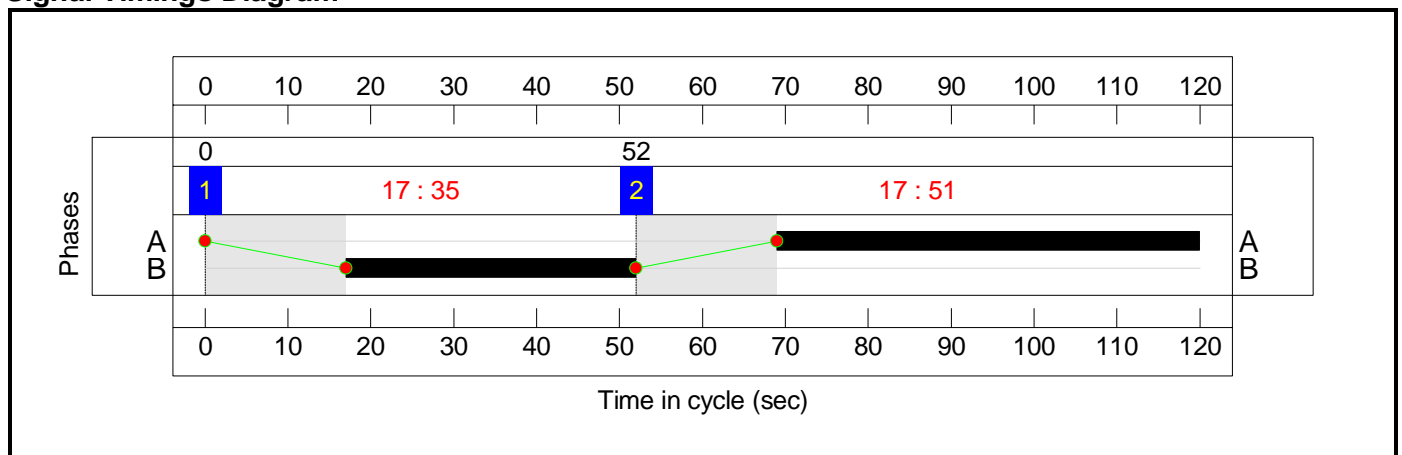
Stage Sequence Diagram




Stage Timings

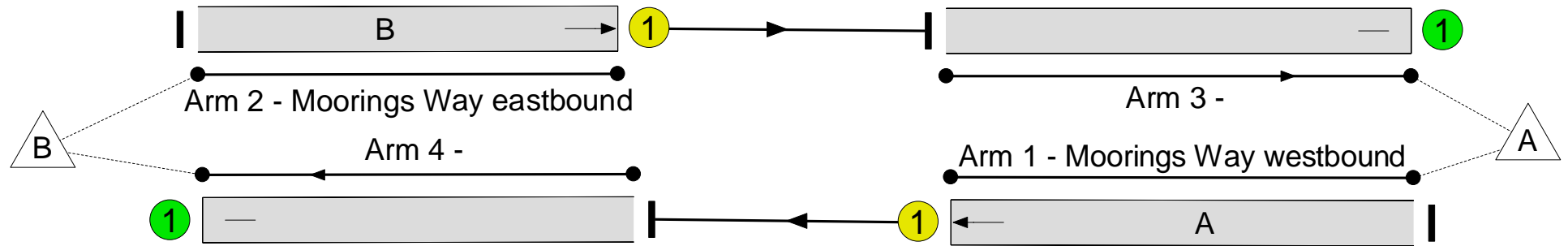
Stage	1	2
Duration	35	51
Change Point	0	52

Signal Timings Diagram



Network Layout Diagram

 **Moorings Way**
PRC: 285.9 %
Total Traffic Delay: 2.6 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	23.3%
Moorings Way	-	-	N/A	-	-		-	-	-	-	-	-	23.3%
1/1	Moorings Way westbound Ahead	U	N/A	N/A	A		1	51	-	192	1900	823	23.3%
2/1	Moorings Way eastbound Ahead	U	N/A	N/A	B		1	35	-	131	1900	570	23.0%
3/1		U	N/A	N/A	-		-	-	-	131	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	192	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	2.3	0.3	0.0	2.6	-	-	-	-
Moorings Way	-	-	0	0	0	2.3	0.3	0.0	2.6	-	-	-	-
1/1	192	192	-	-	-	1.1	0.2	-	1.3	24.3	4.0	0.2	4.2
2/1	131	131	-	-	-	1.1	0.1	-	1.3	35.7	3.3	0.1	3.4
3/1	131	131	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	192	192	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%): 285.9		285.9		Total Delay for Signalled Lanes (pcuHr): 2.59		2.59		Cycle Time (s): 120		
			PRC Over All Lanes (%): 285.9		285.9		Total Delay Over All Lanes(pcuHr): 2.59		2.59				

Full Input Data And Results

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

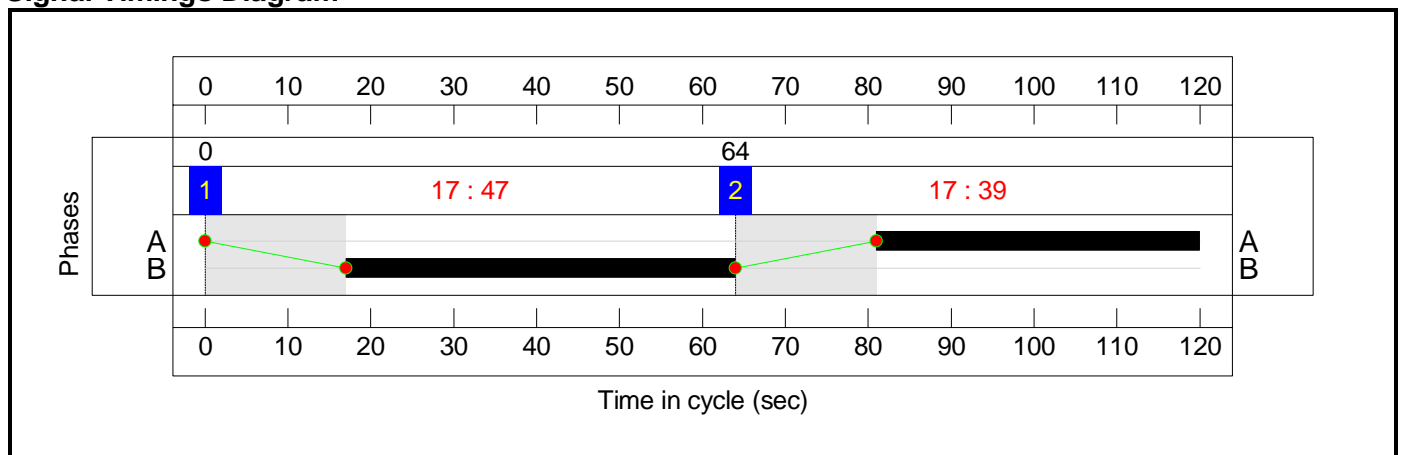
Stage Sequence Diagram




Stage Timings

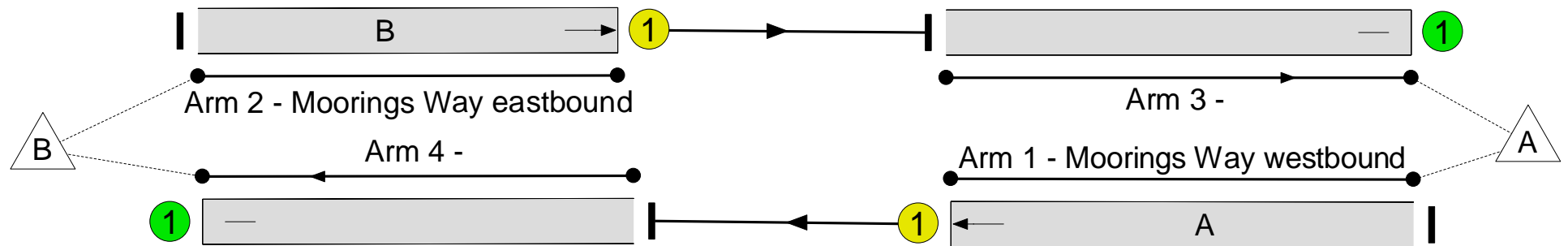
Stage	1	2
Duration	47	39
Change Point	0	64

Signal Timings Diagram



Network Layout Diagram

 **Moorings Way**
PRC: 285.1 %
Total Traffic Delay: 2.7 pcuHr



Full Input Data And Results

Network Results

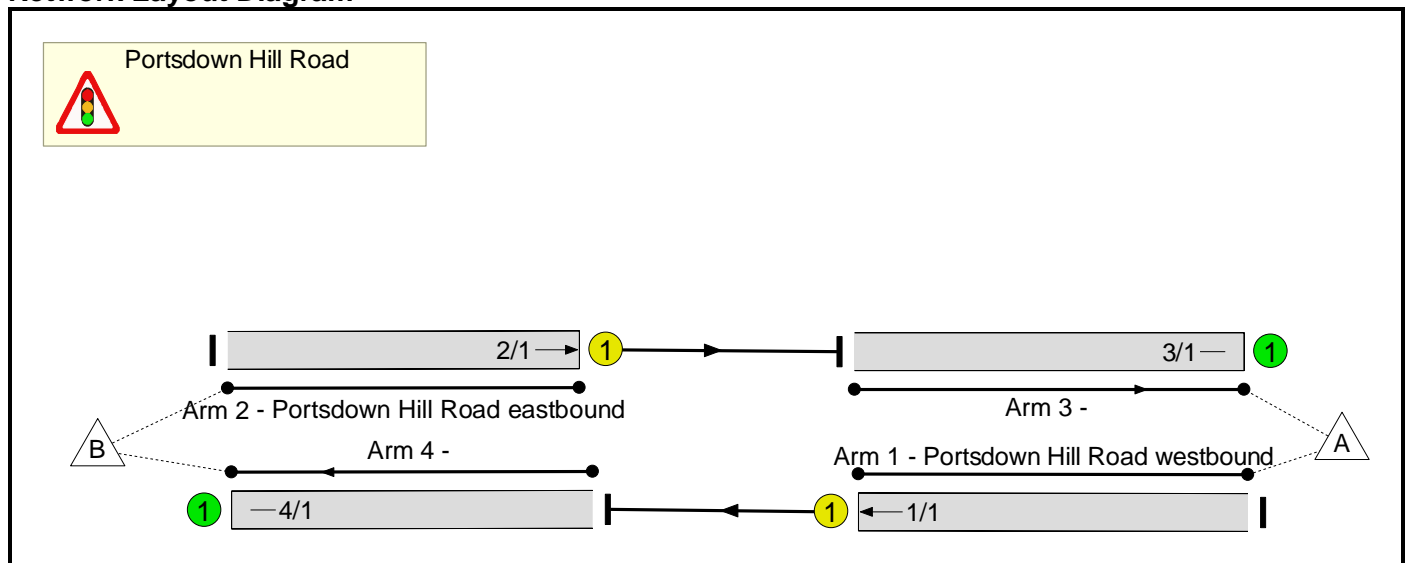
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	23.4%
Moorings Way	-	-	N/A	-	-		-	-	-	-	-	-	23.4%
1/1	Moorings Way westbound Ahead	U	N/A	N/A	A		1	39	-	148	1900	633	23.4%
2/1	Moorings Way eastbound Ahead	U	N/A	N/A	B		1	47	-	176	1900	760	23.2%
3/1		U	N/A	N/A	-		-	-	-	176	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	148	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	2.4	0.3	0.0	2.7	-	-	-	-
Moorings Way	-	-	0	0	0	2.4	0.3	0.0	2.7	-	-	-	-
1/1	148	148	-	-	-	1.2	0.2	-	1.3	32.6	3.5	0.2	3.7
2/1	176	176	-	-	-	1.2	0.2	-	1.3	26.9	3.9	0.2	4.0
3/1	176	176	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	148	148	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		285.1	Total Delay for Signalled Lanes (pcuHr):			2.66	Cycle Time (s): 120			
			PRC Over All Lanes (%):		285.1	Total Delay Over All Lanes(pcuHr):			2.66				

Full Input Data And Results
Full Input Data And Results

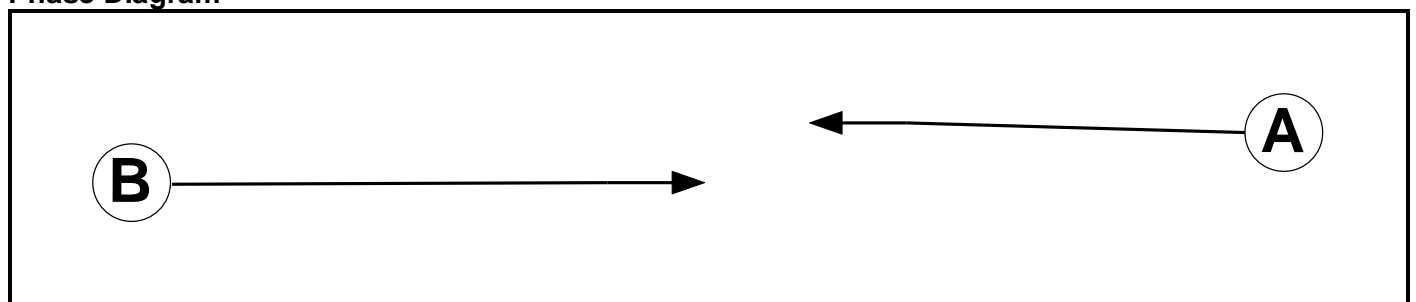
User and Project Details

Project:	
Title:	Portstown Hill Road shuttle working analysis
Location:	
Additional detail:	
File name:	Portstown Hill Road.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7

Full Input Data And Results

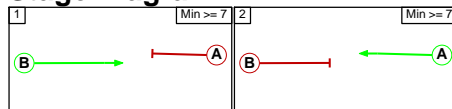
Phase Intergrens Matrix

	Starting Phase		
Terminating Phase		A	B
	A		17
	B	17	

Phases in Stage

Stage No.	Phases in Stage
1	B
2	A

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

	To Stage	
From Stage	1	2
	1	17
	2	17

Full Input Data And Results

Give-Way Lane Input Data

Junction: Portsdown Hill Road

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Portsdown Hill Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Portsdown Hill Road westbound)	U	A	2	3	60.0	User	1900	-	-	-	-	-
2/1 (Portsdown Hill Road eastbound)	U	B	2	3	60.0	User	1900	-	-	-	-	-
3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'EMM - DS1 AM Peak'	08:00	09:00	01:00	
2: 'EMM - DS1 PM Peak'	17:00	18:00	01:00	
3: 'EML - DS2 AM Peak'	08:00	09:00	01:00	
4: 'EML - DS2 PM Peak'	17:00	18:00	01:00	

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination			
	A	B	Tot.	
Origin	A	0	579	579
	B	519	0	519
	Tot.	519	579	1098

Traffic Lane Flows

Lane	Scenario 1: EMM - DS1 AM
Junction: Portsdown Hill Road	
1/1	579
2/1	519
3/1	519
4/1	579

Full Input Data And Results

Lane Saturation Flows

Junction: Portsdown Hill Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Portsdown Hill Road westbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Portsdown Hill Road eastbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination			
	A	B	Tot.	
Origin	A	0	555	555
	B	699	0	699
	Tot.	699	555	1254

Traffic Lane Flows

Lane	Scenario 2: EMM - DS1 PM
Junction: Portsdown Hill Road	
1/1	555
2/1	699
3/1	699
4/1	555

Lane Saturation Flows

Junction: Portsdown Hill Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Portsdown Hill Road westbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Portsdown Hill Road eastbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination			Tot.
	A	B	Tot.	
A	0	575	575	
B	529	0	529	
Tot.	529	575	1104	

Traffic Lane Flows

Lane	Scenario 3: EML - DS2 AM
Junction: Portsdown Hill Road	
1/1	575
2/1	529
3/1	529
4/1	575

Lane Saturation Flows

Junction: Portsdown Hill Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Portsdown Hill Road westbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Portsdown Hill Road eastbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination			Tot.
	A	B	Tot.	
A	0	557	557	
B	699	0	699	
Tot.	699	557	1256	

Traffic Lane Flows

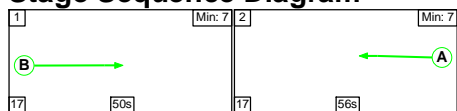
Lane	Scenario 4: EML - DS2 PM
Junction: Portsdown Hill Road	
1/1	557
2/1	699
3/1	699
4/1	557

Lane Saturation Flows

Junction: Portsdown Hill Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Portsdown Hill Road westbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (Portsdown Hill Road eastbound Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'EMM - DS1 AM' (FG1: 'EMM - DS1 AM Peak', Plan 1: 'Network Control Plan 1')

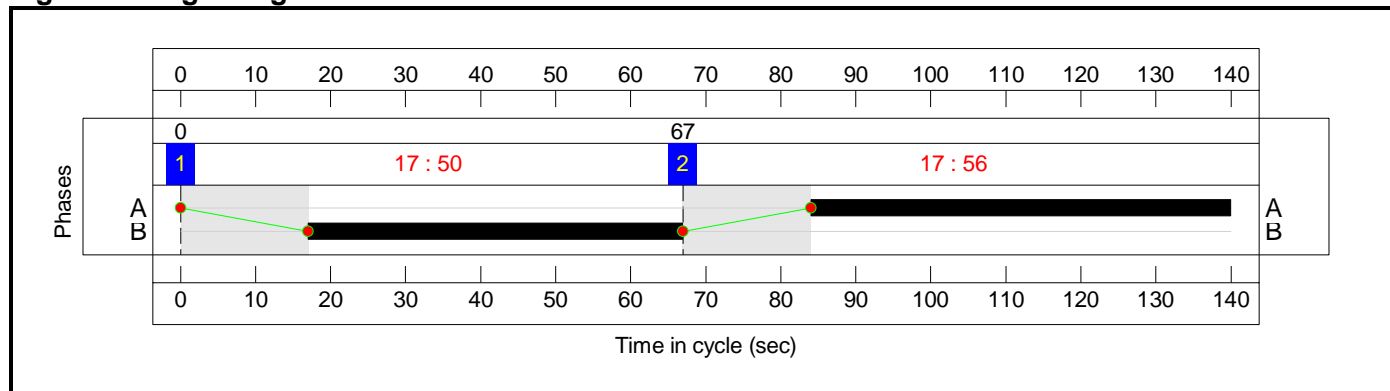
Stage Sequence Diagram




Stage Timings

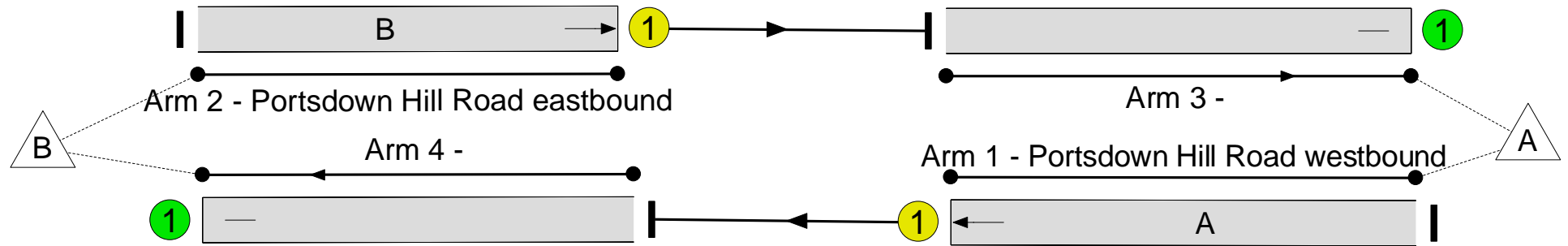
Stage	1	2
Duration	50	56
Change Point	0	67

Signal Timings Diagram



Network Layout Diagram

 Portsdown Hill Road
PRC: 20.0 %
Total Traffic Delay: 14.2 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	75.0%
Portsmouth Hill Road	-	-	N/A	-	-		-	-	-	-	-	-	75.0%
1/1	Portsmouth Hill Road westbound Ahead	U	N/A	N/A	A		1	56	-	579	1900	774	74.8%
2/1	Portsmouth Hill Road eastbound Ahead	U	N/A	N/A	B		1	50	-	519	1900	692	75.0%
3/1		U	N/A	N/A	-		-	-	-	519	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	579	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	11.3	2.9	0.0	14.2	-	-	-	-
Portsmouth Hill Road	-	-	0	0	0	11.3	2.9	0.0	14.2	-	-	-	-
1/1	579	579	-	-	-	5.7	1.5	-	7.2	44.5	19.1	1.5	20.6
2/1	519	519	-	-	-	5.6	1.5	-	7.1	49.1	17.6	1.5	19.1
3/1	519	519	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	579	579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		20.0	Total Delay for Signalled Lanes (pcuHr):		14.24	Cycle Time (s): 140				
			PRC Over All Lanes (%):		20.0	Total Delay Over All Lanes(pcuHr):		14.24					

Full Input Data And Results

Scenario 2: 'EMM - DS1 PM' (FG2: 'EMM - DS1 PM Peak', Plan 1: 'Network Control Plan 1')

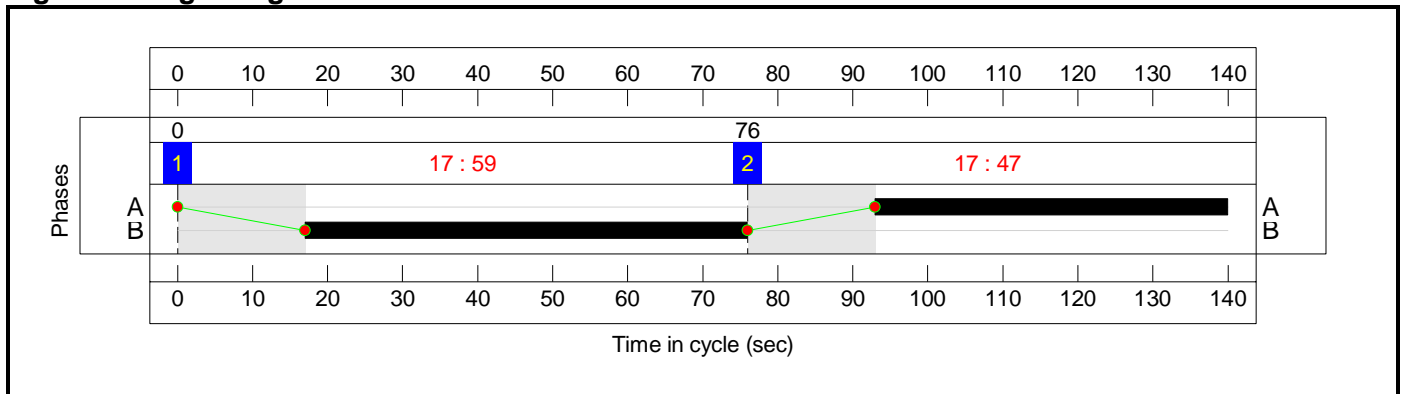
Stage Sequence Diagram



Stage Timings

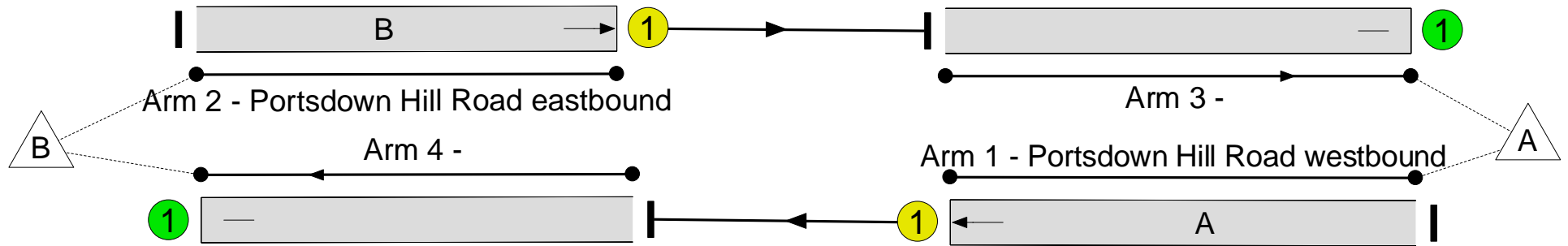
Stage	1	2
Duration	59	47
Change Point	0	76

Signal Timings Diagram



Network Layout Diagram

 **Portstown Hill Road**
PRC: 4.8 %
Total Traffic Delay: 19.2 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	85.8%
Portsmouth Hill Road	-	-	N/A	-	-		-	-	-	-	-	-	85.8%
1/1	Portsmouth Hill Road westbound Ahead	U	N/A	N/A	A		1	47	-	555	1900	651	85.2%
2/1	Portsmouth Hill Road eastbound Ahead	U	N/A	N/A	B		1	59	-	699	1900	814	85.8%
3/1		U	N/A	N/A	-		-	-	-	699	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	555	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	13.6	5.6	0.0	19.2	-	-	-	-
Portsmouth Hill Road	-	-	0	0	0	13.6	5.6	0.0	19.2	-	-	-	-
1/1	555	555	-	-	-	6.6	2.7	-	9.3	60.4	19.9	2.7	22.6
2/1	699	699	-	-	-	7.0	2.9	-	9.9	51.0	24.5	2.9	27.4
3/1	699	699	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	555	555	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		4.8	Total Delay for Signalled Lanes (pcuHr):			19.22	Cycle Time (s): 140			
			PRC Over All Lanes (%):		4.8	Total Delay Over All Lanes(pcuHr):			19.22				

Full Input Data And Results

Scenario 3: 'EML - DS2 AM' (FG3: 'EML - DS2 AM Peak', Plan 1: 'Network Control Plan 1')

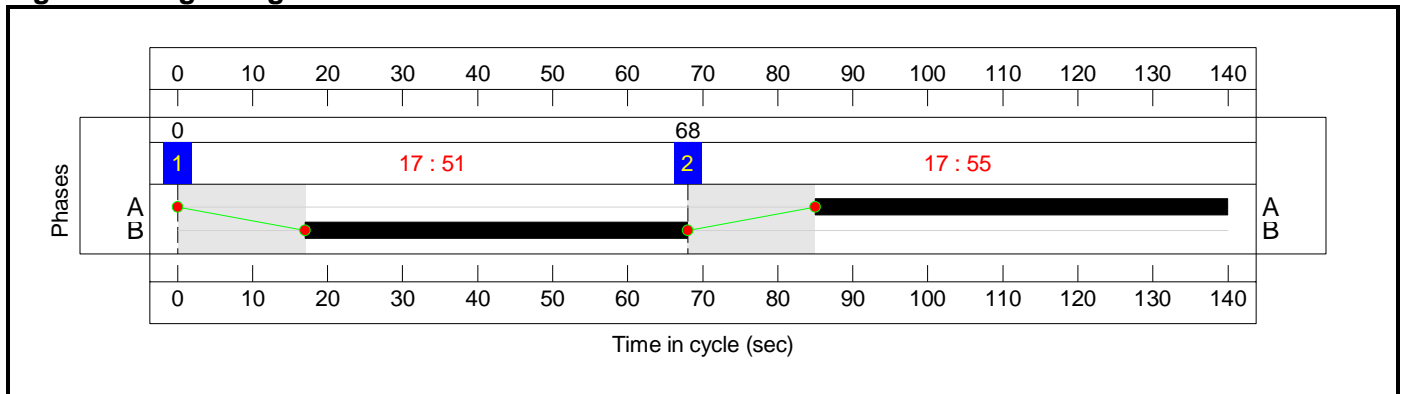
Stage Sequence Diagram




Stage Timings

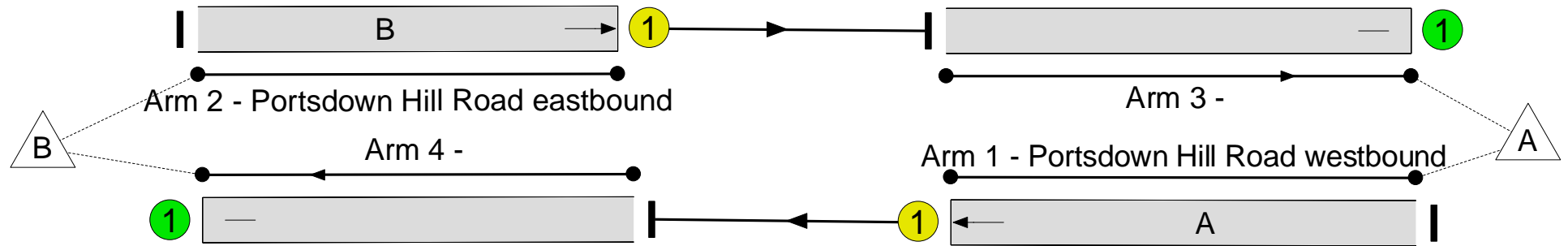
Stage	1	2
Duration	51	55
Change Point	0	68

Signal Timings Diagram



Network Layout Diagram

 **Portstown Hill Road**
PRC: 19.0 %
Total Traffic Delay: 14.4 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	75.7%
Portsmouth Hill Road	-	-	N/A	-	-		-	-	-	-	-	-	75.7%
1/1	Portsmouth Hill Road westbound Ahead	U	N/A	N/A	A		1	55	-	575	1900	760	75.7%
2/1	Portsmouth Hill Road eastbound Ahead	U	N/A	N/A	B		1	51	-	529	1900	706	75.0%
3/1		U	N/A	N/A	-		-	-	-	529	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	575	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	11.4	3.0	0.0	14.4	-	-	-	-
Portsmouth Hill Road	-	-	0	0	0	11.4	3.0	0.0	14.4	-	-	-	-
1/1	575	575	-	-	-	5.8	1.5	-	7.3	45.7	19.2	1.5	20.7
2/1	529	529	-	-	-	5.6	1.5	-	7.1	48.3	17.8	1.5	19.3
3/1	529	529	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	575	575	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		19.0	Total Delay for Signalled Lanes (pcuHr):			14.41	Cycle Time (s): 140			
			PRC Over All Lanes (%):		19.0	Total Delay Over All Lanes(pcuHr):			14.41				

Full Input Data And Results

Scenario 4: 'EML - DS2 PM' (FG4: 'EML - DS2 PM Peak', Plan 1: 'Network Control Plan 1')

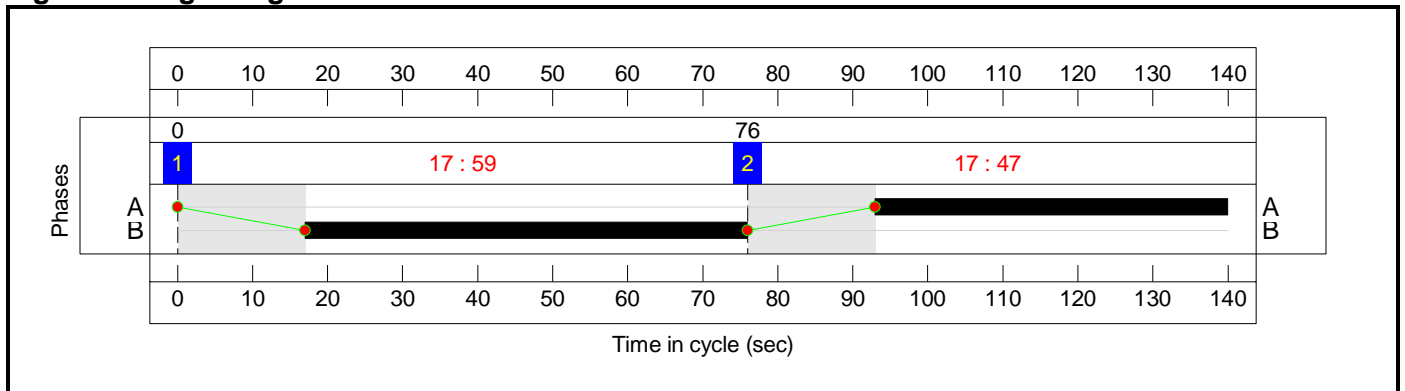
Stage Sequence Diagram




Stage Timings

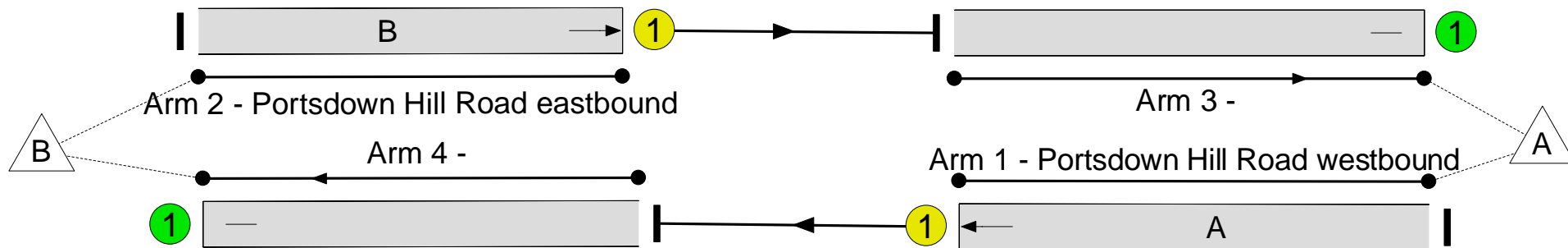
Stage	1	2
Duration	59	47
Change Point	0	76

Signal Timings Diagram



Network Layout Diagram

 **Portstown Hill Road**
PRC: 4.8 %
Total Traffic Delay: 19.3 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	85.8%
Portsmouth Hill Road	-	-	N/A	-	-		-	-	-	-	-	-	85.8%
1/1	Portsmouth Hill Road westbound Ahead	U	N/A	N/A	A		1	47	-	557	1900	651	85.5%
2/1	Portsmouth Hill Road eastbound Ahead	U	N/A	N/A	B		1	59	-	699	1900	814	85.8%
3/1		U	N/A	N/A	-		-	-	-	699	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	557	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	13.6	5.7	0.0	19.3	-	-	-	-
Portsmouth Hill Road	-	-	0	0	0	13.6	5.7	0.0	19.3	-	-	-	-
1/1	557	557	-	-	-	6.6	2.8	-	9.4	60.8	20.1	2.8	22.9
2/1	699	699	-	-	-	7.0	2.9	-	9.9	51.0	24.5	2.9	27.4
3/1	699	699	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	557	557	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		4.8	Total Delay for Signalled Lanes (pcuHr):		19.31	Cycle Time (s): 140				
			PRC Over All Lanes (%):		4.8	Total Delay Over All Lanes(pcuHr):		19.31					

