

Appendix 46 M1 Junction 15 assessment results

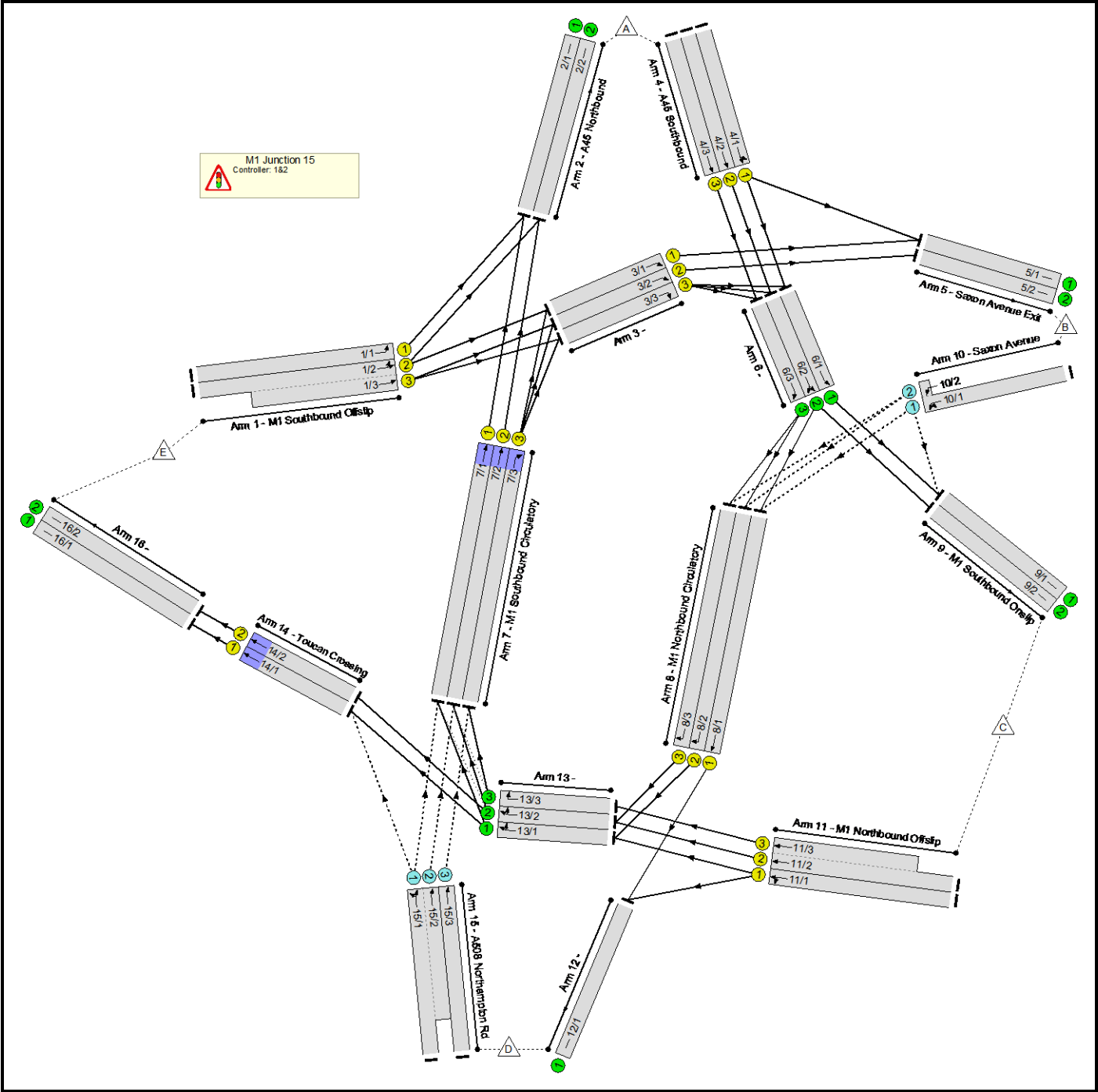
M1 JUNCTION 15
Existing Junction Model
2021
2031

Full Input Data And Results

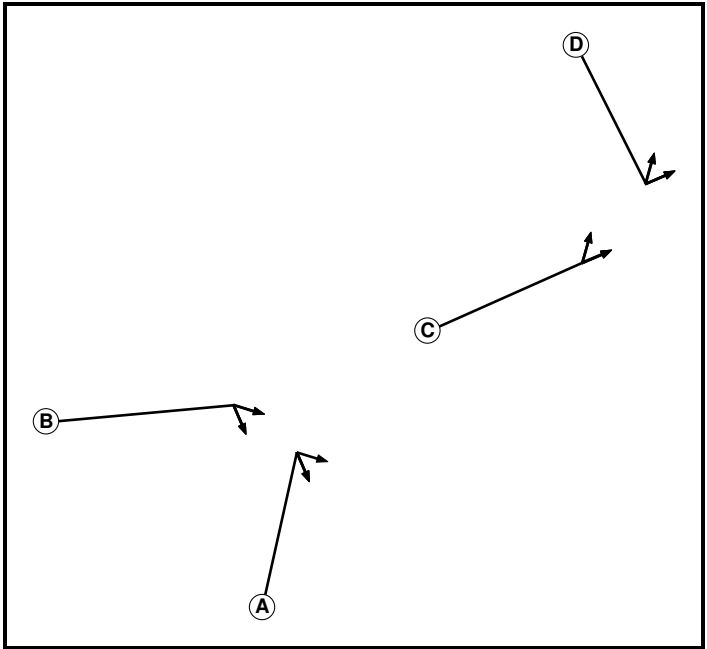
User and Project Details

Project:	Northampton Gateway
Title:	M1 Junction 15 Reference Case Model
Location:	northampton
File name:	180220 M1 Junction 15 Ref Case Model without WL.lsg3x
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Network Layout Diagram



C1 - Eastside Controller
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	Traffic	2		7	7
D	Traffic	2		7	7

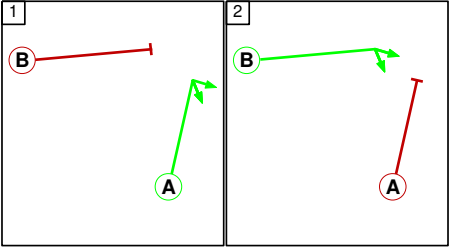
Phase Intergreens Matrix

	Starting Phase				
Terminating Phase		A	B	C	D
	A		7	-	-
	B	7		-	-
	C	-	-		7
	D	-	-	6	

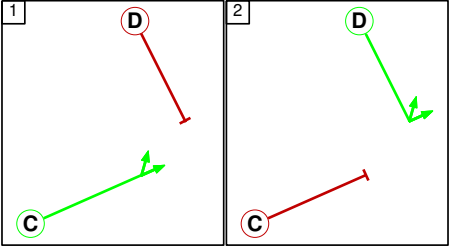
Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D

Stage Diagram



Stage Stream: 2



Prohibited Stage Change

Stage Stream: 1

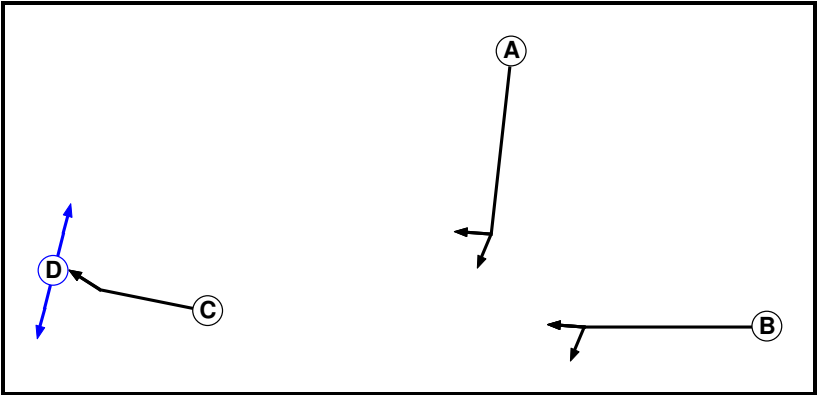
	To Stage		
		1	2
From Stage	1		7
	2	7	

Stage Stream: 2

	To Stage		
		1	2
From Stage	1		7
	2	6	

C2 - Westside Controller

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	Traffic	2		7	7
D	Pedestrian	2		7	7

Phase Intergreens Matrix

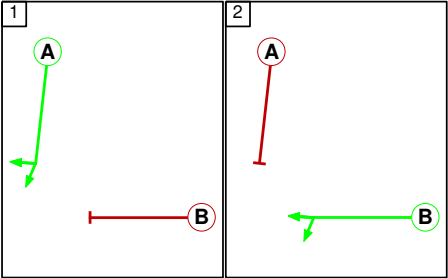
	Starting Phase				
Terminating Phase		A	B	C	D
	A		5	-	-
	B	7		-	-
	C	-	-		5
	D	-	-	7	

Phases in Stage

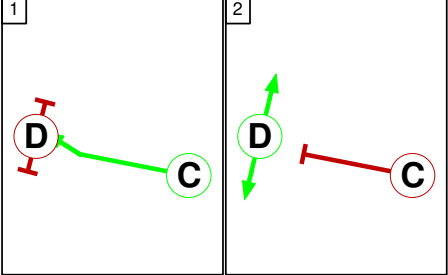
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Prohibited Stage Change

Stage Stream: 1

	To Stage		
From Stage		1	2
	1		5
	2	7	

Stage Stream: 2

	To Stage		
From Stage		1	2
	1		5
	2	7	

Give-Way Lane Input Data

Junction: M1 Junction 15											
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)
10/1 (Saxon Avenue)	8/1 (Left)	838	0	6/1	0.23	All	-	-	-	-	-
				6/2	0.23	All					
				6/3	0.23	All					
	9/1 (Left)	838	0	6/1	0.23	All					
				6/2	0.23	All					
				6/3	0.23	All					
10/2 (Saxon Avenue)	8/2 (Left)	838	0	6/1	0.23	All	-	-	-	-	-
				6/2	0.23	All					
				6/3	0.23	All					
	8/3 (Left)	838	0	6/1	0.23	All					
				6/2	0.23	All					
				6/3	0.23	All					
15/1 (A508 Northampton Rd)	7/1 (Ahead)	800	0	13/1	0.22	All	-	-	-	-	-
				13/2	0.22	All					
				13/3	0.22	All					
	14/1 (Left)	800	0	13/1	0.22	All					
				13/2	0.22	All					
				13/3	0.22	All					
15/2 (A508 Northampton Rd)	7/2 (Ahead)	800	0	13/1	0.22	All	-	-	-	-	-
				13/2	0.22	All					
				13/3	0.22	All					
15/3 (A508 Northampton Rd)	7/3 (Ahead)	800	0	13/1	0.21	All	-	-	-	-	-
				13/2	0.21	All					
				13/3	0.21	All					

Lane Input Data

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 (M1 Southbound Offslip)	U	C	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 2 Left	Inf
1/2 (M1 Southbound Offslip)	U	C	2	3	60.0	Geom	-	3.65	0.00	N	Arm 2 Left	Inf
											Arm 3 Ahead	Inf
1/3 (M1 Southbound Offslip)	U	C	2	3	14.0	Geom	-	3.65	0.00	Y	Arm 3 Ahead	Inf
2/1 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
2/2 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
3/1	U	B	2	3	12.2	User	1900	-	-	-	-	-
3/2	U	B	2	3	12.2	User	1900	-	-	-	-	-
3/3 4/1 (A45 Southbound)	U	B	2	3	12.2	User	1900	-	-	-	Arm 5 Left	Inf
	U	A	2	3	67.8	Geom	-	3.65	0.00	Y	Arm 6 Ahead	Inf
4/2 (A45 Southbound)	U	A	2	3	67.8	Geom	-	3.65	0.00	N	Arm 6 Ahead	Inf
4/3 (A45 Southbound)	U	A	2	3	67.8	Geom	-	3.65	0.00	N	Arm 6 Ahead	Inf
5/1 (Saxon Avenue Exit)	U		2	3	4.3	Inf	-	-	-	-	-	-
5/2 (Saxon Avenue Exit)	U		2	3	4.3	Inf	-	-	-	-	-	-
6/1	U		2	3	10.4	Inf	-	-	-	-	-	-
6/2	U		2	3	10.4	Inf	-	-	-	-	-	-
6/3	U		2	3	10.4	Inf	-	-	-	-	-	-
7/1 (M1 Southbound Circulatory)	U	D	2	3	34.8	User	2000	-	-	-	-	-
7/2 (M1 Southbound Circulatory)	U	D	2	3	34.8	User	2000	-	-	-	-	-
7/3 (M1 Southbound Circulatory)	U	D	2	3	34.8	User	2000	-	-	-	-	-
8/1 (M1 Northbound Circulatory)	U	A	2	3	35.7	User	2000	-	-	-	-	-
8/2 (M1 Northbound Circulatory)	U	A	2	3	35.7	User	2000	-	-	-	-	-
8/3 (M1 Northbound Circulatory)	U	A	2	3	35.7	User	2000	-	-	-	-	-
9/1 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
9/2 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
10/1 (Saxon Avenue)	O		2	3	60.0	Inf	-	-	-	-	-	-
10/2 (Saxon Avenue)	O		2	3	1.0	Inf	-	-	-	-	-	-

11/1 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 12 Left	Inf
											Arm 13 Ahead	Inf
11/2 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm 13 Ahead	Inf
11/3 (M1 Northbound Offslip)	U	B	2	3	18.0	Geom	-	3.65	0.00	N	Arm 13 Ahead	Inf
12/1	U		2	3	4.3	Inf	-	-	-	-	-	-
13/1	U		2	3	10.4	Inf	-	-	-	-	-	-
13/2 13/3 14/1 (Toucan Crossing)	U		2	3	10.4	Inf	-	-	-	-	-	-
	U		2	3	10.4	Inf	-	-	-	-	-	-
	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm 16 Ahead	Inf
14/2 (Toucan Crossing)	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm 16 Ahead	Inf
15/1 (A508 Northampton Rd)	O		2	3	60.0	Inf	-	-	-	-	-	-
15/2 (A508 Northampton Rd)	O		2	3	23.0	Inf	-	-	-	-	-	-
15/3 (A508 Northampton Rd)	O		2	3	60.0	Inf	-	-	-	-	-	-
	U		2	3	60.0	Inf	-	-	-	-	-	-
16/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2031 D1 Ref AM Peak'	08:00	09:00	01:00	
2: '2031 D1 Ref PM Peak'	17:00	18:00	01:00	
3: '2031 G1 Dev AM Peak'	08:00	09:00	01:00	
4: '2031 G1 Dev PM Peak'	17:00	18:00	01:00	
9: '2021 C1 Ref AM Peak'	08:00	09:00	01:00	
10: '2021 C1 Ref PM Peak'	17:00	18:00	01:00	
11: '2021 F1 Dev AM Peak'	08:00	09:00	01:00	
12: '2021 F1 Dev PM Peak'	17:00	18:00	01:00	

Scenario 1: '2031 AM Ref D1' (FG1: '2031 D1 Ref AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	75	36	970	683	1834	3598
	B	26	0	20	2	9	57
	C	1519	124	0	144	0	1787
	D	421	12	84	0	312	829
	E	1404	144	0	483	0	2031
	Tot.	3445	316	1074	1312	2155	8302

Traffic Lane Flows

Lane	Scenario 1:2031 AM Ref D1
1/1	713
1/2 (with short)	1318(In) 714(Out)
1/3 (short)	604
2/1	1768
2/2	1677
3/1	92
3/2	188
3/3	567
4/1	811
4/2	878
4/3	1909
5/1	128
5/2	188
6/1	817
6/2	1403
6/3	1909
7/1	1055
7/2	986
7/3	220
8/1	1168
8/2	941
8/3	1003
9/1	837
9/2	237
10/1 (with short)	57(In) 22(Out)
10/2 (short)	35
11/1	754
11/2 (with short)	1033(In) 809(Out)
11/3 (short)	224
12/1	1312
13/1	1551
13/2	1812
13/3	224
14/1	1178
14/2	977
15/1 (with short)	733(In) 369(Out)
15/2 (short)	364
15/3	96
16/1	1178
16/2	977

Junction: M1 Junction 15								
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 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	96.8 %	2120	2120
				Arm 3 Ahead	Inf	3.2 %		
1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	4.4 %	1980	1980
				Arm 6 Ahead	Inf	95.6 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Saxon Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (Saxon Avenue Lane 2)	Infinite Saturation Flow						Inf	Inf

11/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 12 Left Arm 13 Ahead	Inf Inf	19.1 % 80.9 %	1980	1980
11/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
11/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
13/3	Infinite Saturation Flow						Inf	Inf
14/1 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
14/2 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
15/1 (A508 Northampton Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A508 Northampton Rd Lane 2)	Infinite Saturation Flow						Inf	Inf
15/3 (A508 Northampton Rd Lane 3)	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2031 PM Ref D1' (FG2: '2031 D1 Ref PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	153	88	972	922	1206	3341
	B	26	0	133	14	89	262
	C	1399	33	0	99	0	1531
	D	639	3	35	0	279	956
	E	1256	100	0	266	0	1622
	Tot.	3473	224	1140	1301	1574	7712

Traffic Lane Flows

Lane	Scenario 2: 2031 PM Ref D1
1/1	609
1/2 (with short)	1013(In) 656(Out)
1/3 (short)	357
2/1	1722
2/2	1751
3/1	28
3/2	108
3/3	301
4/1	953
4/2	1029
4/3	1359
5/1	116
5/2	108
6/1	882
6/2	1313
6/3	1359
7/1	1113
7/2	1104
7/3	71
8/1	1202
8/2	724
8/3	750
9/1	1015
9/2	125
10/1 (with short)	262(In) 147(Out)
10/2 (short)	115
11/1	649
11/2 (with short)	882(In) 699(Out)
11/3 (short)	183
12/1	1301
13/1	1274
13/2	1449
13/3	183
14/1	850
14/2	724
15/1 (with short)	918(In) 459(Out)
15/2 (short)	459
15/3	38
16/1	850
16/2	724

Lane Saturation Flows

Junction: M1 Junction 15								
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 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	98.6 %	2120	2120
				Arm 3 Ahead	Inf	1.4 %		
1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	9.2 %	1980	1980
				Arm 6 Ahead	Inf	90.8 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Saxon Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (Saxon Avenue Lane 2)	Infinite Saturation Flow						Inf	Inf
11/1	3.65	0.00	Y	Arm 12 Left	Inf	15.3 %	1980	1980

(M1 Northbound Offslip)				Arm 13 Ahead	Inf	84.7 %		
11/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
11/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
13/3	Infinite Saturation Flow						Inf	Inf
14/1 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
14/2 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
15/1 (A508 Northampton Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A508 Northampton Rd Lane 2)	Infinite Saturation Flow						Inf	Inf
15/3 (A508 Northampton Rd Lane 3)	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2031 AM Dev G1' (FG3: '2031 G1 Dev AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin	A	B	C	D	E	Tot.	
	A	81	38	1000	767	1783	3669
	B	17	0	8	1	6	32
	C	1284	49	0	282	0	1615
	D	510	21	133	0	386	1050
	E	1558	118	0	599	2	2277
	Tot.	3450	226	1141	1649	2177	8643

Traffic Lane Flows

Lane	Scenario 3: 2031 AM Dev G1
Junction: M1 Junction 15	
1/1	782
1/2 (with short)	1495(In) 823(Out)
1/3 (short)	672
2/1	1701
2/2	1749
3/1	81
3/2	107
3/3	734
4/1	871
4/2	934
4/3	1864
5/1	119
5/2	107
6/1	899
6/2	1600
6/3	1866
7/1	919
7/2	973
7/3	203
8/1	1367
8/2	923
8/3	966
9/1	907
9/2	234
10/1 (with short)	32(In) 9(Out)
10/2 (short)	23
11/1	707
11/2 (with short)	908(In) 759(Out)
11/3 (short)	149
12/1	1649
13/1	1348
13/2	1725
13/3	149
14/1	1228
14/2	949
15/1 (with short)	896(In) 449(Out)
15/2 (short)	447
15/3	154
16/1	1228
16/2	949

Lane Saturation Flows

Junction: M1 Junction 15								
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 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	94.3 %	2120	2120
				Arm 3 Ahead	Inf	5.7 %		
1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	4.4 %	1980	1980
				Arm 6 Ahead	Inf	95.6 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Saxon Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (Saxon Avenue Lane 2)	Infinite Saturation Flow						Inf	Inf
11/1	3.65	0.00	Y	Arm 12 Left	Inf	39.9 %	1980	1980

(M1 Northbound Offslip)				Arm 13 Ahead	Inf	60.1 %		
11/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
11/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
13/3	Infinite Saturation Flow						Inf	Inf
14/1 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
14/2 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
15/1 (A508 Northampton Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A508 Northampton Rd Lane 2)	Infinite Saturation Flow						Inf	Inf
15/3 (A508 Northampton Rd Lane 3)	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2031 PM Dev G1' (FG4: '2031 G1 Dev PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin	A	A	B	C	D	E	Tot.
	A	66	87	1007	902	1242	3304
	B	28	0	132	12	90	262
	C	1144	90	0	229	0	1463
	D	1042	32	152	0	497	1723
	E	1207	107	0	351	0	1665
	Tot.	3487	316	1291	1494	1829	8417

Traffic Lane Flows

Lane	Scenario 4: 2031 PM Dev G1
1/1	577
1/2 (with short)	1088(In) 637(Out)
1/3 (short)	451
2/1	1593
2/2	1894
3/1	69
3/2	160
3/3	503
4/1	959
4/2	1037
4/3	1308
5/1	156
5/2	160
6/1	948
6/2	1464
6/3	1308
7/1	1016
7/2	1264
7/3	274
8/1	1265
8/2	671
8/3	755
9/1	1080
9/2	211
10/1 (with short)	262(In) 144(Out)
10/2 (short)	118
11/1	591
11/2 (with short)	872(In) 632(Out)
11/3 (short)	240
12/1	1494
13/1	1033
13/2	1387
13/3	240
14/1	1102
14/2	727
15/1 (with short)	1539(In) 770(Out)
15/2 (short)	769
15/3	184
16/1	1102
16/2	727

Lane Saturation Flows

Junction: M1 Junction 15								
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 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	98.9 %	2120	2120
				Arm 3 Ahead	Inf	1.1 %		
1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	9.1 %	1980	1980
				Arm 6 Ahead	Inf	90.9 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Saxon Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (Saxon Avenue Lane 2)	Infinite Saturation Flow						Inf	Inf
11/1	3.65	0.00	Y	Arm 12 Left	Inf	38.7 %	1980	1980

(M1 Northbound Offslip)				Arm 13 Ahead	Inf	61.3 %		
11/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
11/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
13/3	Infinite Saturation Flow						Inf	Inf
14/1 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
14/2 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
15/1 (A508 Northampton Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A508 Northampton Rd Lane 2)	Infinite Saturation Flow						Inf	Inf
15/3 (A508 Northampton Rd Lane 3)	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf

Scenario 9: '2021 AM Ref C1' (FG9: '2021 C1 Ref AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin	A	B	C	D	E	Tot.	
	A	124	40	1037	708	1828	3737
	B	22	0	38	4	3	67
	C	1474	71	0	83	0	1628
	D	348	24	56	0	302	730
	E	1231	114	0	469	1	1815
	Tot.	3199	249	1131	1264	2134	7977

Traffic Lane Flows

Lane	Scenario 9: 2021 AM Ref C1
1/1	588
1/2 (with short)	1227(In) 647(Out)
1/3 (short)	580
2/1	1601
2/2	1598
3/1	58
3/2	151
3/3	526
4/1	858
4/2	927
4/3	1952
5/1	98
5/2	151
6/1	846
6/2	1424
6/3	1953
7/1	1013
7/2	955
7/3	151
8/1	1181
8/2	966
8/3	1012
9/1	884
9/2	247
10/1 (with short)	67(In) 42(Out)
10/2 (short)	25
11/1	703
11/2 (with short)	925(In) 754(Out)
11/3 (short)	171
12/1	1264
13/1	1586
13/2	1766
13/3	171
14/1	1144
14/2	990
15/1 (with short)	650(In) 372(Out)
15/2 (short)	278
15/3	80
16/1	1144
16/2	990

Junction: M1 Junction 15								
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 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	99.4 %	2120	2120
				Arm 3 Ahead	Inf	0.6 %		
1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	4.7 %	1980	1980
				Arm 6 Ahead	Inf	95.3 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Saxon Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (Saxon Avenue Lane 2)	Infinite Saturation Flow						Inf	Inf

11/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 12 Left Arm 13 Ahead	Inf Inf	11.8 % 88.2 %	1980	1980
11/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
11/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
13/3	Infinite Saturation Flow						Inf	Inf
14/1 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
14/2 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
15/1 (A508 Northampton Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A508 Northampton Rd Lane 2)	Infinite Saturation Flow						Inf	Inf
15/3 (A508 Northampton Rd Lane 3)	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf

Scenario 10: '2021 PM Ref C1' (FG10: '2021 C1 Ref PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	159	73	904	842	1387	3365
	B	21	0	87	5	100	213
	C	1288	29	0	124	0	1441
	D	558	15	49	0	351	973
	E	1049	88	0	322	0	1459
	Tot.	3075	205	1040	1293	1838	7451

Traffic Lane Flows

Lane	Scenario 10: 2021 PM Ref C1
1/1	481
1/2 (with short)	978(In) 568(Out)
1/3 (short)	410
2/1	1512
2/2	1563
3/1	22
3/2	110
3/3	371
4/1	873
4/2	946
4/3	1546
5/1	95
5/2	110
6/1	824
6/2	1293
6/3	1546
7/1	1031
7/2	995
7/3	93
8/1	1169
8/2	798
8/3	869
9/1	911
9/2	129
10/1 (with short)	213(In) 92(Out)
10/2 (short)	121
11/1	607
11/2 (with short)	834(In) 655(Out)
11/3 (short)	179
12/1	1293
13/1	1281
13/2	1524
13/3	179
14/1	990
14/2	848
15/1 (with short)	909(In) 454(Out)
15/2 (short)	455
15/3	64
16/1	990
16/2	848

Junction: M1 Junction 15								
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 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
				Arm 3 Ahead	Inf	0.0 %		
1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	8.4 %	1980	1980
				Arm 6 Ahead	Inf	91.6 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Saxon Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (Saxon Avenue Lane 2)	Infinite Saturation Flow						Inf	Inf

11/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 12 Left Arm 13 Ahead	Inf Inf	20.4 % 79.6 %	1980	1980
11/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
11/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
13/3	Infinite Saturation Flow						Inf	Inf
14/1 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
14/2 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
15/1 (A508 Northampton Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A508 Northampton Rd Lane 2)	Infinite Saturation Flow						Inf	Inf
15/3 (A508 Northampton Rd Lane 3)	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf

Scenario 11: '2021 AM Dev F1' (FG11: '2021 F1 Dev AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	118	39	998	775	1818	3748
	B	20	0	36	4	1	61
	C	1290	60	0	241	0	1591
	D	501	34	119	0	386	1040
	E	1195	94	0	566	0	1855
	Tot.	3124	227	1153	1586	2205	8295

Traffic Lane Flows

Lane	Scenario 11: 2021 AM Dev F1
1/1	595
1/2 (with short)	1260(In) 652(Out)
1/3 (short)	608
2/1	1539
2/2	1585
3/1	100
3/2	88
3/3	685
4/1	874
4/2	938
4/3	1936
5/1	139
5/2	88
6/1	894
6/2	1564
6/3	1936
7/1	944
7/2	985
7/3	213
8/1	1345
8/2	944
8/3	1013
9/1	930
9/2	223
10/1 (with short)	61(In) 40(Out)
10/2 (short)	21
11/1	691
11/2 (with short)	900(In) 740(Out)
11/3 (short)	160
12/1	1586
13/1	1394
13/2	1753
13/3	160
14/1	1212
14/2	993
15/1 (with short)	887(In) 444(Out)
15/2 (short)	443
15/3	153
16/1	1212
16/2	993

Junction: M1 Junction 15								
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 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	92.0 %	2120	2120
				Arm 3 Ahead	Inf	8.0 %		
1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	4.5 %	1980	1980
				Arm 6 Ahead	Inf	95.5 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Saxon Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (Saxon Avenue Lane 2)	Infinite Saturation Flow						Inf	Inf

11/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 12 Left Arm 13 Ahead	Inf Inf	34.9 % 65.1 %	1980	1980
11/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
11/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
13/3	Infinite Saturation Flow						Inf	Inf
14/1 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
14/2 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
15/1 (A508 Northampton Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A508 Northampton Rd Lane 2)	Infinite Saturation Flow						Inf	Inf
15/3 (A508 Northampton Rd Lane 3)	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf

Scenario 12: '2021 PM Dev F1' (FG12: '2021 F1 Dev PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	103	77	946	851	1298	3275
	B	19	0	87	7	100	213
	C	1149	26	0	287	0	1462
	D	971	42	207	0	674	1894
	E	1022	119	0	385	0	1526
	Tot.	3264	264	1240	1530	2072	8370

Traffic Lane Flows

Lane	Scenario 12: 2021 PM Dev F1
1/1	470
1/2 (with short)	1056(In) 566(Out)
1/3 (short)	490
2/1	1521
2/2	1743
3/1	52
3/2	135
3/3	592
4/1	905
4/2	969
4/3	1401
5/1	129
5/2	135
6/1	931
6/2	1458
6/3	1401
7/1	1051
7/2	1191
7/3	275
8/1	1243
8/2	609
8/3	911
9/1	1018
9/2	222
10/1 (with short)	213(In) 94(Out)
10/2 (short)	119
11/1	619
11/2 (with short)	843(In) 667(Out)
11/3 (short)	176
12/1	1530
13/1	941
13/2	1578
13/3	176
14/1	1180
14/2	892
15/1 (with short)	1645(In) 822(Out)
15/2 (short)	823
15/3	249
16/1	1180
16/2	892

Lane Saturation Flows

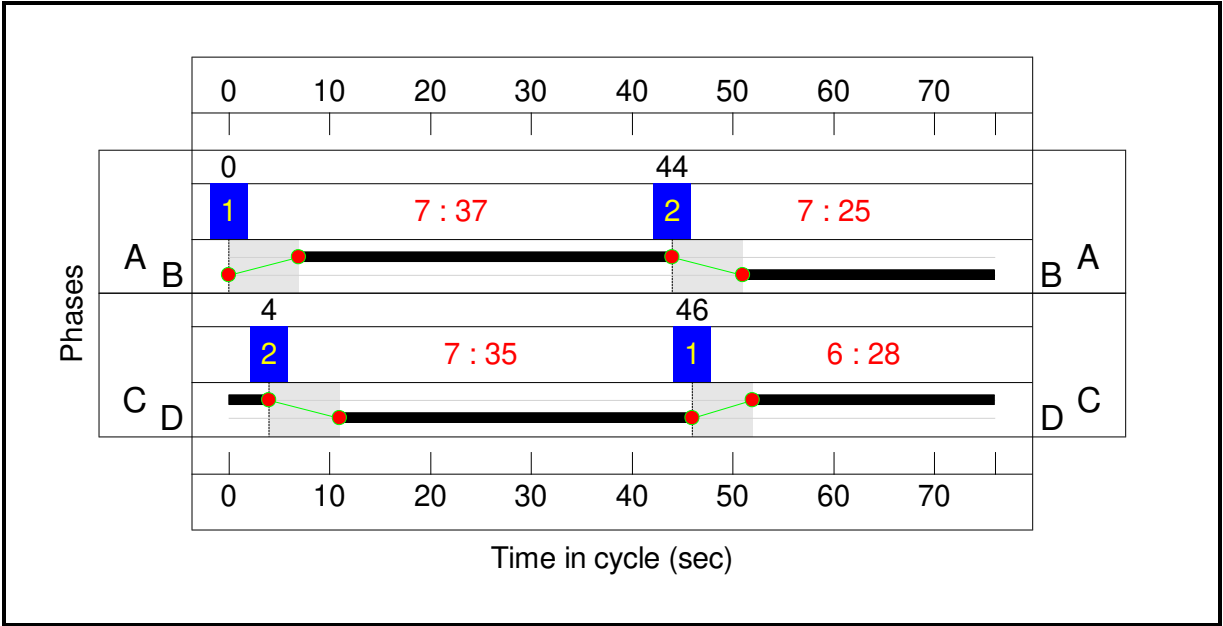
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	97.5 %	2120	2120
				Arm 3 Ahead	Inf	2.5 %		
1/3 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	8.5 %	1980	1980
				Arm 6 Ahead	Inf	91.5 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (Saxon Avenue Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
6/3	Infinite Saturation Flow						Inf	Inf
7/1 (M1 Southbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
7/2 (M1 Southbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
7/3 (M1 Southbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
8/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
8/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
8/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
9/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (Saxon Avenue Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (Saxon Avenue Lane 2)	Infinite Saturation Flow						Inf	Inf
11/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 12 Left	Inf	46.4 %	1980	1980
				Arm 13 Ahead	Inf	53.6 %		
11/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120
11/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 13 Ahead	Inf	100.0 %	2120	2120

12/1	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
13/3	Infinite Saturation Flow						Inf	Inf
14/1 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
14/2 (Toucan Crossing)	3.80	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1995	1995
15/1 (A508 Northampton Rd Lane 1)	Infinite Saturation Flow						Inf	Inf
15/2 (A508 Northampton Rd Lane 2)	Infinite Saturation Flow						Inf	Inf
15/3 (A508 Northampton Rd Lane 3)	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf

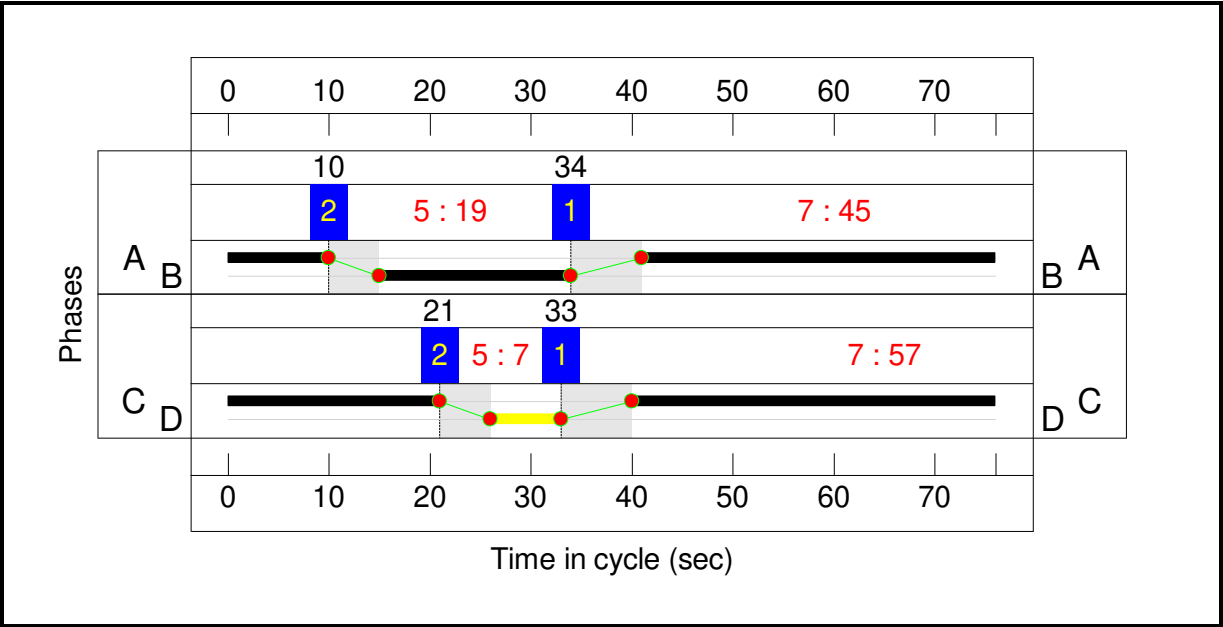
Signal Timings Diagram

Scenario 1: '2031 AM Ref D1' (FG1: '2031 D1 Ref AM Peak', Plan 1: 'Network Control Plan 1')

C1 - Eastside Controller



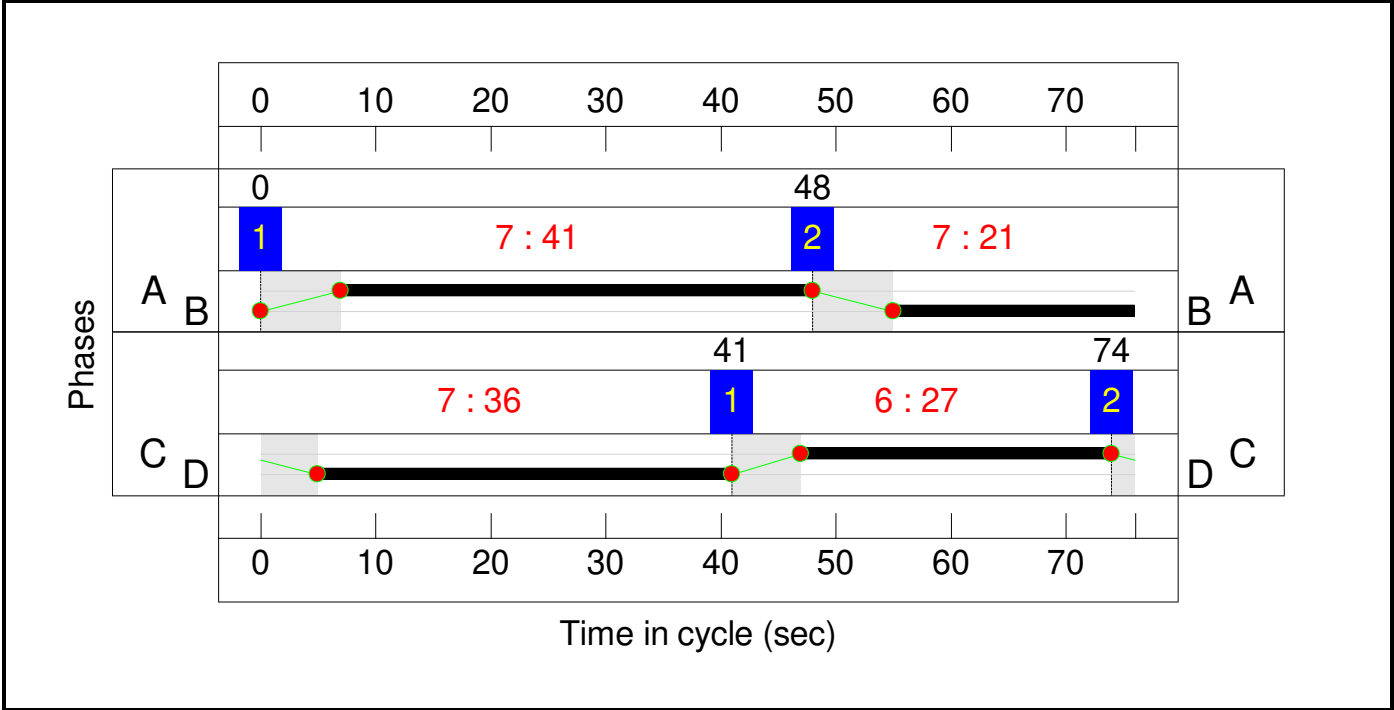
C2 - Westside Controller



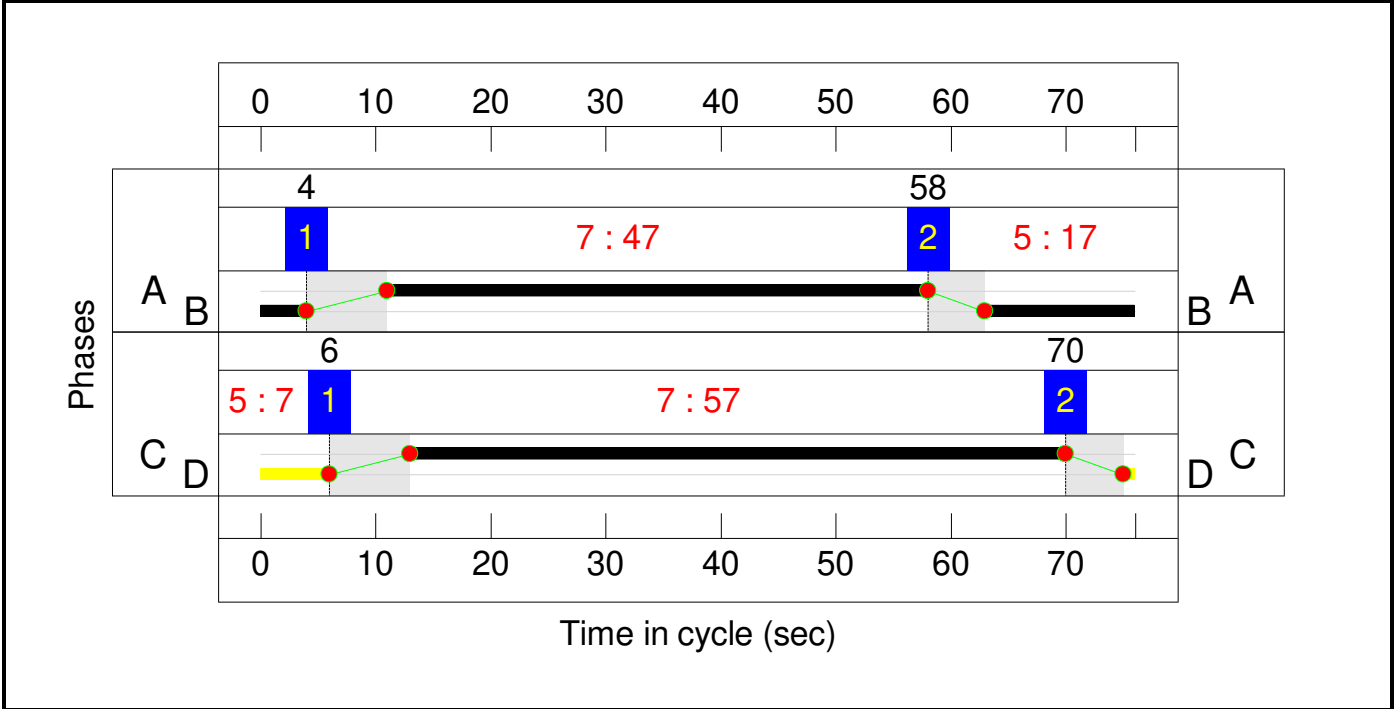
Network Results

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 (%)
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	28	-	713	1980	756	94.4%
1/2+1/3	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	28	-	1318	2120:1980	736+623	97.0 : 97.0%
3/1	Ahead	U	1:1	N/A	C1:B		1	25	-	92	1900	650	11.7%
3/2	Ahead	U	1:1	N/A	C1:B		1	25	-	188	1900	650	26.5%
3/3	Right	U	1:1	N/A	C1:B		1	25	-	567	1900	650	87.2%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	37	-	811	1980	990	81.9%
4/2	A45 Southbound	U	1:1	N/A	C1:A		1	37	-	878	2120	1060	82.8%
4/3	A45 Southbound	U	1:1	N/A	C1:A		1	37	-	1909	2120	1060	180.1%
7/1	M1 Southbound Circulatory	U	1:2	N/A	C1:D		1	35	-	1055	2000	947	77.9%
7/2	M1 Southbound Circulatory	U	1:2	N/A	C1:D		1	35	-	986	2000	947	84.9%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	35	-	220	2000	947	19.9%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	45	-	1168	2000	1211	96.5%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	45	-	941	2000	1211	43.3%
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	45	-	1003	2000	1211	47.2%
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	57	Inf : Inf	181+288	12.1 : 12.1%
11/1	M1 Northbound Offslip Left	U	2:1	N/A	C2:B		1	19	-	754	1980	521	144.7%
11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	19	-	1033	2120:2120	558+154	145.0 : 145.0%
14/1	Toucan Crossing	U	2:2	N/A	C2:C		1	57	-	1178	1995	1523	52.1%
14/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	977	1995	1523	35.8%
15/1+15/2	A508 Northampton Rd Ahead Left	O	N/A	N/A	-		-	-	-	733	Inf : Inf	369+369	100.1 : 98.8%
15/3	A508 Northampton Rd	O	N/A	N/A	-		-	-	-	96	Inf	373	25.7%

Signal Timings Diagram
Scenario 2: '2031 PM Ref D1' (FG2: '2031 D1 Ref PM Peak', Plan 1: 'Network Control Plan 1')
C1 - Eastside Controller



C2 - Westside Controller

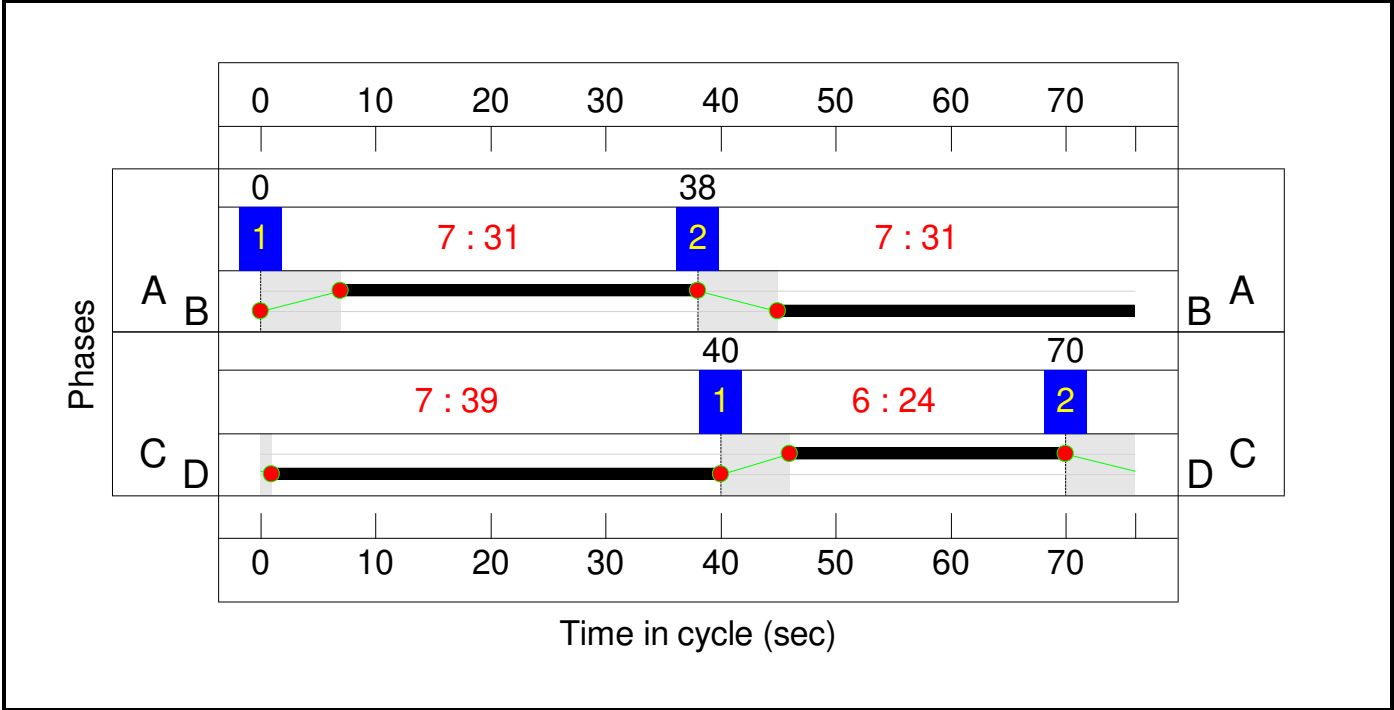


Network Results

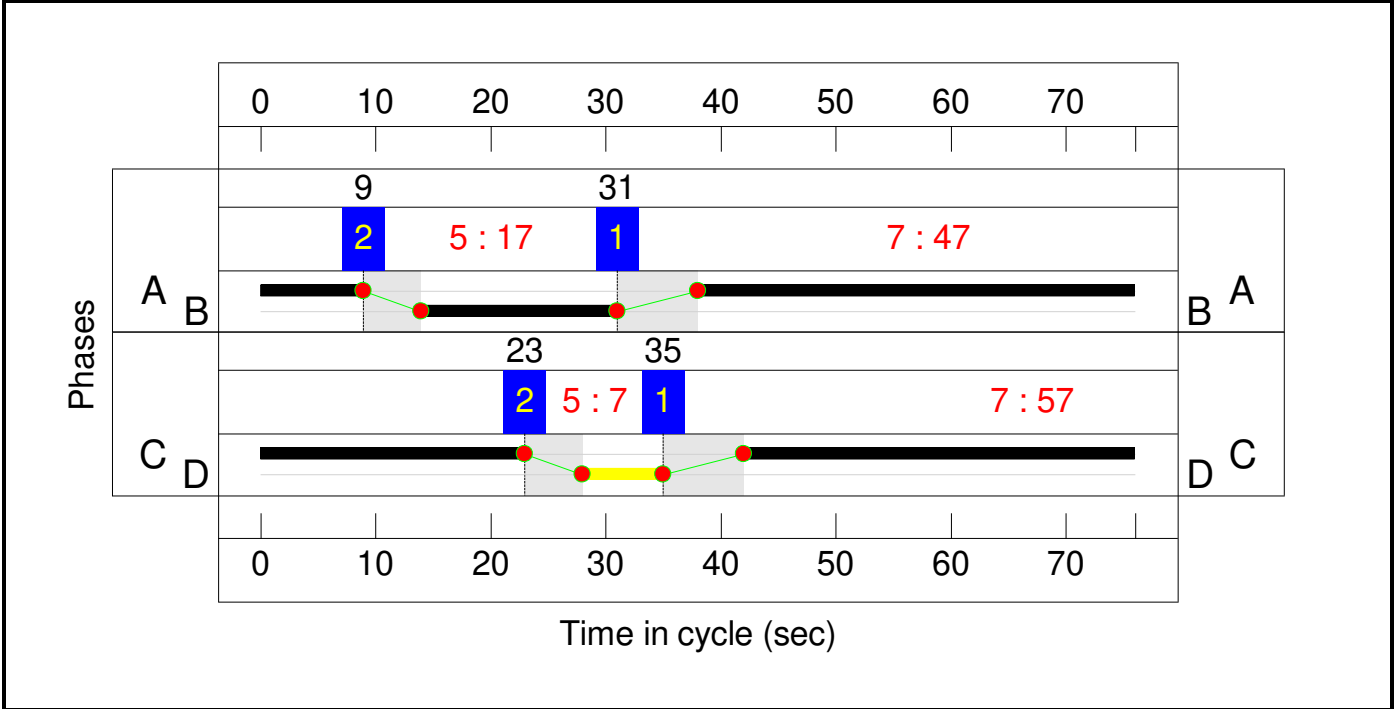
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	27	-	609	1980	729	83.5%
1/2+1/3	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	27	-	1013	2120:1980	734+399	89.4 : 89.4%
3/1	Ahead	U	1:1	N/A	C1:B		1	21	-	28	1900	550	4.6%
3/2	Ahead	U	1:1	N/A	C1:B		1	21	-	108	1900	550	19.1%
3/3	Right	U	1:1	N/A	C1:B		1	21	-	301	1900	550	54.7%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	41	-	953	1980	1094	87.1%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	41	-	1029	2120	1172	87.8%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	41	-	1359	2120	1172	116.0%
7/1	M1 Southbound Circulatory	U	1:2	N/A	C1:D		1	36	-	1113	2000	974	84.7%
7/2	M1 Southbound Circulatory	U	1:2	N/A	C1:D		1	36	-	1104	2000	974	84.0%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	36	-	71	2000	974	6.7%
8/1	M1 Northbound Circulatory	U	2:1	N/A	C2:A		1	47	-	1202	2000	1263	95.2%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	47	-	724	2000	1263	49.9%
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	47	-	750	2000	1263	52.0%
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	262	Inf : Inf	306+239	48.1 : 48.1%
11/1	M1 Northbound Offslip	U	2:1	N/A	C2:B		1	17	-	649	1980	469	138.4%
11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	17	-	882	2120:2120	502+131	139.2 : 139.2%
14/1	Toucan Crossing	U	2:2	N/A	C2:C		1	57	-	850	1995	1523	46.0%
14/2	Toucan Crossing	U	2:2	N/A	C2:C		1	57	-	724	1995	1523	41.4%
15/1+15/2	A508 Northampton Rd Ahead Left	O	N/A	N/A	-		-	-	-	918	Inf : Inf	332+332	138.4 : 138.4%
15/3	A508 Northampton Rd Ahead	O	N/A	N/A	-		-	-	-	38	Inf	343	11.1%

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)
1/1	609	609	-	-	-	3.7	2.4	-	6.1	36.3	11.7	2.4	14.1
1/2+1/3	1013	1013	-	-	-	5.8	4.0	-	9.8 (6.6+3.2)	34.8 (36.0:32.6)	12.6	4.0	16.5
3/1	25	25	-	-	-	0.2	0.0	-	0.2	31.2	0.4	0.0	0.4
3/2	105	105	-	-	-	0.2	0.1	-	0.4	12.2	1.1	0.1	1.2
3/3	301	301	-	-	-	0.7	0.6	-	1.3	15.6	5.5	0.6	6.1
4/1	953	953	-	-	-	3.9	3.2	-	7.1	26.9	17.2	3.2	20.4
4/2	1029	1029	-	-	-	4.2	3.4	-	7.7	26.8	18.9	3.4	22.3
4/3	1359	1172	-	-	-	12.8	97.2	-	110.0	291.4	32.6	97.2	129.9
7/1	825	825	-	-	-	3.0	2.7	-	5.7	25.0	16.5	2.7	19.2
7/2	818	818	-	-	-	2.7	2.6	-	5.3	23.2	15.7	2.6	18.2
7/3	65	65	-	-	-	0.1	0.0	-	0.2	8.6	0.7	0.0	0.8
8/1	1202	1202	-	-	-	1.9	7.8	-	9.7	29.1	21.7	7.8	29.5
8/2	630	630	-	-	-	0.8	0.5	-	1.3	7.4	2.6	0.5	3.1
8/3	656	656	-	-	-	0.9	0.5	-	1.5	8.0	3.1	0.5	3.6
10/1+10/2	262	262	524	0	0	1.0	0.5	-	1.5 (0.8+0.6)	20.3 (20.6:19.8)	2.6	0.5	3.1
11/1	649	469	-	-	-	13.0	91.8	-	104.7	581.0	20.0	91.8	111.8
11/2+11/3	882	654	-	-	-	14.2	126.0	-	140.2 (112.8+27.4)	572.1 (580.7:539.3)	21.2	126.0	147.2
14/1	700	700	-	-	-	0.0	0.4	-	0.4	2.2	0.0	0.4	0.4
14/2	630	630	-	-	-	0.0	0.4	-	0.4	2.0	0.0	0.4	0.4
15/1+15/2	918	663	1327	0	0	14.0	129.1	-	143.1 (71.6+71.6)	561.4 (561.4:561.4)	29.1	129.1	158.2
15/3	38	38	38	0	0	0.0	0.1	-	0.1	8.3	0.2	0.1	0.3
C1 - Eastside Controller C1 - Eastside Controller C2 - Westside Controller C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -28.9 Stream: 2 PRC for Signalled Lanes (%): 0.7 Stream: 1 PRC for Signalled Lanes (%): -54.7 Stream: 2 PRC for Signalled Lanes (%): 95.8 PRC Over All Lanes (%): -54.7 Total Delay for Signalled Lanes (pcuHr): 126.65 Total Delay for Signalled Lanes (pcuHr): 27.09 Total Delay for Signalled Lanes (pcuHr): 257.40 Total Delay for Signalled Lanes (pcuHr): 0.78 Total Delay Over All Lanes(pcuHr): 556.63 Cycle Time (s): 76 Cycle Time (s): 76 Cycle Time (s): 76 Cycle Time (s): 76													

Signal Timings Diagram
Scenario 3: '2031 AM Dev G1' (FG3: '2031 G1 Dev AM Peak', Plan 1: 'Network Control Plan 1')
C1 - Eastside Controller



C2 - Westside Controller

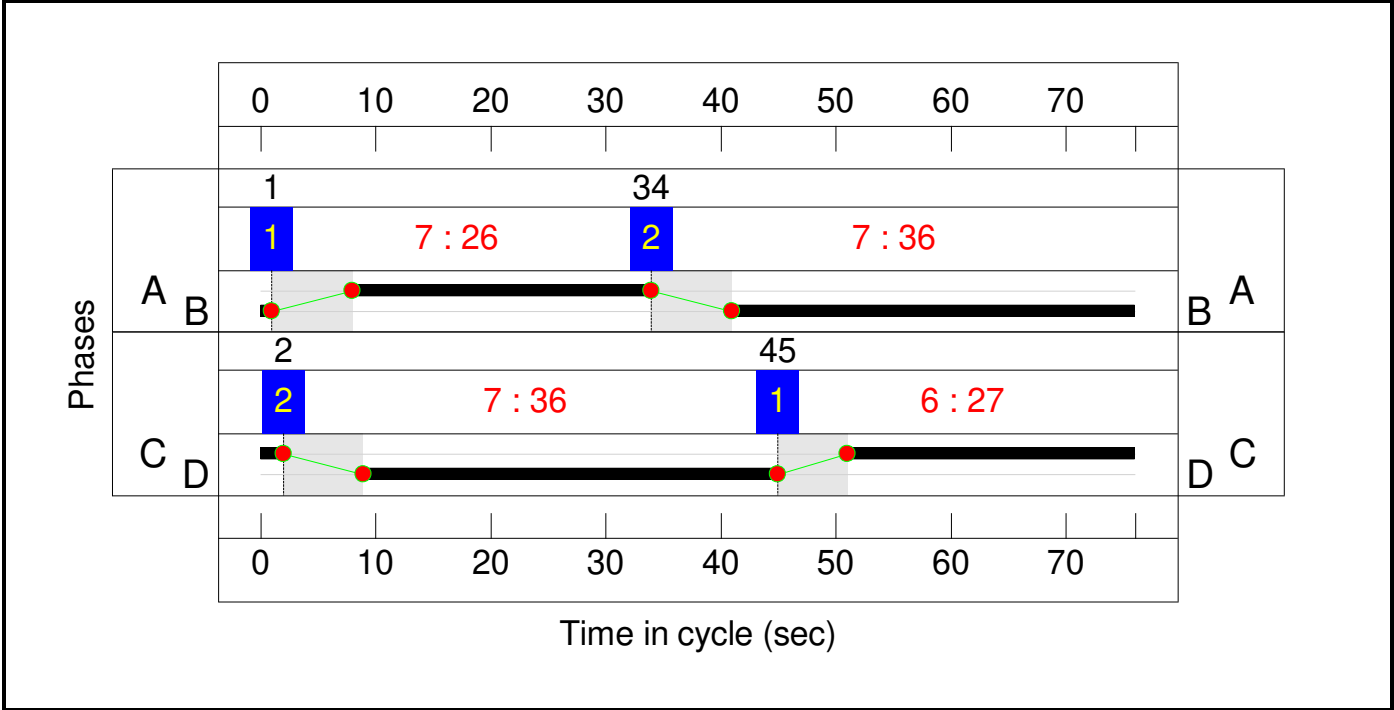


Network Results

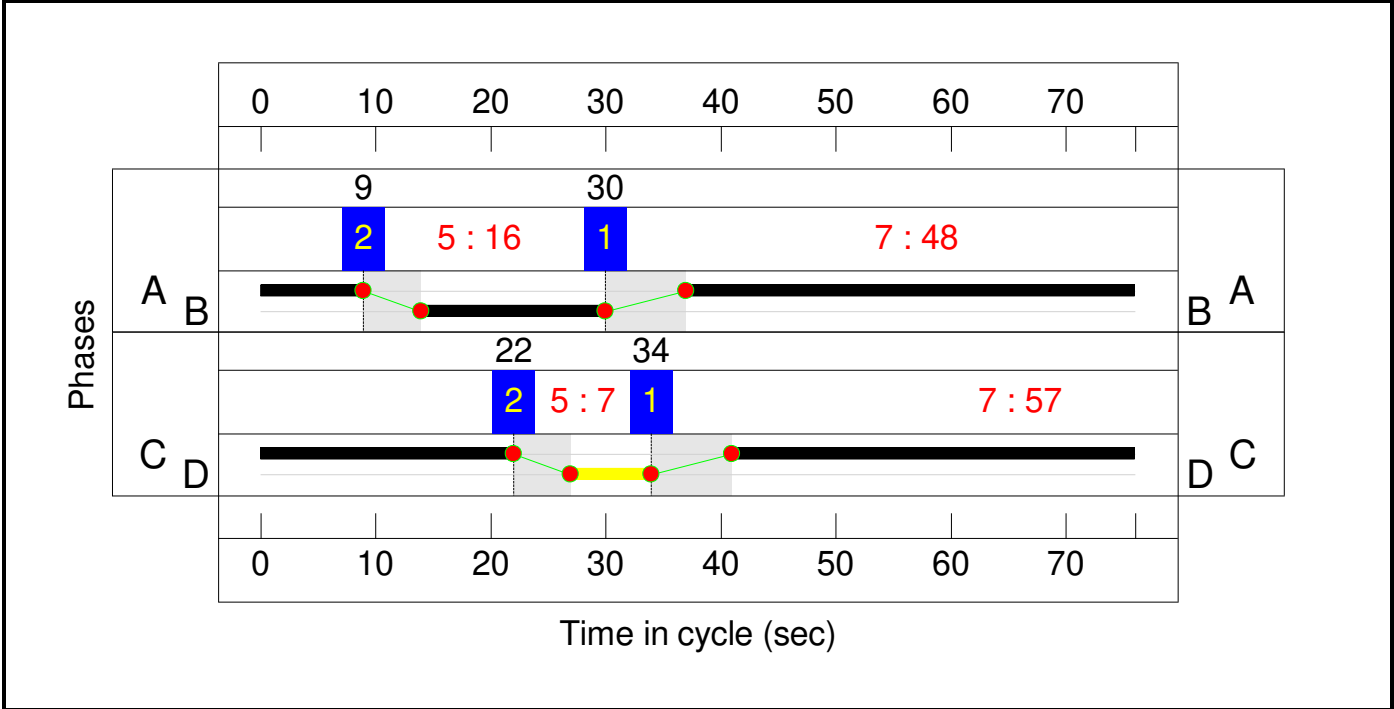
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	24	-	782	1980	651	120.1%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	24	-	1495	2120:1980	678+554	121.4 : 121.4%
3/1	Ahead	U	1:1	N/A	C1:B		1	31	-	81	1900	800	8.4%
3/2	Ahead	U	1:1	N/A	C1:B		1	31	-	107	1900	800	11.2%
3/3	Right	U	1:1	N/A	C1:B		1	31	-	734	1900	800	78.5%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	31	-	871	1980	834	104.5%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	31	-	934	2120	893	104.6%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	31	-	1864	2120	893	208.8%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	39	-	919	2000	1053	58.8%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	39	-	973	2000	1053	75.9%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	39	-	203	2000	1053	18.3%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	47	-	1367	2000	1263	97.2%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	47	-	923	2000	1263	35.1%
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	47	-	966	2000	1263	37.5%
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	32	Inf : Inf	133+341	6.8 : 6.8%
11/1	M1 Northbound Offslip	U	2:1	N/A	C2:B		1	17	-	707	1980	469	150.8%
11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	17	-	908	2120:2120	502+99	151.2 : 151.2%
14/1	Toucan Crossing	U	2:2	N/A	C2:C		1	57	-	1228	1995	1523	51.3%
14/2	Toucan Crossing	U	2:2	N/A	C2:C		1	57	-	949	1995	1523	30.0%
15/1+15/2	A508 Northampton Rd	O	N/A	N/A	-		-	-	-	896	Inf : Inf	438+438	102.6 : 102.1%
15/3	A508 Northampton Rd	O	N/A	N/A	-		-	-	-	154	Inf	444	34.6%

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)
1/1	782	651	-	-	-	11.0	68.2	-	79.2	364.6	21.4	68.2	89.6
1/2+1/3	1495	1232	-	-	-	17.1	134.4	-	151.5 (83.5+68.0)	364.9 (365.3:364.4)	27.0	134.4	161.4
3/1	67	67	-	-	-	0.1	0.0	-	0.2	9.4	0.6	0.0	0.7
3/2	89	89	-	-	-	0.2	0.1	-	0.2	8.7	0.7	0.1	0.7
3/3	628	628	-	-	-	1.2	1.8	-	3.0	17.2	2.8	1.8	4.6
4/1	871	834	-	-	-	6.6	26.8	-	33.4	138.2	19.2	26.8	46.0
4/2	934	893	-	-	-	7.2	28.8	-	36.0	138.6	20.6	28.8	49.4
4/3	1864	893	-	-	-	48.2	486.6	-	534.8	1032.9	62.2	486.6	548.9
7/1	619	619	-	-	-	2.5	0.7	-	3.2	18.5	5.8	0.7	6.5
7/2	799	799	-	-	-	1.8	1.6	-	3.4	15.3	6.8	1.6	8.3
7/3	192	192	-	-	-	0.4	0.1	-	0.5	9.3	1.9	0.1	2.0
8/1	1227	1227	-	-	-	3.8	10.7	-	14.6	42.7	20.0	10.7	30.8
8/2	443	443	-	-	-	0.9	0.3	-	1.2	9.6	9.0	0.3	9.3
8/3	474	474	-	-	-	1.0	0.3	-	1.3	9.9	9.6	0.3	9.9
10/1+10/2	32	32	64	0	0	0.1	0.0	-	0.1 (0.0+0.1)	11.0 (11.0:11.0)	0.2	0.0	0.2
11/1	707	469	-	-	-	14.1	120.5	-	134.6	685.5	20.0	120.5	140.4
11/2+11/3	908	619	-	-	-	16.6	155.1	-	171.8 (144.9+26.9)	681.0 (687.2:649.7)	25.4	155.1	180.5
14/1	781	781	-	-	-	0.1	0.5	-	0.6	2.7	0.6	0.5	1.1
14/2	457	457	-	-	-	0.0	0.2	-	0.2	1.7	0.0	0.2	0.2
15/1+15/2	896	876	1751	0	0	4.3	20.9	-	25.3 (13.2+12.1)	101.5 (105.8:97.2)	25.7	20.9	46.6
15/3	154	154	154	0	0	0.2	0.3	-	0.4	10.1	0.9	0.3	1.2
C1 - Eastside Controller C1 - Eastside Controller C2 - Westside Controller C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -132.0 Stream: 2 PRC for Signalled Lanes (%): -34.9 Stream: 1 PRC for Signalled Lanes (%): -68.0 Stream: 2 PRC for Signalled Lanes (%): 75.5 PRC Over All Lanes (%): -132.0 Total Delay for Signalled Lanes (pcuHr): 607.62 Total Delay for Signalled Lanes (pcuHr): 237.82 Total Delay for Signalled Lanes (pcuHr): 323.42 Total Delay for Signalled Lanes (pcuHr): 0.79 Total Delay Over All Lanes(pcuHr): 1195.45 Cycle Time (s): 76 Cycle Time (s): 76 Cycle Time (s): 76 Cycle Time (s): 76													

Signal Timings Diagram
Scenario 4: '2031 PM Dev G1' (FG4: '2031 G1 Dev PM Peak', Plan 1: 'Network Control Plan 1')
C1 - Eastside Controller



C2 - Westside Controller

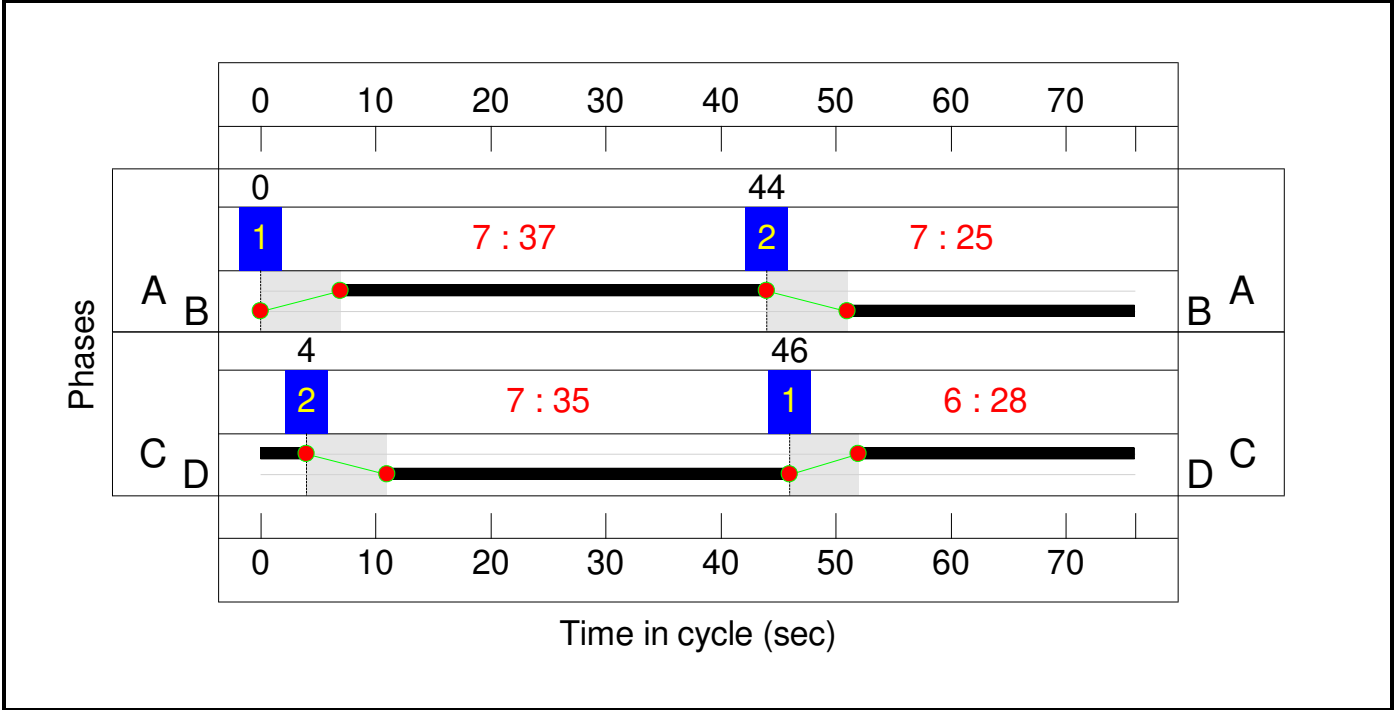


Network Results

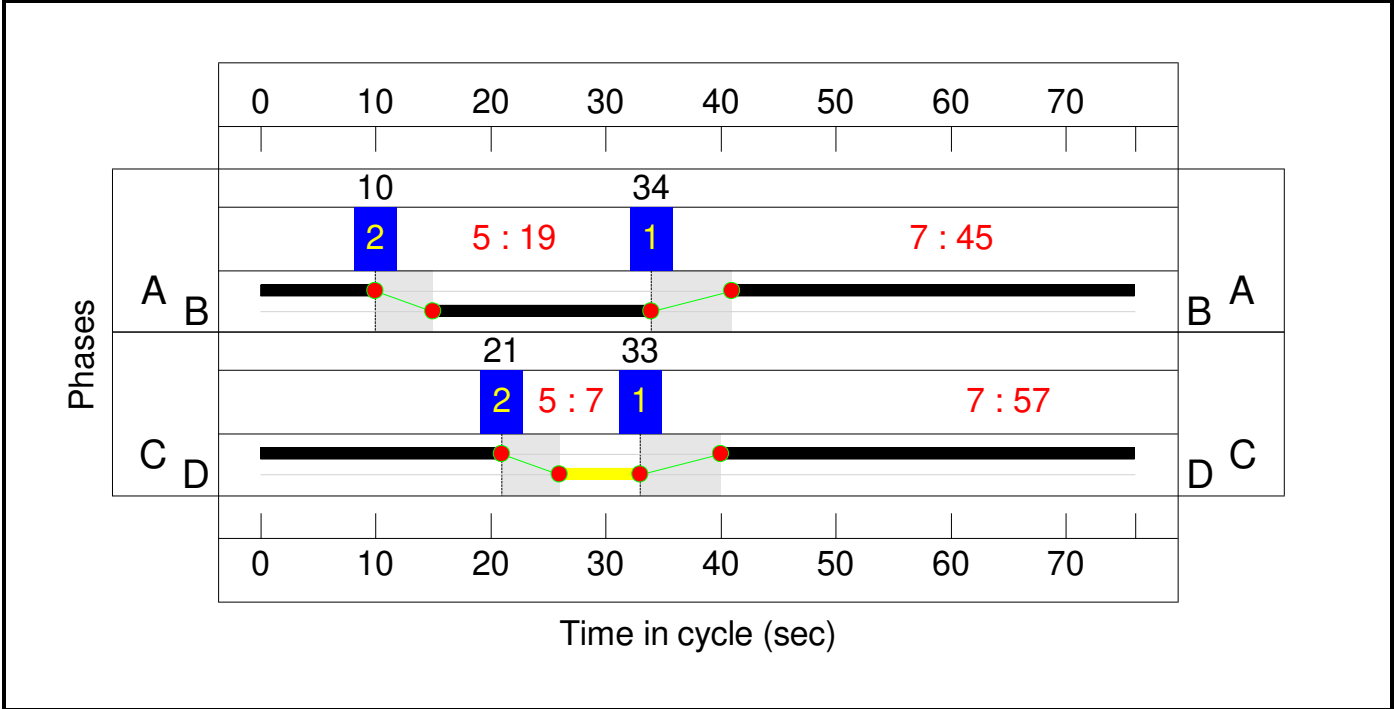
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	27	-	577	1980	729	79.1%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	27	-	1088	2120:1980	727+514	87.7 : 87.7%
3/1	Ahead	U	1:1	N/A	C1:B		1	36	-	69	1900	925	7.5%
3/2	Ahead	U	1:1	N/A	C1:B		1	36	-	160	1900	925	17.3%
3/3	Right	U	1:1	N/A	C1:B		1	36	-	503	1900	925	54.4%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	26	-	959	1980	703	136.3%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	26	-	1037	2120	753	137.7%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	26	-	1308	2120	753	173.7%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	36	-	1016	2000	974	72.9%
7/2	M1 Southbound Circulatory	U	1:2	N/A	C1:D		1	36	-	1264	2000	974	87.8%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	36	-	274	2000	974	28.1%
8/1	M1 Northbound Circulatory	U	2:1	N/A	C2:A		1	48	-	1265	2000	1289	79.0%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	48	-	671	2000	1289	31.2%
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	48	-	755	2000	1289	36.3%
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	262	Inf : Inf	424+348	33.9 : 33.9%
11/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	16	-	591	1980	443	133.4%
11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	16	-	872	2120:2120	474+180	133.3 : 133.3%
14/1	Toucan Crossing	U	2:2	N/A	C2:C		1	57	-	1102	1995	1523	42.8%
14/2	Toucan Crossing	U	2:2	N/A	C2:C		1	57	-	727	1995	1523	28.9%
15/1+15/2	A508 Northampton Rd	O	N/A	N/A	-		-	-	-	1539	Inf : Inf	446+446	172.7 : 172.5%
15/3	A508 Northampton Rd	O	N/A	N/A	-		-	-	-	184	Inf	451	40.8%

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)
1/1	577	577	-	-	-	3.4	1.8	-	5.3	32.9	10.7	1.8	12.6
1/2+1/3	1088	1088	-	-	-	6.3	3.4	-	9.7 (5.8+3.9)	32.1 (32.9:30.9)	12.0	3.4	15.4
3/1	69	69	-	-	-	0.2	0.0	-	0.2	10.4	1.2	0.0	1.3
3/2	160	160	-	-	-	0.2	0.1	-	0.3	7.4	1.3	0.1	1.4
3/3	503	503	-	-	-	1.3	0.6	-	1.9	13.9	3.8	0.6	4.4
4/1	959	703	-	-	-	15.7	129.6	-	145.3	545.5	25.6	129.6	155.3
4/2	1037	753	-	-	-	17.2	143.7	-	161.0	558.8	27.9	143.7	171.6
4/3	1308	753	-	-	-	28.8	278.6	-	307.4	846.0	39.3	278.6	317.9
7/1	710	710	-	-	-	1.6	1.3	-	2.9	14.9	4.6	1.3	5.9
7/2	855	855	-	-	-	1.5	3.4	-	4.9	20.5	7.0	3.4	10.4
7/3	274	274	-	-	-	0.8	0.2	-	1.0	12.8	2.9	0.2	3.1
8/1	1018	1018	-	-	-	3.1	1.9	-	4.9	17.5	15.9	1.9	17.7
8/2	402	402	-	-	-	0.7	0.2	-	1.0	8.5	7.9	0.2	8.1
8/3	469	469	-	-	-	0.9	0.3	-	1.2	9.1	8.6	0.3	8.8
10/1+10/2	262	262	524	0	0	0.4	0.3	-	0.7 (0.4+0.3)	9.2 (9.3:9.1)	1.3	0.3	1.5
11/1	591	443	-	-	-	10.1	76.0	-	86.1	524.5	15.6	76.0	91.6
11/2+11/3	872	714	-	-	-	12.5	110.8	-	123.3 (91.1+32.2)	509.2 (519.0:483.4)	19.5	110.8	130.3
14/1	652	652	-	-	-	0.0	0.4	-	0.4	2.1	0.3	0.4	0.7
14/2	441	441	-	-	-	0.0	0.2	-	0.2	1.7	0.0	0.2	0.2
15/1+15/2	1539	891	1783	0	0	33.7	324.9	-	358.7 (179.6+179.1)	839.1 (839.8:838.3)	43.2	324.9	368.1
15/3	184	184	184	0	0	0.2	0.3	-	0.6	10.9	1.1	0.3	1.4
C1 - Eastside Controller C1 - Eastside Controller C2 - Westside Controller C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -93.0 Stream: 2 PRC for Signalled Lanes (%): 2.5 Stream: 1 PRC for Signalled Lanes (%): -48.3 Stream: 2 PRC for Signalled Lanes (%): 110.1 PRC Over All Lanes (%): -93.0 Total Delay for Signalled Lanes (pcuHr): 616.12 Total Delay for Signalled Lanes (pcuHr): 23.77 Total Delay for Signalled Lanes (pcuHr): 216.52 Total Delay for Signalled Lanes (pcuHr): 0.59 Total Delay Over All Lanes(pcuHr): 1216.93 Cycle Time (s): 76 Cycle Time (s): 76 Cycle Time (s): 76 Cycle Time (s): 76													

Signal Timings Diagram
Scenario 9: '2021 AM Ref C1' (FG9: '2021 C1 Ref AM Peak', Plan 1: 'Network Control Plan 1')
C1 - Eastside Controller



C2 - Westside Controller

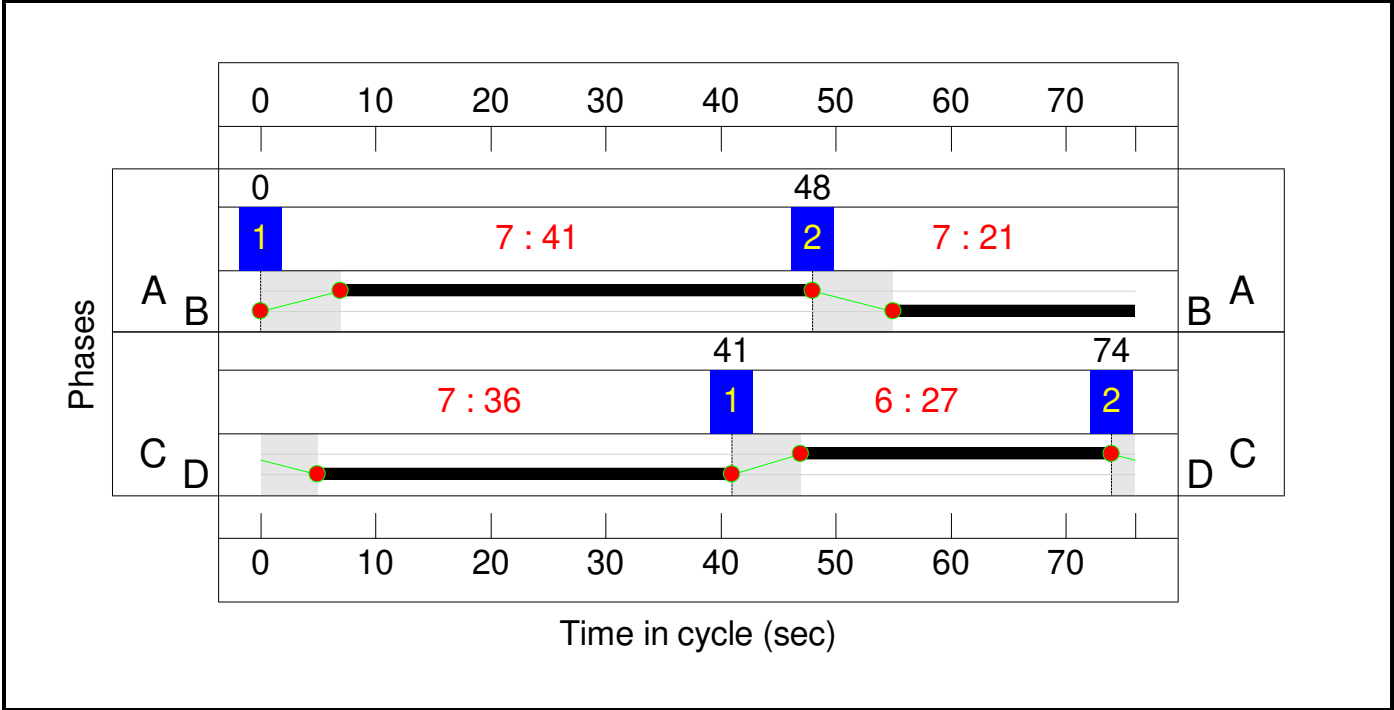


Network Results

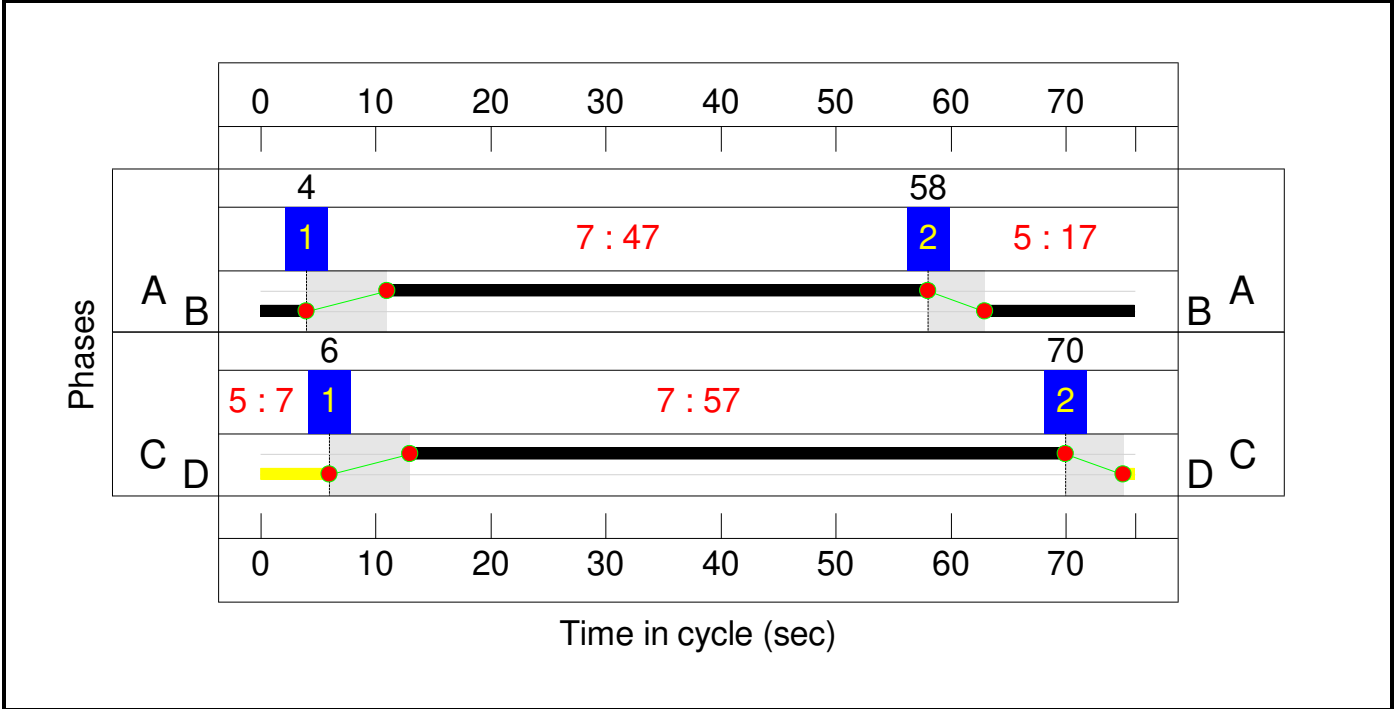
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	28	-	588	1980	756	77.8%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	28	-	1227	2120:1980	734+658	88.1 : 88.1%
3/1	Ahead	U	1:1	N/A	C1:B		1	25	-	58	1900	650	8.2%
3/2	Ahead	U	1:1	N/A	C1:B		1	25	-	151	1900	650	22.6%
3/3	Right	U	1:1	N/A	C1:B		1	25	-	526	1900	650	80.9%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	37	-	858	1980	990	86.7%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	37	-	927	2120	1060	87.5%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	37	-	1952	2120	1060	184.2%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	35	-	1013	2000	947	78.7%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	35	-	955	2000	947	84.0%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	35	-	151	2000	947	15.0%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	45	-	1181	2000	1211	97.6%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	45	-	966	2000	1211	43.4%
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	45	-	1012	2000	1211	46.3%
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	67	Inf : Inf	298+177	14.1 : 14.1%
11/1	M1 Northbound Offslip	U	2:1	N/A	C2:B		1	19	-	703	1980	521	134.9%
11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	19	-	925	2120:2120	558+127	135.2 : 135.2%
14/1	Toucan Crossing	U	2:2	N/A	C2:C		1	57	-	1144	1995	1523	49.8%
14/2	Toucan Crossing	U	2:2	N/A	C2:C		1	57	-	990	1995	1523	35.4%
15/1+15/2	A508 Northampton Rd	O	N/A	N/A	-		-	-	-	650	Inf : Inf	371+371	100.2 : 74.9%
15/3	A508 Northampton Rd	O	N/A	N/A	-		-	-	-	80	Inf	371	21.5%

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)
1/1	588	588	-	-	-	3.4	1.7	-	5.1	31.2	10.8	1.7	12.5
1/2+1/3	1227	1227	-	-	-	7.1	3.6	-	10.6 (5.6+5.0)	31.2 (31.3:31.0)	12.0	3.6	15.6
3/1	53	53	-	-	-	0.3	0.0	-	0.3	22.3	1.1	0.0	1.1
3/2	147	147	-	-	-	0.3	0.1	-	0.5	12.1	1.0	0.1	1.2
3/3	526	526	-	-	-	1.3	2.1	-	3.3	22.6	2.4	2.1	4.4
4/1	858	858	-	-	-	4.0	3.1	-	7.1	29.8	16.0	3.1	19.1
4/2	927	927	-	-	-	4.3	3.3	-	7.7	29.8	17.3	3.3	20.6
4/3	1952	1060	-	-	-	44.3	447.1	-	491.3	906.2	63.1	447.1	510.2
7/1	746	746	-	-	-	2.8	1.8	-	4.7	22.5	5.9	1.8	7.7
7/2	796	796	-	-	-	1.9	2.5	-	4.5	20.3	6.8	2.5	9.4
7/3	142	142	-	-	-	0.3	0.1	-	0.4	10.2	1.2	0.1	1.3
8/1	1181	1181	-	-	-	5.2	11.3	-	16.5	50.3	22.3	11.3	33.6
8/2	525	525	-	-	-	1.3	0.4	-	1.7	11.6	10.8	0.4	11.2
8/3	561	561	-	-	-	1.4	0.4	-	1.9	11.9	11.4	0.4	11.8
10/1+10/2	67	67	134	0	0	0.2	0.1	-	0.3 (0.2+0.1)	14.3 (14.4:14.2)	0.5	0.1	0.5
11/1	703	521	-	-	-	11.8	92.9	-	104.7	536.0	18.7	92.9	111.5
11/2+11/3	925	707	-	-	-	14.0	122.2	-	136.2 (112.3+23.9)	530.2 (536.2:503.7)	23.9	122.2	146.0
14/1	759	759	-	-	-	0.1	0.5	-	0.5	2.6	0.2	0.5	0.7
14/2	539	539	-	-	-	0.0	0.3	-	0.3	1.9	0.0	0.3	0.3
15/1+15/2	650	649	1298	0	0	2.7	3.7	-	6.4 (4.1+2.3)	35.6 (39.7:30.1)	21.2	3.7	24.9
15/3	80	80	80	0	0	0.1	0.1	-	0.3	12.1	0.5	0.1	0.6
C1 - Eastside Controller C1 - Eastside Controller C2 - Westside Controller C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -104.6 Stream: 2 PRC for Signalled Lanes (%): 2.1 Stream: 1 PRC for Signalled Lanes (%): -50.2 Stream: 2 PRC for Signalled Lanes (%): 80.5 PRC Over All Lanes (%): -104.6 Total Delay for Signalled Lanes (pcuHr): 510.25 Total Delay for Signalled Lanes (pcuHr): 25.27 Total Delay for Signalled Lanes (pcuHr): 260.94 Total Delay for Signalled Lanes (pcuHr): 0.82 Total Delay Over All Lanes(pcuHr): 804.25 Cycle Time (s): 76 Cycle Time (s): 76 Cycle Time (s): 76 Cycle Time (s): 76													

Signal Timings Diagram
Scenario 10: '2021 PM Ref C1' (FG10: '2021 C1 Ref PM Peak', Plan 1: 'Network Control Plan 1')
C1 - Eastside Controller



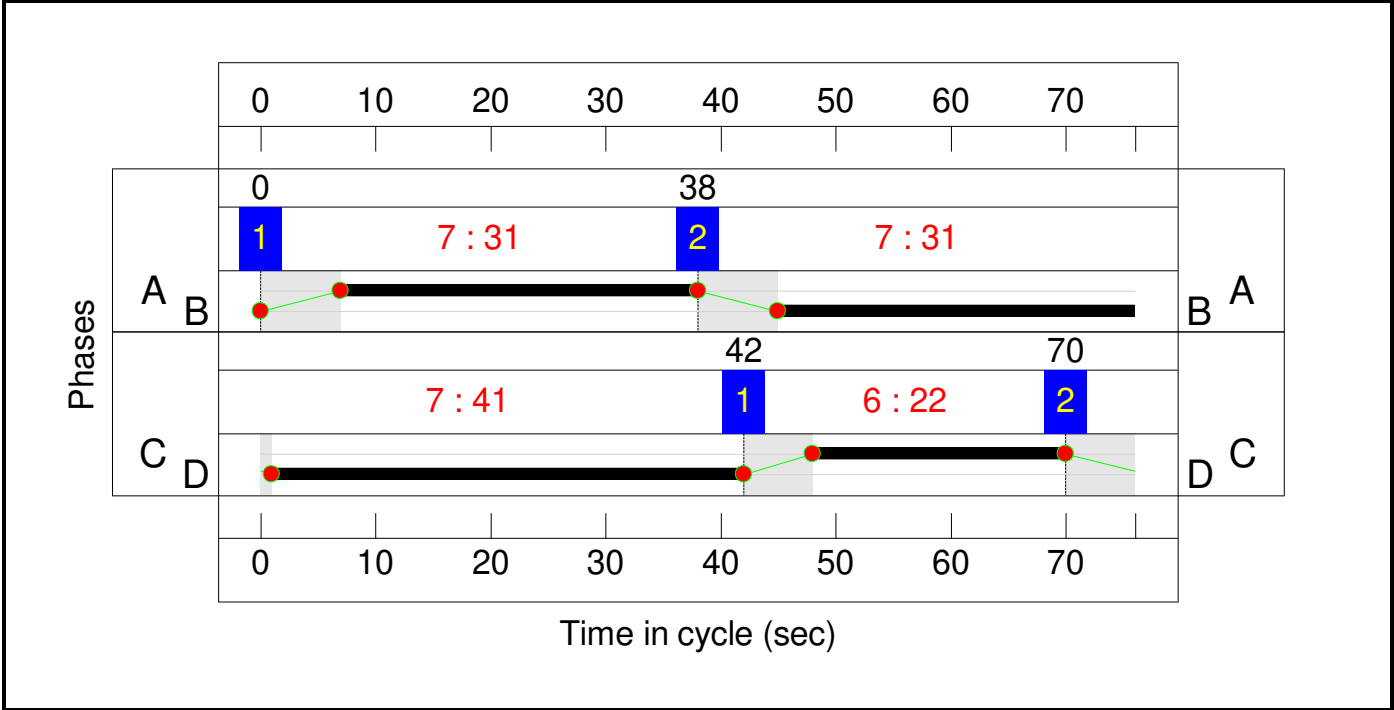
C2 - Westside Controller



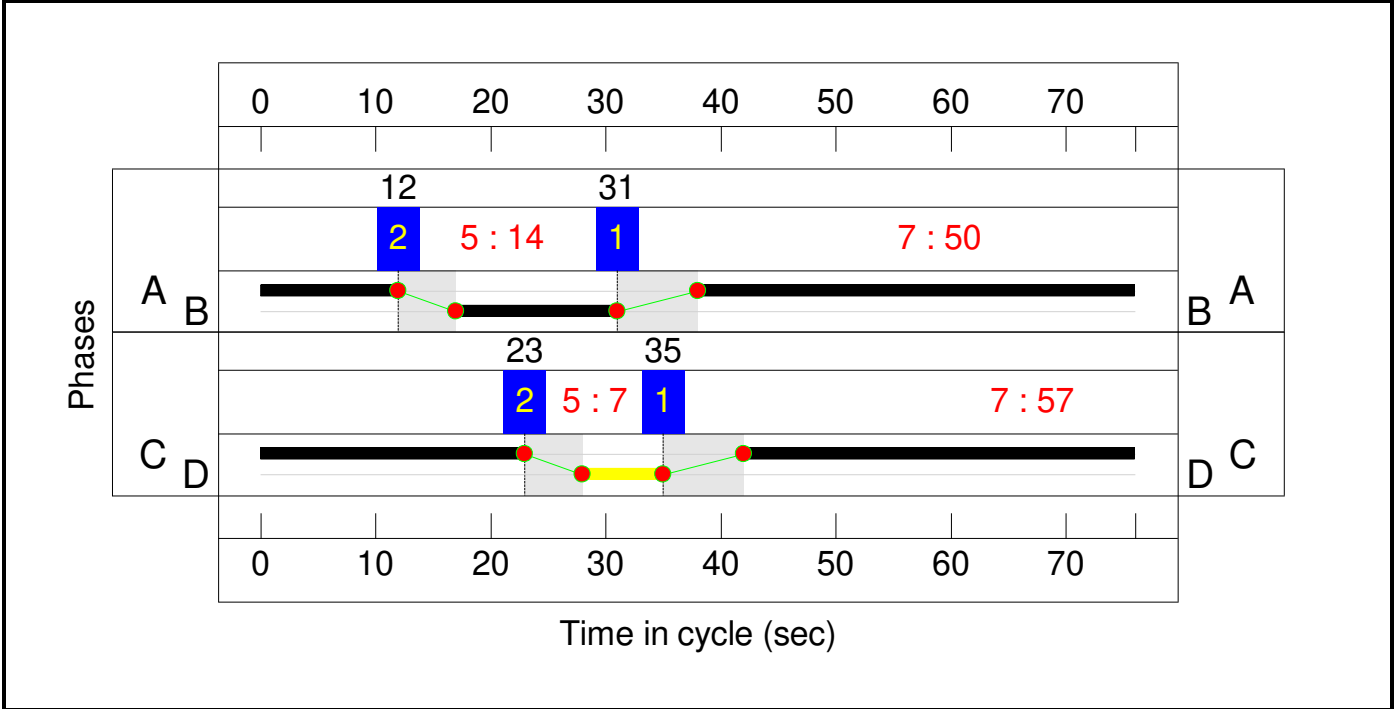
Network Results

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 (%)
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	27	-	481	1980	729	65.9%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	27	-	978	2120:1980	726+524	78.2 : 78.2%
3/1	Ahead	U	1:1	N/A	C1:B		1	21	-	22	1900	550	4.0%
3/2	Ahead	U	1:1	N/A	C1:B		1	21	-	110	1900	550	20.0%
3/3	Right	U	1:1	N/A	C1:B		1	21	-	371	1900	550	67.5%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	41	-	873	1980	1094	79.8%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	41	-	946	2120	1172	80.7%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	41	-	1546	2120	1172	132.0%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	36	-	1031	2000	974	81.0%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	36	-	995	2000	974	80.6%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	36	-	93	2000	974	9.6%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	47	-	1169	2000	1263	92.5%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	47	-	798	2000	1263	49.2%
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	47	-	869	2000	1263	53.2%
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	213	Inf : Inf	220+289	41.8 : 41.8%
11/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	17	-	607	1980	469	129.4%
11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	17	-	834	2120:2120	502+137	130.5 : 130.5%
14/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	990	1995	1523	49.7%
14/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	848	1995	1523	42.7%
15/1+15/2	A508 Northampton Rd Ahead Left	O	N/A	N/A	-		-	-	-	909	Inf : Inf	331+331	137.0 : 137.3%
15/3	A508 Northampton Rd Ahead	O	N/A	N/A	-		-	-	-	64	Inf	342	18.7%

Signal Timings Diagram
Scenario 11: '2021 AM Dev F1' (FG11: '2021 F1 Dev AM Peak', Plan 1: 'Network Control Plan 1')
C1 - Eastside Controller



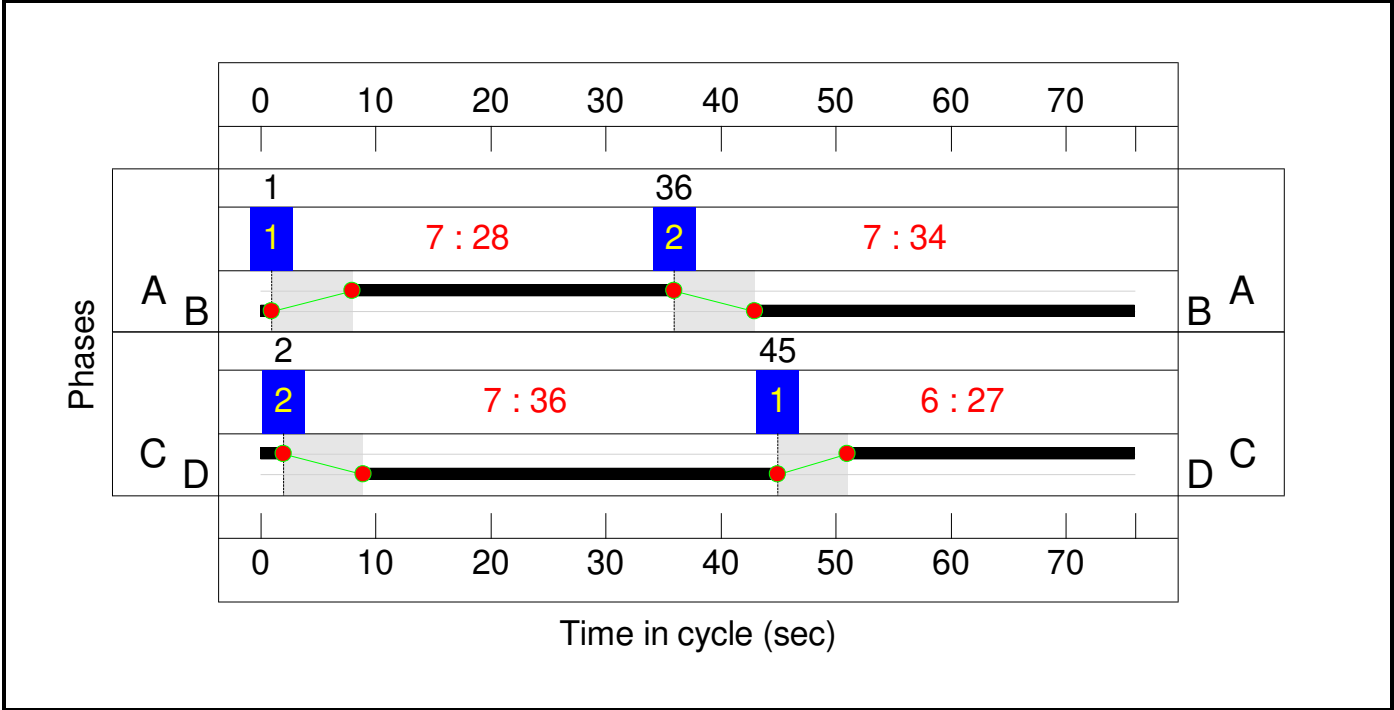
C2 - Westside Controller



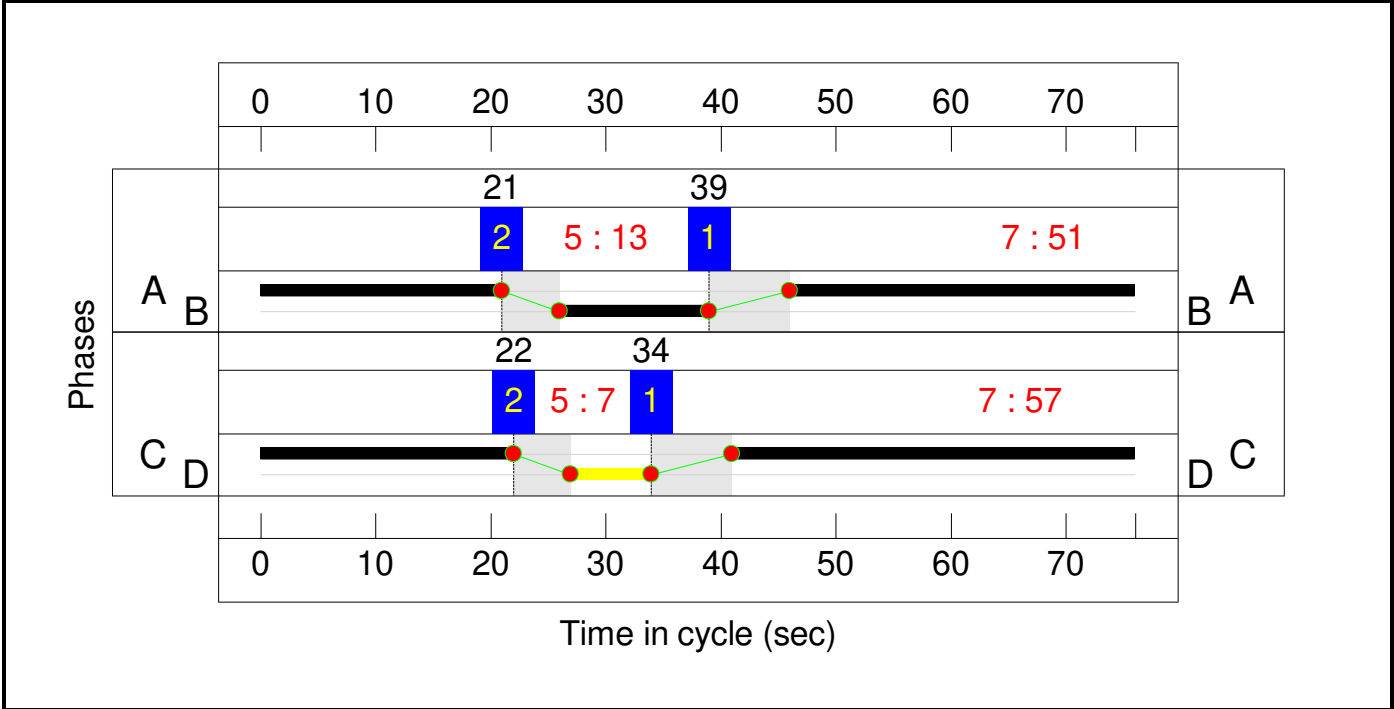
Network Results

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 (%)
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	22	-	595	1980	599	99.3%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	22	-	1260	2120:1980	642+599	101.6 : 101.5%
3/1	Ahead	U	1:1	N/A	C1:B		1	31	-	100	1900	800	11.3%
3/2	Ahead	U	1:1	N/A	C1:B		1	31	-	88	1900	800	9.9%
3/3	Right	U	1:1	N/A	C1:B		1	31	-	685	1900	800	84.6%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	31	-	874	1980	834	104.8%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	31	-	938	2120	893	105.1%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	31	-	1936	2120	893	216.9%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	41	-	944	2000	1105	50.3%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	41	-	985	2000	1105	69.2%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	41	-	213	2000	1105	17.7%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	50	-	1345	2000	1342	96.8%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	50	-	944	2000	1342	32.4%
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	50	-	1013	2000	1342	35.6%
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	61	Inf : Inf	329+173	12.1 : 12.1%
11/1	M1 Northbound Offslip	U	2:1	N/A	C2:B		1	14	-	691	1980	391	176.8%
11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	14	-	900	2120:2120	418+90	176.9 : 176.9%
14/1	Toucan Crossing	U	2:2	N/A	C2:C		1	57	-	1212	1995	1523	50.4%
14/2	Toucan Crossing	U	2:2	N/A	C2:C		1	57	-	993	1995	1523	30.1%
15/1+15/2	A508 Northampton Rd	O	N/A	N/A	-		-	-	-	887	Inf : Inf	464+464	95.6 : 95.4%
15/3	A508 Northampton Rd	O	N/A	N/A	-		-	-	-	153	Inf	470	32.5%

Signal Timings Diagram
Scenario 12: '2021 PM Dev F1' (FG12: '2021 F1 Dev PM Peak', Plan 1: 'Network Control Plan 1')
C1 - Eastside Controller



C2 - Westside Controller



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 (%)
1/1	M1 Southbound Offslip Left	U	1:2	N/A	C1:C		1	27	-	470	1980	729	64.4%
1/2+1/3	M1 Southbound Offslip Left Ahead	U	1:2	N/A	C1:C		1	27	-	1056	2120:1980	721+624	78.5 : 78.5%
3/1	Ahead	U	1:1	N/A	C1:B		1	34	-	52	1900	875	5.7%
3/2	Ahead	U	1:1	N/A	C1:B		1	34	-	135	1900	875	15.2%
3/3	Right	U	1:1	N/A	C1:B		1	34	-	592	1900	875	67.7%
4/1	A45 Southbound Left Ahead	U	1:1	N/A	C1:A		1	28	-	905	1980	756	119.8%
4/2	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	28	-	969	2120	809	119.8%
4/3	A45 Southbound Ahead	U	1:1	N/A	C1:A		1	28	-	1401	2120	809	173.2%
7/1	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	36	-	1051	2000	974	63.5%
7/2	M1 Southbound Circulatory Ahead	U	1:2	N/A	C1:D		1	36	-	1191	2000	974	75.3%
7/3	M1 Southbound Circulatory Right	U	1:2	N/A	C1:D		1	36	-	275	2000	974	27.9%
8/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	51	-	1243	2000	1368	80.6%
8/2	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	51	-	609	2000	1368	27.5%
8/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	51	-	911	2000	1368	40.3%
10/1+10/2	Saxon Avenue Left Left2	O	N/A	N/A	-		-	-	-	213	Inf : Inf	302+382	31.2 : 31.2%
11/1	M1 Northbound Offslip	U	2:1	N/A	C2:B		1	13	-	619	1980	365	169.7%
11/2+11/3	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	13	-	843	2120:2120	391+103	170.8 : 170.8%
14/1	Toucan Crossing	U	2:2	N/A	C2:C		1	57	-	1180	1995	1523	46.3%
14/2	Toucan Crossing	U	2:2	N/A	C2:C		1	57	-	892	1995	1523	35.0%
15/1+15/2	A508 Northampton Rd	O	N/A	N/A	-		-	-	-	1645	Inf : Inf	473+473	173.9 : 174.1%
15/3	A508 Northampton Rd	O	N/A	N/A	-		-	-	-	249	Inf	478	52.0%

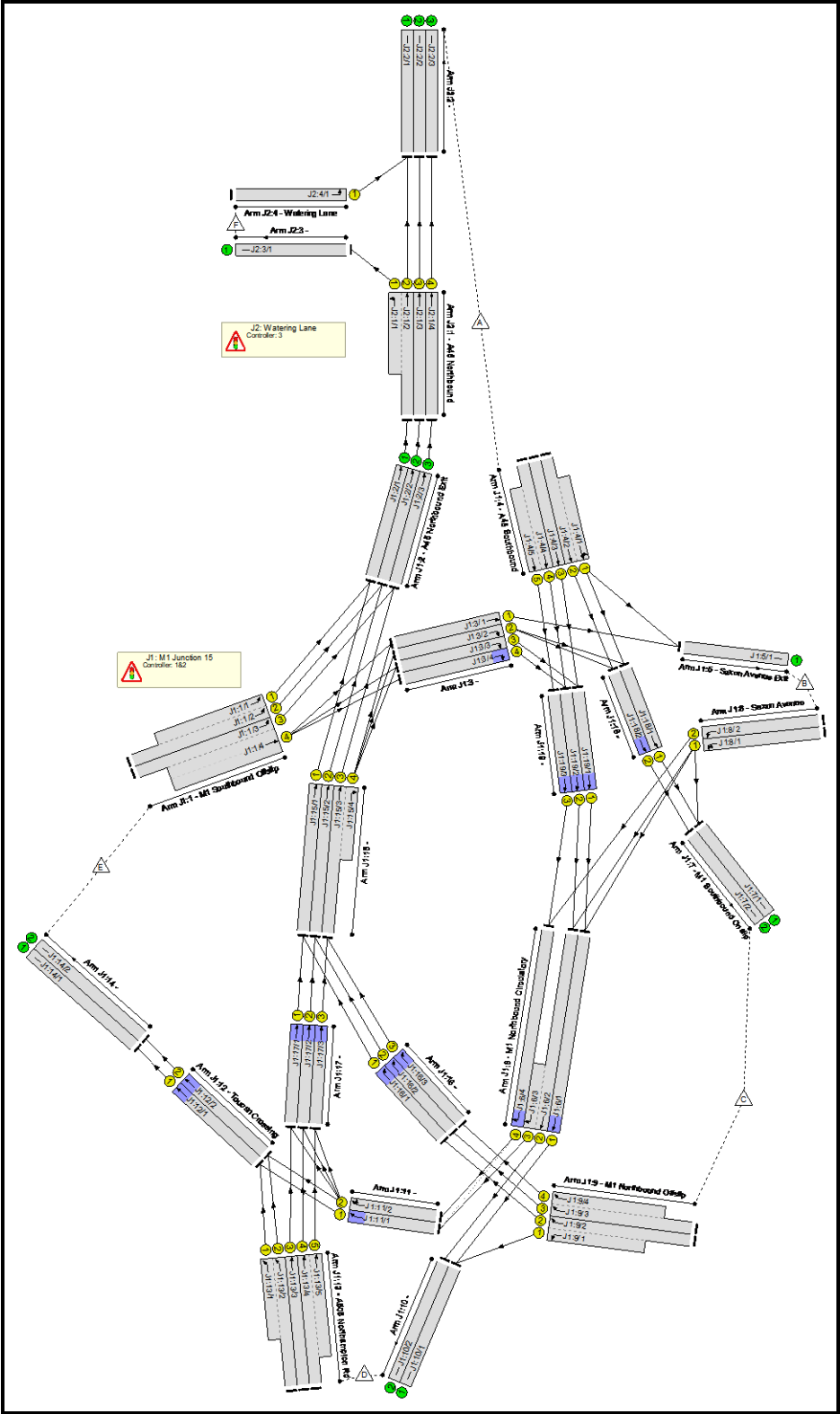
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
1/1	470	470	-	-	-	2.6	0.9	-	3.5	26.8	8.1	0.9	9.0
1/2+1/3	1056	1056	-	-	-	6.0	1.8	-	7.8 (4.2+3.6)	26.6 (26.8:26.3)	10.2	1.8	12.0
3/1	50	50	-	-	-	0.2	0.0	-	0.2	13.2	0.5	0.0	0.5
3/2	133	133	-	-	-	0.2	0.1	-	0.3	7.7	0.5	0.1	0.6
3/3	592	592	-	-	-	1.7	1.0	-	2.8	16.9	5.0	1.0	6.0
4/1	905	756	-	-	-	11.2	77.7	-	88.9	353.5	22.3	77.7	99.9
4/2	969	809	-	-	-	12.0	82.9	-	95.0	352.8	23.8	82.9	106.8
4/3	1401	809	-	-	-	30.2	297.2	-	327.4	841.3	42.1	297.2	339.3
7/1	618	618	-	-	-	4.7	0.9	-	5.6	32.7	9.7	0.9	10.5
7/2	734	734	-	-	-	2.8	1.5	-	4.3	21.2	9.2	1.5	10.7
7/3	271	271	-	-	-	0.6	0.2	-	0.8	10.9	3.2	0.2	3.4
8/1	1102	1102	-	-	-	4.3	2.0	-	6.3	20.7	18.3	2.0	20.4
8/2	376	376	-	-	-	1.2	0.2	-	1.4	13.6	7.2	0.2	7.4
8/3	552	552	-	-	-	2.4	0.3	-	2.7	17.8	11.1	0.3	11.4
10/1+10/2	213	213	426	0	0	0.4	0.2	-	0.6 (0.3+0.3)	10.2 (10.1:10.3)	1.1	0.2	1.3
11/1	619	365	-	-	-	13.6	128.3	-	142.0	825.7	18.4	128.3	146.8
11/2+11/3	843	543	-	-	-	16.4	175.9	-	192.3 (154.0+38.3)	821.2 (830.9:784.2)	23.5	175.9	199.4
14/1	704	704	-	-	-	0.4	0.4	-	0.8	4.2	2.1	0.4	2.6
14/2	533	533	-	-	-	0.0	0.3	-	0.3	1.9	0.1	0.3	0.3
15/1+15/2	1645	945	1891	0	0	34.5	351.0	-	385.5 (192.5+193.0)	843.6 (842.9:844.3)	51.8	351.0	402.9
15/3	249	249	249	0	0	0.3	0.5	-	0.8	11.7	1.7	0.5	2.2
C1 - Eastside Controller C1 - Eastside Controller C2 - Westside Controller C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -92.4 Stream: 2 PRC for Signalled Lanes (%): 14.7 Stream: 1 PRC for Signalled Lanes (%): -89.8 Stream: 2 PRC for Signalled Lanes (%): 94.6 PRC Over All Lanes (%): -93.5 Total Delay for Signalled Lanes (pcuHr): 514.49 Total Delay for Signalled Lanes (pcuHr): 22.04 Total Delay for Signalled Lanes (pcuHr): 344.75 Total Delay for Signalled Lanes (pcuHr): 1.11 Total Delay Over All Lanes(pcuHr): 1269.30 Cycle Time (s): 76 Cycle Time (s): 76 Cycle Time (s): 76 Cycle Time (s): 76													

M1 JUNCTION 15
Mitigation Model
2021
2031

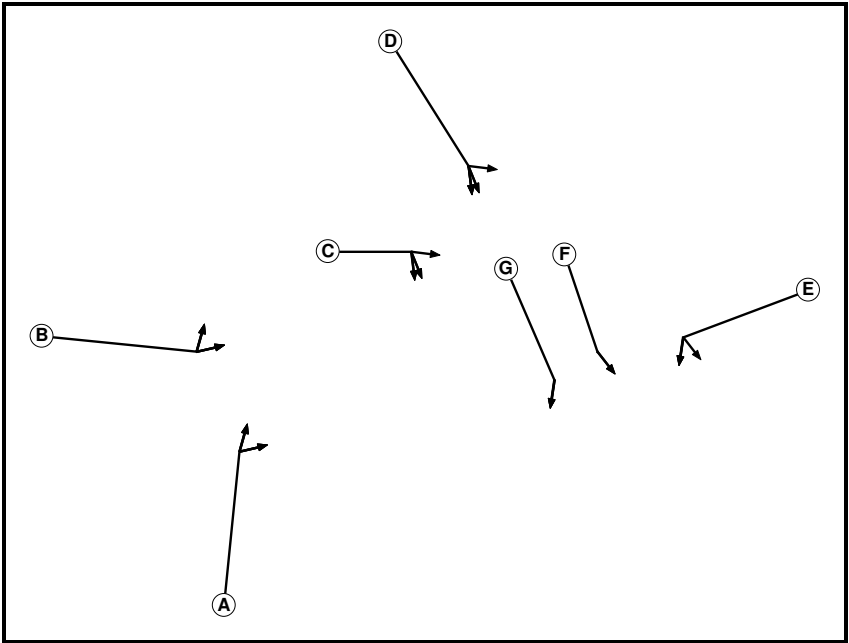
User and Project Details

Project:	Northampton Gateway
Title:	M1 Junction 15 Mitigation Model
File name:	180221 M1 Junction 15 Mitigation with WL.lsg3x
Author:	Mark Higgins
Company:	ADC Infrastructure
Address:	Western House, Nottingham
Notes:	Includes the Watering Lane junction

Network Layout Diagram



C1 - Eastside Controller
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	Traffic	2		7	7
D	Traffic	2		7	7
E	Traffic	3		7	7
F	Traffic	3		7	7
G	Traffic	3		7	7

Phase Intergreens Matrix

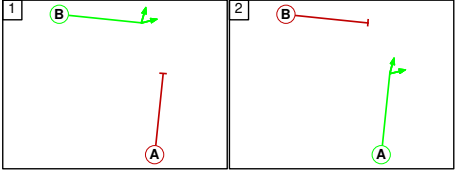
		Starting Phase						
Terminating Phase		A	B	C	D	E	F	G
	A		6	-	-	-	-	-
	B	6		-	-	-	-	-
	C	-	-		6	-	-	-
	D	-	-	6		-	-	-
	E	-	-	-	-		8	8
	F	-	-	-	-	6		-
	G	-	-	-	-	6	-	

Phases in Stage

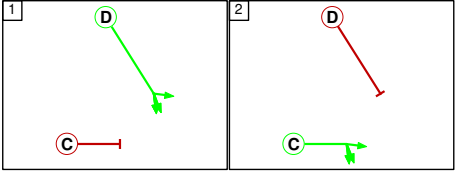
Stream	Stage No.	Phases in Stage
1	1	B
1	2	A
2	1	D
2	2	C
3	1	E
3	2	F G

Stage Diagram

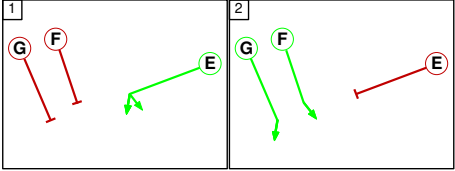
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Prohibited Stage Change

Stage Stream: 1

	To Stage		
From Stage		1	2
	1		6
	2	6	

Stage Stream: 2

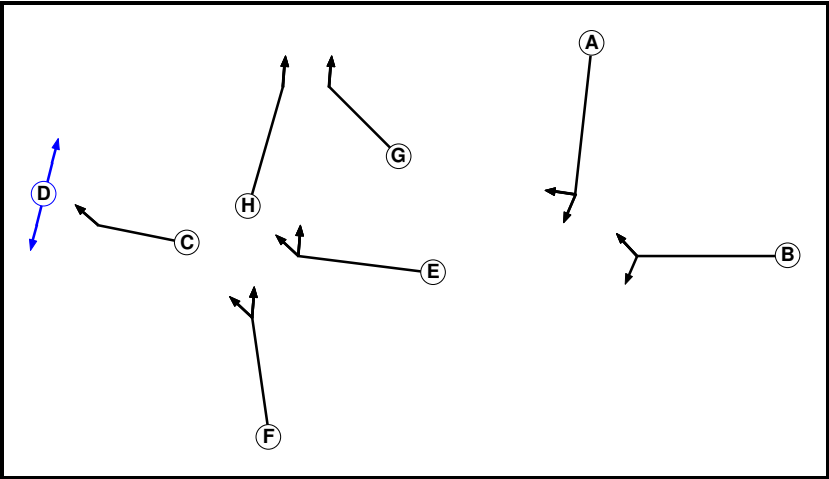
	To Stage		
From Stage		1	2
	1		6
	2	6	

Stage Stream: 3

	To Stage		
From Stage		1	2
	1		8
	2	6	

C2 - Westside Controller

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	Traffic	2		7	7
D	Pedestrian	2		7	7
E	Traffic	3		7	7
F	Traffic	3		7	7
G	Traffic	4		7	7
H	Traffic	4		7	7

Phase Intergreens Matrix

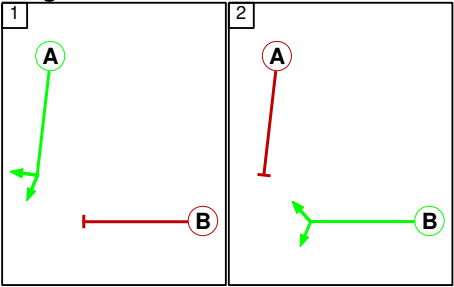
Terminating Phase	Starting Phase								
		A	B	C	D	E	F	G	H
	A		5	-	-	-	-	-	-
	B	7		-	-	-	-	-	-
	C	-	-		5	-	-	-	-
	D	-	-	7		-	-	-	-
	E	-	-	-	-		5	-	-
	F	-	-	-	-	7		-	-
	G	-	-	-	-	-	-		5
	H	-	-	-	-	-	7		

Phases in Stage

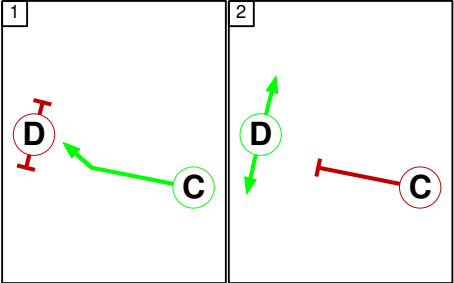
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D
3	1	E
3	2	F
4	1	H
4	2	G

Stage Diagram

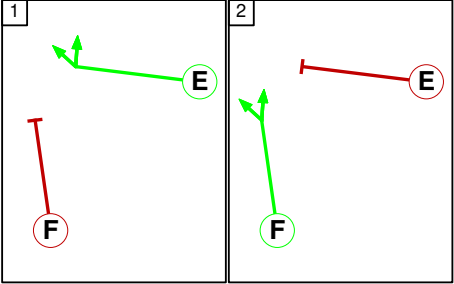
Stage Stream: 1



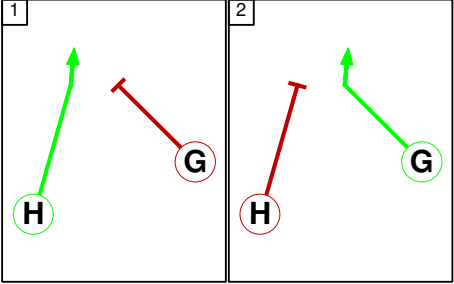
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Prohibited Stage Change

Stage Stream: 1

		To Stage		
From Stage			1	2
	1			5
	2		7	

Stage Stream: 2

		To Stage		
From Stage			1	2
	1			5
	2		7	

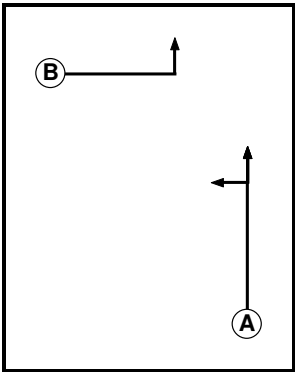
Stage Stream: 3

		To Stage		
From Stage			1	2
	1			5
	2		7	

Stage Stream: 4

From Stage	To Stage		
		1	2
	1		7
	2	5	

C3 - Watering Lane
Phase Diagram



Phase Input Data

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

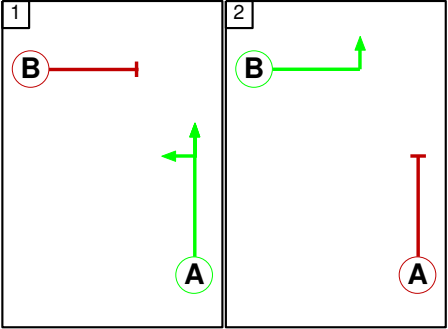
Phase Intergreens Matrix

Terminating Phase	Starting Phase		
		A	B
	A		6
	B	6	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B

Stage Diagram



Prohibited Stage Change

From Stage	To Stage		
		1	2
	1		6
	2	6	

Lane Input Data

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)
J1:1/1 (M1 Southbound Offslip)	U	B	2	3	18.0	Geom	-	3.65	0.00	Y	Arm J1:2 Left	Inf
J1:1/2 (M1 Southbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:2 Left	Inf
J1:1/3 (M1 Southbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:2 Left	Inf
J1:1/4 (M1 Southbound Offslip)	U	B	2	3	18.0	User	4000	-	-	-	-	-
J1:2/1 (A45 Northbound Exit)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:2/2 (A45 Northbound Exit)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:2/3 (A45 Northbound Exit)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:3/1	U	C	2	3	12.2	User	1900	-	-	-	-	-
J1:3/2	U	C	2	3	12.2	User	1900	-	-	-	-	-
J1:3/3	U	C	2	3	12.2	User	1900	-	-	-	-	-
J1:3/4	U	C	2	3	12.2	User	1900	-	-	-	-	-
J1:4/1 (A45 Southbound)	U	D	2	3	33.0	Geom	-	3.65	0.00	Y	Arm J1:5 Left	Inf
											Arm J1:18 Ahead	Inf
J1:4/2 (A45 Southbound)	U	D	2	3	67.8	Geom	-	3.65	0.00	N	Arm J1:18 Ahead	Inf
J1:4/3 (A45 Southbound)	U	D	2	3	67.8	Geom	-	3.65	0.00	N	Arm J1:19 Ahead	Inf
J1:4/4 (A45 Southbound)	U	D	2	3	67.8	Geom	-	3.65	0.00	N	Arm J1:19 Ahead	Inf
J1:4/5 (A45 Southbound)	U	D	2	3	33.0	Geom	-	3.65	0.00	N	Arm J1:19 Ahead	Inf
J1:5/1 (Saxon Avenue Exit)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:6/1 (M1 Northbound Circulatory)	U	A	2	3	33.0	User	2000	-	-	-	-	-
J1:6/2 (M1 Northbound Circulatory)	U	A	2	3	33.0	User	2000	-	-	-	-	-
J1:6/3 (M1 Northbound Circulatory)	U	A	2	3	8.0	User	2000	-	-	-	-	-
J1:6/4 (M1 Northbound Circulatory)	U	A	2	3	33.0	User	2000	-	-	-	-	-
J1:7/1 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:7/2 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:8/1 (Saxon Avenue)	U	E	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J1:6 Left	Inf
											Arm J1:7 Left	30.00
J1:8/2 (Saxon Avenue)	U	E	2	3	60.0	Geom	-	3.50	0.00	N	Arm J1:6 Left	Inf
J1:9/1 (M1 Northbound Offslip)	U	B	2	3	12.0	Geom	-	3.65	0.00	Y	Arm J1:10 Left	Inf
J1:9/2 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:16 Ahead	Inf
J1:9/3 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:16 Ahead	Inf
J1:9/4 (M1 Northbound Offslip)	U	B	2	3	40.0	Geom	-	3.65	0.00	N	Arm J1:16 Ahead	Inf
J1:10/1	U		2	3	4.3	Inf	-	-	-	-	-	-

J1:10/2	U		2	3	4.3	Inf	-	-	-	-	-	-
J1:11/1	U	E	2	3	17.4	User	1900	-	-	-	-	-
J1:11/2	U	E	2	3	17.4	User	1900	-	-	-	-	-
J1:12/1 (Toucan Crossing)	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm J1:14 Ahead	Inf
J1:12/2 (Toucan Crossing)	U	C	2	3	4.3	Geom	-	3.80	0.00	Y	Arm J1:14 Ahead	Inf
J1:13/1 (A508 Northampton Rd)	U	F	2	3	10.0	Geom	-	3.65	0.00	Y	Arm J1:12 Ahead	Inf
J1:13/2 (A508 Northampton Rd)	U	F	2	3	60.0	Geom	-	3.65	0.00	Y	Arm J1:12 Ahead	Inf
J1:13/3 (A508 Northampton Rd)	U	F	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:17 Ahead	Inf
J1:13/4 (A508 Northampton Rd)	U	F	2	3	60.0	Geom	-	3.65	0.00	N	Arm J1:17 Ahead	Inf
J1:13/5 (A508 Northampton Rd)	U	F	2	3	20.0	Geom	-	3.65	0.00	N	Arm J1:17 Ahead	Inf
J1:14/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:14/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:15/1	U	A	2	3	26.1	User	2000	-	-	-	-	-
J1:15/2	U	A	2	3	26.1	User	2000	-	-	-	-	-
J1:15/3	U	A	2	3	26.1	User	2000	-	-	-	-	-
J1:15/4	U	A	2	3	9.0	User	2000	-	-	-	-	-
J1:16/1	U	G	2	3	13.9	User	2000	-	-	-	-	-
J1:16/2	U	G	2	3	13.9	User	2000	-	-	-	-	-
J1:16/3	U	G	2	3	13.9	User	2000	-	-	-	-	-
J1:17/1	U	H	2	3	13.9	User	2000	-	-	-	-	-
J1:17/2	U	H	2	3	13.9	User	2000	-	-	-	-	-
J1:17/3	U	H	2	3	13.9	User	2000	-	-	-	-	-
J1:18/1	U	F	2	3	13.9	User	2000	-	-	-	-	-
J1:18/2	U	F	2	3	13.9	User	2000	-	-	-	-	-
J1:19/1	U	G	2	3	13.9	User	2000	-	-	-	-	-
J1:19/2	U	G	2	3	13.9	User	2000	-	-	-	-	-
J1:19/3	U	G	2	3	13.9	User	2000	-	-	-	-	-

Junction: J2: Watering Lane												
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)
J2:1/1 (A45 Northbound)	U	A	2	3	10.0	Geom	-	3.65	0.00	Y	Arm J2:3 Left	Inf
J2:1/2 (A45 Northbound)	U	A	2	3	60.0	Geom	-	3.65	0.00	N	Arm J2:2 Ahead	Inf
J2:1/3 (A45 Northbound)	U	A	2	3	60.0	Geom	-	3.65	0.00	N	Arm J2:2 Ahead	Inf
J2:1/4 (A45 Northbound)	U	A	2	3	60.0	Geom	-	3.65	0.00	Y	Arm J2:2 Ahead	Inf
J2:2/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:2/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:2/3	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:4/1 (Watering Lane)	U	B	2	3	60.0	Geom	-	4.00	0.00	Y	Arm J2:2 Left	30.00

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
7: '2031 J1d Dev AM Peak'	08:00	09:00	01:00	
8: '2031 J1d Dev PM Peak'	17:00	18:00	01:00	
9: '2021 I1 Dev AM Peak'	08:00	09:00	01:00	
10: '2021 I1 Dev PM Peak'	17:00	18:00	01:00	

Scenario 1: '2031 J1d Dev AM' (FG7: '2031 J1d Dev AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
Origin		A	B	C	D	E	F	Tot.
	A	0	32	959	1105	1714	35	3845
	B	36	0	20	17	67	5	145
	C	1516	51	0	330	0	189	2086
	D	636	25	198	31	649	79	1618
	E	1095	116	0	784	0	135	2130
	F	308	0	0	0	0	0	308
	Tot.	3591	224	1177	2267	2430	443	10132

Traffic Lane Flows

Lane	Scenario 1: 2031 J1d Dev AM
Junction: J1: M1 Junction 15	
J1:1/1 (short)	426
J1:1/2 (with short)	764(In) 338(Out)
J1:1/3 (with short)	1366(In) 466(Out)
J1:1/4 (short)	900
J1:2/1	1353
J1:2/2	1240
J1:2/3	1133
J1:3/1	192
J1:3/2	198
J1:3/3	317
J1:3/4	498
J1:4/1 (short)	496
J1:4/2 (with short)	991(In) 495(Out)
J1:4/3	935
J1:4/4 (with short)	1919(In) 955(Out)
J1:4/5 (short)	964
J1:5/1	224
J1:6/1	1252
J1:6/2 (with short)	1485(In) 685(Out)
J1:6/3 (short)	800
J1:6/4	1057
J1:7/1	585
J1:7/2	592
J1:8/1	52
J1:8/2	93
J1:9/1 (short)	330
J1:9/2 (with short)	914(In) 584(Out)
J1:9/3 (with short)	1172(In) 585(Out)
J1:9/4 (short)	587
J1:10/1	1582
J1:10/2	685
J1:11/1	910
J1:11/2	947
J1:12/1	1226
J1:12/2	1204

J1:13/1 (short)	316
J1:13/2 (with short)	649(In) 333(Out)
J1:13/3	299
J1:13/4 (with short)	670(In) 316(Out)
J1:13/5 (short)	354
J1:14/1	1226
J1:14/2	1204
J1:15/1	927
J1:15/2	902
J1:15/3 (with short)	972(In) 667(Out)
J1:15/4 (short)	305
J1:16/1	584
J1:16/2	585
J1:16/3	587
J1:17/1	343
J1:17/2	317
J1:17/3	385
J1:18/1	565
J1:18/2	592
J1:19/1	1252
J1:19/2	1453
J1:19/3	964
Junction: J2: Watering Lane	
J2:1/1 (short)	443
J2:1/2 (with short)	1353(In) 910(Out)
J2:1/3	1240
J2:1/4	1133
J2:2/1	1218
J2:2/2	1240
J2:2/3	1133
J2:3/1	443
J2:4/1	308

Lane Saturation Flows

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
J1:2/1 (A45 Northbound Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:2/3 (A45 Northbound Exit Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/4	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	6.5 %	1980	1980
				Arm J1:18 Ahead	Inf	93.5 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:18 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/4 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/5 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/4 (M1 Northbound Circulatory Lane 4)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (Saxon Avenue)	3.50	0.00	Y	Arm J1:6 Left	Inf	61.5 %	1928	1928
				Arm J1:7 Left	30.00	38.5 %		

J1:8/2 (Saxon Avenue)	3.50	0.00	N	Arm J1:6 Left	Inf	100.0 %	2105	2105
J1:9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm J1:10 Left	Inf	100.0 %	1980	1980
J1:9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm J1:16 Ahead	Inf	100.0 %	2120	2120
J1:10/1	Infinite Saturation Flow						Inf	Inf
J1:10/2	Infinite Saturation Flow						Inf	Inf
J1:11/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:11/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:12/1 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:12/2 (Toucan Crossing)	3.80	0.00	Y	Arm J1:14 Ahead	Inf	100.0 %	1995	1995
J1:13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm J1:12 Ahead	Inf	100.0 %	1980	1980
J1:13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm J1:17 Ahead	Inf	100.0 %	2120	2120
J1:14/1	Infinite Saturation Flow						Inf	Inf
J1:14/2	Infinite Saturation Flow						Inf	Inf
J1:15/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:15/4	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:16/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:17/3	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:18/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/1	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/2	This lane uses a directly entered Saturation Flow						2000	2000
J1:19/3	This lane uses a directly entered Saturation Flow						2000	2000

Junction: J2: Watering Lane								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (A45 Northbound)	3.65	0.00	Y	Arm J2:3 Left	Inf	100.0 %	1980	1980
J2:1/2 (A45 Northbound)	3.65	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2120	2120
J2:1/3 (A45 Northbound)	3.65	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2120	2120
J2:1/4 (A45 Northbound)	3.65	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1980	1980
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:2/2	Infinite Saturation Flow						Inf	Inf
J2:2/3	Infinite Saturation Flow						Inf	Inf
J2:3/1	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Watering Lane)	4.00	0.00	Y	Arm J2:2 Left	30.00	100.0 %	1919	1919

Scenario 2: '2031 J1d Dev PM' (FG8: '2031 J1d Dev PM Peak', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	88	985	1199	1279	117	3668
	B	28	0	121	18	100	2	269
	C	1429	25	0	205	0	74	1733
	D	1366	13	199	50	709	74	2411
	E	955	99	0	563	0	52	1669
	F	132	0	0	0	0	0	132
	Tot.	3910	225	1305	2035	2088	319	9882

Traffic Lane Flows

Lane	Scenario 2: 2031 J1d Dev PM
Junction: J1: M1 Junction 15	
J1:1/1 (short)	352
J1:1/2 (with short)	640(In) 288(Out)
J1:1/3 (with short)	1029(In) 367(Out)
J1:1/4 (short)	662
J1:2/1	1491
J1:2/2	1366
J1:2/3	1240
J1:3/1	137
J1:3/2	199
J1:3/3	283
J1:3/4	330
J1:4/1 (short)	542
J1:4/2 (with short)	1073(In) 531(Out)
J1:4/3	773
J1:4/4 (with short)	1822(In) 830(Out)
J1:4/5 (short)	992
J1:5/1	225
J1:6/1	1060
J1:6/2 (with short)	1176(In) 770(Out)
J1:6/3 (short)	406
J1:6/4	1120
J1:7/1	682
J1:7/2	623
J1:8/1	141
J1:8/2	128
J1:9/1 (short)	205
J1:9/2 (with short)	691(In) 486(Out)
J1:9/3 (with short)	1042(In) 500(Out)
J1:9/4 (short)	542
J1:10/1	1265
J1:10/2	770
J1:11/1	728
J1:11/2	798

J1:12/1	1073
J1:12/2	1015
J1:13/1 (short)	345
J1:13/2 (with short)	709(In) 364(Out)
J1:13/3	533
J1:13/4 (with short)	1169(In) 562(Out)
J1:13/5 (short)	607
J1:14/1	1073
J1:14/2	1015
J1:15/1	1139
J1:15/2	1078
J1:15/3 (with short)	1160(In) 873(Out)
J1:15/4 (short)	287
J1:16/1	486
J1:16/2	500
J1:16/3	542
J1:17/1	653
J1:17/2	578
J1:17/3	618
J1:18/1	561
J1:18/2	623
J1:19/1	1056
J1:19/2	1160
J1:19/3	992
Junction: J2: Watering Lane	
J2:1/1 (short)	319
J2:1/2 (with short)	1491(In) 1172(Out)
J2:1/3	1366
J2:1/4	1240
J2:2/1	1304
J2:2/2	1366
J2:2/3	1240
J2:3/1	319
J2:4/1	132

Lane Saturation Flows

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
J1:2/1 (A45 Northbound Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:2/3 (A45 Northbound Exit Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/4	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	16.2 %	1980	1980
				Arm J1:18 Ahead	Inf	83.8 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:18 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/4 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/5 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/4 (M1 Northbound Circulatory Lane 4)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:8/1	3.50	0.00	Y	Arm J1:6 Left	Inf	14.2 %	1884	1884

Junction: J2: Watering Lane								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (A45 Northbound)	3.65	0.00	Y	Arm J2:3 Left	Inf	100.0 %	1980	1980
J2:1/2 (A45 Northbound)	3.65	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2120	2120
J2:1/3 (A45 Northbound)	3.65	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2120	2120
J2:1/4 (A45 Northbound)	3.65	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1980	1980
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:2/2	Infinite Saturation Flow						Inf	Inf
J2:2/3	Infinite Saturation Flow						Inf	Inf
J2:3/1	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Watering Lane)	4.00	0.00	Y	Arm J2:2 Left	30.00	100.0 %	1919	1919

Scenario 5: '2021 I1 Dev AM' (FG9: '2021 I1 Dev AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	40	1015	1175	1553	87	3870
	B	24	0	32	15	27	2	100
	C	1404	76	0	231	0	119	1830
	D	401	21	176	0	578	43	1219
	E	1056	96	0	878	0	90	2120
	F	303	0	0	0	0	0	303
	Tot.	3188	233	1223	2299	2158	341	9442

Traffic Lane Flows

Lane	Scenario 5: 2021 I1 Dev AM
Junction: J1: M1 Junction 15	
J1:1/1 (short)	460
J1:1/2 (with short)	896(In) 436(Out)
J1:1/3 (with short)	1224(In) 250(Out)
J1:1/4 (short)	974
J1:2/1	1255
J1:2/2	1161
J1:2/3	810
J1:3/1	193
J1:3/2	176
J1:3/3	358
J1:3/4	520
J1:4/1 (short)	528
J1:4/2 (with short)	1055(In) 527(Out)
J1:4/3	917
J1:4/4 (with short)	1898(In) 936(Out)
J1:4/5 (short)	962
J1:5/1	233
J1:6/1	1275
J1:6/2 (with short)	1482(In) 793(Out)
J1:6/3 (short)	689
J1:6/4	1004
J1:7/1	610
J1:7/2	613
J1:8/1	58
J1:8/2	42
J1:9/1 (short)	231
J1:9/2 (with short)	761(In) 530(Out)
J1:9/3 (with short)	1069(In) 534(Out)
J1:9/4 (short)	535
J1:10/1	1506
J1:10/2	793
J1:11/1	874
J1:11/2	819
J1:12/1	1151

J1:12/2	1007
J1:13/1 (short)	277
J1:13/2 (with short)	578(In) 301(Out)
J1:13/3	176
J1:13/4 (with short)	465(In) 191(Out)
J1:13/5 (short)	274
J1:14/1	1151
J1:14/2	1007
J1:15/1	795
J1:15/2	725
J1:15/3 (with short)	833(In) 560(Out)
J1:15/4 (short)	273
J1:16/1	530
J1:16/2	534
J1:16/3	535
J1:17/1	265
J1:17/2	191
J1:17/3	298
J1:18/1	578
J1:18/2	613
J1:19/1	1275
J1:19/2	1456
J1:19/3	962
Junction: J2: Watering Lane	
J2:1/1 (short)	341
J2:1/2 (with short)	1255(In) 914(Out)
J2:1/3	1161
J2:1/4	810
J2:2/1	1217
J2:2/2	1161
J2:2/3	810
J2:3/1	341
J2:4/1	303

Lane Saturation Flows

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
J1:2/1 (A45 Northbound Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:2/3 (A45 Northbound Exit Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/4	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	7.6 %	1980	1980
				Arm J1:18 Ahead	Inf	92.4 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:18 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/4 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/5 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/4 (M1 Northbound Circulatory Lane 4)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:8/1	3.50	0.00	Y	Arm J1:6 Left	Inf	44.8 %	1912	1912

Junction: J2: Watering Lane								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (A45 Northbound)	3.65	0.00	Y	Arm J2:3 Left	Inf	100.0 %	1980	1980
J2:1/2 (A45 Northbound)	3.65	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2120	2120
J2:1/3 (A45 Northbound)	3.65	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2120	2120
J2:1/4 (A45 Northbound)	3.65	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1980	1980
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:2/2	Infinite Saturation Flow						Inf	Inf
J2:2/3	Infinite Saturation Flow						Inf	Inf
J2:3/1	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Watering Lane)	4.00	0.00	Y	Arm J2:2 Left	30.00	100.0 %	1919	1919

Scenario 6: '2021 I1 Dev PM' (FG10: '2021 I1 Dev PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	93	76	862	1087	1270	93	3481
	B	15	0	81	9	109	1	215
	C	1406	31	0	209	0	68	1714
	D	1052	24	195	0	814	51	2136
	E	839	103	0	516	0	40	1498
	F	129	0	0	0	0	0	129
	Tot.	3534	234	1138	1821	2193	253	9173

Traffic Lane Flows

Lane	Scenario 6: 2021 I1 Dev PM
Junction: J1: M1 Junction 15	
J1:1/1 (short)	313
J1:1/2 (with short)	564(In) 251(Out)
J1:1/3 (with short)	934(In) 315(Out)
J1:1/4 (short)	619
J1:2/1	1289
J1:2/2	1201
J1:2/3	1075
J1:3/1	158
J1:3/2	195
J1:3/3	241
J1:3/4	275
J1:4/1 (short)	474
J1:4/2 (with short)	938(In) 464(Out)
J1:4/3	692
J1:4/4 (with short)	1758(In) 822(Out)
J1:4/5 (short)	936
J1:5/1	234
J1:6/1	936
J1:6/2 (with short)	1124(In) 676(Out)
J1:6/3 (short)	448
J1:6/4	1040
J1:7/1	583
J1:7/2	555
J1:8/1	111
J1:8/2	104
J1:9/1 (short)	209
J1:9/2 (with short)	690(In) 481(Out)
J1:9/3 (with short)	1024(In) 499(Out)
J1:9/4 (short)	525
J1:10/1	1145
J1:10/2	676
J1:11/1	719
J1:11/2	769
J1:12/1	1115

J1:12/2	1078
J1:13/1 (short)	396
J1:13/2 (with short)	814(In) 418(Out)
J1:13/3	397
J1:13/4 (with short)	925(In) 445(Out)
J1:13/5 (short)	480
J1:14/1	1115
J1:14/2	1078
J1:15/1	976
J1:15/2	950
J1:15/3 (with short)	1010(In) 760(Out)
J1:15/4 (short)	250
J1:16/1	481
J1:16/2	499
J1:16/3	525
J1:17/1	495
J1:17/2	451
J1:17/3	485
J1:18/1	502
J1:18/2	555
J1:19/1	933
J1:19/2	1097
J1:19/3	936
Junction: J2: Watering Lane	
J2:1/1 (short)	253
J2:1/2 (with short)	1289(In) 1036(Out)
J2:1/3	1201
J2:1/4	1075
J2:2/1	1165
J2:2/2	1201
J2:2/3	1075
J2:3/1	253
J2:4/1	129

Lane Saturation Flows

Junction: J1: M1 Junction 15								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M1 Southbound Offslip)	3.65	0.00	Y	Arm J1:2 Left	Inf	100.0 %	1980	1980
J1:1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm J1:2 Left	Inf	100.0 %	2120	2120
J1:1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
J1:2/1 (A45 Northbound Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:2/2 (A45 Northbound Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:2/3 (A45 Northbound Exit Lane 3)	Infinite Saturation Flow						Inf	Inf
J1:3/1	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/3	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/4	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1 (A45 Southbound)	3.65	0.00	Y	Arm J1:5 Left	Inf	16.0 %	1980	1980
				Arm J1:18 Ahead	Inf	84.0 %		
J1:4/2 (A45 Southbound)	3.65	0.00	N	Arm J1:18 Ahead	Inf	100.0 %	2120	2120
J1:4/3 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/4 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:4/5 (A45 Southbound)	3.65	0.00	N	Arm J1:19 Ahead	Inf	100.0 %	2120	2120
J1:5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2000	2000
J1:6/4 (M1 Northbound Circulatory Lane 4)	This lane uses a directly entered Saturation Flow						2000	2000
J1:7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:8/1	3.50	0.00	Y	Arm J1:6 Left	Inf	27.0 %	1896	1896

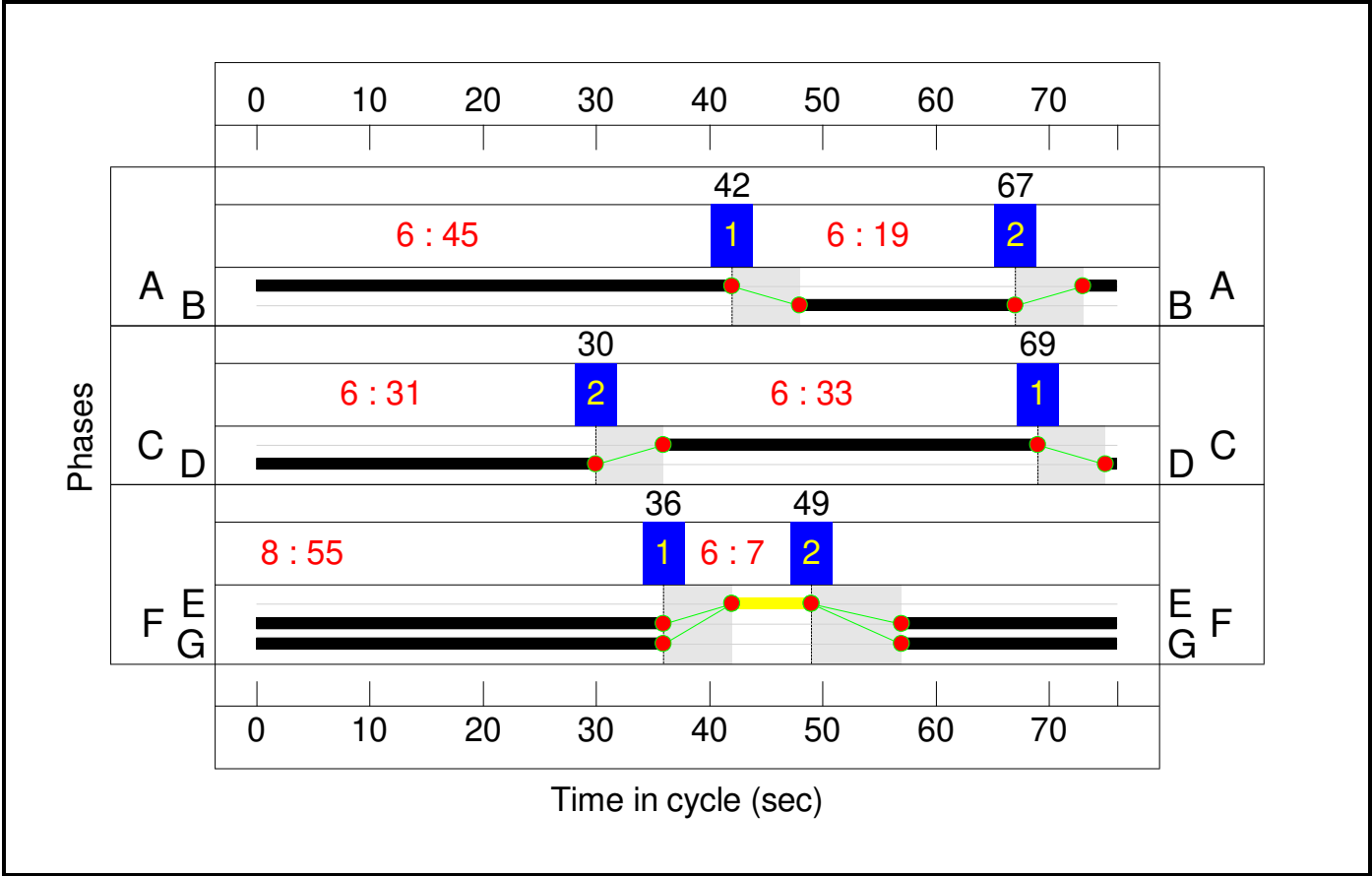
Junction: J2: Watering Lane

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (A45 Northbound)	3.65	0.00	Y	Arm J2:3 Left	Inf	100.0 %	1980	1980
J2:1/2 (A45 Northbound)	3.65	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2120	2120
J2:1/3 (A45 Northbound)	3.65	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2120	2120
J2:1/4 (A45 Northbound)	3.65	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1980	1980
J2:2/1	Infinite Saturation Flow						Inf	Inf
J2:2/2	Infinite Saturation Flow						Inf	Inf
J2:2/3	Infinite Saturation Flow						Inf	Inf
J2:3/1	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Watering Lane)	4.00	0.00	Y	Arm J2:2 Left	30.00	100.0 %	1919	1919

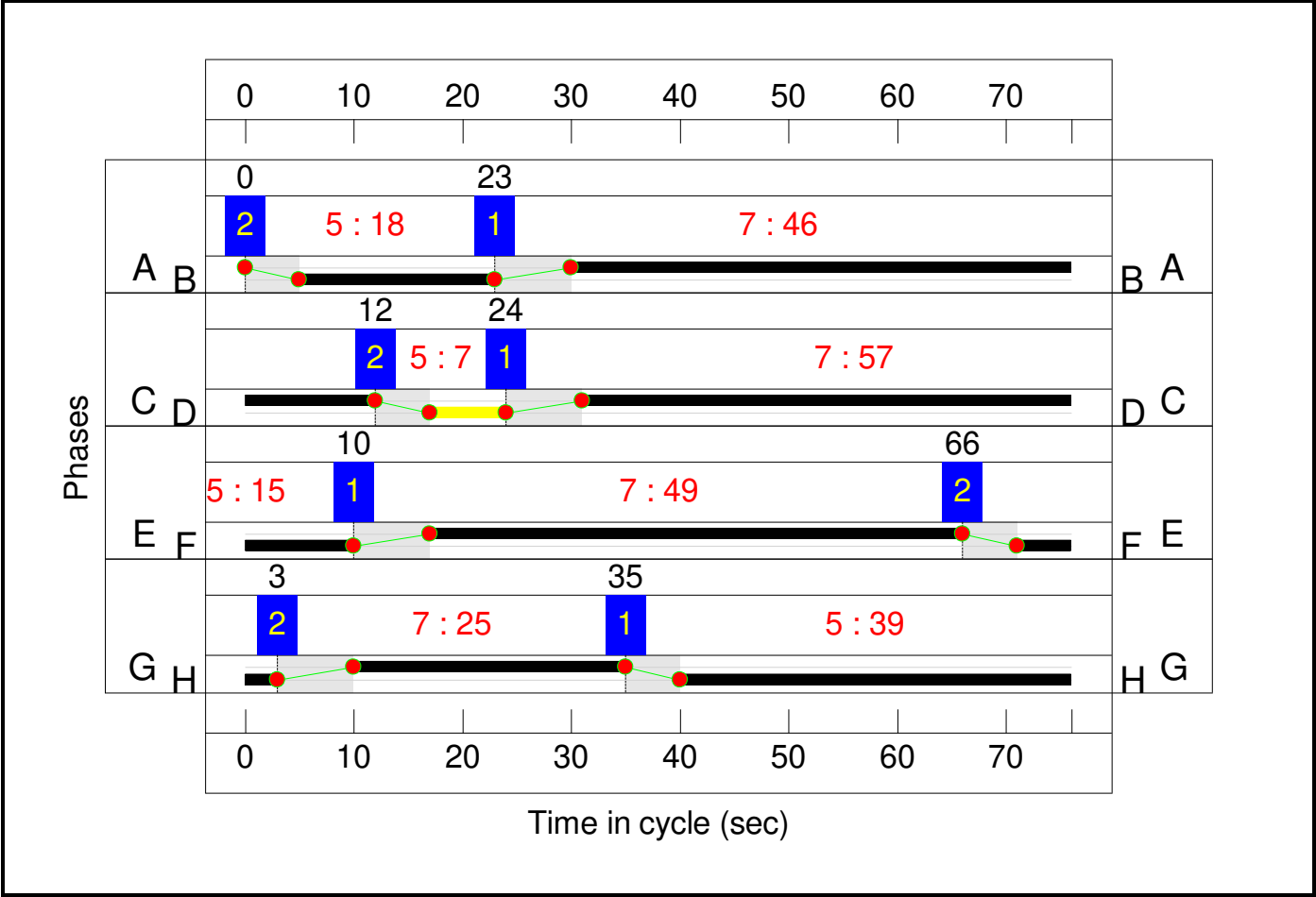
Signal Timings Diagram

Scenario 1: '2031 J1d Dev AM' (FG7: '2031 J1d Dev AM Peak', Plan 1: 'Network Control Plan 1')

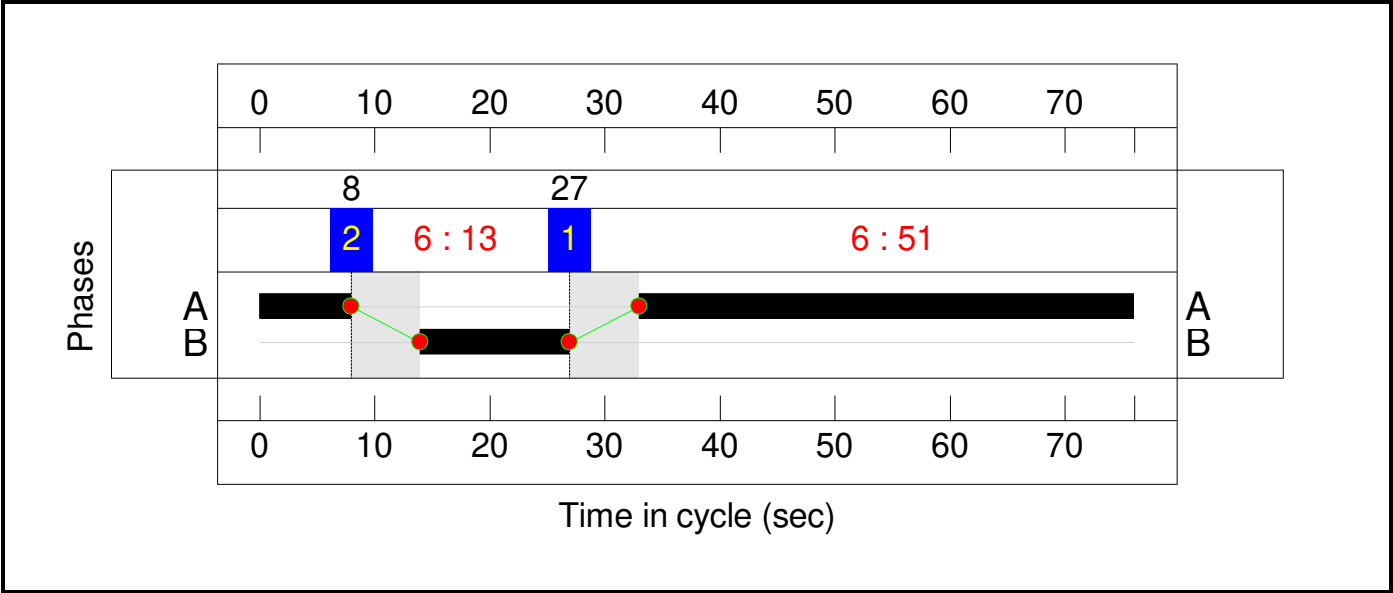
C1 - Eastside Controller



C2 - Westside Controller



C3 - Watering Lane



Network Results

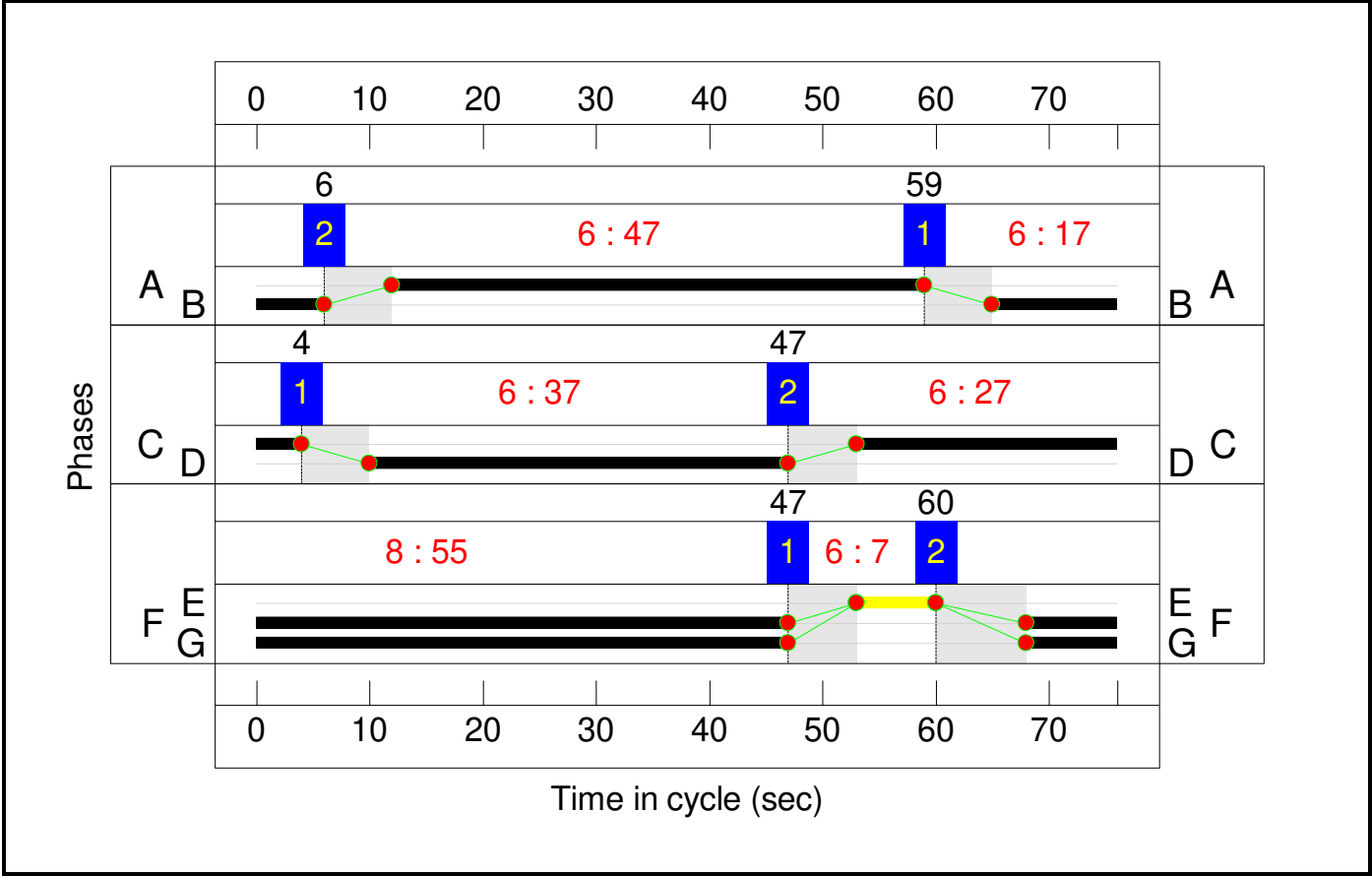
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	110.8%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	19	-	764	2120:1980	413+521	81.8 : 81.8%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:B		1	19	-	1366	2120:4000	558+1053	83.5 : 85.5%
3/1	Ahead	U	1:2	N/A	C1:C		1	33	-	192	1900	850	22.0%
3/2	Right	U	1:2	N/A	C1:C		1	33	-	198	1900	850	23.3%
3/3	Right	U	1:2	N/A	C1:C		1	33	-	317	1900	850	37.3%
3/4	Right	U	1:2	N/A	C1:C		1	33	-	498	1900	850	58.6%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:D		1	31	-	991	2120:1980	893+834	55.5 : 59.5%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	31	-	935	2120	893	104.7%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	31	-	1919	2120:2120	893+893	107.0 : 108.0%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	46	-	1252	2000	1237	97.8%
6/2+6/3	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	46	-	1485	2000:2000	725+847	92.9 : 88.4%
6/4	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	46	-	1057	2000	1237	79.7%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:E		1	7	-	52	1928	203	25.6%
8/2	Saxon Avenue Left	U	1:3	N/A	C1:E		1	7	-	93	2105	222	42.0%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	18	-	914	2120:1980	530+299	110.2 : 110.2%
9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	18	-	1172	2120:2120	530+530	110.4 : 110.8%
11/1	Ahead	U	2:3	N/A	C2:E		1	49	-	910	1900	1250	68.1%
11/2	Ahead Right	U	2:3	N/A	C2:E		1	49	-	947	1900	1250	70.6%
12/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1226	1995	1523	76.7%

12/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1204	1995	1523	75.0%
13/2+13/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	15	-	649	1980:1980	417+417	79.9 : 75.8%
13/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	15	-	299	2120	446	67.0%
13/4+13/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	15	-	670	2120:2120	446+446	70.8 : 79.3%
15/1	Ahead	U	1:1	N/A	C1:A		1	45	-	927	2000	1211	71.9%
15/2	Ahead	U	1:1	N/A	C1:A		1	45	-	902	2000	1211	70.0%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A		1	45	-	972	2000:2000	968+443	63.5 : 67.8%
16/1	Right	U	2:4	N/A	C2:G		1	25	-	584	2000	684	77.5%
16/2	Right	U	2:4	N/A	C2:G		1	25	-	585	2000	684	77.5%
16/3	Right	U	2:4	N/A	C2:G		1	25	-	587	2000	684	77.5%
17/1	Ahead	U	2:4	N/A	C2:H		1	39	-	343	2000	1053	32.3%
17/2	Ahead	U	2:4	N/A	C2:H		1	39	-	317	2000	1053	30.1%
17/3	Ahead	U	2:4	N/A	C2:H		1	39	-	385	2000	1053	36.6%
18/1	Ahead	U	1:3	N/A	C1:F		1	55	-	565	2000	1474	38.3%
18/2	Ahead	U	1:3	N/A	C1:F		1	55	-	592	2000	1474	40.2%
19/1	Ahead	U	1:3	N/A	C1:G		1	55	-	1252	2000	1474	82.1%
19/2	Ahead	U	1:3	N/A	C1:G		1	55	-	1453	2000	1474	94.4%
19/3	Ahead	U	1:3	N/A	C1:G		1	55	-	964	2000	1474	60.6%
J2: Watering Lane	-	-	N/A	-	-		-	-	-	-	-	-	87.1%
1/2+1/1	A45 Northbound Ahead Left	U	N/A	N/A	C3:A		1	51	-	1353	2120:1980	1115+543	78.3 : 77.9%
1/3	A45 Northbound Ahead	U	N/A	N/A	C3:A		1	51	-	1240	2120	1451	81.7%
1/4	A45 Northbound Ahead	U	N/A	N/A	C3:A		1	51	-	1133	1980	1355	79.8%
4/1	Watering Lane Left	U	N/A	N/A	C3:B		1	13	-	308	1919	354	87.1%

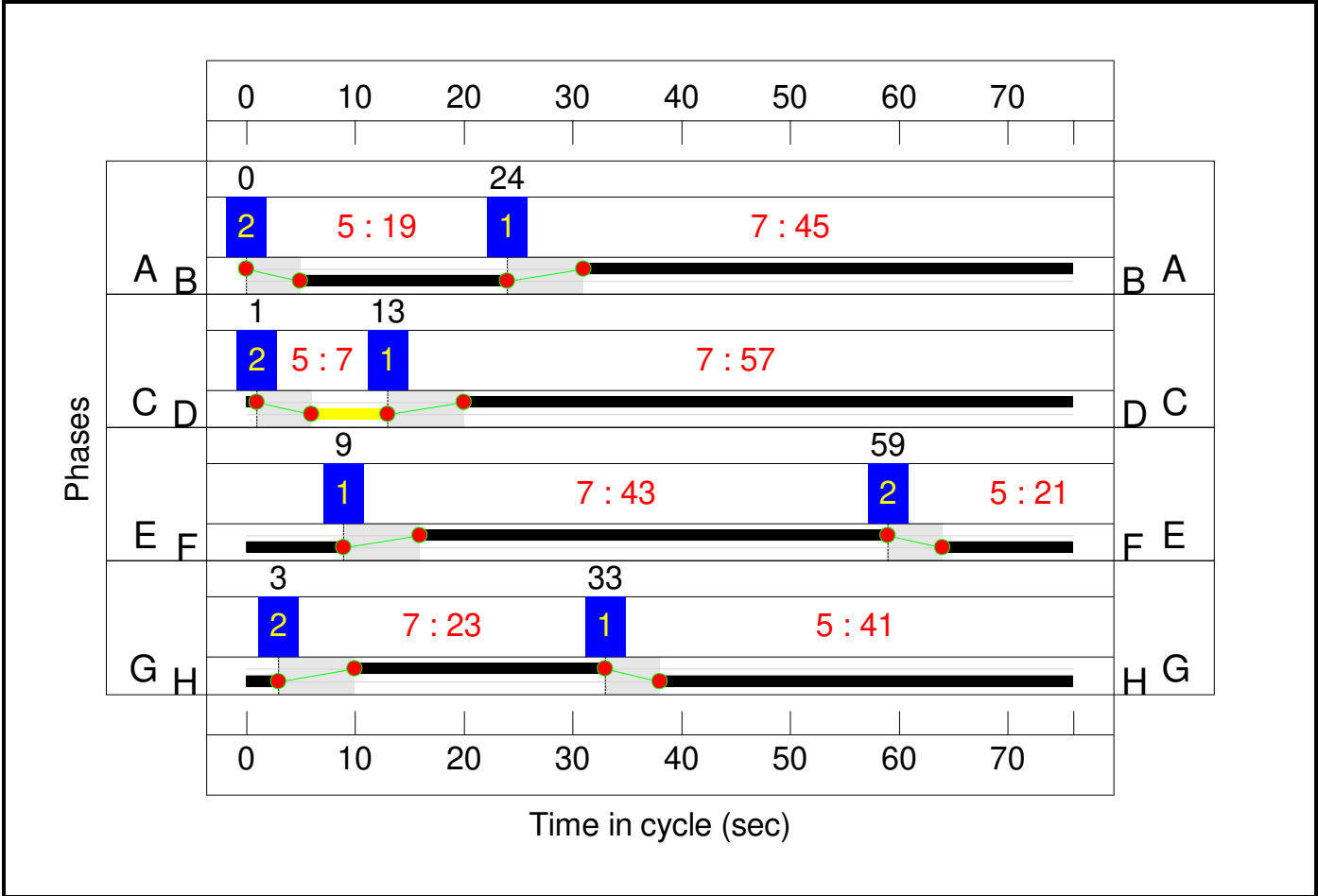
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
J1: M1 Junction 15	-	-	0	0	0	116.3	265.8	0.0	382.1	-	-	-	-
1/2+1/1	764	764	-	-	-	5.4	2.2	-	7.6 (3.3+4.3)	35.8 (34.8:36.6)	8.4	2.2	10.6
1/3+1/4	1366	1366	-	-	-	10.1	2.7	-	12.8 (4.4+8.5)	33.8 (33.6:33.8)	9.2	2.7	11.9
3/1	187	187	-	-	-	0.3	0.1	-	0.4	8.7	1.3	0.1	1.4
3/2	198	198	-	-	-	1.7	0.2	-	1.9	34.2	4.2	0.2	4.3
3/3	317	317	-	-	-	0.4	0.3	-	0.7	7.6	0.9	0.3	1.2
3/4	498	498	-	-	-	1.0	0.7	-	1.7	12.6	4.3	0.7	5.0
4/2+4/1	991	991	-	-	-	4.6	0.7	-	5.3 (2.6+2.7)	19.3 (19.1:19.4)	8.0	0.7	8.7
4/3	935	893	-	-	-	7.3	29.2	-	36.5	140.5	20.6	29.2	49.8
4/4+4/5	1919	1785	-	-	-	16.8	73.4	-	90.2 (42.6+47.5)	169.1 (160.7:177.6)	21.9	73.4	95.3
6/1	1210	1210	-	-	-	6.3	11.9	-	18.2	54.0	22.2	11.9	34.1
6/2+6/3	1423	1423	-	-	-	5.5	4.5	-	10.0 (5.1+4.9)	25.3 (27.3:23.4)	17.3	4.5	21.8
6/4	986	986	-	-	-	3.9	1.9	-	5.8	21.2	20.3	1.9	22.2
8/1	52	52	-	-	-	0.5	0.2	-	0.6	43.2	1.0	0.2	1.2
8/2	93	93	-	-	-	0.8	0.4	-	1.2	45.8	1.8	0.4	2.2
9/2+9/1	914	830	-	-	-	9.5	47.1	-	56.6 (36.8+19.8)	222.9 (226.6:216.3)	16.6	47.1	63.7
9/3+9/4	1172	1060	-	-	-	12.9	60.8	-	73.7 (36.3+37.4)	226.3 (223.3:229.3)	13.3	60.8	74.1
11/1	852	852	-	-	-	0.9	1.1	-	2.0	8.3	10.8	1.1	11.8
11/2	883	883	-	-	-	1.0	1.2	-	2.2	9.1	3.1	1.2	4.3
12/1	1168	1168	-	-	-	0.3	1.6	-	1.9	5.8	1.6	1.6	3.2
12/2	1142	1142	-	-	-	0.3	1.5	-	1.8	5.7	2.2	1.5	3.7
13/2+13/1	649	649	-	-	-	5.1	1.7	-	6.8 (3.5+3.3)	37.9 (38.0:37.8)	6.7	1.7	8.4
13/3	299	299	-	-	-	2.3	1.0	-	3.3	39.6	5.7	1.0	6.7
13/4+13/5	670	670	-	-	-	5.2	1.5	-	6.7 (3.1+3.6)	36.1 (35.8:36.4)	7.1	1.5	8.6
15/1	870	870	-	-	-	1.5	1.3	-	2.8	11.4	5.0	1.3	6.2

[illegible]

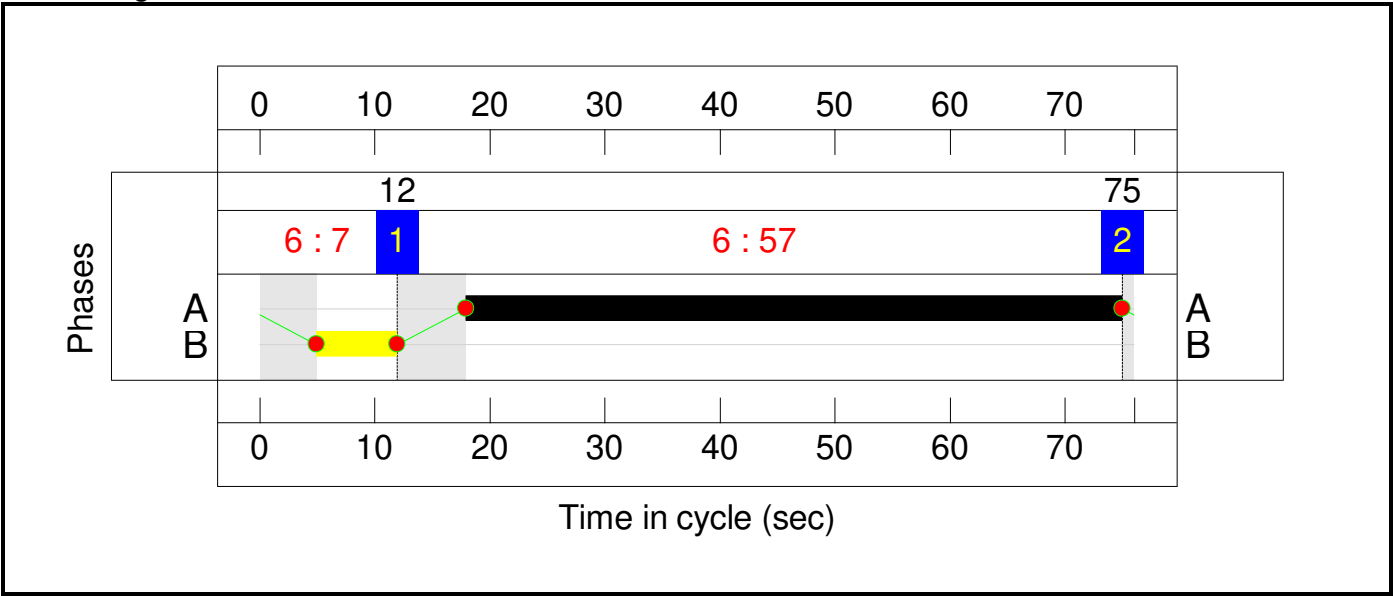
Signal Timings Diagram
Scenario 2: '2031 J1d Dev PM' (FG8: '2031 J1d Dev PM Peak', Plan 1: 'Network Control Plan 1')
C1 - Eastside Controller



C2 - Westside Controller



C3 - Watering Lane



Network Results

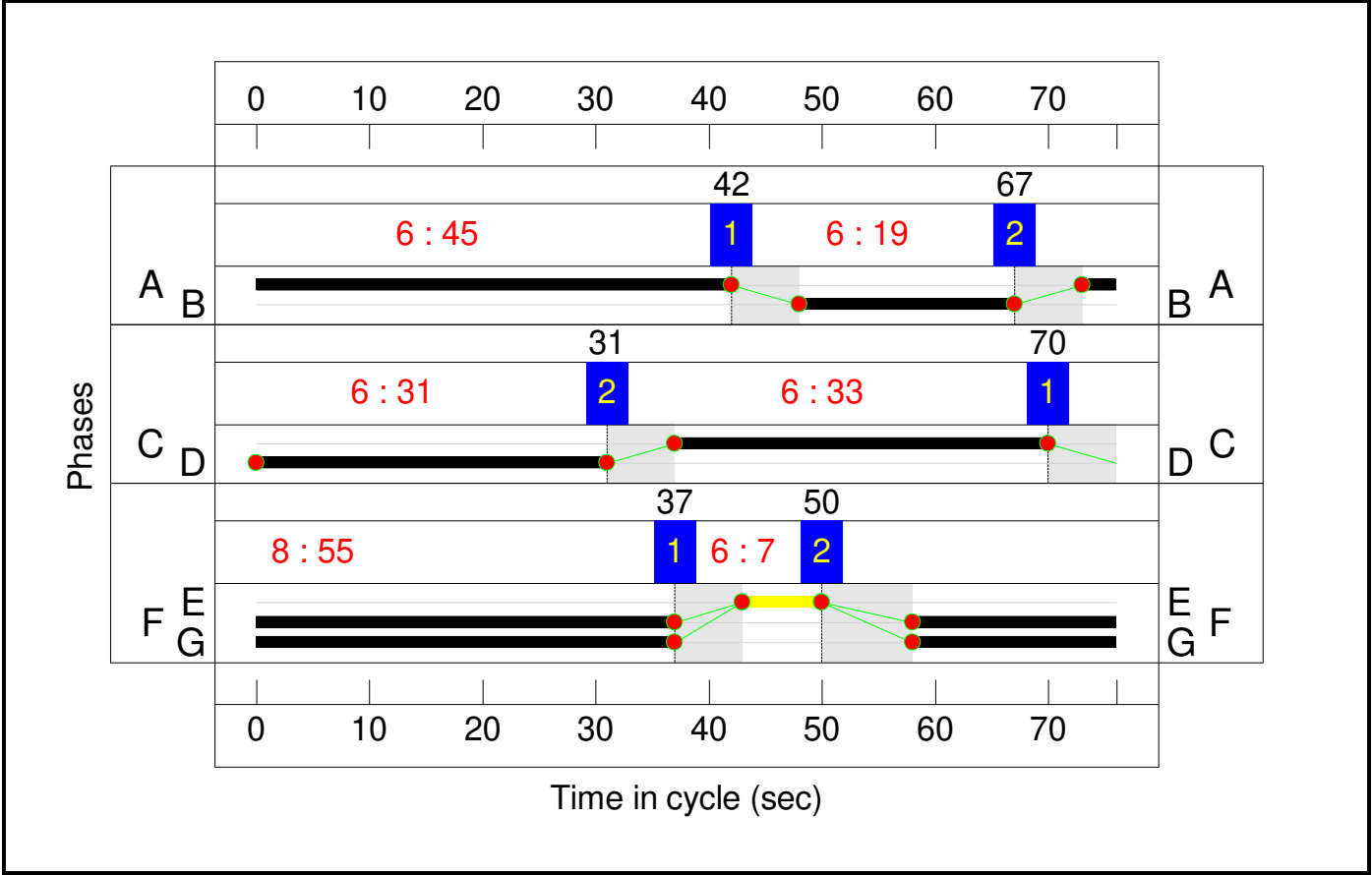
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 15 Mitigation Model	-	-	N/A	-	-		-	-	-	-	-	-	98.9%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	98.9%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	17	-	640	2120:1980	502+469	57.4 : 75.1%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:B		1	17	-	1029	2120:4000	502+947	73.1 : 69.9%
3/1	Ahead	U	1:2	N/A	C1:C		1	27	-	137	1900	700	19.6%
3/2	Right	U	1:2	N/A	C1:C		1	27	-	199	1900	700	28.4%
3/3	Right	U	1:2	N/A	C1:C		1	27	-	283	1900	700	40.4%
3/4	Right	U	1:2	N/A	C1:C		1	27	-	330	1900	700	47.1%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:D		1	37	-	1073	2120:1980	1013+990	52.4 : 54.7%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	37	-	773	2120	1060	72.9%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	37	-	1822	2120:2120	966+1060	85.9 : 93.6%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	45	-	1060	2000	1211	87.6%
6/2+6/3	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	45	-	1176	2000:2000	930+491	82.8 : 82.8%
6/4	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	45	-	1120	2000	1211	92.5%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:E		1	7	-	141	1884	198	71.1%
8/2	Saxon Avenue Left	U	1:3	N/A	C1:E		1	7	-	128	2105	222	57.8%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	19	-	691	2120:1980	558+235	87.1 : 87.1%
9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	19	-	1042	2120:2120	558+558	89.6 : 97.2%
11/1	Ahead	U	2:3	N/A	C2:E		1	43	-	728	1900	1100	66.2%
11/2	Ahead Right	U	2:3	N/A	C2:E		1	43	-	798	1900	1100	72.5%

12/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1073	1995	1523	70.5%
12/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1015	1995	1523	66.7%
13/2+13/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	21	-	709	1980:1980	527+500	69.0 : 69.0%
13/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	21	-	533	2120	614	86.9%
13/4+13/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	21	-	1169	2120:2120	614+614	91.6 : 98.9%
15/1	Ahead	U	1:1	N/A	C1:A		1	47	-	1139	2000	1263	90.2%
15/2	Ahead	U	1:1	N/A	C1:A		1	47	-	1078	2000	1263	85.3%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A		1	47	-	1160	2000:2000	1060+349	82.4 : 82.4%
16/1	Right	U	2:4	N/A	C2:G		1	23	-	486	2000	632	77.0%
16/2	Right	U	2:4	N/A	C2:G		1	23	-	500	2000	632	79.2%
16/3	Right	U	2:4	N/A	C2:G		1	23	-	542	2000	632	85.8%
17/1	Ahead	U	2:4	N/A	C2:H		1	41	-	653	2000	1105	59.1%
17/2	Ahead	U	2:4	N/A	C2:H		1	41	-	578	2000	1105	52.3%
17/3	Ahead	U	2:4	N/A	C2:H		1	41	-	618	2000	1105	55.9%
18/1	Ahead	U	1:3	N/A	C1:F		1	55	-	561	2000	1474	38.1%
18/2	Ahead	U	1:3	N/A	C1:F		1	55	-	623	2000	1474	42.3%
19/1	Ahead	U	1:3	N/A	C1:G		1	55	-	1056	2000	1474	71.7%
19/2	Ahead	U	1:3	N/A	C1:G		1	55	-	1160	2000	1474	78.7%
19/3	Ahead	U	1:3	N/A	C1:G		1	55	-	992	2000	1474	67.3%
J2: Watering Lane	-	-	N/A	-	-		-	-	-	-	-	-	86.2%
1/2+1/1	A45 Northbound Ahead Left	U	N/A	N/A	C3:A		1	57	-	1491	2120:1980	1359+370	86.2 : 86.2%
1/3	A45 Northbound Ahead	U	N/A	N/A	C3:A		1	57	-	1366	2120	1618	84.4%
1/4	A45 Northbound Ahead	U	N/A	N/A	C3:A		1	57	-	1240	1980	1511	82.1%
4/1	Watering Lane Left	U	N/A	N/A	C3:B		1	7	-	132	1919	202	65.3%

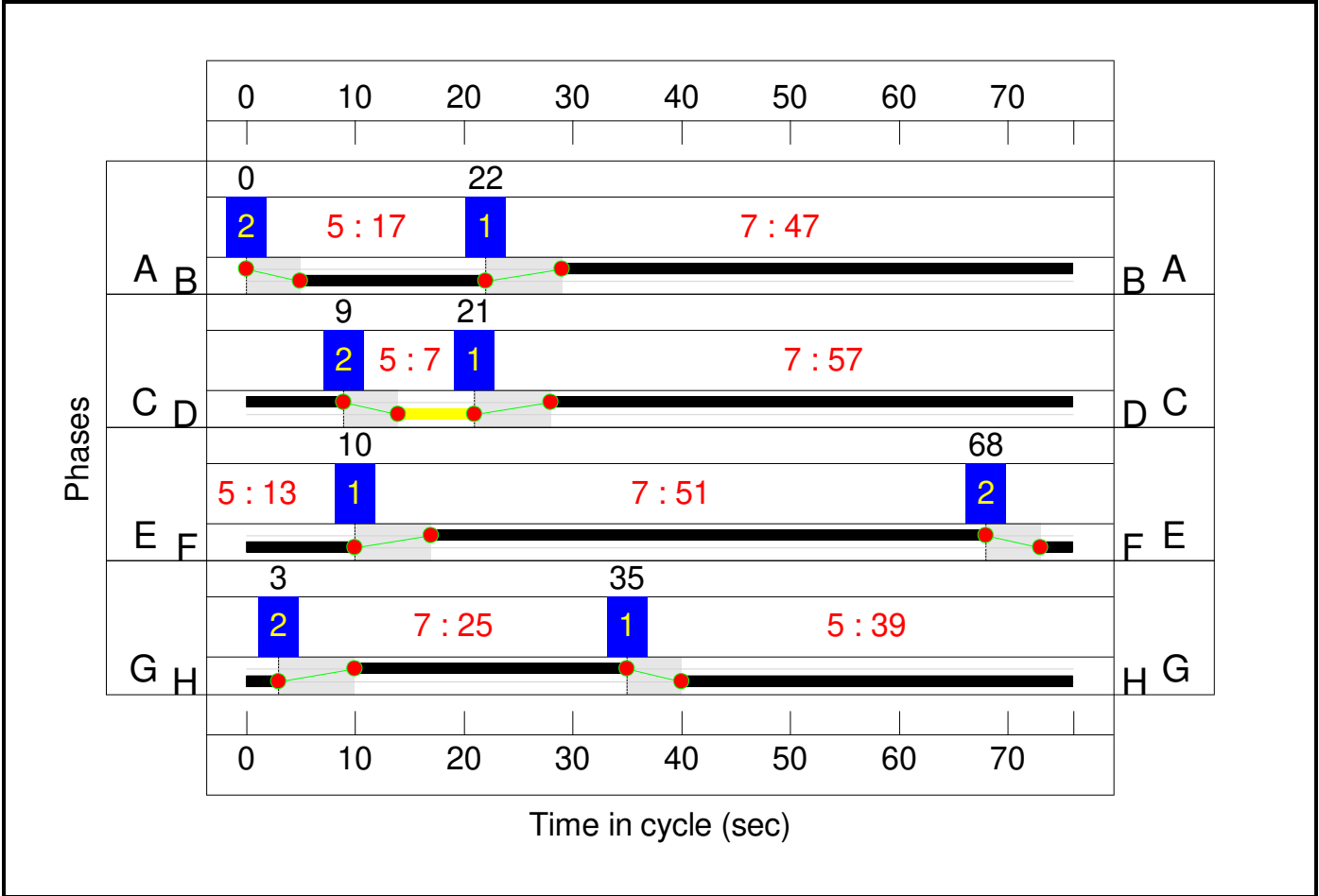
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 Mitigation Model	-	-	0	0	0	106.6	79.6	0.0	186.3	-	-	-	-
J1: M1 Junction 15	-	-	0	0	0	101.3	70.8	0.0	172.1	-	-	-	-
1/2+1/1	640	640	-	-	-	4.7	1.0	-	5.6 (2.5+3.2)	31.7 (31.0:32.3)	6.8	1.0	7.8
1/3+1/4	1029	1029	-	-	-	7.6	1.2	-	8.8 (3.2+5.7)	30.9 (31.0:30.8)	7.1	1.2	8.4
3/1	137	137	-	-	-	0.4	0.1	-	0.5	12.5	0.9	0.1	1.1
3/2	199	199	-	-	-	1.0	0.2	-	1.2	21.3	3.3	0.2	3.5
3/3	283	283	-	-	-	0.6	0.3	-	0.9	12.1	1.3	0.3	1.6
3/4	330	330	-	-	-	0.7	0.4	-	1.2	12.9	1.2	0.4	1.6
4/2+4/1	1073	1073	-	-	-	3.8	0.6	-	4.4 (2.2+2.3)	14.8 (14.6:15.0)	7.8	0.6	8.4
4/3	773	773	-	-	-	3.2	1.3	-	4.5	21.2	12.7	1.3	14.0
4/4+4/5	1822	1822	-	-	-	8.5	4.3	-	12.8 (5.6+7.3)	25.3 (24.1:26.3)	19.6	4.3	23.9
6/1	1060	1060	-	-	-	5.8	3.4	-	9.2	31.2	22.4	3.4	25.7
6/2+6/3	1176	1176	-	-	-	6.3	2.4	-	8.6 (5.9+2.8)	26.4 (27.4:24.6)	23.8	2.4	26.2
6/4	1120	1120	-	-	-	3.5	5.5	-	9.0	28.9	23.6	5.5	29.2
8/1	141	141	-	-	-	1.3	1.2	-	2.5	63.1	2.9	1.2	4.0
8/2	128	128	-	-	-	1.2	0.7	-	1.8	51.4	2.6	0.7	3.2
9/2+9/1	691	691	-	-	-	4.9	3.2	-	8.1 (5.9+2.3)	42.2 (43.4:39.6)	9.7	3.2	12.9
9/3+9/4	1042	1042	-	-	-	7.9	6.1	-	14.0 (6.7+7.3)	48.3 (48.0:48.7)	11.3	6.1	17.4
11/1	728	728	-	-	-	3.2	1.0	-	4.2	20.7	8.0	1.0	9.0
11/2	798	798	-	-	-	3.1	1.3	-	4.4	19.8	8.0	1.3	9.3
12/1	1073	1073	-	-	-	0.5	1.2	-	1.7	5.8	9.0	1.2	10.2
12/2	1015	1015	-	-	-	0.4	1.0	-	1.4	5.0	6.3	1.0	7.3

13/2+13/1	709	709	-	-	-	4.6	1.1	-	5.7 (2.9+2.8)	29.0 (29.1:28.9)	6.7	1.1	7.8
13/3	533	533	-	-	-	3.8	3.1	-	6.9	46.4	10.7	3.1	13.7
13/4+13/5	1169	1169	-	-	-	8.6	7.9	-	16.5 (7.9+8.6)	50.8 (50.4:51.2)	12.6	7.9	20.5
15/1	1139	1139	-	-	-	2.0	4.3	-	6.3	19.8	17.3	4.3	21.6
15/2	1078	1078	-	-	-	1.4	2.8	-	4.2	14.0	16.7	2.8	19.5
15/3+15/4	1160	1160	-	-	-	0.6	2.3	-	2.9 (2.1+0.8)	8.9 (8.6:10.1)	3.5	2.3	5.8
16/1	486	486	-	-	-	0.1	1.6	-	1.7	12.6	0.5	1.6	2.2
16/2	500	500	-	-	-	0.1	1.8	-	1.9	13.8	0.6	1.8	2.4
16/3	542	542	-	-	-	0.1	2.8	-	2.9	19.5	0.6	2.8	3.5
17/1	653	653	-	-	-	2.7	0.7	-	3.4	18.8	6.7	0.7	7.4
17/2	578	578	-	-	-	2.7	0.5	-	3.3	20.4	6.1	0.5	6.6
17/3	618	618	-	-	-	3.2	0.6	-	3.8	22.1	6.9	0.6	7.6
18/1	561	561	-	-	-	0.4	0.3	-	0.7	4.4	2.9	0.3	3.2
18/2	623	623	-	-	-	0.4	0.4	-	0.8	4.5	2.7	0.4	3.0
19/1	1056	1056	-	-	-	0.6	1.3	-	1.8	6.3	2.7	1.3	4.0
19/2	1160	1160	-	-	-	0.6	1.8	-	2.4	7.5	2.3	1.8	4.1
19/3	992	992	-	-	-	1.0	1.0	-	2.0	7.2	2.8	1.0	3.8
J2: Watering Lane	-	-	0	0	0	5.3	8.9	0.0	14.2	-	-	-	-
1/2+1/1	1491	1491	-	-	-	1.3	3.1	-	4.3 (3.3+1.1)	10.5 (10.1:12.1)	7.4	3.1	10.5
1/3	1366	1366	-	-	-	1.3	2.7	-	4.0	10.5	9.1	2.7	11.7
1/4	1240	1240	-	-	-	1.5	2.3	-	3.8	10.9	15.4	2.3	17.7
4/1	132	132	-	-	-	1.2	0.9	-	2.1	57.7	2.7	0.9	3.6
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): -0.2 Total Delay for Signalled Lanes (pcuHr): 27.78 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): -4.0 Total Delay for Signalled Lanes (pcuHr): 25.56 Cycle Time (s): 76 C1 - Eastside Controller Stream: 3 PRC for Signalled Lanes (%): 14.3 Total Delay for Signalled Lanes (pcuHr): 12.02 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -7.9 Total Delay for Signalled Lanes (pcuHr): 48.89 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 27.7 Total Delay for Signalled Lanes (pcuHr): 3.12 Cycle Time (s): 76 C2 - Westside Controller Stream: 3 PRC for Signalled Lanes (%): -9.9 Total Delay for Signalled Lanes (pcuHr): 37.66 Cycle Time (s): 76 C2 - Westside Controller Stream: 4 PRC for Signalled Lanes (%): 4.9 Total Delay for Signalled Lanes (pcuHr): 17.02 Cycle Time (s): 76 C3 - Watering Lane PRC for Signalled Lanes (%): 4.4 Total Delay for Signalled Lanes (pcuHr): 14.21 Cycle Time (s): 76 PRC Over All Lanes (%): -9.9 Total Delay Over All Lanes(pcuHr): 186.26													

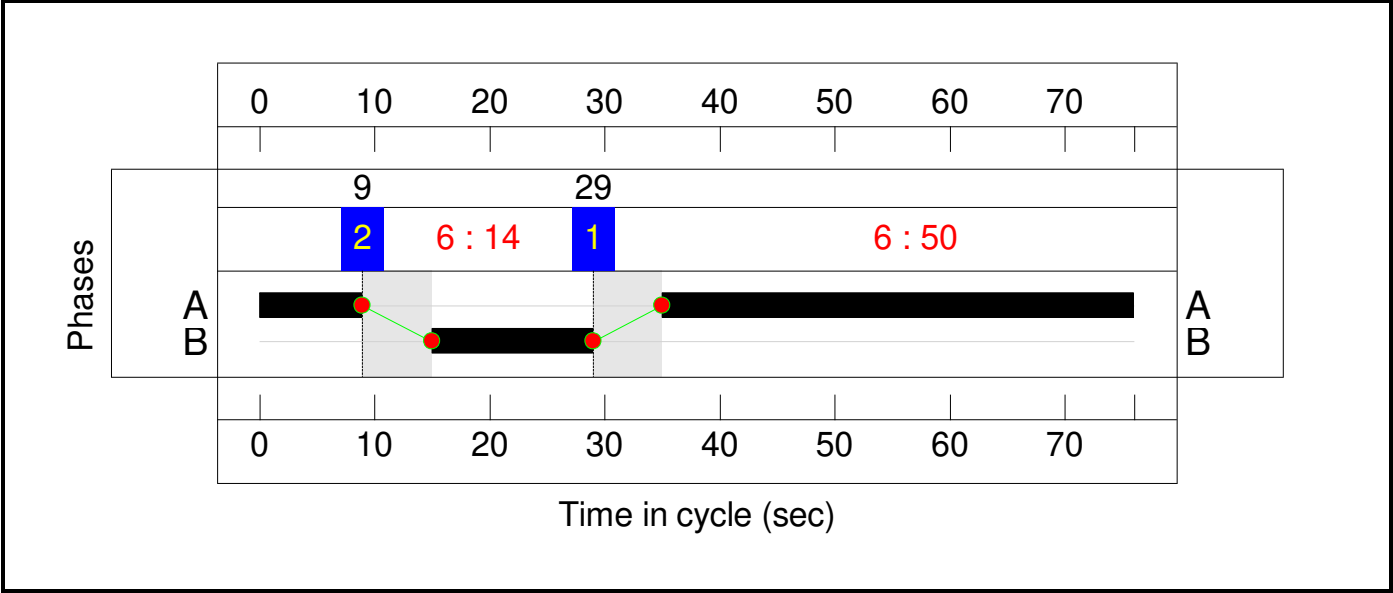
Signal Timings Diagram
Scenario 5: '2021 I1 Dev AM' (FG9: '2021 I1 Dev AM Peak', Plan 1: 'Network Control Plan 1')
C1 - Eastside Controller



C2 - Westside Controller



C3 - Watering Lane



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: M1 Junction 15 Mitigation Model	-	-	N/A	-	-		-	-	-	-	-	-	107.8%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	107.8%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	19	-	896	2120:1980	558+521	78.2 : 88.3%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:B		1	19	-	1224	2120:4000	270+1053	92.5 : 92.5%
3/1	Ahead	U	1:2	N/A	C1:C		1	33	-	193	1900	850	22.2%
3/2	Right	U	1:2	N/A	C1:C		1	33	-	176	1900	850	20.7%
3/3	Right	U	1:2	N/A	C1:C		1	33	-	358	1900	850	42.1%
3/4	Right	U	1:2	N/A	C1:C		1	33	-	520	1900	850	61.2%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:D		1	31	-	1055	2120:1980	893+834	59.0 : 63.3%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	31	-	917	2120	893	102.7%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	31	-	1898	2120:2120	893+893	104.9 : 107.8%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	47	-	1275	2000	1263	99.0%
6/2+6/3	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	47	-	1482	2000:2000	858+745	91.1 : 88.2%
6/4	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	47	-	1004	2000	1263	74.0%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:E		1	7	-	58	1912	201	28.8%
8/2	Saxon Avenue Left	U	1:3	N/A	C1:E		1	7	-	42	2105	222	19.0%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	17	-	761	2120:1980	502+219	105.6 : 105.6%
9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	17	-	1069	2120:2120	502+502	106.4 : 106.6%

11/1	Ahead	U	2:3	N/A	C2:E		1	51	-	874	1900	1300	58.6%
11/2	Ahead Right	U	2:3	N/A	C2:E		1	51	-	819	1900	1300	58.7%
12/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1151	1995	1523	68.3%
12/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1007	1995	1523	62.9%
13/2+13/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	13	-	578	1980:1980	365+365	82.5 : 75.9%
13/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	13	-	176	2120	391	45.1%
13/4+13/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	13	-	465	2120:2120	391+391	48.9 : 70.2%
15/1	Ahead	U	1:1	N/A	C1:A		1	45	-	795	2000	1211	62.9%
15/2	Ahead	U	1:1	N/A	C1:A		1	45	-	725	2000	1211	57.3%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A		1	45	-	833	2000:2000	957+467	55.6 : 57.5%
16/1	Right	U	2:4	N/A	C2:G		1	25	-	530	2000	684	73.4%
16/2	Right	U	2:4	N/A	C2:G		1	25	-	534	2000	684	73.4%
16/3	Right	U	2:4	N/A	C2:G		1	25	-	535	2000	684	73.4%
17/1	Ahead	U	2:4	N/A	C2:H		1	39	-	265	2000	1053	24.6%
17/2	Ahead	U	2:4	N/A	C2:H		1	39	-	191	2000	1053	18.1%
17/3	Ahead	U	2:4	N/A	C2:H		1	39	-	298	2000	1053	28.3%
18/1	Ahead	U	1:3	N/A	C1:F		1	55	-	578	2000	1474	39.2%
18/2	Ahead	U	1:3	N/A	C1:F		1	55	-	613	2000	1474	41.6%
19/1	Ahead	U	1:3	N/A	C1:G		1	55	-	1275	2000	1474	84.9%
19/2	Ahead	U	1:3	N/A	C1:G		1	55	-	1456	2000	1474	95.9%
19/3	Ahead	U	1:3	N/A	C1:G		1	55	-	962	2000	1474	60.6%
J2: Watering Lane	-	-	N/A	-	-		-	-	-	-	-	-	80.0%
1/2+1/1	A45 Northbound Ahead Left	U	N/A	N/A	C3:A		1	50	-	1255	2120:1980	1151+430	77.5 : 76.5%
1/3	A45 Northbound Ahead	U	N/A	N/A	C3:A		1	50	-	1161	2120	1423	79.4%

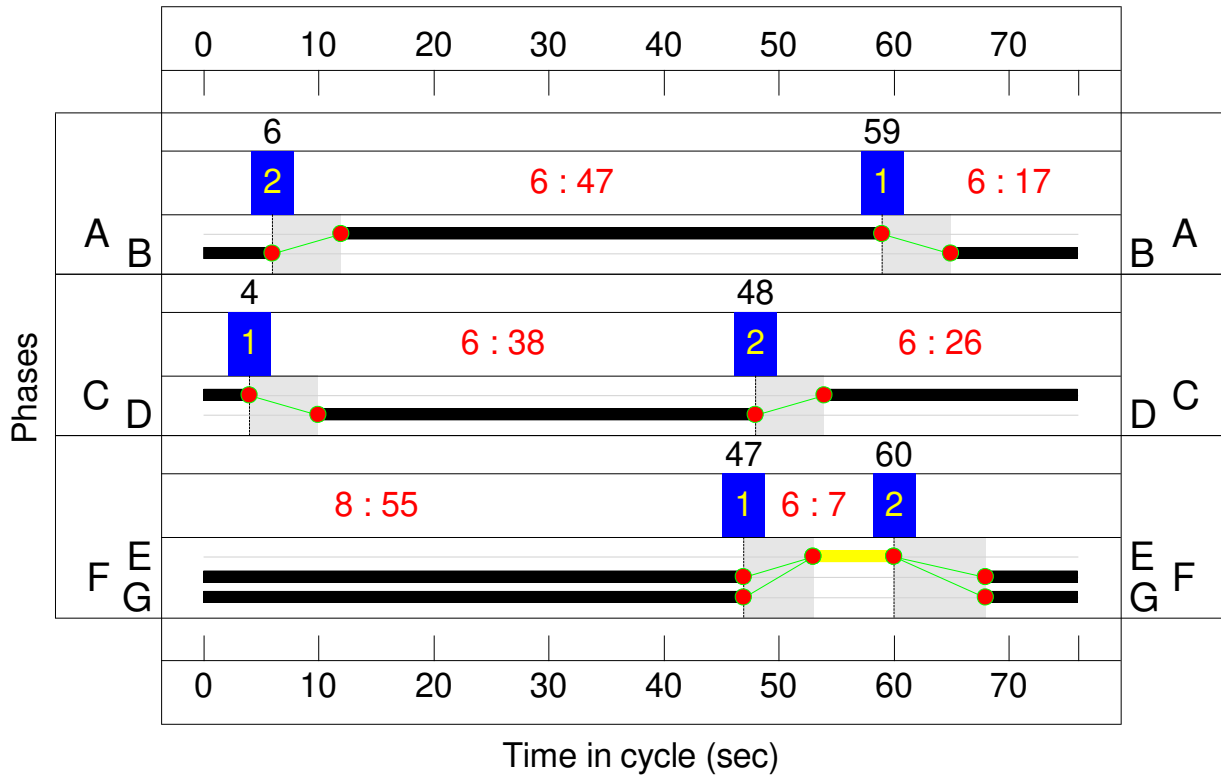
1/4	A45 Northbound Ahead	U	N/A	N/A	C3:A		1	50	-	810	1980	1329	58.8%
4/1	Watering Lane Left	U	N/A	N/A	C3:B		1	14	-	303	1919	379	80.0%

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: M1 Junction 15 Mitigation Model	-	-	0	0	0	112.8	215.7	0.0	328.5	-	-	-	-
J1: M1 Junction 15	-	-	0	0	0	106.9	209.5	0.0	316.4	-	-	-	-
1/2+1/1	896	896	-	-	-	6.6	2.4	-	9.0 (4.3+4.7)	36.0 (35.6:36.5)	9.2	2.4	11.6
1/3+1/4	1224	1224	-	-	-	9.0	5.6	-	14.6 (2.8+11.8)	42.9 (39.8:43.6)	10.0	5.6	15.6
3/1	188	188	-	-	-	0.3	0.1	-	0.5	8.9	1.8	0.1	1.9
3/2	176	176	-	-	-	1.6	0.1	-	1.8	35.9	3.7	0.1	3.8
3/3	358	358	-	-	-	0.1	0.4	-	0.5	4.8	0.2	0.4	0.6
3/4	520	520	-	-	-	1.0	0.8	-	1.8	12.2	2.8	0.8	3.5
4/2+4/1	1055	1055	-	-	-	5.0	0.8	-	5.8 (2.9+2.9)	19.8 (19.6:20.0)	8.8	0.8	9.6
4/3	917	893	-	-	-	6.5	22.4	-	28.9	113.6	19.9	22.4	42.3
4/4+4/5	1898	1785	-	-	-	15.8	63.8	-	79.6 (32.7+46.9)	151.0 (125.7:175.6)	21.8	63.8	85.6
6/1	1251	1251	-	-	-	6.7	14.8	-	21.5	61.9	23.4	14.8	38.2
6/2+6/3	1439	1274	-	-	-	9.9	4.2	-	14.1 (7.4+6.7)	35.2 (34.0:36.7)	31.2	4.2	35.4
6/4	935	935	-	-	-	3.2	1.4	-	4.6	17.9	19.2	1.4	20.6
8/1	58	58	-	-	-	0.5	0.2	-	0.7	43.9	1.1	0.2	1.3
8/2	42	42	-	-	-	0.4	0.1	-	0.5	41.1	0.8	0.1	0.9
9/2+9/1	761	733	-	-	-	6.9	27.1	-	34.0 (24.2+9.8)	160.8 (164.2:153.1)	12.2	27.1	39.3
9/3+9/4	1069	1004	-	-	-	10.2	39.2	-	49.4 (24.4+25.0)	166.3 (164.6:168.0)	11.5	39.2	50.8
11/1	762	762	-	-	-	1.4	0.7	-	2.1	9.8	4.5	0.7	5.2
11/2	763	763	-	-	-	0.2	0.7	-	0.9	4.3	0.8	0.7	1.5
12/1	1039	1039	-	-	-	0.6	1.1	-	1.7	5.8	4.8	1.1	5.8
12/2	957	957	-	-	-	0.1	0.8	-	1.0	3.7	0.8	0.8	1.6

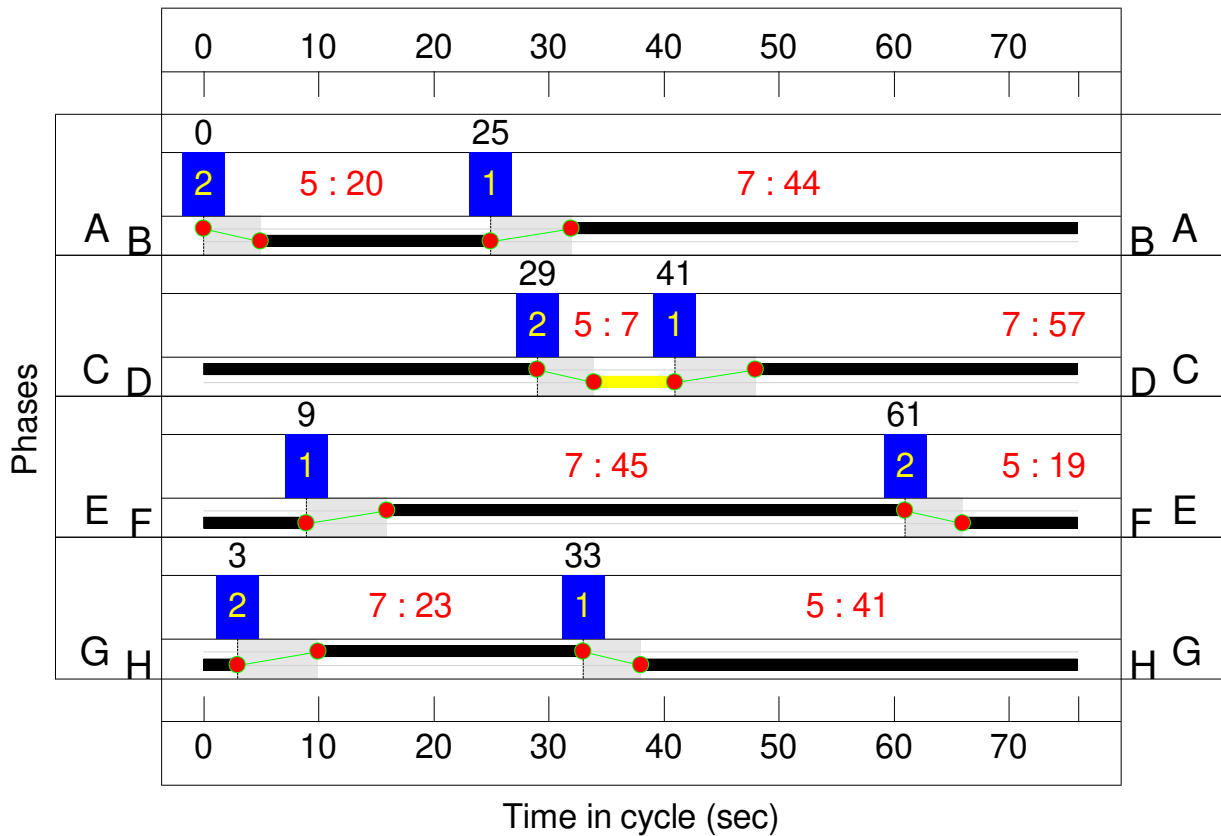
Signal Timings Diagram

Scenario 6: '2021 I1 Dev PM' (FG10: '2021 I1 Dev PM Peak', Plan 1: 'Network Control Plan 1')

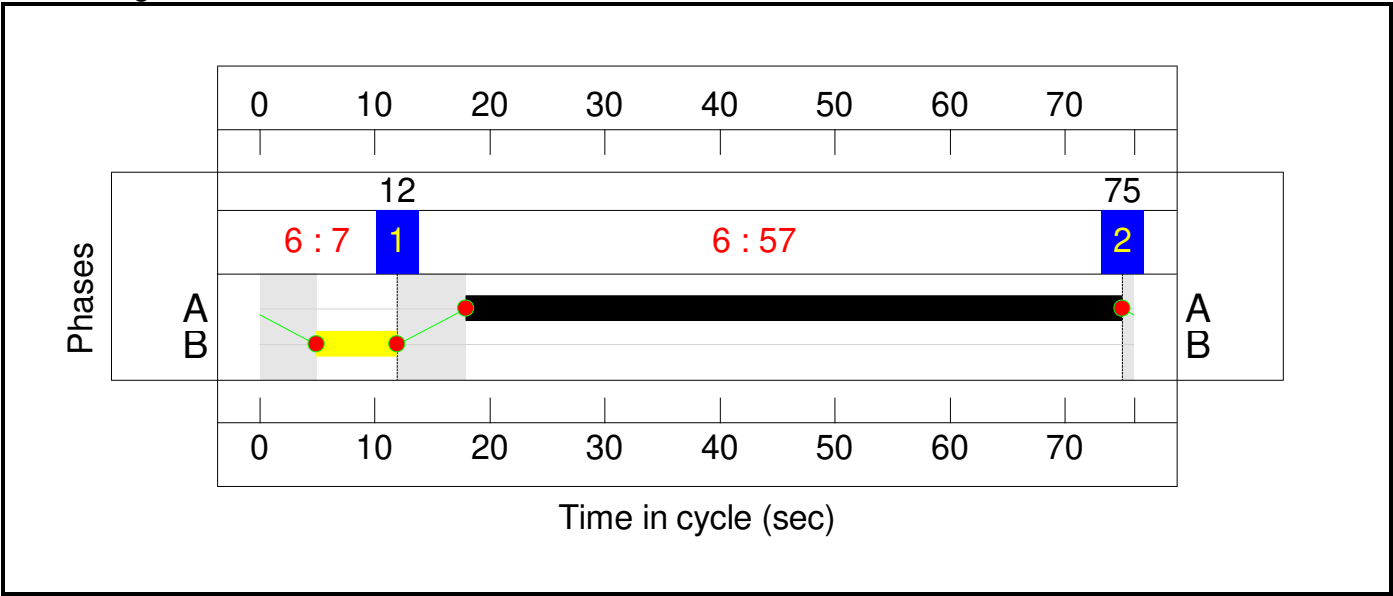
C1 - Eastside Controller



C2 - Westside Controller



C3 - Watering Lane



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: M1 Junction 15 Mitigation Model	-	-	N/A	-	-		-	-	-	-	-	-	89.6%
J1: M1 Junction 15	-	-	N/A	-	-		-	-	-	-	-	-	89.6%
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:B		1	17	-	564	2120:1980	502+469	50.0 : 66.7%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:B		1	17	-	934	2120:4000	502+947	62.7 : 65.3%
3/1	Ahead	U	1:2	N/A	C1:C		1	26	-	158	1900	675	23.4%
3/2	Right	U	1:2	N/A	C1:C		1	26	-	195	1900	675	28.9%
3/3	Right	U	1:2	N/A	C1:C		1	26	-	241	1900	675	35.7%
3/4	Right	U	1:2	N/A	C1:C		1	26	-	275	1900	675	40.7%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:D		1	38	-	938	2120:1980	1013+1016	45.8 : 46.7%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	38	-	692	2120	1088	63.6%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:D		1	38	-	1758	2120:2120	991+1088	82.9 : 86.0%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	44	-	936	2000	1184	79.0%
6/2+6/3	M1 Northbound Circulatory Ahead Right	U	2:1	N/A	C2:A		1	44	-	1124	2000:2000	870+576	77.7 : 77.7%
6/4	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	44	-	1040	2000	1184	87.8%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:E		1	7	-	111	1896	200	55.6%
8/2	Saxon Avenue Left	U	1:3	N/A	C1:E		1	7	-	104	2105	222	46.9%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B		1	20	-	690	2120:1980	586+255	82.1 : 82.1%
9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	20	-	1024	2120:2120	586+586	85.2 : 89.6%
11/1	Ahead	U	2:3	N/A	C2:E		1	45	-	719	1900	1150	62.5%
11/2	Ahead Right	U	2:3	N/A	C2:E		1	45	-	769	1900	1150	66.9%

12/1	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1115	1995	1523	73.2%
12/2	Toucan Crossing Ahead	U	2:2	N/A	C2:C		1	57	-	1078	1995	1523	70.8%
13/2+13/1	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	19	-	814	1980:1980	500+474	83.5 : 83.5%
13/3	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	19	-	397	2120	558	71.2%
13/4+13/5	A508 Northampton Rd Ahead	U	2:3	N/A	C2:F		1	19	-	925	2120:2120	558+558	79.8 : 86.0%
15/1	Ahead	U	1:1	N/A	C1:A		1	47	-	976	2000	1263	77.3%
15/2	Ahead	U	1:1	N/A	C1:A		1	47	-	950	2000	1263	75.2%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A		1	47	-	1010	2000:2000	1060+349	71.7 : 71.7%
16/1	Right	U	2:4	N/A	C2:G		1	23	-	481	2000	632	76.2%
16/2	Right	U	2:4	N/A	C2:G		1	23	-	499	2000	632	79.0%
16/3	Right	U	2:4	N/A	C2:G		1	23	-	525	2000	632	83.1%
17/1	Ahead	U	2:4	N/A	C2:H		1	41	-	495	2000	1105	44.8%
17/2	Ahead	U	2:4	N/A	C2:H		1	41	-	451	2000	1105	40.8%
17/3	Ahead	U	2:4	N/A	C2:H		1	41	-	485	2000	1105	43.9%
18/1	Ahead	U	1:3	N/A	C1:F		1	55	-	502	2000	1474	34.1%
18/2	Ahead	U	1:3	N/A	C1:F		1	55	-	555	2000	1474	37.7%
19/1	Ahead	U	1:3	N/A	C1:G		1	55	-	933	2000	1474	63.3%
19/2	Ahead	U	1:3	N/A	C1:G		1	55	-	1097	2000	1474	74.4%
19/3	Ahead	U	1:3	N/A	C1:G		1	55	-	936	2000	1474	63.5%
J2: Watering Lane	-	-	N/A	-	-		-	-	-	-	-	-	75.1%
1/2+1/1	A45 Northbound Ahead Left	U	N/A	N/A	C3:A		1	57	-	1289	2120:1980	1380+337	75.1 : 75.1%
1/3	A45 Northbound Ahead	U	N/A	N/A	C3:A		1	57	-	1201	2120	1618	74.2%
1/4	A45 Northbound Ahead	U	N/A	N/A	C3:A		1	57	-	1075	1980	1511	71.1%
4/1	Watering Lane Left	U	N/A	N/A	C3:B		1	7	-	129	1919	202	63.9%

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: M1 Junction 15 Mitigation Model	-	-	0	0	0	89.1	50.7	0.0	139.8	-	-	-	-
J1: M1 Junction 15	-	-	0	0	0	85.4	45.7	0.0	131.1	-	-	-	-
1/2+1/1	564	564	-	-	-	4.0	0.7	-	4.7 (2.1+2.7)	30.2 (29.5:30.7)	5.9	0.7	6.6
1/3+1/4	934	934	-	-	-	6.8	0.9	-	7.7 (2.6+5.1)	29.6 (29.5:29.7)	6.0	0.9	6.9
3/1	158	158	-	-	-	0.4	0.2	-	0.6	13.2	1.2	0.2	1.4
3/2	195	195	-	-	-	1.1	0.2	-	1.3	23.6	4.1	0.2	4.3
3/3	241	241	-	-	-	0.3	0.3	-	0.6	8.4	0.5	0.3	0.7
3/4	275	275	-	-	-	0.3	0.3	-	0.7	8.7	0.5	0.3	0.9
4/2+4/1	938	938	-	-	-	3.0	0.4	-	3.5 (1.7+1.8)	13.3 (13.2:13.5)	6.3	0.4	6.7
4/3	692	692	-	-	-	2.6	0.9	-	3.4	17.9	10.4	0.9	11.3
4/4+4/5	1758	1758	-	-	-	7.6	2.7	-	10.2 (4.6+5.6)	21.0 (20.2:21.6)	17.2	2.7	19.9
6/1	936	936	-	-	-	4.9	1.9	-	6.8	26.0	19.7	1.9	21.6
6/2+6/3	1124	1124	-	-	-	5.1	1.7	-	6.8 (4.5+2.3)	21.9 (24.0:18.7)	21.3	1.7	23.1
6/4	1040	1040	-	-	-	2.8	3.4	-	6.2	21.6	21.9	3.4	25.4
8/1	111	111	-	-	-	1.0	0.6	-	1.6	52.4	2.2	0.6	2.8
8/2	104	104	-	-	-	0.9	0.4	-	1.4	47.2	2.1	0.4	2.5
9/2+9/1	690	690	-	-	-	4.7	2.2	-	7.0 (5.0+2.0)	36.3 (37.4:33.9)	9.5	2.2	11.7
9/3+9/4	1024	1024	-	-	-	7.5	3.3	-	10.8 (5.2+5.6)	37.9 (37.7:38.1)	10.6	3.3	14.0
11/1	719	719	-	-	-	2.4	0.8	-	3.3	16.3	6.3	0.8	7.1
11/2	769	769	-	-	-	2.4	1.0	-	3.4	16.0	6.5	1.0	7.5
12/1	1115	1115	-	-	-	0.5	1.4	-	1.8	5.9	5.8	1.4	7.1
12/2	1078	1078	-	-	-	0.5	1.2	-	1.7	5.6	6.8	1.2	8.0

13/2+13/1	814	814	-	-	-	5.9	2.5	-	8.3 (4.3+4.0)	36.9 (37.0:36.7)	8.1	2.5	10.6
13/3	397	397	-	-	-	2.8	1.2	-	4.0	36.4	7.5	1.2	8.7
13/4+13/5	925	925	-	-	-	6.8	2.4	-	9.2 (4.4+4.8)	35.6 (35.3:35.9)	9.6	2.4	12.0
15/1	976	976	-	-	-	1.3	1.7	-	3.0	11.2	16.0	1.7	17.7
15/2	950	950	-	-	-	0.8	1.5	-	2.3	8.7	15.4	1.5	16.9
15/3+15/4	1010	1010	-	-	-	0.4	1.3	-	1.6 (1.2+0.5)	5.8 (5.5:6.9)	2.7	1.3	4.0
16/1	481	481	-	-	-	0.1	1.6	-	1.6	12.2	0.5	1.6	2.1
16/2	499	499	-	-	-	0.1	1.8	-	1.9	13.7	0.5	1.8	2.4
16/3	525	525	-	-	-	0.1	2.4	-	2.4	16.7	0.6	2.4	3.0
17/1	495	495	-	-	-	1.7	0.4	-	2.1	15.4	4.2	0.4	4.6
17/2	451	451	-	-	-	2.0	0.3	-	2.4	19.0	4.5	0.3	4.9
17/3	485	485	-	-	-	2.4	0.4	-	2.8	20.6	5.2	0.4	5.6
18/1	502	502	-	-	-	0.4	0.3	-	0.6	4.5	2.9	0.3	3.1
18/2	555	555	-	-	-	0.4	0.3	-	0.7	4.5	2.7	0.3	3.0
19/1	933	933	-	-	-	0.4	0.9	-	1.3	4.9	1.6	0.9	2.5
19/2	1097	1097	-	-	-	0.5	1.4	-	2.0	6.5	1.9	1.4	3.3
19/3	936	936	-	-	-	0.6	0.9	-	1.5	5.6	1.6	0.9	2.4
J2: Watering Lane	-	-	0	0	0	3.7	5.0	0.0	8.7	-	-	-	-
1/2+1/1	1289	1289	-	-	-	0.8	1.5	-	2.3 (1.8+0.5)	6.3 (6.2:6.8)	6.0	1.5	7.5
1/3	1201	1201	-	-	-	0.8	1.4	-	2.3	6.8	6.5	1.4	7.9
1/4	1075	1075	-	-	-	0.9	1.2	-	2.1	7.1	7.7	1.2	9.0
4/1	129	129	-	-	-	1.2	0.9	-	2.0	56.7	2.6	0.9	3.4
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): 16.5 Total Delay for Signalled Lanes (pcuHr): 19.37 Cycle Time (s): 76 C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): 4.6 Total Delay for Signalled Lanes (pcuHr): 20.24 Cycle Time (s): 76 C1 - Eastside Controller Stream: 3 PRC for Signalled Lanes (%): 20.9 Total Delay for Signalled Lanes (pcuHr): 9.00 Cycle Time (s): 76 C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): 0.4 Total Delay for Signalled Lanes (pcuHr): 37.58 Cycle Time (s): 76 C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 22.9 Total Delay for Signalled Lanes (pcuHr): 3.50 Cycle Time (s): 76 C2 - Westside Controller Stream: 3 PRC for Signalled Lanes (%): 4.6 Total Delay for Signalled Lanes (pcuHr): 28.17 Cycle Time (s): 76 C2 - Westside Controller Stream: 4 PRC for Signalled Lanes (%): 8.3 Total Delay for Signalled Lanes (pcuHr): 13.23 Cycle Time (s): 76 C3 - Watering Lane PRC for Signalled Lanes (%): 19.9 Total Delay for Signalled Lanes (pcuHr): 8.68 Cycle Time (s): 76 PRC Over All Lanes (%): 0.4 Total Delay Over All Lanes(pcuHr): 139.78													