

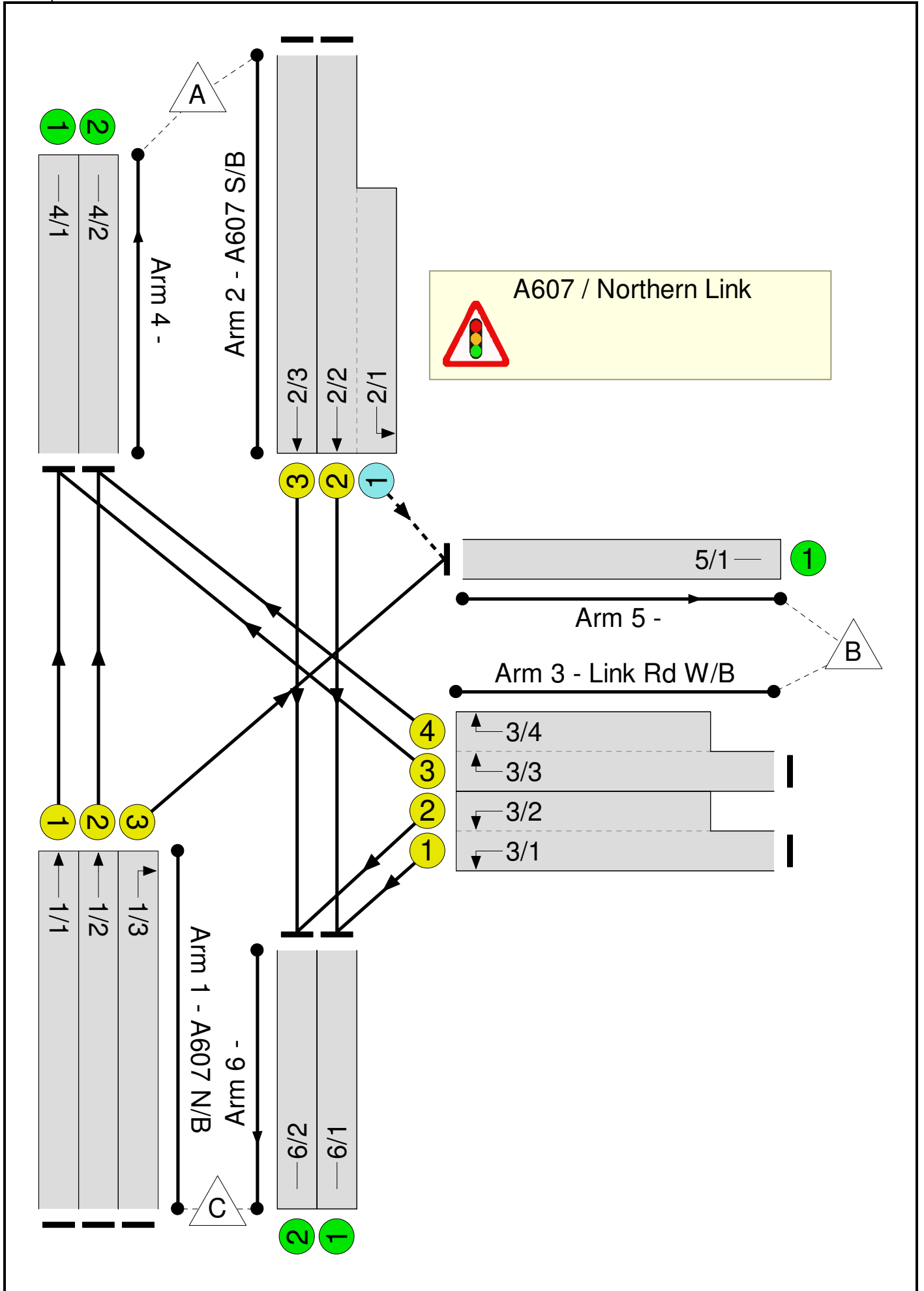
Full Input Data And Results

User and Project Details

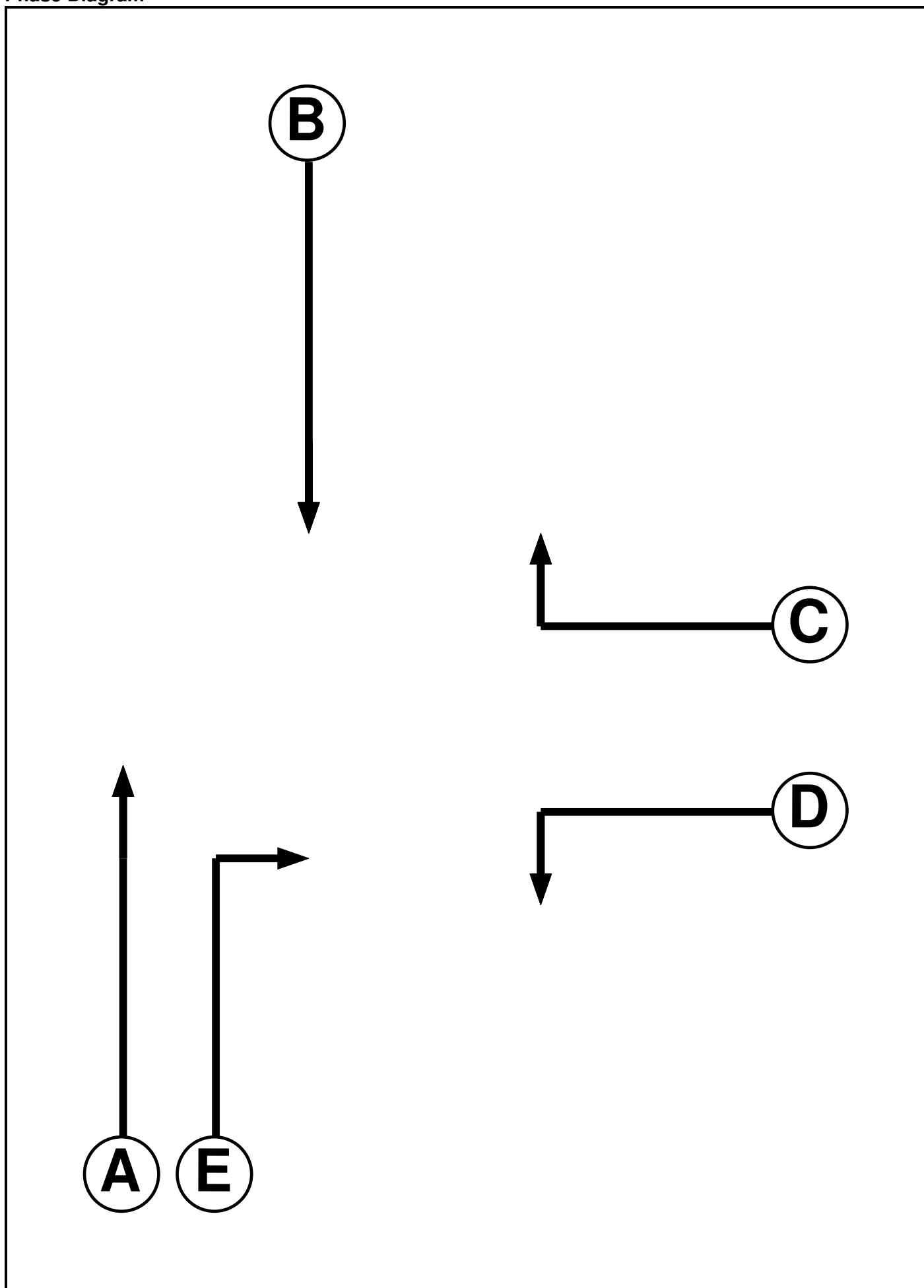
Project:	North-East Leicester SUE
Title:	A607 / Northern Link Road Junction
Location:	
File name:	A46980-7 A607 - Northern Link Rd_2.lsg3x
Author:	R Bishop
Company:	WYG
Address:	Leicester
Notes:	Closure scenarios refer to Melton Road being potentially closed to the north of Barkby Thorpe Road (ASDA/Costco) roundabout.

Full Input Data And Results

Network Layout Diagram



Phase Diagram



Full Input Data And Results

Phase Input Data

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

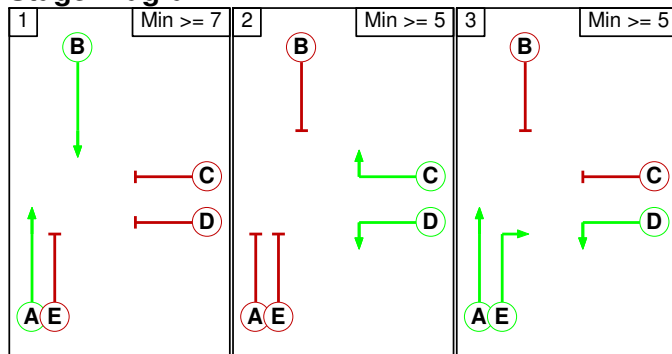
Phase Intergreens Matrix

		Starting Phase				
		A	B	C	D	E
Terminating Phase	A	-	-	7	-	-
	B	-	-	7	9	7
	C	6	6	-	-	7
	D	-	6	-	-	-
	E	-	6	6	-	-

Phases in Stage

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

Stage Diagram



Phase Delays

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

Full Input Data And Results

Prohibited Stage Change

From Stage	To Stage		
	1	2	3
1		9	9
2	6		7
3	6	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A607 / Northern Link											
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)
2/1 (A607 S/B)	5/1 (Left)	1000	0	1/1	0.50	All	-	-	-	-	-

Full Input Data And Results

Lane Input Data

Junction: A607 / Northern Link												
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 (A607 N/B)	U	A	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 4 Ahead	Inf
1/2 (A607 N/B)	U	A	2	3	60.0	Geom	-	3.65	0.00	N	Arm 4 Ahead	Inf
1/3 (A607 N/B)	U	E	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 5 Right	20.00
2/1 (A607 S/B)	O		2	3	10.0	Inf	-	-	-	-	-	-
2/2 (A607 S/B)	U	B	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 6 Ahead	Inf
2/3 (A607 S/B)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm 6 Ahead	Inf
3/1 (Link Rd W/B)	U	D	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 6 Left	20.00
3/2 (Link Rd W/B)	U	D	2	3	16.0	Geom	-	3.65	0.00	N	Arm 6 Left	20.00
3/3 (Link Rd W/B)	U	C	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 4 Right	30.00
3/4 (Link Rd W/B)	U	C	2	3	14.0	Geom	-	3.65	0.00	Y	Arm 4 Right	30.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2031 AM Base + Comm + Dev (+TM)'	08:00	09:00	01:00	
2: '2031 PM Base + Comm + Dev (+TM)'	17:00	18:00	01:00	

Full Input Data And Results

Scenario 1: '2031 AM All Dev (Stage 2 Mitigation)' (FG1: '2031 AM Base + Comm + Dev (+TM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	258	1845	2103
	B	315	0	0	315
	C	1275	0	0	1275
	Tot.	1590	258	1845	3693

Traffic Lane Flows

Lane	Scenario 1: 2031 AM All Dev (Stage 2 Mitigation)
Junction: A607 / Northern Link	
1/1	599
1/2	676
1/3	0
2/1 (short)	258
2/2 (with short)	1148(In) 890(Out)
2/3	955
3/1 (with short)	0(In) 0(Out)
3/2 (short)	0
3/3 (with short)	315(In) 158(Out)
3/4 (short)	157
4/1	757
4/2	833
5/1	258
6/1	890
6/2	955

Full Input Data And Results

Lane Saturation Flows

Junction: A607 / Northern Link								
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 (A607 N/B)	3.65	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1980	1980
1/2 (A607 N/B)	3.65	0.00	N	Arm 4 Ahead	Inf	100.0 %	2120	2120
1/3 (A607 N/B)	3.65	0.00	Y	Arm 5 Right	20.00	0.0 %	1980	1980
2/1 (A607 S/B Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A607 S/B)	3.65	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1980	1980
2/3 (A607 S/B)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
3/1 (Link Rd W/B)	3.65	0.00	Y	Arm 6 Left	20.00	0.0 %	1980	1980
3/2 (Link Rd W/B)	3.65	0.00	N	Arm 6 Left	20.00	0.0 %	2120	2120
3/3 (Link Rd W/B)	3.65	0.00	Y	Arm 4 Right	30.00	100.0 %	1886	1886
3/4 (Link Rd W/B)	3.65	0.00	Y	Arm 4 Right	30.00	100.0 %	1886	1886
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2031 PM All Dev (Stage 2 Mitigation)' (FG2: '2031 PM Base + Comm + Dev (+TM)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	367	1246	1613
	B	300	0	0	300
	C	1854	0	0	1854
	Tot.	2154	367	1246	3767

Full Input Data And Results

Traffic Lane Flows

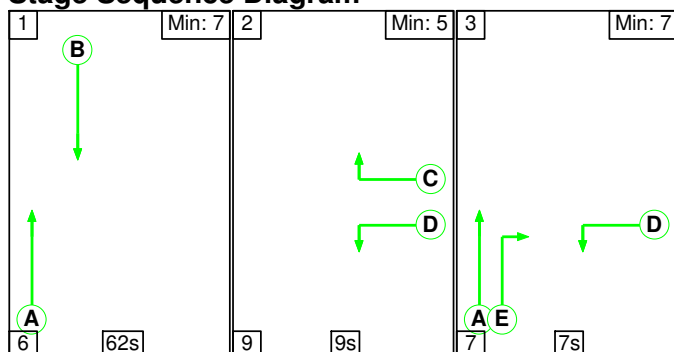
Lane	Scenario 2: 2031 PM All Dev (Stage 2 Mitigation)
Junction: A607 / Northern Link	
1/1	882
1/2	972
1/3	0
2/1 (short)	367
2/2 (with short)	986(In) 619(Out)
2/3	627
3/1 (with short)	0(In) 0(Out)
3/2 (short)	0
3/3 (with short)	300(In) 150(Out)
3/4 (short)	150
4/1	1032
4/2	1122
5/1	367
6/1	619
6/2	627

Lane Saturation Flows

Junction: A607 / Northern Link								
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 (A607 N/B)	3.65	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1980	1980
1/2 (A607 N/B)	3.65	0.00	N	Arm 4 Ahead	Inf	100.0 %	2120	2120
1/3 (A607 N/B)	3.65	0.00	Y	Arm 5 Right	20.00	0.0 %	1980	1980
2/1 (A607 S/B Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A607 S/B)	3.65	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1980	1980
2/3 (A607 S/B)	3.65	0.00	N	Arm 6 Ahead	Inf	100.0 %	2120	2120
3/1 (Link Rd W/B)	3.65	0.00	Y	Arm 6 Left	20.00	0.0 %	1980	1980
3/2 (Link Rd W/B)	3.65	0.00	N	Arm 6 Left	20.00	0.0 %	2120	2120
3/3 (Link Rd W/B)	3.65	0.00	Y	Arm 4 Right	30.00	100.0 %	1886	1886
3/4 (Link Rd W/B)	3.65	0.00	Y	Arm 4 Right	30.00	100.0 %	1886	1886
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 1: '2031 AM All Dev (Stage 2 Mitigation)' (FG1: '2031 AM Base + Comm + Dev (+TM)', Plan 1: 'Network Control Plan 1')

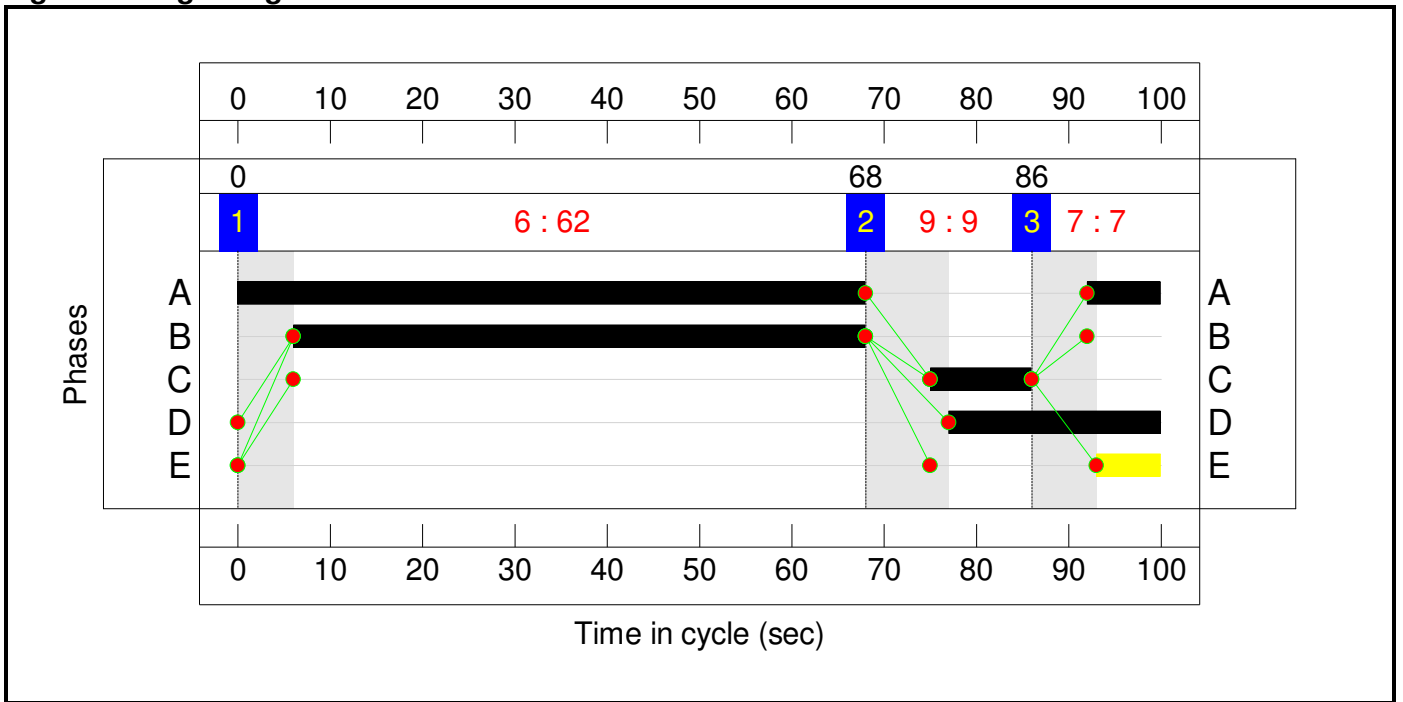
Stage Sequence Diagram



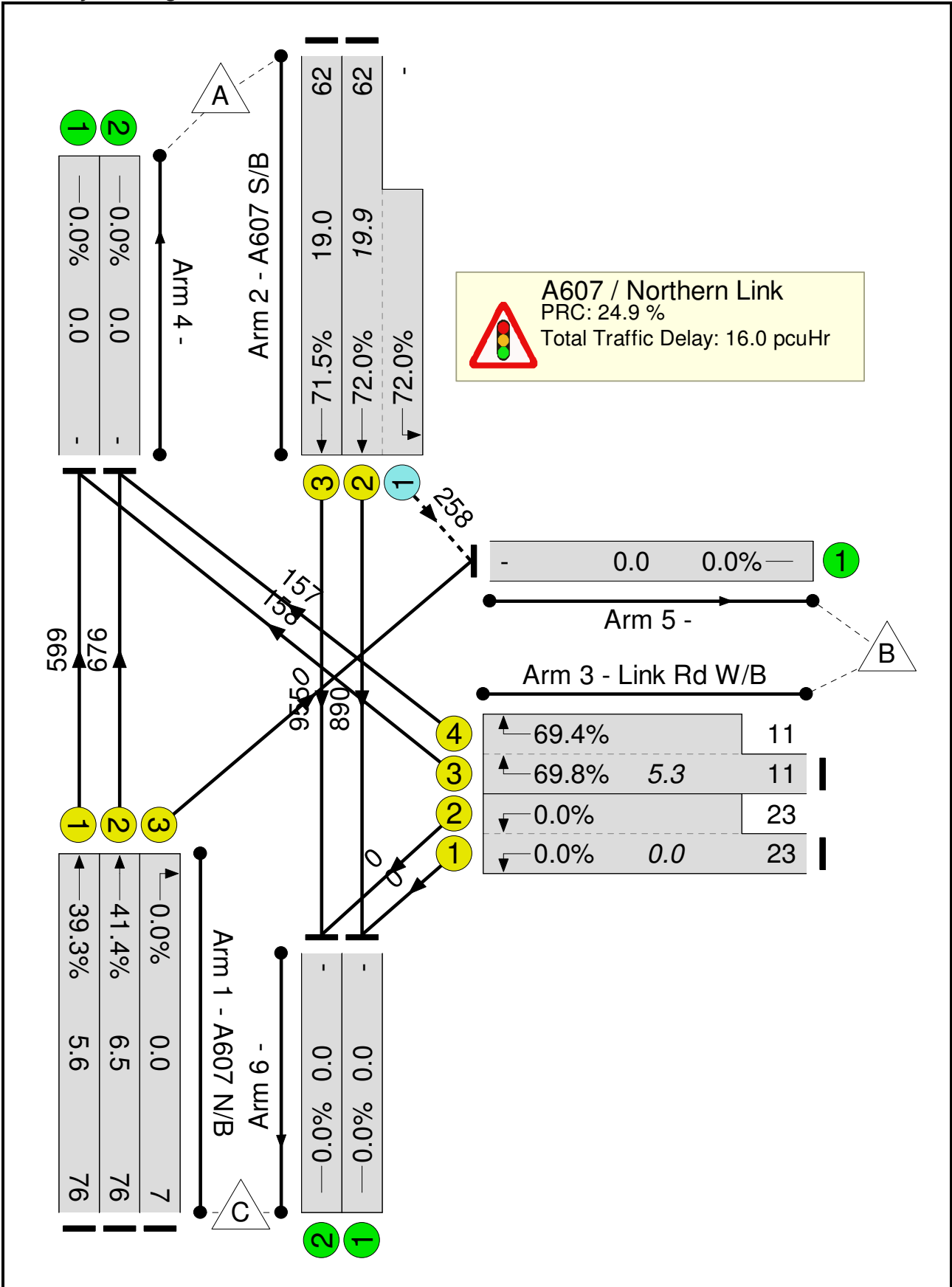
Stage Timings

Stage	1	2	3
Duration	62	9	7
Change Point	0	68	86

Signal Timings Diagram



Network Layout Diagram



Full Input Data And Results

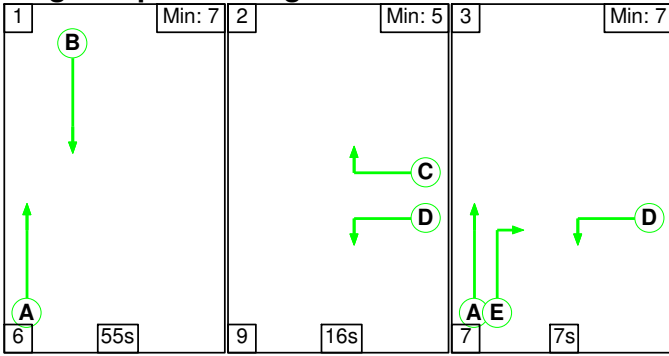
Network Results

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: A607 / Northern Link Road Junction	-	-	N/A	-	-		-	-	-	-	-	-	72.0%
A607 / Northern Link	-	-	N/A	-	-		-	-	-	-	-	-	72.0%
1/1	A607 N/B Ahead	U	N/A	N/A	A		1	76	-	599	1980	1525	39.3%
1/2	A607 N/B Ahead	U	N/A	N/A	A		1	76	-	676	2120	1632	41.4%
1/3	A607 N/B Right	U	N/A	N/A	E		1	7	-	0	1980	158	0.0%
2/2+2/1	A607 S/B Left Ahead	U+O	N/A	N/A	B -		1	62	-	1148	1980: Inf	1235+358	72.0 : 72.0%
2/3	A607 S/B Ahead	U	N/A	N/A	B		1	62	-	955	2120	1336	71.5%
3/1+3/2	Link Rd W/B Left	U	N/A	N/A	D		1	23	-	0	1980:2120	475+509	0.0 : 0.0%
3/3+3/4	Link Rd W/B Right	U	N/A	N/A	C		1	11	-	315	1886:1886	226+226	69.8 : 69.4%
4/1		U	N/A	N/A	-		-	-	-	757	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	833	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	258	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	890	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	955	Inf	Inf	0.0%

Full Input Data And Results

Scenario 2: '2031 PM All Dev (Stage 2 Mitigation)' (FG2: '2031 PM Base + Comm + Dev (+TM)', Plan 1: 'Network Control Plan 1')

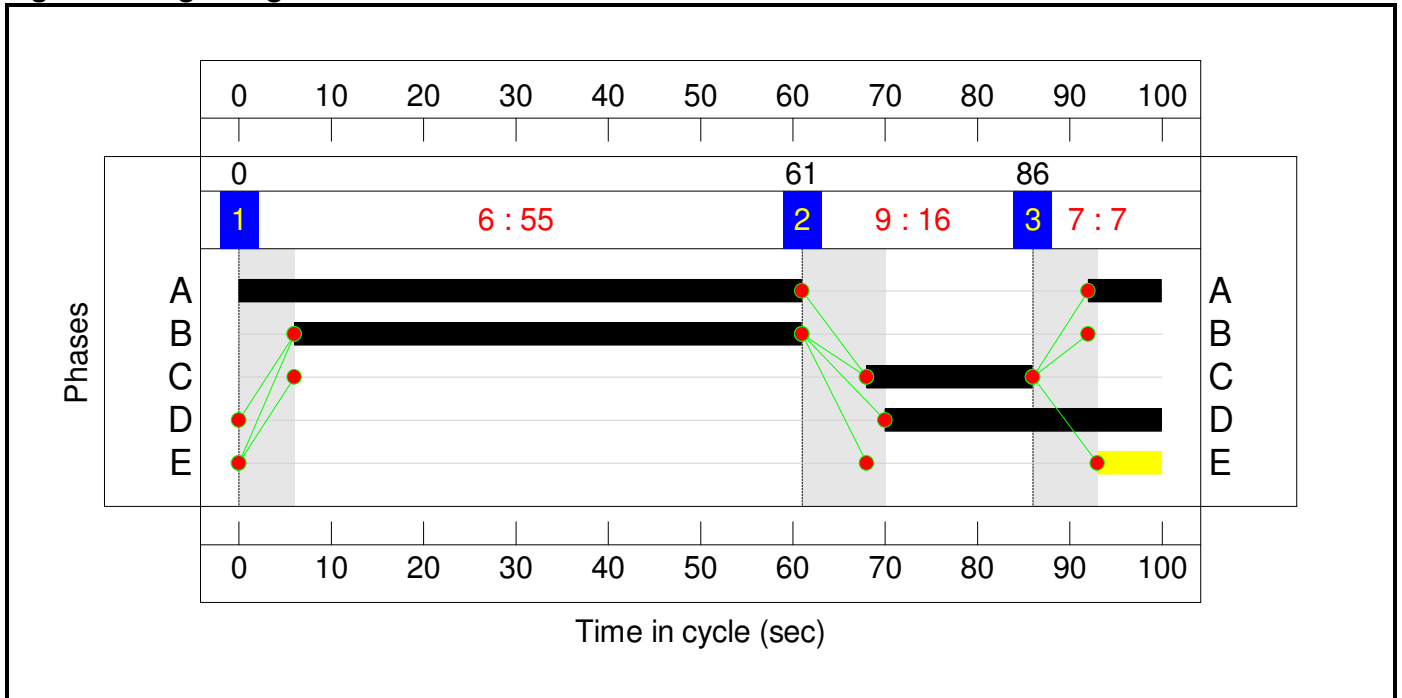
Stage Sequence Diagram



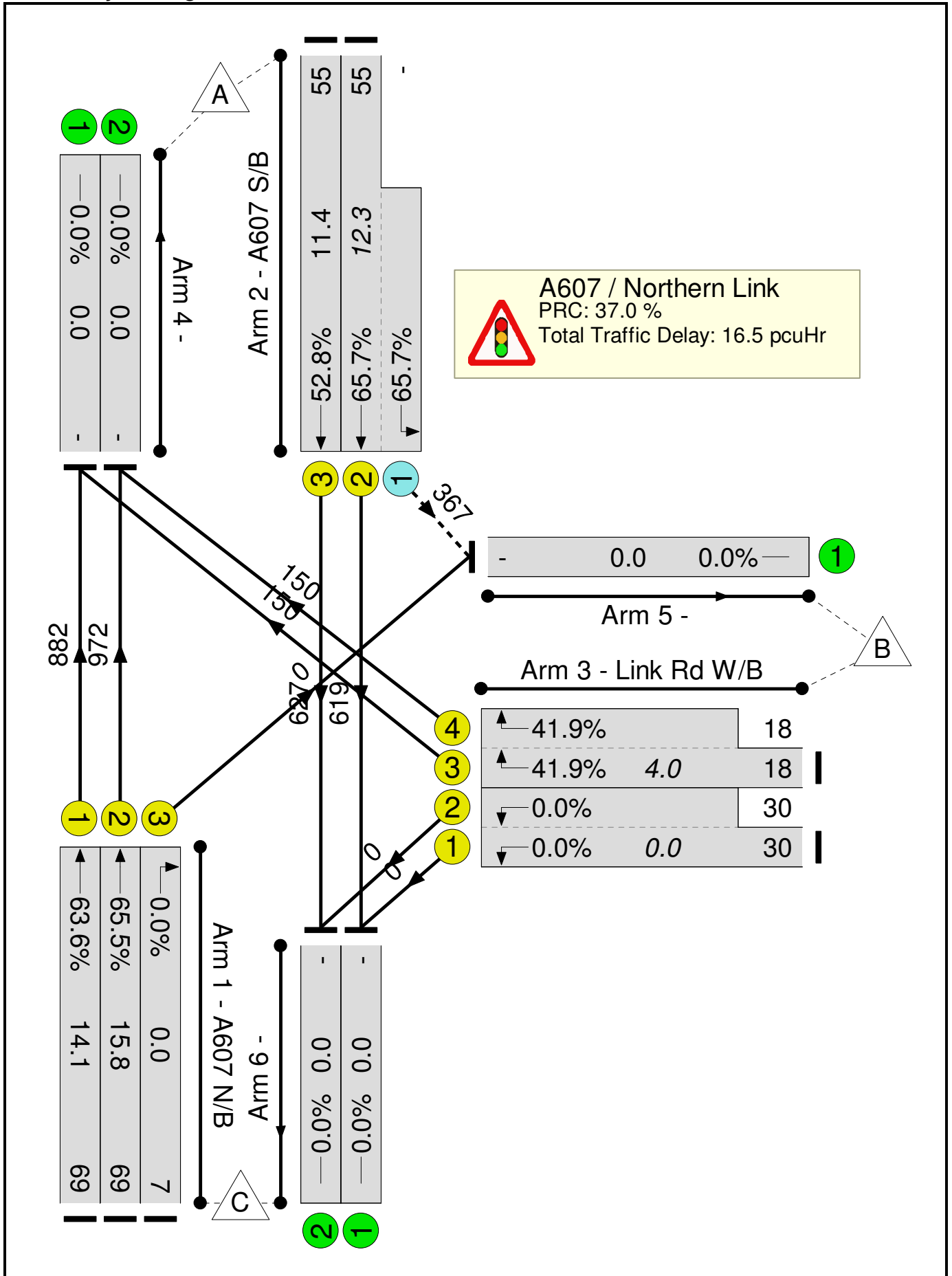
Stage Timings

Stage	1	2	3
Duration	55	16	7
Change Point	0	61	86

Signal Timings Diagram



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: A607 / Northern Link Road Junction	-	-	N/A	-	-		-	-	-	-	-	-	65.7%
A607 / Northern Link	-	-	N/A	-	-		-	-	-	-	-	-	65.7%
1/1	A607 N/B Ahead	U	N/A	N/A	A		1	69	-	882	1980	1386	63.6%
1/2	A607 N/B Ahead	U	N/A	N/A	A		1	69	-	972	2120	1484	65.5%
1/3	A607 N/B Right	U	N/A	N/A	E		1	7	-	0	1980	158	0.0%
2/2+2/1	A607 S/B Left Ahead	U+O	N/A	N/A	B -		1	55	-	986	1980: Inf	943+559	65.7 : 65.7%
2/3	A607 S/B Ahead	U	N/A	N/A	B		1	55	-	627	2120	1187	52.8%
3/1+3/2	Link Rd W/B Left	U	N/A	N/A	D		1	30	-	0	1980:2120	596+596	0.0 : 0.0%
3/3+3/4	Link Rd W/B Right	U	N/A	N/A	C		1	18	-	300	1886:1886	358+358	41.9 : 41.9%
4/1		U	N/A	N/A	-		-	-	-	1032	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	1122	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	367	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	619	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	627	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: A607 / Northern Link Road Junction	-	-	257	110	0	12.8	3.7	0.0	16.5	-	-	-	-
A607 / Northern Link	-	-	257	110	0	12.8	3.7	0.0	16.5	-	-	-	-
1/1	882	882	-	-	-	2.0	0.9	-	2.9	11.7	13.2	0.9	14.1
1/2	972	972	-	-	-	2.2	0.9	-	3.2	11.8	14.8	0.9	15.8
1/3	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2+2/1	986	986	257	110	0	3.2	1.0	-	4.2	15.3	11.4	1.0	12.3
2/3	627	627	-	-	-	2.4	0.6	-	3.0	17.0	10.8	0.6	11.4
3/1+3/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/3+3/4	300	300	-	-	-	3.0	0.4	-	3.3	40.0	3.6	0.4	4.0
4/1	1032	1032	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	1122	1122	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	367	367	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	619	619	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	627	627	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):	37.0	Total Delay for Signalled Lanes (pcuHr):	16.53	Cycle Time (s):		100				
			PRC Over All Lanes (%):	37.0	Total Delay Over All Lanes(pcuHr):	16.53							