

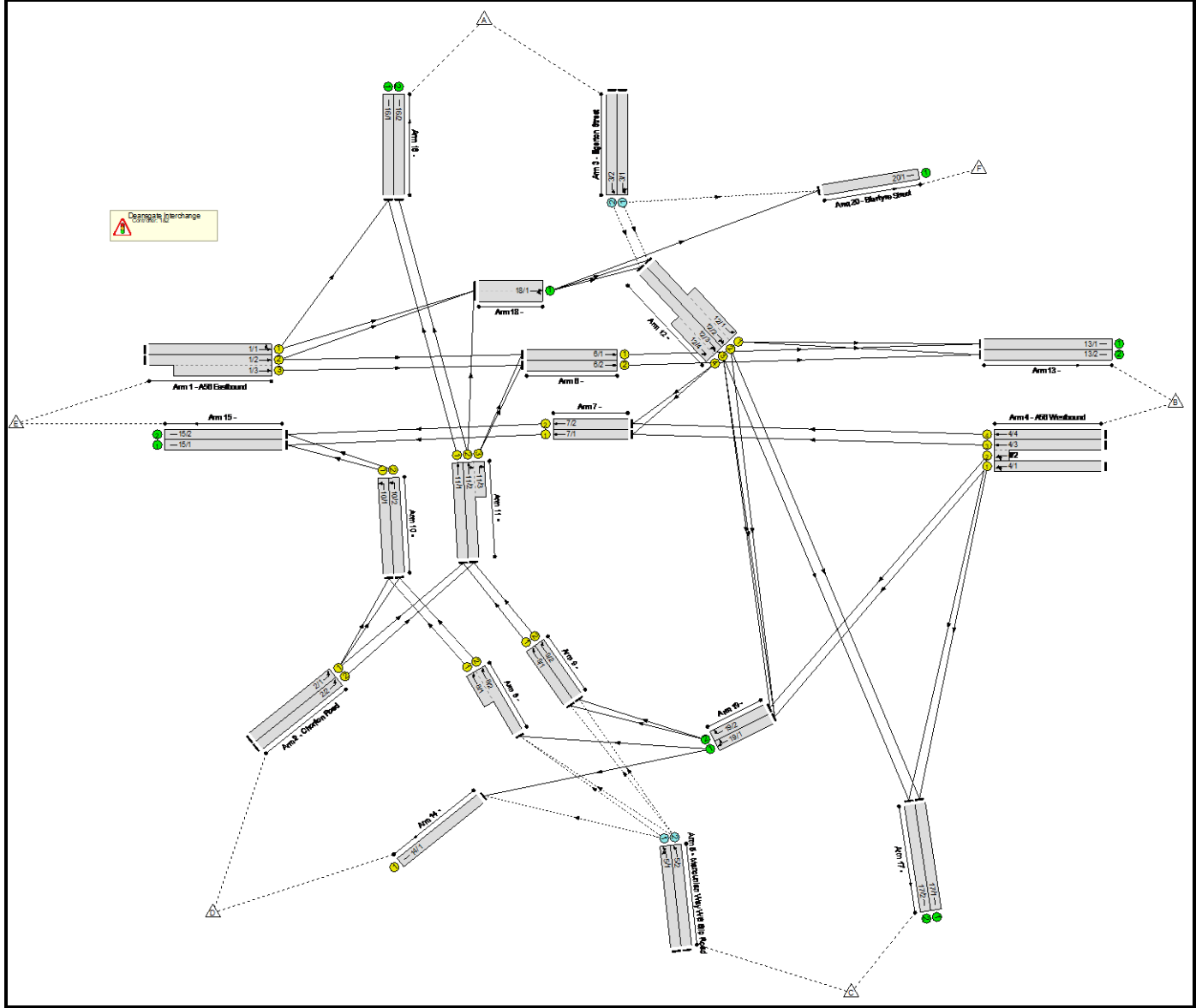
Full Input Data And Results

Full Input Data And Results

User and Project Details

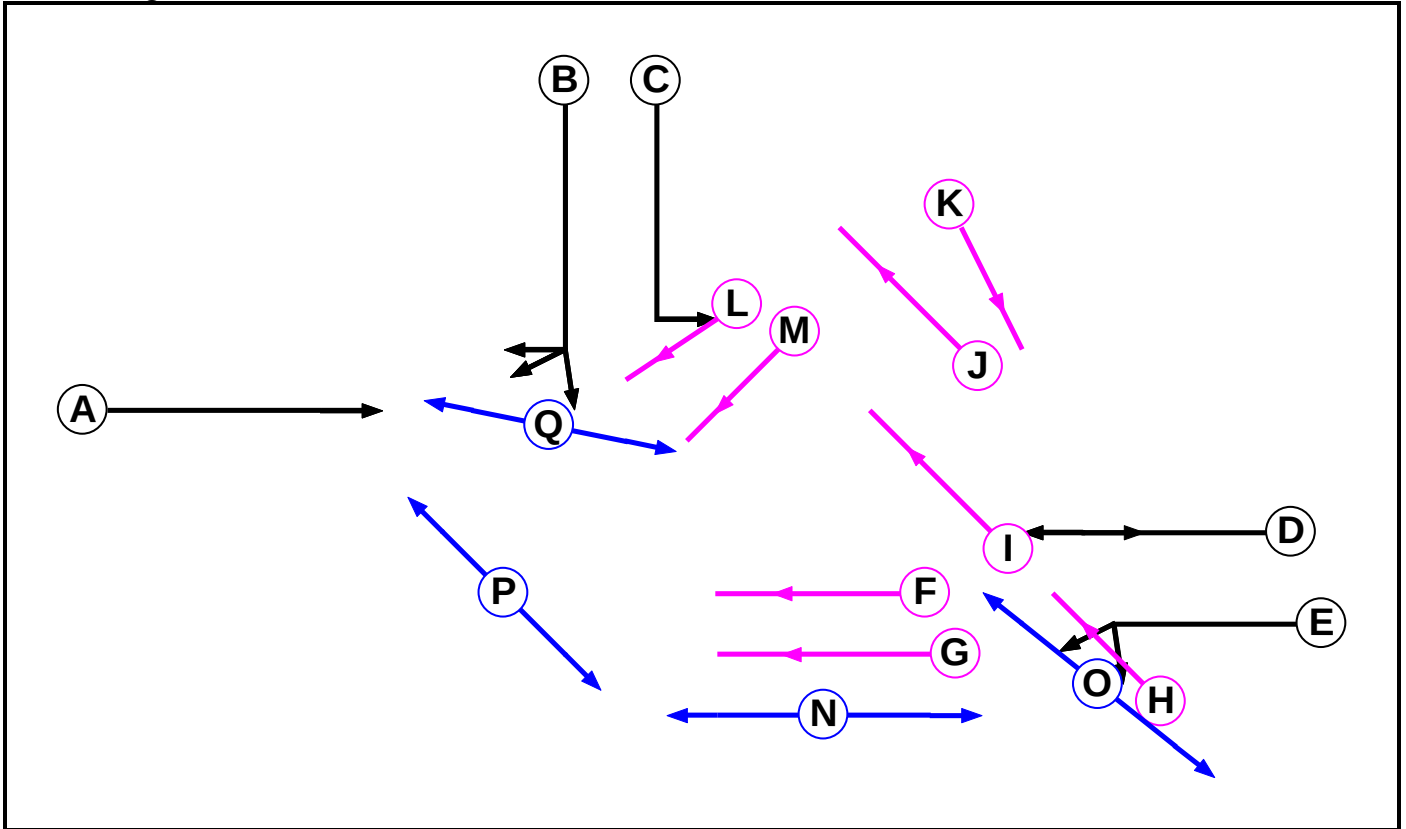
Project:	
Title:	
Location:	
Additional detail:	
File name:	Deansgate Interchange V4.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



C1

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Cycle		7	6
G	Cycle		7	6
H	Cycle		7	7
I	Cycle		7	7
J	Cycle		7	7
K	Cycle		7	7
L	Cycle		7	2
M	Cycle		4	0
N	Pedestrian		5	5
O	Pedestrian		5	5
P	Pedestrian		8	8
Q	Pedestrian		5	4

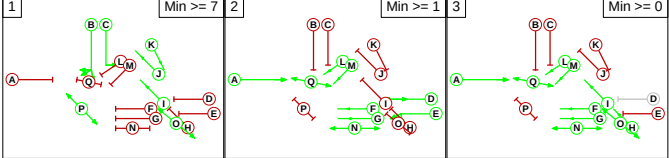
Phase Intergreens Matrix

Terminating Phase	Starting Phase																	
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	A		6	6	-	-	-	-	-	-	8	8	-	-	-	-	7	-
	B	5		-	5	6	7	7	-	-	-	-	-	-	8	-	-	-
	C	5	-		-	-	-	-	-	-	-	-	5	15	-	-	-	5
	D	-	7	-		-	-	-	-	-	5	5	-	-	-	-	6	-
	E	-	5	-	-		-	-	5	5	-	-	-	-	-	6	-	-
	F	-	6	-	-	-		-	-	-	-	-	-	-	-	-	-	-
	G	-	6	-	-	-	-		-	-	-	-	-	-	-	-	-	-
	H	-	-	-	-	6	-	-		-	-	-	-	-	-	-	-	-
	I	-	-	-	-	6	-	-	-		-	-	-	-	-	-	-	-
	J	8	-	-	6	-	-	-	-	-		-	-	-	-	-	-	-
	K	6	-	-	8	-	-	-	-	-	-		-	-	-	-	-	-
	L	-	-	5	-	-	-	-	-	-	-	-		-	-	-	-	-
	M	-	-	5	-	-	-	-	-	-	-	-	-		-	-	-	-
	N	-	7	-	-	-	-	-	-	-	-	-	-	-		-	-	-
	O	-	-	-	-	7	-	-	-	-	-	-	-	-	-		-	-
	P	6	-	-	6	-	-	-	-	-	-	-	-	-	-	-		-
	Q	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	B C I J K O P
2	A D E F G L M N Q
3	A F G H I L M N O Q

Stage Diagram



Full Input Data And Results

Phase Delays

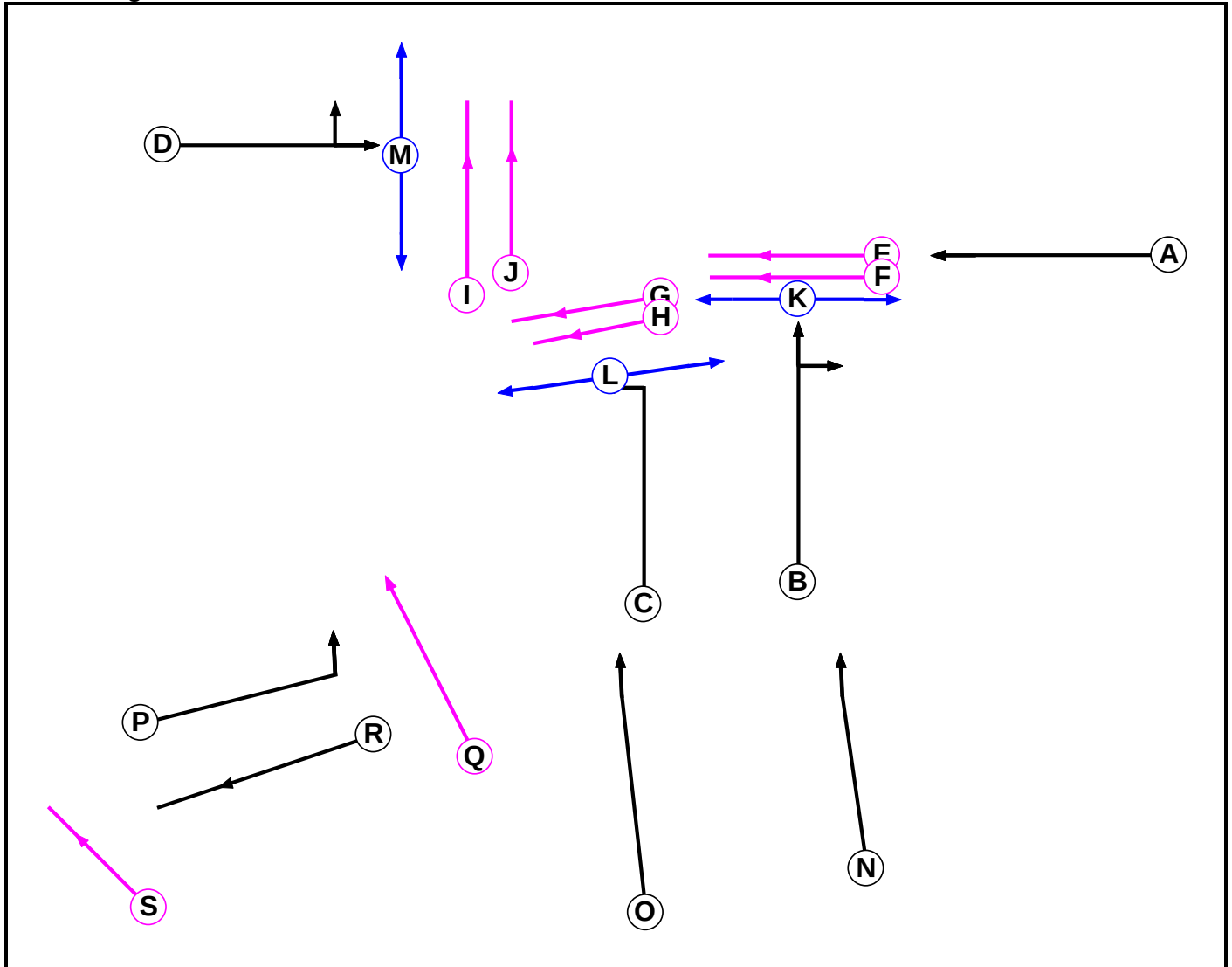
Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	2	B	Losing	3	3
1	2	I	Losing	3	3
1	2	O	Losing	2	2
1	2	P	Losing	2	2
1	3	H	Gaining absolute	3	3
2	1	F	Losing	1	1
2	1	G	Losing	1	1
2	1	L	Losing	5	5
2	1	M	Losing	5	5
2	1	Q	Losing	1	1
3	1	A	Losing	1	1
3	1	F	Losing	1	1
3	1	G	Losing	1	1
3	1	L	Losing	5	5
3	1	M	Losing	5	5
3	1	Q	Losing	5	5

Prohibited Stage Change

	To Stage			
From Stage	1	2	3	
	1		15	15
	2	10		6
	3	10	7	

C2

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		5	5
C	Traffic		5	5
D	Traffic		7	4
E	Cycle		7	4
F	Cycle		7	3
G	Cycle		7	6
H	Cycle		7	6
I	Cycle		7	7
J	Cycle		6	6
K	Pedestrian		7	7
L	Pedestrian		5	5
M	Pedestrian		7	7
N	Traffic		7	7
O	Traffic		7	7
P	Traffic		5	5
Q	Cycle		7	7
R	Traffic		7	7
S	Cycle		7	7

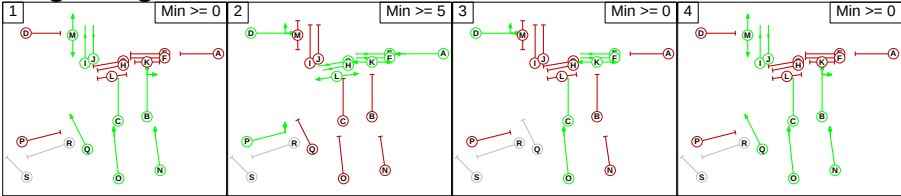
Phase Intergreens Matrix

Terminating Phase	Starting Phase																			
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
	A		5	7	-	-	-	-	-	7	7	-	-	8	-	-	-	-	-	-
	B	6		-	7	6	6	-	-	-	-	5	-	-	-	-	-	-	-	
	C	5	-		-	-	-	6	6	-	-	-	5	-	-	-	-	-	-	
	D	-	5	-		-	-	-	-	5	7	-	-	5	-	-	-	-	-	
	E	-	7	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	
	F	-	6	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	
	G	-	-	6	-	-	-		-	-	-	-	-	-	-	-	-	-	-	
	H	-	-	6	-	-	-	-		-	-	-	-	-	-	-	-	-	-	
	I	5	-	-	9	-	-	-	-		-	-	-	-	-	-	-	-	-	
	J	9	-	-	7	-	-	-	-	-		-	-	-	-	-	-	-	-	
	K	-	10	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	
	L	-	-	7	-	-	-	-	-	-	-	-		-	-	-	-	-	-	
	M	6	-	-	8	-	-	-	-	-	-	-	-		-	-	-	-	-	
	N	-	-	-	-	-	-	-	-	-	-	-	-	-		-	4	-	-	
	O	-	-	-	-	-	-	-	-	-	-	-	-	-	-		5	-	-	
	P	-	-	-	-	-	-	-	-	-	-	-	-	-	6	5		5	-	
	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7		-	
	R	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	

Phases in Stage

Stage No.	Phases in Stage
1	BCIJMNOQ
2	ADEFGHKL P
3	CDEFKO
4	BCIJMNOQ

Stage Diagram



Full Input Data And Results

Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	2	B	Losing	6	6
1	2	C	Losing	5	5
1	2	I	Losing	3	3
1	2	J	Losing	1	1
1	2	M	Losing	4	4
1	2	O	Losing	8	8
1	2	Q	Losing	8	8
2	1	A	Losing	3	3
2	1	D	Losing	3	3
2	1	E	Losing	3	3
2	1	F	Losing	4	4
2	1	G	Losing	7	7
2	1	H	Losing	7	7
2	1	K	Losing	3	3
2	1	L	Losing	3	3
2	3	G	Losing	1	1
2	3	H	Losing	1	1
2	4	A	Losing	3	3
2	4	D	Losing	3	3
2	4	E	Losing	3	3
2	4	F	Losing	4	4
2	4	G	Losing	7	7
2	4	H	Losing	7	7
2	4	K	Losing	3	3
2	4	L	Losing	3	3
3	1	D	Losing	5	5
3	1	E	Losing	3	3
3	1	F	Losing	4	4
3	1	N	Gaining absolute	1	1
3	4	D	Losing	5	5
3	4	E	Losing	3	3
3	4	F	Losing	4	4
3	4	N	Gaining absolute	1	1
4	2	B	Losing	6	6
4	2	C	Losing	5	5
4	2	I	Losing	2	2
4	2	J	Losing	1	1
4	2	M	Losing	4	4
4	2	O	Losing	8	8

Full Input Data And Results

4	2	Q	Losing	15	15
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Prohibited Stage Change

	To Stage				
From Stage		1	2	3	4
	1		15	9	0
	2	13		7	13
	3	12	6		12
	4	0	22	9	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Deansgate Interchange											
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)
3/1 (Egerton Street)	12/2 (Ahead)	1000	0	18/1	0.33	All	-	-	-	-	-
	20/1 (Left)	1439	0	18/1	1.09	All					
3/2 (Egerton Street)	12/3 (Ahead)	1000	0	18/1	0.33	All	-	-	-	-	-
5/1 (Mancunian Way WB Slip Road)	8/2 (Ahead)	1000	0	19/1	0.33	All	-	-	-	-	-
	14/1 (Left)	1000	0	19/2	0.33	All					
				19/1	0.33	All					
	8/2 (Ahead)	1000	0	19/1	0.33	All					
				19/2	0.33	All					
				19/1	0.33	All					
5/2 (Mancunian Way WB Slip Road)	9/1 (Ahead)	1000	0	19/1	0.33	All	-	-	-	-	-
				19/2	0.33	All					
	9/2 (Ahead)	1000	0	19/1	0.33	All					
				19/2	0.33	All					

Lane Input Data

Junction: Deansgate Interchange												
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 (A56 Eastbound)	U	D	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 16 Left	Inf
											Arm 18 Ahead	Inf
1/2 (A56 Eastbound)	U	D	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 6 Ahead Arm 18 Ahead	Inf Inf
1/3 (A56 Eastbound)	U	D	2	3	13.9	Geom	-	3.00	0.00	N	Arm 6 Ahead	Inf
2/1 (Chorlton Road)	U	P	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 10 Left	Inf
											Arm 11 Left	Inf
2/2 (Chorlton Road)	U	P	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 11 Left	Inf
3/1 (Egerton Street)	O		2	3	60.0	Geom	-	3.80	0.00	Y	Arm 12 Ahead	Inf
											Arm 20 Left	Inf
3/2 (Egerton Street)	O		2	3	60.0	Geom	-	3.80	0.00	Y	Arm 12 Ahead	Inf
4/1 (A56 Westbound)	U	E	2	3	60.0	Geom	-	3.30	0.00	Y	Arm 17 Left Arm 19 Ahead	Inf Inf
4/2 (A56 Westbound)	U	E	2	3	2.0	Geom	-	3.30	0.00	Y	Arm 17 Left	Inf
											Arm 19 Ahead	Inf
4/3 (A56 Westbound)	U	D	2	3	60.0	Geom	-	3.30	0.00	Y	Arm 7 Ahead	Inf
4/4 (A56 Westbound)	U	D	2	3	60.0	Geom	-	3.30	0.00	Y	Arm 7 Ahead	Inf
5/1 (Mancunian Way WB Slip Road)	O		2	3	60.0	Geom	-	3.70	0.00	Y	Arm 8 Ahead	Inf
											Arm 14 Left	Inf
5/2 (Mancunian Way WB Slip Road)	O		2	3	60.0	Geom	-	3.70	0.00	Y	Arm 8 Ahead	Inf
											Arm 9 Ahead	Inf

Full Input Data And Results

6/1	U	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 13 Ahead	Inf
6/2	U	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 13 Ahead	Inf
7/1	U	A	2	3	13.0	Geom	-	3.50	0.00	Y	Arm 15 Ahead	Inf
7/2	U	A	2	3	13.0	Geom	-	3.50	0.00	Y	Arm 15 Ahead	Inf
8/1	U	O	2	3	5.0	Geom	-	3.90	0.00	Y	Arm 10 Ahead	Inf
8/2	U	O	2	3	60.0	Geom	-	3.90	0.00	Y	Arm 10 Ahead	Inf
9/1	U	N	2	3	60.0	Geom	-	3.80	0.00	Y	Arm 11 Ahead	Inf
9/2	U	N	2	3	60.0	Geom	-	3.80	0.00	Y	Arm 11 Ahead	Inf
10/1	U	C	2	3	7.8	Geom	-	3.80	0.00	Y	Arm 15 Left	Inf
10/2	U	C	2	3	7.8	Geom	-	3.80	0.00	Y	Arm 15 Left	Inf
11/1	U	B	2	3	7.8	Geom	-	3.50	0.00	Y	Arm 16 Ahead	3.90
11/2	U	B	2	3	7.8	Geom	-	3.50	0.00	Y	Arm 16 Ahead	Inf
											Arm 18 Right	Inf
11/3	U	B	2	3	5.0	Geom	-	3.50	0.00	Y	Arm 6 Right	Inf
12/1	U	C	2	3	8.7	Geom	-	3.90	0.00	Y	Arm 13 Left	Inf
12/2	U	B	2	3	60.0	Geom	-	3.90	0.00	Y	Arm 17 Ahead	Inf
											Arm 19 Right	Inf
12/3	U	B	2	3	60.0	Geom	-	3.90	0.00	Y	Arm 17 Ahead	Inf
											Arm 19 Right	Inf
12/4	U	B	2	3	7.3	Geom	-	3.90	0.00	Y	Arm 7 Right	Inf
13/1	U		2	3	60.0	Inf	-	-	-	-	-	-
13/2	U		2	3	60.0	Inf	-	-	-	-	-	-
14/1	U	Q	2	3	60.0	Geom	-	3.30	0.00	Y		
15/1	U		2	3	60.0	Inf	-	-	-	-	-	-
15/2	U		2	3	60.0	Inf	-	-	-	-	-	-
16/1	U		2	3	60.0	Inf	-	-	-	-	-	-
16/2	U		2	3	60.0	Inf	-	-	-	-	-	-
17/1	U		2	3	60.0	Inf	-	-	-	-	-	-
17/2	U		2	3	60.0	Inf	-	-	-	-	-	-
18/1	U		2	3	8.7	Inf	-	-	-	-	-	-

Full Input Data And Results

19/1	U		2	3	13.9	Inf	-	-	-	-	-	-
19/2	U		2	3	13.9	Inf	-	-	-	-	-	-
20/1 (Blantyre Street)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 AM Peak'	08:00	09:00	01:00	
2: '2022 PM Peak'	08:00	09:00	01:00	
3: 'AM Base'	08:00	09:00	01:00	
4: 'PM Base'	08:00	09:00	01:00	
5: 'AM Base + Dev'	08:00	09:00	01:00	
6: 'PM Base + Dev'	08:00	09:00	01:00	

Scenario 1: 'AM Survey' (FG1: '2022 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	0	121	20	199	192	5	537
	B	200	11	155	83	282	5	736
	C	264	111	0	126	744	5	1250
	D	369	150	69	0	15	5	608
	E	282	551	760	7	0	5	1605
	F	0	0	0	0	0	0	0
	Tot.	1115	944	1004	415	1233	25	4736

Traffic Lane Flows

Lane	Scenario 1: AM Survey
Junction: Deansgate Interchange	
1/1	517
1/2 (with short)	1088(In) 537(Out)
1/3 (short)	551
2/1	300
2/2	308
3/1	169
3/2	368
4/1	237
4/2 (short)	217
4/3 (with short)	292(In) 75(Out)
4/4	207
5/1	626
5/2	624
6/1	218
6/2	605
7/1	238
7/2	236
8/1 (short)	372
8/2 (with short)	744(In) 372(Out)
9/1	107
9/2	489
10/1	380
10/2	379
11/1	392
11/2 (with short)	797(In) 525(Out)
11/3 (short)	272
12/1 (short)	121
12/2 (with short)	676(In) 555(Out)
12/3 (with short)	692(In) 500(Out)
12/4 (short)	192
13/1	279
13/2	665
14/1	415
15/1	618

Full Input Data And Results

15/2	615
16/1	674
16/2	441
17/1	666
17/2	338
18/1	856
19/1	289
19/2	216
20/1	25

Lane Saturation Flows

Junction: Deansgate Interchange								
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 (A56 Eastbound)	3.00	0.00	Y	Arm 16 Left	Inf	54.5 %	1915	1915
				Arm 18 Ahead	Inf	45.5 %		
1/2 (A56 Eastbound)	3.00	0.00	Y	Arm 6 Ahead	Inf	0.0 %	1915	1915
				Arm 18 Ahead	Inf	100.0 %		
1/3 (A56 Eastbound)	3.00	0.00	N	Arm 6 Ahead	Inf	100.0 %	2055	2055
2/1 (Chorlton Road)	3.50	0.00	Y	Arm 10 Left	Inf	5.0 %	1965	1965
				Arm 11 Left	Inf	95.0 %		
2/2 (Chorlton Road)	3.50	0.00	Y	Arm 11 Left	Inf	100.0 %	1965	1965
3/1 (Egerton Street)	3.80	0.00	Y	Arm 12 Ahead	Inf	97.0 %	1995	1995
				Arm 20 Left	Inf	3.0 %		
3/2 (Egerton Street)	3.80	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1995	1995
4/1 (A56 Westbound)	3.30	0.00	Y	Arm 17 Left	Inf	65.0 %	1945	1945
				Arm 19 Ahead	Inf	35.0 %		
4/2 (A56 Westbound)	3.30	0.00	Y	Arm 17 Left	Inf	0.5 %	1945	1945
				Arm 19 Ahead	Inf	99.5 %		
4/3 (A56 Westbound)	3.30	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1945	1945
4/4 (A56 Westbound)	3.30	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1945	1945
5/1 (Mancunian Way WB Slip Road)	3.70	0.00	Y	Arm 8 Ahead	Inf	79.9 %	1985	1985
				Arm 14 Left	Inf	20.1 %		
5/2 (Mancunian Way WB Slip Road)	3.70	0.00	Y	Arm 8 Ahead	Inf	39.1 %	1985	1985
				Arm 9 Ahead	Inf	60.9 %		
6/1	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
6/2	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
7/1	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
7/2	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
8/1	3.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2005	2005
8/2	3.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2005	2005
9/1	3.80	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1995	1995
9/2	3.80	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1995	1995
10/1	3.80	0.00	Y	Arm 15 Left	Inf	100.0 %	1995	1995
10/2	3.80	0.00	Y	Arm 15 Left	Inf	100.0 %	1995	1995
11/1	3.50	0.00	Y	Arm 16 Ahead	3.90	100.0 %	1419	1419
11/2	3.50	0.00	Y	Arm 16 Ahead	Inf	84.0 %	1965	1965
				Arm 18 Right	Inf	16.0 %		

Full Input Data And Results

11/3	3.50	0.00	Y	Arm 6 Right	Inf	100.0 %	1965	1965
12/1	3.90	0.00	Y	Arm 13 Left	Inf	100.0 %	2005	2005
12/2	3.90	0.00	Y	Arm 17 Ahead	Inf	92.3 %	2005	2005
				Arm 19 Right	Inf	7.7 %		
12/3	3.90	0.00	Y	Arm 17 Ahead	Inf	67.4 %	2005	2005
				Arm 19 Right	Inf	32.6 %		
12/4	3.90	0.00	Y	Arm 7 Right	Inf	100.0 %	2005	2005
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	3.30	0.00	Y				1945	1945
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf
17/1	Infinite Saturation Flow						Inf	Inf
17/2	Infinite Saturation Flow						Inf	Inf
18/1	Infinite Saturation Flow						Inf	Inf
19/1	Infinite Saturation Flow						Inf	Inf
19/2	Infinite Saturation Flow						Inf	Inf
20/1 (Blantyre Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'PM Survey' (FG2: '2022 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	0	134	18	218	245	5	620
	B	171	15	222	133	615	5	1161
	C	192	65	0	127	474	5	863
	D	318	102	45	0	21	5	491
	E	182	357	664	8	0	5	1216
	F	0	0	0	0	0	0	0
	Tot.	863	673	949	486	1355	25	4351

Traffic Lane Flows

Lane	Scenario 2: PM Survey
Junction: Deansgate Interchange	
1/1	375
1/2 (with short)	841(In) 484(Out)
1/3 (short)	357
2/1	228
2/2	263
3/1	256
3/2	364
4/1	327
4/2 (short)	219
4/3 (with short)	469(In) 250(Out)
4/4	365
5/1	431
5/2	432
6/1	87
6/2	452
7/1	411
7/2	449
8/1 (short)	237
8/2 (with short)	474(In) 237(Out)
9/1	111
9/2	342
10/1	248
10/2	247
11/1	318
11/2 (with short)	605(In) 423(Out)
11/3 (short)	182
12/1 (short)	134
12/2 (with short)	632(In) 498(Out)
12/3 (with short)	700(In) 455(Out)
12/4 (short)	245
13/1	154
13/2	519
14/1	486
15/1	659

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15/2	696
16/1	500
16/2	363
17/1	579
17/2	370
18/1	737
19/1	359
19/2	191
20/1	25

Lane Saturation Flows

Junction: Deansgate Interchange								
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 (A56 Eastbound)	3.00	0.00	Y	Arm 16 Left	Inf	48.5 %	1915	1915
				Arm 18 Ahead	Inf	51.5 %		
1/2 (A56 Eastbound)	3.00	0.00	Y	Arm 6 Ahead	Inf	0.0 %	1915	1915
				Arm 18 Ahead	Inf	100.0 %		
1/3 (A56 Eastbound)	3.00	0.00	N	Arm 6 Ahead	Inf	100.0 %	2055	2055
2/1 (Chorlton Road)	3.50	0.00	Y	Arm 10 Left	Inf	9.2 %	1965	1965
				Arm 11 Left	Inf	90.8 %		
2/2 (Chorlton Road)	3.50	0.00	Y	Arm 11 Left	Inf	100.0 %	1965	1965
3/1 (Egerton Street)	3.80	0.00	Y	Arm 12 Ahead	Inf	98.0 %	1995	1995
				Arm 20 Left	Inf	2.0 %		
3/2 (Egerton Street)	3.80	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1995	1995
4/1 (A56 Westbound)	3.30	0.00	Y	Arm 17 Left	Inf	59.3 %	1945	1945
				Arm 19 Ahead	Inf	40.7 %		
4/2 (A56 Westbound)	3.30	0.00	Y	Arm 17 Left	Inf	12.8 %	1945	1945
				Arm 19 Ahead	Inf	87.2 %		
4/3 (A56 Westbound)	3.30	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1945	1945
4/4 (A56 Westbound)	3.30	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1945	1945
5/1 (Mancunian Way WB Slip Road)	3.70	0.00	Y	Arm 8 Ahead	Inf	70.5 %	1985	1985
				Arm 14 Left	Inf	29.5 %		
5/2 (Mancunian Way WB Slip Road)	3.70	0.00	Y	Arm 8 Ahead	Inf	39.4 %	1985	1985
				Arm 9 Ahead	Inf	60.6 %		
6/1	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
6/2	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
7/1	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
7/2	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
8/1	3.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2005	2005
8/2	3.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2005	2005
9/1	3.80	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1995	1995
9/2	3.80	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1995	1995
10/1	3.80	0.00	Y	Arm 15 Left	Inf	100.0 %	1995	1995
10/2	3.80	0.00	Y	Arm 15 Left	Inf	100.0 %	1995	1995
11/1	3.50	0.00	Y	Arm 16 Ahead	3.90	100.0 %	1419	1419
11/2	3.50	0.00	Y	Arm 16 Ahead	Inf	85.8 %	1965	1965
				Arm 18 Right	Inf	14.2 %		

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11/3	3.50	0.00	Y	Arm 6 Right	Inf	100.0 %	1965	1965
12/1	3.90	0.00	Y	Arm 13 Left	Inf	100.0 %	2005	2005
12/2	3.90	0.00	Y	Arm 17 Ahead	Inf	77.3 %	2005	2005
				Arm 19 Right	Inf	22.7 %		
12/3	3.90	0.00	Y	Arm 17 Ahead	Inf	75.2 %	2005	2005
				Arm 19 Right	Inf	24.8 %		
12/4	3.90	0.00	Y	Arm 7 Right	Inf	100.0 %	2005	2005
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	3.30	0.00	Y				1945	1945
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf
17/1	Infinite Saturation Flow						Inf	Inf
17/2	Infinite Saturation Flow						Inf	Inf
18/1	Infinite Saturation Flow						Inf	Inf
19/1	Infinite Saturation Flow						Inf	Inf
19/2	Infinite Saturation Flow						Inf	Inf
20/1 (Blantyre Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'AM Base' (FG3: 'AM Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	133	43	201	195	5	577
	B	326	11	179	91	371	5	983
	C	271	111	0	126	746	5	1259
	D	370	150	69	0	15	5	609
	E	283	552	773	7	0	5	1620
	F	0	0	0	0	0	0	0
	Tot.	1250	957	1064	425	1327	25	5048

Traffic Lane Flows

Lane	Scenario 3: AM Base
Junction: Deansgate Interchange	
1/1	520
1/2 (with short)	1100(In) 548(Out)
1/3 (short)	552
2/1	300
2/2	309
3/1	221
3/2	356
4/1	270
4/2 (short)	342
4/3 (with short)	394(In) 52(Out)
4/4	319
5/1	630
5/2	629
6/1	204
6/2	620
7/1	225
7/2	341
8/1 (short)	373
8/2 (with short)	746(In) 373(Out)
9/1	193
9/2	536
10/1	381
10/2	380
11/1	478
11/2 (with short)	845(In) 573(Out)
11/3 (short)	272
12/1 (short)	133
12/2 (with short)	708(In) 575(Out)
12/3 (with short)	713(In) 518(Out)
12/4 (short)	195
13/1	271
13/2	686
14/1	425
15/1	606

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15/2	721
16/1	761
16/2	489
17/1	672
17/2	392
18/1	869
19/1	299
19/2	342
20/1	25

Lane Saturation Flows

Junction: Deansgate Interchange								
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 (A56 Eastbound)	3.00	0.00	Y	Arm 16 Left	Inf	54.4 %	1915	1915
				Arm 18 Ahead	Inf	45.6 %		
1/2 (A56 Eastbound)	3.00	0.00	Y	Arm 6 Ahead	Inf	0.0 %	1915	1915
				Arm 18 Ahead	Inf	100.0 %		
1/3 (A56 Eastbound)	3.00	0.00	N	Arm 6 Ahead	Inf	100.0 %	2055	2055
2/1 (Chorlton Road)	3.50	0.00	Y	Arm 10 Left	Inf	5.0 %	1965	1965
				Arm 11 Left	Inf	95.0 %		
2/2 (Chorlton Road)	3.50	0.00	Y	Arm 11 Left	Inf	100.0 %	1965	1965
3/1 (Egerton Street)	3.80	0.00	Y	Arm 12 Ahead	Inf	97.7 %	1995	1995
				Arm 20 Left	Inf	2.3 %		
3/2 (Egerton Street)	3.80	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1995	1995
4/1 (A56 Westbound)	3.30	0.00	Y	Arm 17 Left	Inf	66.3 %	1945	1945
				Arm 19 Ahead	Inf	33.7 %		
4/2 (A56 Westbound)	3.30	0.00	Y	Arm 17 Left	Inf	0.0 %	1945	1945
				Arm 19 Ahead	Inf	100.0 %		
4/3 (A56 Westbound)	3.30	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1945	1945
4/4 (A56 Westbound)	3.30	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1945	1945
5/1 (Mancunian Way WB Slip Road)	3.70	0.00	Y	Arm 8 Ahead	Inf	80.0 %	1985	1985
				Arm 14 Left	Inf	20.0 %		
5/2 (Mancunian Way WB Slip Road)	3.70	0.00	Y	Arm 8 Ahead	Inf	38.5 %	1985	1985
				Arm 9 Ahead	Inf	61.5 %		
6/1	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
6/2	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
7/1	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
7/2	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
8/1	3.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2005	2005
8/2	3.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2005	2005
9/1	3.80	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1995	1995
9/2	3.80	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1995	1995
10/1	3.80	0.00	Y	Arm 15 Left	Inf	100.0 %	1995	1995
10/2	3.80	0.00	Y	Arm 15 Left	Inf	100.0 %	1995	1995
11/1	3.50	0.00	Y	Arm 16 Ahead	3.90	100.0 %	1419	1419
11/2	3.50	0.00	Y	Arm 16 Ahead	Inf	85.3 %	1965	1965
				Arm 18 Right	Inf	14.7 %		

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11/3	3.50	0.00	Y	Arm 6 Right	Inf	100.0 %	1965	1965
12/1	3.90	0.00	Y	Arm 13 Left	Inf	100.0 %	2005	2005
12/2	3.90	0.00	Y	Arm 17 Ahead	Inf	85.7 %	2005	2005
				Arm 19 Right	Inf	14.3 %		
12/3	3.90	0.00	Y	Arm 17 Ahead	Inf	75.7 %	2005	2005
				Arm 19 Right	Inf	24.3 %		
12/4	3.90	0.00	Y	Arm 7 Right	Inf	100.0 %	2005	2005
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	3.30	0.00	Y				1945	1945
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf
17/1	Infinite Saturation Flow						Inf	Inf
17/2	Infinite Saturation Flow						Inf	Inf
18/1	Infinite Saturation Flow						Inf	Inf
19/1	Infinite Saturation Flow						Inf	Inf
19/2	Infinite Saturation Flow						Inf	Inf
20/1 (Blantyre Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'PM Base' (FG4: 'PM Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	0	184	66	220	252	5	727
	B	234	11	169	91	341	5	851
	C	222	65	0	127	480	5	899
	D	321	102	47	0	21	5	496
	E	184	358	720	8	0	5	1275
	F	0	0	0	0	0	0	0
	Tot.	961	720	1002	446	1094	25	4248

Traffic Lane Flows

Lane	Scenario 4: PM Base
Junction: Deansgate Interchange	
1/1	427
1/2 (with short)	848(In) 490(Out)
1/3 (short)	358
2/1	235
2/2	261
3/1	307
3/2	420
4/1	260
4/2 (short)	250
4/3 (with short)	329(In) 79(Out)
4/4	262
5/1	449
5/2	450
6/1	119
6/2	417
7/1	295
7/2	298
8/1 (short)	240
8/2 (with short)	480(In) 240(Out)
9/1	145
9/2	397
10/1	251
10/2	250
11/1	359
11/2 (with short)	658(In) 480(Out)
11/3 (short)	178
12/1 (short)	184
12/2 (with short)	742(In) 558(Out)
12/3 (with short)	755(In) 503(Out)
12/4 (short)	252
13/1	211
13/2	509
14/1	446
15/1	546

Full Input Data And Results

15/2	548
16/1	543
16/2	418
17/1	631
17/2	371
18/1	795
19/1	319
19/2	250
20/1	25

Lane Saturation Flows

Junction: Deansgate Interchange								
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 (A56 Eastbound)	3.00	0.00	Y	Arm 16 Left	Inf	43.1 %	1915	1915
				Arm 18 Ahead	Inf	56.9 %		
1/2 (A56 Eastbound)	3.00	0.00	Y	Arm 6 Ahead	Inf	0.0 %	1915	1915
				Arm 18 Ahead	Inf	100.0 %		
1/3 (A56 Eastbound)	3.00	0.00	N	Arm 6 Ahead	Inf	100.0 %	2055	2055
2/1 (Chorlton Road)	3.50	0.00	Y	Arm 10 Left	Inf	8.9 %	1965	1965
				Arm 11 Left	Inf	91.1 %		
2/2 (Chorlton Road)	3.50	0.00	Y	Arm 11 Left	Inf	100.0 %	1965	1965
3/1 (Egerton Street)	3.80	0.00	Y	Arm 12 Ahead	Inf	98.4 %	1995	1995
				Arm 20 Left	Inf	1.6 %		
3/2 (Egerton Street)	3.80	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1995	1995
4/1 (A56 Westbound)	3.30	0.00	Y	Arm 17 Left	Inf	65.0 %	1945	1945
				Arm 19 Ahead	Inf	35.0 %		
4/2 (A56 Westbound)	3.30	0.00	Y	Arm 17 Left	Inf	0.0 %	1945	1945
				Arm 19 Ahead	Inf	100.0 %		
4/3 (A56 Westbound)	3.30	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1945	1945
4/4 (A56 Westbound)	3.30	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1945	1945
5/1 (Mancunian Way WB Slip Road)	3.70	0.00	Y	Arm 8 Ahead	Inf	71.7 %	1985	1985
				Arm 14 Left	Inf	28.3 %		
5/2 (Mancunian Way WB Slip Road)	3.70	0.00	Y	Arm 8 Ahead	Inf	35.1 %	1985	1985
				Arm 9 Ahead	Inf	64.9 %		
6/1	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
6/2	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
7/1	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
7/2	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
8/1	3.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2005	2005
8/2	3.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2005	2005
9/1	3.80	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1995	1995
9/2	3.80	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1995	1995
10/1	3.80	0.00	Y	Arm 15 Left	Inf	100.0 %	1995	1995
10/2	3.80	0.00	Y	Arm 15 Left	Inf	100.0 %	1995	1995
11/1	3.50	0.00	Y	Arm 16 Ahead	3.90	100.0 %	1419	1419
11/2	3.50	0.00	Y	Arm 16 Ahead	Inf	87.1 %	1965	1965
				Arm 18 Right	Inf	12.9 %		

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11/3	3.50	0.00	Y	Arm 6 Right	Inf	100.0 %	1965	1965
12/1	3.90	0.00	Y	Arm 13 Left	Inf	100.0 %	2005	2005
12/2	3.90	0.00	Y	Arm 17 Ahead	Inf	82.8 %	2005	2005
				Arm 19 Right	Inf	17.2 %		
12/3	3.90	0.00	Y	Arm 17 Ahead	Inf	73.8 %	2005	2005
				Arm 19 Right	Inf	26.2 %		
12/4	3.90	0.00	Y	Arm 7 Right	Inf	100.0 %	2005	2005
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	3.30	0.00	Y				1945	1945
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf
17/1	Infinite Saturation Flow						Inf	Inf
17/2	Infinite Saturation Flow						Inf	Inf
18/1	Infinite Saturation Flow						Inf	Inf
19/1	Infinite Saturation Flow						Inf	Inf
19/2	Infinite Saturation Flow						Inf	Inf
20/1 (Blantyre Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'AM Base+Dev' (FG5: 'AM Base + Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	0	136	58	201	195	5	595
	B	444	11	209	93	409	5	1171
	C	271	111	2	126	746	5	1261
	D	370	150	70	0	15	5	610
	E	283	553	779	7	0	5	1627
	F	0	0	0	0	0	0	0
	Tot.	1368	961	1118	427	1365	25	5264

Traffic Lane Flows

Lane	Scenario 5: AM Base+Dev
Junction: Deansgate Interchange	
1/1	522
1/2 (with short)	1105(In) 552(Out)
1/3 (short)	553
2/1	305
2/2	305
3/1	238
3/2	357
4/1	302
4/2 (short)	460
4/3 (with short)	460(In) 0(Out)
4/4	409
5/1	630
5/2	631
6/1	201
6/2	624
7/1	185
7/2	419
8/1 (short)	373
8/2 (with short)	746(In) 373(Out)
9/1	248
9/2	601
10/1	381
10/2	380
11/1	538
11/2 (with short)	906(In) 634(Out)
11/3 (short)	272
12/1 (short)	136
12/2 (with short)	720(In) 584(Out)
12/3 (with short)	728(In) 533(Out)
12/4 (short)	195
13/1	269
13/2	692
14/1	427
15/1	566

Full Input Data And Results

15/2	799
16/1	821
16/2	547
17/1	712
17/2	406
18/1	878
19/1	301
19/2	460
20/1	25

Lane Saturation Flows

Junction: Deansgate Interchange								
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 (A56 Eastbound)	3.00	0.00	Y	Arm 16 Left	Inf	54.2 %	1915	1915
				Arm 18 Ahead	Inf	45.8 %		
1/2 (A56 Eastbound)	3.00	0.00	Y	Arm 6 Ahead	Inf	0.0 %	1915	1915
				Arm 18 Ahead	Inf	100.0 %		
1/3 (A56 Eastbound)	3.00	0.00	N	Arm 6 Ahead	Inf	100.0 %	2055	2055
2/1 (Chorlton Road)	3.50	0.00	Y	Arm 10 Left	Inf	4.9 %	1965	1965
				Arm 11 Left	Inf	95.1 %		
2/2 (Chorlton Road)	3.50	0.00	Y	Arm 11 Left	Inf	100.0 %	1965	1965
3/1 (Egerton Street)	3.80	0.00	Y	Arm 12 Ahead	Inf	97.9 %	1995	1995
				Arm 20 Left	Inf	2.1 %		
3/2 (Egerton Street)	3.80	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1995	1995
4/1 (A56 Westbound)	3.30	0.00	Y	Arm 17 Left	Inf	69.2 %	1945	1945
				Arm 19 Ahead	Inf	30.8 %		
4/2 (A56 Westbound)	3.30	0.00	Y	Arm 17 Left	Inf	0.0 %	1945	1945
				Arm 19 Ahead	Inf	100.0 %		
4/3 (A56 Westbound)	3.30	0.00	Y	Arm 7 Ahead	Inf	0.0 %	1945	1945
4/4 (A56 Westbound)	3.30	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1945	1945
5/1 (Mancunian Way WB Slip Road)	3.70	0.00	Y	Arm 8 Ahead	Inf	80.0 %	1985	1985
				Arm 14 Left	Inf	20.0 %		
5/2 (Mancunian Way WB Slip Road)	3.70	0.00	Y	Arm 8 Ahead	Inf	38.4 %	1985	1985
				Arm 9 Ahead	Inf	61.6 %		
6/1	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
6/2	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
7/1	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
7/2	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
8/1	3.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2005	2005
8/2	3.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2005	2005
9/1	3.80	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1995	1995
9/2	3.80	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1995	1995
10/1	3.80	0.00	Y	Arm 15 Left	Inf	100.0 %	1995	1995
10/2	3.80	0.00	Y	Arm 15 Left	Inf	100.0 %	1995	1995
11/1	3.50	0.00	Y	Arm 16 Ahead	3.90	100.0 %	1419	1419
11/2	3.50	0.00	Y	Arm 16 Ahead	Inf	86.3 %	1965	1965
				Arm 18 Right	Inf	13.7 %		

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11/3	3.50	0.00	Y	Arm 6 Right	Inf	100.0 %	1965	1965
12/1	3.90	0.00	Y	Arm 13 Left	Inf	100.0 %	2005	2005
12/2	3.90	0.00	Y	Arm 17 Ahead	Inf	86.1 %	2005	2005
				Arm 19 Right	Inf	13.9 %		
12/3	3.90	0.00	Y	Arm 17 Ahead	Inf	76.2 %	2005	2005
				Arm 19 Right	Inf	23.8 %		
12/4	3.90	0.00	Y	Arm 7 Right	Inf	100.0 %	2005	2005
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	3.30	0.00	Y				1945	1945
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf
17/1	Infinite Saturation Flow						Inf	Inf
17/2	Infinite Saturation Flow						Inf	Inf
18/1	Infinite Saturation Flow						Inf	Inf
19/1	Infinite Saturation Flow						Inf	Inf
19/2	Infinite Saturation Flow						Inf	Inf
20/1 (Blantyre Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'PM Base+Dev' (FG6: 'PM Base + Dev', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	198	127	220	252	5	802
	B	286	11	192	93	358	5	945
	C	222	65	16	127	480	5	915
	D	321	102	49	0	21	5	498
	E	184	362	739	8	0	5	1298
	F	0	0	0	0	0	0	0
	Tot.	1013	738	1123	448	1111	25	4458

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: PM Base+Dev
Junction: Deansgate Interchange	
1/1	441
1/2 (with short)	857(In) 495(Out)
1/3 (short)	362
2/1	231
2/2	267
3/1	373
3/2	429
4/1	285
4/2 (short)	302
4/3 (with short)	365(In) 63(Out)
4/4	295
5/1	457
5/2	458
6/1	123
6/2	417
7/1	261
7/2	349
8/1 (short)	240
8/2 (with short)	480(In) 240(Out)
9/1	197
9/2	413
10/1	251
10/2	250
11/1	407
11/2 (with short)	680(In) 502(Out)
11/3 (short)	178
12/1 (short)	198
12/2 (with short)	807(In) 609(Out)
12/3 (with short)	802(In) 550(Out)
12/4 (short)	252
13/1	222
13/2	516
14/1	448
15/1	512

Full Input Data And Results

15/2	599
16/1	591
16/2	422
17/1	686
17/2	437
18/1	832
19/1	321
19/2	302
20/1	25

Lane Saturation Flows

Junction: Deansgate Interchange								
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 (A56 Eastbound)	3.00	0.00	Y	Arm 16 Left	Inf	41.7 %	1915	1915
				Arm 18 Ahead	Inf	58.3 %		
1/2 (A56 Eastbound)	3.00	0.00	Y	Arm 6 Ahead	Inf	0.0 %	1915	1915
				Arm 18 Ahead	Inf	100.0 %		
1/3 (A56 Eastbound)	3.00	0.00	N	Arm 6 Ahead	Inf	100.0 %	2055	2055
2/1 (Chorlton Road)	3.50	0.00	Y	Arm 10 Left	Inf	9.1 %	1965	1965
				Arm 11 Left	Inf	90.9 %		
2/2 (Chorlton Road)	3.50	0.00	Y	Arm 11 Left	Inf	100.0 %	1965	1965
3/1 (Egerton Street)	3.80	0.00	Y	Arm 12 Ahead	Inf	98.7 %	1995	1995
				Arm 20 Left	Inf	1.3 %		
3/2 (Egerton Street)	3.80	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1995	1995
4/1 (A56 Westbound)	3.30	0.00	Y	Arm 17 Left	Inf	67.4 %	1945	1945
				Arm 19 Ahead	Inf	32.6 %		
4/2 (A56 Westbound)	3.30	0.00	Y	Arm 17 Left	Inf	0.0 %	1945	1945
				Arm 19 Ahead	Inf	100.0 %		
4/3 (A56 Westbound)	3.30	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1945	1945
4/4 (A56 Westbound)	3.30	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1945	1945
5/1 (Mancunian Way WB Slip Road)	3.70	0.00	Y	Arm 8 Ahead	Inf	72.2 %	1985	1985
				Arm 14 Left	Inf	27.8 %		
5/2 (Mancunian Way WB Slip Road)	3.70	0.00	Y	Arm 8 Ahead	Inf	32.8 %	1985	1985
				Arm 9 Ahead	Inf	67.2 %		
6/1	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
6/2	3.50	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1965	1965
7/1	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
7/2	3.50	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1965	1965
8/1	3.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2005	2005
8/2	3.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2005	2005
9/1	3.80	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1995	1995
9/2	3.80	0.00	Y	Arm 11 Ahead	Inf	100.0 %	1995	1995
10/1	3.80	0.00	Y	Arm 15 Left	Inf	100.0 %	1995	1995
10/2	3.80	0.00	Y	Arm 15 Left	Inf	100.0 %	1995	1995
11/1	3.50	0.00	Y	Arm 16 Ahead	3.90	100.0 %	1419	1419
11/2	3.50	0.00	Y	Arm 16 Ahead	Inf	84.1 %	1965	1965
				Arm 18 Right	Inf	15.9 %		

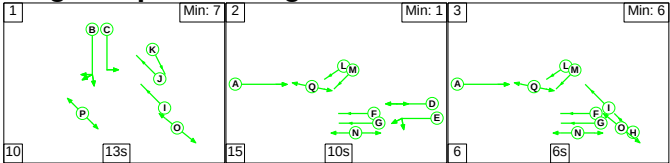
Full Input Data And Results

11/3	3.50	0.00	Y	Arm 6 Right	Inf	100.0 %	1965	1965
12/1	3.90	0.00	Y	Arm 13 Left	Inf	100.0 %	2005	2005
12/2	3.90	0.00	Y	Arm 17 Ahead	Inf	81.1 %	2005	2005
				Arm 19 Right	Inf	18.9 %		
12/3	3.90	0.00	Y	Arm 17 Ahead	Inf	79.5 %	2005	2005
				Arm 19 Right	Inf	20.5 %		
12/4	3.90	0.00	Y	Arm 7 Right	Inf	100.0 %	2005	2005
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	3.30	0.00	Y				1945	1945
15/1	Infinite Saturation Flow						Inf	Inf
15/2	Infinite Saturation Flow						Inf	Inf
16/1	Infinite Saturation Flow						Inf	Inf
16/2	Infinite Saturation Flow						Inf	Inf
17/1	Infinite Saturation Flow						Inf	Inf
17/2	Infinite Saturation Flow						Inf	Inf
18/1	Infinite Saturation Flow						Inf	Inf
19/1	Infinite Saturation Flow						Inf	Inf
19/2	Infinite Saturation Flow						Inf	Inf
20/1 (Blantyre Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'AM Survey' (FG1: '2022 AM Peak', Plan 1: 'Network Control Plan 1')

C1

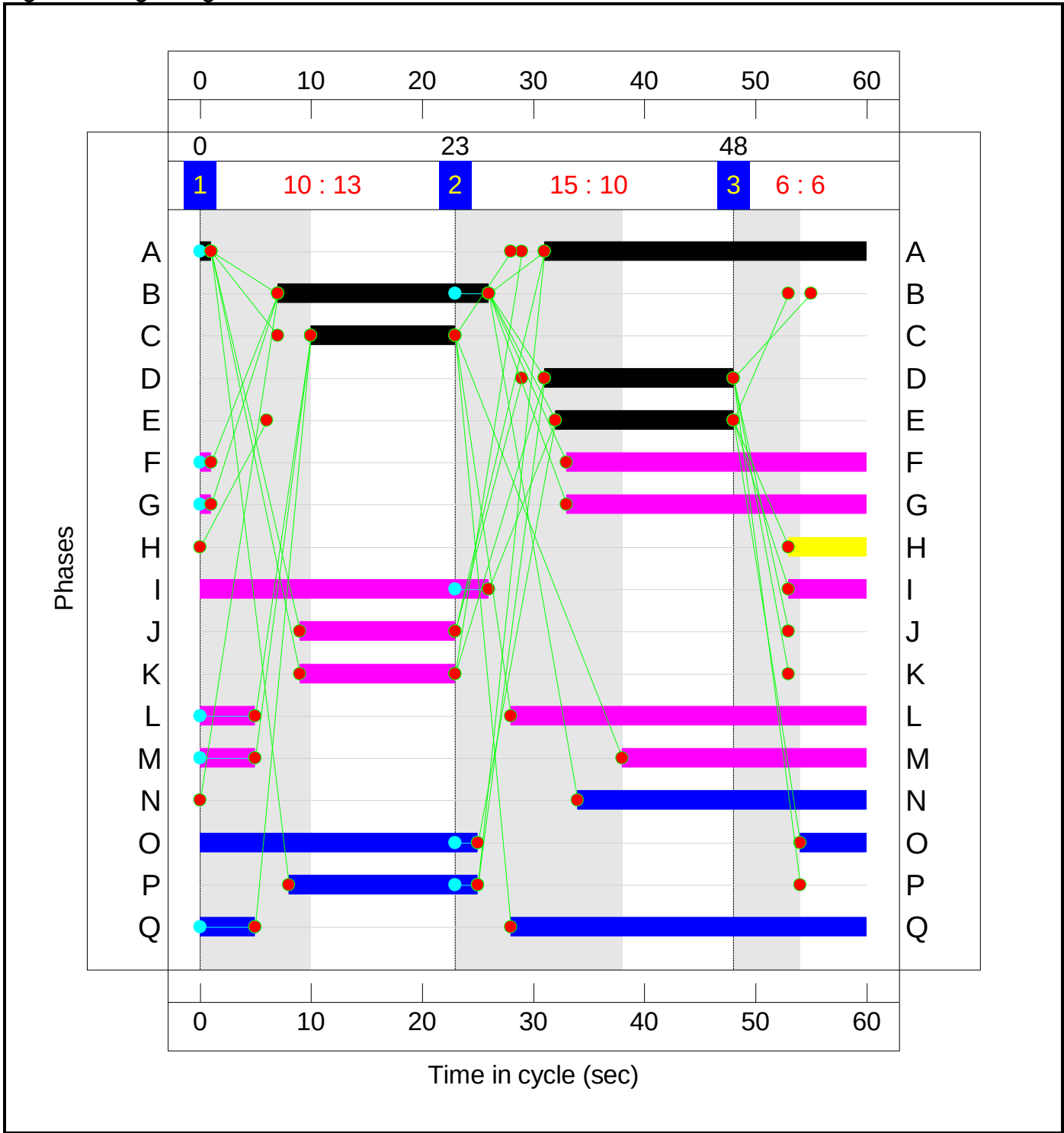
Stage Sequence Diagram



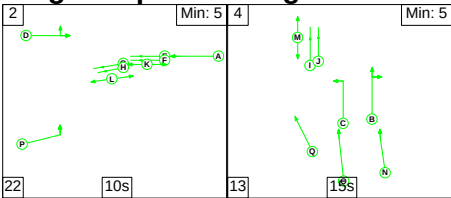
Stage Timings

Stage	1	2	3
Duration	13	10	6
Change Point	0	23	48

Signal Timings Diagram



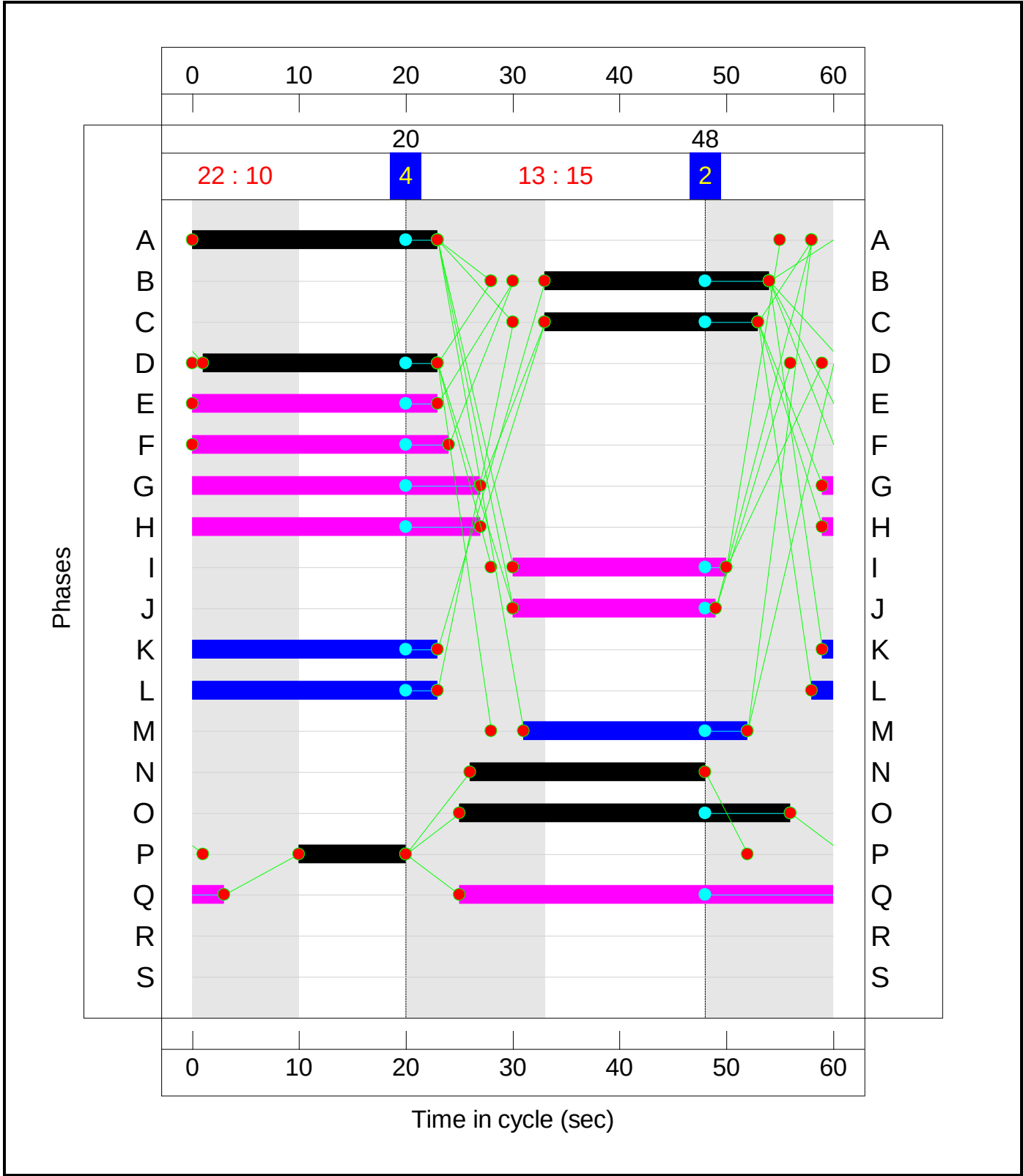
C2
Stage Sequence Diagram



Stage Timings

Stage	2	4
Duration	10	15
Change Point	48	20

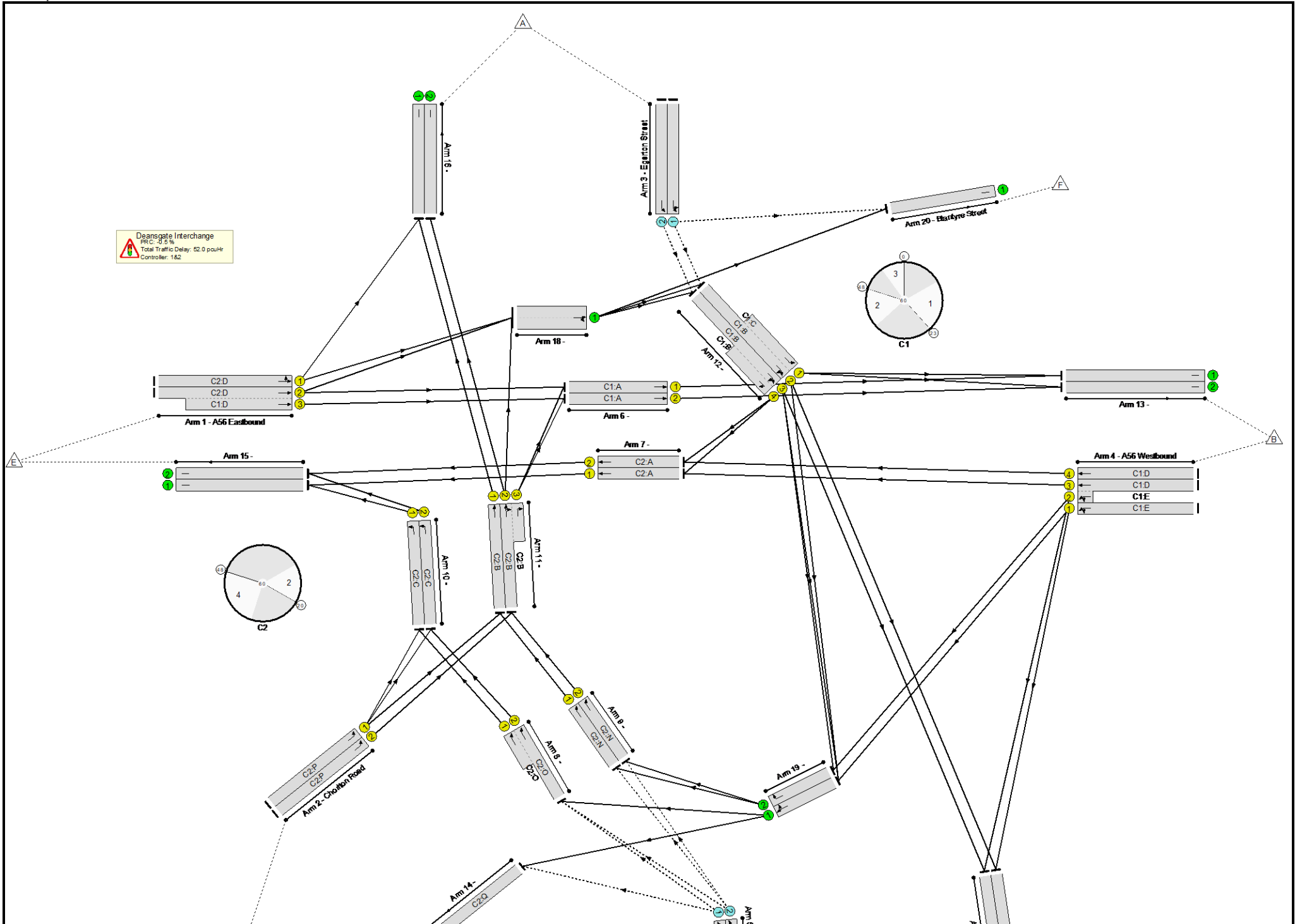
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	90.4%
Deansgate Interchange	-	-	N/A	-	-		-	-	-	-	-	-	90.4%
1/1	A56 Eastbound Left Ahead	U	N/A	N/A	C2:D		1	22	-	517	1915	734	70.4%
1/2+1/3	A56 Eastbound Ahead Ahead2	U	N/A	N/A	C2:D C1:D		1	22:17	-	1088	1915:2055	734+617	73.2 : 89.4%
2/1	Chorlton Road Left Left2	U	N/A	N/A	C2:P		1	10	-	300	1965	360	83.3%
2/2	Chorlton Road Left	U	N/A	N/A	C2:P		1	10	-	308	1965	360	85.5%
3/1	Egerton Street Ahead Left	O	N/A	N/A	-		-	-	-	169	1995	675	25.0%
3/2	Egerton Street Ahead	O	N/A	N/A	-		-	-	-	368	1995	717	51.3%
4/1	A56 Westbound Left Ahead	U	N/A	N/A	C1:E		1	16	-	237	1945	551	43.0%
4/3+4/2	A56 Westbound Ahead Left Ahead2	U	N/A	N/A	C1:D C1:E		1	17:16	-	292	1945:1945	150+433	50.1 : 50.1%
4/4	A56 Westbound Ahead	U	N/A	N/A	C1:D		1	17	-	207	1945	583	35.5%
5/1	Mancunian Way WB Slip Road Ahead Left	O	N/A	N/A	-		-	-	-	626	1985	833	75.1%
5/2	Mancunian Way WB Slip Road Ahead Ahead2	O	N/A	N/A	-		-	-	-	624	1985	833	74.9%
6/1	Ahead	U	N/A	N/A	C1:A		1	30	-	218	1965	1015	21.5%
6/2	Ahead	U	N/A	N/A	C1:A		1	30	-	605	1965	1015	59.6%
7/1	Ahead	U	N/A	N/A	C2:A		1	23	-	238	1965	786	30.3%
7/2	Ahead	U	N/A	N/A	C2:A		1	23	-	236	1965	786	30.0%
8/2+8/1	Ahead	U	N/A	N/A	C2:O		1	31	-	744	2005:2005	684+684	54.4 : 54.4%

Full Input Data And Results

9/1	Ahead	U	N/A	N/A	C2:N		1	22	-	107	1995	765	14.0%
9/2	Ahead	U	N/A	N/A	C2:N		1	22	-	489	1995	765	63.9%
10/1	Left	U	N/A	N/A	C2:C		1	20	-	380	1995	698	54.4%
10/2	Left	U	N/A	N/A	C2:C		1	20	-	379	1995	698	54.3%
11/1	Ahead	U	N/A	N/A	C2:B		1	21	-	392	1419	520	75.3%
11/2+11/3	Right Ahead Right2	U	N/A	N/A	C2:B		1	21	-	797	1965:1965	580+301	90.4 : 90.4%
12/2+12/1	Left Ahead Right	U	N/A	N/A	C1:B C1:C		1	19:13	-	676	2005:2005	668+146	83.0 : 83.0%
12/3+12/4	Right Ahead Right2	U	N/A	N/A	C1:B		1	19	-	692	2005:2005	601+231	83.2 : 83.2%
13/1		U	N/A	N/A	-		-	-	-	279	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	665	Inf	Inf	0.0%
14/1		U	N/A	N/A	C2:Q		1	38	-	415	1945	1264	32.8%
15/1		U	N/A	N/A	-		-	-	-	618	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	615	Inf	Inf	0.0%
16/1		U	N/A	N/A	-		-	-	-	674	Inf	Inf	0.0%
16/2		U	N/A	N/A	-		-	-	-	441	Inf	Inf	0.0%
17/1		U	N/A	N/A	-		-	-	-	666	Inf	Inf	0.0%
17/2		U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%
18/1	Right Ahead	U	N/A	N/A	-		-	-	-	856	Inf	Inf	0.0%
19/1	Right Ahead	U	N/A	N/A	-		-	-	-	289	Inf	Inf	0.0%
19/2	Right	U	N/A	N/A	-		-	-	-	216	Inf	Inf	0.0%
20/1	Blantyre Street	U	N/A	N/A	-		-	-	-	25	Inf	Inf	0.0%

Full Input Data And Results

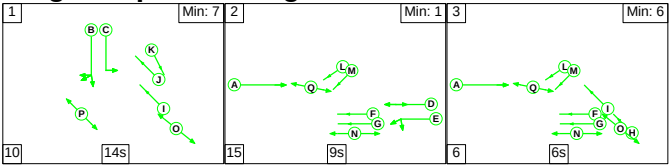
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	1787	0	0	32.4	19.6	0.0	52.0	-	-	-	-
Deansgate Interchange	-	-	1787	0	0	32.4	19.6	0.0	52.0	-	-	-	-
1/1	517	517	-	-	-	2.2	1.2	-	3.4	23.8	7.2	1.2	8.4
1/2+1/3	1088	1088	-	-	-	5.4	2.0	-	7.5	24.8	8.7	2.0	10.8
2/1	300	300	-	-	-	2.0	2.3	-	4.3	51.4	4.7	2.3	7.1
2/2	308	308	-	-	-	2.0	2.7	-	4.7	55.0	5.0	2.7	7.6
3/1	169	169	169	0	0	0.1	0.2	-	0.3	6.1	0.9	0.2	1.1
3/2	368	368	368	0	0	0.2	0.5	-	0.7	6.8	2.2	0.5	2.8
4/1	237	237	-	-	-	1.2	0.4	-	1.5	23.3	3.2	0.4	3.5
4/3+4/2	292	292	-	-	-	1.4	0.5	-	1.9	23.4	3.3	0.5	3.8
4/4	207	207	-	-	-	0.9	0.3	-	1.2	21.2	2.7	0.3	3.0
5/1	626	626	626	0	0	0.1	1.5	-	1.6	9.0	2.3	1.5	3.8
5/2	624	624	624	0	0	0.1	1.5	-	1.5	8.9	2.3	1.5	3.7
6/1	218	218	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	605	605	-	-	-	0.2	0.0	-	0.2	0.9	8.5	0.0	8.5
7/1	238	238	-	-	-	0.5	0.0	-	0.5	7.4	1.4	0.0	1.4
7/2	236	236	-	-	-	1.3	0.0	-	1.3	19.8	3.5	0.0	3.5
8/2+8/1	744	744	-	-	-	1.7	0.6	-	2.3	11.1	3.6	0.6	4.2
9/1	107	107	-	-	-	0.4	0.1	-	0.4	14.7	1.0	0.1	1.1
9/2	489	489	-	-	-	1.8	0.9	-	2.7	19.9	4.8	0.9	5.7
10/1	380	380	-	-	-	0.9	0.0	-	0.9	8.8	5.3	0.0	5.3
10/2	379	379	-	-	-	0.9	0.0	-	0.9	8.8	5.3	0.0	5.3
11/1	392	392	-	-	-	1.8	0.0	-	1.8	16.6	6.2	0.0	6.2
11/2+11/3	797	797	-	-	-	1.8	0.0	-	1.8	7.9	7.3	0.0	7.3
12/2+12/1	676	676	-	-	-	2.2	2.4	-	4.6	24.4	2.9	2.4	5.3
12/3+12/4	692	692	-	-	-	2.8	2.4	-	5.2	27.0	5.1	2.4	7.5

Full Input Data And Results

13/1	279	279	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	665	665	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	415	415	-	-	-	0.6	0.2	-	0.8	7.0	4.4	0.2	4.6
15/1	618	618	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	615	615	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1	674	674	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/2	441	441	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/1	666	666	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/2	338	338	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	856	856	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	289	289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/2	216	216	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	25	25	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
			C1	PRC for Signalled Lanes (%):		8.2	Total Delay for Signalled Lanes (pcuHr):		14.58	Cycle Time (s):		60	
			C2	PRC for Signalled Lanes (%):		-0.5	Total Delay for Signalled Lanes (pcuHr):		33.35	Cycle Time (s):		60	
				PRC Over All Lanes (%):		-0.5	Total Delay Over All Lanes(pcuHr):		52.01				

Full Input Data And Results
Scenario 2: 'PM Survey' (FG2: '2022 PM Peak', Plan 1: 'Network Control Plan 1')
C1

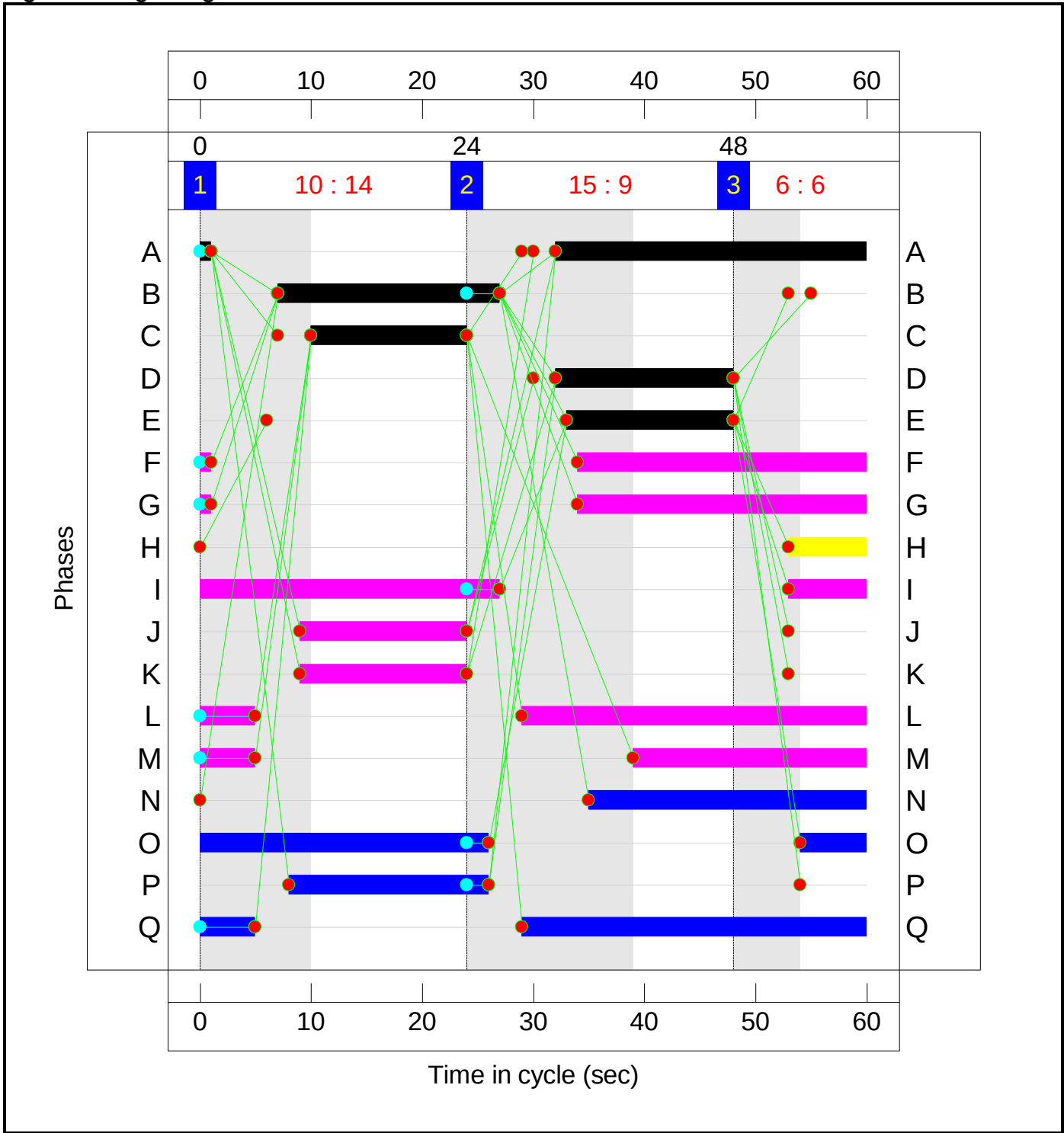
Stage Sequence Diagram



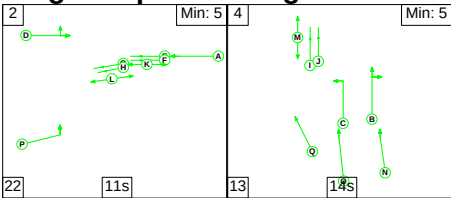
Stage Timings

Stage	1	2	3
Duration	14	9	6
Change Point	0	24	48

Signal Timings Diagram



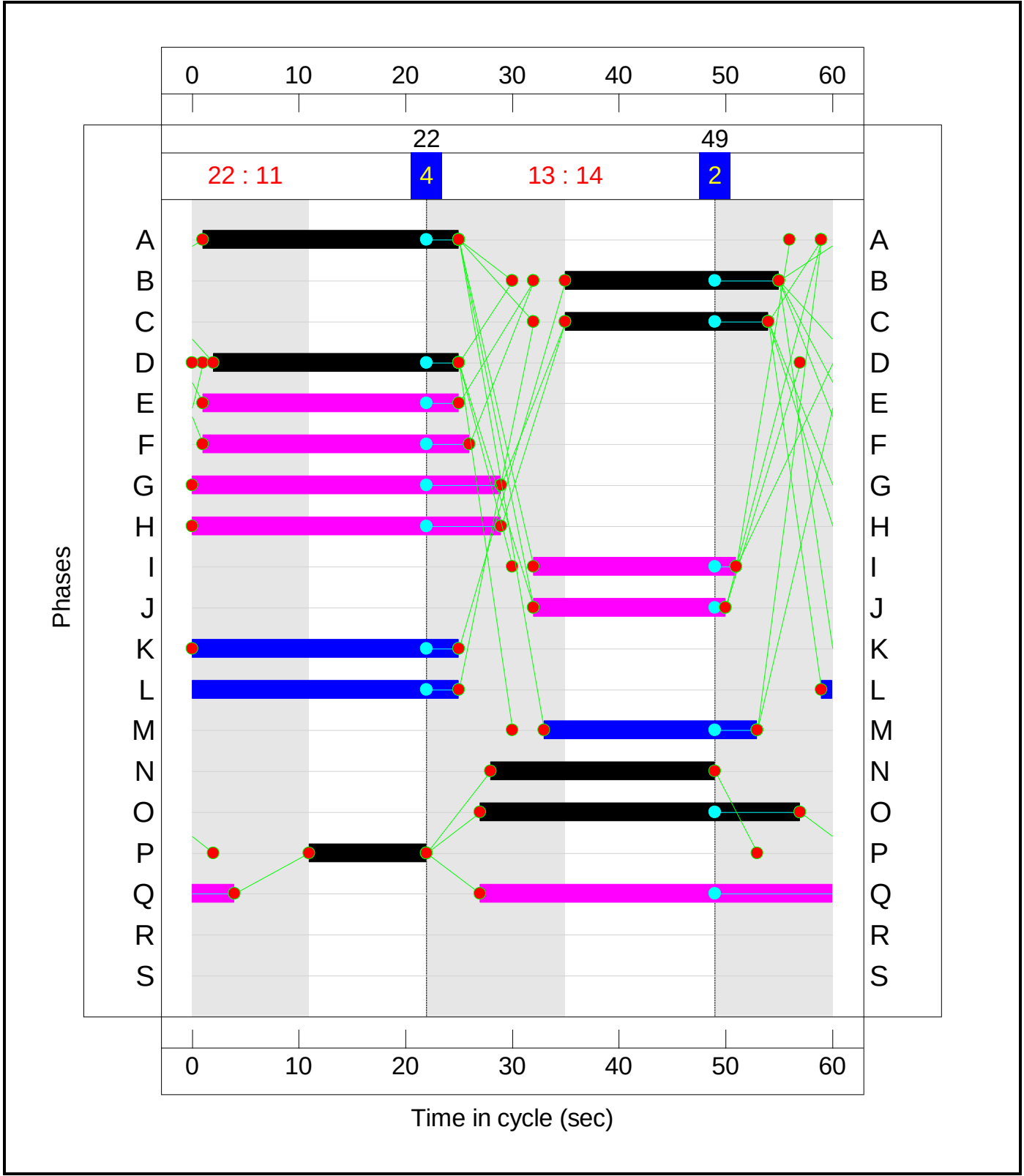
C2
Stage Sequence Diagram



Stage Timings

Stage	2	4
Duration	11	14
Change Point	49	22

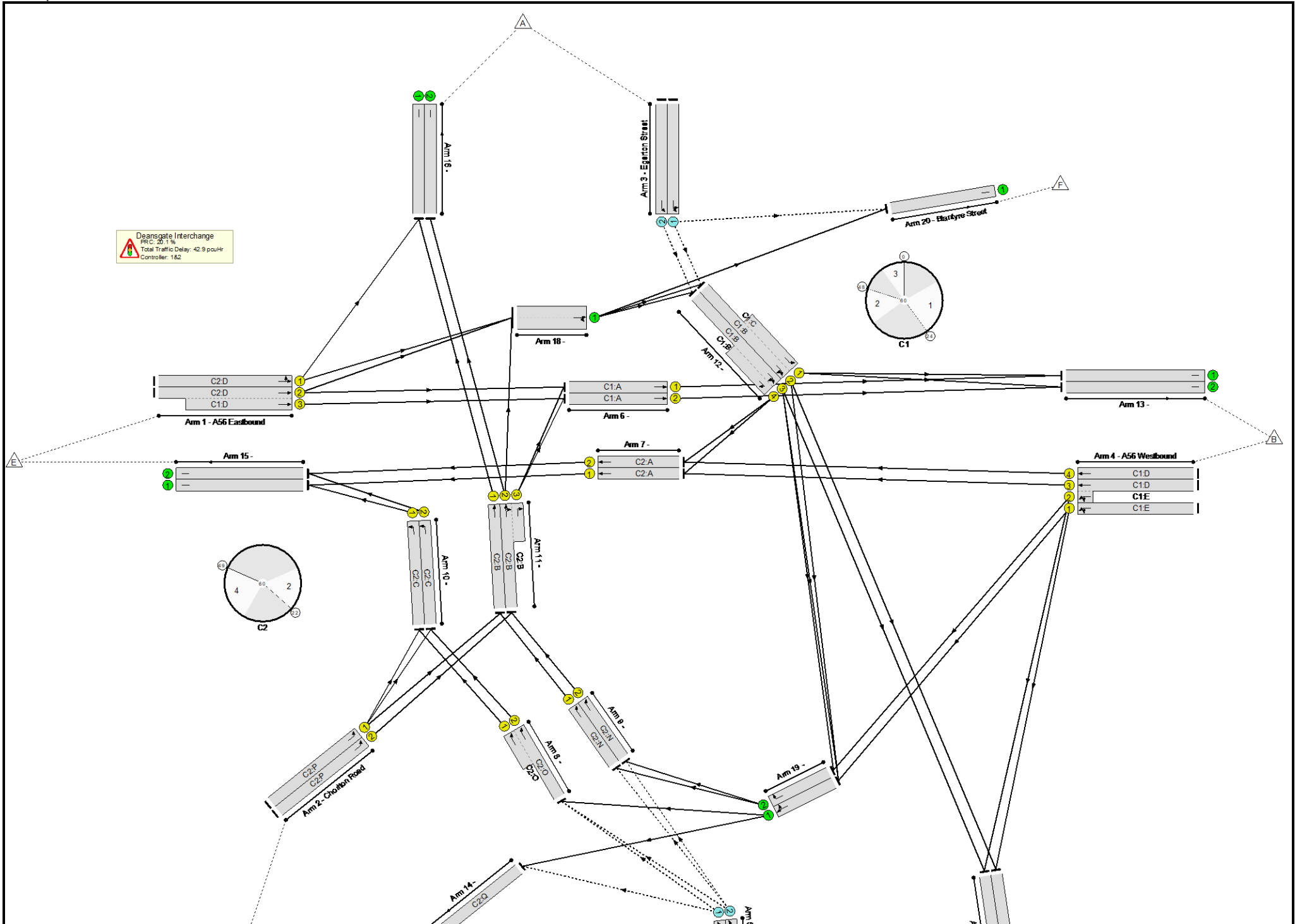
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	75.0%
Deansgate Interchange	-	-	N/A	-	-		-	-	-	-	-	-	75.0%
1/1	A56 Eastbound Left Ahead	U	N/A	N/A	C2:D		1	23	-	375	1915	766	49.0%
1/2+1/3	A56 Eastbound Ahead Ahead2	U	N/A	N/A	C2:D C1:D		1	23:16	-	841	1915:2055	766+582	63.2 : 61.3%
2/1	Chorlton Road Left Left2	U	N/A	N/A	C2:P		1	11	-	228	1965	393	58.0%
2/2	Chorlton Road Left	U	N/A	N/A	C2:P		1	11	-	263	1965	393	66.9%
3/1	Egerton Street Ahead Left	O	N/A	N/A	-		-	-	-	256	1995	719	35.6%
3/2	Egerton Street Ahead	O	N/A	N/A	-		-	-	-	364	1995	757	48.1%
4/1	A56 Westbound Left Ahead	U	N/A	N/A	C1:E		1	15	-	327	1945	519	63.0%
4/3+4/2	A56 Westbound Ahead Left Ahead2	U	N/A	N/A	C1:D C1:E		1	16:15	-	469	1945:1945	342+299	73.1 : 73.1%
4/4	A56 Westbound Ahead	U	N/A	N/A	C1:D		1	16	-	365	1945	551	66.2%
5/1	Mancunian Way WB Slip Road Ahead Left	O	N/A	N/A	-		-	-	-	431	1985	818	52.7%
5/2	Mancunian Way WB Slip Road Ahead Ahead2	O	N/A	N/A	-		-	-	-	432	1985	818	52.8%
6/1	Ahead	U	N/A	N/A	C1:A		1	29	-	87	1965	982	8.9%
6/2	Ahead	U	N/A	N/A	C1:A		1	29	-	452	1965	982	46.0%
7/1	Ahead	U	N/A	N/A	C2:A		1	24	-	411	1965	819	50.2%
7/2	Ahead	U	N/A	N/A	C2:A		1	24	-	449	1965	819	54.8%
8/2+8/1	Ahead	U	N/A	N/A	C2:O		1	30	-	474	2005:2005	668+668	35.5 : 35.5%

Full Input Data And Results

9/1	Ahead	U	N/A	N/A	C2:N		1	21	-	111	1995	732	15.2%
9/2	Ahead	U	N/A	N/A	C2:N		1	21	-	342	1995	732	46.8%
10/1	Left	U	N/A	N/A	C2:C		1	19	-	248	1995	665	37.3%
10/2	Left	U	N/A	N/A	C2:C		1	19	-	247	1995	665	37.1%
11/1	Ahead	U	N/A	N/A	C2:B		1	20	-	318	1419	497	64.0%
11/2+11/3	Right Ahead Right2	U	N/A	N/A	C2:B		1	20	-	605	1965:1965	575+247	73.6 : 73.6%
12/2+12/1	Left Ahead Right	U	N/A	N/A	C1:B C1:C		1	20:14	-	632	2005:2005	689+185	72.3 : 72.3%
12/3+12/4	Right Ahead Right2	U	N/A	N/A	C1:B		1	20	-	700	2005:2005	607+327	75.0 : 75.0%
13/1		U	N/A	N/A	-		-	-	-	154	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	519	Inf	Inf	0.0%
14/1		U	N/A	N/A	C2:Q		1	37	-	486	1945	1232	39.5%
15/1		U	N/A	N/A	-		-	-	-	659	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	696	Inf	Inf	0.0%
16/1		U	N/A	N/A	-		-	-	-	500	Inf	Inf	0.0%
16/2		U	N/A	N/A	-		-	-	-	363	Inf	Inf	0.0%
17/1		U	N/A	N/A	-		-	-	-	579	Inf	Inf	0.0%
17/2		U	N/A	N/A	-		-	-	-	370	Inf	Inf	0.0%
18/1	Right Ahead	U	N/A	N/A	-		-	-	-	737	Inf	Inf	0.0%
19/1	Right Ahead	U	N/A	N/A	-		-	-	-	359	Inf	Inf	0.0%
19/2	Right	U	N/A	N/A	-		-	-	-	191	Inf	Inf	0.0%
20/1	Blantyre Street	U	N/A	N/A	-		-	-	-	25	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	1483	0	0	31.0	11.9	0.0	42.9	-	-	-	-
Deansgate Interchange	-	-	1483	0	0	31.0	11.9	0.0	42.9	-	-	-	-
1/1	375	375	-	-	-	1.4	0.5	-	1.9	18.0	4.6	0.5	5.1
1/2+1/3	841	841	-	-	-	3.8	0.8	-	4.6	19.8	6.5	0.8	7.3
2/1	228	228	-	-	-	1.4	0.7	-	2.1	32.6	3.4	0.7	4.1
2/2	263	263	-	-	-	1.6	1.0	-	2.6	35.8	4.0	1.0	5.0
3/1	256	256	256	0	0	0.1	0.3	-	0.4	5.9	1.4	0.3	1.6
3/2	364	364	364	0	0	0.1	0.5	-	0.6	5.5	1.7	0.5	2.2
4/1	327	327	-	-	-	1.8	0.8	-	2.6	28.7	4.7	0.8	5.6
4/3+4/2	469	469	-	-	-	2.4	1.3	-	3.7	28.8	5.0	1.3	6.4
4/4	365	365	-	-	-	1.9	1.0	-	2.9	28.5	5.3	1.0	6.2
5/1	431	431	431	0	0	0.0	0.6	-	0.6	4.7	0.8	0.6	1.4
5/2	432	432	432	0	0	0.0	0.6	-	0.6	4.7	0.8	0.6	1.4
6/1	87	87	-	-	-	0.0	0.0	-	0.0	0.1	0.0	0.0	0.0
6/2	452	452	-	-	-	0.1	0.0	-	0.1	0.9	5.6	0.0	5.6
7/1	411	411	-	-	-	1.7	0.0	-	1.7	14.8	4.4	0.0	4.4
7/2	449	449	-	-	-	2.4	0.0	-	2.4	19.6	6.3	0.0	6.3
8/2+8/1	474	474	-	-	-	1.0	0.3	-	1.3	10.0	2.1	0.3	2.4
9/1	111	111	-	-	-	0.4	0.1	-	0.5	15.2	1.0	0.1	1.1
9/2	342	342	-	-	-	1.2	0.4	-	1.7	17.6	3.1	0.4	3.5
10/1	248	248	-	-	-	0.6	0.0	-	0.6	8.0	3.1	0.0	3.1
10/2	247	247	-	-	-	0.5	0.0	-	0.5	8.0	3.1	0.0	3.1
11/1	318	318	-	-	-	1.3	0.0	-	1.3	15.2	4.8	0.0	4.8
11/2+11/3	605	605	-	-	-	1.5	0.0	-	1.5	8.9	5.2	0.0	5.2
12/2+12/1	632	632	-	-	-	2.4	1.3	-	3.7	21.0	3.4	1.3	4.7
12/3+12/4	700	700	-	-	-	2.5	1.5	-	3.9	20.2	3.4	1.5	4.9

Full Input Data And Results

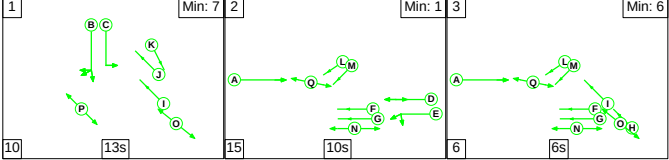
13/1	154	154	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	519	519	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	486	486	-	-	-	0.8	0.3	-	1.1	8.2	4.6	0.3	5.0
15/1	659	659	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	696	696	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1	500	500	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/2	363	363	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/1	579	579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/2	370	370	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	737	737	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	359	359	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/2	191	191	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	25	25	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
			C1	PRC for Signalled Lanes (%):		20.1	Total Delay for Signalled Lanes (pcuHr):		16.98	Cycle Time (s):		60	
			C2	PRC for Signalled Lanes (%):		22.3	Total Delay for Signalled Lanes (pcuHr):		23.81	Cycle Time (s):		60	
				PRC Over All Lanes (%):		20.1	Total Delay Over All Lanes(pcuHr):		42.89				

Full Input Data And Results

Scenario 3: 'AM Base' (FG3: 'AM Base', Plan 1: 'Network Control Plan 1')

C1

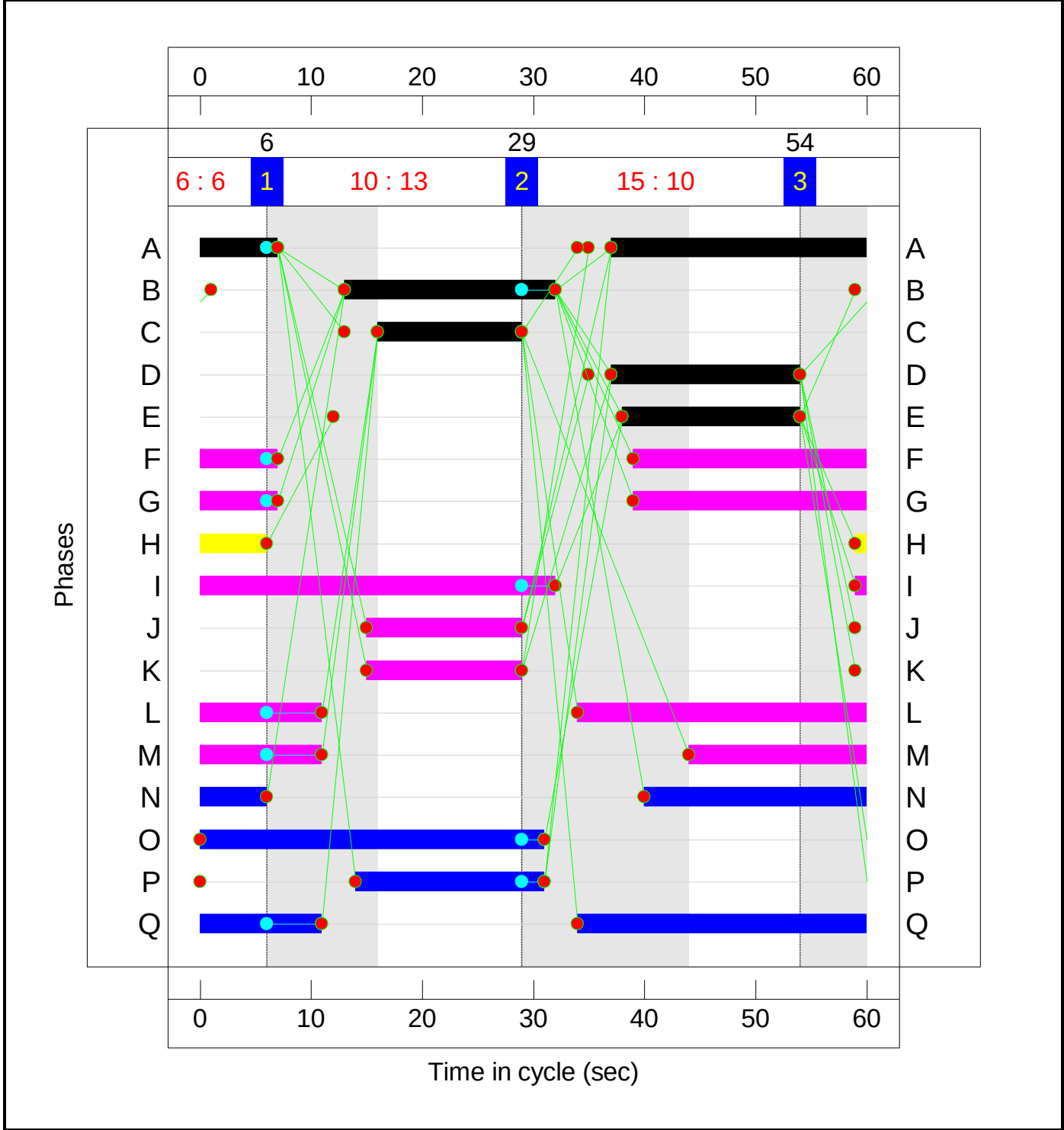
Stage Sequence Diagram



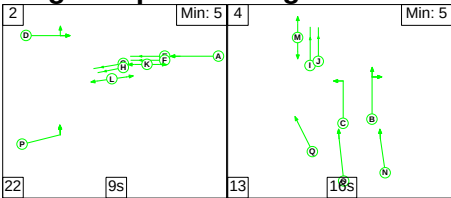
Stage Timings

Stage	1	2	3
Duration	13	10	6
Change Point	6	29	54

Signal Timings Diagram



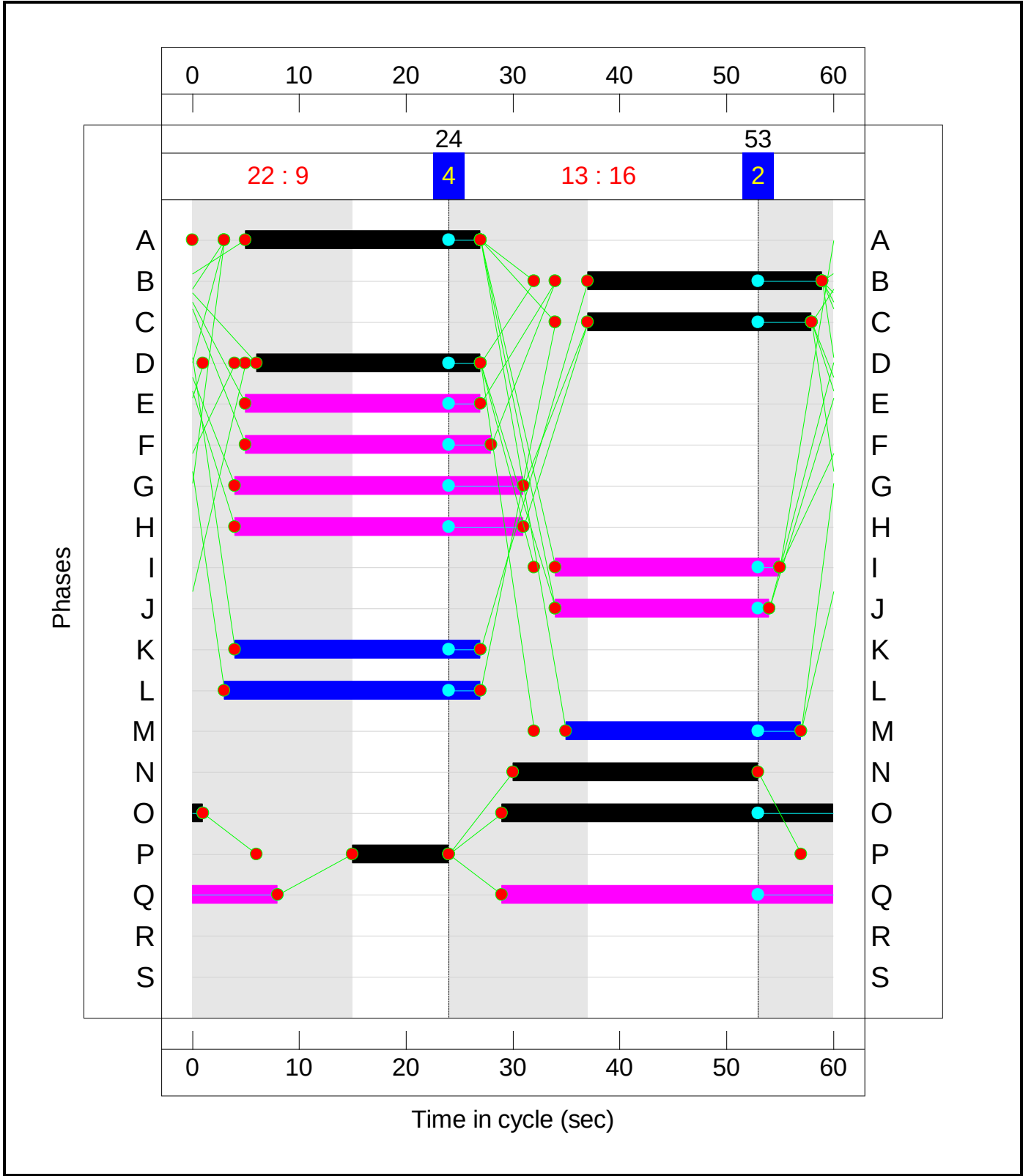
C2
Stage Sequence Diagram



Stage Timings

Stage	2	4
Duration	9	16
Change Point	53	24

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	94.4%
Deansgate Interchange	-	-	N/A	-	-		-	-	-	-	-	-	94.4%
1/1	A56 Eastbound Left Ahead	U	N/A	N/A	C2:D		1	21	-	520	1915	702	74.1%
1/2+1/3	A56 Eastbound Ahead Ahead2	U	N/A	N/A	C2:D C1:D		1	21:17	-	1100	1915:2055	702+617	78.0 : 89.5%
2/1	Chorlton Road Left Left2	U	N/A	N/A	C2:P		1	9	-	300	1965	327	91.6%
2/2	Chorlton Road Left	U	N/A	N/A	C2:P		1	9	-	309	1965	327	94.4%
3/1	Egerton Street Ahead Left	O	N/A	N/A	-		-	-	-	221	1995	667	33.1%
3/2	Egerton Street Ahead	O	N/A	N/A	-		-	-	-	356	1995	713	49.9%
4/1	A56 Westbound Left Ahead	U	N/A	N/A	C1:E		1	16	-	270	1945	551	49.0%
4/3+4/2	A56 Westbound Ahead Left Ahead2	U	N/A	N/A	C1:D C1:E		1	17:16	-	394	1945:1945	74+486	70.4 : 70.4%
4/4	A56 Westbound Ahead	U	N/A	N/A	C1:D		1	17	-	319	1945	583	54.7%
5/1	Mancunian Way WB Slip Road Ahead Left	O	N/A	N/A	-		-	-	-	630	1985	788	79.9%
5/2	Mancunian Way WB Slip Road Ahead Ahead2	O	N/A	N/A	-		-	-	-	629	1985	788	79.8%
6/1	Ahead	U	N/A	N/A	C1:A		1	30	-	204	1965	1015	20.1%
6/2	Ahead	U	N/A	N/A	C1:A		1	30	-	620	1965	1015	61.1%
7/1	Ahead	U	N/A	N/A	C2:A		1	22	-	225	1965	753	29.9%
7/2	Ahead	U	N/A	N/A	C2:A		1	22	-	341	1965	753	45.3%
8/2+8/1	Ahead	U	N/A	N/A	C2:O		1	32	-	746	2005:2005	701+701	53.2 : 53.2%

Full Input Data And Results

9/1	Ahead	U	N/A	N/A	C2:N		1	23	-	193	1995	798	24.2%
9/2	Ahead	U	N/A	N/A	C2:N		1	23	-	536	1995	798	67.2%
10/1	Left	U	N/A	N/A	C2:C		1	21	-	381	1995	732	52.1%
10/2	Left	U	N/A	N/A	C2:C		1	21	-	380	1995	732	51.9%
11/1	Ahead	U	N/A	N/A	C2:B		1	22	-	478	1419	544	87.9%
11/2+11/3	Right Ahead Right2	U	N/A	N/A	C2:B		1	22	-	845	1965:1965	611+290	93.8 : 93.8%
12/2+12/1	Left Ahead Right	U	N/A	N/A	C1:B C1:C		1	19:13	-	708	2005:2005	667+154	86.2 : 86.2%
12/3+12/4	Right Ahead Right2	U	N/A	N/A	C1:B		1	19	-	713	2005:2005	602+227	86.0 : 86.0%
13/1		U	N/A	N/A	-		-	-	-	271	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	686	Inf	Inf	0.0%
14/1		U	N/A	N/A	C2:Q		1	39	-	425	1945	1297	32.8%
15/1		U	N/A	N/A	-		-	-	-	606	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	721	Inf	Inf	0.0%
16/1		U	N/A	N/A	-		-	-	-	761	Inf	Inf	0.0%
16/2		U	N/A	N/A	-		-	-	-	489	Inf	Inf	0.0%
17/1		U	N/A	N/A	-		-	-	-	672	Inf	Inf	0.0%
17/2		U	N/A	N/A	-		-	-	-	392	Inf	Inf	0.0%
18/1	Right Ahead	U	N/A	N/A	-		-	-	-	869	Inf	Inf	0.0%
19/1	Right Ahead	U	N/A	N/A	-		-	-	-	299	Inf	Inf	0.0%
19/2	Right	U	N/A	N/A	-		-	-	-	342	Inf	Inf	0.0%
20/1	Blantyre Street	U	N/A	N/A	-		-	-	-	25	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	1836	0	0	36.5	28.1	0.0	64.6	-	-	-	-
Deansgate Interchange	-	-	1836	0	0	36.5	28.1	0.0	64.6	-	-	-	-
1/1	520	520	-	-	-	2.4	1.4	-	3.8	26.3	7.5	1.4	8.9
1/2+1/3	1100	1100	-	-	-	5.6	2.5	-	8.1	26.5	8.7	2.5	11.2
2/1	300	300	-	-	-	2.0	4.2	-	6.2	74.8	4.9	4.2	9.1
2/2	309	309	-	-	-	2.1	5.3	-	7.4	86.6	5.1	5.3	10.4
3/1	221	221	221	0	0	0.2	0.2	-	0.4	7.2	1.4	0.2	1.6
3/2	356	356	356	0	0	0.2	0.5	-	0.7	6.8	2.2	0.5	2.7
4/1	270	270	-	-	-	1.3	0.5	-	1.8	24.3	3.7	0.5	4.2
4/3+4/2	394	394	-	-	-	2.1	1.2	-	3.3	29.7	5.5	1.2	6.7
4/4	319	319	-	-	-	1.6	0.6	-	2.2	24.4	4.4	0.6	5.0
5/1	630	630	630	0	0	0.2	1.9	-	2.1	12.2	3.9	1.9	5.8
5/2	629	629	629	0	0	0.2	1.9	-	2.1	12.1	3.8	1.9	5.8
6/1	204	204	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	620	620	-	-	-	0.1	0.0	-	0.1	0.9	9.1	0.0	9.1
7/1	225	225	-	-	-	0.3	0.0	-	0.3	5.5	1.0	0.0	1.0
7/2	341	341	-	-	-	2.0	0.0	-	2.0	20.6	5.3	0.0	5.3
8/2+8/1	746	746	-	-	-	2.0	0.6	-	2.5	12.2	4.0	0.6	4.5
9/1	193	193	-	-	-	0.8	0.2	-	1.0	17.8	2.0	0.2	2.1
9/2	536	536	-	-	-	2.5	1.0	-	3.6	23.9	6.1	1.0	7.1
10/1	381	381	-	-	-	0.6	0.0	-	0.6	5.9	5.1	0.0	5.1
10/2	380	380	-	-	-	0.6	0.0	-	0.6	5.9	5.1	0.0	5.1
11/1	478	478	-	-	-	2.0	0.0	-	2.0	15.3	7.6	0.0	7.6
11/2+11/3	845	845	-	-	-	1.9	0.0	-	1.9	8.1	9.5	0.0	9.5
12/2+12/1	708	708	-	-	-	2.4	3.0	-	5.4	27.5	5.1	3.0	8.1
12/3+12/4	713	713	-	-	-	2.7	2.9	-	5.7	28.6	5.2	2.9	8.1

Full Input Data And Results

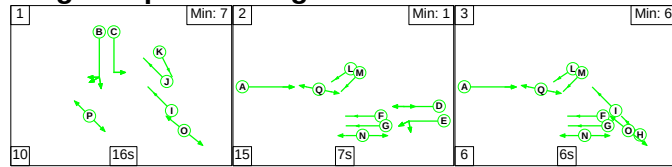
13/1	271	271	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	686	686	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	425	425	-	-	-	0.5	0.2	-	0.7	6.2	4.4	0.2	4.6
15/1	606	606	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	721	721	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1	761	761	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/2	489	489	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/1	672	672	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/2	392	392	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	869	869	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	299	299	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/2	342	342	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	25	25	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
			C1	PRC for Signalled Lanes (%):		4.4	Total Delay for Signalled Lanes (pcuHr):		18.46	Cycle Time (s):		60	
			C2	PRC for Signalled Lanes (%):		-4.8	Total Delay for Signalled Lanes (pcuHr):		40.79	Cycle Time (s):		60	
				PRC Over All Lanes (%):		-4.8	Total Delay Over All Lanes(pcuHr):		64.61				

Full Input Data And Results

Scenario 4: 'PM Base' (FG4: 'PM Base', Plan 1: 'Network Control Plan 1')

C1

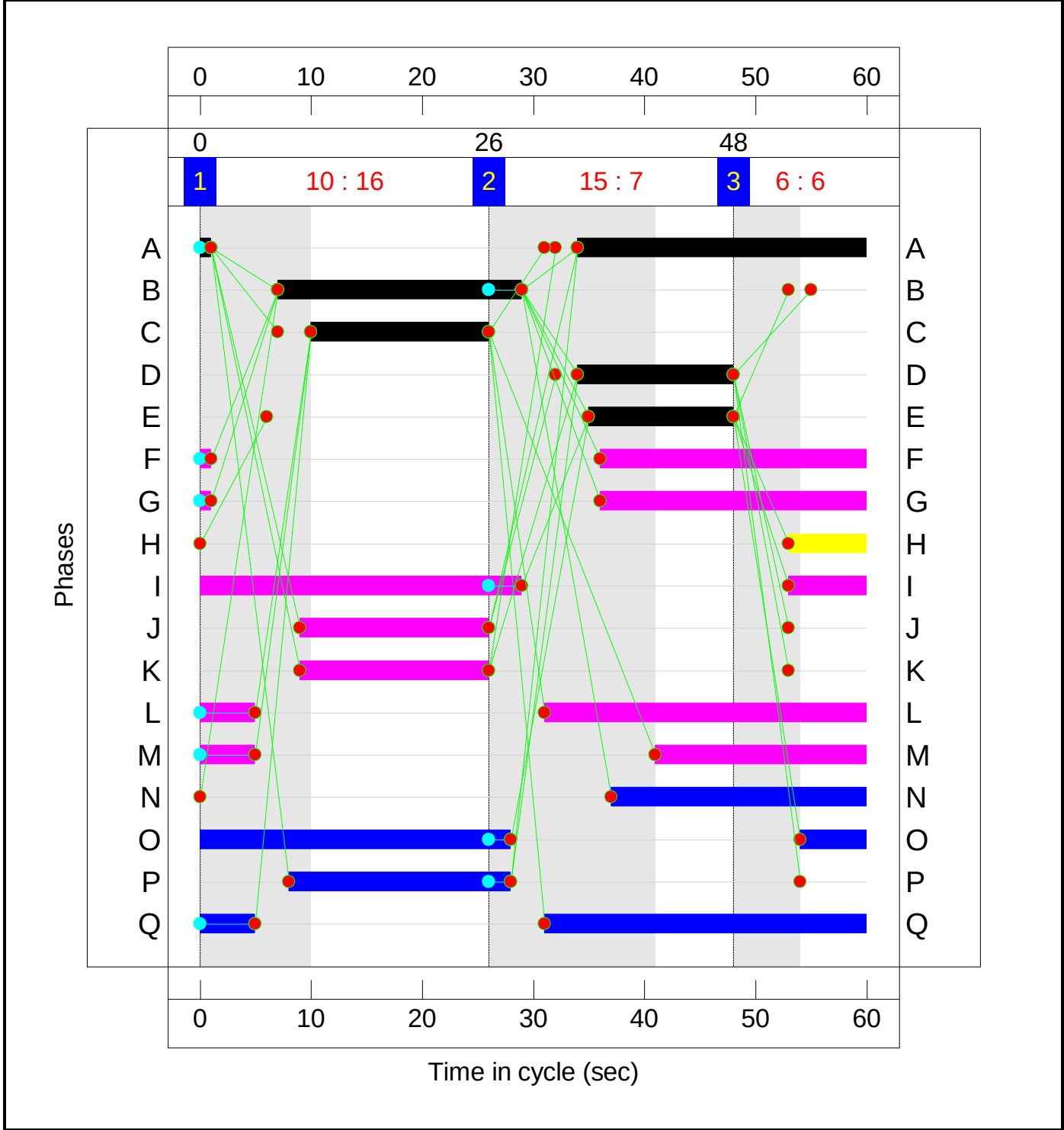
Stage Sequence Diagram



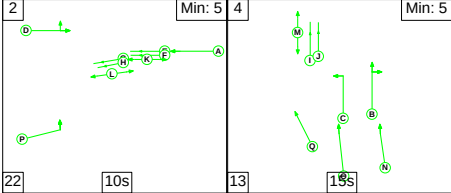
Stage Timings

Stage	1	2	3
Duration	16	7	6
Change Point	0	26	48

Signal Timings Diagram



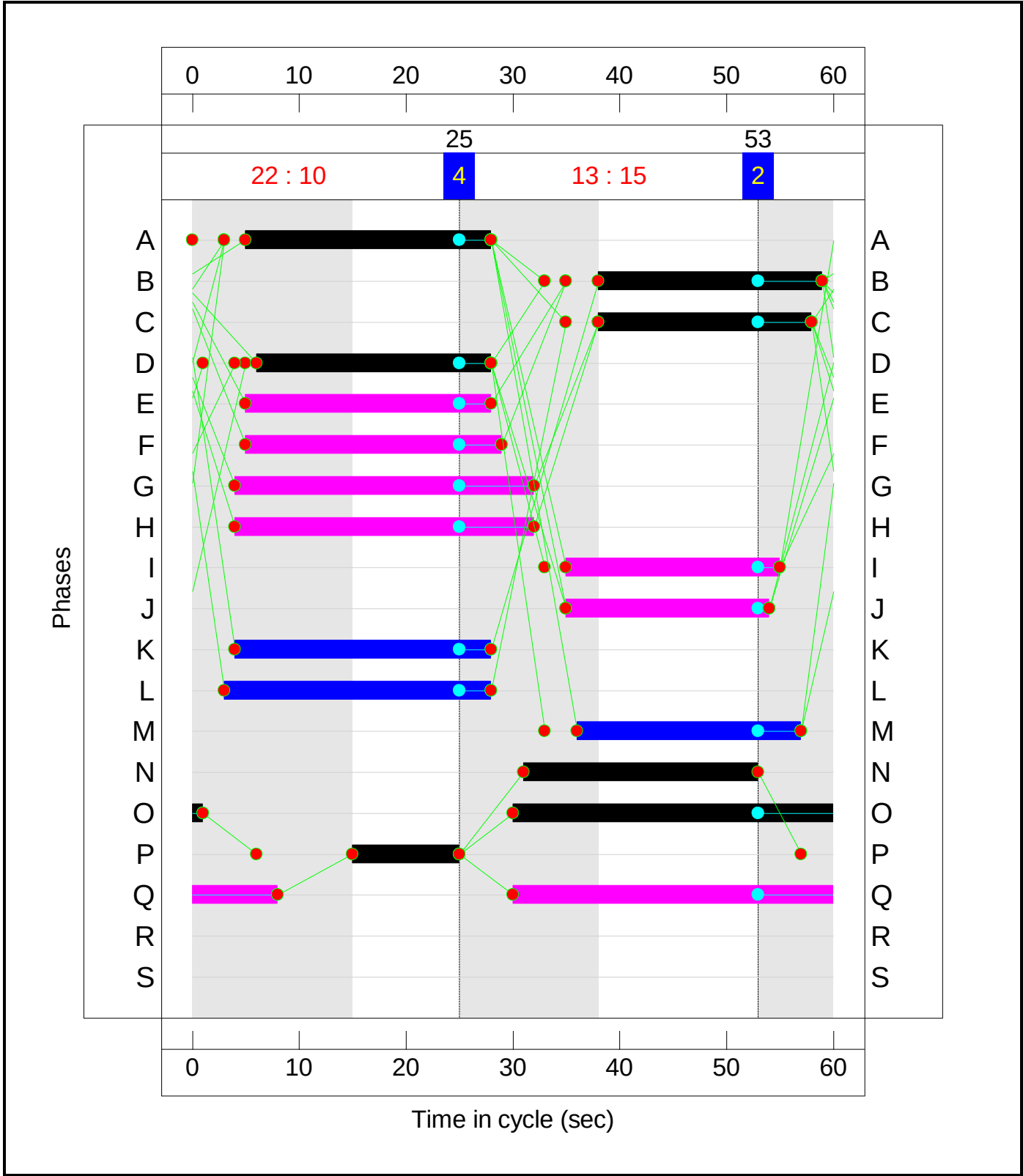
C2
Stage Sequence Diagram



Stage Timings

Stage	2	4
Duration	10	15
Change Point	53	25

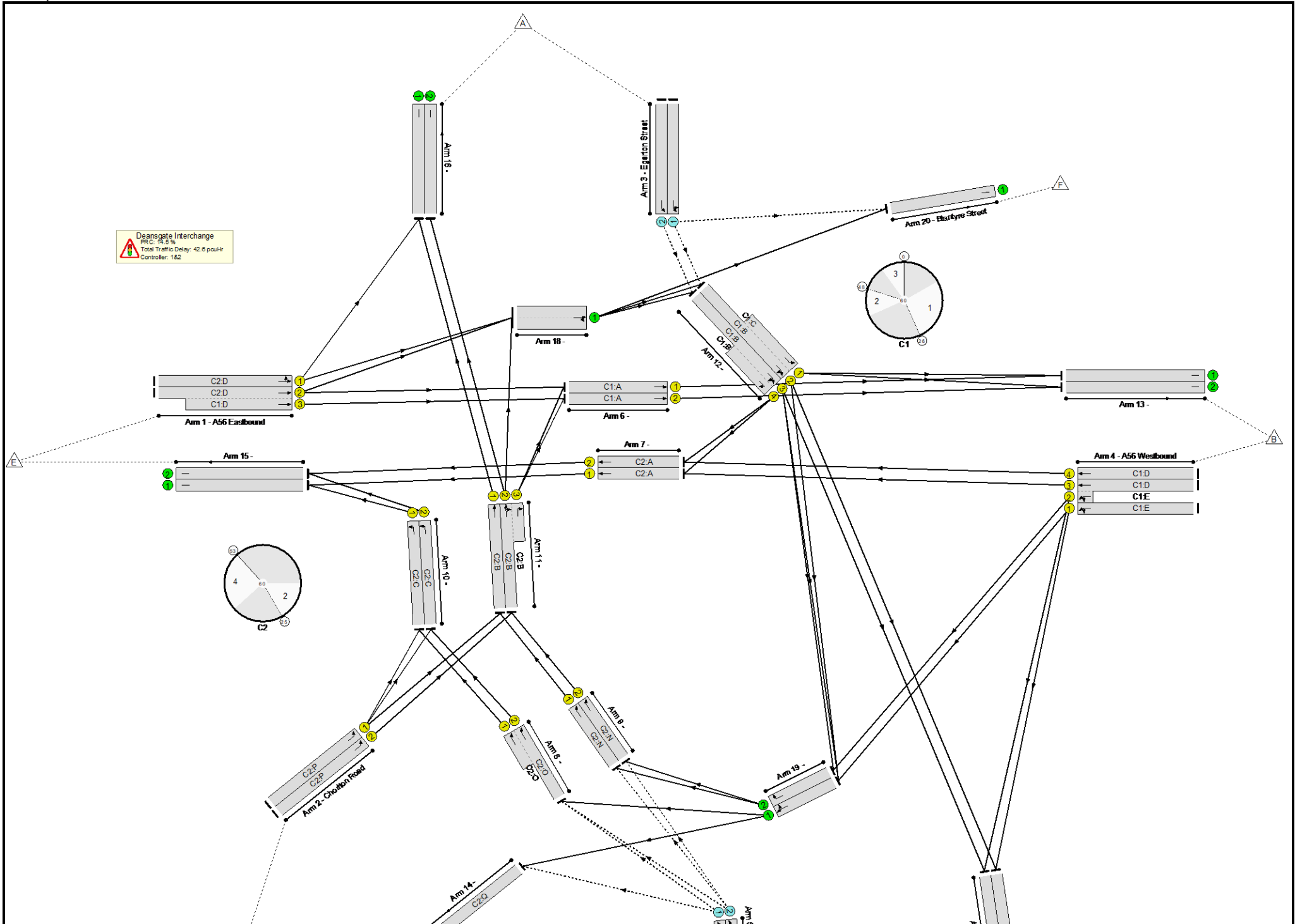
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	78.6%
Deansgate Interchange	-	-	N/A	-	-		-	-	-	-	-	-	78.6%
1/1	A56 Eastbound Left Ahead	U	N/A	N/A	C2:D		1	22	-	427	1915	734	58.2%
1/2+1/3	A56 Eastbound Ahead Ahead2	U	N/A	N/A	C2:D C1:D		1	22:14	-	848	1915:2055	734+514	66.7 : 69.7%
2/1	Chorlton Road Left Left2	U	N/A	N/A	C2:P		1	10	-	235	1965	360	65.2%
2/2	Chorlton Road Left	U	N/A	N/A	C2:P		1	10	-	261	1965	360	72.4%
3/1	Egerton Street Ahead Left	O	N/A	N/A	-		-	-	-	307	1995	707	43.4%
3/2	Egerton Street Ahead	O	N/A	N/A	-		-	-	-	420	1995	737	57.0%
4/1	A56 Westbound Left Ahead	U	N/A	N/A	C1:E		1	13	-	260	1945	454	57.3%
4/3+4/2	A56 Westbound Ahead Left Ahead2	U	N/A	N/A	C1:D C1:E		1	14:13	-	329	1945:1945	116+366	68.2 : 68.2%
4/4	A56 Westbound Ahead	U	N/A	N/A	C1:D		1	14	-	262	1945	486	53.9%
5/1	Mancunian Way WB Slip Road Ahead Left	O	N/A	N/A	-		-	-	-	449	1985	812	55.3%
5/2	Mancunian Way WB Slip Road Ahead Ahead2	O	N/A	N/A	-		-	-	-	450	1985	812	55.4%
6/1	Ahead	U	N/A	N/A	C1:A		1	27	-	119	1965	917	13.0%
6/2	Ahead	U	N/A	N/A	C1:A		1	27	-	417	1965	917	45.5%
7/1	Ahead	U	N/A	N/A	C2:A		1	23	-	295	1965	786	37.5%
7/2	Ahead	U	N/A	N/A	C2:A		1	23	-	298	1965	786	37.9%
8/2+8/1	Ahead	U	N/A	N/A	C2:O		1	31	-	480	2005:2005	684+684	35.1 : 35.1%

Full Input Data And Results

9/1	Ahead	U	N/A	N/A	C2:N		1	22	-	145	1995	765	19.0%
9/2	Ahead	U	N/A	N/A	C2:N		1	22	-	397	1995	765	51.9%
10/1	Left	U	N/A	N/A	C2:C		1	20	-	251	1995	698	35.9%
10/2	Left	U	N/A	N/A	C2:C		1	20	-	250	1995	698	35.8%
11/1	Ahead	U	N/A	N/A	C2:B		1	21	-	359	1419	520	69.0%
11/2+11/3	Right Ahead Right2	U	N/A	N/A	C2:B		1	21	-	658	1965:1965	611+226	78.6 : 78.6%
12/2+12/1	Left Ahead Right	U	N/A	N/A	C1:B C1:C		1	22:16	-	742	2005:2005	732+241	76.2 : 76.2%
12/3+12/4	Right Ahead Right2	U	N/A	N/A	C1:B		1	22	-	755	2005:2005	656+328	76.7 : 76.7%
13/1		U	N/A	N/A	-		-	-	-	211	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	509	Inf	Inf	0.0%
14/1		U	N/A	N/A	C2:Q		1	38	-	446	1945	1264	35.3%
15/1		U	N/A	N/A	-		-	-	-	546	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	548	Inf	Inf	0.0%
16/1		U	N/A	N/A	-		-	-	-	543	Inf	Inf	0.0%
16/2		U	N/A	N/A	-		-	-	-	418	Inf	Inf	0.0%
17/1		U	N/A	N/A	-		-	-	-	631	Inf	Inf	0.0%
17/2		U	N/A	N/A	-		-	-	-	371	Inf	Inf	0.0%
18/1	Right Ahead	U	N/A	N/A	-		-	-	-	795	Inf	Inf	0.0%
19/1	Right Ahead	U	N/A	N/A	-		-	-	-	319	Inf	Inf	0.0%
19/2	Right	U	N/A	N/A	-		-	-	-	250	Inf	Inf	0.0%
20/1	Blantyre Street	U	N/A	N/A	-		-	-	-	25	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	1626	0	0	29.7	12.9	0.0	42.6	-	-	-	-
Deansgate Interchange	-	-	1626	0	0	29.7	12.9	0.0	42.6	-	-	-	-
1/1	427	427	-	-	-	1.7	0.7	-	2.4	20.5	5.6	0.7	6.3
1/2+1/3	848	848	-	-	-	4.1	1.1	-	5.2	22.0	6.7	1.1	7.7
2/1	235	235	-	-	-	1.5	0.9	-	2.4	36.9	3.6	0.9	4.5
2/2	261	261	-	-	-	1.7	1.3	-	3.0	40.8	4.1	1.3	5.3
3/1	307	307	307	0	0	0.2	0.4	-	0.6	7.1	1.9	0.4	2.3
3/2	420	420	420	0	0	0.2	0.7	-	0.9	7.5	2.8	0.7	3.5
4/1	260	260	-	-	-	1.5	0.7	-	2.1	29.6	3.8	0.7	4.5
4/3+4/2	329	329	-	-	-	1.9	1.1	-	2.9	31.9	4.3	1.1	5.4
4/4	262	262	-	-	-	1.4	0.6	-	2.0	27.5	3.8	0.6	4.4
5/1	449	449	449	0	0	0.0	0.6	-	0.6	5.1	1.2	0.6	1.9
5/2	450	450	450	0	0	0.0	0.6	-	0.6	5.1	1.2	0.6	1.9
6/1	119	119	-	-	-	0.0	0.0	-	0.0	0.7	0.0	0.0	0.0
6/2	417	417	-	-	-	0.1	0.0	-	0.1	0.6	4.5	0.0	4.5
7/1	295	295	-	-	-	0.5	0.0	-	0.5	6.4	1.4	0.0	1.4
7/2	298	298	-	-	-	1.8	0.0	-	1.8	22.2	4.5	0.0	4.5
8/2+8/1	480	480	-	-	-	1.0	0.3	-	1.3	9.4	2.1	0.3	2.3
9/1	145	145	-	-	-	0.3	0.1	-	0.5	11.3	0.8	0.1	0.9
9/2	397	397	-	-	-	1.3	0.5	-	1.8	16.4	3.5	0.5	4.0
10/1	251	251	-	-	-	0.6	0.0	-	0.6	8.6	3.2	0.0	3.2
10/2	250	250	-	-	-	0.6	0.0	-	0.6	8.5	3.2	0.0	3.2
11/1	359	359	-	-	-	1.3	0.0	-	1.3	13.1	4.6	0.0	4.6
11/2+11/3	658	658	-	-	-	1.5	0.0	-	1.5	8.0	5.9	0.0	5.9
12/2+12/1	742	742	-	-	-	2.7	1.6	-	4.2	20.6	3.6	1.6	5.2
12/3+12/4	755	755	-	-	-	2.8	1.6	-	4.5	21.2	3.8	1.6	5.4

Full Input Data And Results

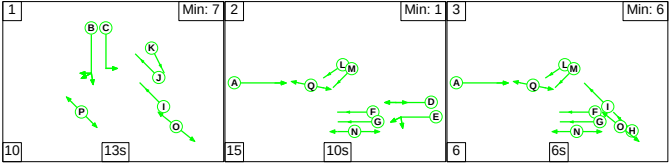
13/1	211	211	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	509	509	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	446	446	-	-	-	0.9	0.3	-	1.2	9.6	4.8	0.3	5.1
15/1	546	546	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	548	548	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1	543	543	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/2	418	418	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/1	631	631	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/2	371	371	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	795	795	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	319	319	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/2	250	250	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	25	25	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
			C1 C2	PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):		17.3 14.5 14.5	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):		15.84 24.00 42.61	Cycle Time (s): Cycle Time (s):		60 60	

Full Input Data And Results

Scenario 5: 'AM Base+Dev' (FG5: 'AM Base + Dev', Plan 1: 'Network Control Plan 1')

C1

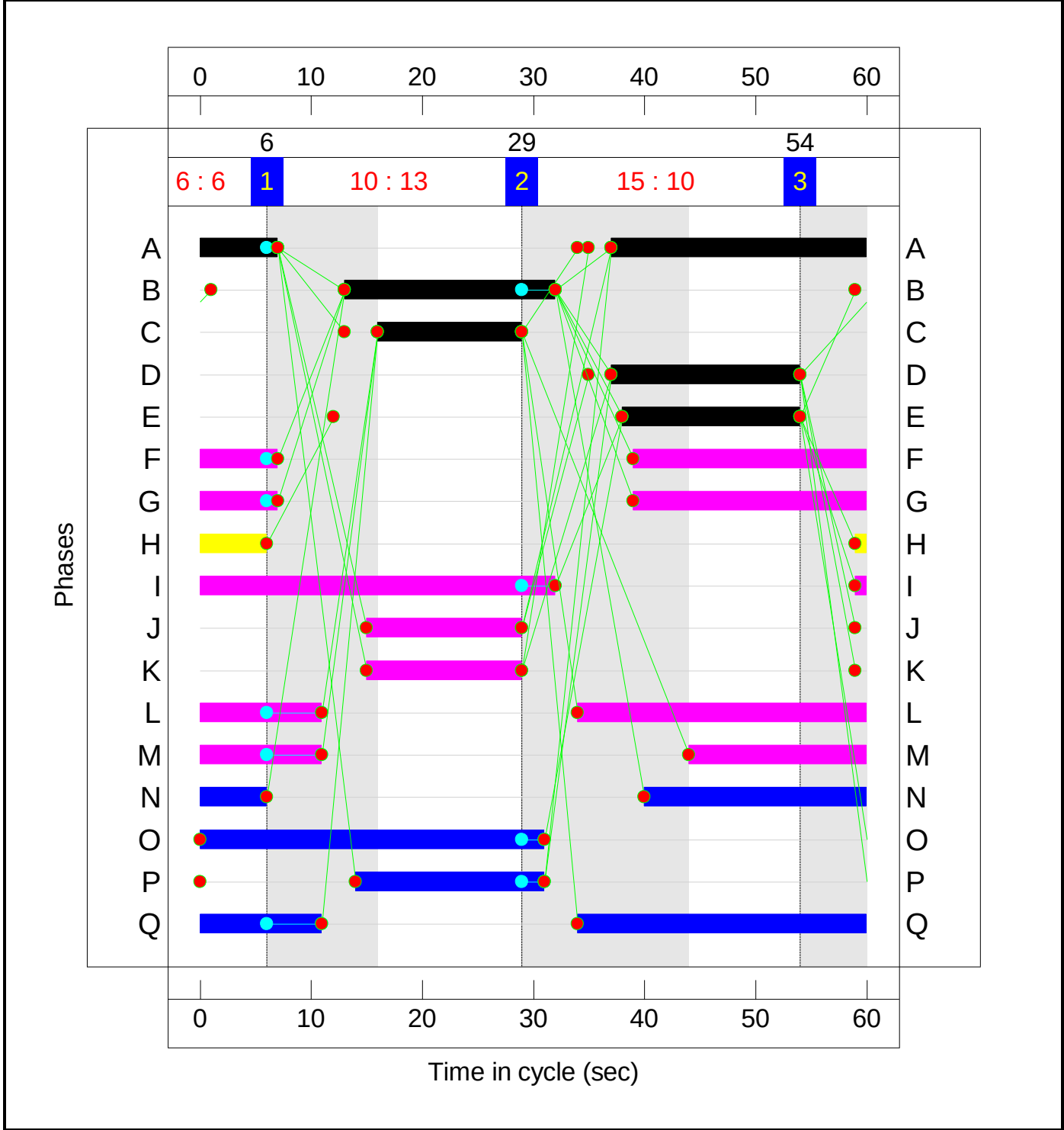
Stage Sequence Diagram



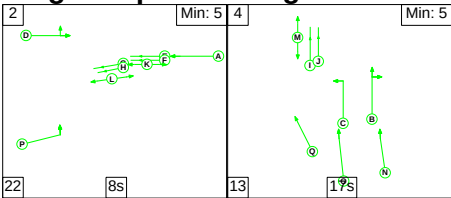
Stage Timings

Stage	1	2	3
Duration	13	10	6
Change Point	6	29	54

Signal Timings Diagram



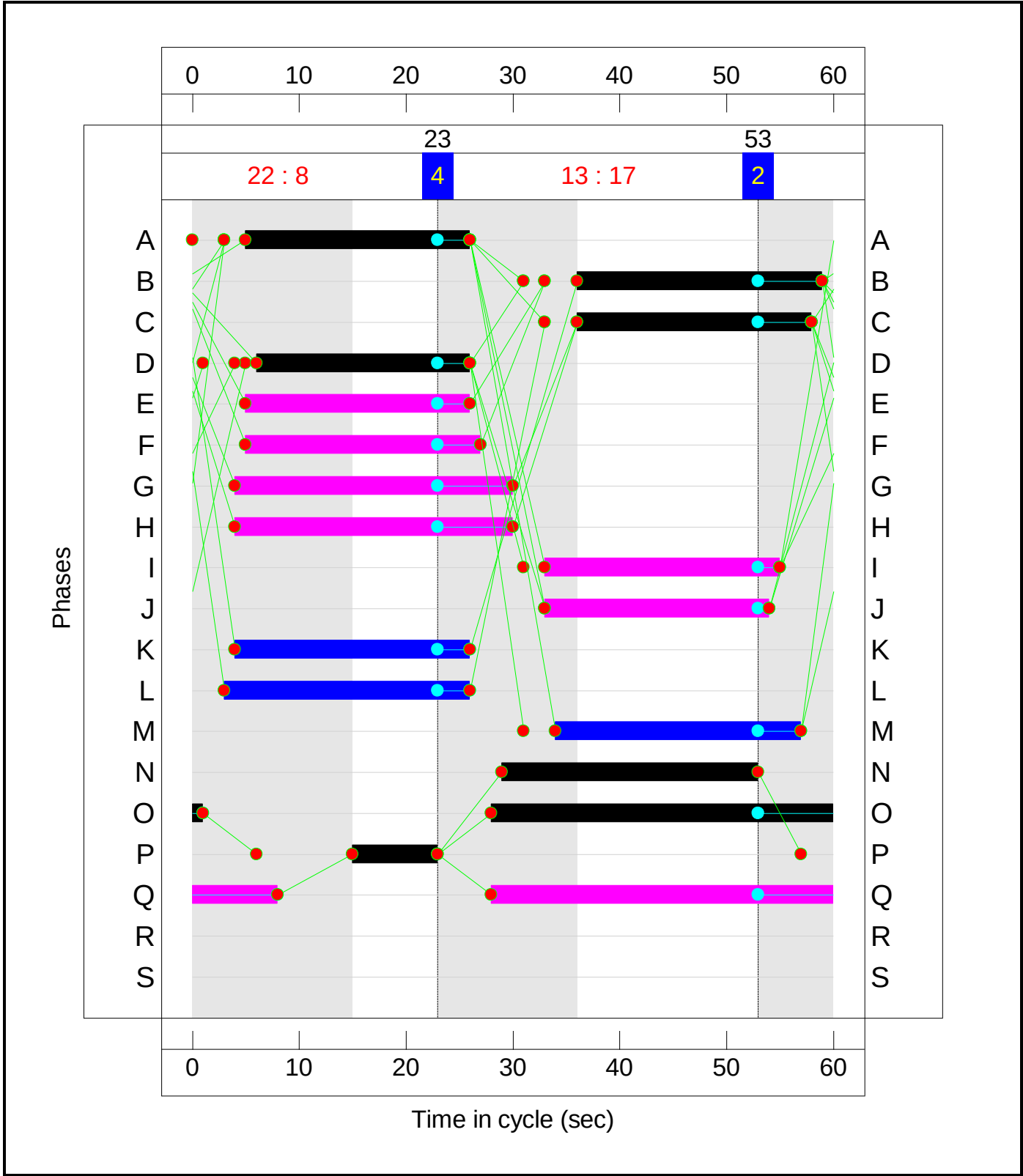
C2
Stage Sequence Diagram



Stage Timings

Stage	2	4
Duration	8	17
Change Point	53	23

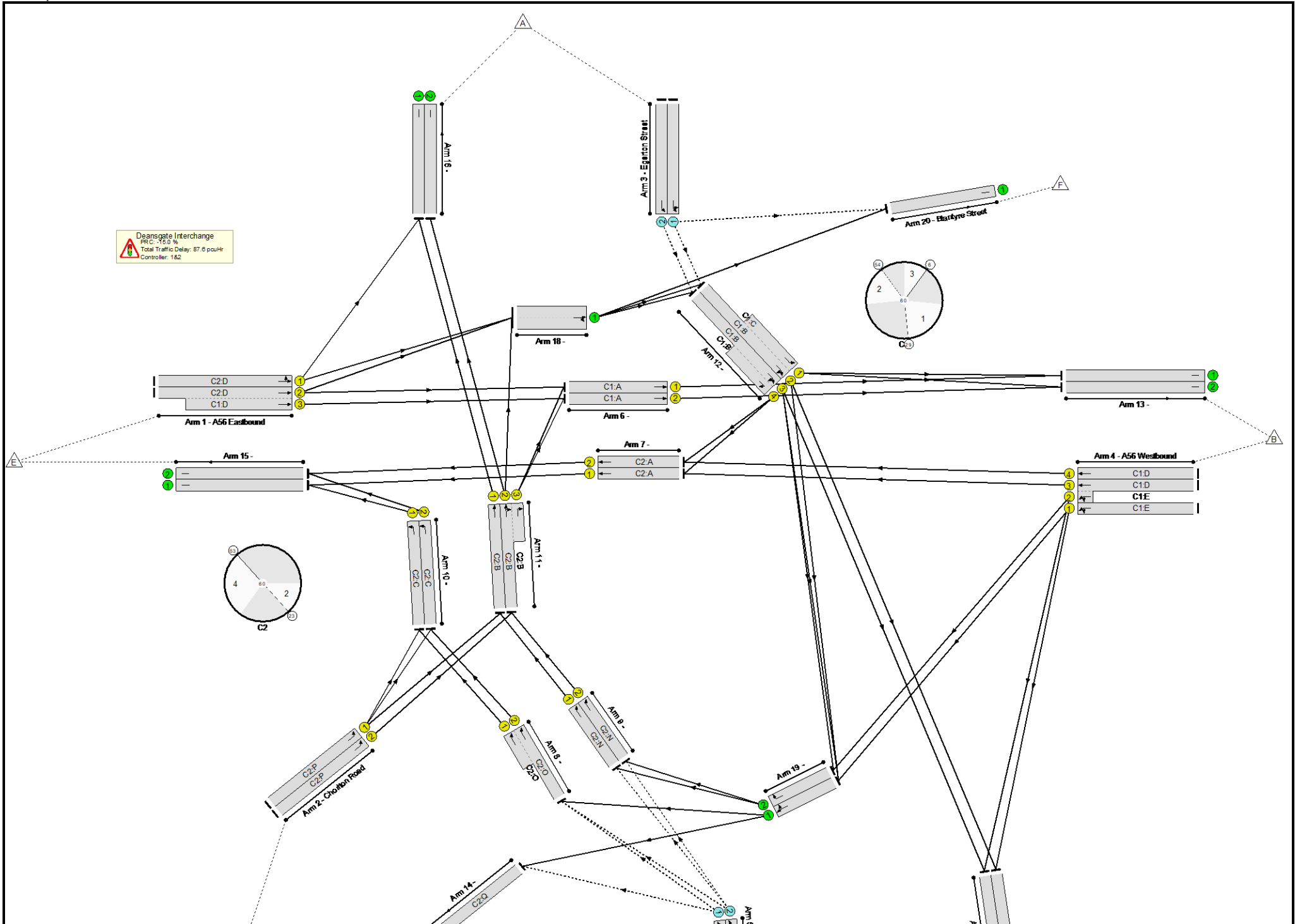
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	103.5%
Deansgate Interchange	-	-	N/A	-	-		-	-	-	-	-	-	103.5%
1/1	A56 Eastbound Left Ahead	U	N/A	N/A	C2:D		1	20	-	522	1915	670	77.9%
1/2+1/3	A56 Eastbound Ahead Ahead2	U	N/A	N/A	C2:D C1:D		1	20:17	-	1105	1915:2055	670+617	82.4 : 89.7%
2/1	Chorlton Road Left Left2	U	N/A	N/A	C2:P		1	8	-	305	1965	295	103.5%
2/2	Chorlton Road Left	U	N/A	N/A	C2:P		1	8	-	305	1965	295	103.5%
3/1	Egerton Street Ahead Left	O	N/A	N/A	-		-	-	-	238	1995	661	36.0%
3/2	Egerton Street Ahead	O	N/A	N/A	-		-	-	-	357	1995	711	50.2%
4/1	A56 Westbound Left Ahead	U	N/A	N/A	C1:E		1	16	-	302	1945	551	54.8%
4/3+4/2	A56 Westbound Ahead Left Ahead2	U	N/A	N/A	C1:D C1:E		1	17:16	-	460	1945:1945	0+541	0.0 : 85.0%
4/4	A56 Westbound Ahead	U	N/A	N/A	C1:D		1	17	-	409	1945	583	70.1%
5/1	Mancunian Way WB Slip Road Ahead Left	O	N/A	N/A	-		-	-	-	630	1985	749	84.2%
5/2	Mancunian Way WB Slip Road Ahead Ahead2	O	N/A	N/A	-		-	-	-	631	1985	749	84.3%
6/1	Ahead	U	N/A	N/A	C1:A		1	30	-	201	1965	1015	19.5%
6/2	Ahead	U	N/A	N/A	C1:A		1	30	-	624	1965	1015	61.3%
7/1	Ahead	U	N/A	N/A	C2:A		1	21	-	185	1965	721	25.7%
7/2	Ahead	U	N/A	N/A	C2:A		1	21	-	419	1965	721	58.2%
8/2+8/1	Ahead	U	N/A	N/A	C2:O		1	33	-	746	2005:2005	718+718	52.0 : 52.0%

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9/1	Ahead	U	N/A	N/A	C2:N		1	24	-	248	1995	831	29.8%
9/2	Ahead	U	N/A	N/A	C2:N		1	24	-	601	1995	831	72.3%
10/1	Left	U	N/A	N/A	C2:C		1	22	-	381	1995	765	49.8%
10/2	Left	U	N/A	N/A	C2:C		1	22	-	380	1995	765	49.7%
11/1	Ahead	U	N/A	N/A	C2:B		1	23	-	538	1419	568	93.1%
11/2+11/3	Right Ahead Right2	U	N/A	N/A	C2:B		1	23	-	906	1965:1965	644+276	97.7 : 96.7%
12/2+12/1	Left Ahead Right	U	N/A	N/A	C1:B C1:C		1	19:13	-	720	2005:2005	667+155	87.4 : 87.6%
12/3+12/4	Right Ahead Right2	U	N/A	N/A	C1:B		1	19	-	728	2005:2005	603+221	88.2 : 88.3%
13/1		U	N/A	N/A	-		-	-	-	269	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	692	Inf	Inf	0.0%
14/1		U	N/A	N/A	C2:Q		1	40	-	427	1945	1329	32.1%
15/1		U	N/A	N/A	-		-	-	-	566	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	799	Inf	Inf	0.0%
16/1		U	N/A	N/A	-		-	-	-	821	Inf	Inf	0.0%
16/2		U	N/A	N/A	-		-	-	-	547	Inf	Inf	0.0%
17/1		U	N/A	N/A	-		-	-	-	712	Inf	Inf	0.0%
17/2		U	N/A	N/A	-		-	-	-	406	Inf	Inf	0.0%
18/1	Right Ahead	U	N/A	N/A	-		-	-	-	878	Inf	Inf	0.0%
19/1	Right Ahead	U	N/A	N/A	-		-	-	-	301	Inf	Inf	0.0%
19/2	Right	U	N/A	N/A	-		-	-	-	460	Inf	Inf	0.0%
20/1	Blantyre Street	U	N/A	N/A	-		-	-	-	25	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	1856	0	0	40.2	47.3	0.0	87.6	-	-	-	-
Deansgate Interchange	-	-	1856	0	0	40.2	47.3	0.0	87.6	-	-	-	-
1/1	522	522	-	-	-	2.5	1.7	-	4.2	29.3	7.7	1.7	9.4
1/2+1/3	1105	1105	-	-	-	5.8	2.9	-	8.8	28.6	8.8	2.9	11.7
2/1	305	295	-	-	-	2.4	11.7	-	14.1	166.5	5.3	11.7	16.9
2/2	305	295	-	-	-	2.4	11.7	-	14.1	166.5	5.3	11.7	16.9
3/1	238	238	238	0	0	0.2	0.3	-	0.5	7.8	1.6	0.3	1.9
3/2	357	357	357	0	0	0.2	0.5	-	0.7	6.9	2.2	0.5	2.7
4/1	302	302	-	-	-	1.5	0.6	-	2.1	25.4	4.2	0.6	4.8
4/3+4/2	460	460	-	-	-	2.6	2.7	-	5.3	41.2	7.2	2.7	9.8
4/4	409	409	-	-	-	2.1	1.2	-	3.3	28.8	6.0	1.2	7.2
5/1	630	630	630	0	0	0.3	2.5	-	2.9	16.5	4.9	2.5	7.4
5/2	631	631	631	0	0	0.3	2.6	-	2.9	16.7	4.9	2.6	7.5
6/1	198	198	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	622	622	-	-	-	0.1	0.0	-	0.1	0.7	9.5	0.0	9.5
7/1	185	185	-	-	-	0.1	0.0	-	0.1	2.5	0.2	0.0	0.2
7/2	419	419	-	-	-	2.5	0.0	-	2.5	21.8	6.8	0.0	6.8
8/2+8/1	746	746	-	-	-	1.9	0.5	-	2.4	11.6	4.0	0.5	4.6
9/1	248	248	-	-	-	1.1	0.2	-	1.3	19.2	2.7	0.2	2.9
9/2	601	601	-	-	-	3.1	1.3	-	4.4	26.6	7.3	1.3	8.6
10/1	381	381	-	-	-	0.5	0.0	-	0.5	4.6	5.0	0.0	5.0
10/2	380	380	-	-	-	0.5	0.0	-	0.5	4.5	5.0	0.0	5.0
11/1	528	528	-	-	-	2.1	0.0	-	2.1	14.6	8.5	0.0	8.5
11/2+11/3	896	896	-	-	-	1.9	0.0	-	1.9	7.6	11.1	0.0	11.1
12/2+12/1	719	719	-	-	-	2.5	3.3	-	5.8	28.9	5.6	3.3	8.9
12/3+12/4	727	727	-	-	-	2.7	3.5	-	6.2	30.9	5.6	3.5	9.1

Full Input Data And Results

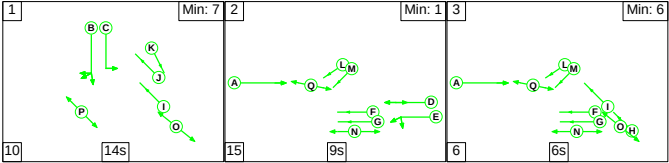
13/1	266	266	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	690	690	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	427	427	-	-	-	0.5	0.2	-	0.7	5.9	4.4	0.2	4.7
15/1	566	566	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	799	799	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1	811	811	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/2	544	544	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/1	711	711	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/2	405	405	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	875	875	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/2	460	460	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	25	25	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
			C1	PRC for Signalled Lanes (%):		1.9	Total Delay for Signalled Lanes (pcuHr):		22.79	Cycle Time (s):		60	
			C2	PRC for Signalled Lanes (%):		-15.0	Total Delay for Signalled Lanes (pcuHr):		57.75	Cycle Time (s):		60	
				PRC Over All Lanes (%):		-15.0	Total Delay Over All Lanes(pcuHr):		87.56				

Full Input Data And Results

Scenario 6: 'PM Base+Dev' (FG6: 'PM Base + Dev', Plan 1: 'Network Control Plan 1')

C1

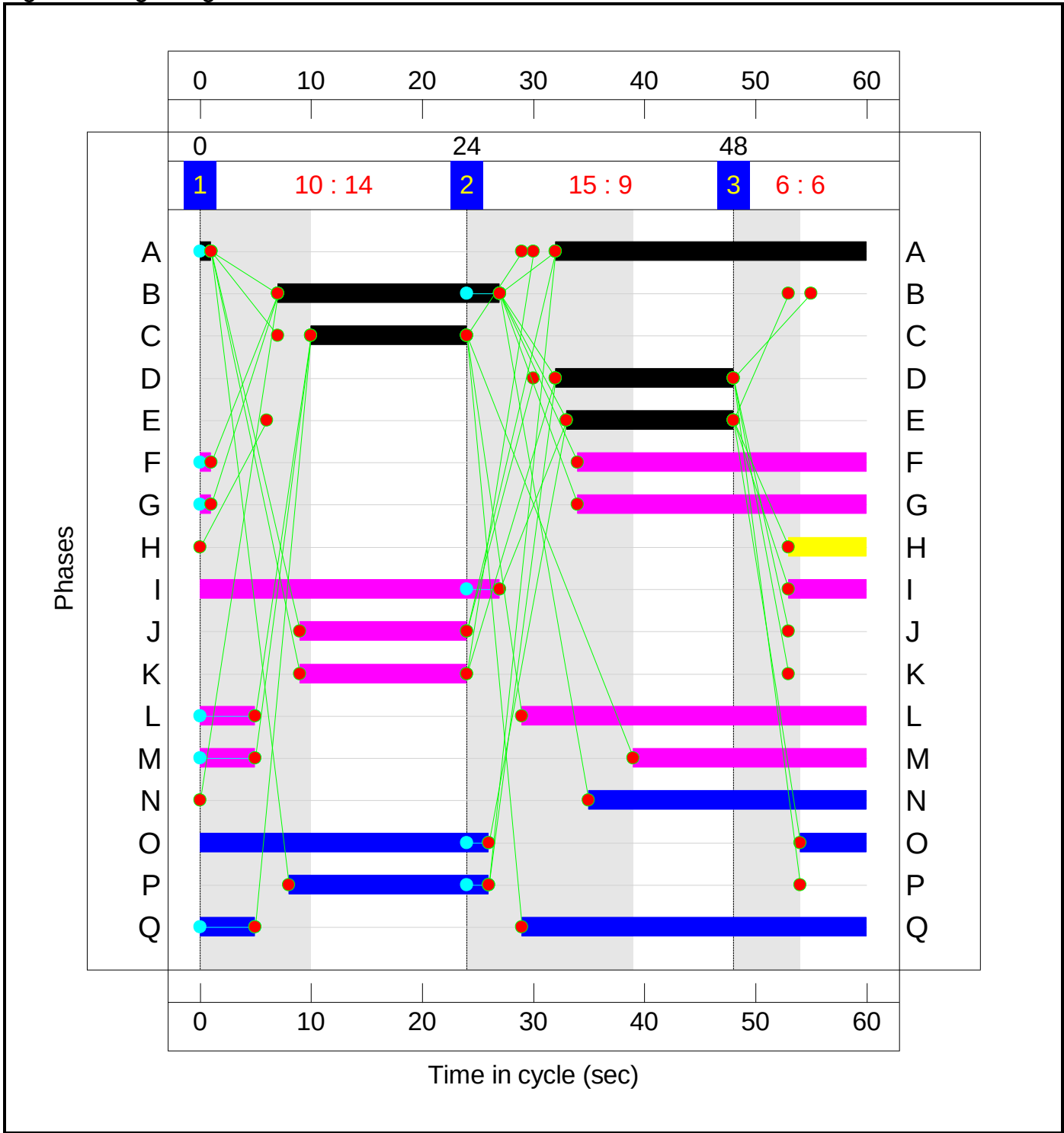
Stage Sequence Diagram



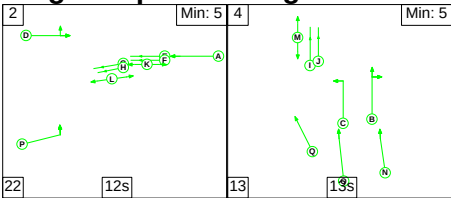
Stage Timings

Stage	1	2	3
Duration	14	9	6
Change Point	0	24	48

Signal Timings Diagram



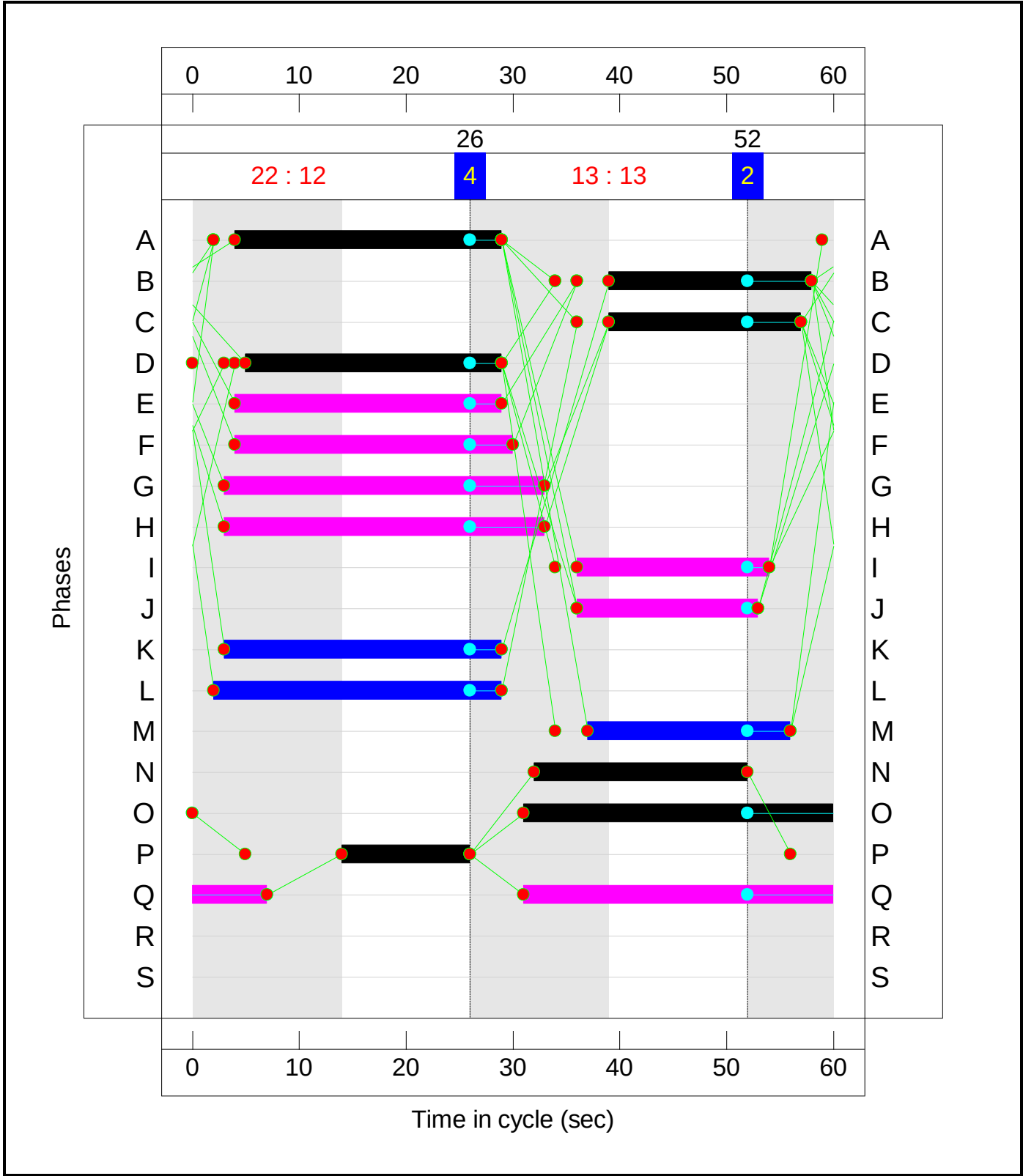
C2
Stage Sequence Diagram



Stage Timings

Stage	2	4
Duration	12	13
Change Point	52	26

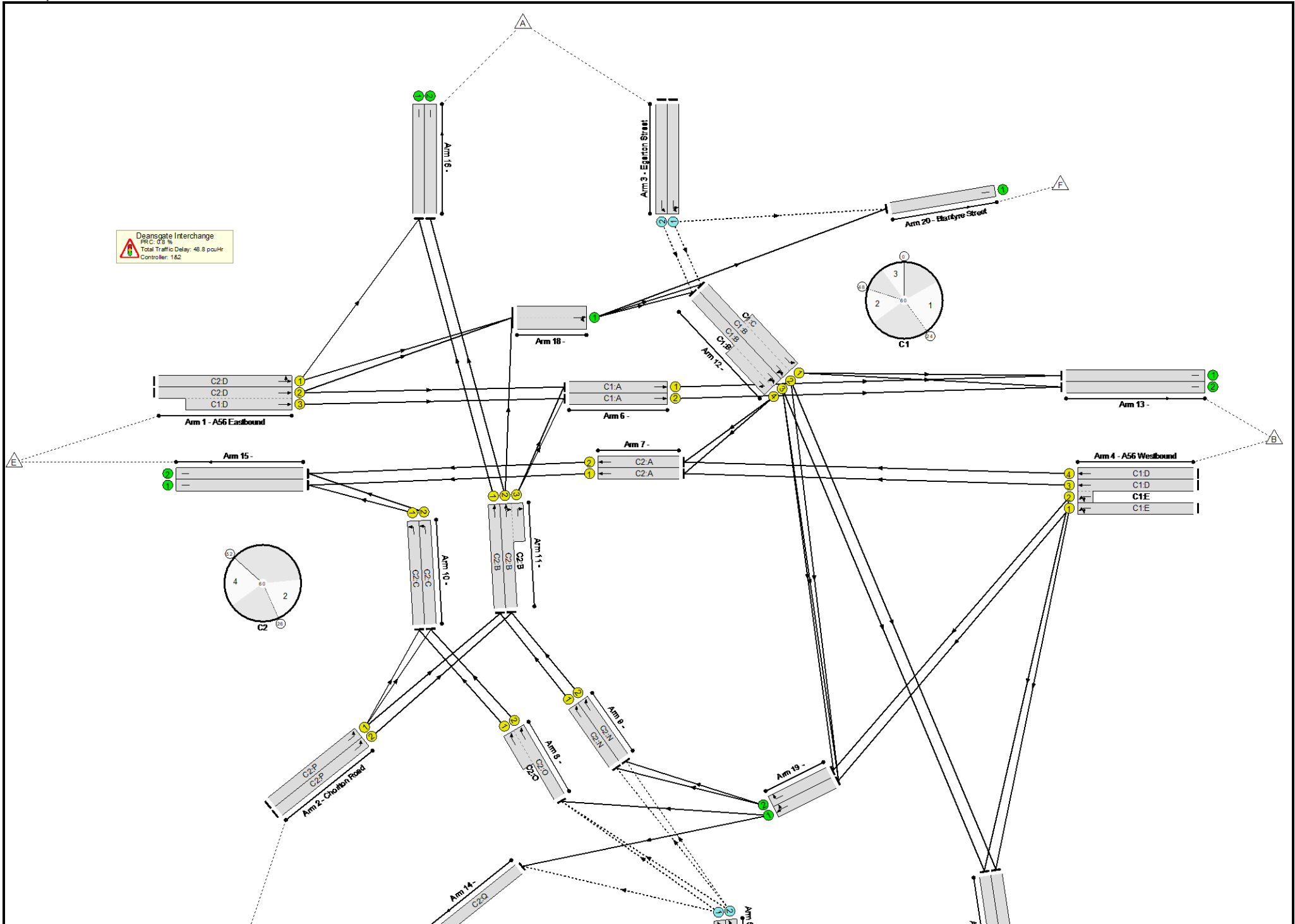
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	89.3%
Deansgate Interchange	-	-	N/A	-	-		-	-	-	-	-	-	89.3%
1/1	A56 Eastbound Left Ahead	U	N/A	N/A	C2:D		1	24	-	441	1915	798	55.3%
1/2+1/3	A56 Eastbound Ahead Ahead2	U	N/A	N/A	C2:D C1:D		1	24:16	-	857	1915:2055	798+582	62.0 : 62.2%
2/1	Chorlton Road Left Left2	U	N/A	N/A	C2:P		1	12	-	231	1965	426	54.3%
2/2	Chorlton Road Left	U	N/A	N/A	C2:P		1	12	-	267	1965	426	62.7%
3/1	Egerton Street Ahead Left	O	N/A	N/A	-		-	-	-	373	1995	693	53.8%
3/2	Egerton Street Ahead	O	N/A	N/A	-		-	-	-	429	1995	725	59.2%
4/1	A56 Westbound Left Ahead	U	N/A	N/A	C1:E		1	15	-	285	1945	519	54.9%
4/3+4/2	A56 Westbound Ahead Left Ahead2	U	N/A	N/A	C1:D C1:E		1	16:15	-	365	1945:1945	92+442	68.3 : 68.3%
4/4	A56 Westbound Ahead	U	N/A	N/A	C1:D		1	16	-	295	1945	551	53.5%
5/1	Mancunian Way WB Slip Road Ahead Left	O	N/A	N/A	-		-	-	-	457	1985	794	57.5%
5/2	Mancunian Way WB Slip Road Ahead Ahead2	O	N/A	N/A	-		-	-	-	458	1985	794	57.7%
6/1	Ahead	U	N/A	N/A	C1:A		1	29	-	123	1965	982	12.5%
6/2	Ahead	U	N/A	N/A	C1:A		1	29	-	417	1965	982	42.4%
7/1	Ahead	U	N/A	N/A	C2:A		1	25	-	261	1965	852	30.7%
7/2	Ahead	U	N/A	N/A	C2:A		1	25	-	349	1965	852	41.0%
8/2+8/1	Ahead	U	N/A	N/A	C2:O		1	29	-	480	2005:2005	651+651	36.9 : 36.9%

Full Input Data And Results

9/1	Ahead	U	N/A	N/A	C2:N		1	20	-	197	1995	698	28.2%
9/2	Ahead	U	N/A	N/A	C2:N		1	20	-	413	1995	698	59.1%
10/1	Left	U	N/A	N/A	C2:C		1	18	-	251	1995	632	39.7%
10/2	Left	U	N/A	N/A	C2:C		1	18	-	250	1995	632	39.6%
11/1	Ahead	U	N/A	N/A	C2:B		1	19	-	407	1419	473	86.0%
11/2+11/3	Right Ahead Right2	U	N/A	N/A	C2:B		1	19	-	680	1965:1965	566+201	88.7 : 88.7%
12/2+12/1	Left Ahead Right	U	N/A	N/A	C1:B C1:C		1	20:14	-	807	2005:2005	682+222	89.2 : 89.2%
12/3+12/4	Right Ahead Right2	U	N/A	N/A	C1:B		1	20	-	802	2005:2005	616+282	89.3 : 89.3%
13/1		U	N/A	N/A	-		-	-	-	222	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	516	Inf	Inf	0.0%
14/1		U	N/A	N/A	C2:Q		1	36	-	448	1945	1199	37.4%
15/1		U	N/A	N/A	-		-	-	-	512	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	599	Inf	Inf	0.0%
16/1		U	N/A	N/A	-		-	-	-	591	Inf	Inf	0.0%
16/2		U	N/A	N/A	-		-	-	-	422	Inf	Inf	0.0%
17/1		U	N/A	N/A	-		-	-	-	686	Inf	Inf	0.0%
17/2		U	N/A	N/A	-		-	-	-	437	Inf	Inf	0.0%
18/1	Right Ahead	U	N/A	N/A	-		-	-	-	832	Inf	Inf	0.0%
19/1	Right Ahead	U	N/A	N/A	-		-	-	-	321	Inf	Inf	0.0%
19/2	Right	U	N/A	N/A	-		-	-	-	302	Inf	Inf	0.0%
20/1	Blantyre Street	U	N/A	N/A	-		-	-	-	25	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	1717	0	0	31.9	17.0	0.0	48.8	-	-	-	-
Deansgate Interchange	-	-	1717	0	0	31.9	17.0	0.0	48.8	-	-	-	-
1/1	441	441	-	-	-	1.6	0.6	-	2.2	18.3	5.5	0.6	6.1
1/2+1/3	857	857	-	-	-	3.8	0.8	-	4.6	19.3	6.5	0.8	7.3
2/1	231	231	-	-	-	1.3	0.6	-	1.9	30.1	3.4	0.6	4.0
2/2	267	267	-	-	-	1.6	0.8	-	2.4	32.5	4.0	0.8	4.8
3/1	373	373	373	0	0	0.3	0.6	-	0.9	8.6	2.7	0.6	3.3
3/2	429	429	429	0	0	0.2	0.7	-	1.0	8.0	3.0	0.7	3.7
4/1	285	285	-	-	-	1.5	0.6	-	2.1	26.6	4.0	0.6	4.6
4/3+4/2	365	365	-	-	-	2.0	1.1	-	3.0	29.8	5.0	1.1	6.0
4/4	295	295	-	-	-	1.5	0.6	-	2.1	25.2	4.1	0.6	4.7
5/1	457	457	457	0	0	0.0	0.7	-	0.7	5.6	1.5	0.7	2.2
5/2	458	458	458	0	0	0.0	0.7	-	0.7	5.6	1.5	0.7	2.2
6/1	123	123	-	-	-	0.0	0.0	-	0.0	0.4	0.0	0.0	0.0
6/2	417	417	-	-	-	0.0	0.0	-	0.0	0.2	3.3	0.0	3.3
7/1	261	261	-	-	-	0.4	0.0	-	0.4	5.4	1.1	0.0	1.1
7/2	349	349	-	-	-	2.1	0.0	-	2.1	22.0	5.0	0.0	5.0
8/2+8/1	480	480	-	-	-	1.1	0.3	-	1.4	10.7	2.3	0.3	2.6
9/1	197	197	-	-	-	0.5	0.2	-	0.7	13.5	1.3	0.2	1.5
9/2	413	413	-	-	-	1.4	0.7	-	2.2	18.9	3.7	0.7	4.4
10/1	251	251	-	-	-	0.7	0.0	-	0.7	9.4	3.4	0.0	3.4
10/2	250	250	-	-	-	0.7	0.0	-	0.7	9.4	3.4	0.0	3.4
11/1	407	407	-	-	-	1.5	0.0	-	1.5	13.6	6.1	0.0	6.1
11/2+11/3	680	680	-	-	-	1.7	0.0	-	1.7	8.9	7.3	0.0	7.3
12/2+12/1	807	807	-	-	-	3.5	3.8	-	7.3	32.7	5.6	3.8	9.5
12/3+12/4	802	802	-	-	-	3.3	3.9	-	7.2	32.3	4.6	3.9	8.5

Full Input Data And Results

13/1	222	222	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	516	516	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	448	448	-	-	-	1.0	0.3	-	1.3	10.2	4.9	0.3	5.2
15/1	512	512	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	599	599	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1	591	591	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/2	422	422	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/1	686	686	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/2	437	437	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	832	832	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	321	321	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/2	302	302	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
20/1	25	25	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
			C1	PRC for Signalled Lanes (%):		0.8	Total Delay for Signalled Lanes (pcuHr):		21.75	Cycle Time (s):		60	
			C2	PRC for Signalled Lanes (%):		1.5	Total Delay for Signalled Lanes (pcuHr):		23.83	Cycle Time (s):		60	
				PRC Over All Lanes (%):		0.8	Total Delay Over All Lanes(pcuHr):		48.84				