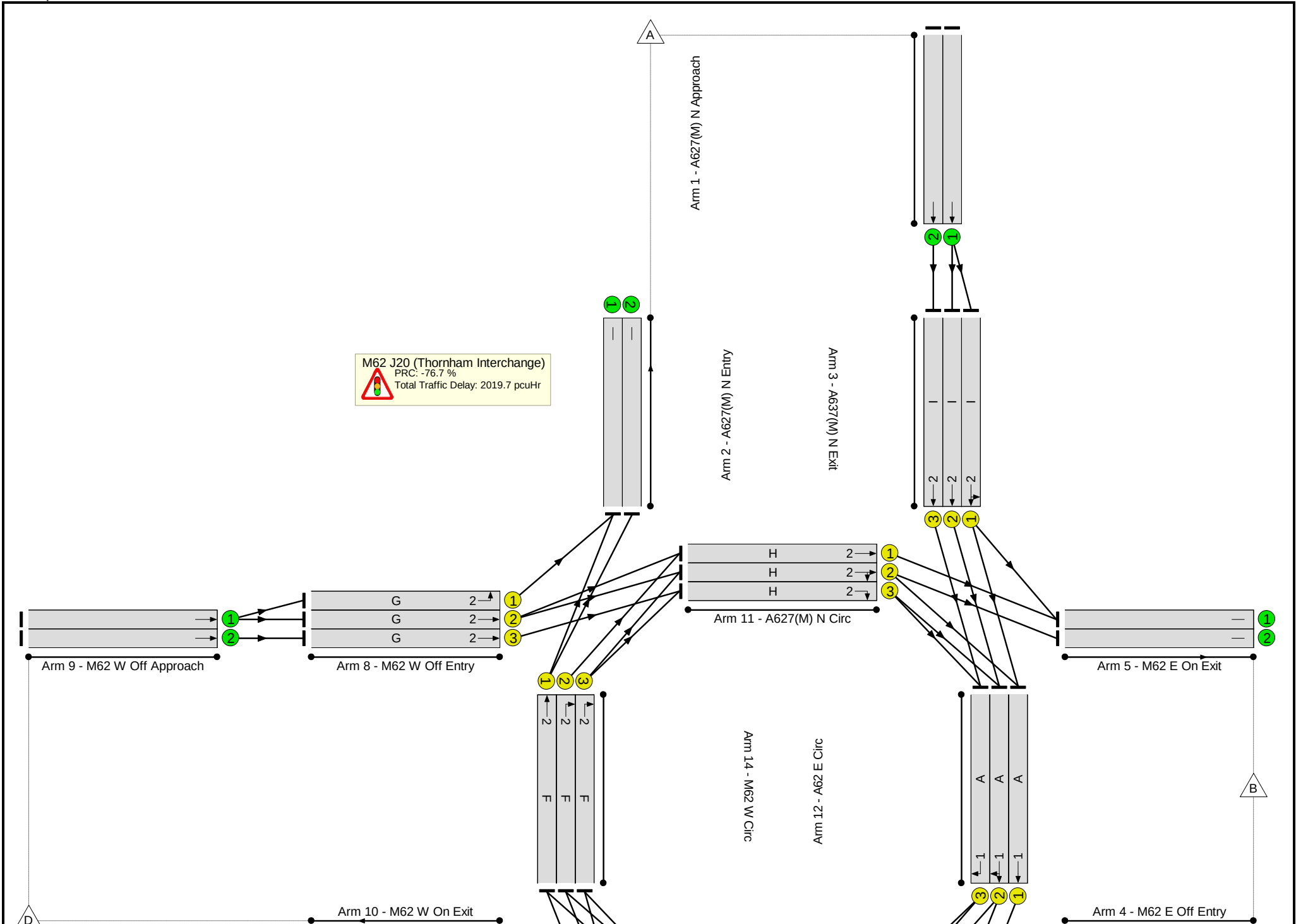


Full Input Data And Results



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: Northern Gateway (Stakehill)	-	-	N/A	-	-		-	-	-	-	-	-	159.0%
M62 J20 (Thornham Interchange)	-	-	N/A	-	-		-	-	-	-	-	-	159.0%
1/1	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	1769	Inf	Inf	0.0%
1/2	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	779	Inf	Inf	0.0%
2/1	A627(M) N Entry Left Ahead	U	2	N/A	I		1	44	-	1051	1900	743	141.4%
2/2	A627(M) N Entry Ahead	U	2	N/A	I		1	44	-	718	1900	743	96.6%
2/3	A627(M) N Entry Ahead	U	2	N/A	I		1	44	-	779	1900	743	104.8%
3/1	A637(M) N Exit	U	N/A	N/A	-		-	-	-	1624	Inf	Inf	0.0%
3/2	A637(M) N Exit	U	N/A	N/A	-		-	-	-	517	Inf	Inf	0.0%
4/1	M62 E Off Entry Left	U	1	N/A	B		1	30	-	814	1900	512	158.9%
4/2	M62 E Off Entry Left Ahead	U	1	N/A	B		1	30	-	814	1900	512	158.9%
5/1	M62 E On Exit	U	N/A	N/A	-		-	-	-	1113	Inf	Inf	0.0%
5/2	M62 E On Exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
6/1	A627(M) S Entry Left	U	1	N/A	D		1	71	-	1891	1900	1190	159.0%
6/2	A627(M) S Entry Left Ahead	U	1	N/A	D		1	71	-	1892	1900	1190	159.0%
6/3	A627(M) S Entry Ahead	U	1	N/A	D		1	71	-	720	1900	1190	60.5%

Full Input Data And Results

7/1	A627(M) S Exit	U	N/A	N/A	-		-	-	-	2350	Inf	Inf	0.0%
7/2	A627(M) S Exit	U	N/A	N/A	-		-	-	-	1694	Inf	Inf	0.0%
8/1	M62 W Off Entry Left	U	2	N/A	G		1	62	-	1107	1900	1041	101.8%
8/2	M62 W Off Entry Ahead	U	2	N/A	G		1	62	-	878	1900	1041	80.7%
8/3	M62 W Off Entry Ahead	U	2	N/A	G		1	62	-	841	1900	1041	80.8%
9/1	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	1985	1900	1900	104.5%
9/2	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	841	1900	1900	44.3%
10/1	M62 W On Exit	U	N/A	N/A	-		-	-	-	2378	Inf	Inf	0.0%
10/2	M62 W On Exit	U	N/A	N/A	-		-	-	-	1829	Inf	Inf	0.0%
11/1	A627(M) N Circ Ahead	U	2	N/A	H		1	59	-	720	1900	991	70.0%
11/2	A627(M) N Circ Ahead Right	U	2	N/A	H		1	59	-	878	1900	991	84.8%
11/3	A627(M) N Circ Right	U	2	N/A	H		1	59	-	841	1900	991	84.8%
12/1	A62 E Circ Ahead	U	1	N/A	A		1	73	-	1536	1900	1223	106.8%
12/2	A62 E Circ Ahead Right	U	1	N/A	A		1	73	-	1559	1900	1223	127.5%
12/3	A62 E Circ Right	U	1	N/A	A		1	73	-	779	1900	1223	60.8%
13/1	A627(M) S Circ Ahead	U	1	N/A	C		1	32	-	487	1900	545	48.5%
13/2	A627(M) S Circ Ahead Right	U	1	N/A	C		1	32	-	971	1900	545	158.5%
13/3	A627(M) S Circ Right	U	1	N/A	C		1	32	-	0	1900	545	0.0%
14/1	M62 W Circ Ahead	U	2	N/A	F		1	41	-	1034	1900	694	80.5%

Full Input Data And Results

14/2	M62 W Circ Right	U	2	N/A	F		1	41	-	720	1900	694	103.8%
14/3	M62 W Circ Right	U	2	N/A	F		1	41	-	0	1900	694	0.0%

Full Input Data And Results

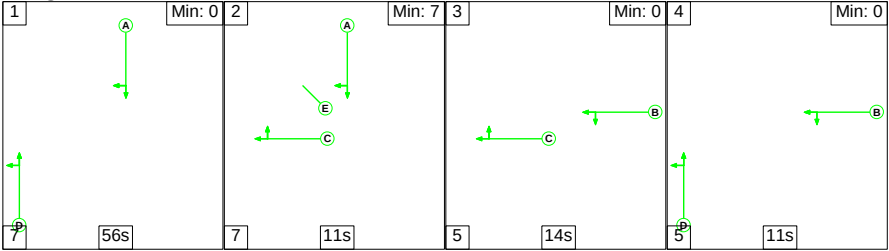
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Northern Gateway (Stakehill)	-	-	0	0	0	331.3	1688.4	0.0	2019.7	-	-	-	-
M62 J20 (Thornham Interchange)	-	-	0	0	0	331.3	1688.4	0.0	2019.7	-	-	-	-
1/1	1769	1769	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
1/2	779	779	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	1051	743	-	-	-	25.8	155.5	-	181.2	620.7	43.4	155.5	198.8
2/2	718	718	-	-	-	6.8	8.5	-	15.3	76.7	22.3	8.5	30.8
2/3	779	743	-	-	-	9.4	25.4	-	34.8	160.8	26.0	25.4	51.4
3/1	1320	1320	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	279	279	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	814	512	-	-	-	27.9	152.2	-	180.2	796.9	39.4	152.2	191.7
4/2	814	512	-	-	-	27.9	152.2	-	180.2	796.9	39.4	152.2	191.7
5/1	972	972	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	1891	1190	-	-	-	53.0	352.1	-	405.0	771.1	88.9	352.1	441.0
6/2	1892	1190	-	-	-	53.1	352.6	-	405.6	771.8	89.0	352.6	441.6
6/3	720	720	-	-	-	2.6	0.8	-	3.4	16.8	13.8	0.8	14.6
7/1	1735	1735	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1350	1350	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	1060	1041	-	-	-	8.8	21.6	-	30.4	103.2	34.4	21.6	56.1
8/2	840	840	-	-	-	4.9	2.1	-	7.0	29.9	21.7	2.1	23.8
8/3	841	841	-	-	-	4.9	2.1	-	7.0	29.9	21.7	2.1	23.8
9/1	1985	1900	-	-	-	6.8	52.0	-	58.8	106.7	190.2	52.0	242.3
9/2	841	841	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
10/1	1454	1454	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

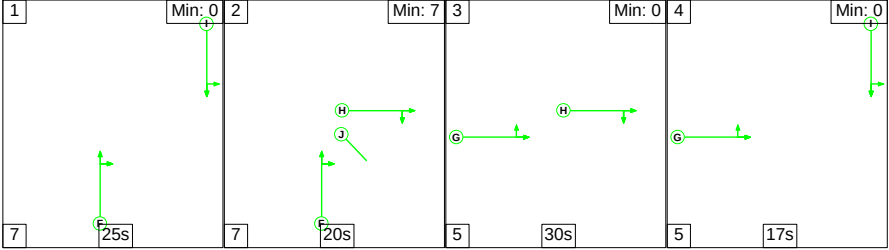
10/2	1176	1176	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	694	694	-	-	-	0.5	1.2	-	1.7	8.7	21.3	1.2	22.5
11/2	840	840	-	-	-	8.3	2.7	-	11.0	47.2	18.1	2.7	20.8
11/3	841	841	-	-	-	8.3	2.7	-	11.0	47.3	18.1	2.7	20.8
12/1	1306	1223	-	-	-	12.3	48.4	-	60.7	167.3	44.4	48.4	92.8
12/2	1559	1223	-	-	-	30.1	170.5	-	200.6	463.1	66.6	170.5	237.1
12/3	743	743	-	-	-	0.0	0.8	-	0.8	3.8	0.0	0.8	0.8
13/1	264	264	-	-	-	2.6	0.5	-	3.1	41.8	7.6	0.5	8.0
13/2	864	545	-	-	-	28.6	160.9	-	189.5	789.4	47.7	160.9	208.6
13/3	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	558	558	-	-	-	2.5	2.0	-	4.5	29.0	14.4	2.0	16.4
14/2	720	694	-	-	-	6.2	21.4	-	27.6	138.0	24.1	21.4	45.5
14/3	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): -76.7 C1 Stream: 2 PRC for Signalled Lanes (%): -57.1 PRC Over All Lanes (%): -76.7 Total Delay for Signalled Lanes (pcuHr): 1628.99 Total Delay for Signalled Lanes (pcuHr): 331.48 Total Delay Over All Lanes(pcuHr): 2019.70 Cycle Time (s): 115 Cycle Time (s): 115													

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

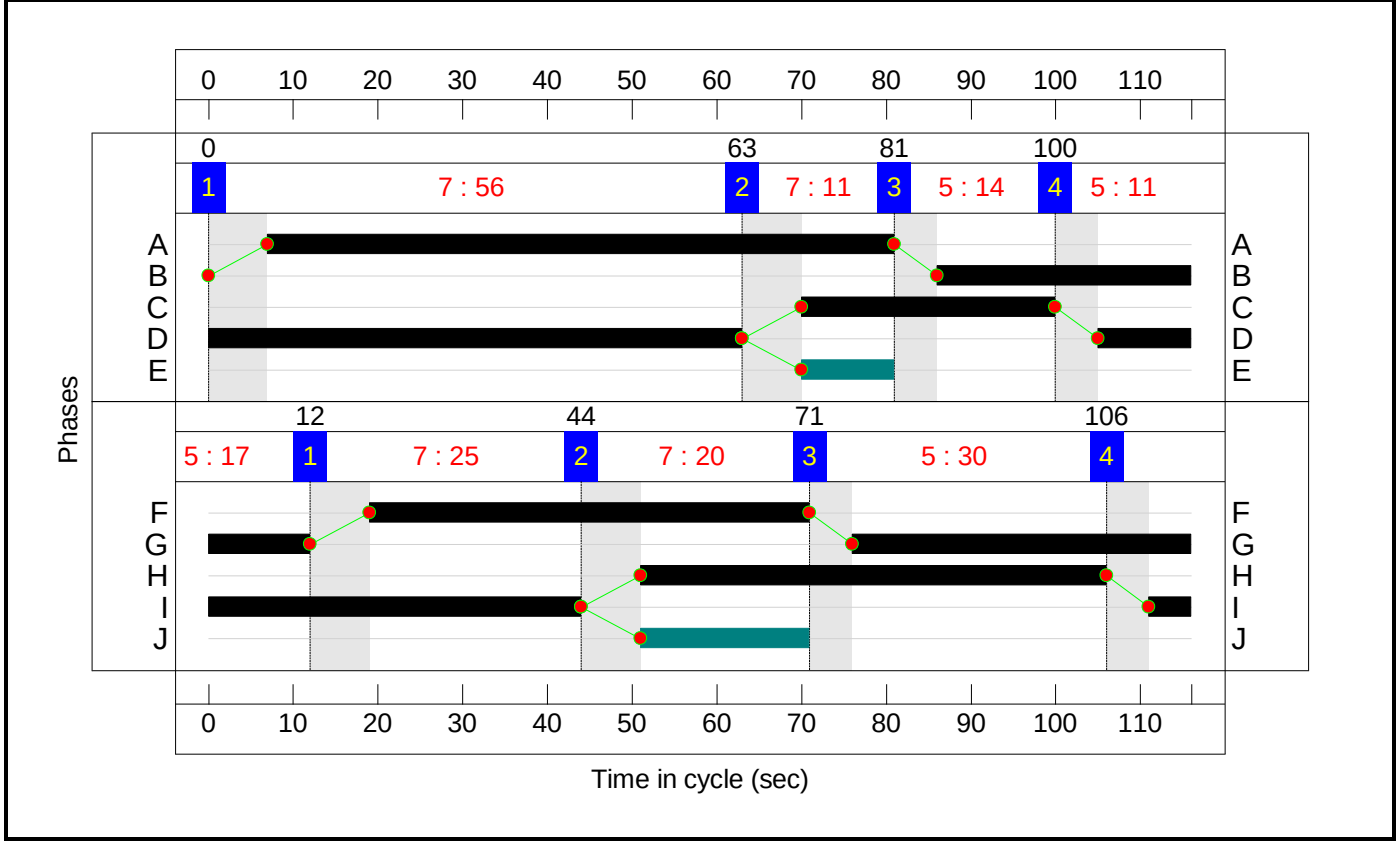
Stage Stream: 1

Stage	1	2	3	4
Duration	56	11	14	11
Change Point	0	63	81	100

Stage Stream: 2

Stage	1	2	3	4
Duration	25	20	30	17
Change Point	12	44	71	106

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

M62 J20 (Thornham Interchange)
 PRC: -79.4 %
 Total Traffic Delay: 1820.0 pcuHr

Diagram Labels:

- Arm 1 - A627(M) N Approach
- Arm 2 - A627(M) N Entry
- Arm 3 - A637(M) N Exit
- Arm 4 - M62 E Off Entry
- Arm 5 - M62 E On Exit
- Arm 6 - A627(M) S Approach
- Arm 7 - A627(M) S Entry
- Arm 8 - M62 W Off Entry
- Arm 9 - M62 W Off Approach
- Arm 10 - M62 W On Exit
- Arm 11 - A627(M) N Circ
- Arm 12 - A62 E Circ
- Arm 13 - M62 E On Entry
- Arm 14 - M62 W Circ

Diagram Details:

- The diagram shows 14 arms with their respective lane counts and traffic flow directions.
- Arm 1: 2 lanes, Northbound approach.
- Arm 2: 2 lanes, Northbound entry.
- Arm 3: 2 lanes, Northbound exit.
- Arm 4: 2 lanes, Eastbound off entry.
- Arm 5: 2 lanes, Eastbound on exit.
- Arm 6: 2 lanes, Southbound approach.
- Arm 7: 2 lanes, Southbound entry.
- Arm 8: 2 lanes, Westbound off entry.
- Arm 9: 2 lanes, Westbound off approach.
- Arm 10: 2 lanes, Westbound on exit.
- Arm 11: 2 lanes, Northbound circle.
- Arm 12: 2 lanes, Eastbound circle.
- Arm 13: 2 lanes, Eastbound on entry.
- Arm 14: 2 lanes, Westbound circle.

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: Northern Gateway (Stakehill)	-	-	N/A	-	-		-	-	-	-	-	-	161.5%
M62 J20 (Thornham Interchange)	-	-	N/A	-	-		-	-	-	-	-	-	161.5%
1/1	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	1576	Inf	Inf	0.0%
1/2	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	722	Inf	Inf	0.0%
2/1	A627(M) N Entry Left Ahead	U	2	N/A	I		1	49	-	929	1900	819	113.4%
2/2	A627(M) N Entry Ahead	U	2	N/A	I		1	49	-	647	1900	819	79.0%
2/3	A627(M) N Entry Ahead	U	2	N/A	I		1	49	-	722	1900	819	88.2%
3/1	A637(M) N Exit	U	N/A	N/A	-		-	-	-	1343	Inf	Inf	0.0%
3/2	A637(M) N Exit	U	N/A	N/A	-		-	-	-	590	Inf	Inf	0.0%
4/1	M62 E Off Entry Left	U	1	N/A	B		1	30	-	814	1900	508	160.3%
4/2	M62 E Off Entry Left Ahead	U	1	N/A	B		1	30	-	814	1900	508	160.3%
5/1	M62 E On Exit	U	N/A	N/A	-		-	-	-	1201	Inf	Inf	0.0%
5/2	M62 E On Exit	U	N/A	N/A	-		-	-	-	65	Inf	Inf	0.0%
6/1	A627(M) S Entry Left	U	1	N/A	D		1	74	-	1983	1900	1228	161.4%
6/2	A627(M) S Entry Left Ahead	U	1	N/A	D		1	74	-	1984	1900	1228	161.5%
6/3	A627(M) S Entry Ahead	U	1	N/A	D		1	74	-	928	1900	1228	75.5%

Full Input Data And Results

7/1	A627(M) S Exit	U	N/A	N/A	-		-	-	-	2219	Inf	Inf	0.0%
7/2	A627(M) S Exit	U	N/A	N/A	-		-	-	-	1639	Inf	Inf	0.0%
8/1	M62 W Off Entry Left	U	2	N/A	G		1	52	-	753	1900	868	86.7%
8/2	M62 W Off Entry Ahead	U	2	N/A	G		1	52	-	814	1900	868	93.8%
8/3	M62 W Off Entry Ahead	U	2	N/A	G		1	52	-	790	1900	868	91.0%
9/1	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	1567	1900	1900	82.5%
9/2	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	790	1900	1900	41.6%
10/1	M62 W On Exit	U	N/A	N/A	-		-	-	-	2445	Inf	Inf	0.0%
10/2	M62 W On Exit	U	N/A	N/A	-		-	-	-	1676	Inf	Inf	0.0%
11/1	A627(M) N Circ Ahead	U	2	N/A	H		1	55	-	863	1900	917	94.1%
11/2	A627(M) N Circ Ahead Right	U	2	N/A	H		1	55	-	879	1900	917	95.8%
11/3	A627(M) N Circ Right	U	2	N/A	H		1	55	-	790	1900	917	86.1%
12/1	A62 E Circ Ahead	U	1	N/A	A		1	74	-	1405	1900	1228	108.7%
12/2	A62 E Circ Ahead Right	U	1	N/A	A		1	74	-	1437	1900	1228	117.0%
12/3	A62 E Circ Right	U	1	N/A	A		1	74	-	722	1900	1228	58.8%
13/1	A627(M) S Circ Ahead	U	1	N/A	C		1	30	-	462	1900	508	64.2%
13/2	A627(M) S Circ Ahead Right	U	1	N/A	C		1	30	-	872	1900	508	160.6%
13/3	A627(M) S Circ Right	U	1	N/A	C		1	30	-	0	1900	-	-
14/1	M62 W Circ Ahead	U	2	N/A	F		1	52	-	1180	1900	868	73.5%

Full Input Data And Results

14/2	M62 W Circ Right	U	2	N/A	F		1	52	-	863	1900	868	99.4%
14/3	M62 W Circ Right	U	2	N/A	F		1	52	-	65	1900	868	7.5%

Full Input Data And Results

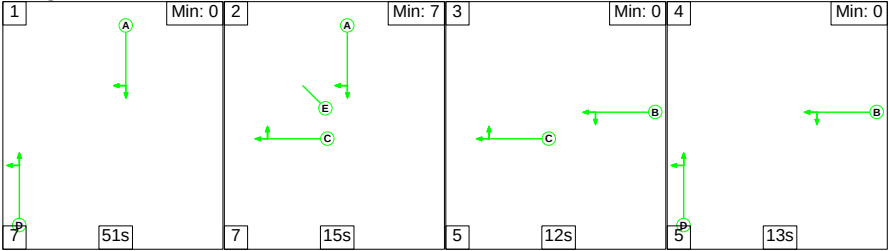
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Northern Gateway (Stakehill)	-	-	0	0	0	315.5	1504.5	0.0	1820.0	-	-	-	-
M62 J20 (Thornham Interchange)	-	-	0	0	0	315.5	1504.5	0.0	1820.0	-	-	-	-
1/1	1576	1576	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
1/2	722	722	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	929	819	-	-	-	14.9	59.0	-	73.9	286.4	33.5	59.0	92.4
2/2	647	647	-	-	-	5.1	1.8	-	7.0	38.7	18.0	1.8	19.8
2/3	722	722	-	-	-	6.1	3.5	-	9.5	47.6	21.3	3.5	24.7
3/1	1072	1072	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	319	319	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	814	508	-	-	-	30.5	154.4	-	184.9	817.7	45.3	154.4	199.7
4/2	814	508	-	-	-	30.5	154.4	-	184.9	817.7	45.3	154.4	199.7
5/1	1161	1161	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	65	65	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	1983	1228	-	-	-	55.6	378.6	-	434.2	788.2	89.7	378.6	468.3
6/2	1984	1228	-	-	-	55.7	379.1	-	434.7	788.8	89.8	379.1	468.9
6/3	928	928	-	-	-	3.7	1.5	-	5.2	20.1	20.6	1.5	22.2
7/1	1736	1736	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1317	1317	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	753	753	-	-	-	5.9	3.1	-	9.0	43.2	21.8	3.1	24.9
8/2	814	814	-	-	-	6.8	6.1	-	12.9	57.1	24.9	6.1	31.0
8/3	790	790	-	-	-	6.4	4.5	-	11.0	49.9	23.5	4.5	28.0
9/1	1567	1567	-	-	-	0.0	2.3	-	2.3	5.3	0.0	2.3	2.3
9/2	790	790	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
10/1	1554	1554	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

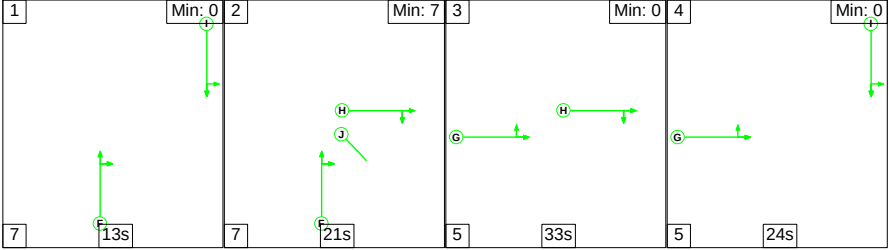
10/2	1098	1098	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	863	863	-	-	-	3.5	6.4	-	9.9	41.4	27.8	6.4	34.2
11/2	879	879	-	-	-	10.4	8.1	-	18.5	75.8	21.6	8.1	29.7
11/3	790	790	-	-	-	9.3	3.0	-	12.3	56.1	18.3	3.0	21.3
12/1	1335	1228	-	-	-	14.2	58.9	-	73.1	197.2	46.4	58.9	105.4
12/2	1437	1228	-	-	-	20.1	107.6	-	127.7	320.0	53.0	107.6	160.6
12/3	722	722	-	-	-	0.0	0.7	-	0.7	3.6	0.0	0.7	0.7
13/1	326	326	-	-	-	0.4	0.9	-	1.3	14.4	1.7	0.9	2.6
13/2	816	508	-	-	-	30.1	155.2	-	185.3	817.9	45.1	155.2	200.3
13/3	-	-	-	-	-	-	-	-	-	-	-	-	-
14/1	638	638	-	-	-	2.1	1.4	-	3.5	19.7	12.3	1.4	13.7
14/2	863	863	-	-	-	4.1	13.5	-	17.6	73.4	27.6	13.5	41.0
14/3	65	65	-	-	-	0.1	0.0	-	0.2	8.7	0.7	0.0	0.7
C1 Stream: 1 PRC for Signalled Lanes (%): -79.4 C1 Stream: 2 PRC for Signalled Lanes (%): -26.0 PRC Over All Lanes (%): -79.4 Total Delay for Signalled Lanes (pcuHr): 1632.02 Total Delay for Signalled Lanes (pcuHr): 185.29 Total Delay Over All Lanes(pcuHr): 1819.99 Cycle Time (s): 116 Cycle Time (s): 116													

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

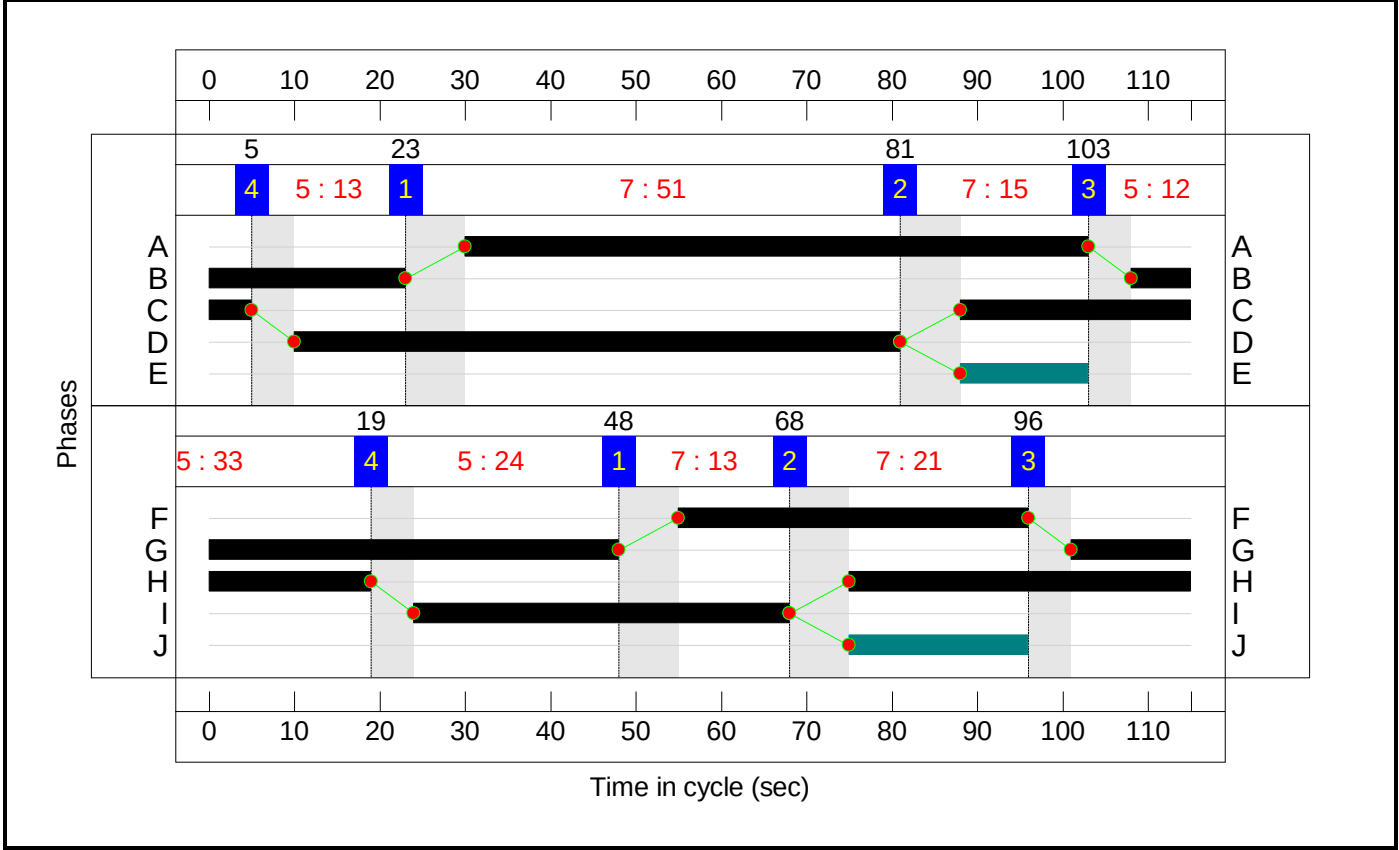
Stage Stream: 1

Stage	1	2	3	4
Duration	51	15	12	13
Change Point	23	81	103	5

Stage Stream: 2

Stage	1	2	3	4
Duration	13	21	33	24
Change Point	48	68	96	19

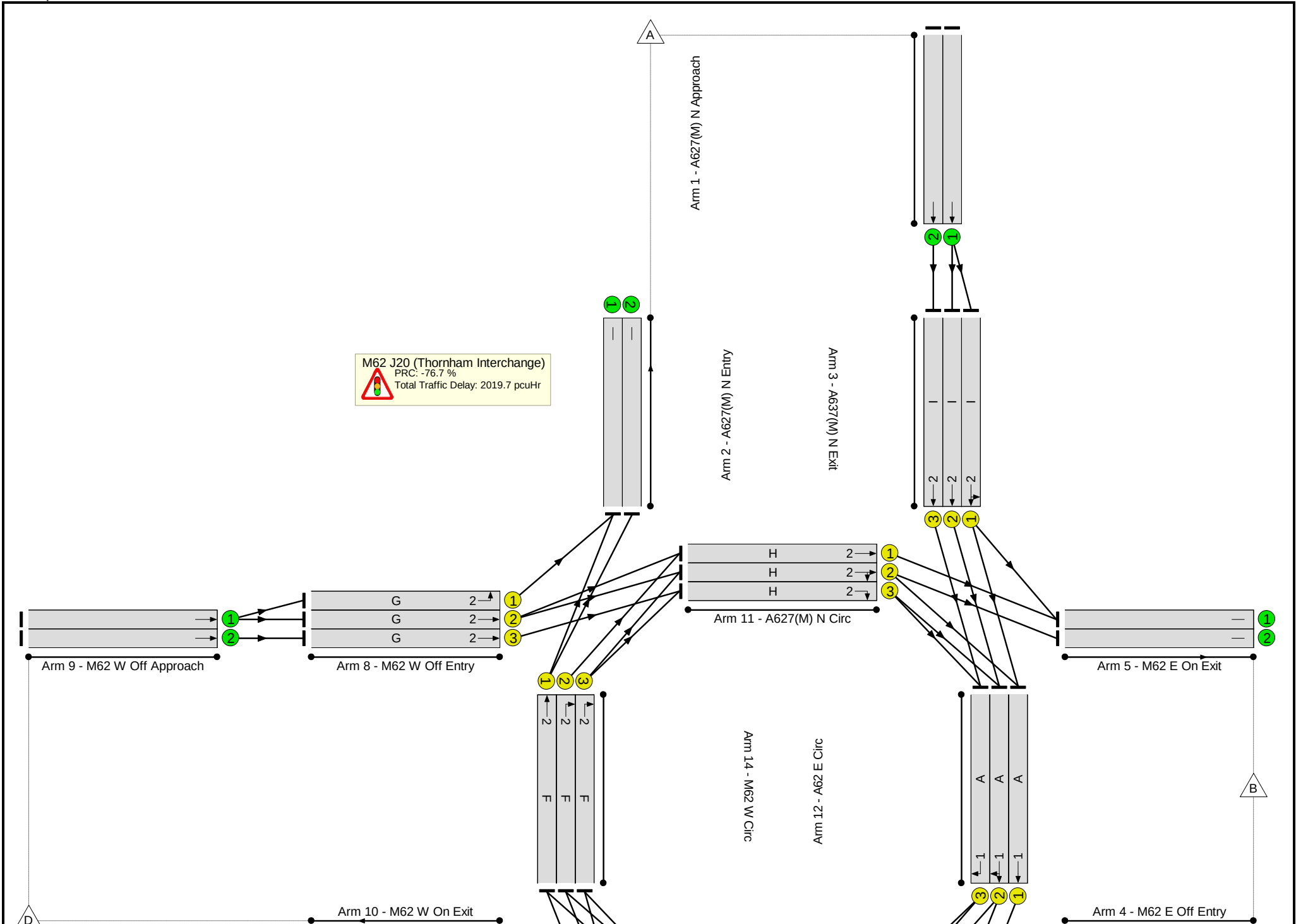
Signal Timings Diagram



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: Northern Gateway (Stakehill)	-	-	N/A	-	-		-	-	-	-	-	-	159.0%
M62 J20 (Thornham Interchange)	-	-	N/A	-	-		-	-	-	-	-	-	159.0%
1/1	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	1769	Inf	Inf	0.0%
1/2	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	779	Inf	Inf	0.0%
2/1	A627(M) N Entry Left Ahead	U	2	N/A	I		1	44	-	1051	1900	743	141.4%
2/2	A627(M) N Entry Ahead	U	2	N/A	I		1	44	-	718	1900	743	96.6%
2/3	A627(M) N Entry Ahead	U	2	N/A	I		1	44	-	779	1900	743	104.8%
3/1	A637(M) N Exit	U	N/A	N/A	-		-	-	-	1624	Inf	Inf	0.0%
3/2	A637(M) N Exit	U	N/A	N/A	-		-	-	-	517	Inf	Inf	0.0%
4/1	M62 E Off Entry Left	U	1	N/A	B		1	30	-	814	1900	512	158.9%
4/2	M62 E Off Entry Left Ahead	U	1	N/A	B		1	30	-	814	1900	512	158.9%
5/1	M62 E On Exit	U	N/A	N/A	-		-	-	-	1113	Inf	Inf	0.0%
5/2	M62 E On Exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
6/1	A627(M) S Entry Left	U	1	N/A	D		1	71	-	1891	1900	1190	159.0%
6/2	A627(M) S Entry Left Ahead	U	1	N/A	D		1	71	-	1892	1900	1190	159.0%
6/3	A627(M) S Entry Ahead	U	1	N/A	D		1	71	-	720	1900	1190	60.5%

Full Input Data And Results

7/1	A627(M) S Exit	U	N/A	N/A	-		-	-	-	2350	Inf	Inf	0.0%
7/2	A627(M) S Exit	U	N/A	N/A	-		-	-	-	1694	Inf	Inf	0.0%
8/1	M62 W Off Entry Left	U	2	N/A	G		1	62	-	1107	1900	1041	101.8%
8/2	M62 W Off Entry Ahead	U	2	N/A	G		1	62	-	878	1900	1041	80.7%
8/3	M62 W Off Entry Ahead	U	2	N/A	G		1	62	-	841	1900	1041	80.8%
9/1	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	1985	1900	1900	104.5%
9/2	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	841	1900	1900	44.3%
10/1	M62 W On Exit	U	N/A	N/A	-		-	-	-	2378	Inf	Inf	0.0%
10/2	M62 W On Exit	U	N/A	N/A	-		-	-	-	1829	Inf	Inf	0.0%
11/1	A627(M) N Circ Ahead	U	2	N/A	H		1	59	-	720	1900	991	70.0%
11/2	A627(M) N Circ Ahead Right	U	2	N/A	H		1	59	-	878	1900	991	84.8%
11/3	A627(M) N Circ Right	U	2	N/A	H		1	59	-	841	1900	991	84.8%
12/1	A62 E Circ Ahead	U	1	N/A	A		1	73	-	1536	1900	1223	106.8%
12/2	A62 E Circ Ahead Right	U	1	N/A	A		1	73	-	1559	1900	1223	127.5%
12/3	A62 E Circ Right	U	1	N/A	A		1	73	-	779	1900	1223	60.8%
13/1	A627(M) S Circ Ahead	U	1	N/A	C		1	32	-	487	1900	545	48.5%
13/2	A627(M) S Circ Ahead Right	U	1	N/A	C		1	32	-	971	1900	545	158.5%
13/3	A627(M) S Circ Right	U	1	N/A	C		1	32	-	0	1900	545	0.0%
14/1	M62 W Circ Ahead	U	2	N/A	F		1	41	-	1034	1900	694	80.5%

Full Input Data And Results

14/2	M62 W Circ Right	U	2	N/A	F		1	41	-	720	1900	694	103.8%
14/3	M62 W Circ Right	U	2	N/A	F		1	41	-	0	1900	694	0.0%

Full Input Data And Results

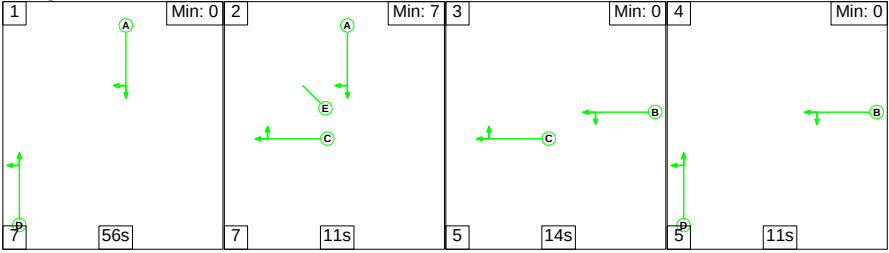
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Northern Gateway (Stakehill)	-	-	0	0	0	331.3	1688.4	0.0	2019.7	-	-	-	-
M62 J20 (Thornham Interchange)	-	-	0	0	0	331.3	1688.4	0.0	2019.7	-	-	-	-
1/1	1769	1769	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
1/2	779	779	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	1051	743	-	-	-	25.8	155.5	-	181.2	620.7	43.4	155.5	198.8
2/2	718	718	-	-	-	6.8	8.5	-	15.3	76.7	22.3	8.5	30.8
2/3	779	743	-	-	-	9.4	25.4	-	34.8	160.8	26.0	25.4	51.4
3/1	1320	1320	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	279	279	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	814	512	-	-	-	27.9	152.2	-	180.2	796.9	39.4	152.2	191.7
4/2	814	512	-	-	-	27.9	152.2	-	180.2	796.9	39.4	152.2	191.7
5/1	972	972	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	1891	1190	-	-	-	53.0	352.1	-	405.0	771.1	88.9	352.1	441.0
6/2	1892	1190	-	-	-	53.1	352.6	-	405.6	771.8	89.0	352.6	441.6
6/3	720	720	-	-	-	2.6	0.8	-	3.4	16.8	13.8	0.8	14.6
7/1	1735	1735	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1350	1350	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	1060	1041	-	-	-	8.8	21.6	-	30.4	103.2	34.4	21.6	56.1
8/2	840	840	-	-	-	4.9	2.1	-	7.0	29.9	21.7	2.1	23.8
8/3	841	841	-	-	-	4.9	2.1	-	7.0	29.9	21.7	2.1	23.8
9/1	1985	1900	-	-	-	6.8	52.0	-	58.8	106.7	190.2	52.0	242.3
9/2	841	841	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
10/1	1454	1454	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

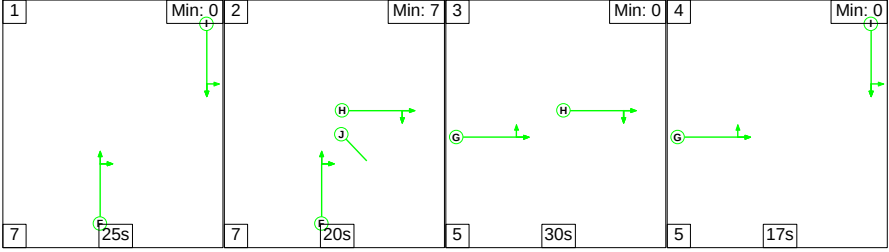
10/2	1176	1176	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	694	694	-	-	-	0.5	1.2	-	1.7	8.7	21.3	1.2	22.5
11/2	840	840	-	-	-	8.3	2.7	-	11.0	47.2	18.1	2.7	20.8
11/3	841	841	-	-	-	8.3	2.7	-	11.0	47.3	18.1	2.7	20.8
12/1	1306	1223	-	-	-	12.3	48.4	-	60.7	167.3	44.4	48.4	92.8
12/2	1559	1223	-	-	-	30.1	170.5	-	200.6	463.1	66.6	170.5	237.1
12/3	743	743	-	-	-	0.0	0.8	-	0.8	3.8	0.0	0.8	0.8
13/1	264	264	-	-	-	2.6	0.5	-	3.1	41.8	7.6	0.5	8.0
13/2	864	545	-	-	-	28.6	160.9	-	189.5	789.4	47.7	160.9	208.6
13/3	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	558	558	-	-	-	2.5	2.0	-	4.5	29.0	14.4	2.0	16.4
14/2	720	694	-	-	-	6.2	21.4	-	27.6	138.0	24.1	21.4	45.5
14/3	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): -76.7 C1 Stream: 2 PRC for Signalled Lanes (%): -57.1 PRC Over All Lanes (%): -76.7 Total Delay for Signalled Lanes (pcuHr): 1628.99 Total Delay for Signalled Lanes (pcuHr): 331.48 Total Delay Over All Lanes(pcuHr): 2019.70 Cycle Time (s): 115 Cycle Time (s): 115													

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

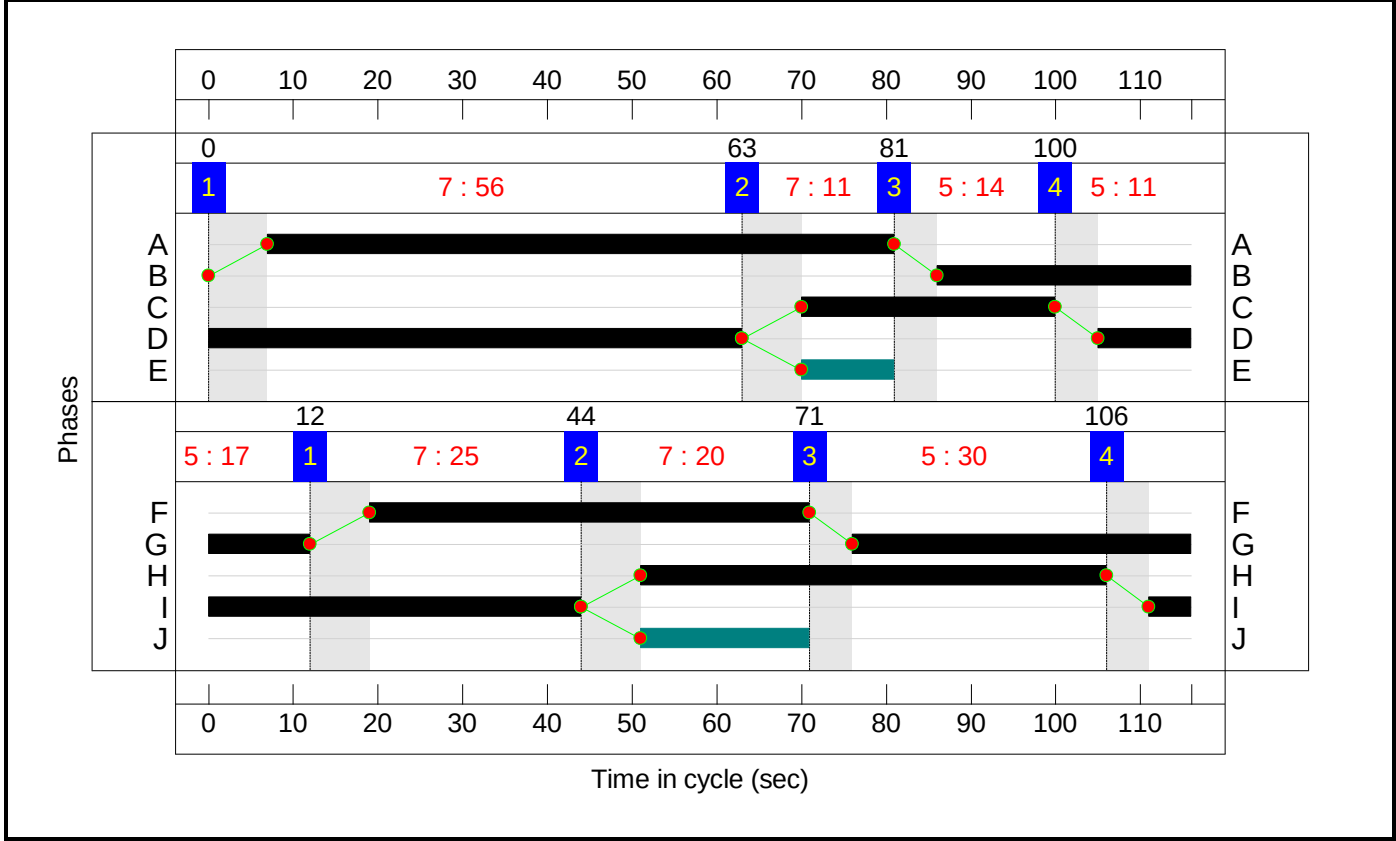
Stage Stream: 1

Stage	1	2	3	4
Duration	56	11	14	11
Change Point	0	63	81	100

Stage Stream: 2

Stage	1	2	3	4
Duration	25	20	30	17
Change Point	12	44	71	106

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

M62 J20 (Thornham Interchange)
 PRC: -79.4 %
 Total Traffic Delay: 1820.0 pcuHr

Diagram Labels:

- Arm 1 - A627(M) N Approach
- Arm 2 - A627(M) N Entry
- Arm 3 - A637(M) N Exit
- Arm 4 - M62 E Off Entry
- Arm 5 - M62 E On Exit
- Arm 6 - A627(M) S Approach
- Arm 7 - A627(M) S Entry
- Arm 8 - M62 W Off Entry
- Arm 9 - M62 W Off Approach
- Arm 10 - M62 W On Exit
- Arm 11 - A627(M) N Circ
- Arm 12 - A62 E Circ
- Arm 13 - M62 E On Entry
- Arm 14 - M62 W Circ

Diagram Details:

- Arm 1:** 2 lanes, Northbound approach.
- Arm 2:** 2 lanes, Northbound entry.
- Arm 3:** 3 lanes, Northbound exit.
- Arm 4:** 2 lanes, Eastbound off entry.
- Arm 5:** 2 lanes, Eastbound on exit.
- Arm 6:** 2 lanes, Southbound approach.
- Arm 7:** 2 lanes, Southbound entry.
- Arm 8:** 3 lanes, Westbound off entry.
- Arm 9:** 2 lanes, Westbound off approach.
- Arm 10:** 2 lanes, Westbound on exit.
- Arm 11:** 3 lanes, Northbound circle.
- Arm 12:** 3 lanes, Eastbound circle.
- Arm 13:** 2 lanes, Eastbound on entry.
- Arm 14:** 3 lanes, Westbound circle.

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: Northern Gateway (Stakehill)	-	-	N/A	-	-		-	-	-	-	-	-	161.5%
M62 J20 (Thornham Interchange)	-	-	N/A	-	-		-	-	-	-	-	-	161.5%
1/1	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	1576	Inf	Inf	0.0%
1/2	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	722	Inf	Inf	0.0%
2/1	A627(M) N Entry Left Ahead	U	2	N/A	I		1	49	-	929	1900	819	113.4%
2/2	A627(M) N Entry Ahead	U	2	N/A	I		1	49	-	647	1900	819	79.0%
2/3	A627(M) N Entry Ahead	U	2	N/A	I		1	49	-	722	1900	819	88.2%
3/1	A637(M) N Exit	U	N/A	N/A	-		-	-	-	1343	Inf	Inf	0.0%
3/2	A637(M) N Exit	U	N/A	N/A	-		-	-	-	590	Inf	Inf	0.0%
4/1	M62 E Off Entry Left	U	1	N/A	B		1	30	-	814	1900	508	160.3%
4/2	M62 E Off Entry Left Ahead	U	1	N/A	B		1	30	-	814	1900	508	160.3%
5/1	M62 E On Exit	U	N/A	N/A	-		-	-	-	1201	Inf	Inf	0.0%
5/2	M62 E On Exit	U	N/A	N/A	-		-	-	-	65	Inf	Inf	0.0%
6/1	A627(M) S Entry Left	U	1	N/A	D		1	74	-	1983	1900	1228	161.4%
6/2	A627(M) S Entry Left Ahead	U	1	N/A	D		1	74	-	1984	1900	1228	161.5%
6/3	A627(M) S Entry Ahead	U	1	N/A	D		1	74	-	928	1900	1228	75.5%

Full Input Data And Results

7/1	A627(M) S Exit	U	N/A	N/A	-		-	-	-	2219	Inf	Inf	0.0%
7/2	A627(M) S Exit	U	N/A	N/A	-		-	-	-	1639	Inf	Inf	0.0%
8/1	M62 W Off Entry Left	U	2	N/A	G		1	52	-	753	1900	868	86.7%
8/2	M62 W Off Entry Ahead	U	2	N/A	G		1	52	-	814	1900	868	93.8%
8/3	M62 W Off Entry Ahead	U	2	N/A	G		1	52	-	790	1900	868	91.0%
9/1	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	1567	1900	1900	82.5%
9/2	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	790	1900	1900	41.6%
10/1	M62 W On Exit	U	N/A	N/A	-		-	-	-	2445	Inf	Inf	0.0%
10/2	M62 W On Exit	U	N/A	N/A	-		-	-	-	1676	Inf	Inf	0.0%
11/1	A627(M) N Circ Ahead	U	2	N/A	H		1	55	-	863	1900	917	94.1%
11/2	A627(M) N Circ Ahead Right	U	2	N/A	H		1	55	-	879	1900	917	95.8%
11/3	A627(M) N Circ Right	U	2	N/A	H		1	55	-	790	1900	917	86.1%
12/1	A62 E Circ Ahead	U	1	N/A	A		1	74	-	1405	1900	1228	108.7%
12/2	A62 E Circ Ahead Right	U	1	N/A	A		1	74	-	1437	1900	1228	117.0%
12/3	A62 E Circ Right	U	1	N/A	A		1	74	-	722	1900	1228	58.8%
13/1	A627(M) S Circ Ahead	U	1	N/A	C		1	30	-	462	1900	508	64.2%
13/2	A627(M) S Circ Ahead Right	U	1	N/A	C		1	30	-	872	1900	508	160.6%
13/3	A627(M) S Circ Right	U	1	N/A	C		1	30	-	0	1900	-	-
14/1	M62 W Circ Ahead	U	2	N/A	F		1	52	-	1180	1900	868	73.5%

Full Input Data And Results

14/2	M62 W Circ Right	U	2	N/A	F		1	52	-	863	1900	868	99.4%
14/3	M62 W Circ Right	U	2	N/A	F		1	52	-	65	1900	868	7.5%

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: Northern Gateway (Stakehill)	-	-	0	0	0	315.5	1504.5	0.0	1820.0	-	-	-	-
M62 J20 (Thornham Interchange)	-	-	0	0	0	315.5	1504.5	0.0	1820.0	-	-	-	-
1/1	1576	1576	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
1/2	722	722	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	929	819	-	-	-	14.9	59.0	-	73.9	286.4	33.5	59.0	92.4
2/2	647	647	-	-	-	5.1	1.8	-	7.0	38.7	18.0	1.8	19.8
2/3	722	722	-	-	-	6.1	3.5	-	9.5	47.6	21.3	3.5	24.7
3/1	1072	1072	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	319	319	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	814	508	-	-	-	30.5	154.4	-	184.9	817.7	45.3	154.4	199.7
4/2	814	508	-	-	-	30.5	154.4	-	184.9	817.7	45.3	154.4	199.7
5/1	1161	1161	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	65	65	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	1983	1228	-	-	-	55.6	378.6	-	434.2	788.2	89.7	378.6	468.3
6/2	1984	1228	-	-	-	55.7	379.1	-	434.7	788.8	89.8	379.1	468.9
6/3	928	928	-	-	-	3.7	1.5	-	5.2	20.1	20.6	1.5	22.2
7/1	1736	1736	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1317	1317	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	753	753	-	-	-	5.9	3.1	-	9.0	43.2	21.8	3.1	24.9
8/2	814	814	-	-	-	6.8	6.1	-	12.9	57.1	24.9	6.1	31.0
8/3	790	790	-	-	-	6.4	4.5	-	11.0	49.9	23.5	4.5	28.0
9/1	1567	1567	-	-	-	0.0	2.3	-	2.3	5.3	0.0	2.3	2.3
9/2	790	790	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
10/1	1554	1554	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

10/2	1098	1098	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	863	863	-	-	-	3.5	6.4	-	9.9	41.4	27.8	6.4	34.2
11/2	879	879	-	-	-	10.4	8.1	-	18.5	75.8	21.6	8.1	29.7
11/3	790	790	-	-	-	9.3	3.0	-	12.3	56.1	18.3	3.0	21.3
12/1	1335	1228	-	-	-	14.2	58.9	-	73.1	197.2	46.4	58.9	105.4
12/2	1437	1228	-	-	-	20.1	107.6	-	127.7	320.0	53.0	107.6	160.6
12/3	722	722	-	-	-	0.0	0.7	-	0.7	3.6	0.0	0.7	0.7
13/1	326	326	-	-	-	0.4	0.9	-	1.3	14.4	1.7	0.9	2.6
13/2	816	508	-	-	-	30.1	155.2	-	185.3	817.9	45.1	155.2	200.3
13/3	-	-	-	-	-	-	-	-	-	-	-	-	-
14/1	638	638	-	-	-	2.1	1.4	-	3.5	19.7	12.3	1.4	13.7
14/2	863	863	-	-	-	4.1	13.5	-	17.6	73.4	27.6	13.5	41.0
14/3	65	65	-	-	-	0.1	0.0	-	0.2	8.7	0.7	0.0	0.7
C1 Stream: 1 PRC for Signalised Lanes (%): -79.4 C1 Stream: 2 PRC for Signalised Lanes (%): -26.0 PRC Over All Lanes (%): -79.4 Total Delay for Signalised Lanes (pcuHr): 1632.02 Total Delay for Signalised Lanes (pcuHr): 185.29 Total Delay Over All Lanes(pcuHr): 1819.99 Cycle Time (s): 116 Cycle Time (s): 116													

Junctions 10																
ARCADY 10 - Roundabout Module																
Version: 10.0.1.1519																
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Filename: J3 A627(M) Rbt.j10

Path: C:\Users\UKWXN005\OneDrive - WSP O365\62262051 - Stakehill\Junction Models 2025 Update\03 A627M

Report generation date: 21/01/2025 10:50:07

»Base - 2025 Ref, AM

»Base - 2025 Ref, PM

»Base - 2040 DM, AM

»Base - 2040 DM, PM

»Base - 2040 DS, AM

»Base - 2040 DS, PM

Summary of junction performance

	AM								PM							
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	Base - 2025 Ref															
1 - A627(M) North	D1	0.3	2.07	0.22	A	2.32	A	77 %	D2	0.2	1.88	0.17	A	1.97	A	119 %
2 - A627(M) South		0.9	2.92	0.48	A			[2 - A627 (M) South]		0.6	2.38	0.38	A			[2 - A627 (M) South]
3 - A627(M) West		0.8	1.89	0.39	A			0.4		1.85	0.30	A				
	Base - 2040 DM															
1 - A627(M) North	D3	1.2	3.93	0.55	A	4.48	A	21 %	D4	0.7	2.88	0.42	A	3.17	A	50 %
2 - A627(M) South		2.2	6.63	0.69	A			[2 - A627 (M) South]		1.0	3.73	0.50	A			[2 - A627 (M) South]
3 - A627(M) West		2.1	3.54	0.67	A			1.6		3.04	0.62	A				
	Base - 2040 DS															
1 - A627(M) North	D5	1.2	3.99	0.55	A	4.58	A	20 %	D6	0.7	2.89	0.43	A	3.21	A	49 %
2 - A627(M) South		2.3	6.78	0.70	A			[2 - A627 (M) South]		1.0	3.78	0.50	A			[2 - A627 (M) South]
3 - A627(M) West		2.1	3.59	0.68	A			1.7		3.07	0.62	A				

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

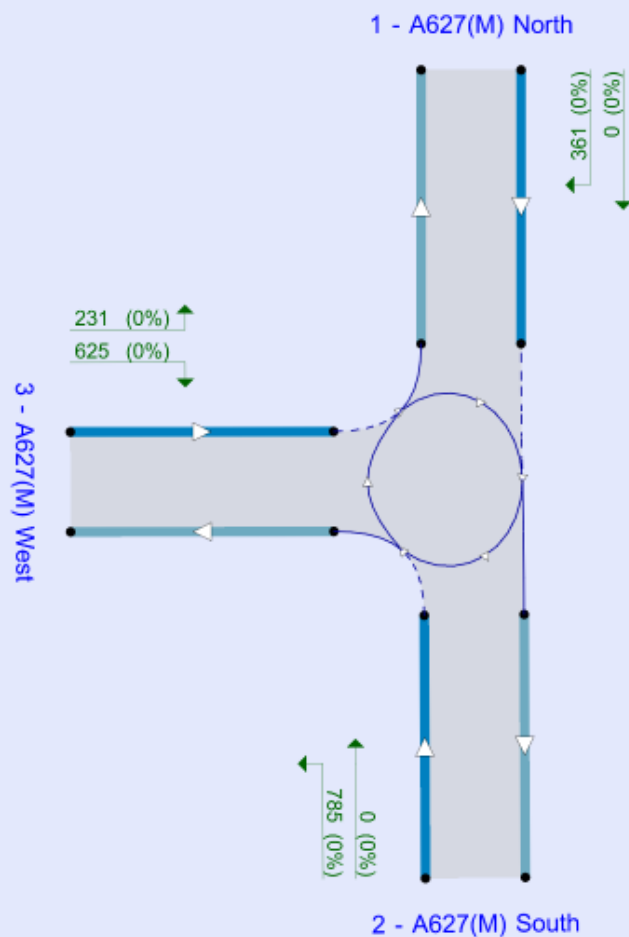
File summary

File Description

Title	A627(M) Link
Location	Stakehill
Site number	Junction 3
Date	19/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\ukdjs002
Description	

Units

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



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75					✓	Delay	0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025 Ref	AM	ONE HOUR	07:45	09:15	15	✓
D2	2025 Ref	PM	ONE HOUR	16:45	18:15	15	✓
D3	2040 DM	AM	ONE HOUR	07:45	09:15	15	✓
D4	2040 DM	PM	ONE HOUR	16:45	18:15	15	✓
D5	2040 DS	AM	ONE HOUR	07:45	09:15	15	✓
D6	2040 DS	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Base	✓	100.000	100.000

Base - 2025 Ref, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A627(M) North - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	2 - A627(M) South - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	3 - A627(M) West - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Large Roundabout	3 - A627(M) West - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A627(M) Link	Large Roundabout		1, 2, 3	2.32	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	77	2 - A627(M) South	2.32	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A627(M) North		
2	A627(M) South		
3	A627(M) West		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A627(M) North	7.20	7.20	0.0	44.0	112.0	14.0		
2 - A627(M) South	7.00	7.00	0.0	32.0	107.0	38.0		
3 - A627(M) West	7.20	7.20	0.0	21.0	131.0	22.0		

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A627(M) North	973	✓	0.00
2 - A627(M) South	1005	✓	0.00
3 - A627(M) West	0	✓	0.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A627(M) North	0.982	3006
2 - A627(M) South	0.880	2737
3 - A627(M) West	1.130	3117

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025 Ref	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A627(M) North		ONE HOUR	✓	450	100.000
2 - A627(M) South		ONE HOUR	✓	971	100.000
3 - A627(M) West		ONE HOUR	✓	1101	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
	From			
	1 - A627(M) North	0	0	450
	2 - A627(M) South	0	0	971
	3 - A627(M) West	391	710	0

Proportions

	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
	From			
	1 - A627(M) North	0.00	0.00	1.00
	2 - A627(M) South	0.00	0.00	1.00
	3 - A627(M) West	0.36	0.64	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
	From			
	1 - A627(M) North	0	0	0
	2 - A627(M) South	0	0	0
	3 - A627(M) West	0	0	0

Average PCU Per Veh

	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
	From			
	1 - A627(M) North	1.000	1.000	1.000
	2 - A627(M) South	1.000	1.000	1.000
	3 - A627(M) West	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1 - A627(M) North	339	339
	2 - A627(M) South	731	731
	3 - A627(M) West	829	829
08:00-08:15	1 - A627(M) North	405	405
	2 - A627(M) South	873	873
	3 - A627(M) West	990	990
08:15-08:30	1 - A627(M) North	495	495
	2 - A627(M) South	1069	1069
	3 - A627(M) West	1212	1212
08:30-08:45	1 - A627(M) North	495	495
	2 - A627(M) South	1069	1069
	3 - A627(M) West	1212	1212
08:45-09:00	1 - A627(M) North	405	405
	2 - A627(M) South	873	873
	3 - A627(M) West	990	990
09:00-09:15	1 - A627(M) North	339	339
	2 - A627(M) South	731	731
	3 - A627(M) West	829	829

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A627(M) North	0.22	2.07	0.3	A	413	619
2 - A627(M) South	0.46	2.92	0.9	A	891	1337
3 - A627(M) West	0.39	1.89	0.6	A	1010	1515

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	339	85	534	2481	0.137	338	294	0.0	0.2	1.679	A
2 - A627(M) South	731	183	338	2440	0.300	729	534	0.0	0.4	2.103	A
3 - A627(M) West	829	207	0	3117	0.266	827	1067	0.0	0.4	1.572	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	405	101	638	2379	0.170	404	351	0.2	0.2	1.822	A
2 - A627(M) South	873	218	404	2381	0.367	872	638	0.4	0.6	2.384	A
3 - A627(M) West	990	247	0	3117	0.318	989	1277	0.4	0.5	1.691	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	495	124	781	2238	0.221	495	430	0.2	0.3	2.065	A
2 - A627(M) South	1069	267	495	2301	0.465	1068	781	0.6	0.9	2.915	A
3 - A627(M) West	1212	303	0	3117	0.389	1212	1563	0.5	0.6	1.888	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	495	124	782	2238	0.221	495	430	0.3	0.3	2.066	A
2 - A627(M) South	1069	267	495	2301	0.465	1069	782	0.9	0.9	2.921	A
3 - A627(M) West	1212	303	0	3117	0.389	1212	1565	0.6	0.6	1.888	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	405	101	639	2378	0.170	405	352	0.3	0.2	1.823	A
2 - A627(M) South	873	218	405	2381	0.367	874	639	0.9	0.6	2.390	A
3 - A627(M) West	990	247	0	3117	0.318	990	1279	0.6	0.5	1.695	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	339	85	535	2480	0.137	339	295	0.2	0.2	1.680	A
2 - A627(M) South	731	183	339	2439	0.300	732	535	0.6	0.4	2.109	A
3 - A627(M) West	829	207	0	3117	0.266	829	1071	0.5	0.4	1.575	A

Base - 2025 Ref, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A627(M) North - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	2 - A627(M) South - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	3 - A627(M) West - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Large Roundabout	3 - A627(M) West - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A627(M) Link	Large Roundabout		1, 2, 3	1.97	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	119	2 - A627(M) South	1.97	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A627(M) North	973	✓	0.00
2 - A627(M) South	1005	✓	0.00
3 - A627(M) West	0	✓	0.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2025 Ref	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A627(M) North		ONE HOUR	✓	361	100.000
2 - A627(M) South		ONE HOUR	✓	785	100.000
3 - A627(M) West		ONE HOUR	✓	856	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		0	0	361
2 - A627(M) South		0	0	785
3 - A627(M) West		231	625	0

Proportions

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		0.00	0.00	1.00
2 - A627(M) South		0.00	0.00	1.00
3 - A627(M) West		0.27	0.73	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		0	0	0
2 - A627(M) South		0	0	0
3 - A627(M) West		0	0	0

Average PCU Per Veh

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		1.000	1.000	1.000
2 - A627(M) South		1.000	1.000	1.000
3 - A627(M) West		1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1 - A627(M) North	272	272
	2 - A627(M) South	591	591
	3 - A627(M) West	644	644
17:00-17:15	1 - A627(M) North	325	325
	2 - A627(M) South	706	706
	3 - A627(M) West	770	770
17:15-17:30	1 - A627(M) North	397	397
	2 - A627(M) South	864	864
	3 - A627(M) West	942	942
17:30-17:45	1 - A627(M) North	397	397
	2 - A627(M) South	864	864
	3 - A627(M) West	942	942
17:45-18:00	1 - A627(M) North	325	325
	2 - A627(M) South	706	706
	3 - A627(M) West	770	770
18:00-18:15	1 - A627(M) North	272	272
	2 - A627(M) South	591	591
	3 - A627(M) West	644	644

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A627(M) North	0.17	1.86	0.2	A	331	497
2 - A627(M) South	0.36	2.36	0.6	A	720	1080
3 - A627(M) West	0.30	1.65	0.4	A	785	1178

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	272	68	470	2544	0.107	271	174	0.0	0.1	1.583	A
2 - A627(M) South	591	148	271	2498	0.237	590	470	0.0	0.3	1.886	A
3 - A627(M) West	644	161	0	3117	0.207	643	661	0.0	0.3	1.455	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	325	81	562	2454	0.132	324	208	0.1	0.2	1.689	A
2 - A627(M) South	706	176	324	2452	0.288	705	562	0.3	0.4	2.061	A
3 - A627(M) West	770	192	0	3117	0.247	769	1030	0.3	0.3	1.532	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	397	99	688	2330	0.171	397	254	0.2	0.2	1.662	A
2 - A627(M) South	864	216	397	2388	0.362	864	688	0.4	0.6	2.360	A
3 - A627(M) West	942	236	0	3117	0.302	942	1261	0.3	0.4	1.654	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	397	99	688	2329	0.171	397	254	0.2	0.2	1.662	A
2 - A627(M) South	864	216	397	2387	0.362	864	688	0.6	0.6	2.363	A
3 - A627(M) West	942	236	0	3117	0.302	942	1262	0.4	0.4	1.654	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	325	81	562	2453	0.132	325	208	0.2	0.2	1.693	A
2 - A627(M) South	706	176	325	2451	0.288	706	562	0.6	0.4	2.064	A
3 - A627(M) West	770	192	0	3117	0.247	770	1031	0.4	0.3	1.533	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	272	68	471	2543	0.107	272	174	0.2	0.1	1.586	A
2 - A627(M) South	591	148	272	2498	0.237	591	471	0.4	0.3	1.887	A
3 - A627(M) West	644	161	0	3117	0.207	645	883	0.3	0.3	1.455	A

Base - 2040 DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A627(M) North - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	2 - A627(M) South - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	3 - A627(M) West - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Large Roundabout	3 - A627(M) West - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A627(M) Link	Large Roundabout		1, 2, 3	4.48	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	21	2 - A627(M) South	4.48	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A627(M) North	973	✓	0.00
2 - A627(M) South	1005	✓	0.00
3 - A627(M) West	0	✓	0.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2040 DM	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A627(M) North		ONE HOUR	✓	1018	100.000
2 - A627(M) South		ONE HOUR	✓	1099	100.000
3 - A627(M) West		ONE HOUR	✓	1908	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		0	0	1018
2 - A627(M) South		0	0	1099
3 - A627(M) West		1011	897	0

Proportions

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		0.00	0.00	1.00
2 - A627(M) South		0.00	0.00	1.00
3 - A627(M) West		0.53	0.47	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		0	0	0
2 - A627(M) South		0	0	0
3 - A627(M) West		0	0	0

Average PCU Per Veh

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		1.000	1.000	1.000
2 - A627(M) South		1.000	1.000	1.000
3 - A627(M) West		1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1 - A627(M) North	765	765
	2 - A627(M) South	827	827
	3 - A627(M) West	1438	1438
08:00-08:15	1 - A627(M) North	913	913
	2 - A627(M) South	988	988
	3 - A627(M) West	1715	1715
08:15-08:30	1 - A627(M) North	1119	1119
	2 - A627(M) South	1210	1210
	3 - A627(M) West	2101	2101
08:30-08:45	1 - A627(M) North	1119	1119
	2 - A627(M) South	1210	1210
	3 - A627(M) West	2101	2101
08:45-09:00	1 - A627(M) North	913	913
	2 - A627(M) South	988	988
	3 - A627(M) West	1715	1715
09:00-09:15	1 - A627(M) North	765	765
	2 - A627(M) South	827	827
	3 - A627(M) West	1438	1438

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A627(M) North	0.55	3.93	1.2	A	932	1398
2 - A627(M) South	0.69	6.63	2.2	A	1008	1513
3 - A627(M) West	0.67	3.54	2.1	A	1751	2628

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	765	191	674	2344	0.326	763	759	0.0	0.5	2.274	A
2 - A627(M) South	827	207	763	2066	0.401	825	674	0.0	0.7	2.894	A
3 - A627(M) West	1436	359	0	3117	0.461	1433	1588	0.0	0.9	2.133	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	913	228	806	2214	0.413	912	908	0.5	0.7	2.765	A
2 - A627(M) South	988	247	912	1934	0.511	986	806	0.7	1.0	3.791	A
3 - A627(M) West	1715	429	0	3117	0.550	1714	1899	0.9	1.2	2.583	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	1119	280	986	2037	0.549	1117	1111	0.7	1.2	3.903	A
2 - A627(M) South	1210	303	1117	1755	0.690	1205	986	1.0	2.2	6.503	A
3 - A627(M) West	2101	525	0	3117	0.674	2097	2322	1.2	2.0	3.518	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	1119	280	986	2035	0.550	1119	1113	1.2	1.2	3.927	A
2 - A627(M) South	1210	303	1119	1753	0.690	1210	988	2.2	2.2	6.625	A
3 - A627(M) West	2101	525	0	3117	0.674	2101	2329	2.0	2.1	3.540	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	913	228	806	2212	0.413	915	911	1.2	0.7	2.780	A
2 - A627(M) South	988	247	915	1932	0.511	993	808	2.2	1.1	3.851	A
3 - A627(M) West	1715	429	0	3117	0.550	1719	1908	2.1	1.2	2.579	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	765	191	676	2341	0.327	766	762	0.7	0.5	2.287	A
2 - A627(M) South	827	207	766	2063	0.401	829	676	1.1	0.7	2.919	A
3 - A627(M) West	1436	359	0	3117	0.461	1438	1595	1.2	0.9	2.147	A

Base - 2040 DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A627(M) North - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	2 - A627(M) South - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	3 - A627(M) West - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Large Roundabout	3 - A627(M) West - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A627(M) Link	Large Roundabout		1, 2, 3	3.17	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	50	2 - A627(M) South	3.17	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A627(M) North	973	✓	0.00
2 - A627(M) South	1005	✓	0.00
3 - A627(M) West	0	✓	0.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2040 DM	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A627(M) North		ONE HOUR	✓	839	100.000
2 - A627(M) South		ONE HOUR	✓	871	100.000
3 - A627(M) West		ONE HOUR	✓	1757	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		0	0	839
2 - A627(M) South		0	0	871
3 - A627(M) West		996	761	0

Proportions

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		0.00	0.00	1.00
2 - A627(M) South		0.00	0.00	1.00
3 - A627(M) West		0.57	0.43	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		0	0	0
2 - A627(M) South		0	0	0
3 - A627(M) West		0	0	0

Average PCU Per Veh

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		1.000	1.000	1.000
2 - A627(M) South		1.000	1.000	1.000
3 - A627(M) West		1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1 - A627(M) North	632	632
	2 - A627(M) South	656	656
	3 - A627(M) West	1323	1323
17:00-17:15	1 - A627(M) North	754	754
	2 - A627(M) South	783	783
	3 - A627(M) West	1580	1580
17:15-17:30	1 - A627(M) North	924	924
	2 - A627(M) South	959	959
	3 - A627(M) West	1934	1934
17:30-17:45	1 - A627(M) North	924	924
	2 - A627(M) South	959	959
	3 - A627(M) West	1934	1934
17:45-18:00	1 - A627(M) North	754	754
	2 - A627(M) South	783	783
	3 - A627(M) West	1580	1580
18:00-18:15	1 - A627(M) North	632	632
	2 - A627(M) South	656	656
	3 - A627(M) West	1323	1323

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A627(M) North	0.42	2.86	0.7	A	770	1155
2 - A627(M) South	0.50	3.73	1.0	A	799	1199
3 - A627(M) West	0.62	3.04	1.6	A	1612	2418

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	632	158	572	2444	0.258	630	748	0.0	0.3	1.984	A
2 - A627(M) South	656	164	630	2183	0.300	654	572	0.0	0.4	2.353	A
3 - A627(M) West	1323	331	0	3117	0.424	1320	1284	0.0	0.7	1.999	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	754	189	684	2334	0.323	754	895	0.3	0.5	2.278	A
2 - A627(M) South	783	196	754	2074	0.378	782	684	0.4	0.6	2.785	A
3 - A627(M) West	1580	395	0	3117	0.507	1578	1536	0.7	1.0	2.338	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	924	231	837	2183	0.423	923	1095	0.5	0.7	2.852	A
2 - A627(M) South	959	240	923	1925	0.498	957	837	0.6	1.0	3.713	A
3 - A627(M) West	1934	484	0	3117	0.621	1932	1880	1.0	1.6	3.031	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	924	231	838	2182	0.423	924	1097	0.7	0.7	2.859	A
2 - A627(M) South	959	240	924	1924	0.498	959	838	1.0	1.0	3.728	A
3 - A627(M) West	1934	484	0	3117	0.621	1934	1883	1.6	1.6	3.043	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	754	189	685	2332	0.323	755	897	0.7	0.5	2.285	A
2 - A627(M) South	783	196	755	2073	0.378	785	685	1.0	0.6	2.797	A
3 - A627(M) West	1580	395	0	3117	0.507	1582	1540	1.6	1.0	2.349	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	632	158	573	2442	0.259	632	751	0.5	0.3	1.990	A
2 - A627(M) South	656	164	632	2181	0.301	656	573	0.6	0.4	2.362	A
3 - A627(M) West	1323	331	0	3117	0.424	1324	1289	1.0	0.7	2.010	A

Base - 2040 DS, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A627(M) North - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	2 - A627(M) South - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	3 - A627(M) West - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Large Roundabout	3 - A627(M) West - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A627(M) Link	Large Roundabout		1, 2, 3	4.56	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	20	2 - A627(M) South	4.56	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A627(M) North	973	✓	0.00
2 - A627(M) South	1005	✓	0.00
3 - A627(M) West	0	✓	0.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2040 DS	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A627(M) North		ONE HOUR	✓	1022	100.000
2 - A627(M) South		ONE HOUR	✓	1105	100.000
3 - A627(M) West		ONE HOUR	✓	1920	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		0	0	1022
2 - A627(M) South		0	0	1105
3 - A627(M) West		1018	904	0

Proportions

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		0.00	0.00	1.00
2 - A627(M) South		0.00	0.00	1.00
3 - A627(M) West		0.53	0.47	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		0	0	0
2 - A627(M) South		0	0	0
3 - A627(M) West		0	0	0

Average PCU Per Veh

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		1.000	1.000	1.000
2 - A627(M) South		1.000	1.000	1.000
3 - A627(M) West		1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1 - A627(M) North	789	789
	2 - A627(M) South	832	832
	3 - A627(M) West	1445	1445
08:00-08:15	1 - A627(M) North	919	919
	2 - A627(M) South	993	993
	3 - A627(M) West	1728	1728
08:15-08:30	1 - A627(M) North	1125	1125
	2 - A627(M) South	1217	1217
	3 - A627(M) West	2114	2114
08:30-08:45	1 - A627(M) North	1125	1125
	2 - A627(M) South	1217	1217
	3 - A627(M) West	2114	2114
08:45-09:00	1 - A627(M) North	919	919
	2 - A627(M) South	993	993
	3 - A627(M) West	1728	1728
09:00-09:15	1 - A627(M) North	789	789
	2 - A627(M) South	832	832
	3 - A627(M) West	1445	1445

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A627(M) North	0.55	3.99	1.2	A	938	1407
2 - A627(M) South	0.70	6.78	2.3	A	1014	1521
3 - A627(M) West	0.68	3.59	2.1	A	1762	2843

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	769	192	679	2339	0.329	767	763	0.0	0.5	2.288	A
2 - A627(M) South	832	208	767	2062	0.403	829	679	0.0	0.7	2.914	A
3 - A627(M) West	1445	381	0	3117	0.464	1442	1597	0.0	0.9	2.144	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	919	230	812	2208	0.416	918	913	0.5	0.7	2.789	A
2 - A627(M) South	993	248	918	1930	0.515	992	812	0.7	1.1	3.833	A
3 - A627(M) West	1726	432	0	3117	0.554	1725	1910	0.9	1.2	2.583	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	1125	281	994	2029	0.555	1123	1117	0.7	1.2	3.964	A
2 - A627(M) South	1217	304	1123	1749	0.696	1212	994	1.1	2.2	6.646	A
3 - A627(M) West	2114	528	0	3117	0.678	2111	2335	1.2	2.1	3.564	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	1125	281	995	2028	0.555	1125	1119	1.2	1.2	3.988	A
2 - A627(M) South	1217	304	1125	1747	0.696	1217	995	2.2	2.3	6.780	A
3 - A627(M) West	2114	528	0	3117	0.678	2114	2342	2.1	2.1	3.587	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	919	230	814	2206	0.417	921	915	1.2	0.7	2.808	A
2 - A627(M) South	993	248	921	1927	0.516	998	814	2.3	1.1	3.895	A
3 - A627(M) West	1726	432	0	3117	0.554	1729	1919	2.1	1.2	2.599	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	769	192	681	2336	0.329	770	766	0.7	0.5	2.301	A
2 - A627(M) South	832	208	770	2059	0.404	833	681	1.1	0.7	2.942	A
3 - A627(M) West	1445	361	0	3117	0.464	1447	1604	1.2	0.9	2.158	A

Base - 2040 DS, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A627(M) North - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	2 - A627(M) South - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	3 - A627(M) West - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Large Roundabout	3 - A627(M) West - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A627(M) Link	Large Roundabout		1, 2, 3	3.21	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	49	2 - A627(M) South	3.21	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A627(M) North	973	✓	0.00
2 - A627(M) South	1005	✓	0.00
3 - A627(M) West	0	✓	0.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2040 DS	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A627(M) North		ONE HOUR	✓	844	100.000
2 - A627(M) South		ONE HOUR	✓	878	100.000
3 - A627(M) West		ONE HOUR	✓	1788	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		0	0	844
2 - A627(M) South		0	0	878
3 - A627(M) West		1001	787	0

Proportions

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		0.00	0.00	1.00
2 - A627(M) South		0.00	0.00	1.00
3 - A627(M) West		0.57	0.43	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		0	0	0
2 - A627(M) South		0	0	0
3 - A627(M) West		0	0	0

Average PCU Per Veh

From	To			
		1 - A627(M) North	2 - A627(M) South	3 - A627(M) West
1 - A627(M) North		1.000	1.000	1.000
2 - A627(M) South		1.000	1.000	1.000
3 - A627(M) West		1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1 - A627(M) North	635	635
	2 - A627(M) South	661	661
	3 - A627(M) West	1331	1331
17:00-17:15	1 - A627(M) North	759	759
	2 - A627(M) South	789	789
	3 - A627(M) West	1589	1589
17:15-17:30	1 - A627(M) North	929	929
	2 - A627(M) South	967	967
	3 - A627(M) West	1947	1947
17:30-17:45	1 - A627(M) North	929	929
	2 - A627(M) South	967	967
	3 - A627(M) West	1947	1947
17:45-18:00	1 - A627(M) North	759	759
	2 - A627(M) South	789	789
	3 - A627(M) West	1589	1589
18:00-18:15	1 - A627(M) North	635	635
	2 - A627(M) South	661	661
	3 - A627(M) West	1331	1331

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A627(M) North	0.43	2.89	0.7	A	774	1162
2 - A627(M) South	0.50	3.78	1.0	A	806	1209
3 - A627(M) West	0.62	3.07	1.7	A	1622	2434

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	635	159	576	2440	0.260	634	752	0.0	0.4	1.994	A
2 - A627(M) South	661	165	634	2179	0.303	659	576	0.0	0.4	2.366	A
3 - A627(M) West	1331	333	0	3117	0.427	1328	1293	0.0	0.7	2.008	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	759	190	689	2329	0.326	758	899	0.4	0.5	2.292	A
2 - A627(M) South	789	197	758	2070	0.381	789	689	0.4	0.6	2.808	A
3 - A627(M) West	1589	397	0	3117	0.510	1588	1547	0.7	1.0	2.354	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	929	232	843	2177	0.427	928	1101	0.5	0.7	2.880	A
2 - A627(M) South	967	242	928	1920	0.503	965	843	0.6	1.0	3.761	A
3 - A627(M) West	1947	487	0	3117	0.624	1944	1893	1.0	1.6	3.062	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	929	232	844	2176	0.427	929	1102	0.7	0.7	2.887	A
2 - A627(M) South	967	242	929	1920	0.504	967	844	1.0	1.0	3.777	A
3 - A627(M) West	1947	487	0	3117	0.624	1947	1896	1.6	1.7	3.074	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	759	190	691	2327	0.326	760	901	0.7	0.5	2.299	A
2 - A627(M) South	789	197	760	2069	0.382	791	691	1.0	0.6	2.820	A
3 - A627(M) West	1589	397	0	3117	0.510	1592	1551	1.7	1.0	2.363	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A627(M) North	635	159	578	2438	0.261	636	754	0.5	0.4	1.998	A
2 - A627(M) South	661	165	636	2178	0.304	662	578	0.6	0.4	2.375	A
3 - A627(M) West	1331	333	0	3117	0.427	1332	1298	1.0	0.7	2.019	A

Junctions 10									
ARCADY 10 - Roundabout Module									
Version: 10.0.1.1519									
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Filename: J4 Slattocks Ref.j10

Path: C:\Users\UKWXN005\WSP O365\62262051 - Stakehill Industrial Estate - Documents\03 - WIP\12 Transport Planning\05 Analysis\Modelling\Junction Models 2025 Update\04 Slattocks Rbt

Report generation date: 21/01/2025 09:48:10

»2025 Ref, AM
»2025 Ref, PM
»2040 DM, AM
»2040 DM, PM
»2040 DS, AM
»2040 DS, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2025 Ref									
1 - A627(M)	D1	5.6	13.42	0.86	B	D2	1.5	4.18	0.60	A
2 - Bentley Ave		0.1	16.48	0.10	C		0.0	5.56	0.01	A
3 - Whitbrook Way		0.2	2.35	0.16	A		1.1	4.40	0.53	A
4 - A664 Rochdale Rd W		2.2	5.91	0.69	A		1.7	5.73	0.64	A
5 - A664 Rochdale Rd N		2.2	10.63	0.69	B		0.5	4.23	0.34	A
	2040 DM									
1 - A627(M)	D3	398.2	710.26	1.33	F	D4	8.8	17.74	0.91	C
2 - Bentley Ave		1.1	18.18	0.53	C		9.8	86.80	0.96	F
3 - Whitbrook Way		0.6	3.19	0.39	A		4.3	14.85	0.82	B
4 - A664 Rochdale Rd W		4.1	10.66	0.81	B		8.8	27.08	0.91	D
5 - A664 Rochdale Rd N		472.5	1423.84	1.71	F		15.5	55.19	0.97	F
	2040 DS									
1 - A627(M)	D5	444.0	798.59	1.36	F	D6	11.4	22.92	0.93	C
2 - Bentley Ave		1.2	18.30	0.55	C		10.9	93.51	0.97	F
3 - Whitbrook Way		0.6	3.18	0.39	A		4.7	16.02	0.83	C
4 - A664 Rochdale Rd W		5.4	13.59	0.85	B		15.6	44.85	0.96	E
5 - A664 Rochdale Rd N		516.3	1600.23	1.79	F		22.6	76.50	1.00	F

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

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

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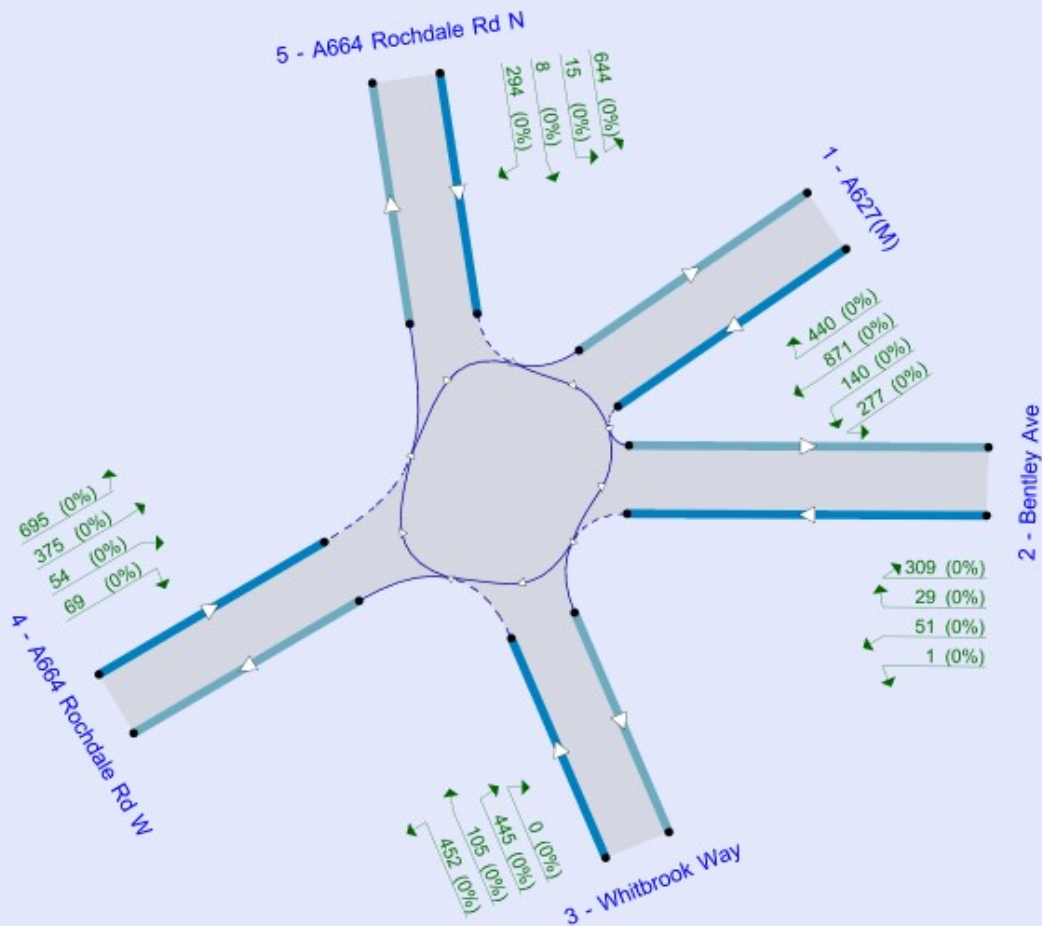
File summary

File Description

Title	Slattocks Roundabout
Location	Stakehill
Site number	Junction 4
Date	19/11/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\UKAPF002
Description	

Units

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



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	38.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025 Ref	AM	ONE HOUR	07:45	09:15	15	✓
D2	2025 Ref	PM	ONE HOUR	16:45	18:15	15	✓
D3	2040 DM	AM	ONE HOUR	07:45	09:15	15	✓
D4	2040 DM	PM	ONE HOUR	16:45	18:15	15	✓
D5	2040 DS	AM	ONE HOUR	07:45	09:15	15	✓
D6	2040 DS	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2025 Ref, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Bentley Ave - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Whitbrook Way - Roundabout Geometry	Roundabout diameter is over 130m; roundabout should be treated as a Grade Separated and/or Large Roundabout
Warning	Geometry	4 - A664 Rochdale Rd W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	9.56	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.56	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A627(M)		
2	Bentley Ave		
3	Whitbrook Way		
4	A664 Rochdale Rd W		
5	A664 Rochdale Rd N		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A627(M)	7.50	7.50	0.0	36.0	66.0	27.0		
2 - Bentley Ave	4.20	4.70	46.0	27.0	61.0	17.0		
3 - Whitbrook Way	7.80	9.40	5.5	29.0	999.0	45.0		
4 - A664 Rochdale Rd W	3.90	8.10	39.6	62.0	71.0	28.0		
5 - A664 Rochdale Rd N	3.40	7.00	18.1	29.0	87.0	39.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A627(M)	0.638	2346
2 - Bentley Ave	0.532	1501
3 - Whitbrook Way	0.551	2518
4 - A664 Rochdale Rd W	0.591	2217
5 - A664 Rochdale Rd N	0.452	1670

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025 Ref	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A627(M)		ONE HOUR	✓	1427	100.000
2 - Bentley Ave		ONE HOUR	✓	23	100.000
3 - Whitbrook Way		ONE HOUR	✓	260	100.000
4 - A664 Rochdale Rd W		ONE HOUR	✓	1239	100.000
5 - A664 Rochdale Rd N		ONE HOUR	✓	690	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - A627(M)	2 - Bentley Ave	3 - Whitbrook Way	4 - A664 Rochdale Rd W	5 - A664 Rochdale Rd N
From	1 - A627(M)	0	3	564	657	203
	2 - Bentley Ave	9	0	2	8	4
	3 - Whitbrook Way	149	0.50	0	102	8
	4 - A664 Rochdale Rd W	614	2	374	0	249
	5 - A664 Rochdale Rd N	341	1	78	270	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - A627(M)	2 - Bentley Ave	3 - Whitbrook Way	4 - A664 Rochdale Rd W	5 - A664 Rochdale Rd N
From	1 - A627(M)	0	0	0	0	0
	2 - Bentley Ave	0	0	0	0	0
	3 - Whitbrook Way	0	0	0	0	0
	4 - A664 Rochdale Rd W	0	0	0	0	0
	5 - A664 Rochdale Rd N	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A627(M)	0.86	13.42	5.6	B	1309	1964
2 - Bentley Ave	0.10	16.48	0.1	C	21	32
3 - Whitbrook Way	0.16	2.35	0.2	A	238	357
4 - A664 Rochdale Rd W	0.69	5.91	2.2	A	1137	1706
5 - A664 Rochdale Rd N	0.69	10.63	2.2	B	633	950

2025 Ref, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Bentley Ave - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Whitbrook Way - Roundabout Geometry	Roundabout diameter is over 130m; roundabout should be treated as a Grade Separated and/or Large Roundabout
Warning	Geometry	4 - A664 Rochdale Rd W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.70	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.70	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2025 Ref	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A627(M)		ONE HOUR	✓	1153	100.000
2 - Bentley Ave		ONE HOUR	✓	8	100.000
3 - Whitbrook Way		ONE HOUR	✓	842	100.000
4 - A664 Rochdale Rd W		ONE HOUR	✓	992	100.000
5 - A664 Rochdale Rd N		ONE HOUR	✓	397	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - A627(M)	2 - Bentley Ave	3 - Whitbrook Way	4 - A664 Rochdale Rd W	5 - A664 Rochdale Rd N
From	1 - A627(M)	0	6	105	687	355
	2 - Bentley Ave	3	0	2	2	0.94
	3 - Whitbrook Way	299	4	0	437	102
	4 - A664 Rochdale Rd W	391	5	66	0	530
	5 - A664 Rochdale Rd N	167	2	4	224	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - A627(M)	2 - Bentley Ave	3 - Whitbrook Way	4 - A664 Rochdale Rd W	5 - A664 Rochdale Rd N
From	1 - A627(M)	0	0	0	0	0
	2 - Bentley Ave	0	0	0	0	0
	3 - Whitbrook Way	0	0	0	0	0
	4 - A664 Rochdale Rd W	0	0	0	0	0
	5 - A664 Rochdale Rd N	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A627(M)	0.60	4.18	1.5	A	1058	1587
2 - Bentley Ave	0.01	5.56	0.0	A	7	11
3 - Whitbrook Way	0.53	4.40	1.1	A	773	1159
4 - A664 Rochdale Rd W	0.64	5.73	1.7	A	910	1365
5 - A664 Rochdale Rd N	0.34	4.23	0.5	A	364	546

2040 DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Bentley Ave - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Whitbrook Way - Roundabout Geometry	Roundabout diameter is over 130m; roundabout should be treated as a Grade Separated and/or Large Roundabout
Warning	Geometry	4 - A664 Rochdale Rd W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	635.45	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	635.45	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2040 DM	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A627(M)		ONE HOUR	✓	2308	100.000
2 - Bentley Ave		ONE HOUR	✓	200	100.000
3 - Whitbrook Way		ONE HOUR	✓	647	100.000
4 - A664 Rochdale Rd W		ONE HOUR	✓	1295	100.000
5 - A664 Rochdale Rd N		ONE HOUR	✓	1483	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - A627(M)	2 - Bentley Ave	3 - Whitbrook Way	4 - A664 Rochdale Rd W	5 - A664 Rochdale Rd N
From	1 - A627(M)	0	635	735	718	220
	2 - Bentley Ave	130	0	1	63	6
	3 - Whitbrook Way	370	0	0	250	27
	4 - A664 Rochdale Rd W	606	2	326	0	361
	5 - A664 Rochdale Rd N	997	40	82	364	0

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - A627(M)	2 - Bentley Ave	3 - Whitbrook Way	4 - A664 Rochdale Rd W	5 - A664 Rochdale Rd N
	1 - A627(M)	0	0	0	0	0
	2 - Bentley Ave	0	0	0	0	0
	3 - Whitbrook Way	0	0	0	0	0
	4 - A664 Rochdale Rd W	0	0	0	0	0
	5 - A664 Rochdale Rd N	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A627(M)	1.33	710.26	398.2	F	2118	3177
2 - Bentley Ave	0.53	18.18	1.1	C	184	275
3 - Whitbrook Way	0.39	3.19	0.6	A	594	891
4 - A664 Rochdale Rd W	0.81	10.66	4.1	B	1189	1783
5 - A664 Rochdale Rd N	1.71	1423.84	472.5	F	1361	2041

2040 DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Bentley Ave - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Whitbrook Way - Roundabout Geometry	Roundabout diameter is over 130m; roundabout should be treated as a Grade Separated and/or Large Roundabout
Warning	Geometry	4 - A664 Rochdale Rd W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	31.28	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	31.28	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2040 DM	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A627(M)		ONE HOUR	✓	1716	100.000
2 - Bentley Ave		ONE HOUR	✓	384	100.000
3 - Whitbrook Way		ONE HOUR	✓	984	100.000
4 - A664 Rochdale Rd W		ONE HOUR	✓	1137	100.000
5 - A664 Rochdale Rd N		ONE HOUR	✓	956	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
From		1 - A627(M)	2 - Bentley Ave	3 - Whitbrook Way	4 - A664 Rochdale Rd W	5 - A664 Rochdale Rd N
	1 - A627(M)	0	267	138	871	440
	2 - Bentley Ave	304	0	1	51	28
	3 - Whitbrook Way	439	0	0	446	99
	4 - A664 Rochdale Rd W	375	0	67	0	695
	5 - A664 Rochdale Rd N	644	12	6	294	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - A627(M)	2 - Bentley Ave	3 - Whitbrook Way	4 - A664 Rochdale Rd W	5 - A664 Rochdale Rd N
From	1 - A627(M)	0	0	0	0	0
	2 - Bentley Ave	0	0	0	0	0
	3 - Whitbrook Way	0	0	0	0	0
	4 - A664 Rochdale Rd W	0	0	0	0	0
	5 - A664 Rochdale Rd N	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A627(M)	0.91	17.74	8.8	C	1575	2362
2 - Bentley Ave	0.96	86.80	9.8	F	352	529
3 - Whitbrook Way	0.82	14.85	4.3	B	903	1354
4 - A664 Rochdale Rd W	0.91	27.08	8.8	D	1043	1565
5 - A664 Rochdale Rd N	0.97	55.19	15.5	F	877	1316

2040 DS, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Bentley Ave - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Whitbrook Way - Roundabout Geometry	Roundabout diameter is over 130m; roundabout should be treated as a Grade Separated and/or Large Roundabout
Warning	Geometry	4 - A664 Rochdale Rd W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	707.01	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	707.01	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2040 DS	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A627(M)		ONE HOUR	✓	2320	100.000
2 - Bentley Ave		ONE HOUR	✓	214	100.000
3 - Whitbrook Way		ONE HOUR	✓	650	100.000
4 - A664 Rochdale Rd W		ONE HOUR	✓	1356	100.000
5 - A664 Rochdale Rd N		ONE HOUR	✓	1492	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
From		1 - A627(M)	2 - Bentley Ave	3 - Whitbrook Way	4 - A664 Rochdale Rd W	5 - A664 Rochdale Rd N
	1 - A627(M)	0	639	743	718	220
	2 - Bentley Ave	141	0	1	63	9
	3 - Whitbrook Way	371	0	0	251	28
	4 - A664 Rochdale Rd W	606	55	334	0	361
	5 - A664 Rochdale Rd N	997	41	90	364	0

Vehicle Mix

Heavy Vehicle Percentages

From	To					
		1 - A627(M)	2 - Bentley Ave	3 - Whitbrook Way	4 - A664 Rochdale Rd W	5 - A664 Rochdale Rd N
	1 - A627(M)	0	0	0	0	0
	2 - Bentley Ave	0	0	0	0	0
	3 - Whitbrook Way	0	0	0	0	0
	4 - A664 Rochdale Rd W	0	0	0	0	0
	5 - A664 Rochdale Rd N	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A627(M)	1.36	798.59	444.0	F	2129	3193
2 - Bentley Ave	0.55	18.30	1.2	C	196	295
3 - Whitbrook Way	0.39	3.18	0.6	A	596	895
4 - A664 Rochdale Rd W	0.85	13.59	5.4	B	1244	1886
5 - A664 Rochdale Rd N	1.79	1600.23	516.3	F	1369	2054

2040 DS, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Bentley Ave - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Whitbrook Way - Roundabout Geometry	Roundabout diameter is over 130m; roundabout should be treated as a Grade Separated and/or Large Roundabout
Warning	Geometry	4 - A664 Rochdale Rd W - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	41.55	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	41.55	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2040 DS	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A627(M)		ONE HOUR	✓	1728	100.000
2 - Bentley Ave		ONE HOUR	✓	390	100.000
3 - Whitbrook Way		ONE HOUR	✓	1002	100.000
4 - A664 Rochdale Rd W		ONE HOUR	✓	1193	100.000
5 - A664 Rochdale Rd N		ONE HOUR	✓	961	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
From		1 - A627(M)	2 - Bentley Ave	3 - Whitbrook Way	4 - A664 Rochdale Rd W	5 - A664 Rochdale Rd N
	1 - A627(M)	0	277	140	871	440
	2 - Bentley Ave	309	0	1	51	29
	3 - Whitbrook Way	445	0	0	452	105
	4 - A664 Rochdale Rd W	375	54	69	0	695
	5 - A664 Rochdale Rd N	644	15	8	294	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1 - A627(M)	2 - Bentley Ave	3 - Whitbrook Way	4 - A664 Rochdale Rd W	5 - A664 Rochdale Rd N
From	1 - A627(M)	0	0	0	0	0
	2 - Bentley Ave	0	0	0	0	0
	3 - Whitbrook Way	0	0	0	0	0
	4 - A664 Rochdale Rd W	0	0	0	0	0
	5 - A664 Rochdale Rd N	0	0	0	0	0

Results

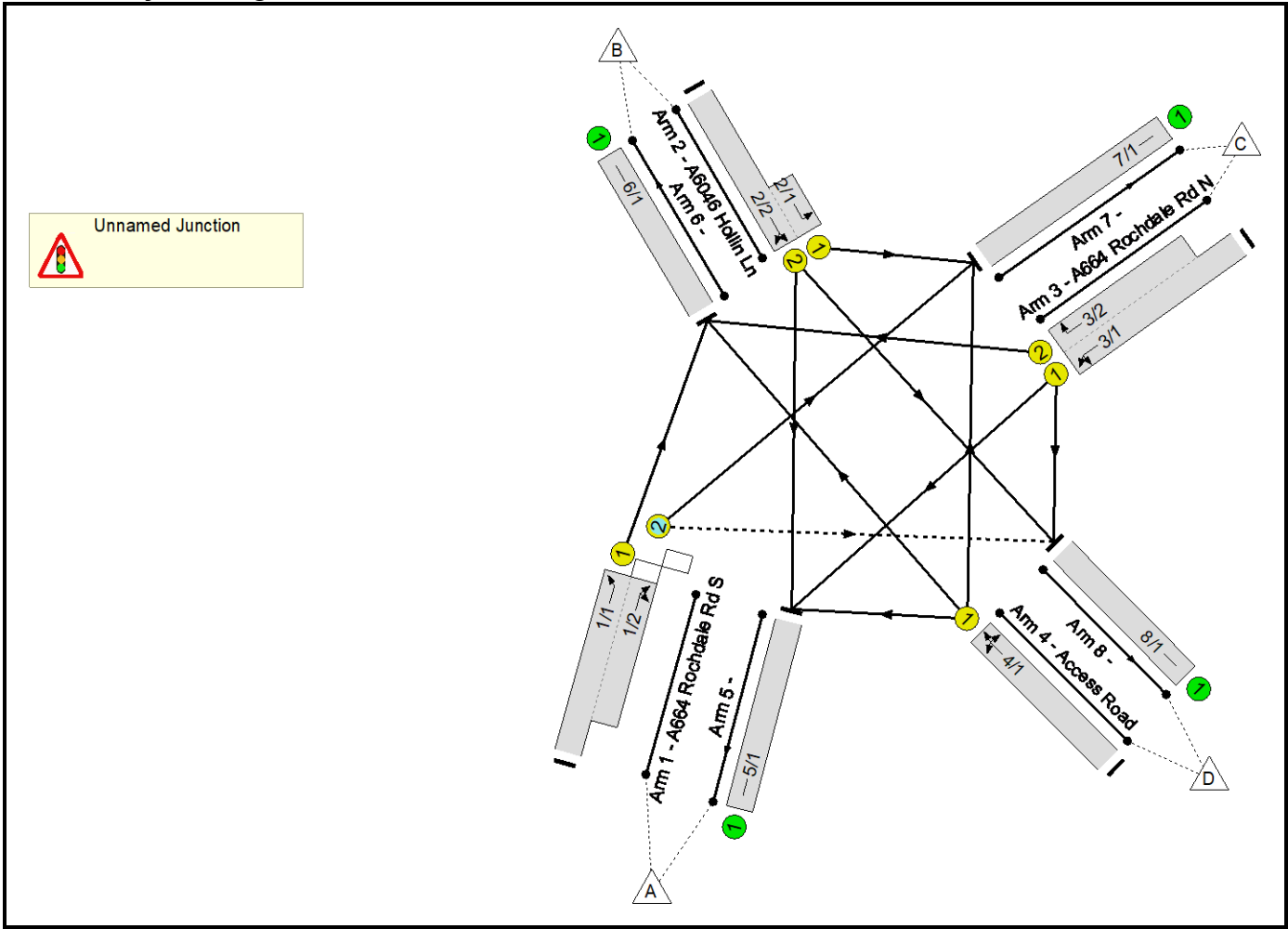
Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A627(M)	0.93	22.92	11.4	C	1586	2378
2 - Bentley Ave	0.97	93.51	10.9	F	358	537
3 - Whitbrook Way	0.83	16.02	4.7	C	919	1379
4 - A664 Rochdale Rd W	0.96	44.85	15.6	E	1095	1642
5 - A664 Rochdale Rd N	1.00	76.50	22.6	F	882	1323

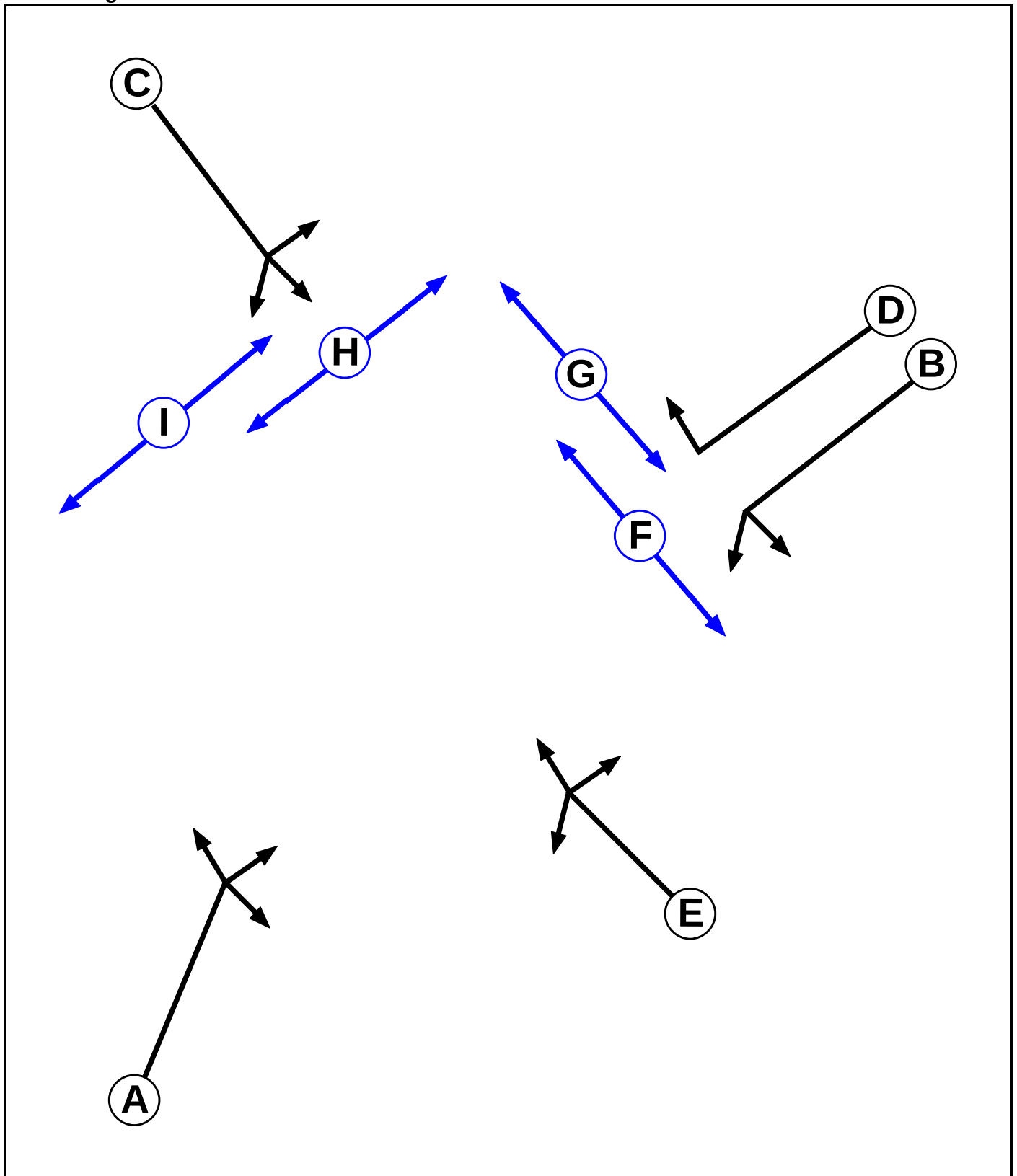
User and Project Details

Project:	GMSF GM2 Stakehill
Title:	A664 / A6046
Location:	Middleton
Site Ref(s):	Junction 8
Additional detail:	
File name:	J8 A664 _ A6046.lsg3x
Author:	APF
Company:	WSP
Address:	

Network Layout Diagram



Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Pedestrian		7	7
G	Pedestrian		7	7
H	Pedestrian		7	7
I	Pedestrian		7	7

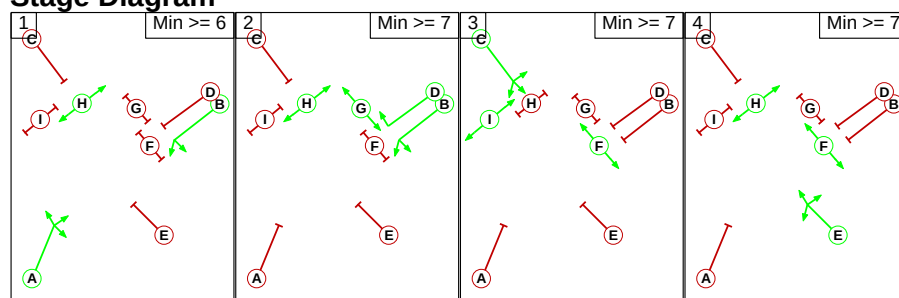
Phase Intergreens Matrix

Terminating Phase	Starting Phase									
		A	B	C	D	E	F	G	H	I
	A		-	6	5	7	-	8	-	8
	B	-		6	-	6	5	-	-	10
	C	5	6		6	6	-	8	5	-
	D	5	-	6		5	5	-	-	10
	E	5	5	5	5		-	8	-	8
	F	-	5	-	5	-		-	-	-
	G	5	-	5	-	5	-		-	-
	H	-	-	5	-	-	-	-		-
	I	4	4	-	4	4	-	-	-	

Phases in Stage

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

Stage Diagram



Phase Delays

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

Prohibited Stage Change

	To Stage				
From Stage	1	2	3	4	
	1		8	10	7
	2	5		10	6
	3	6	8		6
	4	5	8	8	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction											
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)
1/2 (A664 Rochdale Rd S)	8/1 (Right)	1439	0	3/1	1.09	All	2.00	1.00	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A664 Rochdale Rd S)	U	A	2	3	60.0	Geom	-	3.33	0.00	Y	Arm 6 Left	13.70
1/2 (A664 Rochdale Rd S)	O	A	2	3	15.4	Geom	-	3.33	0.00	Y	Arm 7 Ahead	77.40
											Arm 8 Right	13.50
2/1 (A6046 Hollin Ln)	U	C	2	3	3.2	Geom	-	2.96	0.00	Y	Arm 7 Left	11.52
2/2 (A6046 Hollin Ln)	U	C	2	3	60.0	Geom	-	2.96	0.00	Y	Arm 5 Right	36.10
											Arm 8 Ahead	Inf
3/1 (A664 Rochdale Rd N)	U	B	2	3	60.0	Geom	-	3.05	0.00	Y	Arm 5 Ahead	42.90
											Arm 8 Left	4.00
3/2 (A664 Rochdale Rd N)	U	D	2	3	13.6	Geom	-	3.07	0.00	Y	Arm 6 Right	14.83
4/1 (Access Road)	U	E	2	3	25.0	Geom	-	2.50	0.00	Y	Arm 5 Left	6.47
											Arm 6 Ahead	Inf
											Arm 7 Right	12.71
5/1	U		2	3	60.0	Geom	-	3.33	0.00	Y		
6/1	U		2	3	60.0	Geom	-	4.00	0.00	Y		
7/1	U		2	3	60.0	Geom	-	3.40	0.00	Y		
8/1	U		2	3	4.3	Geom	-	2.50	0.00	Y		

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2025 Ref AM'	08:00	09:00	01:00	
2: '2025 Ref PM'	17:00	18:00	01:00	
3: '2040 DM AM'	08:00	09:00	01:00	
4: '2040 DM PM'	17:00	18:00	01:00	
5: '2040 DS AM'	08:00	09:00	01:00	
6: '2040 DS PM'	17:00	18:00	01:00	

Scenario 1: '2025 Base AM' (FG1: '2025 Ref AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	149	467	0	616
	B	140	0	56	0	196
	C	486	178	0	0	664
	D	0	0	0	0	0
	Tot.	626	327	523	0	1476

Traffic Lane Flows

Lane	Scenario 1: 2025 Base AM
Junction: Unnamed Junction	
1/1 (with short)	616(In) 149(Out)
1/2 (short)	467
2/1 (short)	56
2/2 (with short)	196(In) 140(Out)
3/1 (with short)	664(In) 486(Out)
3/2 (short)	178
4/1	0
5/1	626
6/1	327
7/1	523
8/1	0

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A664 Rochdale Rd S)	3.33	0.00	Y	Arm 6 Left	13.70	100.0 %	1756	1756
1/2 (A664 Rochdale Rd S)	3.33	0.00	Y	Arm 7 Ahead	77.40	100.0 %	1911	1911
				Arm 8 Right	13.50	0.0 %		
2/1 (A6046 Hollin Ln)	2.96	0.00	Y	Arm 7 Left	11.52	100.0 %	1691	1691
2/2 (A6046 Hollin Ln)	2.96	0.00	Y	Arm 5 Right	36.10	100.0 %	1835	1835
				Arm 8 Ahead	Inf	0.0 %		
3/1 (A664 Rochdale Rd N)	3.05	0.00	Y	Arm 5 Ahead	42.90	100.0 %	1855	1855
				Arm 8 Left	4.00	0.0 %		
3/2 (A664 Rochdale Rd N)	3.07	0.00	Y	Arm 6 Right	14.83	100.0 %	1745	1745
4/1 (Access Road)	2.50	0.00	Y	Arm 5 Left	6.47	0.0 %	1865	1865
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Right	12.71	0.0 %		
5/1	3.33	0.00	Y				1948	1948
6/1	4.00	0.00	Y				2015	2015
7/1	3.40	0.00	Y				1955	1955
8/1	2.50	0.00	Y				1865	1865

Scenario 2: '2025 Base PM' (FG2: '2025 Ref PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
Origin		A	B	C	D	Tot.
	A	0	122	574	0	696
	B	158	0	7	0	165
	C	726	151	0	0	877
	D	0	0	0	0	0
	Tot.	884	273	581	0	1738

Traffic Lane Flows

Lane	Scenario 2: 2025 Base PM
Junction: Unnamed Junction	
1/1 (with short)	696(In) 122(Out)
1/2 (short)	574
2/1 (short)	7
2/2 (with short)	165(In) 158(Out)
3/1 (with short)	877(In) 726(Out)
3/2 (short)	151
4/1	0
5/1	884
6/1	273
7/1	581
8/1	0

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A664 Rochdale Rd S)	3.33	0.00	Y	Arm 6 Left	13.70	100.0 %	1756	1756
1/2 (A664 Rochdale Rd S)	3.33	0.00	Y	Arm 7 Ahead Arm 8 Right	77.40 13.50	100.0 % 0.0 %	1911	1911
2/1 (A6046 Hollin Ln)	2.96	0.00	Y	Arm 7 Left	11.52	100.0 %	1691	1691
2/2 (A6046 Hollin Ln)	2.96	0.00	Y	Arm 5 Right Arm 8 Ahead	36.10 Inf	100.0 % 0.0 %	1835	1835
3/1 (A664 Rochdale Rd N)	3.05	0.00	Y	Arm 5 Ahead Arm 8 Left	42.90 4.00	100.0 % 0.0 %	1855	1855
3/2 (A664 Rochdale Rd N)	3.07	0.00	Y	Arm 6 Right Arm 5 Left	14.83 6.47	100.0 % 0.0 %	1745	1745
4/1 (Access Road)	2.50	0.00	Y	Arm 6 Ahead Arm 7 Right	Inf 12.71	0.0 % 0.0 %	1865	1865
5/1	3.33	0.00	Y				1948	1948
6/1	4.00	0.00	Y				2015	2015
7/1	3.40	0.00	Y				1955	1955
8/1	2.50	0.00	Y				1865	1865

Full Input Data And Results

Scenario 3: '2040 DM AM' (FG3: '2040 DM AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	503	530	0	1033
	B	252	0	88	0	340
	C	629	303	0	0	932
	D	0	0	0	0	0
	Tot.	881	806	618	0	2305

Traffic Lane Flows

Lane	Scenario 3: 2040 DM AM
Junction: Unnamed Junction	
1/1 (with short)	1033(In) 503(Out)
1/2 (short)	530
2/1 (short)	88
2/2 (with short)	340(In) 252(Out)
3/1 (with short)	932(In) 629(Out)
3/2 (short)	303
4/1	0
5/1	881
6/1	806
7/1	618
8/1	0

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A664 Rochdale Rd S)	3.33	0.00	Y	Arm 6 Left	13.70	100.0 %	1756	1756
1/2 (A664 Rochdale Rd S)	3.33	0.00	Y	Arm 7 Ahead	77.40	100.0 %	1911	1911
				Arm 8 Right	13.50	0.0 %		
2/1 (A6046 Hollin Ln)	2.96	0.00	Y	Arm 7 Left	11.52	100.0 %	1691	1691
2/2 (A6046 Hollin Ln)	2.96	0.00	Y	Arm 5 Right	36.10	100.0 %	1835	1835
				Arm 8 Ahead	Inf	0.0 %		
3/1 (A664 Rochdale Rd N)	3.05	0.00	Y	Arm 5 Ahead	42.90	100.0 %	1855	1855
				Arm 8 Left	4.00	0.0 %		
3/2 (A664 Rochdale Rd N)	3.07	0.00	Y	Arm 6 Right	14.83	100.0 %	1745	1745
4/1 (Access Road)	2.50	0.00	Y	Arm 5 Left	6.47	0.0 %	1865	1865
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Right	12.71	0.0 %		
5/1	3.33	0.00	Y				1948	1948
6/1	4.00	0.00	Y				2015	2015
7/1	3.40	0.00	Y				1955	1955
8/1	2.50	0.00	Y				1865	1865

Scenario 4: '2040 DM PM' (FG4: '2040 DM PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
Origin		A	B	C	D	Tot.
	A	0	171	537	0	708
	B	169	0	90	0	259
	C	915	269	0	0	1184
	D	0	0	0	0	0
	Tot.	1084	440	627	0	2151

Traffic Lane Flows

Lane	Scenario 4: 2040 DM PM
Junction: Unnamed Junction	
1/1 (with short)	708(In) 171(Out)
1/2 (short)	537
2/1 (short)	90
2/2 (with short)	259(In) 169(Out)
3/1 (with short)	1184(In) 915(Out)
3/2 (short)	269
4/1	0
5/1	1084
6/1	440
7/1	627
8/1	0

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A664 Rochdale Rd S)	3.33	0.00	Y	Arm 6 Left	13.70	100.0 %	1756	1756
1/2 (A664 Rochdale Rd S)	3.33	0.00	Y	Arm 7 Ahead Arm 8 Right	77.40 13.50	100.0 % 0.0 %	1911	1911
2/1 (A6046 Hollin Ln)	2.96	0.00	Y	Arm 7 Left	11.52	100.0 %	1691	1691
2/2 (A6046 Hollin Ln)	2.96	0.00	Y	Arm 5 Right Arm 8 Ahead	36.10 Inf	100.0 % 0.0 %	1835	1835
3/1 (A664 Rochdale Rd N)	3.05	0.00	Y	Arm 5 Ahead Arm 8 Left	42.90 4.00	100.0 % 0.0 %	1855	1855
3/2 (A664 Rochdale Rd N)	3.07	0.00	Y	Arm 6 Right Arm 5 Left	14.83 6.47	100.0 % 0.0 %	1745	1745
4/1 (Access Road)	2.50	0.00	Y	Arm 6 Ahead Arm 7 Right	Inf 12.71	0.0 % 0.0 %	1865	1865
5/1	3.33	0.00	Y				1948	1948
6/1	4.00	0.00	Y				2015	2015
7/1	3.40	0.00	Y				1955	1955
8/1	2.50	0.00	Y				1865	1865

Full Input Data And Results

Scenario 5: '2040 DS AM' (FG5: '2040 DS AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	503	556	0	1059
	B	252	0	94	0	346
	C	629	303	0	0	932
	D	0	0	0	0	0
	Tot.	881	806	650	0	2337

Traffic Lane Flows

Lane	Scenario 5: 2040 DS AM
Junction: Unnamed Junction	
1/1 (with short)	1059(In) 503(Out)
1/2 (short)	556
2/1 (short)	94
2/2 (with short)	346(In) 252(Out)
3/1 (with short)	932(In) 629(Out)
3/2 (short)	303
4/1	0
5/1	881
6/1	806
7/1	650
8/1	0

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A664 Rochdale Rd S)	3.33	0.00	Y	Arm 6 Left	13.70	100.0 %	1756	1756
1/2 (A664 Rochdale Rd S)	3.33	0.00	Y	Arm 7 Ahead	77.40	100.0 %	1911	1911
				Arm 8 Right	13.50	0.0 %		
2/1 (A6046 Hollin Ln)	2.96	0.00	Y	Arm 7 Left	11.52	100.0 %	1691	1691
2/2 (A6046 Hollin Ln)	2.96	0.00	Y	Arm 5 Right	36.10	100.0 %	1835	1835
				Arm 8 Ahead	Inf	0.0 %		
3/1 (A664 Rochdale Rd N)	3.05	0.00	Y	Arm 5 Ahead	42.90	100.0 %	1855	1855
				Arm 8 Left	4.00	0.0 %		
3/2 (A664 Rochdale Rd N)	3.07	0.00	Y	Arm 6 Right	14.83	100.0 %	1745	1745
4/1 (Access Road)	2.50	0.00	Y	Arm 5 Left	6.47	0.0 %	1865	1865
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Right	12.71	0.0 %		
5/1	3.33	0.00	Y				1948	1948
6/1	4.00	0.00	Y				2015	2015
7/1	3.40	0.00	Y				1955	1955
8/1	2.50	0.00	Y				1865	1865

Scenario 6: '2040 DS PM' (FG6: '2040 DS PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
Origin		A	B	C	D	Tot.
	A	0	171	592	0	763
	B	169	0	95	0	264
	C	915	269	0	0	1184
	D	0	0	0	0	0
	Tot.	1084	440	687	0	2211

Full Input Data And Results

Traffic Lane Flows

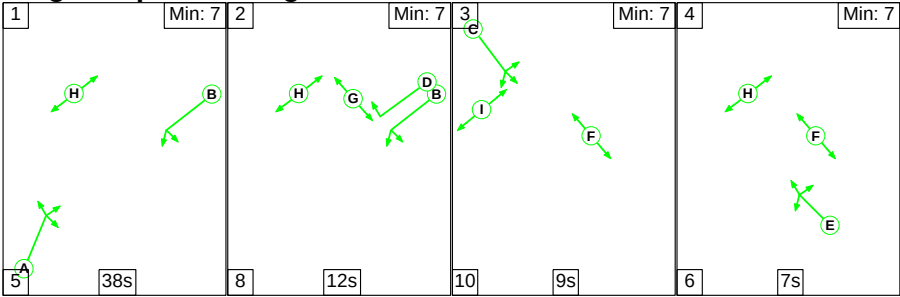
Lane	Scenario 6: 2040 DS PM
Junction: Unnamed Junction	
1/1 (with short)	763(In) 171(Out)
1/2 (short)	592
2/1 (short)	95
2/2 (with short)	264(In) 169(Out)
3/1 (with short)	1184(In) 915(Out)
3/2 (short)	269
4/1	0
5/1	1084
6/1	440
7/1	687
8/1	0

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A664 Rochdale Rd S)	3.33	0.00	Y	Arm 6 Left	13.70	100.0 %	1756	1756
1/2 (A664 Rochdale Rd S)	3.33	0.00	Y	Arm 7 Ahead Arm 8 Right	77.40 13.50	100.0 % 0.0 %	1911	1911
2/1 (A6046 Hollin Ln)	2.96	0.00	Y	Arm 7 Left	11.52	100.0 %	1691	1691
2/2 (A6046 Hollin Ln)	2.96	0.00	Y	Arm 5 Right Arm 8 Ahead	36.10 Inf	100.0 % 0.0 %	1835	1835
3/1 (A664 Rochdale Rd N)	3.05	0.00	Y	Arm 5 Ahead Arm 8 Left	42.90 4.00	100.0 % 0.0 %	1855	1855
3/2 (A664 Rochdale Rd N)	3.07	0.00	Y	Arm 6 Right Arm 5 Left	14.83 6.47	100.0 % 0.0 %	1745	1745
4/1 (Access Road)	2.50	0.00	Y	Arm 6 Ahead Arm 7 Right	Inf 12.71	0.0 % 0.0 %	1865	1865
5/1	3.33	0.00	Y				1948	1948
6/1	4.00	0.00	Y				2015	2015
7/1	3.40	0.00	Y				1955	1955
8/1	2.50	0.00	Y				1865	1865

Scenario 1: '2025 Base AM' (FG1: '2025 Ref AM', Plan 1: 'Network Control Plan 1')

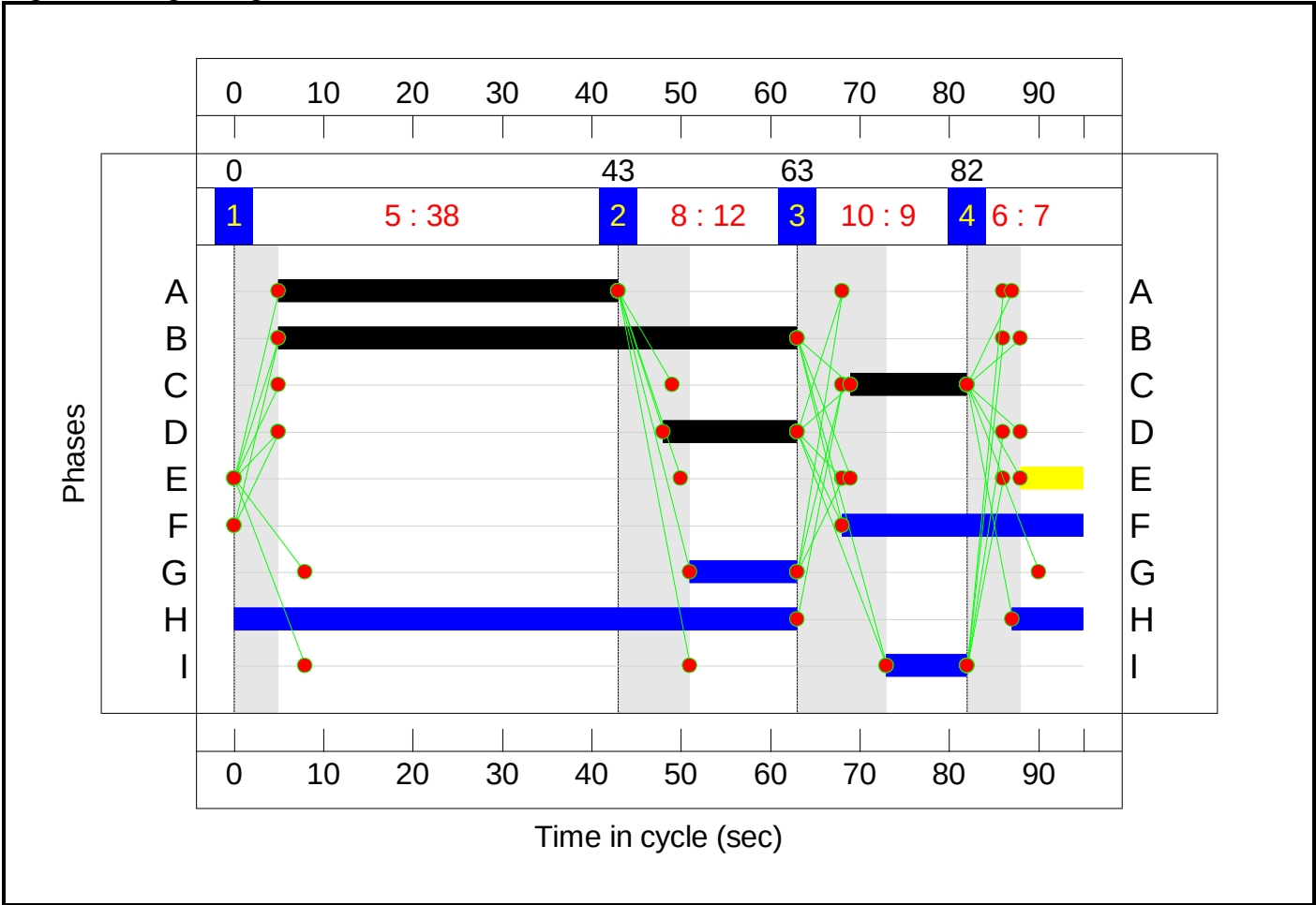
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	38	12	9	7
Change Point	0	43	63	82

Signal Timings Diagram



Full Input Data And Results

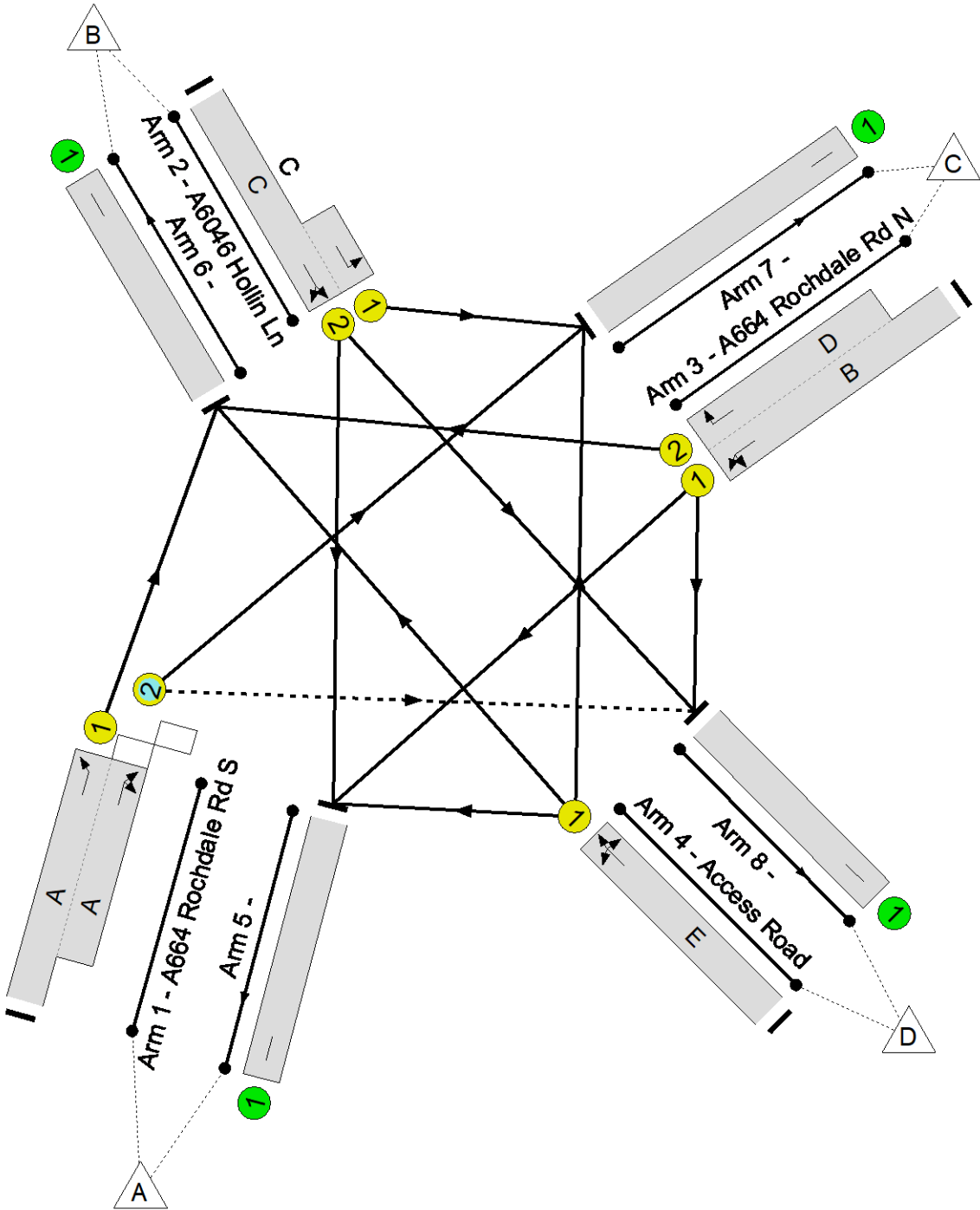
Network Layout Diagram



Unnamed Junction

PRC: 43.2 %

Total Traffic Delay: 11.3 pcuHr



Full Input Data And Results

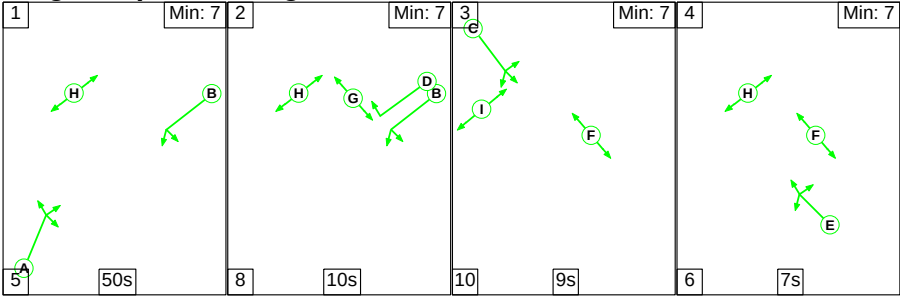
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A664 / A6046	-	-	N/A	-	-		-	-	-	-	-	-	62.9%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	62.9%
1/1+1/2	A664 Rochdale Rd S Left Ahead Right	U+O	N/A	N/A	A		1	38	-	616	1756:1911	237+743	62.9 : 62.9%
2/2+2/1	A6046 Hollin Ln Right Left Ahead	U	N/A	N/A	C		1	13	-	196	1835:1691	227+91	61.7 : 61.7%
3/1+3/2	A664 Rochdale Rd N Ahead Right Left	U	N/A	N/A	B D		1	58:15	-	664	1855:1745	986+294	49.3 : 60.6%
4/1	Access Road Left Ahead Right	U	N/A	N/A	E		1	7	-	0	1865	157	0.0%
5/1		U	N/A	N/A	-		-	-	-	626	1948	1948	32.1%
6/1		U	N/A	N/A	-		-	-	-	327	2015	2015	16.2%
7/1		U	N/A	N/A	-		-	-	-	523	1955	1955	26.8%
8/1		U	N/A	N/A	-		-	-	-	0	1865	1865	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: A664 / A6046	-	-	0	0	0	8.6	2.7	0.0	11.3	-	-	-	-
Unnamed Junction	-	-	0	0	0	8.6	2.7	0.0	11.3	-	-	-	-
1/1+1/2	616	616	0	0	0	3.6	0.8	0.0	4.4	25.8	9.6	0.8	10.4
2/2+2/1	196	196	-	-	-	2.0	0.8	-	2.8	51.5	3.5	0.8	4.3
3/1+3/2	664	664	-	-	-	3.1	0.5	-	3.6	19.5	6.5	0.5	7.0
4/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	626	626	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
6/1	327	327	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
7/1	523	523	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 43.2 Total Delay for Signalled Lanes (pcuHr): 10.82 Cycle Time (s): 95 PRC Over All Lanes (%): 43.2 Total Delay Over All Lanes(pcuHr): 11.34													

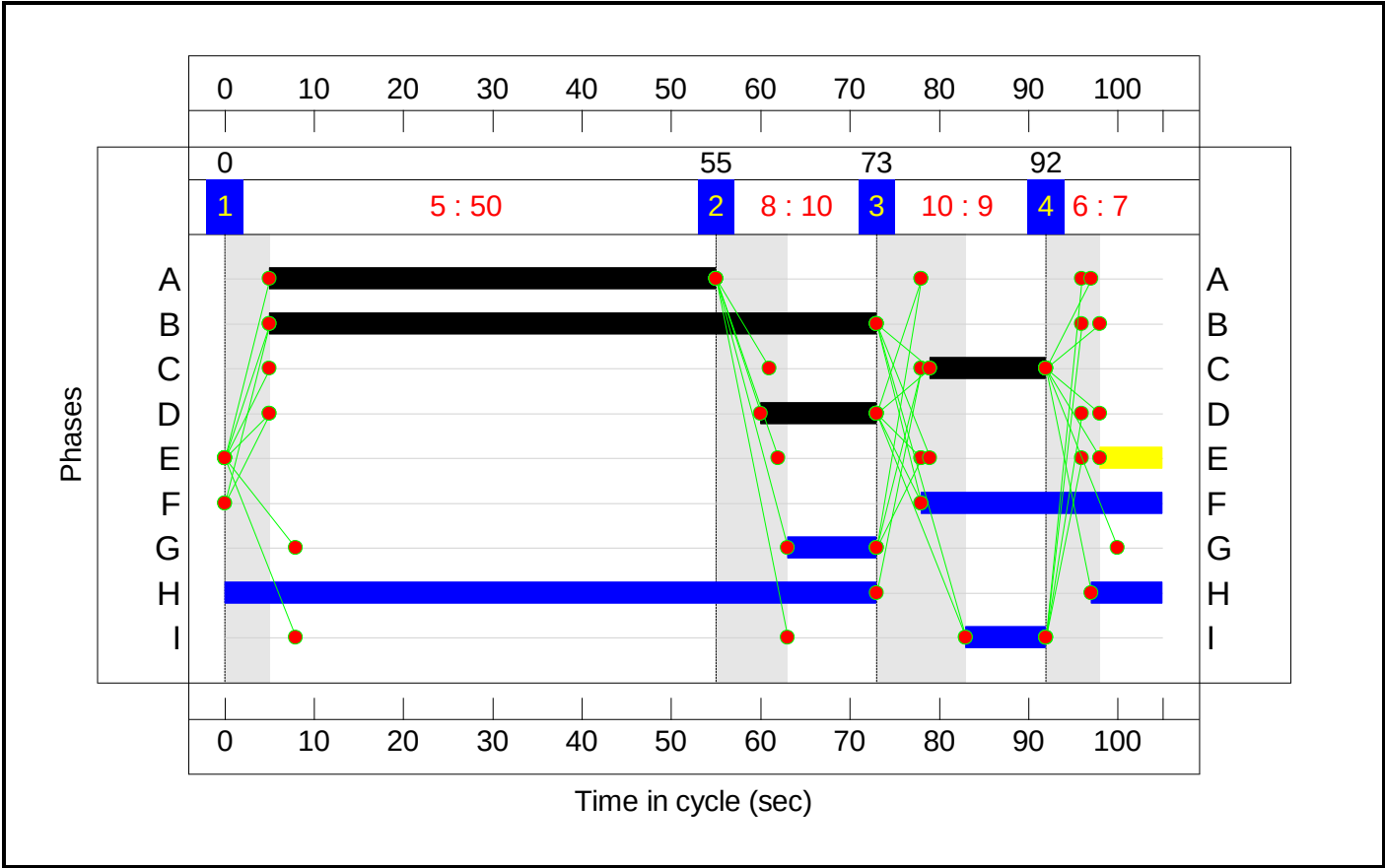
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	50	10	9	7
Change Point	0	55	73	92

Signal Timings Diagram



Full Input Data And Results

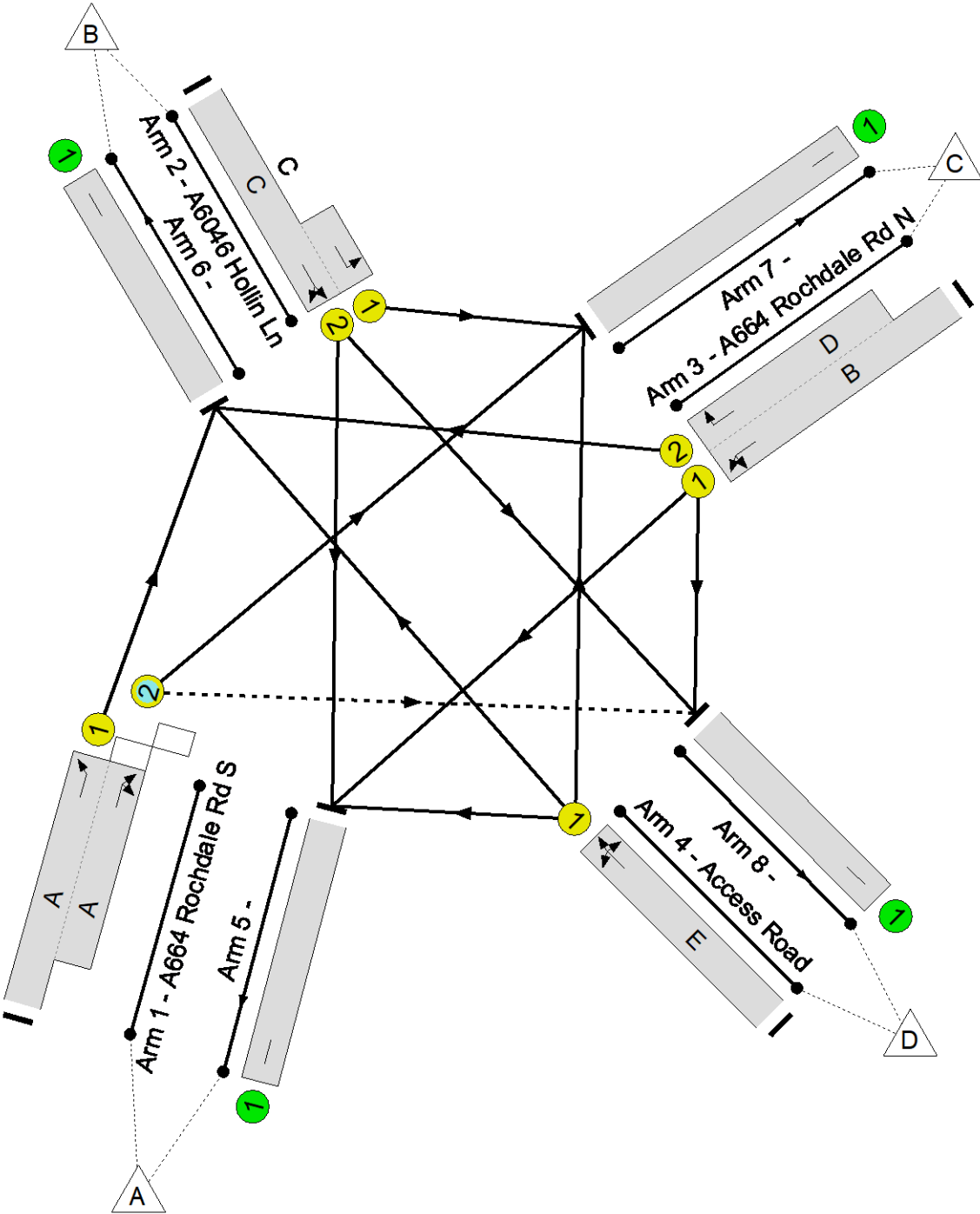
Network Layout Diagram



Unnamed Junction

PRC: 35.3 %

Total Traffic Delay: 13.1 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A664 / A6046	-	-	N/A	-	-		-	-	-	-	-	-	66.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	66.5%
1/1+1/2	A664 Rochdale Rd S Left Ahead Right	U+O	N/A	N/A	A		1	50	-	696	1756:1911	183+863	66.5 : 66.5%
2/2+2/1	A6046 Hollin Ln Right Left Ahead	U	N/A	N/A	C		1	13	-	165	1835:1691	240+11	65.9 : 65.9%
3/1+3/2	A664 Rochdale Rd N Ahead Right Left	U	N/A	N/A	B D		1	68:13	-	877	1855:1745	1095+228	66.3 : 66.3%
4/1	Access Road Left Ahead Right	U	N/A	N/A	E		1	7	-	0	1865	142	0.0%
5/1		U	N/A	N/A	-		-	-	-	884	1948	1948	45.4%
6/1		U	N/A	N/A	-		-	-	-	273	2015	2015	13.5%
7/1		U	N/A	N/A	-		-	-	-	581	1955	1955	29.7%
8/1		U	N/A	N/A	-		-	-	-	0	1865	1865	0.0%

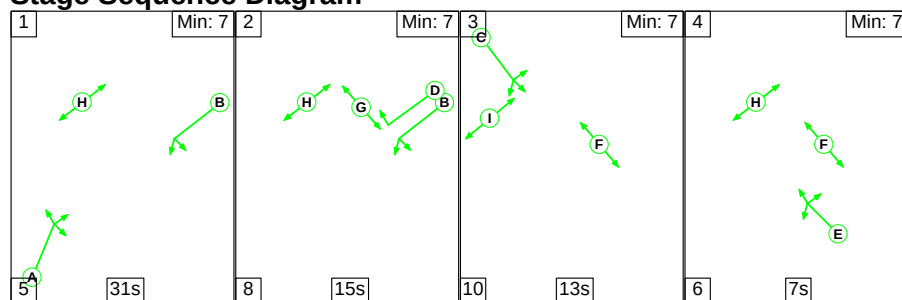
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 3: '2040 DM AM' (FG3: '2040 DM AM', Plan 1: 'Network Control Plan 1')

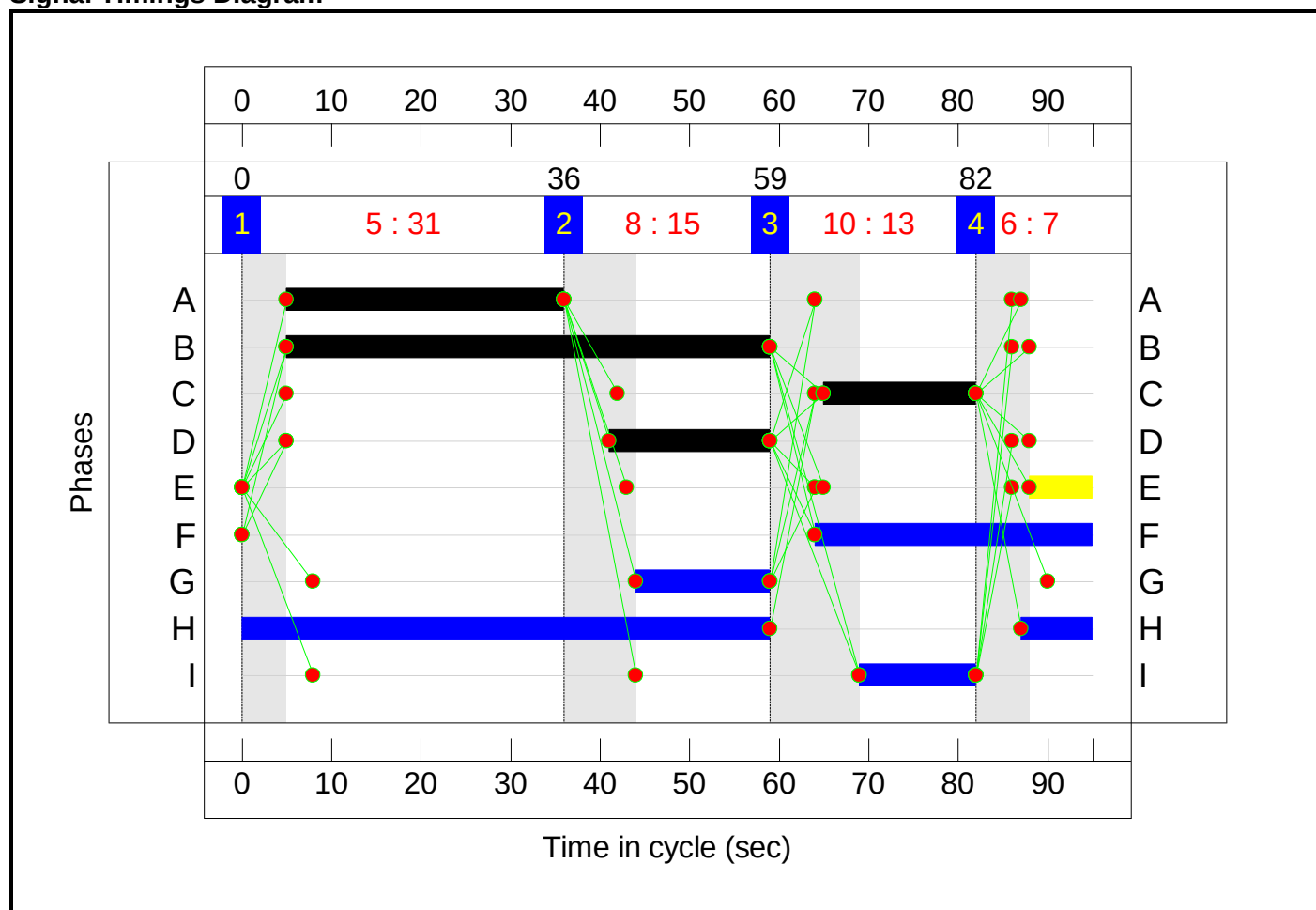
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	31	15	13	7
Change Point	0	36	59	82

Signal Timings Diagram



Full Input Data And Results

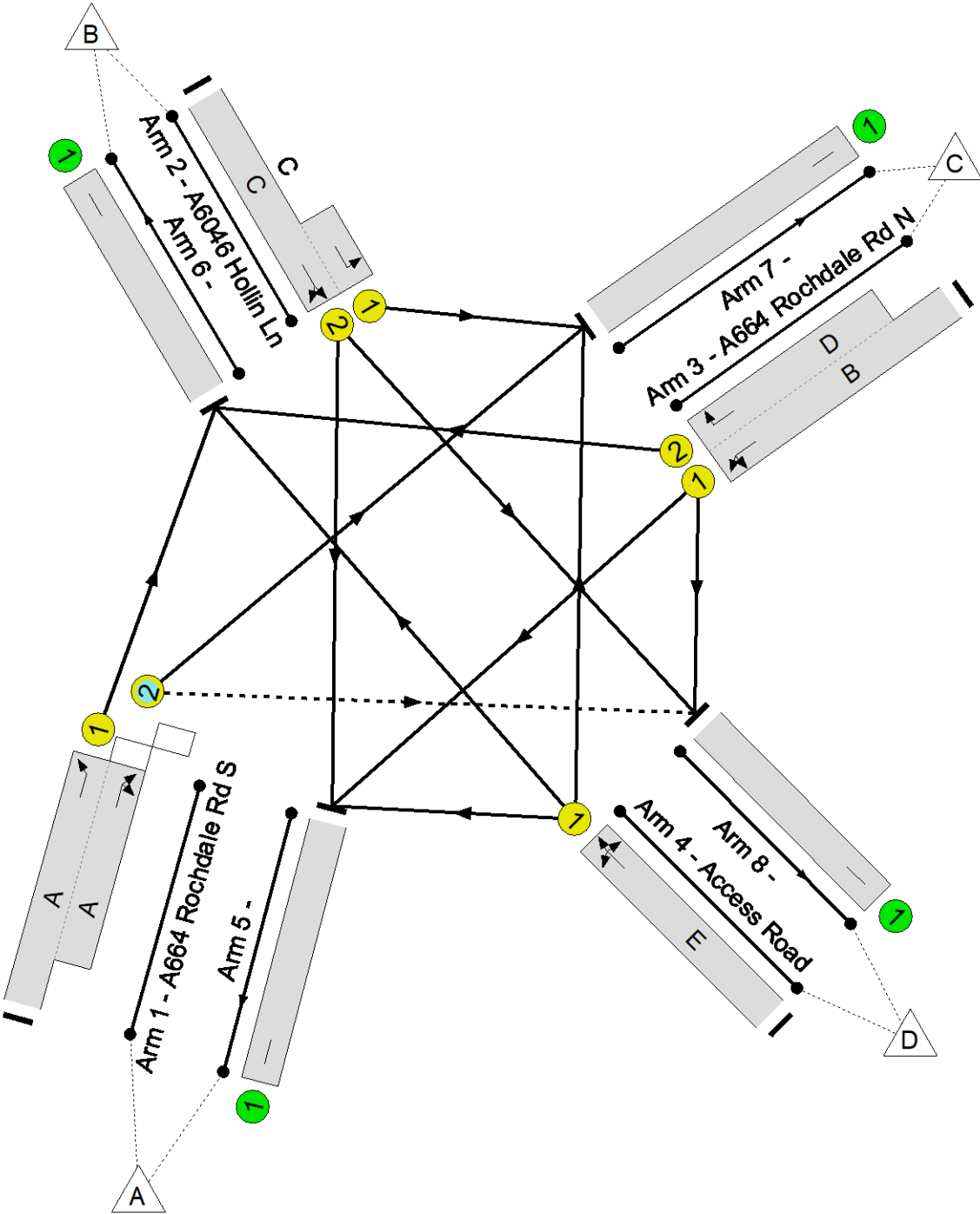
Network Layout Diagram



Unnamed Junction

PRC: 2.6 %

Total Traffic Delay: 25.7 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A664 / A6046	-	-	N/A	-	-		-	-	-	-	-	-	87.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	87.7%
1/1+1/2	A664 Rochdale Rd S Left Ahead Right	U+O	N/A	N/A	A		1	31	-	1033	1756:1911	588+620	85.5 : 85.5%
2/2+2/1	A6046 Hollin Ln Right Left Ahead	U	N/A	N/A	C		1	17	-	340	1835:1691	287+100	87.7 : 87.7%
3/1+3/2	A664 Rochdale Rd N Ahead Right Left	U	N/A	N/A	B D		1	54:18	-	932	1855:1745	872+349	72.1 : 86.8%
4/1	Access Road Left Ahead Right	U	N/A	N/A	E		1	7	-	0	1865	157	0.0%
5/1		U	N/A	N/A	-		-	-	-	881	1948	1948	45.2%
6/1		U	N/A	N/A	-		-	-	-	806	2015	2015	40.0%
7/1		U	N/A	N/A	-		-	-	-	618	1955	1955	31.6%
8/1		U	N/A	N/A	-		-	-	-	0	1865	1865	0.0%

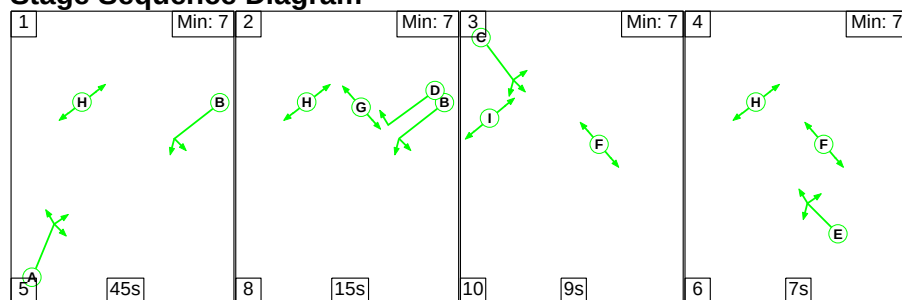
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 4: '2040 DM PM' (FG4: '2040 DM PM', Plan 1: 'Network Control Plan 1')

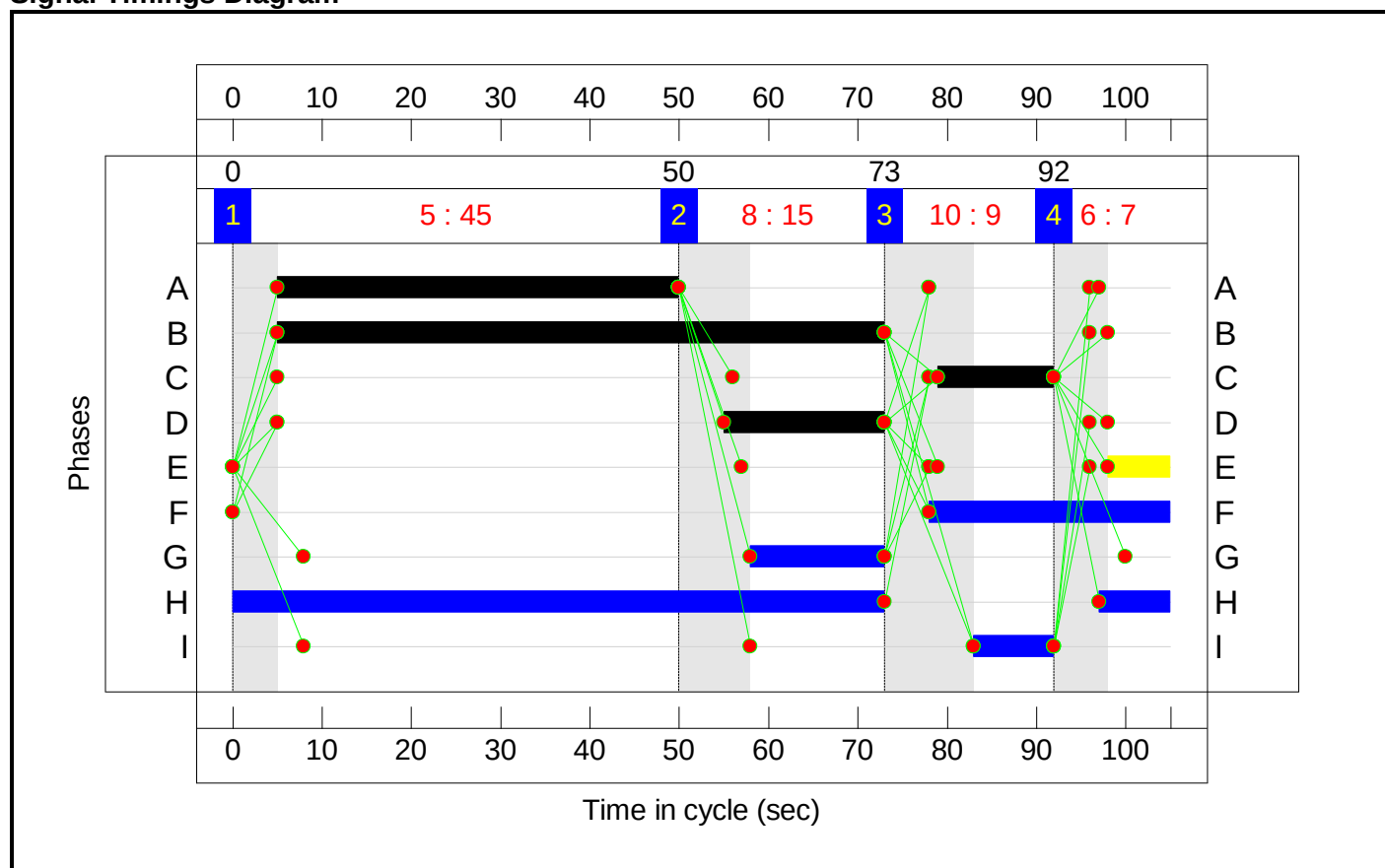
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	45	15	9	7
Change Point	0	50	73	92

Signal Timings Diagram



Full Input Data And Results

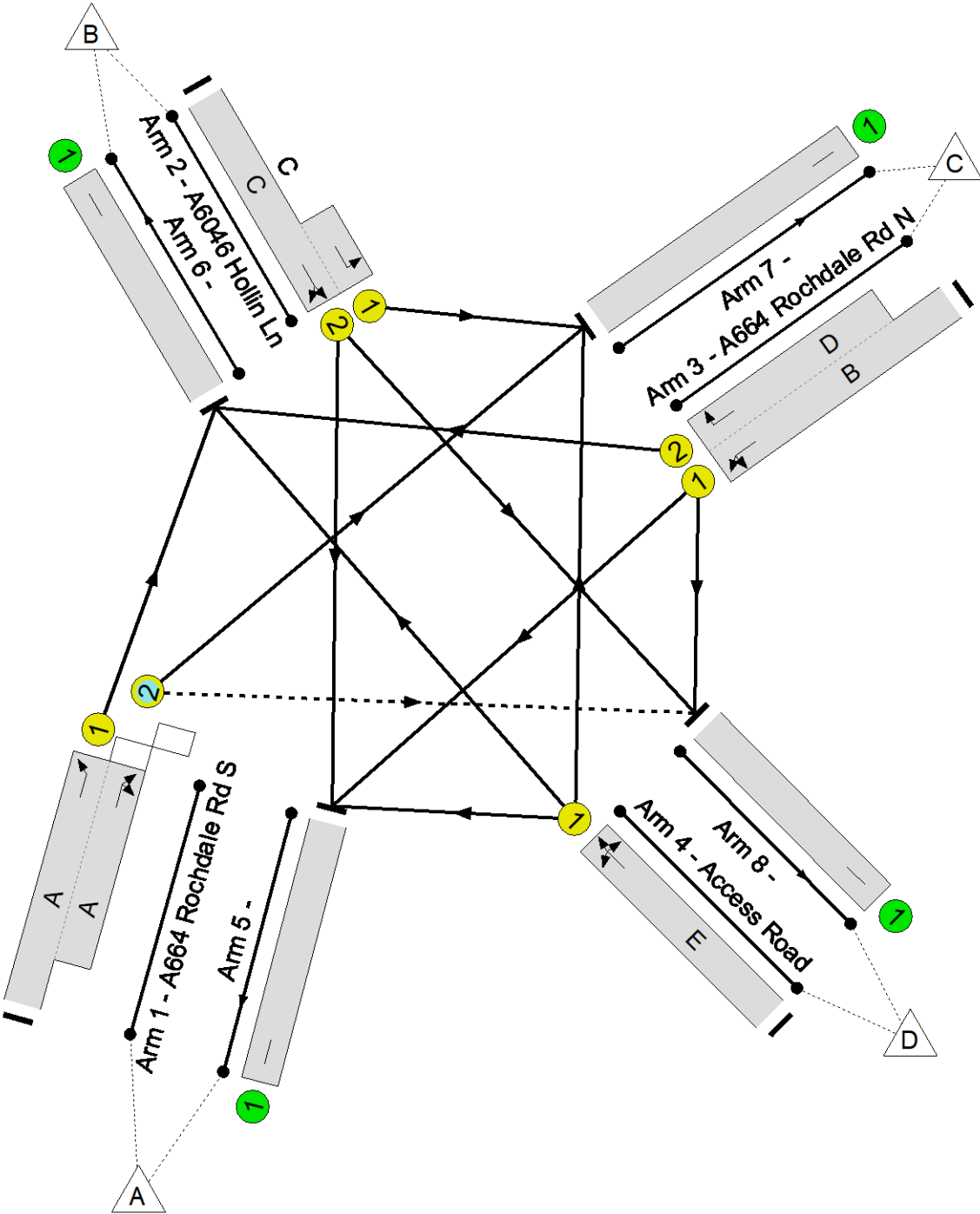
Network Layout Diagram



Unnamed Junction

PRC: 3.4 %

Total Traffic Delay: 21.8 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A664 / A6046	-	-	N/A	-	-		-	-	-	-	-	-	87.0%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	87.0%
1/1+1/2	A664 Rochdale Rd S Left Ahead Right	U+O	N/A	N/A	A		1	45	-	708	1756:1911	244+767	70.0 : 70.0%
2/2+2/1	A6046 Hollin Ln Right Left Ahead	U	N/A	N/A	C		1	13	-	259	1835:1691	197+105	85.9 : 85.9%
3/1+3/2	A664 Rochdale Rd N Ahead Right Left	U	N/A	N/A	B D		1	68:18	-	1184	1855:1745	1051+309	87.0 : 87.0%
4/1	Access Road Left Ahead Right	U	N/A	N/A	E		1	7	-	0	1865	142	0.0%
5/1		U	N/A	N/A	-		-	-	-	1084	1948	1948	55.6%
6/1		U	N/A	N/A	-		-	-	-	440	2015	2015	21.8%
7/1		U	N/A	N/A	-		-	-	-	627	1955	1955	32.1%
8/1		U	N/A	N/A	-		-	-	-	0	1865	1865	0.0%

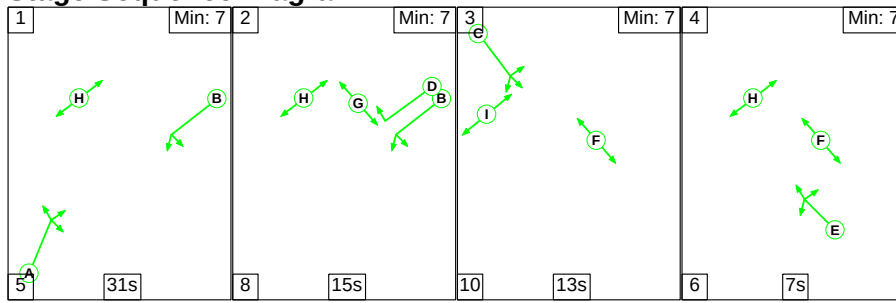
Full Input Data And Results

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: A664 / A6046	-	-	0	0	0	13.7	8.1	0.0	21.8	-	-	-	-
Unnamed Junction	-	-	0	0	0	13.7	8.1	0.0	21.8	-	-	-	-
1/1+1/2	708	708	0	0	0	4.3	1.2	0.0	5.5	27.8	12.2	1.2	13.4
2/2+2/1	259	259	-	-	-	3.1	2.7	-	5.8	80.9	5.6	2.7	8.3
3/1+3/2	1184	1184	-	-	-	6.2	3.2	-	9.5	28.8	21.2	3.2	24.4
4/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1084	1084	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
6/1	440	440	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
7/1	627	627	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 3.4 Total Delay for Signalled Lanes (pcuHr): 20.77 Cycle Time (s): 105 PRC Over All Lanes (%): 3.4 Total Delay Over All Lanes(pcuHr): 21.77													

Full Input Data And Results

Scenario 5: '2040 DS AM' (FG5: '2040 DS AM', Plan 1: 'Network Control Plan 1')

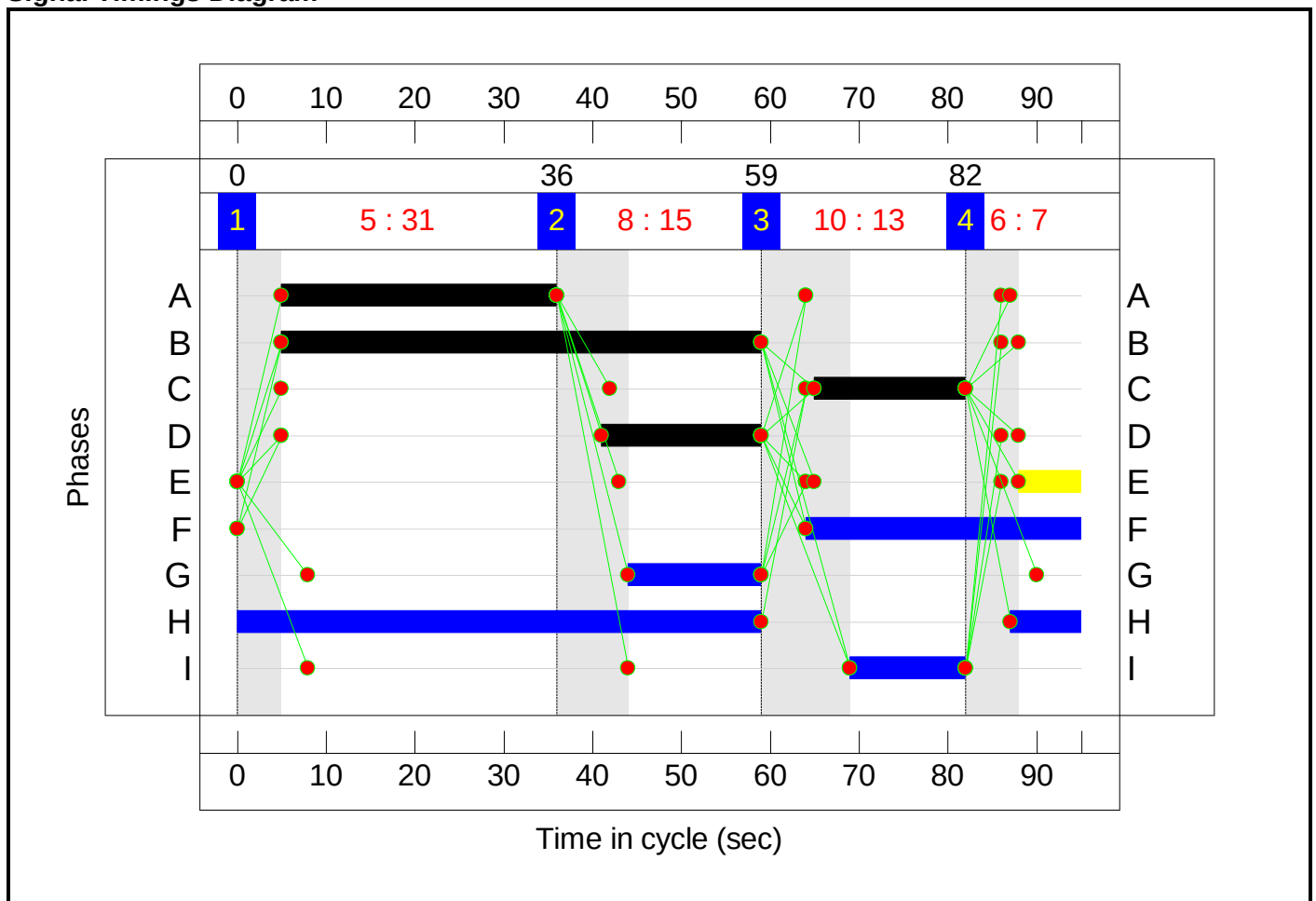
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	31	15	13	7
Change Point	0	36	59	82

Signal Timings Diagram



Full Input Data And Results

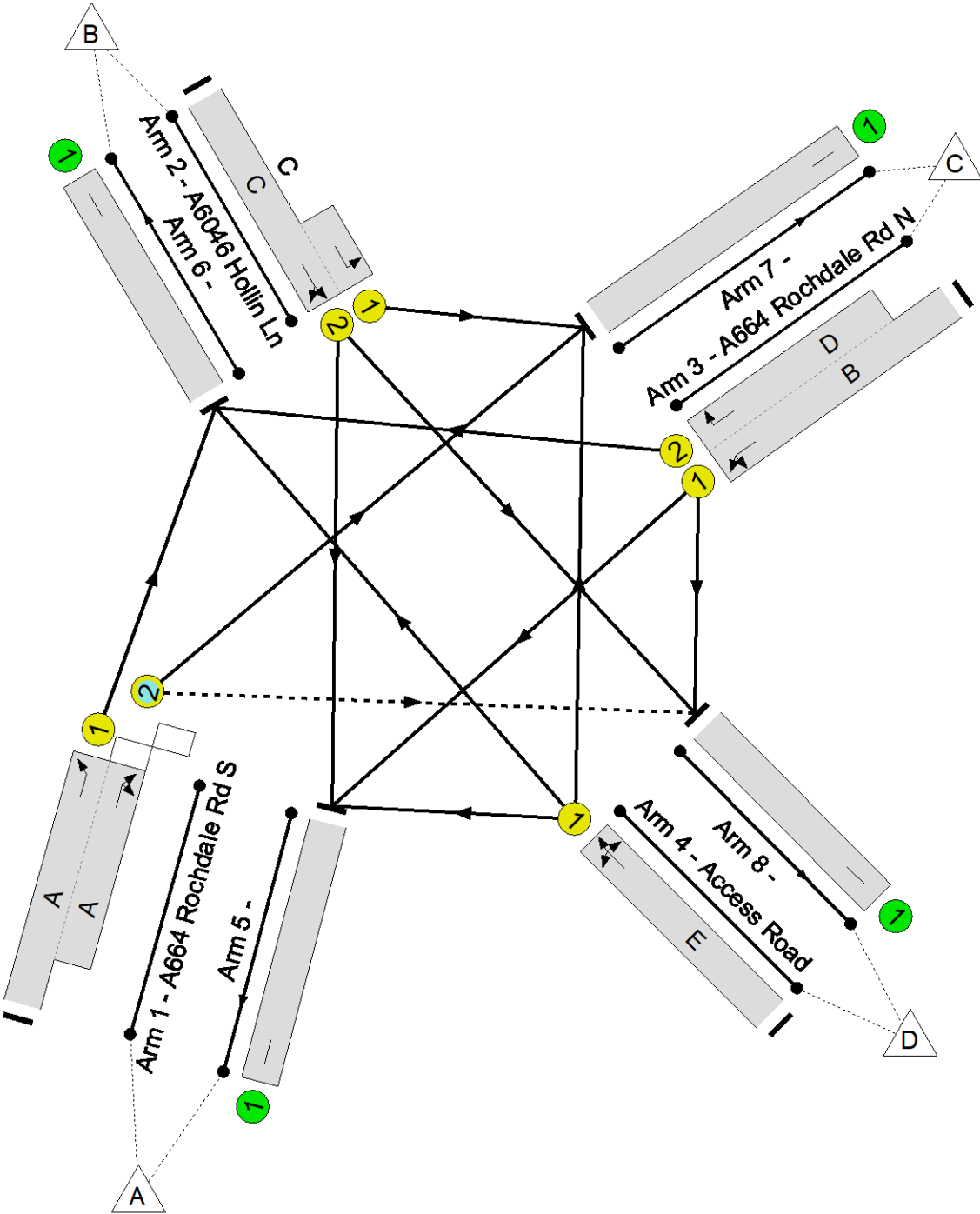
Network Layout Diagram



Unnamed Junction

PRC: 0.6 %

Total Traffic Delay: 27.4 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A664 / A6046	-	-	N/A	-	-		-	-	-	-	-	-	89.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	89.5%
1/1+1/2	A664 Rochdale Rd S Left Ahead Right	U+O	N/A	N/A	A		1	31	-	1059	1756:1911	562+622	89.5 : 89.5%
2/2+2/1	A6046 Hollin Ln Right Left Ahead	U	N/A	N/A	C		1	17	-	346	1835:1691	284+106	88.7 : 88.7%
3/1+3/2	A664 Rochdale Rd N Ahead Right Left	U	N/A	N/A	B D		1	54:18	-	932	1855:1745	872+349	72.1 : 86.8%
4/1	Access Road Left Ahead Right	U	N/A	N/A	E		1	7	-	0	1865	157	0.0%
5/1		U	N/A	N/A	-		-	-	-	881	1948	1948	45.2%
6/1		U	N/A	N/A	-		-	-	-	806	2015	2015	40.0%
7/1		U	N/A	N/A	-		-	-	-	650	1955	1955	33.2%
8/1		U	N/A	N/A	-		-	-	-	0	1865	1865	0.0%

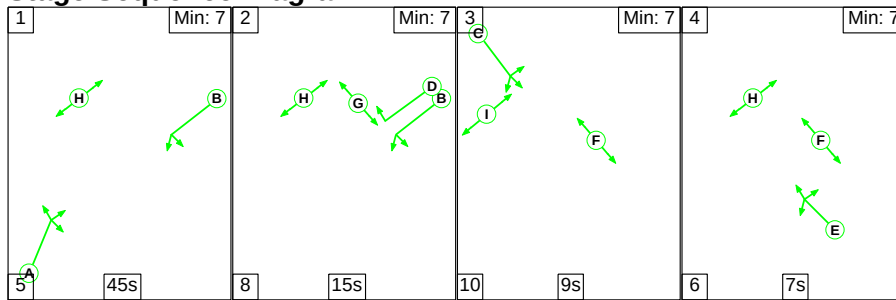
Full Input Data And Results

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: A664 / A6046	-	-	0	0	0	17.5	10.0	0.0	27.4	-	-	-	-
Unnamed Junction	-	-	0	0	0	17.5	10.0	0.0	27.4	-	-	-	-
1/1+1/2	1059	1059	0	0	0	8.6	4.0	0.0	12.6	42.9	13.6	4.0	17.6
2/2+2/1	346	346	-	-	-	3.5	3.4	-	6.9	71.8	7.6	3.4	11.0
3/1+3/2	932	932	-	-	-	5.3	1.6	-	6.9	26.7	10.5	1.6	12.1
4/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	881	881	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
6/1	806	806	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
7/1	650	650	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 0.6 Total Delay for Signalled Lanes (pcuHr): 26.44 Cycle Time (s): 95 PRC Over All Lanes (%): 0.6 Total Delay Over All Lanes(pcuHr): 27.44													

Full Input Data And Results

Scenario 6: '2040 DS PM' (FG6: '2040 DS PM', Plan 1: 'Network Control Plan 1')

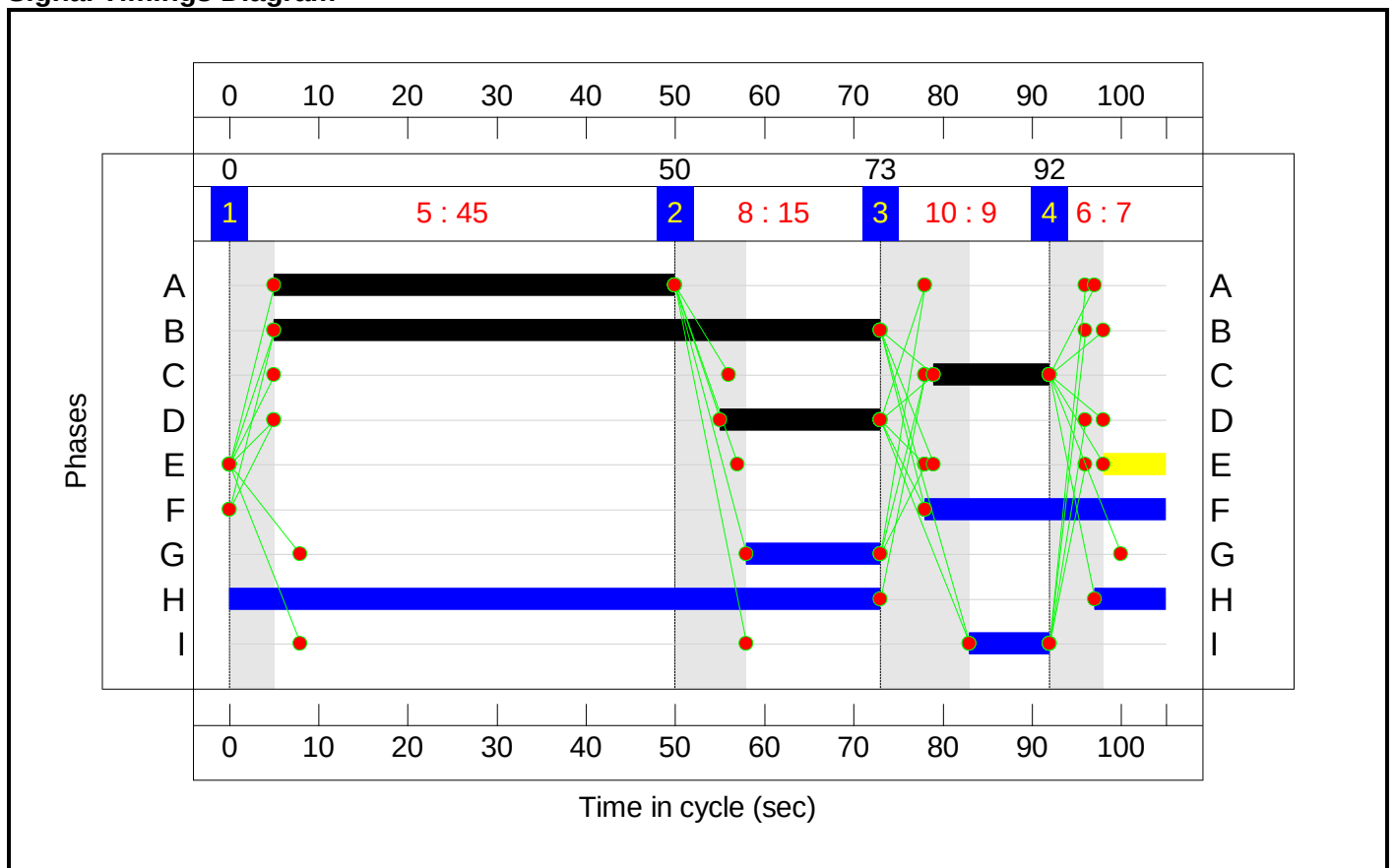
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	45	15	9	7
Change Point	0	50	73	92

Signal Timings Diagram



Full Input Data And Results

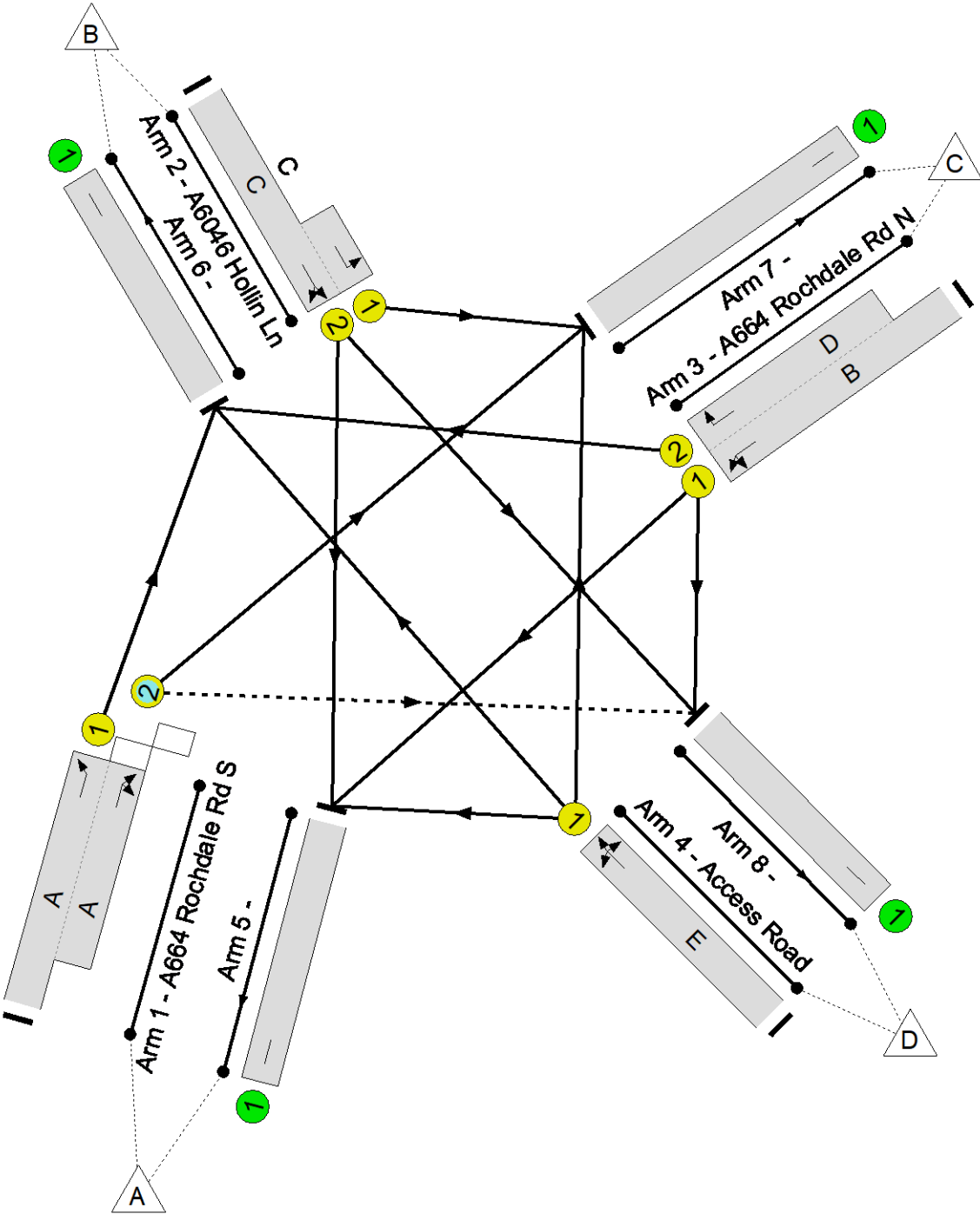
Network Layout Diagram



Unnamed Junction

PRC: 3.4 %

Total Traffic Delay: 23.0 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A664 / A6046	-	-	N/A	-	-		-	-	-	-	-	-	87.0%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	87.0%
1/1+1/2	A664 Rochdale Rd S Left Ahead Right	U+O	N/A	N/A	A		1	45	-	763	1756:1911	223+773	76.6 : 76.6%
2/2+2/1	A6046 Hollin Ln Right Left Ahead	U	N/A	N/A	C		1	13	-	264	1835:1691	195+110	86.6 : 86.6%
3/1+3/2	A664 Rochdale Rd N Ahead Right Left	U	N/A	N/A	B D		1	68:18	-	1184	1855:1745	1051+309	87.0 : 87.0%
4/1	Access Road Left Ahead Right	U	N/A	N/A	E		1	7	-	0	1865	142	0.0%
5/1		U	N/A	N/A	-		-	-	-	1084	1948	1948	55.6%
6/1		U	N/A	N/A	-		-	-	-	440	2015	2015	21.8%
7/1		U	N/A	N/A	-		-	-	-	687	1955	1955	35.1%
8/1		U	N/A	N/A	-		-	-	-	0	1865	1865	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: A664 / A6046	-	-	0	0	0	14.3	8.7	0.0	23.0	-	-	-	-
Unnamed Junction	-	-	0	0	0	14.3	8.7	0.0	23.0	-	-	-	-
1/1+1/2	763	763	0	0	0	4.8	1.6	0.0	6.4	30.4	14.0	1.6	15.6
2/2+2/1	264	264	-	-	-	3.2	2.8	-	6.0	82.2	5.7	2.8	8.5
3/1+3/2	1184	1184	-	-	-	6.2	3.2	-	9.5	28.8	21.2	3.2	24.4
4/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1084	1084	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
6/1	440	440	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
7/1	687	687	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 3.4 Total Delay for Signalled Lanes (pcuHr): 21.95 Cycle Time (s): 105 PRC Over All Lanes (%): 3.4 Total Delay Over All Lanes(pcuHr): 22.98													

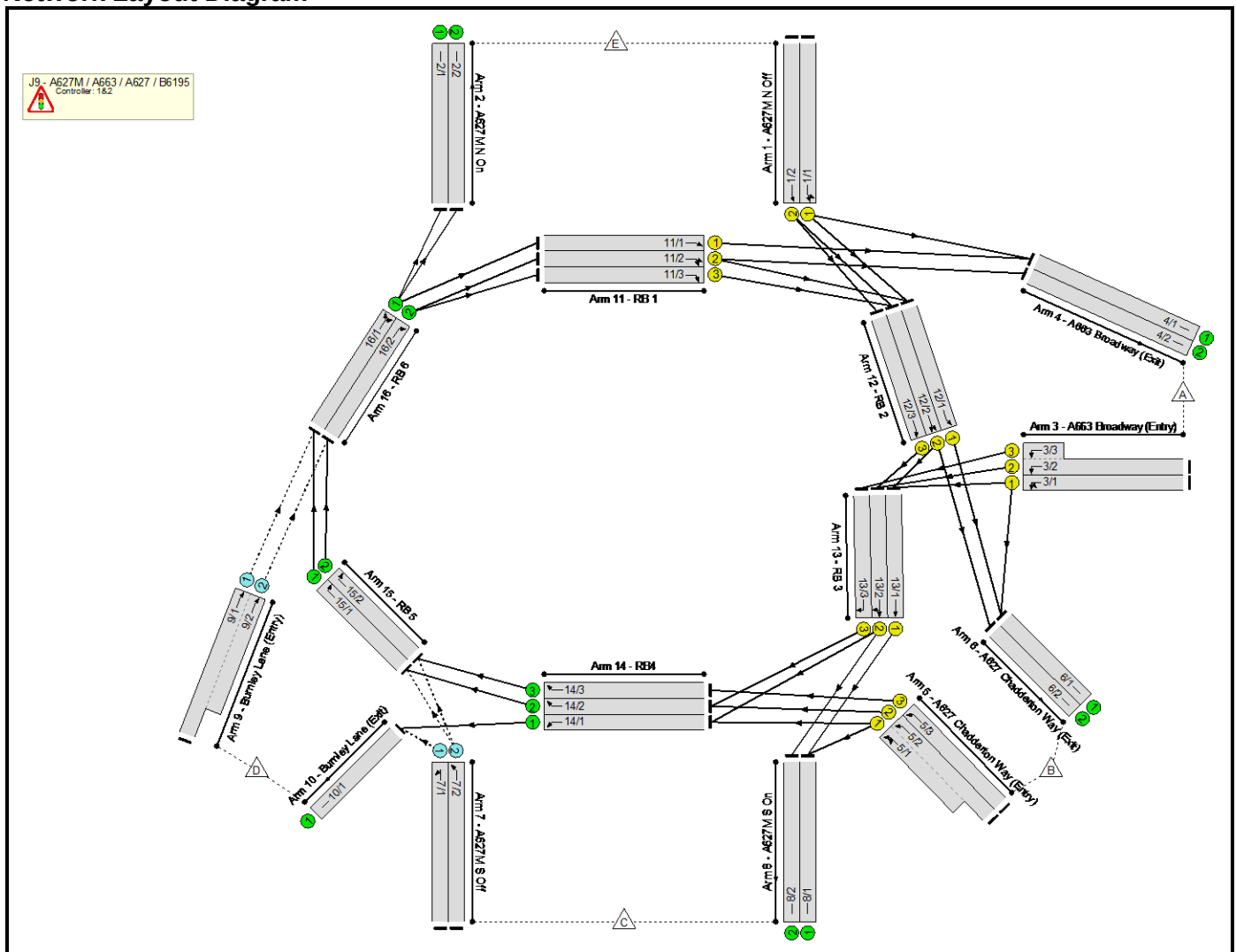
Full Input Data And Results

Full Input Data And Results

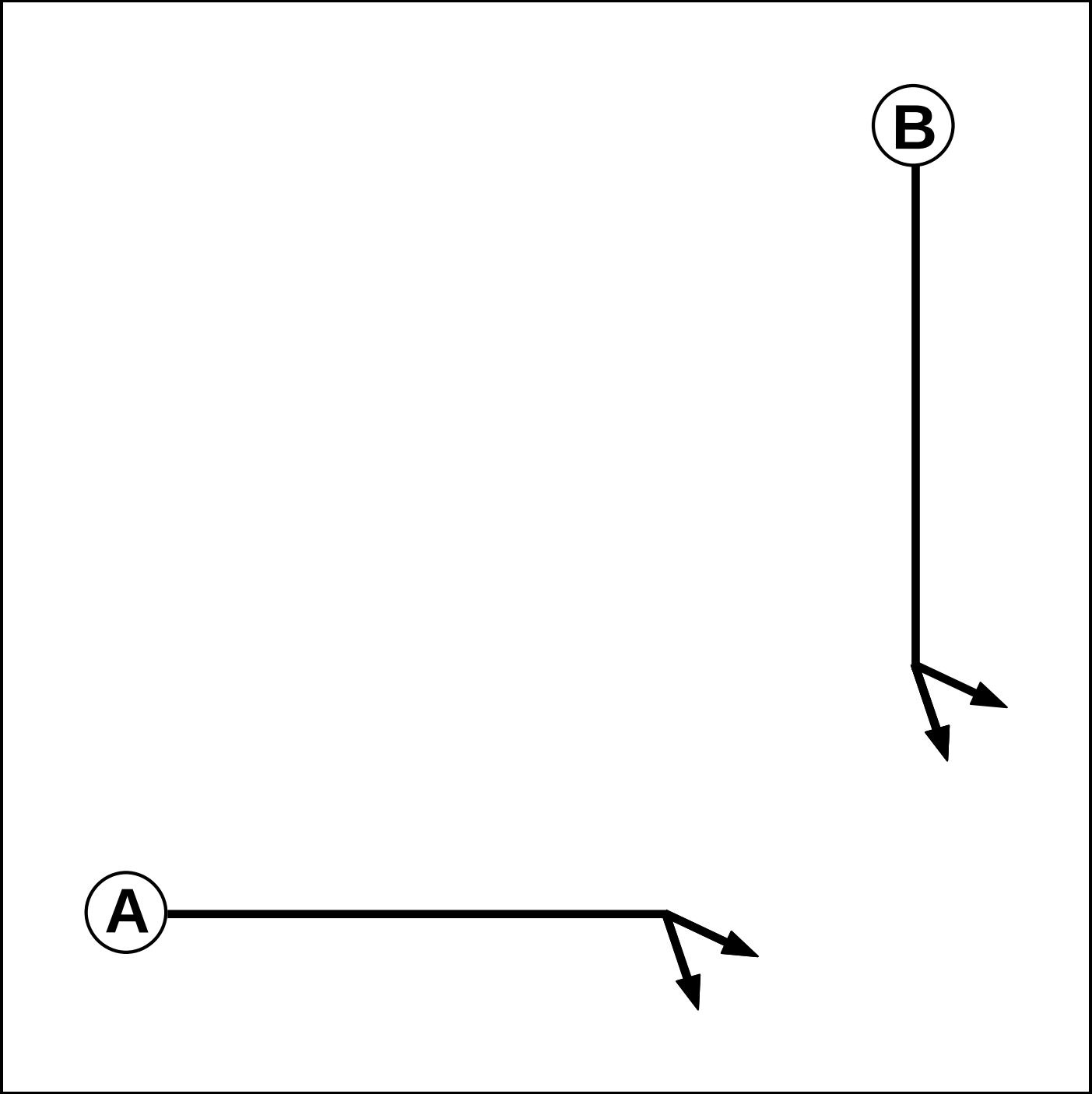
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	09 A627(M) _ Broadway.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

Full Input Data And Results

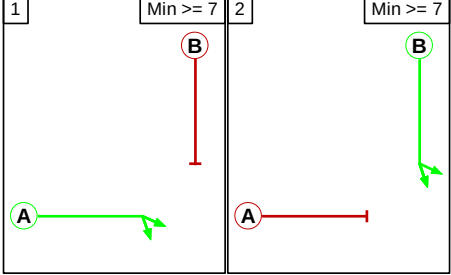
Phase Intergreens Matrix

Terminating Phase	Starting Phase		
		A	B
	A		7
	B	5	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B

Stage Diagram



Phase Delays

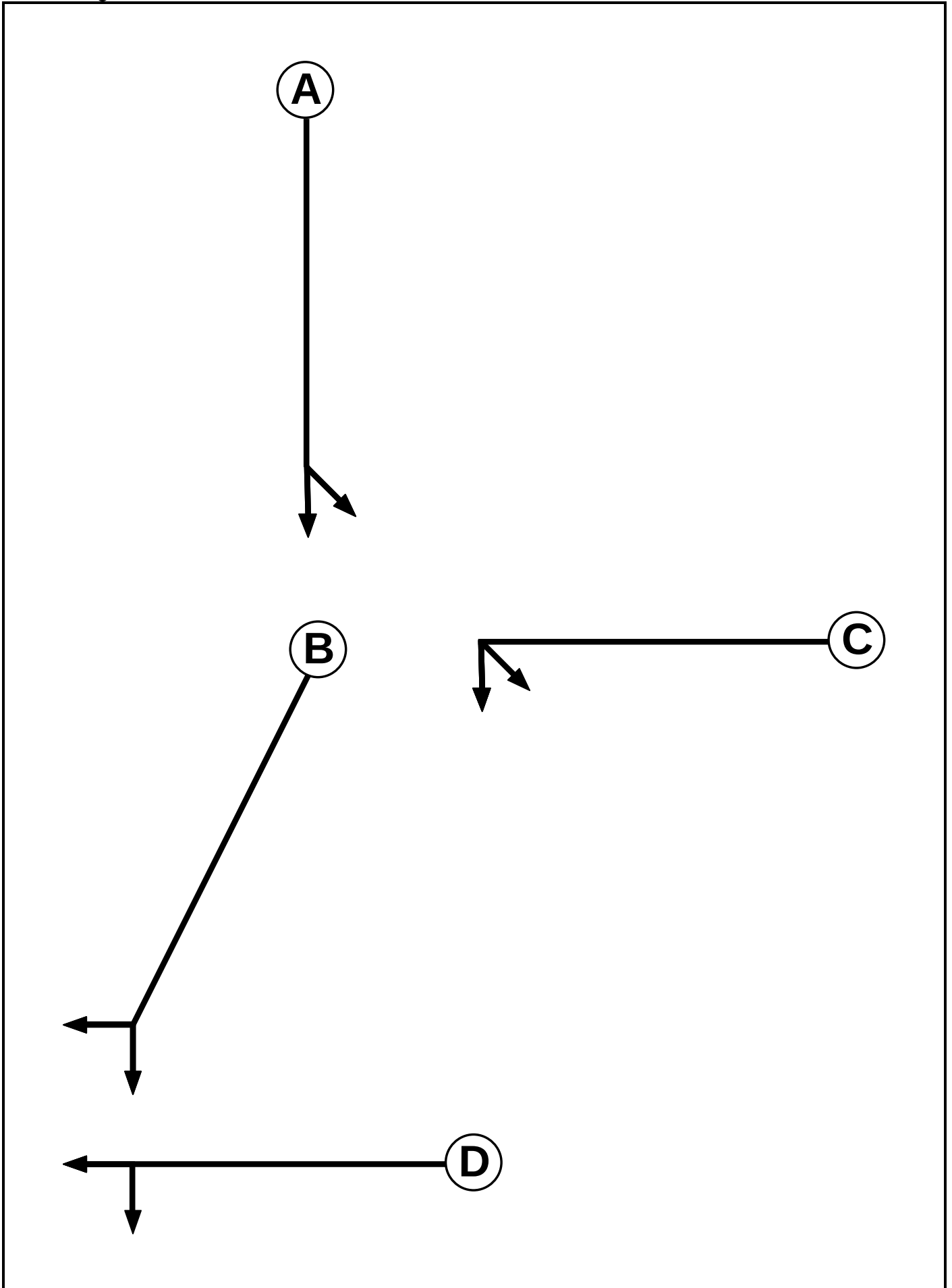
Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage	
	1	2
	1	7
	2	5

C2

Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	2		7	7
C	Traffic	1		7	7
D	Traffic	2		7	7

Phase Intergreens Matrix

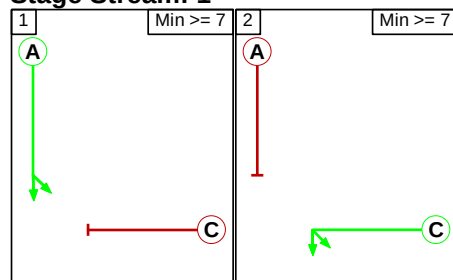
		Starting Phase				
Terminating Phase		A	B	C	D	
	A		-	7	-	
	B	-		-	7	
	C	5	-		-	
	D	-	7	-		

Phases in Stage

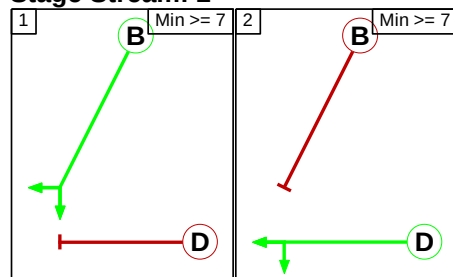
Stream	Stage No.	Phases in Stage
1	1	A
1	2	C
2	1	B
2	2	D

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

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

Full Input Data And Results

Stage Stream: 2

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

Prohibited Stage Change

Stage Stream: 1

	To Stage		
From Stage		1	2
	1		7
	2	5	

Stage Stream: 2

	To Stage		
From Stage		1	2
	1		7
	2	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: J9 - A627M / A663 / A627 / B6195											
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)
7/1 (A627M S Off)	10/1 (Left)	1439	0	14/1	0.33	All	-	-	-	-	-
7/2 (A627M S Off)	15/1 (Left)	1439	0	14/1	0.33	All	-	-	-	-	-
				14/2	0.33	All					
	15/2 (Left)	1439	0	14/1	0.33	All					
				14/2	0.33	All					
				14/3	0.33	All					
9/1 (Burnley Lane (Entry))	16/1 (Ahead)	1439	0	15/1	0.33	All	-	-	-	-	-
9/2 (Burnley Lane (Entry))	16/2 (Ahead)	1439	0	15/1	0.33	All	-	-	-	-	-
				15/2	0.33	All					

Lane Input Data

Junction: J9 - A627M / A663 / A627 / B6195												
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 (A627M N Off)	U	B	2	3	60.0	Geom	-	3.26	0.00	Y	Arm 4 Left	Inf
											Arm 12 Ahead	84.63
1/2 (A627M N Off)	U	B	2	3	60.0	Geom	-	3.26	0.00	Y	Arm 12 Ahead	73.66
2/1 (A627M N On)	U		2	3	60.0	Inf	-	-	-	-	-	-
2/2 (A627M N On)	U		2	3	60.0	Inf	-	-	-	-	-	-
3/1 (A663 Broadway Entry))	U	C	2	3	60.0	Geom	-	4.03	0.00	Y	Arm 6 U-Turn	41.07
											Arm 13 Left	68.41
3/2 (A663 Broadway Entry))	U	C	2	3	60.0	Geom	-	4.03	0.00	Y	Arm 13 Left	79.09
3/3 (A663 Broadway Entry))	U	C	2	3	3.8	Geom	-	4.03	0.00	Y	Arm 13 Left	80.05
4/1 (A663 Broadway Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2 (A663 Broadway Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (A627 Chadderton Way Entry))	U	D	2	3	23.8	Geom	-	3.85	0.00	Y	Arm 8 U-Turn	56.00
											Arm 14 Left	Inf
5/2 (A627 Chadderton Way Entry))	U	D	2	3	60.0	Geom	-	3.85	0.00	Y	Arm 14 Left	Inf
5/3 (A627 Chadderton Way Entry))	U	D	2	3	60.0	Geom	-	3.85	0.00	Y	Arm 14 Left	Inf
6/1 (A627 Chadderton Way Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2 (A627 Chadderton Way Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

7/1 (A627M S Off)	O		2	3	60.0	Geom	-	3.52	0.00	Y	Arm 10 Left	25.32
7/2 (A627M S Off)	O		2	3	60.0	Geom	-	3.52	0.00	Y	Arm 15 Left	38.38
8/1 (A627M S On)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/2 (A627M S On)	U		2	3	60.0	Inf	-	-	-	-	-	-
9/1 (Burnley Lane Entry))	O		2	3	60.0	Geom	-	3.61	0.00	Y	Arm 16 Ahead	Inf
9/2 (Burnley Lane Entry))	O		2	3	21.9	Geom	-	3.60	0.00	Y	Arm 16 Ahead	Inf
10/1 (Burnley Lane Exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
11/1 (RB 1)	U	A	2	3	19.0	Geom	-	3.26	0.00	Y	Arm 4 Ahead	63.41
11/2 (RB 1)	U	A	2	3	18.7	Geom	-	3.26	0.00	Y	Arm 4 Ahead	73.67
											Arm 12 Right	73.67
11/3 (RB 1)	U	A	2	3	15.1	Geom	-	3.26	0.00	Y	Arm 12 Right	55.15
12/1 (RB 2)	U	A	2	3	15.8	Geom	-	4.06	0.00	Y	Arm 6 Ahead	106.87
12/2 (RB 2)	U	A	2	3	14.7	Geom	-	4.06	0.00	Y	Arm 6 Ahead	243.68
											Arm 13 Ahead	79.78
12/3 (RB 2)	U	A	2	3	6.2	Geom	-	4.06	0.00	Y	Arm 13 Ahead	79.78
13/1 (RB 3)	U	B	2	3	10.8	Geom	-	3.93	0.00	Y	Arm 8 Ahead	Inf
13/2 (RB 3)	U	B	2	3	10.8	Geom	-	3.93	0.00	Y	Arm 8 Ahead	Inf
											Arm 14 Right	76.36
13/3 (RB 3)	U	B	2	3	3.8	Geom	-	3.93	0.00	Y	Arm 14 Right	59.91
14/1 (RB4)	U		2	3	21.3	Geom	-	3.14	0.00	Y	Arm 10 Left	92.57
14/2 (RB4)	U		2	3	21.1	Geom	-	3.14	0.00	Y	Arm 15 Ahead	129.04
14/3 (RB4)	U		2	3	20.6	Geom	-	3.14	0.00	Y	Arm 15 Ahead	75.86
15/1 (RB 5)	U		2	3	10.9	Geom	-	4.66	0.00	Y	Arm 16 Right	70.81
15/2 (RB 5)	U		2	3	10.1	Geom	-	4.66	0.00	Y	Arm 16 Right	70.81
16/1 (RB 6)	U		2	3	9.0	Geom	-	4.60	0.00	Y	Arm 2 Ahead	Inf

Full Input Data And Results

											Arm 11 Right	60.82
16/2 (RB 6)	U		2	3	9.1	Geom	-	4.60	0.00	Y	Arm 11 Right	47.69

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2025 Base AM'	08:00	09:00	01:00	
2: '2025 Base PM'	17:00	18:00	01:00	
3: '2040 DM AM'	08:00	09:00	01:00	
4: '2040 DM PM'	17:00	18:00	01:00	
5: '2040 DS AM'	08:00	09:00	01:00	
6: '2040 DS PM'	17:00	18:00	01:00	

Scenario 1: '2025 Base AM' (FG1: '2025 Base AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	0	95	723	37	679	1534
	B	303	0	9	115	1574	2001
	C	5	0	0	1	0	6
	D	6	38	3	0	65	112
	E	563	1602	0	55	0	2220
	Tot.	877	1735	735	208	2318	5873

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2025 Base AM
Junction: J9 - A627M / A663 / A627 / B6195	
1/1	1269
1/2	951
2/1	1158
2/2	1160
3/1	648
3/2 (with short)	886(In) 207(Out)
3/3 (short)	679
4/1	574
4/2	303
5/1 (short)	124
5/2 (with short)	1698(In) 1574(Out)
5/3	303
6/1	802
6/2	933
7/1	1
7/2	5
8/1	565
8/2	170
9/1 (with short)	112(In) 71(Out)
9/2 (short)	41
10/1	208
11/1	11
11/2	304
11/3	40
12/1	707
12/2	936
12/3	55
13/1	556
13/2	262
13/3	679
14/1	207
14/2	2253
14/3	303
15/1	2258
15/2	303
16/1	2329
16/2	344

Full Input Data And Results

Lane Saturation Flows

Junction: J9 - A627M / A663 / A627 / B6195								
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 (A627M N Off)	3.26	0.00	Y	Arm 4 Left	Inf	44.4 %	1922	1922
				Arm 12 Ahead	84.63	55.6 %		
1/2 (A627M N Off)	3.26	0.00	Y	Arm 12 Ahead	73.66	100.0 %	1902	1902
2/1 (A627M N On Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A627M N On Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 6 U-Turn	41.07	14.7 %	1971	1971
				Arm 13 Left	68.41	85.3 %		
3/2 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 13 Left	79.09	100.0 %	1981	1981
3/3 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 13 Left	80.05	100.0 %	1981	1981
4/1 (A663 Broadway (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A663 Broadway (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 8 U-Turn	56.00	7.3 %	1996	1996
				Arm 14 Left	Inf	92.7 %		
5/2 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 14 Left	Inf	100.0 %	2000	2000
5/3 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 14 Left	Inf	100.0 %	2000	2000
6/1 (A627 Chadderton Way (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A627 Chadderton Way (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (A627M S Off)	3.52	0.00	Y	Arm 10 Left	25.32	100.0 %	1857	1857
7/2 (A627M S Off)	3.52	0.00	Y	Arm 15 Left	38.38	100.0 %	1893	1893
8/1 (A627M S On Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A627M S On Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (Burnley Lane (Entry))	3.61	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1976	1976
9/2 (Burnley Lane (Entry))	3.60	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1975	1975
10/1 (Burnley Lane (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

11/1 (RB 1)	3.26	0.00	Y	Arm 4 Ahead	63.41	100.0 %	1896	1896
11/2 (RB 1)	3.26	0.00	Y	Arm 4 Ahead	73.67	99.7 %	1902	1902
				Arm 12 Right	73.67	0.3 %		
11/3 (RB 1)	3.26	0.00	Y	Arm 12 Right	55.15	100.0 %	1890	1890
12/1 (RB 2)	4.06	0.00	Y	Arm 6 Ahead	106.87	100.0 %	1993	1993
12/2 (RB 2)	4.06	0.00	Y	Arm 6 Ahead	243.68	99.7 %	2008	2008
				Arm 13 Ahead	79.78	0.3 %		
12/3 (RB 2)	4.06	0.00	Y	Arm 13 Ahead	79.78	100.0 %	1984	1984
13/1 (RB 3)	3.93	0.00	Y	Arm 8 Ahead	Inf	100.0 %	2008	2008
13/2 (RB 3)	3.93	0.00	Y	Arm 8 Ahead	Inf	64.9 %	1994	1994
				Arm 14 Right	76.36	35.1 %		
13/3 (RB 3)	3.93	0.00	Y	Arm 14 Right	59.91	100.0 %	1959	1959
14/1 (RB4)	3.14	0.00	Y	Arm 10 Left	92.57	100.0 %	1898	1898
14/2 (RB4)	3.14	0.00	Y	Arm 15 Ahead	129.04	100.0 %	1907	1907
14/3 (RB4)	3.14	0.00	Y	Arm 15 Ahead	75.86	100.0 %	1892	1892
15/1 (RB 5)	4.66	0.00	Y	Arm 16 Right	70.81	100.0 %	2038	2038
15/2 (RB 5) 16/1 (RB 6)	4.66	0.00	Y	Arm 16 Right	70.81	100.0 %	2038	2038
	4.60	0.00	Y	Arm 2 Ahead	Inf	99.5 %	2075	2075
				Arm 11 Right	60.82	0.5 %		
16/2 (RB 6)	4.60	0.00	Y	Arm 11 Right	47.69	100.0 %	2012	2012

Scenario 2: '2025 Base PM' (FG2: '2025 Base PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	0	161	506	177	560	1404
	B	198	0	12	250	1738	2198
	C	0	0	0	3	0	3
	D	37	35	1	0	37	110
	E	594	1174	0	118	0	1886
	Tot.	829	1370	519	548	2335	5601

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2025 Base PM
Junction: J9 - A627M / A663 / A627 / B6195	
1/1	1118
1/2	768
2/1	1167
2/2	1168
3/1	590
3/2 (with short)	814(In) 254(Out)
3/3 (short)	560
4/1	631
4/2	198
5/1 (short)	262
5/2 (with short)	2000(In) 1738(Out)
5/3	198
6/1	685
6/2	685
7/1	3
7/2	0
8/1	442
8/2	77
9/1 (with short)	110(In) 74(Out)
9/2 (short)	36
10/1	548
11/1	37
11/2	198
11/3	36
12/1	524
12/2	686
12/3	118
13/1	430
13/2	372
13/3	560
14/1	545
14/2	2298
14/3	198
15/1	2298
15/2	198
16/1	2372
16/2	234

Junction: J9 - A627M / A663 / A627 / B6195								
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 (A627M N Off)	3.26	0.00	Y	Arm 4 Left	Inf	53.1 %	1925	1925
				Arm 12 Ahead	84.63	46.9 %		
1/2 (A627M N Off)	3.26	0.00	Y	Arm 12 Ahead	73.66	100.0 %	1902	1902
2/1 (A627M N On Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A627M N On Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 6 U-Turn	41.07	27.3 %	1967	1967
				Arm 13 Left	68.41	72.7 %		
3/2 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 13 Left	79.09	100.0 %	1981	1981
3/3 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 13 Left	80.05	100.0 %	1981	1981
4/1 (A663 Broadway (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A663 Broadway (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 8 U-Turn	56.00	4.6 %	1997	1997
				Arm 14 Left	Inf	95.4 %		
5/2 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 14 Left	Inf	100.0 %	2000	2000
5/3 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 14 Left	Inf	100.0 %	2000	2000
6/1 (A627 Chadderton Way (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A627 Chadderton Way (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (A627M S Off)	3.52	0.00	Y	Arm 10 Left	25.32	100.0 %	1857	1857
7/2 (A627M S Off)	3.52	0.00	Y	Arm 15 Left	38.38	0.0 %	1967	1967
8/1 (A627M S On Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A627M S On Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (Burnley Lane (Entry))	3.61	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1976	1976
9/2 (Burnley Lane (Entry))	3.60	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1975	1975
10/1 (Burnley Lane (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

11/1 (RB 1)	3.26	0.00	Y	Arm 4 Ahead	63.41	100.0 %	1896	1896
11/2 (RB 1)	3.26	0.00	Y	Arm 4 Ahead	73.67	100.0 %	1902	1902
				Arm 12 Right	73.67	0.0 %		
11/3 (RB 1)	3.26	0.00	Y	Arm 12 Right	55.15	100.0 %	1890	1890
12/1 (RB 2)	4.06	0.00	Y	Arm 6 Ahead	106.87	100.0 %	1993	1993
12/2 (RB 2)	4.06	0.00	Y	Arm 6 Ahead	243.68	99.9 %	2008	2008
				Arm 13 Ahead	79.78	0.1 %		
12/3 (RB 2)	4.06	0.00	Y	Arm 13 Ahead	79.78	100.0 %	1984	1984
13/1 (RB 3)	3.93	0.00	Y	Arm 8 Ahead	Inf	100.0 %	2008	2008
13/2 (RB 3)	3.93	0.00	Y	Arm 8 Ahead	Inf	20.7 %	1977	1977
				Arm 14 Right	76.36	79.3 %		
13/3 (RB 3)	3.93	0.00	Y	Arm 14 Right	59.91	100.0 %	1959	1959
14/1 (RB4)	3.14	0.00	Y	Arm 10 Left	92.57	100.0 %	1898	1898
14/2 (RB4)	3.14	0.00	Y	Arm 15 Ahead	129.04	100.0 %	1907	1907
14/3 (RB4)	3.14	0.00	Y	Arm 15 Ahead	75.86	100.0 %	1892	1892
15/1 (RB 5)	4.66	0.00	Y	Arm 16 Right	70.81	100.0 %	2038	2038
15/2 (RB 5) 16/1 (RB 6)	4.66	0.00	Y	Arm 16 Right	70.81	100.0 %	2038	2038
	4.60	0.00	Y	Arm 2 Ahead	Inf	98.4 %	2074	2074
				Arm 11 Right	60.82	1.6 %		
16/2 (RB 6)	4.60	0.00	Y	Arm 11 Right	47.69	100.0 %	2012	2012

Scenario 3: '2040 DM AM' (FG3: '2040 DM AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	0	74	800	16	961	1851
	B	106	0	42	87	1779	2014
	C	66	0	0	1	0	67
	D	7	16	5	0	55	83
	E	652	1860	0	25	0	2537
	Tot.	831	1950	847	129	2795	6552

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2040 DM AM
Junction: J9 - A627M / A663 / A627 / B6195	
1/1	1422
1/2	1115
2/1	1396
2/2	1399
3/1	657
3/2 (with short)	1194(In) 233(Out)
3/3 (short)	961
4/1	701
4/2	130
5/1 (short)	129
5/2 (with short)	1908(In) 1779(Out)
5/3	106
6/1	860
6/2	1090
7/1	1
7/2	66
8/1	630
8/2	217
9/1 (with short)	83(In) 62(Out)
9/2 (short)	21
10/1	129
11/1	49
11/2	146
11/3	5
12/1	786
12/2	1095
12/3	25
13/1	588
13/2	258
13/3	961
14/1	128
14/2	2740
14/3	106
15/1	2782
15/2	130
16/1	2844
16/2	151

Junction: J9 - A627M / A663 / A627 / B6195								
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 (A627M N Off)	3.26	0.00	Y	Arm 4 Left	Inf	45.9 %	1922	1922
				Arm 12 Ahead	84.63	54.1 %		
1/2 (A627M N Off)	3.26	0.00	Y	Arm 12 Ahead	73.66	100.0 %	1902	1902
2/1 (A627M N On Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A627M N On Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 6 U-Turn	41.07	11.3 %	1972	1972
				Arm 13 Left	68.41	88.7 %		
3/2 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 13 Left	79.09	100.0 %	1981	1981
3/3 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 13 Left	80.05	100.0 %	1981	1981
4/1 (A663 Broadway (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A663 Broadway (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 8 U-Turn	56.00	32.6 %	1983	1983
				Arm 14 Left	Inf	67.4 %		
5/2 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 14 Left	Inf	100.0 %	2000	2000
5/3 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 14 Left	Inf	100.0 %	2000	2000
6/1 (A627 Chadderton Way (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A627 Chadderton Way (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (A627M S Off)	3.52	0.00	Y	Arm 10 Left	25.32	100.0 %	1857	1857
7/2 (A627M S Off)	3.52	0.00	Y	Arm 15 Left	38.38	100.0 %	1893	1893
8/1 (A627M S On Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A627M S On Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (Burnley Lane (Entry))	3.61	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1976	1976
9/2 (Burnley Lane (Entry))	3.60	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1975	1975
10/1 (Burnley Lane (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

11/1 (RB 1)	3.26	0.00	Y	Arm 4 Ahead	63.41	100.0 %	1896	1896
11/2 (RB 1)	3.26	0.00	Y	Arm 4 Ahead	73.67	89.0 %	1902	1902
				Arm 12 Right	73.67	11.0 %		
11/3 (RB 1)	3.26	0.00	Y	Arm 12 Right	55.15	100.0 %	1890	1890
12/1 (RB 2)	4.06	0.00	Y	Arm 6 Ahead	106.87	100.0 %	1993	1993
12/2 (RB 2)	4.06	0.00	Y	Arm 6 Ahead	243.68	99.5 %	2008	2008
				Arm 13 Ahead	79.78	0.5 %		
12/3 (RB 2)	4.06	0.00	Y	Arm 13 Ahead	79.78	100.0 %	1984	1984
13/1 (RB 3)	3.93	0.00	Y	Arm 8 Ahead	Inf	100.0 %	2008	2008
13/2 (RB 3)	3.93	0.00	Y	Arm 8 Ahead	Inf	84.1 %	2002	2002
				Arm 14 Right	76.36	15.9 %		
13/3 (RB 3)	3.93	0.00	Y	Arm 14 Right	59.91	100.0 %	1959	1959
14/1 (RB4)	3.14	0.00	Y	Arm 10 Left	92.57	100.0 %	1898	1898
14/2 (RB4)	3.14	0.00	Y	Arm 15 Ahead	129.04	100.0 %	1907	1907
14/3 (RB4)	3.14	0.00	Y	Arm 15 Ahead	75.86	100.0 %	1892	1892
15/1 (RB 5)	4.66	0.00	Y	Arm 16 Right	70.81	100.0 %	2038	2038
15/2 (RB 5) 16/1 (RB 6)	4.66	0.00	Y	Arm 16 Right	70.81	100.0 %	2038	2038
	4.60	0.00	Y	Arm 2 Ahead	Inf	98.3 %	2074	2074
				Arm 11 Right	60.82	1.7 %		
16/2 (RB 6)	4.60	0.00	Y	Arm 11 Right	47.69	100.0 %	2012	2012

Scenario 4: '2040 DM PM' (FG4: '2040 DM PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	0	112	456	103	844	1515
	B	71	0	51	158	1692	1972
	C	39	0	0	1	0	40
	D	19	8	0	0	51	78
	E	848	1401	0	64	0	2313
	Tot.	977	1521	507	326	2587	5918

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2040 DM PM
Junction: J9 - A627M / A663 / A627 / B6195	
1/1	1335
1/2	978
2/1	1293
2/2	1294
3/1	568
3/2 (with short)	947(In) 103(Out)
3/3 (short)	844
4/1	872
4/2	105
5/1 (short)	209
5/2 (with short)	1901(In) 1692(Out)
5/3	71
6/1	607
6/2	914
7/1	1
7/2	39
8/1	507
8/2	0
9/1 (with short)	78(In) 70(Out)
9/2 (short)	8
10/1	326
11/1	24
11/2	113
11/3	0
12/1	495
12/2	914
12/3	64
13/1	456
13/2	167
13/3	844
14/1	325
14/2	2536
14/3	71
15/1	2541
15/2	105
16/1	2611
16/2	113

Lane Saturation Flows

Junction: J9 - A627M / A663 / A627 / B6195								
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 (A627M N Off)	3.26	0.00	Y	Arm 4 Left	Inf	63.5 %	1928	1928
				Arm 12 Ahead	84.63	36.5 %		
1/2 (A627M N Off)	3.26	0.00	Y	Arm 12 Ahead	73.66	100.0 %	1902	1902
2/1 (A627M N On Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A627M N On Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 6 U-Turn	41.07	19.7 %	1969	1969
				Arm 13 Left	68.41	80.3 %		
3/2 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 13 Left	79.09	100.0 %	1981	1981
3/3 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 13 Left	80.05	100.0 %	1981	1981
4/1 (A663 Broadway (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A663 Broadway (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 8 U-Turn	56.00	24.4 %	1987	1987
				Arm 14 Left	Inf	75.6 %		
5/2 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 14 Left	Inf	100.0 %	2000	2000
5/3 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 14 Left	Inf	100.0 %	2000	2000
6/1 (A627 Chadderton Way (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A627 Chadderton Way (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (A627M S Off)	3.52	0.00	Y	Arm 10 Left	25.32	100.0 %	1857	1857
7/2 (A627M S Off)	3.52	0.00	Y	Arm 15 Left	38.38	100.0 %	1893	1893
8/1 (A627M S On Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A627M S On Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (Burnley Lane (Entry))	3.61	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1976	1976
9/2 (Burnley Lane (Entry))	3.60	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1975	1975
10/1 (Burnley Lane (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

11/1 (RB 1)	3.26	0.00	Y	Arm 4 Ahead	63.41	100.0 %	1896	1896
11/2 (RB 1)	3.26	0.00	Y	Arm 4 Ahead	73.67	92.9 %	1902	1902
				Arm 12 Right	73.67	7.1 %		
11/3 (RB 1)	3.26	0.00	Y	Arm 12 Right	55.15	0.0 %	1941	1941
12/1 (RB 2)	4.06	0.00	Y	Arm 6 Ahead	106.87	100.0 %	1993	1993
12/2 (RB 2)	4.06	0.00	Y	Arm 6 Ahead	243.68	100.0 %	2008	2008
				Arm 13 Ahead	79.78	0.0 %		
12/3 (RB 2)	4.06	0.00	Y	Arm 13 Ahead	79.78	100.0 %	1984	1984
13/1 (RB 3)	3.93	0.00	Y	Arm 8 Ahead	Inf	100.0 %	2008	2008
13/2 (RB 3)	3.93	0.00	Y	Arm 8 Ahead	Inf	0.0 %	1969	1969
				Arm 14 Right	76.36	100.0 %		
13/3 (RB 3)	3.93	0.00	Y	Arm 14 Right	59.91	100.0 %	1959	1959
14/1 (RB4)	3.14	0.00	Y	Arm 10 Left	92.57	100.0 %	1898	1898
14/2 (RB4)	3.14	0.00	Y	Arm 15 Ahead	129.04	100.0 %	1907	1907
14/3 (RB4)	3.14	0.00	Y	Arm 15 Ahead	75.86	100.0 %	1892	1892
15/1 (RB 5)	4.66	0.00	Y	Arm 16 Right	70.81	100.0 %	2038	2038
15/2 (RB 5) 16/1 (RB 6)	4.66	0.00	Y	Arm 16 Right	70.81	100.0 %	2038	2038
	4.60	0.00	Y	Arm 2 Ahead	Inf	99.1 %	2075	2075
				Arm 11 Right	60.82	0.9 %		
16/2 (RB 6)	4.60	0.00	Y	Arm 11 Right	47.69	100.0 %	2012	2012

Scenario 5: '2040 DS AM' (FG5: '2040 DS AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	0	74	800	16	962	1852
	B	106	0	42	87	1781	2016
	C	66	0	0	1	0	67
	D	7	16	5	0	56	84
	E	652	1862	0	25	0	2539
	Tot.	831	1952	847	129	2799	6558

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2040 DS AM
Junction: J9 - A627M / A663 / A627 / B6195	
1/1	1542
1/2	997
2/1	1399
2/2	1400
3/1	749
3/2 (with short)	1103(In) 141(Out)
3/3 (short)	962
4/1	725
4/2	106
5/1 (short)	129
5/2 (with short)	1910(In) 1781(Out)
5/3	106
6/1	966
6/2	986
7/1	1
7/2	66
8/1	722
8/2	125
9/1 (with short)	84(In) 63(Out)
9/2 (short)	21
10/1	129
11/1	73
11/2	108
11/3	19
12/1	892
12/2	991
12/3	25
13/1	680
13/2	166
13/3	962
14/1	128
14/2	2743
14/3	106
15/1	2809
15/2	106
16/1	2872
16/2	127

Junction: J9 - A627M / A663 / A627 / B6195								
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 (A627M N Off)	3.26	0.00	Y	Arm 4 Left	Inf	42.3 %	1921	1921
				Arm 12 Ahead	84.63	57.7 %		
1/2 (A627M N Off)	3.26	0.00	Y	Arm 12 Ahead	73.66	100.0 %	1902	1902
2/1 (A627M N On Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A627M N On Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 6 U-Turn	41.07	9.9 %	1972	1972
				Arm 13 Left	68.41	90.1 %		
3/2 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 13 Left	79.09	100.0 %	1981	1981
3/3 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 13 Left	80.05	100.0 %	1981	1981
4/1 (A663 Broadway (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A663 Broadway (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 8 U-Turn	56.00	32.6 %	1983	1983
				Arm 14 Left	Inf	67.4 %		
5/2 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 14 Left	Inf	100.0 %	2000	2000
5/3 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 14 Left	Inf	100.0 %	2000	2000
6/1 (A627 Chadderton Way (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A627 Chadderton Way (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (A627M S Off)	3.52	0.00	Y	Arm 10 Left	25.32	100.0 %	1857	1857
7/2 (A627M S Off)	3.52	0.00	Y	Arm 15 Left	38.38	100.0 %	1893	1893
8/1 (A627M S On Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A627M S On Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (Burnley Lane (Entry))	3.61	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1976	1976
9/2 (Burnley Lane (Entry))	3.60	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1975	1975
10/1 (Burnley Lane (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

11/1 (RB 1)	3.26	0.00	Y	Arm 4 Ahead	63.41	100.0 %	1896	1896
11/2 (RB 1)	3.26	0.00	Y	Arm 4 Ahead	73.67	98.1 %	1902	1902
				Arm 12 Right	73.67	1.9 %		
11/3 (RB 1)	3.26	0.00	Y	Arm 12 Right	55.15	100.0 %	1890	1890
12/1 (RB 2)	4.06	0.00	Y	Arm 6 Ahead	106.87	100.0 %	1993	1993
12/2 (RB 2)	4.06	0.00	Y	Arm 6 Ahead	243.68	99.5 %	2008	2008
				Arm 13 Ahead	79.78	0.5 %		
12/3 (RB 2)	4.06	0.00	Y	Arm 13 Ahead	79.78	100.0 %	1984	1984
13/1 (RB 3)	3.93	0.00	Y	Arm 8 Ahead	Inf	100.0 %	2008	2008
13/2 (RB 3)	3.93	0.00	Y	Arm 8 Ahead	Inf	75.3 %	1998	1998
				Arm 14 Right	76.36	24.7 %		
13/3 (RB 3)	3.93	0.00	Y	Arm 14 Right	59.91	100.0 %	1959	1959
14/1 (RB4)	3.14	0.00	Y	Arm 10 Left	92.57	100.0 %	1898	1898
14/2 (RB4)	3.14	0.00	Y	Arm 15 Ahead	129.04	100.0 %	1907	1907
14/3 (RB4)	3.14	0.00	Y	Arm 15 Ahead	75.86	100.0 %	1892	1892
15/1 (RB 5)	4.66	0.00	Y	Arm 16 Right	70.81	100.0 %	2038	2038
15/2 (RB 5) 16/1 (RB 6)	4.66	0.00	Y	Arm 16 Right	70.81	100.0 %	2038	2038
	4.60	0.00	Y	Arm 2 Ahead	Inf	97.5 %	2074	2074
				Arm 11 Right	60.82	2.5 %		
16/2 (RB 6)	4.60	0.00	Y	Arm 11 Right	47.69	100.0 %	2012	2012

Scenario 6: '2040 DS PM' (FG6: '2040 DS PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	0	112	456	103	844	1515
	B	71	0	51	158	1694	1974
	C	39	0	0	1	0	40
	D	19	8	0	0	51	78
	E	849	1403	0	65	0	2317
	Tot.	978	1523	507	327	2589	5924

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2040 DS PM
Junction: J9 - A627M / A663 / A627 / B6195	
1/1	1414
1/2	903
2/1	1294
2/2	1295
3/1	568
3/2 (with short)	947(In) 103(Out)
3/3 (short)	844
4/1	892
4/2	86
5/1 (short)	209
5/2 (with short)	1903(In) 1694(Out)
5/3	71
6/1	677
6/2	846
7/1	1
7/2	39
8/1	507
8/2	0
9/1 (with short)	78(In) 70(Out)
9/2 (short)	8
10/1	327
11/1	43
11/2	86
11/3	8
12/1	565
12/2	846
12/3	65
13/1	456
13/2	168
13/3	844
14/1	326
14/2	2538
14/3	71
15/1	2562
15/2	86
16/1	2632
16/2	94

Lane Saturation Flows

Junction: J9 - A627M / A663 / A627 / B6195								
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 (A627M N Off)	3.26	0.00	Y	Arm 4 Left	Inf	60.0 %	1927	1927
				Arm 12 Ahead	84.63	40.0 %		
1/2 (A627M N Off)	3.26	0.00	Y	Arm 12 Ahead	73.66	100.0 %	1902	1902
2/1 (A627M N On Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A627M N On Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 6 U-Turn	41.07	19.7 %	1969	1969
				Arm 13 Left	68.41	80.3 %		
3/2 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 13 Left	79.09	100.0 %	1981	1981
3/3 (A663 Broadway (Entry))	4.03	0.00	Y	Arm 13 Left	80.05	100.0 %	1981	1981
4/1 (A663 Broadway (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A663 Broadway (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 8 U-Turn	56.00	24.4 %	1987	1987
				Arm 14 Left	Inf	75.6 %		
5/2 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 14 Left	Inf	100.0 %	2000	2000
5/3 (A627 Chadderton Way (Entry))	3.85	0.00	Y	Arm 14 Left	Inf	100.0 %	2000	2000
6/1 (A627 Chadderton Way (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A627 Chadderton Way (Exit) Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (A627M S Off)	3.52	0.00	Y	Arm 10 Left	25.32	100.0 %	1857	1857
7/2 (A627M S Off)	3.52	0.00	Y	Arm 15 Left	38.38	100.0 %	1893	1893
8/1 (A627M S On Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A627M S On Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (Burnley Lane (Entry))	3.61	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1976	1976
9/2 (Burnley Lane (Entry))	3.60	0.00	Y	Arm 16 Ahead	Inf	100.0 %	1975	1975
10/1 (Burnley Lane (Exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

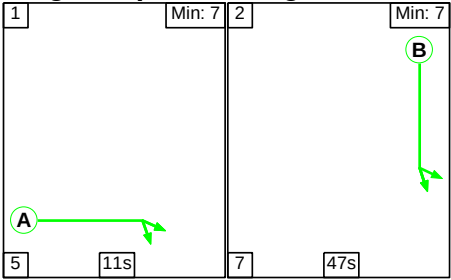
Full Input Data And Results

11/1 (RB 1)	3.26	0.00	Y	Arm 4 Ahead	63.41	100.0 %	1896	1896
11/2 (RB 1)	3.26	0.00	Y	Arm 4 Ahead	73.67	100.0 %	1902	1902
				Arm 12 Right	73.67	0.0 %		
11/3 (RB 1)	3.26	0.00	Y	Arm 12 Right	55.15	100.0 %	1890	1890
12/1 (RB 2)	4.06	0.00	Y	Arm 6 Ahead	106.87	100.0 %	1993	1993
12/2 (RB 2)	4.06	0.00	Y	Arm 6 Ahead	243.68	100.0 %	2008	2008
				Arm 13 Ahead	79.78	0.0 %		
12/3 (RB 2)	4.06	0.00	Y	Arm 13 Ahead	79.78	100.0 %	1984	1984
13/1 (RB 3)	3.93	0.00	Y	Arm 8 Ahead	Inf	100.0 %	2008	2008
13/2 (RB 3)	3.93	0.00	Y	Arm 8 Ahead	Inf	0.0 %	1969	1969
				Arm 14 Right	76.36	100.0 %		
13/3 (RB 3)	3.93	0.00	Y	Arm 14 Right	59.91	100.0 %	1959	1959
14/1 (RB4)	3.14	0.00	Y	Arm 10 Left	92.57	100.0 %	1898	1898
14/2 (RB4)	3.14	0.00	Y	Arm 15 Ahead	129.04	100.0 %	1907	1907
14/3 (RB4)	3.14	0.00	Y	Arm 15 Ahead	75.86	100.0 %	1892	1892
15/1 (RB 5)	4.66	0.00	Y	Arm 16 Right	70.81	100.0 %	2038	2038
15/2 (RB 5) 16/1 (RB 6)	4.66	0.00	Y	Arm 16 Right	70.81	100.0 %	2038	2038
	4.60	0.00	Y	Arm 2 Ahead	Inf	98.4 %	2074	2074
				Arm 11 Right	60.82	1.6 %		
16/2 (RB 6)	4.60	0.00	Y	Arm 11 Right	47.69	100.0 %	2012	2012

Scenario 1: '2025 Base AM' (FG1: '2025 Base AM', Plan 1: 'Network Control Plan 1')

C1

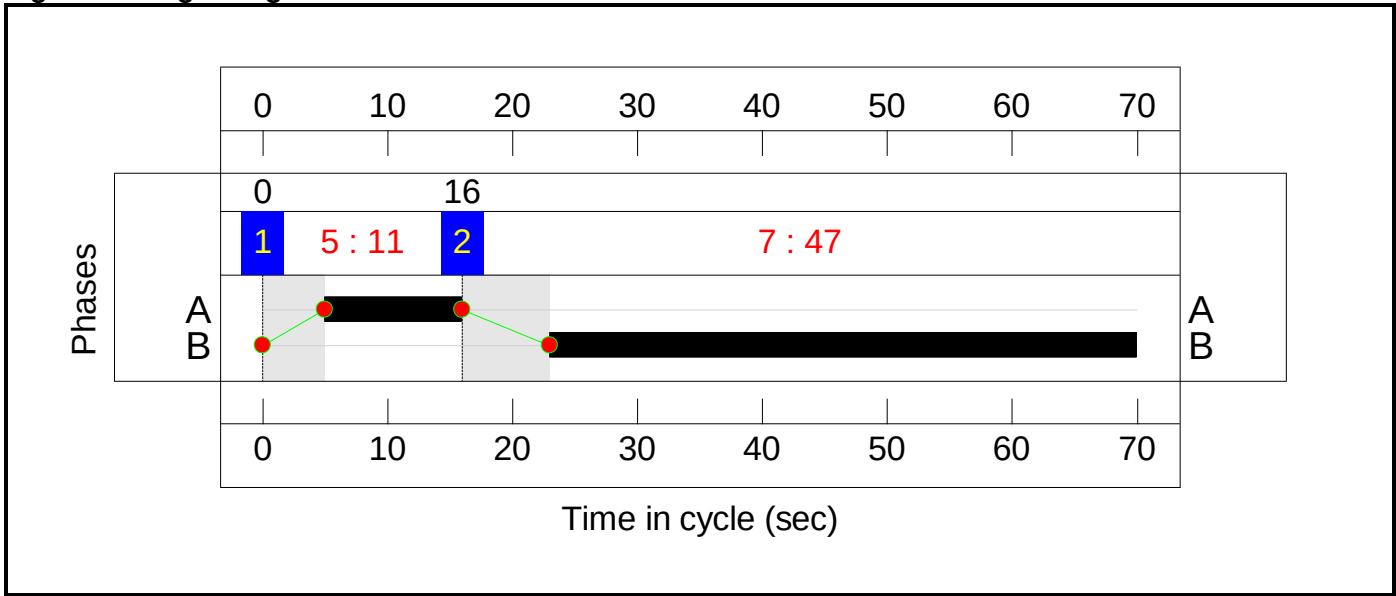
Stage Sequence Diagram



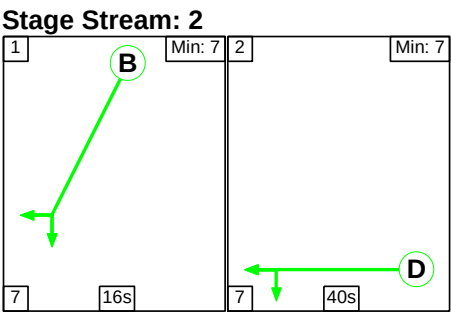
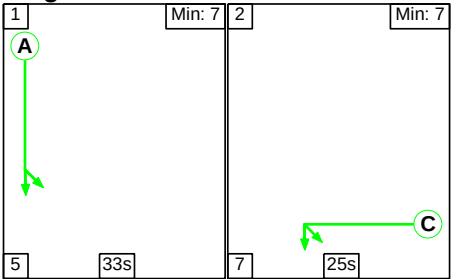
Stage Timings

Stage	1	2
Duration	11	47
Change Point	0	16

Signal Timings Diagram



C2
Stage Sequence Diagram
Stage Stream: 1



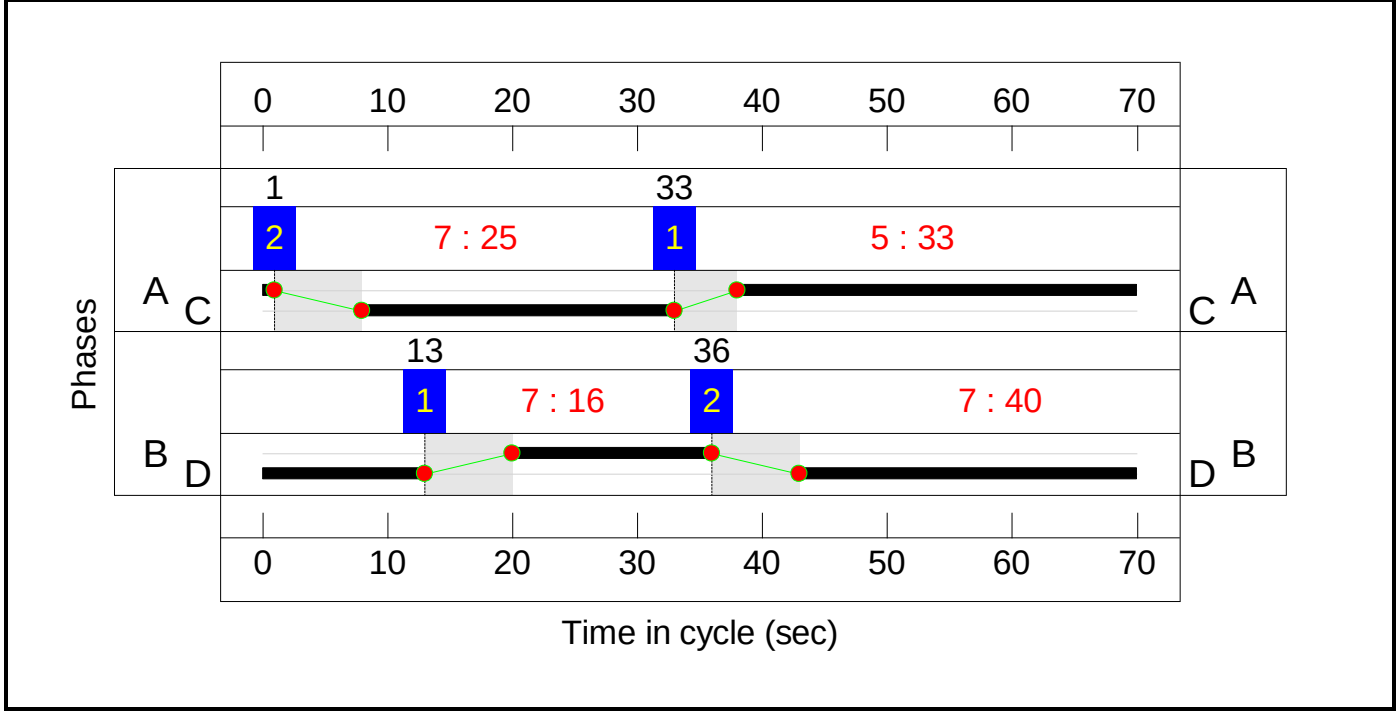
Stage Timings
Stage Stream: 1

Stage	1	2
Duration	33	25
Change Point	33	1

Stage Stream: 2

Stage	1	2
Duration	16	40
Change Point	13	36

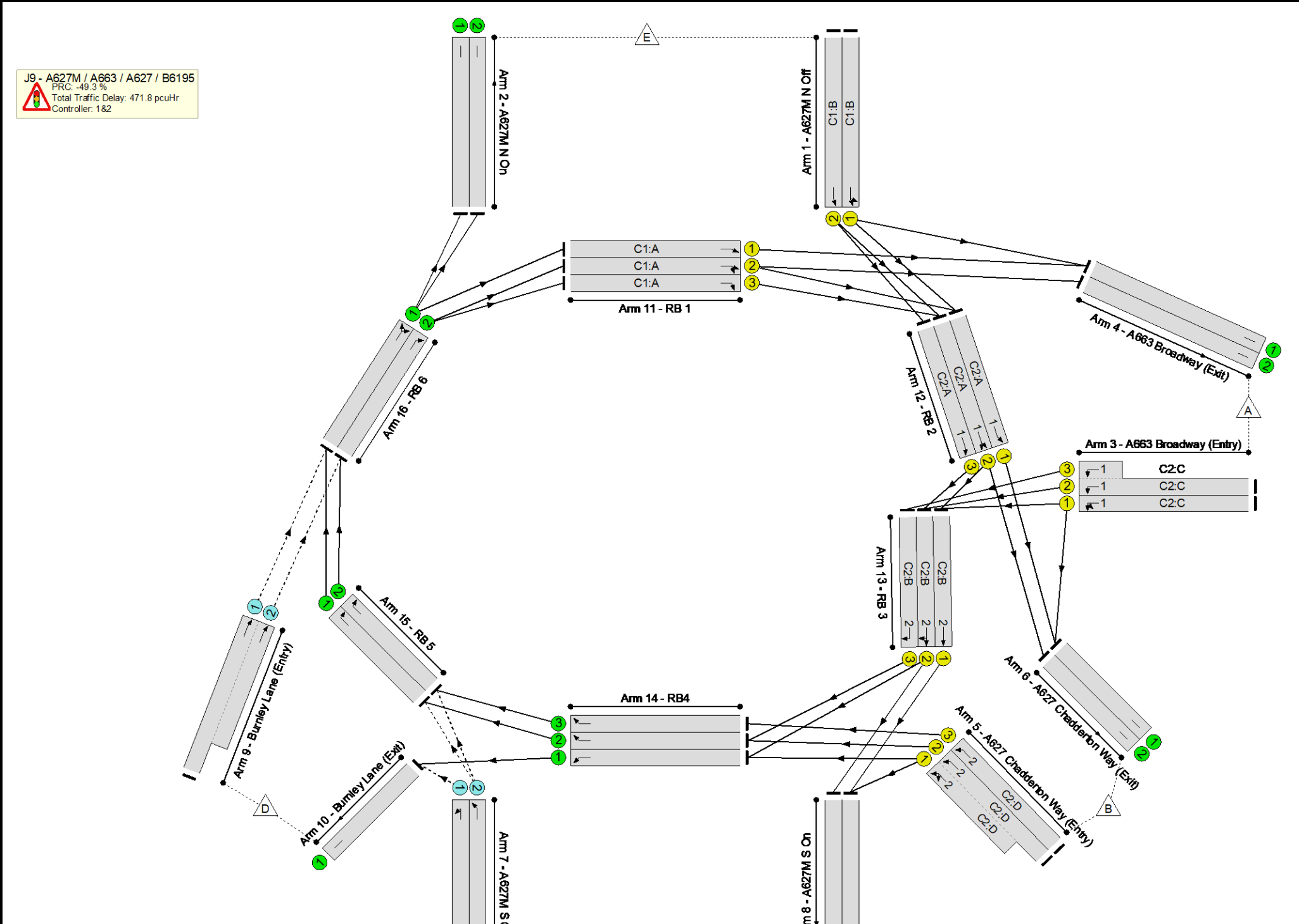
Signal Timings Diagram



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	-	-		-	-	-	-	-	-	134.4%
J9 - A627M / A663 / A627 / B6195	-	-	N/A	-	-		-	-	-	-	-	-	134.4%
1/1	A627M N Off Left Ahead	U	N/A	N/A	C1:B		1	47	-	1269	1922	1318	96.3%
1/2	A627M N Off Ahead	U	N/A	N/A	C1:B		1	47	-	951	1902	1304	72.9%
2/1	A627M N On	U	N/A	N/A	-		-	-	-	1158	Inf	Inf	0.0%
2/2	A627M N On	U	N/A	N/A	-		-	-	-	1160	Inf	Inf	0.0%
3/1	A663 Broadway (Entry) U-Turn Left	U	2:1	N/A	C2:C		1	25	-	648	1971	732	88.5%
3/2+3/3	A663 Broadway (Entry) Left	U	2:1	N/A	C2:C		1	25	-	886	1981:1981	193+635	107.0 : 107.0%
4/1	A663 Broadway (Exit)	U	N/A	N/A	-		-	-	-	574	Inf	Inf	0.0%
4/2	A663 Broadway (Exit)	U	N/A	N/A	-		-	-	-	303	Inf	Inf	0.0%
5/2+5/1	A627 Chadderton Way (Entry) U-Turn Left	U	2:2	N/A	C2:D		1	40	-	1698	2000:1996	1171+92	134.4 : 134.4%
5/3	A627 Chadderton Way (Entry) Left	U	2:2	N/A	C2:D		1	40	-	303	2000	1171	25.9%
6/1	A627 Chadderton Way (Exit)	U	N/A	N/A	-		-	-	-	802	Inf	Inf	0.0%
6/2	A627 Chadderton Way (Exit)	U	N/A	N/A	-		-	-	-	933	Inf	Inf	0.0%
7/1	A627M S Off Left	O	N/A	N/A	-		-	-	-	1	1857	1381	0.1%
7/2	A627M S Off Left	O	N/A	N/A	-		-	-	-	5	1893	838	0.6%
8/1	A627M S On	U	N/A	N/A	-		-	-	-	565	Inf	Inf	0.0%
8/2	A627M S On	U	N/A	N/A	-		-	-	-	170	Inf	Inf	0.0%

Full Input Data And Results

9/1+9/2	Burnley Lane (Entry) Ahead	O	N/A	N/A	-		-	-	-	112	1976:1975	894+697	7.9 : 5.9%
10/1	Burnley Lane (Exit)	U	N/A	N/A	-		-	-	-	208	Inf	Inf	0.0%
11/1	RB 1 Ahead	U	N/A	N/A	C1:A		1	11	-	11	1896	325	3.4%
11/2	RB 1 Ahead Right	U	N/A	N/A	C1:A		1	11	-	304	1902	326	93.2%
11/3	RB 1 Right	U	N/A	N/A	C1:A		1	11	-	40	1890	324	12.3%
12/1	RB 2 Ahead	U	2:1	N/A	C2:A		1	33	-	707	1993	968	73.0%
12/2	RB 2 Ahead Ahead2	U	2:1	N/A	C2:A		1	33	-	936	2008	975	96.0%
12/3	RB 2 Ahead	U	2:1	N/A	C2:A		1	33	-	55	1984	964	5.7%
13/1	RB 3 Ahead	U	2:2	N/A	C2:B		1	16	-	556	2008	488	114.0%
13/2	RB 3 Ahead Right	U	2:2	N/A	C2:B		1	16	-	262	1994	484	51.3%
13/3	RB 3 Right	U	2:2	N/A	C2:B		1	16	-	679	1959	476	133.4%
14/1	RB4 Left	U	N/A	N/A	-		-	-	-	207	1898	1898	9.2%
14/2	RB4 Ahead	U	N/A	N/A	-		-	-	-	2253	1907	1907	86.4%
14/3	RB4 Ahead	U	N/A	N/A	-		-	-	-	303	1892	1892	16.0%
15/1	RB 5 Right	U	N/A	N/A	-		-	-	-	2258	2038	2038	81.1%
15/2	RB 5 Right	U	N/A	N/A	-		-	-	-	303	2038	2038	14.9%
16/1	RB 6 Ahead Right	U	N/A	N/A	-		-	-	-	2329	2075	2075	83.0%
16/2	RB 6 Right	U	N/A	N/A	-		-	-	-	344	2012	2012	17.1%

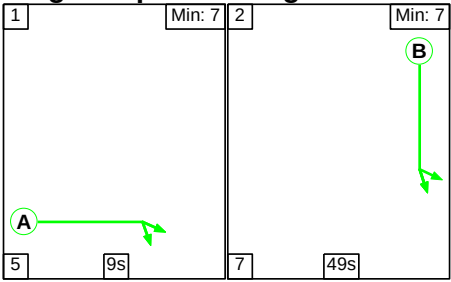
Full Input Data And Results

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	-	-	230	0	0	60.7	411.1	0.0	471.8	-	-	-	-
J9 - A627M / A663 / A627 / B6195	-	-	230	0	0	60.7	411.1	0.0	471.8	-	-	-	-
1/1	1269	1269	-	-	-	3.6	9.4	-	13.0	36.8	22.6	9.4	31.9
1/2	951	951	-	-	-	1.8	1.3	-	3.2	12.0	11.6	1.3	13.0
2/1	855	855	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	857	857	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	648	648	-	-	-	3.7	3.6	-	7.3	40.3	11.7	3.6	15.3
3/2+3/3	886	828	-	-	-	7.1	35.3	-	42.4	172.1	17.7	35.3	53.0
4/1	574	574	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	303	303	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	1698	1264	-	-	-	22.9	219.1	-	242.0	513.0	47.1	219.1	266.2
5/3	303	303	-	-	-	0.6	0.2	-	0.8	9.2	2.9	0.2	3.0
6/1	802	802	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	933	933	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1	1	1	0	0	0.0	0.0	-	0.0	1.3	0.0	0.0	0.0
7/2	5	5	5	0	0	0.0	0.0	-	0.0	2.2	0.0	0.0	0.0
8/1	494	494	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	159	159	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1+9/2	112	112	224	0	0	0.0	0.0	-	0.0	1.2	0.0	0.0	0.0
10/1	176	176	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	11	11	-	-	-	0.1	0.0	-	0.1	30.2	0.2	0.0	0.2
11/2	304	304	-	-	-	1.8	4.8	-	6.6	78.4	5.8	4.8	10.6
11/3	40	40	-	-	-	0.3	0.1	-	0.3	30.9	0.7	0.1	0.7
12/1	707	707	-	-	-	1.0	1.3	-	2.4	12.1	7.9	1.3	9.3
12/2	936	936	-	-	-	3.1	8.4	-	11.4	43.9	17.5	8.4	25.8
12/3	55	55	-	-	-	0.0	0.0	-	0.1	5.2	0.4	0.0	0.4

Full Input Data And Results

13/1	556	488	-	-	-	4.4	37.8	-	42.2	273.2	13.4	37.8	51.2
13/2	248	248	-	-	-	0.9	0.5	-	1.5	21.1	3.4	0.5	3.9
13/3	635	476	-	-	-	9.2	81.3	-	90.5	513.5	18.5	81.3	99.8
14/1	175	175	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
14/2	1647	1647	-	-	-	0.2	3.1	-	3.3	7.2	19.6	3.1	22.7
14/3	303	303	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
15/1	1652	1652	-	-	-	0.0	2.1	-	2.1	4.6	0.0	2.1	2.1
15/2	303	303	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
16/1	1723	1723	-	-	-	0.0	2.4	-	2.4	5.0	0.0	2.4	2.4
16/2	344	344	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
C1 PRC for Signalled Lanes (%): -7.0 C2 Stream: 1 PRC for Signalled Lanes (%): -18.9 C2 Stream: 2 PRC for Signalled Lanes (%): -49.3 PRC Over All Lanes (%): -49.3 Total Delay for Signalled Lanes (pcuHr): 23.18 Total Delay for Signalled Lanes (pcuHr): 63.50 Total Delay for Signalled Lanes (pcuHr): 376.89 Total Delay Over All Lanes(pcuHr): 471.79 Cycle Time (s): 70 Cycle Time (s): 70 Cycle Time (s): 70													

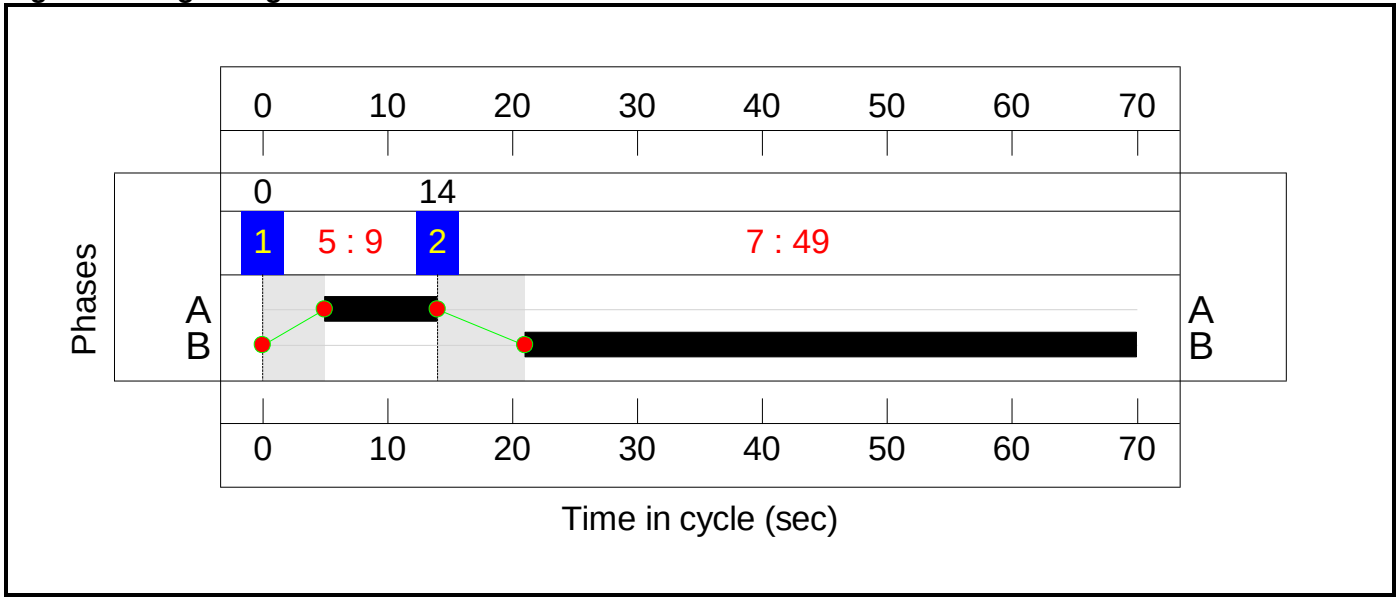
Stage Sequence Diagram



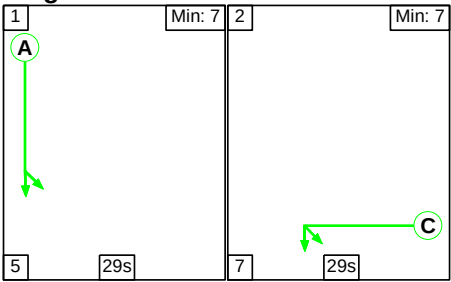
Stage Timings

Stage	1	2
Duration	9	49
Change Point	0	14

Signal Timings Diagram

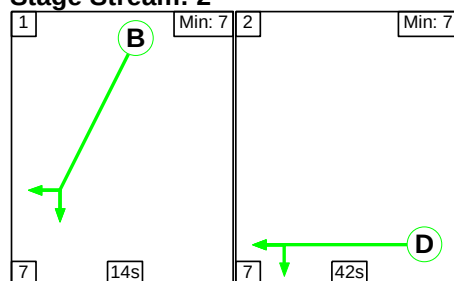


C2
Stage Sequence Diagram
Stage Stream: 1



Full Input Data And Results

Stage Stream: 2



Stage Timings

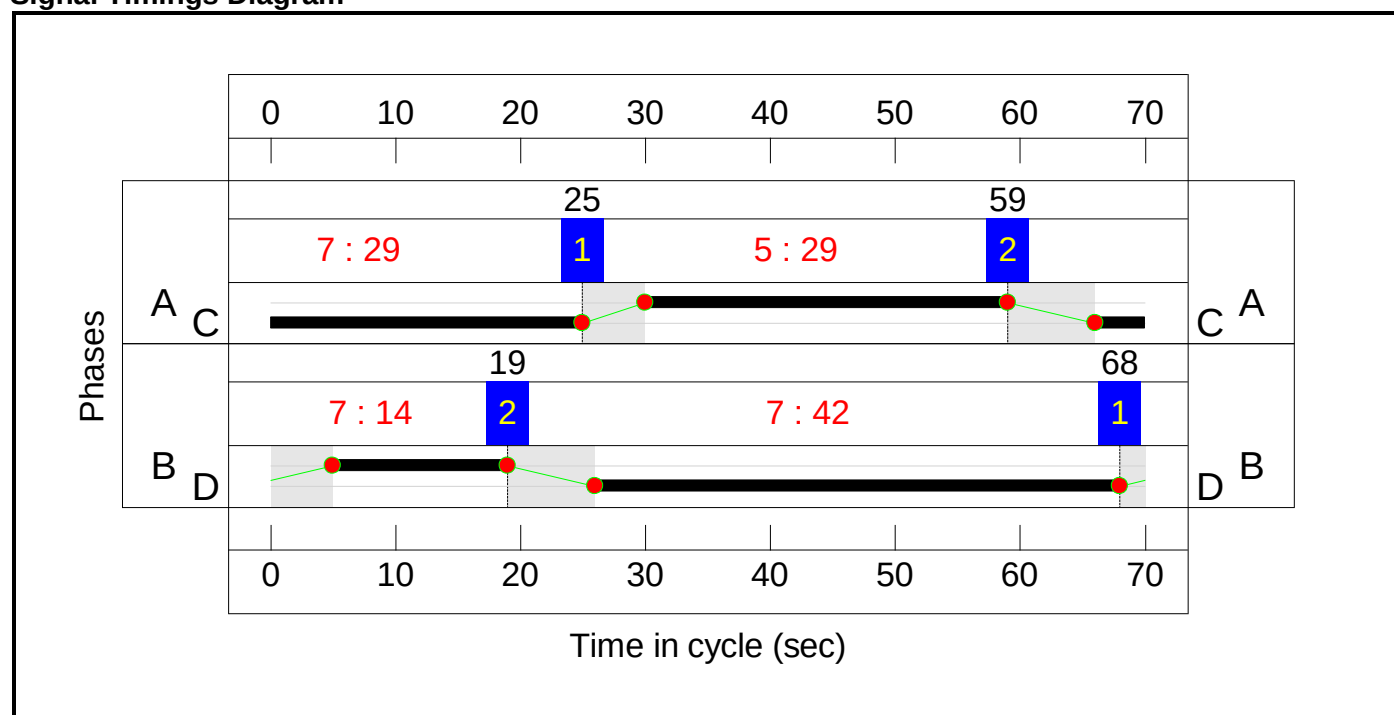
Stage Stream: 1

Stage	1	2
Duration	29	29
Change Point	25	59

Stage Stream: 2

Stage	1	2
Duration	14	42
Change Point	68	19

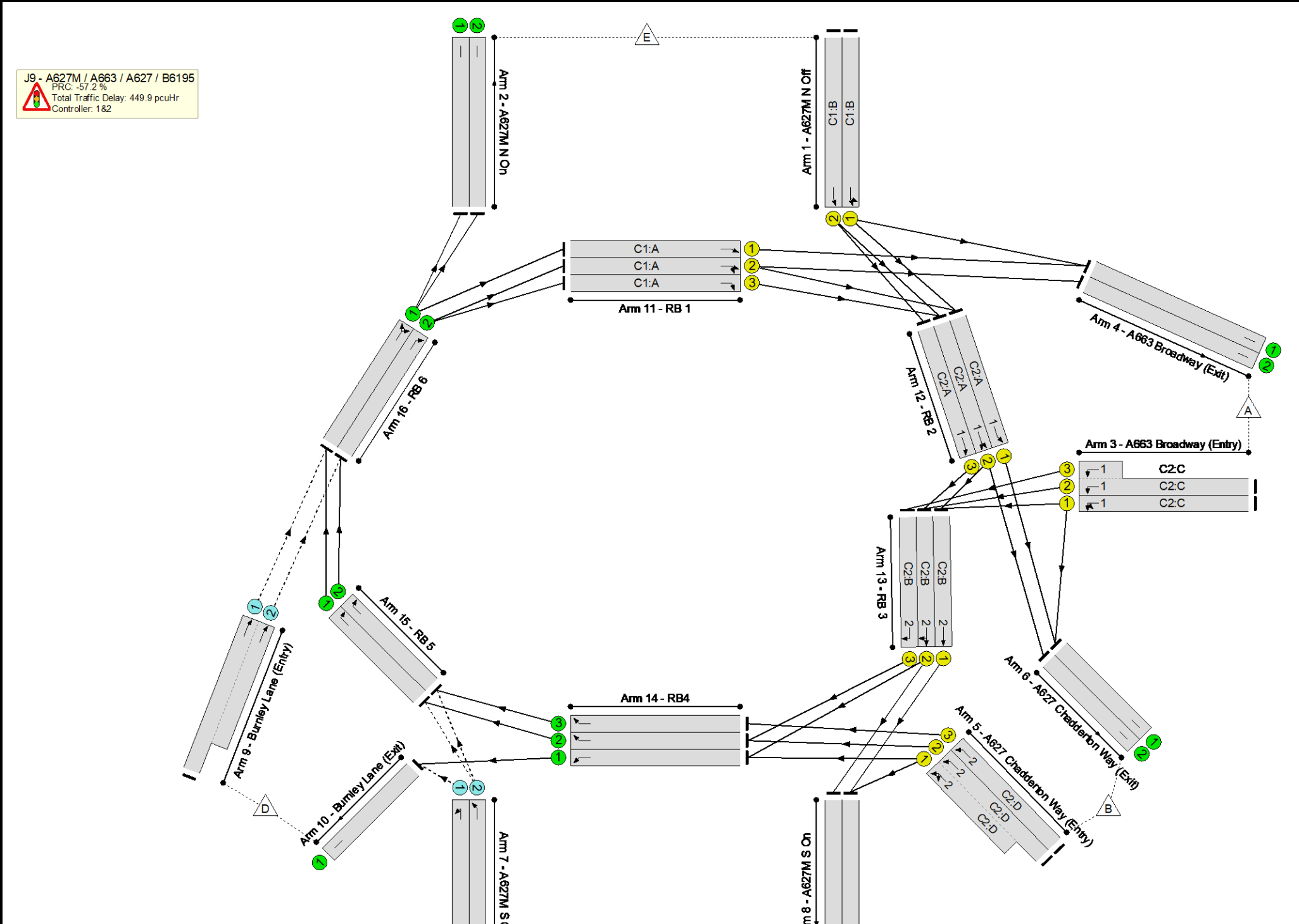
Signal Timings Diagram



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	-	-		-	-	-	-	-	-	141.5%
J9 - A627M / A663 / A627 / B6195	-	-	N/A	-	-		-	-	-	-	-	-	141.5%
1/1	A627M N Off Left Ahead	U	N/A	N/A	C1:B		1	49	-	1118	1925	1375	81.3%
1/2	A627M N Off Ahead	U	N/A	N/A	C1:B		1	49	-	768	1902	1359	56.5%
2/1	A627M N On	U	N/A	N/A	-		-	-	-	1167	Inf	Inf	0.0%
2/2	A627M N On	U	N/A	N/A	-		-	-	-	1168	Inf	Inf	0.0%
3/1	A663 Broadway (Entry) U-Turn Left	U	2:1	N/A	C2:C		1	29	-	590	1967	843	70.0%
3/2+3/3	A663 Broadway (Entry) Left	U	2:1	N/A	C2:C		1	29	-	814	1981:1981	303+668	83.8 : 83.8%
4/1	A663 Broadway (Exit)	U	N/A	N/A	-		-	-	-	631	Inf	Inf	0.0%
4/2	A663 Broadway (Exit)	U	N/A	N/A	-		-	-	-	198	Inf	Inf	0.0%
5/2+5/1	A627 Chadderton Way (Entry) U-Turn Left	U	2:2	N/A	C2:D		1	42	-	2000	2000:1997	1229+185	141.5 : 141.5%
5/3	A627 Chadderton Way (Entry) Left	U	2:2	N/A	C2:D		1	42	-	198	2000	1229	16.1%
6/1	A627 Chadderton Way (Exit)	U	N/A	N/A	-		-	-	-	685	Inf	Inf	0.0%
6/2	A627 Chadderton Way (Exit)	U	N/A	N/A	-		-	-	-	685	Inf	Inf	0.0%
7/1	A627M S Off Left	O	N/A	N/A	-		-	-	-	3	1857	1283	0.2%
7/2	A627M S Off Left	O	N/A	N/A	-		-	-	-	0	1967	700	0.0%
8/1	A627M S On	U	N/A	N/A	-		-	-	-	442	Inf	Inf	0.0%
8/2	A627M S On	U	N/A	N/A	-		-	-	-	77	Inf	Inf	0.0%

Full Input Data And Results

9/1+9/2	Burnley Lane (Entry) Ahead	O	N/A	N/A	-		-	-	-	110	1976:1975	895+521	8.3 : 6.9%
10/1	Burnley Lane (Exit)	U	N/A	N/A	-		-	-	-	548	Inf	Inf	0.0%
11/1	RB 1 Ahead	U	N/A	N/A	C1:A		1	9	-	37	1896	271	13.7%
11/2	RB 1 Ahead Right	U	N/A	N/A	C1:A		1	9	-	198	1902	272	72.9%
11/3	RB 1 Right	U	N/A	N/A	C1:A		1	9	-	36	1890	270	13.3%
12/1	RB 2 Ahead	U	2:1	N/A	C2:A		1	29	-	524	1993	854	61.3%
12/2	RB 2 Ahead Ahead2	U	2:1	N/A	C2:A		1	29	-	686	2008	861	79.7%
12/3	RB 2 Ahead	U	2:1	N/A	C2:A		1	29	-	118	1984	850	13.9%
13/1	RB 3 Ahead	U	2:2	N/A	C2:B		1	14	-	430	2008	430	99.9%
13/2	RB 3 Ahead Right	U	2:2	N/A	C2:B		1	14	-	372	1977	424	87.8%
13/3	RB 3 Right	U	2:2	N/A	C2:B		1	14	-	560	1959	420	133.4%
14/1	RB4 Left	U	N/A	N/A	-		-	-	-	545	1898	1898	24.9%
14/2	RB4 Ahead	U	N/A	N/A	-		-	-	-	2298	1907	1907	86.4%
14/3	RB4 Ahead	U	N/A	N/A	-		-	-	-	198	1892	1892	10.5%
15/1	RB 5 Right	U	N/A	N/A	-		-	-	-	2298	2038	2038	80.9%
15/2	RB 5 Right	U	N/A	N/A	-		-	-	-	198	2038	2038	9.7%
16/1	RB 6 Ahead Right	U	N/A	N/A	-		-	-	-	2372	2074	2074	83.0%
16/2	RB 6 Right	U	N/A	N/A	-		-	-	-	234	2012	2012	11.6%

Full Input Data And Results

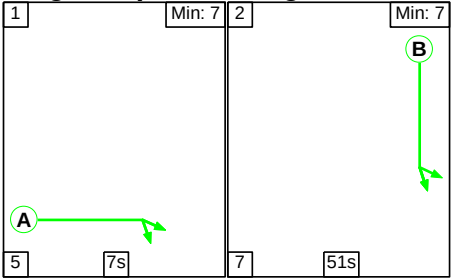
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	223	0	0	50.8	399.2	0.0	449.9	-	-	-	-
J9 - A627M / A663 / A627 / B6195	-	-	223	0	0	50.8	399.2	0.0	449.9	-	-	-	-
1/1	1118	1118	-	-	-	2.1	2.1	-	4.3	13.7	14.6	2.1	16.7
1/2	768	768	-	-	-	1.0	0.6	-	1.7	7.8	7.0	0.6	7.7
2/1	842	842	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	843	843	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	590	590	-	-	-	2.7	1.2	-	3.8	23.4	9.3	1.2	10.5
3/2+3/3	814	814	-	-	-	3.7	2.5	-	6.2	27.4	11.8	2.5	14.4
4/1	631	631	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	198	198	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	2000	1414	-	-	-	23.4	294.8	-	318.2	572.8	49.9	294.8	344.7
5/3	198	198	-	-	-	0.3	0.1	-	0.4	7.5	1.6	0.1	1.7
6/1	685	685	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	685	685	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	3	3	3	0	0	0.0	0.0	-	0.0	1.4	0.0	0.0	0.0
7/2	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	438	438	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	77	77	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1+9/2	110	110	220	0	0	0.0	0.0	-	0.0	1.4	0.0	0.0	0.0
10/1	475	475	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	37	37	-	-	-	0.3	0.1	-	0.3	34.0	0.6	0.1	0.7
11/2	198	198	-	-	-	1.3	1.3	-	2.6	46.5	3.6	1.3	4.9
11/3	36	36	-	-	-	0.3	0.1	-	0.3	34.0	0.6	0.1	0.7
12/1	524	524	-	-	-	1.4	0.8	-	2.2	14.8	5.8	0.8	6.6
12/2	686	686	-	-	-	2.6	1.9	-	4.5	23.6	11.7	1.9	13.6
12/3	118	118	-	-	-	0.3	0.1	-	0.3	10.1	1.1	0.1	1.2

Full Input Data And Results

[illegible]

C1

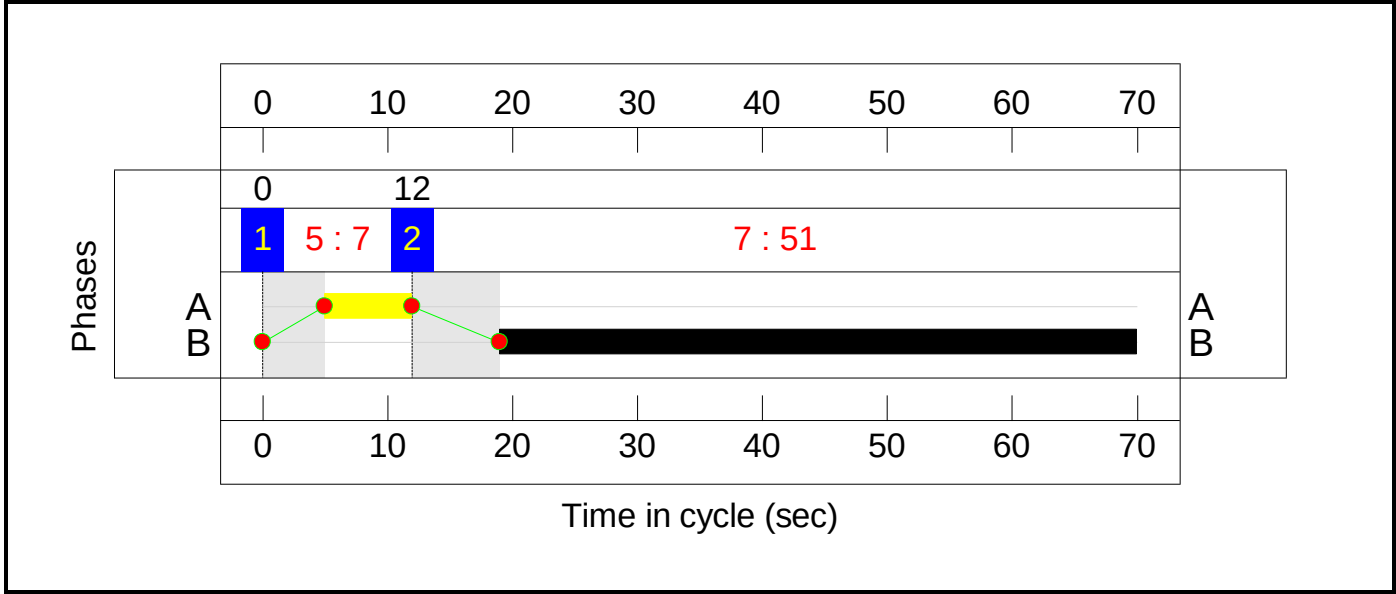
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	7	51
Change Point	0	12

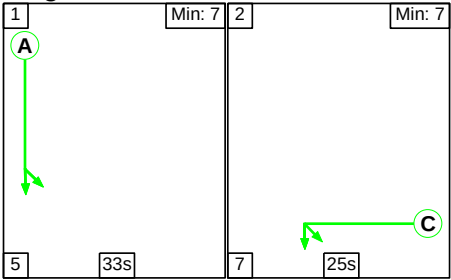
Signal Timings Diagram



C2

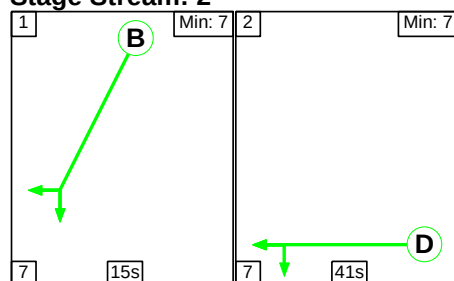
Stage Sequence Diagram

Stage Stream: 1



Full Input Data And Results

Stage Stream: 2



Stage Timings

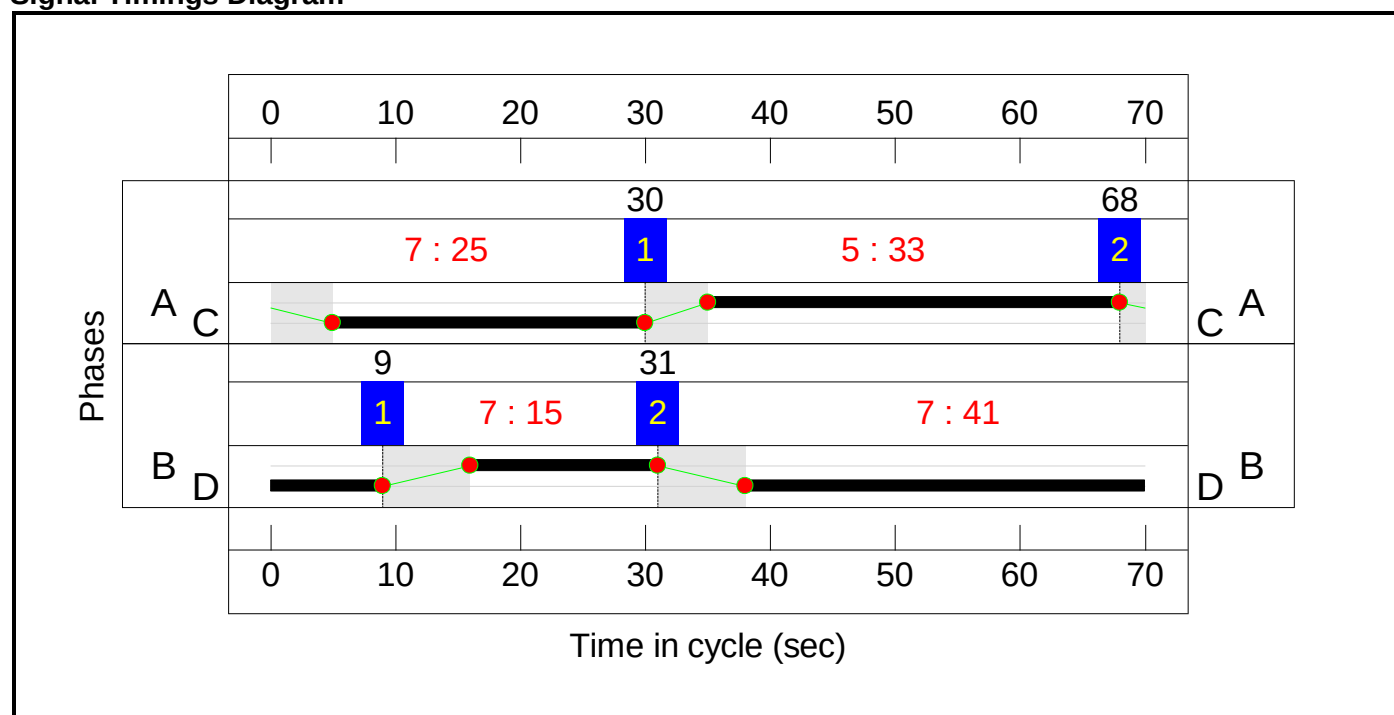
Stage Stream: 1

Stage	1	2
Duration	33	25
Change Point	30	68

Stage Stream: 2

Stage	1	2
Duration	15	41
Change Point	9	31

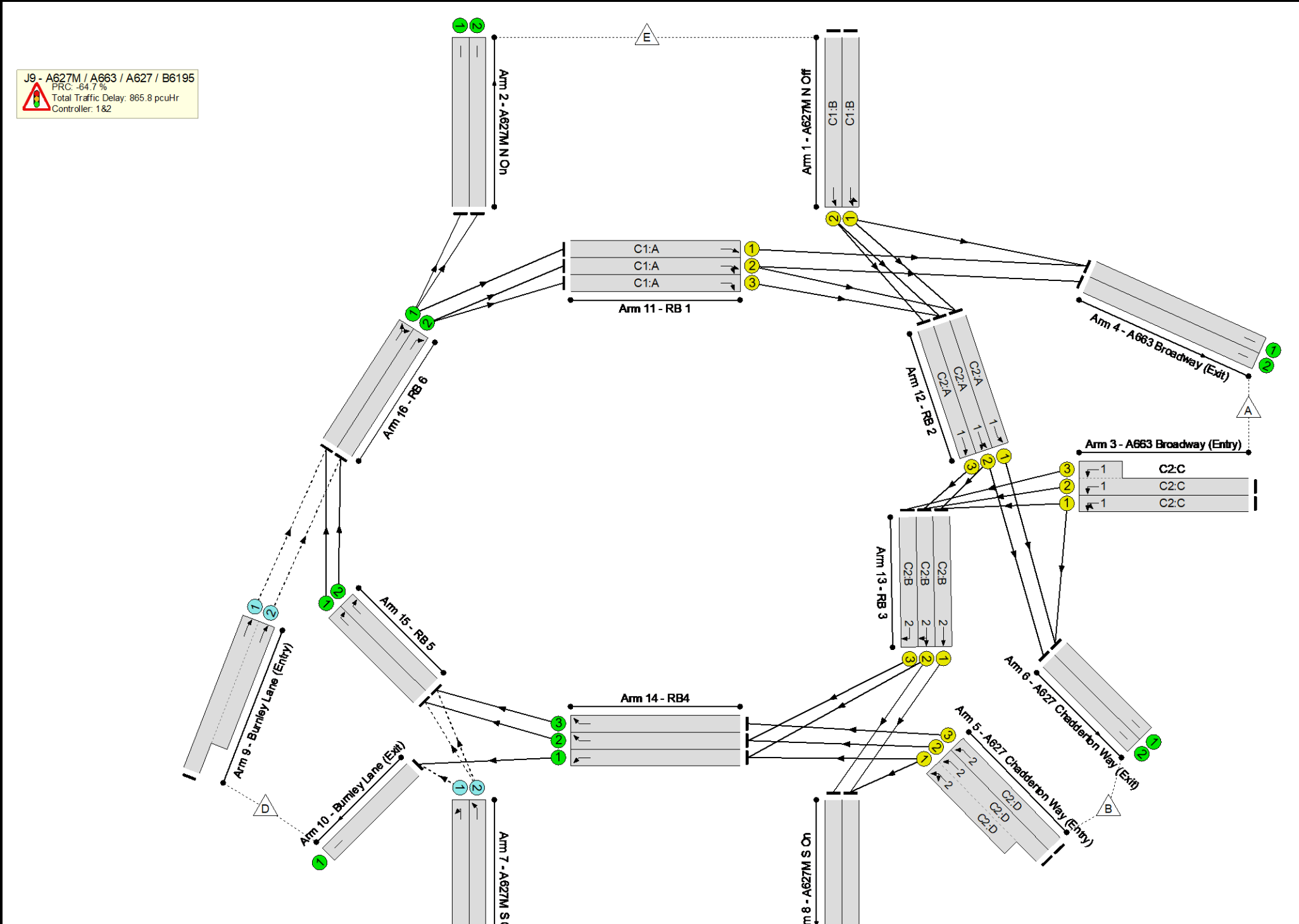
Signal Timings Diagram



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	-	-		-	-	-	-	-	-	148.3%
J9 - A627M / A663 / A627 / B6195	-	-	N/A	-	-		-	-	-	-	-	-	148.3%
1/1	A627M N Off Left Ahead	U	N/A	N/A	C1:B		1	51	-	1422	1922	1428	99.6%
1/2	A627M N Off Ahead	U	N/A	N/A	C1:B		1	51	-	1115	1902	1413	78.9%
2/1	A627M N On	U	N/A	N/A	-		-	-	-	1396	Inf	Inf	0.0%
2/2	A627M N On	U	N/A	N/A	-		-	-	-	1399	Inf	Inf	0.0%
3/1	A663 Broadway (Entry) U-Turn Left	U	2:1	N/A	C2:C		1	25	-	657	1972	732	89.7%
3/2+3/3	A663 Broadway (Entry) Left	U	2:1	N/A	C2:C		1	25	-	1194	1981:1981	159+656	146.4 : 146.4%
4/1	A663 Broadway (Exit)	U	N/A	N/A	-		-	-	-	701	Inf	Inf	0.0%
4/2	A663 Broadway (Exit)	U	N/A	N/A	-		-	-	-	130	Inf	Inf	0.0%
5/2+5/1	A627 Chadderton Way (Entry) U-Turn Left	U	2:2	N/A	C2:D		1	41	-	1908	2000:1983	1200+87	148.3 : 148.3%
5/3	A627 Chadderton Way (Entry) Left	U	2:2	N/A	C2:D		1	41	-	106	2000	1200	8.8%
6/1	A627 Chadderton Way (Exit)	U	N/A	N/A	-		-	-	-	860	Inf	Inf	0.0%
6/2	A627 Chadderton Way (Exit)	U	N/A	N/A	-		-	-	-	1090	Inf	Inf	0.0%
7/1	A627M S Off Left	O	N/A	N/A	-		-	-	-	1	1857	1408	0.1%
7/2	A627M S Off Left	O	N/A	N/A	-		-	-	-	66	1893	850	7.8%
8/1	A627M S On	U	N/A	N/A	-		-	-	-	630	Inf	Inf	0.0%
8/2	A627M S On	U	N/A	N/A	-		-	-	-	217	Inf	Inf	0.0%

Full Input Data And Results

9/1+9/2	Burnley Lane (Entry) Ahead	O	N/A	N/A	-		-	-	-	83	1976:1975	881+299	7.0 : 7.0%
10/1	Burnley Lane (Exit)	U	N/A	N/A	-		-	-	-	129	Inf	Inf	0.0%
11/1	RB 1 Ahead	U	N/A	N/A	C1:A		1	7	-	49	1896	217	22.6%
11/2	RB 1 Ahead Right	U	N/A	N/A	C1:A		1	7	-	146	1902	217	67.2%
11/3	RB 1 Right	U	N/A	N/A	C1:A		1	7	-	5	1890	216	2.3%
12/1	RB 2 Ahead	U	2:1	N/A	C2:A		1	33	-	786	1993	968	81.2%
12/2	RB 2 Ahead Ahead2	U	2:1	N/A	C2:A		1	33	-	1095	2008	975	112.3%
12/3	RB 2 Ahead	U	2:1	N/A	C2:A		1	33	-	25	1984	964	2.6%
13/1	RB 3 Ahead	U	2:2	N/A	C2:B		1	15	-	588	2008	459	128.1%
13/2	RB 3 Ahead Right	U	2:2	N/A	C2:B		1	15	-	258	2002	458	40.2%
13/3	RB 3 Right	U	2:2	N/A	C2:B		1	15	-	961	1959	448	146.6%
14/1	RB4 Left	U	N/A	N/A	-		-	-	-	128	1898	1898	5.0%
14/2	RB4 Ahead	U	N/A	N/A	-		-	-	-	2740	1907	1907	86.4%
14/3	RB4 Ahead	U	N/A	N/A	-		-	-	-	106	1892	1892	5.6%
15/1	RB 5 Right	U	N/A	N/A	-		-	-	-	2782	2038	2038	82.9%
15/2	RB 5 Right	U	N/A	N/A	-		-	-	-	130	2038	2038	6.4%
16/1	RB 6 Ahead Right	U	N/A	N/A	-		-	-	-	2844	2074	2074	84.5%
16/2	RB 6 Right	U	N/A	N/A	-		-	-	-	151	2012	2012	7.5%

Full Input Data And Results

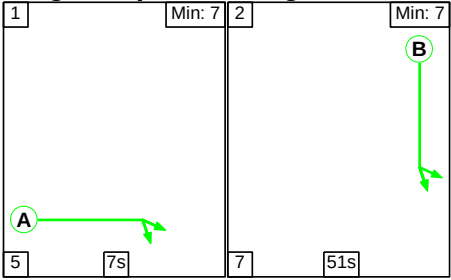
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	233	0	0	91.0	774.8	0.0	865.8	-	-	-	-
J9 - A627M / A663 / A627 / B6195	-	-	233	0	0	91.0	774.8	0.0	865.8	-	-	-	-
1/1	1422	1422	-	-	-	3.5	17.5	-	21.0	53.1	27.3	17.5	44.7
1/2	1115	1115	-	-	-	1.7	1.8	-	3.6	11.6	13.3	1.8	15.2
2/1	850	850	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	852	852	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	657	657	-	-	-	3.8	3.9	-	7.7	42.3	11.9	3.9	15.8
3/2+3/3	1194	816	-	-	-	19.8	190.8	-	210.6	634.9	30.3	190.8	221.1
4/1	701	701	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	130	130	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	1908	1287	-	-	-	29.6	312.0	-	341.6	644.5	53.8	312.0	365.8
5/3	106	106	-	-	-	0.2	0.0	-	0.2	7.6	0.9	0.0	0.9
6/1	860	860	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	970	970	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1	1	1	0	0	0.0	0.0	-	0.0	1.3	0.0	0.0	0.0
7/2	66	66	66	0	0	0.0	0.0	-	0.0	2.3	0.0	0.0	0.0
8/1	487	487	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	148	148	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1+9/2	83	83	166	0	0	0.0	0.0	-	0.0	1.6	0.0	0.0	0.0
10/1	96	96	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	49	49	-	-	-	0.4	0.1	-	0.5	39.0	0.9	0.1	1.0
11/2	146	146	-	-	-	1.0	1.0	-	2.0	50.0	2.7	1.0	3.7
11/3	5	5	-	-	-	0.0	0.0	-	0.1	36.4	0.1	0.0	0.1
12/1	786	786	-	-	-	2.1	2.1	-	4.2	19.3	11.2	2.1	13.3
12/2	1095	975	-	-	-	9.0	64.1	-	73.1	240.4	25.6	64.1	89.8
12/3	25	25	-	-	-	0.0	0.0	-	0.0	6.5	0.2	0.0	0.2

Full Input Data And Results

13/1	588	459	-	-	-	7.3	66.7	-	74.0	453.3	16.1	66.7	82.8
13/2	184	184	-	-	-	0.6	0.3	-	1.0	19.2	2.3	0.3	2.6
13/3	656	448	-	-	-	11.7	105.9	-	117.5	644.6	20.7	105.9	126.6
14/1	95	95	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
14/2	1648	1648	-	-	-	0.2	3.1	-	3.3	7.3	20.2	3.1	23.3
14/3	106	106	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
15/1	1690	1690	-	-	-	0.0	2.4	-	2.4	5.1	0.0	2.4	2.4
15/2	130	130	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
16/1	1752	1752	-	-	-	0.0	2.7	-	2.7	5.5	0.0	2.7	2.7
16/2	151	151	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -10.7 Total Delay for Signalled Lanes (pcuHr): 27.17 Cycle Time (s): 70 C2 Stream: 1 PRC for Signalled Lanes (%): -62.7 Total Delay for Signalled Lanes (pcuHr): 295.68 Cycle Time (s): 70 C2 Stream: 2 PRC for Signalled Lanes (%): -64.7 Total Delay for Signalled Lanes (pcuHr): 534.33 Cycle Time (s): 70 PRC Over All Lanes (%): -64.7 Total Delay Over All Lanes(pcuHr): 865.78													

Full Input Data And Results
Scenario 4: '2040 DM PM' (FG4: '2040 DM PM', Plan 1: 'Network Control Plan 1')
C1

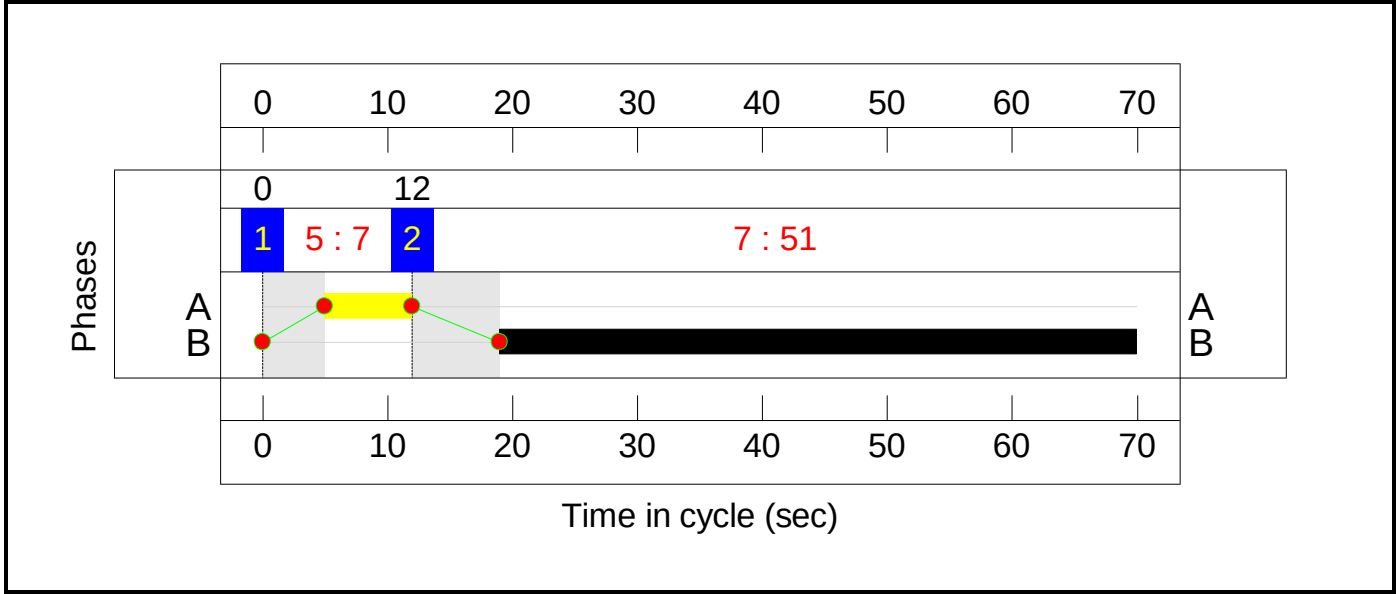
Stage Sequence Diagram



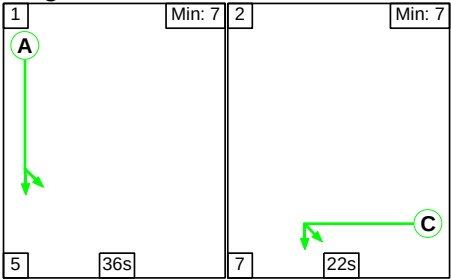
Stage Timings

Stage	1	2
Duration	7	51
Change Point	0	12

Signal Timings Diagram

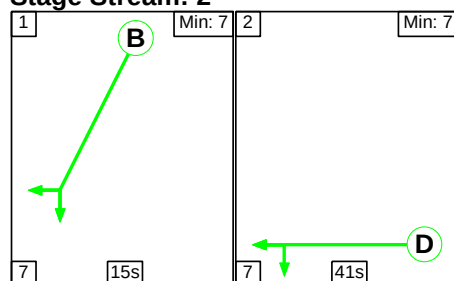


C2
Stage Sequence Diagram
Stage Stream: 1



Full Input Data And Results

Stage Stream: 2



Stage Timings

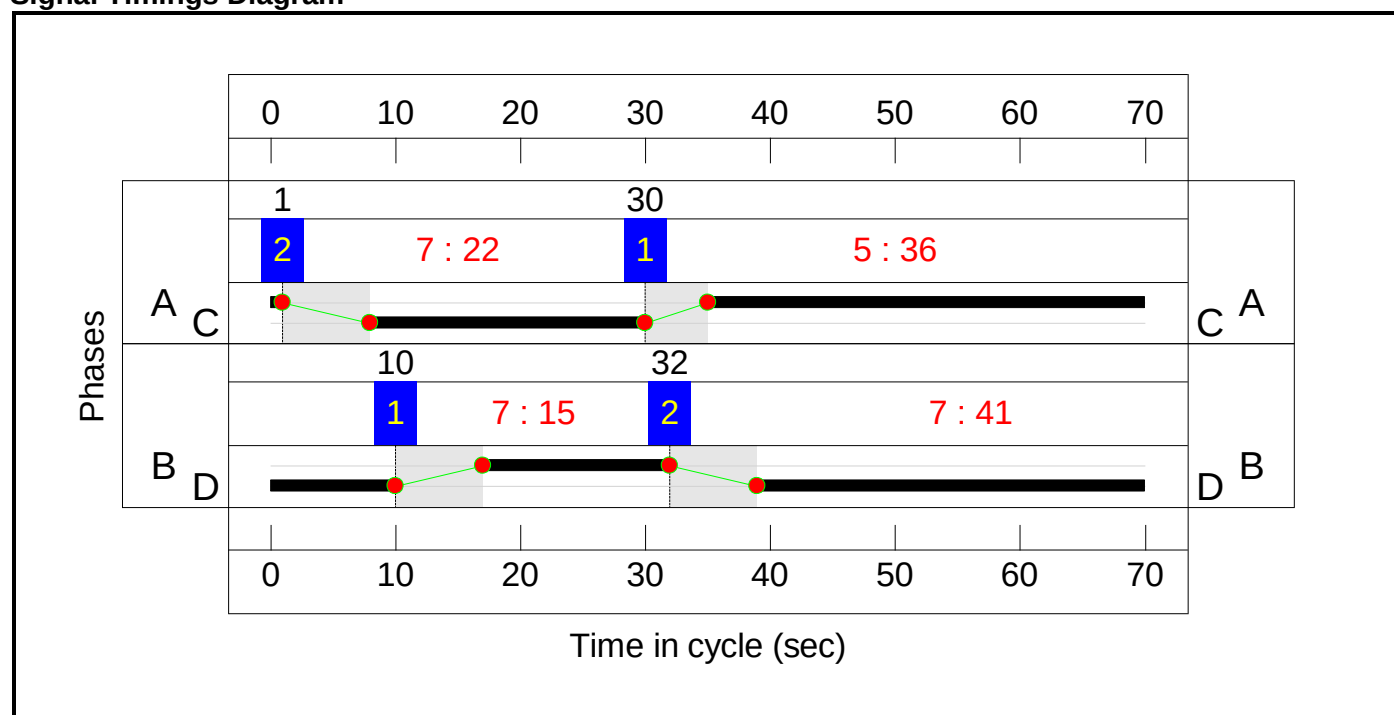
Stage Stream: 1

Stage	1	2
Duration	36	22
Change Point	30	1

Stage Stream: 2

Stage	1	2
Duration	15	41
Change Point	10	32

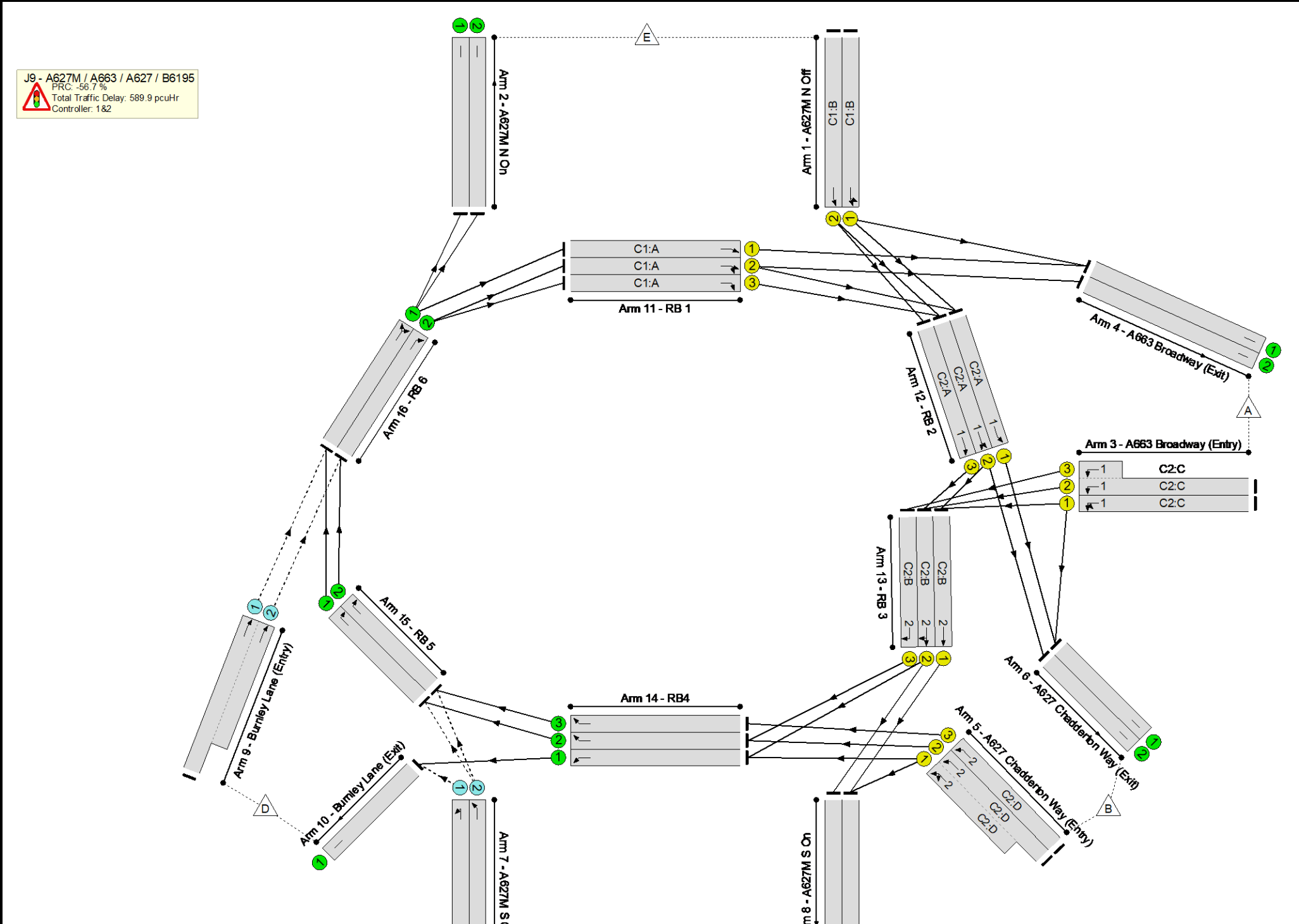
Signal Timings Diagram



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	-	-		-	-	-	-	-	-	141.0%
J9 - A627M / A663 / A627 / B6195	-	-	N/A	-	-		-	-	-	-	-	-	141.0%
1/1	A627M N Off Left Ahead	U	N/A	N/A	C1:B		1	51	-	1335	1928	1432	93.2%
1/2	A627M N Off Ahead	U	N/A	N/A	C1:B		1	51	-	978	1902	1413	69.2%
2/1	A627M N On	U	N/A	N/A	-		-	-	-	1293	Inf	Inf	0.0%
2/2	A627M N On	U	N/A	N/A	-		-	-	-	1294	Inf	Inf	0.0%
3/1	A663 Broadway (Entry) U-Turn Left	U	2:1	N/A	C2:C		1	22	-	568	1969	647	87.8%
3/2+3/3	A663 Broadway (Entry) Left	U	2:1	N/A	C2:C		1	22	-	947	1981:1981	77+630	134.0 : 134.0%
4/1	A663 Broadway (Exit)	U	N/A	N/A	-		-	-	-	872	Inf	Inf	0.0%
4/2	A663 Broadway (Exit)	U	N/A	N/A	-		-	-	-	105	Inf	Inf	0.0%
5/2+5/1	A627 Chadderton Way (Entry) U-Turn Left	U	2:2	N/A	C2:D		1	41	-	1901	2000:1987	1200+148	141.0 : 141.0%
5/3	A627 Chadderton Way (Entry) Left	U	2:2	N/A	C2:D		1	41	-	71	2000	1200	5.9%
6/1	A627 Chadderton Way (Exit)	U	N/A	N/A	-		-	-	-	607	Inf	Inf	0.0%
6/2	A627 Chadderton Way (Exit)	U	N/A	N/A	-		-	-	-	914	Inf	Inf	0.0%
7/1	A627M S Off Left	O	N/A	N/A	-		-	-	-	1	1857	1355	0.1%
7/2	A627M S Off Left	O	N/A	N/A	-		-	-	-	39	1893	791	4.9%
8/1	A627M S On	U	N/A	N/A	-		-	-	-	507	Inf	Inf	0.0%
8/2	A627M S On	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

9/1+9/2	Burnley Lane (Entry) Ahead	O	N/A	N/A	-		-	-	-	78	1976:1975	894+102	7.8 : 7.8%
10/1	Burnley Lane (Exit)	U	N/A	N/A	-		-	-	-	326	Inf	Inf	0.0%
11/1	RB 1 Ahead	U	N/A	N/A	C1:A		1	7	-	24	1896	217	11.1%
11/2	RB 1 Ahead Right	U	N/A	N/A	C1:A		1	7	-	113	1902	217	52.0%
11/3	RB 1 Right	U	N/A	N/A	C1:A		1	7	-	0	1941	222	0.0%
12/1	RB 2 Ahead	U	2:1	N/A	C2:A		1	36	-	495	1993	1053	47.0%
12/2	RB 2 Ahead Ahead2	U	2:1	N/A	C2:A		1	36	-	914	2008	1061	86.1%
12/3	RB 2 Ahead	U	2:1	N/A	C2:A		1	36	-	64	1984	1049	6.1%
13/1	RB 3 Ahead	U	2:2	N/A	C2:B		1	15	-	456	2008	459	99.4%
13/2	RB 3 Ahead Right	U	2:2	N/A	C2:B		1	15	-	167	1969	450	31.3%
13/3	RB 3 Right	U	2:2	N/A	C2:B		1	15	-	844	1959	448	140.6%
14/1	RB4 Left	U	N/A	N/A	-		-	-	-	325	1898	1898	13.3%
14/2	RB4 Ahead	U	N/A	N/A	-		-	-	-	2536	1907	1907	86.4%
14/3	RB4 Ahead	U	N/A	N/A	-		-	-	-	71	1892	1892	3.8%
15/1	RB 5 Right	U	N/A	N/A	-		-	-	-	2541	2038	2038	81.1%
15/2	RB 5 Right	U	N/A	N/A	-		-	-	-	105	2038	2038	5.2%
16/1	RB 6 Ahead Right	U	N/A	N/A	-		-	-	-	2611	2075	2075	83.0%
16/2	RB 6 Right	U	N/A	N/A	-		-	-	-	113	2012	2012	5.6%

Full Input Data And Results

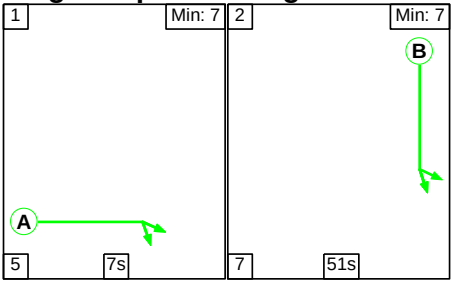
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	196	0	0	64.4	525.6	0.0	589.9	-	-	-	-
J9 - A627M / A663 / A627 / B6195	-	-	196	0	0	64.4	525.6	0.0	589.9	-	-	-	-
1/1	1335	1335	-	-	-	2.8	6.1	-	8.9	24.0	21.5	6.1	27.6
1/2	978	978	-	-	-	1.3	1.1	-	2.4	8.9	10.1	1.1	11.2
2/1	849	849	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	850	850	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	568	568	-	-	-	3.5	3.3	-	6.8	43.2	10.4	3.3	13.7
3/2+3/3	947	707	-	-	-	14.1	122.1	-	136.2	517.8	23.2	122.1	145.3
4/1	872	872	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	105	105	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	1901	1348	-	-	-	26.8	278.1	-	304.9	577.4	52.2	278.1	330.3
5/3	71	71	-	-	-	0.1	0.0	-	0.1	7.4	0.6	0.0	0.6
6/1	607	607	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	914	914	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1	1	1	0	0	0.0	0.0	-	0.0	1.3	0.0	0.0	0.0
7/2	39	39	39	0	0	0.0	0.0	-	0.0	2.4	0.0	0.0	0.0
8/1	492	492	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1+9/2	78	78	156	0	0	0.0	0.0	-	0.0	2.0	0.0	0.0	0.0
10/1	254	254	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	24	24	-	-	-	0.2	0.1	-	0.2	37.2	0.4	0.1	0.5
11/2	113	113	-	-	-	0.8	0.5	-	1.3	42.6	2.0	0.5	2.6
11/3	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	495	495	-	-	-	0.6	0.4	-	1.1	7.8	4.2	0.4	4.6
12/2	914	914	-	-	-	2.4	3.0	-	5.4	21.3	15.2	3.0	18.2
12/3	64	64	-	-	-	0.1	0.0	-	0.1	5.3	0.5	0.0	0.5

Full Input Data And Results

[illegible]

C1

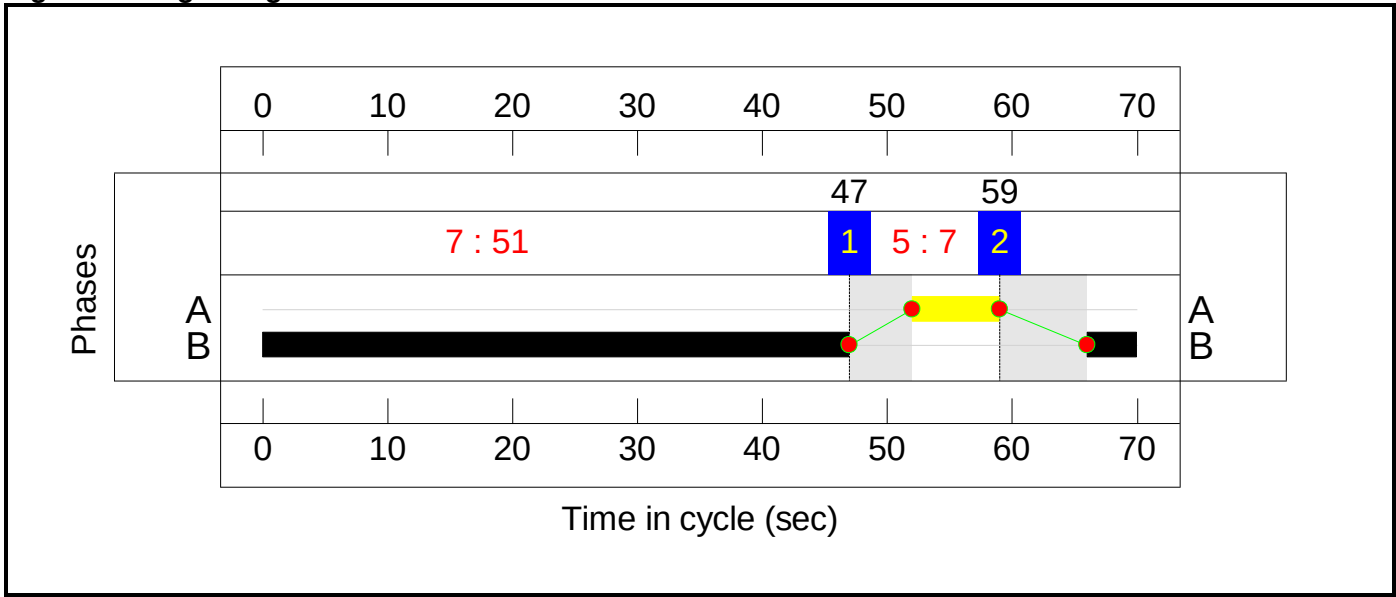
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	7	51
Change Point	47	59

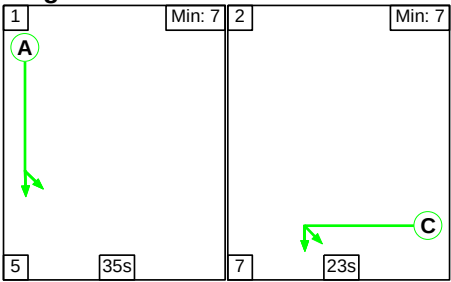
Signal Timings Diagram



C2

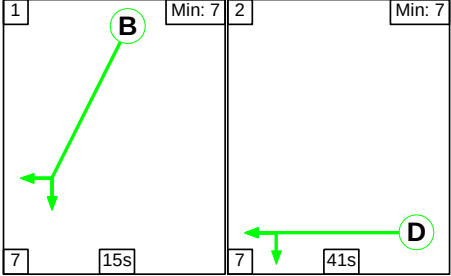
Stage Sequence Diagram

Stage Stream: 1



Full Input Data And Results

Stage Stream: 2



Stage Timings

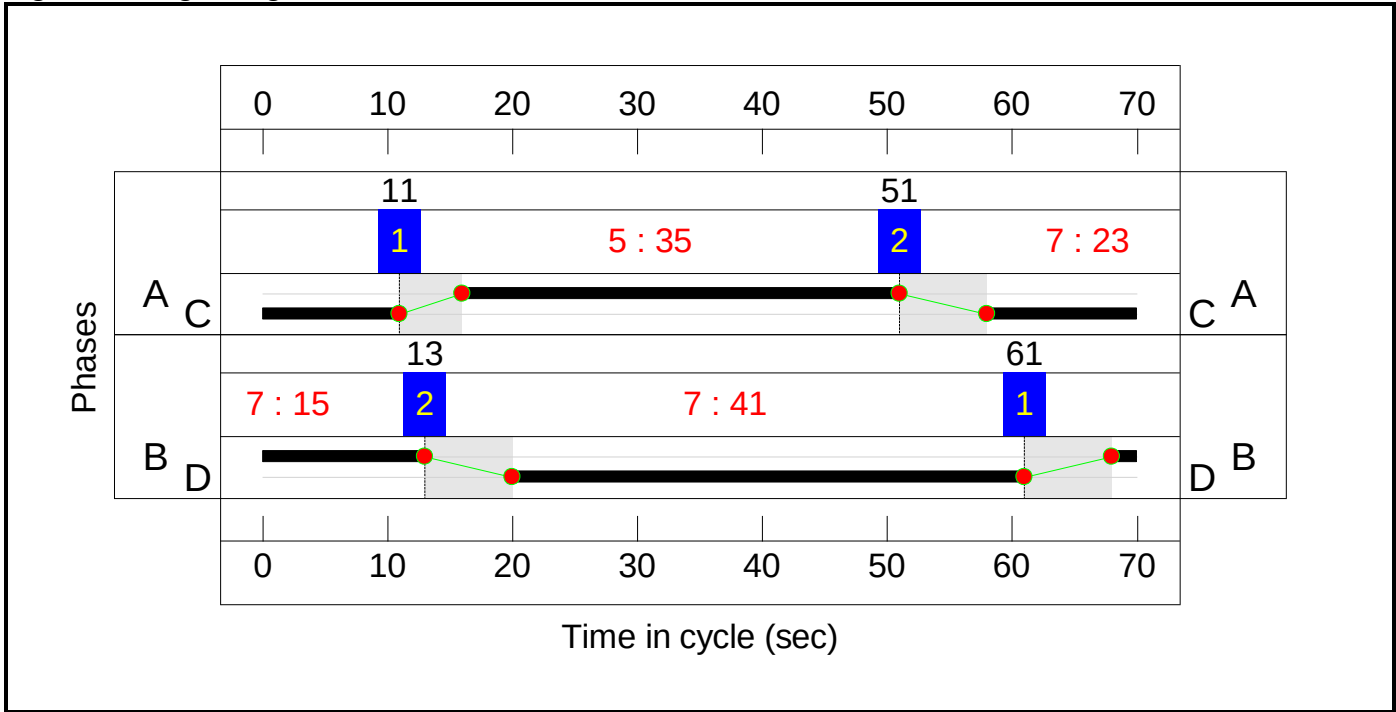
Stage Stream: 1

Stage	1	2
Duration	35	23
Change Point	11	51

Stage Stream: 2

Stage	1	2
Duration	15	41
Change Point	61	13

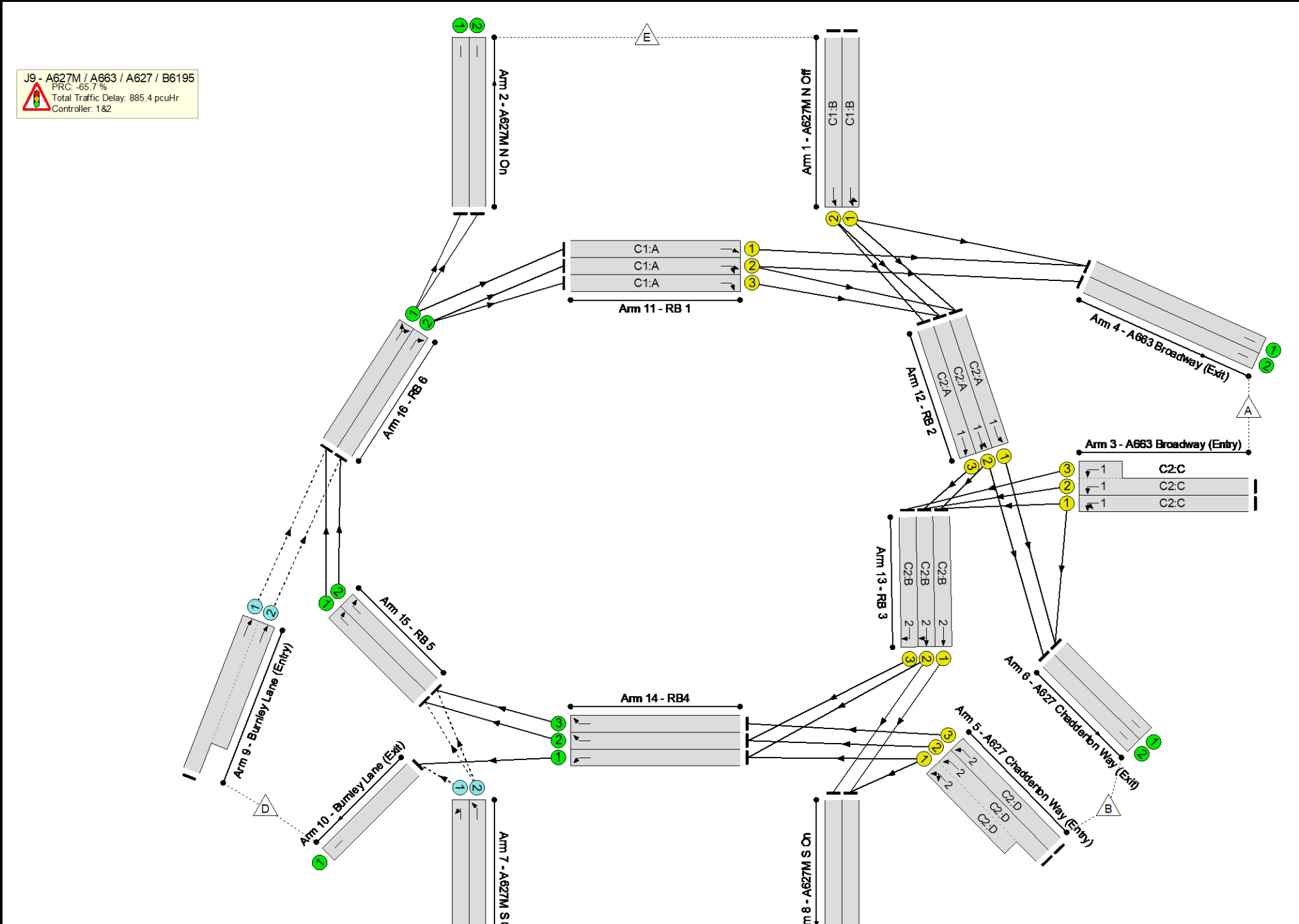
Signal Timings Diagram



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	-	-		-	-	-	-	-	-	149.1%
J9 - A627M / A663 / A627 / B6195	-	-	N/A	-	-		-	-	-	-	-	-	149.1%
1/1	A627M N Off Left Ahead	U	N/A	N/A	C1:B		1	51	-	1542	1921	1427	108.1%
1/2	A627M N Off Ahead	U	N/A	N/A	C1:B		1	51	-	997	1902	1413	70.6%
2/1	A627M N On	U	N/A	N/A	-		-	-	-	1399	Inf	Inf	0.0%
2/2	A627M N On	U	N/A	N/A	-		-	-	-	1400	Inf	Inf	0.0%
3/1	A663 Broadway (Entry) U-Turn Left	U	2:1	N/A	C2:C		1	23	-	749	1972	676	110.8%
3/2+3/3	A663 Broadway (Entry) Left	U	2:1	N/A	C2:C		1	23	-	1103	1981:1981	95+645	149.1 : 149.1%
4/1	A663 Broadway (Exit)	U	N/A	N/A	-		-	-	-	725	Inf	Inf	0.0%
4/2	A663 Broadway (Exit)	U	N/A	N/A	-		-	-	-	106	Inf	Inf	0.0%
5/2+5/1	A627 Chadderton Way (Entry) U-Turn Left	U	2:2	N/A	C2:D		1	41	-	1910	2000:1983	1200+87	148.4 : 148.4%
5/3	A627 Chadderton Way (Entry) Left	U	2:2	N/A	C2:D		1	41	-	106	2000	1200	8.8%
6/1	A627 Chadderton Way (Exit)	U	N/A	N/A	-		-	-	-	966	Inf	Inf	0.0%
6/2	A627 Chadderton Way (Exit)	U	N/A	N/A	-		-	-	-	986	Inf	Inf	0.0%
7/1	A627M S Off Left	O	N/A	N/A	-		-	-	-	1	1857	1408	0.1%
7/2	A627M S Off Left	O	N/A	N/A	-		-	-	-	66	1893	864	7.6%
8/1	A627M S On	U	N/A	N/A	-		-	-	-	722	Inf	Inf	0.0%
8/2	A627M S On	U	N/A	N/A	-		-	-	-	125	Inf	Inf	0.0%

Full Input Data And Results

9/1+9/2	Burnley Lane (Entry) Ahead	O	N/A	N/A	-		-	-	-	84	1976:1975	873+291	7.2 : 7.2%
10/1	Burnley Lane (Exit)	U	N/A	N/A	-		-	-	-	129	Inf	Inf	0.0%
11/1	RB 1 Ahead	U	N/A	N/A	C1:A		1	7	-	73	1896	217	33.7%
11/2	RB 1 Ahead Right	U	N/A	N/A	C1:A		1	7	-	108	1902	217	49.7%
11/3	RB 1 Right	U	N/A	N/A	C1:A		1	7	-	19	1890	216	8.8%
12/1	RB 2 Ahead	U	2:1	N/A	C2:A		1	35	-	892	1993	1025	80.6%
12/2	RB 2 Ahead Ahead2	U	2:1	N/A	C2:A		1	35	-	991	2008	1033	96.0%
12/3	RB 2 Ahead	U	2:1	N/A	C2:A		1	35	-	25	1984	1020	2.5%
13/1	RB 3 Ahead	U	2:2	N/A	C2:B		1	15	-	680	2008	459	133.8%
13/2	RB 3 Ahead Right	U	2:2	N/A	C2:B		1	15	-	166	1998	457	26.2%
13/3	RB 3 Right	U	2:2	N/A	C2:B		1	15	-	962	1959	448	144.1%
14/1	RB4 Left	U	N/A	N/A	-		-	-	-	128	1898	1898	5.0%
14/2	RB4 Ahead	U	N/A	N/A	-		-	-	-	2743	1907	1907	86.4%
14/3	RB4 Ahead	U	N/A	N/A	-		-	-	-	106	1892	1892	5.6%
15/1	RB 5 Right	U	N/A	N/A	-		-	-	-	2809	2038	2038	84.1%
15/2	RB 5 Right	U	N/A	N/A	-		-	-	-	106	2038	2038	5.2%
16/1	RB 6 Ahead Right	U	N/A	N/A	-		-	-	-	2872	2074	2074	85.7%
16/2	RB 6 Right	U	N/A	N/A	-		-	-	-	127	2012	2012	6.3%

Full Input Data And Results

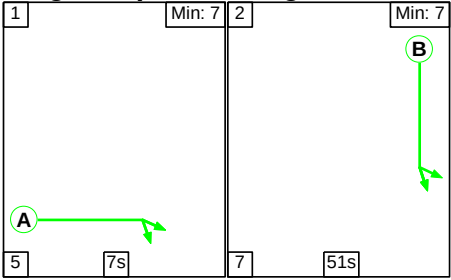
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	235	0	0	83.2	802.2	0.0	885.4	-	-	-	-
J9 - A627M / A663 / A627 / B6195	-	-	235	0	0	83.2	802.2	0.0	885.4	-	-	-	-
1/1	1542	1427	-	-	-	7.6	63.6	-	71.1	166.1	32.2	63.6	95.8
1/2	997	997	-	-	-	1.3	1.2	-	2.5	9.2	10.2	1.2	11.4
2/1	852	852	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	852	852	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	749	676	-	-	-	7.6	41.0	-	48.6	233.6	16.0	41.0	57.0
3/2+3/3	1103	740	-	-	-	20.9	183.1	-	204.0	665.9	30.7	183.1	213.8
4/1	676	676	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	106	106	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	1910	1287	-	-	-	23.8	313.1	-	336.9	635.0	50.7	313.1	363.8
5/3	106	106	-	-	-	0.2	0.0	-	0.2	7.6	0.9	0.0	0.9
6/1	892	892	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	986	986	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1	1	1	0	0	0.0	0.0	-	0.0	1.3	0.0	0.0	0.0
7/2	66	66	66	0	0	0.0	0.0	-	0.0	2.3	0.0	0.0	0.0
8/1	487	487	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	84	84	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1+9/2	84	84	168	0	0	0.0	0.0	-	0.0	1.7	0.0	0.0	0.0
10/1	95	95	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	73	73	-	-	-	0.6	0.3	-	0.8	41.1	1.3	0.3	1.6
11/2	108	108	-	-	-	0.7	0.5	-	1.2	39.6	1.9	0.5	2.4
11/3	19	19	-	-	-	0.1	0.0	-	0.2	37.0	0.3	0.0	0.4
12/1	826	826	-	-	-	1.4	2.0	-	3.4	15.0	11.1	2.0	13.2
12/2	991	991	-	-	-	3.3	8.5	-	11.8	42.8	18.5	8.5	26.9
12/3	25	25	-	-	-	0.0	0.0	-	0.0	6.2	0.2	0.0	0.2

Full Input Data And Results

[illegible]

Full Input Data And Results
Scenario 6: '2040 DS PM' (FG6: '2040 DS PM', Plan 1: 'Network Control Plan 1')
C1

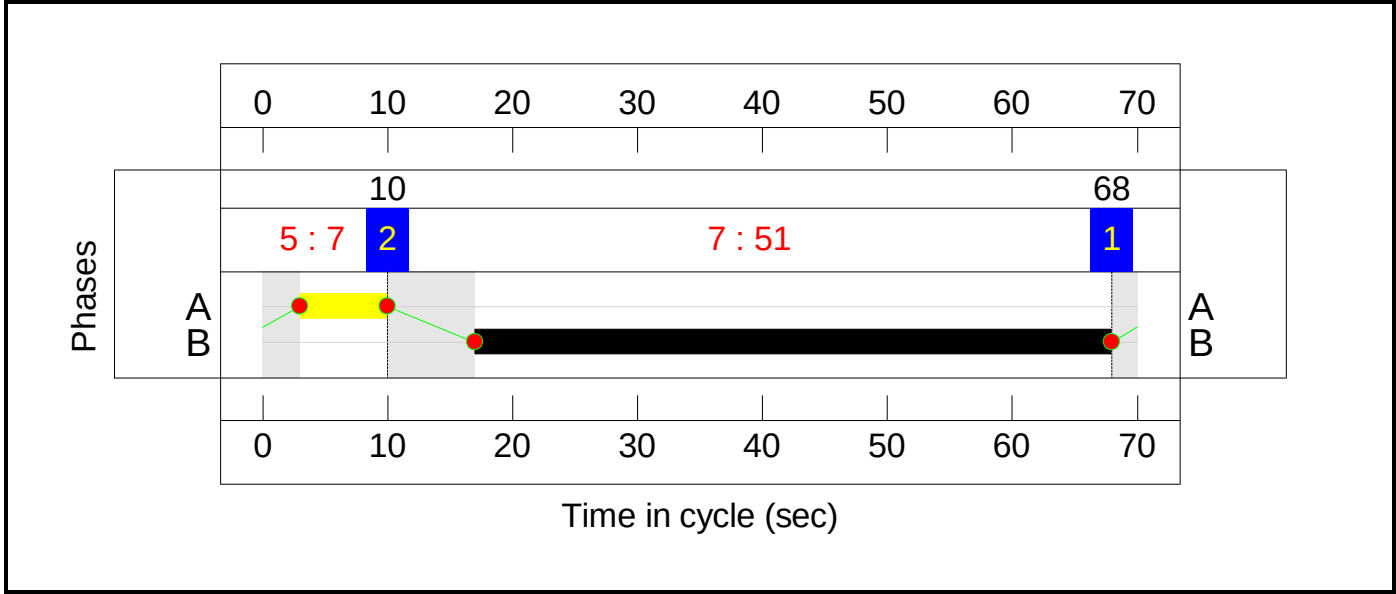
Stage Sequence Diagram



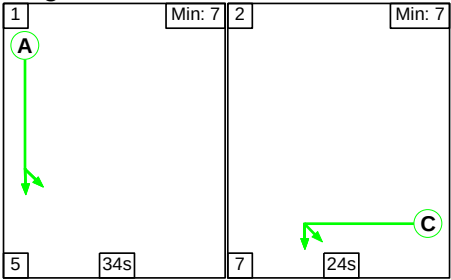
Stage Timings

Stage	1	2
Duration	7	51
Change Point	68	10

Signal Timings Diagram

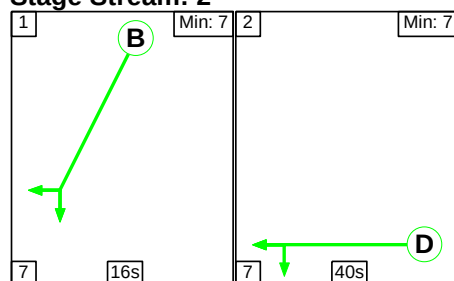


C2
Stage Sequence Diagram
Stage Stream: 1



Full Input Data And Results

Stage Stream: 2



Stage Timings

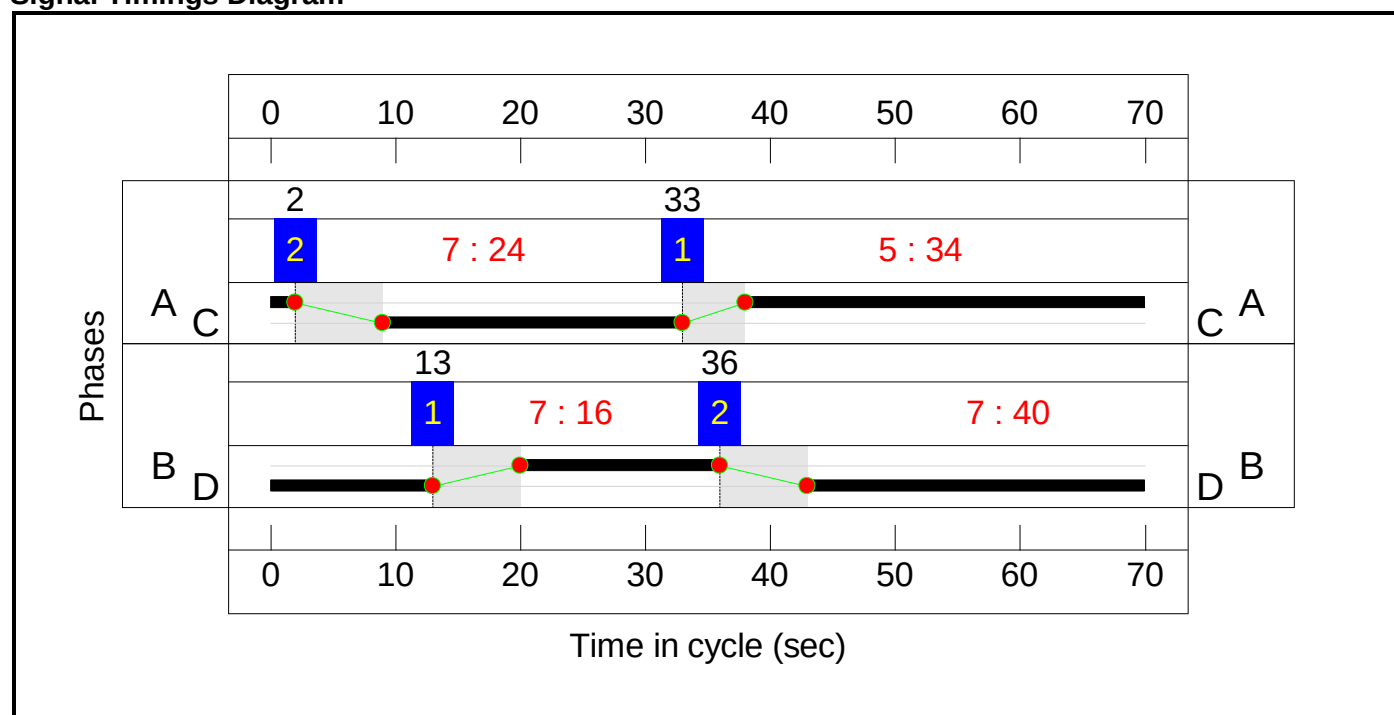
Stage Stream: 1

Stage	1	2
Duration	34	24
Change Point	33	2

Stage Stream: 2

Stage	1	2
Duration	16	40
Change Point	13	36

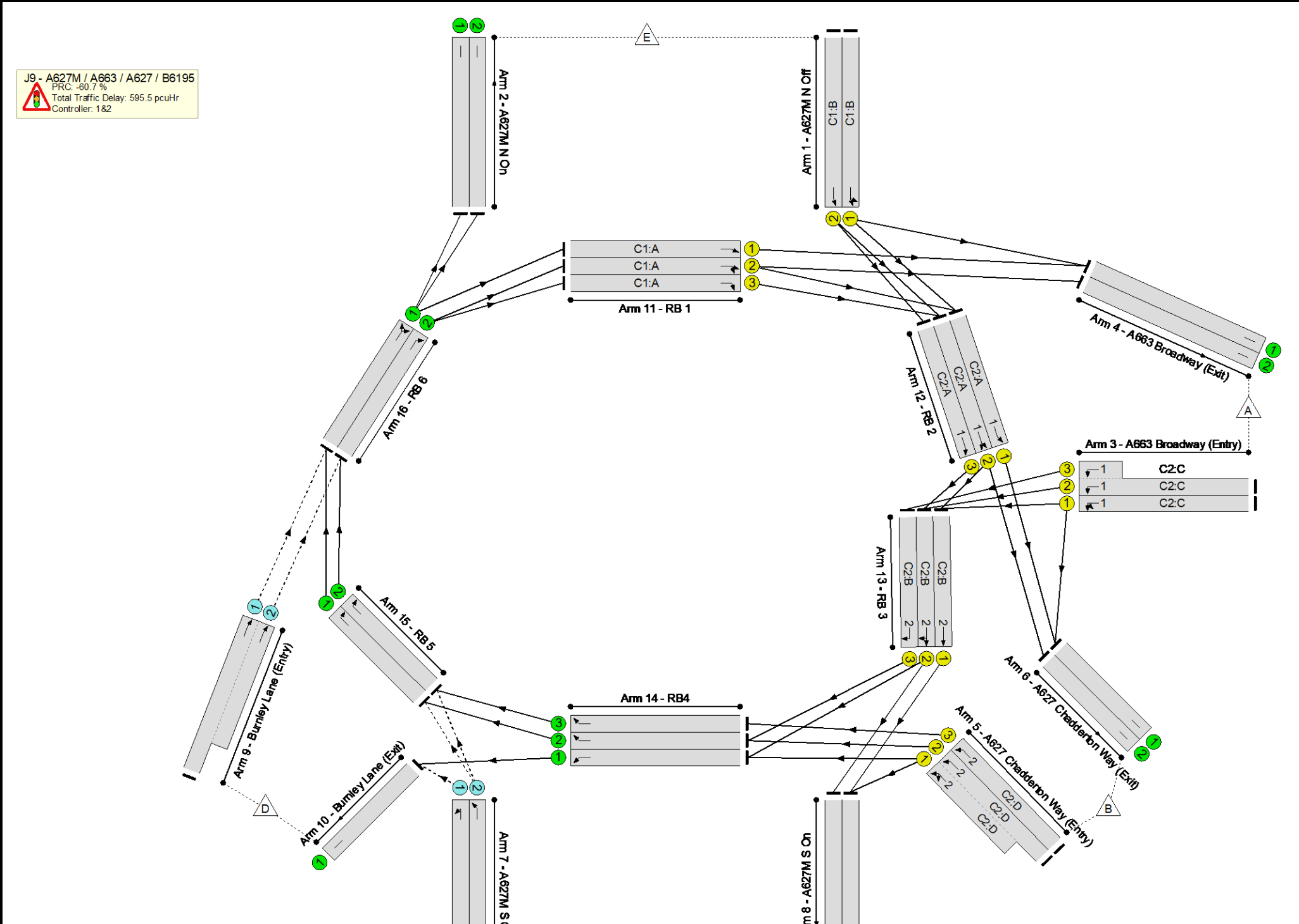
Signal Timings Diagram



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	-	-		-	-	-	-	-	-	144.6%
J9 - A627M / A663 / A627 / B6195	-	-	N/A	-	-		-	-	-	-	-	-	144.6%
1/1	A627M N Off Left Ahead	U	N/A	N/A	C1:B		1	51	-	1414	1927	1431	98.8%
1/2	A627M N Off Ahead	U	N/A	N/A	C1:B		1	51	-	903	1902	1413	63.9%
2/1	A627M N On	U	N/A	N/A	-		-	-	-	1294	Inf	Inf	0.0%
2/2	A627M N On	U	N/A	N/A	-		-	-	-	1295	Inf	Inf	0.0%
3/1	A663 Broadway (Entry) U-Turn Left	U	2:1	N/A	C2:C		1	24	-	568	1969	703	80.8%
3/2+3/3	A663 Broadway (Entry) Left	U	2:1	N/A	C2:C		1	24	-	947	1981:1981	83+680	124.1 : 124.1%
4/1	A663 Broadway (Exit)	U	N/A	N/A	-		-	-	-	892	Inf	Inf	0.0%
4/2	A663 Broadway (Exit)	U	N/A	N/A	-		-	-	-	86	Inf	Inf	0.0%
5/2+5/1	A627 Chadderton Way (Entry) U-Turn Left	U	2:2	N/A	C2:D		1	40	-	1903	2000:1987	1171+145	144.6 : 144.6%
5/3	A627 Chadderton Way (Entry) Left	U	2:2	N/A	C2:D		1	40	-	71	2000	1171	6.1%
6/1	A627 Chadderton Way (Exit)	U	N/A	N/A	-		-	-	-	677	Inf	Inf	0.0%
6/2	A627 Chadderton Way (Exit)	U	N/A	N/A	-		-	-	-	846	Inf	Inf	0.0%
7/1	A627M S Off Left	O	N/A	N/A	-		-	-	-	1	1857	1354	0.1%
7/2	A627M S Off Left	O	N/A	N/A	-		-	-	-	39	1893	801	4.9%
8/1	A627M S On	U	N/A	N/A	-		-	-	-	507	Inf	Inf	0.0%
8/2	A627M S On	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

9/1+9/2	Burnley Lane (Entry) Ahead	O	N/A	N/A	-		-	-	-	78	1976:1975	887+101	7.9 : 7.9%
10/1	Burnley Lane (Exit)	U	N/A	N/A	-		-	-	-	327	Inf	Inf	0.0%
11/1	RB 1 Ahead	U	N/A	N/A	C1:A		1	7	-	43	1896	217	19.8%
11/2	RB 1 Ahead Right	U	N/A	N/A	C1:A		1	7	-	86	1902	217	39.6%
11/3	RB 1 Right	U	N/A	N/A	C1:A		1	7	-	8	1890	216	3.7%
12/1	RB 2 Ahead	U	2:1	N/A	C2:A		1	34	-	565	1993	996	56.7%
12/2	RB 2 Ahead Ahead2	U	2:1	N/A	C2:A		1	34	-	846	2008	1004	84.3%
12/3	RB 2 Ahead	U	2:1	N/A	C2:A		1	34	-	65	1984	992	6.6%
13/1	RB 3 Ahead	U	2:2	N/A	C2:B		1	16	-	456	2008	488	93.5%
13/2	RB 3 Ahead Right	U	2:2	N/A	C2:B		1	16	-	168	1969	478	31.0%
13/3	RB 3 Right	U	2:2	N/A	C2:B		1	16	-	844	1959	476	143.0%
14/1	RB4 Left	U	N/A	N/A	-		-	-	-	326	1898	1898	13.6%
14/2	RB4 Ahead	U	N/A	N/A	-		-	-	-	2538	1907	1907	86.4%
14/3	RB4 Ahead	U	N/A	N/A	-		-	-	-	71	1892	1892	3.8%
15/1	RB 5 Right	U	N/A	N/A	-		-	-	-	2562	2038	2038	82.0%
15/2	RB 5 Right	U	N/A	N/A	-		-	-	-	86	2038	2038	4.2%
16/1	RB 6 Ahead Right	U	N/A	N/A	-		-	-	-	2632	2074	2074	84.0%
16/2	RB 6 Right	U	N/A	N/A	-		-	-	-	94	2012	2012	4.7%

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	-	-	196	0	0	66.7	528.8	0.0	595.5	-	-	-	-
J9 - A627M / A663 / A627 / B6195	-	-	196	0	0	66.7	528.8	0.0	595.5	-	-	-	-
1/1	1414	1414	-	-	-	3.4	14.9	-	18.3	46.7	26.3	14.9	41.2
1/2	903	903	-	-	-	1.1	0.9	-	2.0	7.9	8.5	0.9	9.4
2/1	849	849	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	850	850	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	568	568	-	-	-	3.2	2.0	-	5.2	33.3	9.9	2.0	12.0
3/2+3/3	947	763	-	-	-	11.8	94.4	-	106.2	403.8	22.1	94.4	116.5
4/1	892	892	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	86	86	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	1903	1316	-	-	-	29.4	295.1	-	324.6	614.0	54.0	295.1	349.1
5/3	71	71	-	-	-	0.1	0.0	-	0.2	7.9	0.6	0.0	0.6
6/1	677	677	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	846	846	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1	1	1	0	0	0.0	0.0	-	0.0	1.3	0.0	0.0	0.0
7/2	39	39	39	0	0	0.0	0.0	-	0.0	2.4	0.0	0.0	0.0
8/1	491	491	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1+9/2	78	78	156	0	0	0.0	0.0	-	0.0	2.0	0.0	0.0	0.0
10/1	258	258	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	43	43	-	-	-	0.3	0.1	-	0.5	38.5	0.8	0.1	0.9
11/2	86	86	-	-	-	0.6	0.3	-	0.9	37.3	1.5	0.3	1.8
11/3	8	8	-	-	-	0.1	0.0	-	0.1	36.6	0.1	0.0	0.2
12/1	565	565	-	-	-	0.8	0.7	-	1.4	9.0	5.7	0.7	6.4
12/2	846	846	-	-	-	2.6	2.6	-	5.2	22.1	14.1	2.6	16.7
12/3	65	65	-	-	-	0.1	0.0	-	0.1	7.4	0.7	0.0	0.7

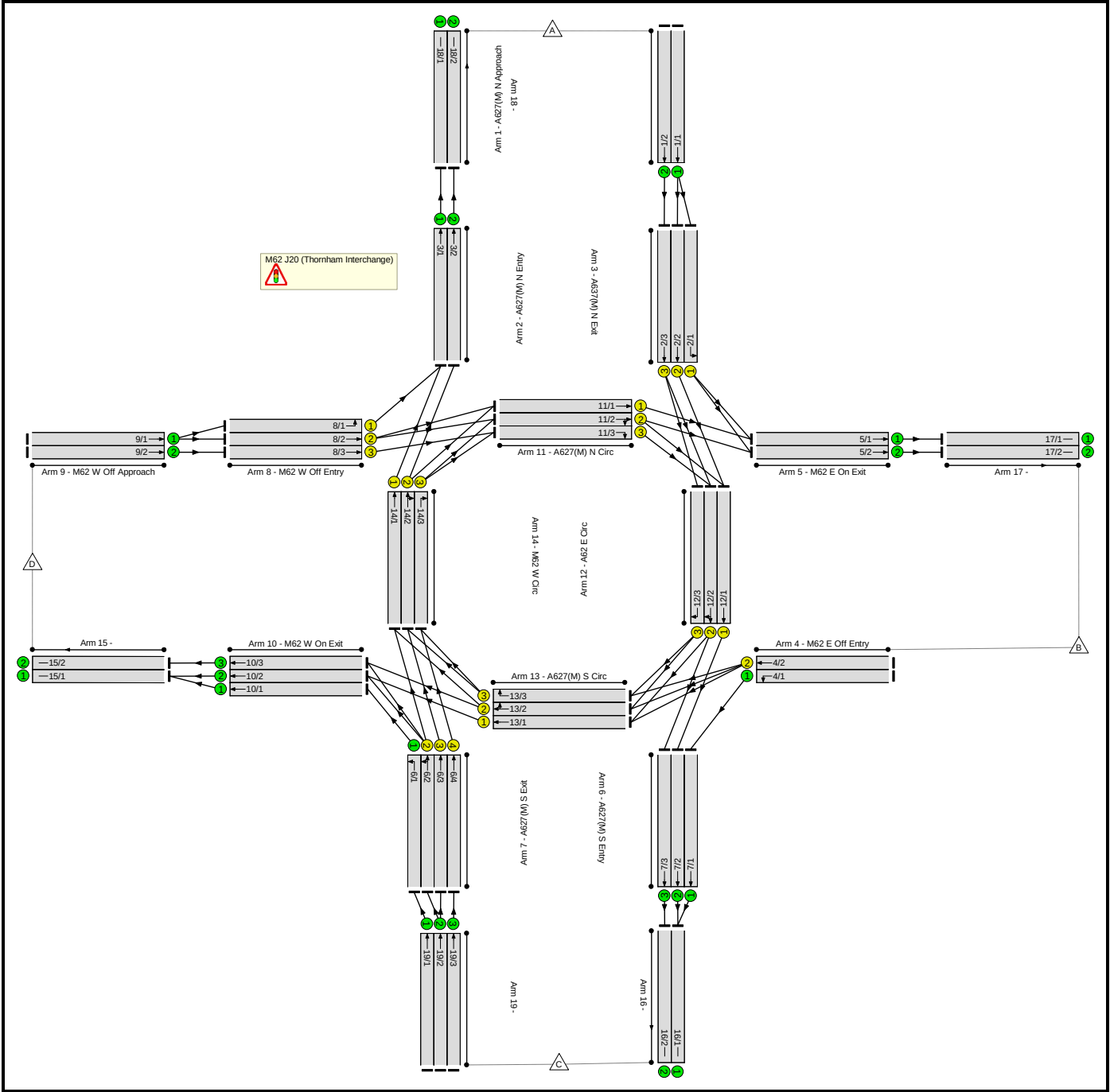
Full Input Data And Results

13/1	456	456	-	-	-	0.8	5.4	-	6.2	48.7	8.7	5.4	14.1
13/2	148	148	-	-	-	0.9	0.2	-	1.1	26.3	2.0	0.2	2.3
13/3	680	476	-	-	-	11.3	103.8	-	115.2	609.7	21.2	103.8	125.0
14/1	257	257	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
14/2	1647	1647	-	-	-	0.2	3.1	-	3.3	7.2	19.6	3.1	22.7
14/3	71	71	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
15/1	1671	1671	-	-	-	0.0	2.3	-	2.3	4.8	0.0	2.3	2.3
15/2	86	86	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
16/1	1741	1741	-	-	-	0.0	2.6	-	2.6	5.3	0.0	2.6	2.6
16/2	94	94	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -9.8 C2 Stream: 1 PRC for Signalled Lanes (%): -37.9 C2 Stream: 2 PRC for Signalled Lanes (%): -60.7 PRC Over All Lanes (%): -60.7 Total Delay for Signalled Lanes (pcuHr): 21.77 Total Delay for Signalled Lanes (pcuHr): 118.19 Total Delay for Signalled Lanes (pcuHr): 447.17 Total Delay Over All Lanes(pcuHr): 595.47 Cycle Time (s): 70 Cycle Time (s): 70 Cycle Time (s): 70													

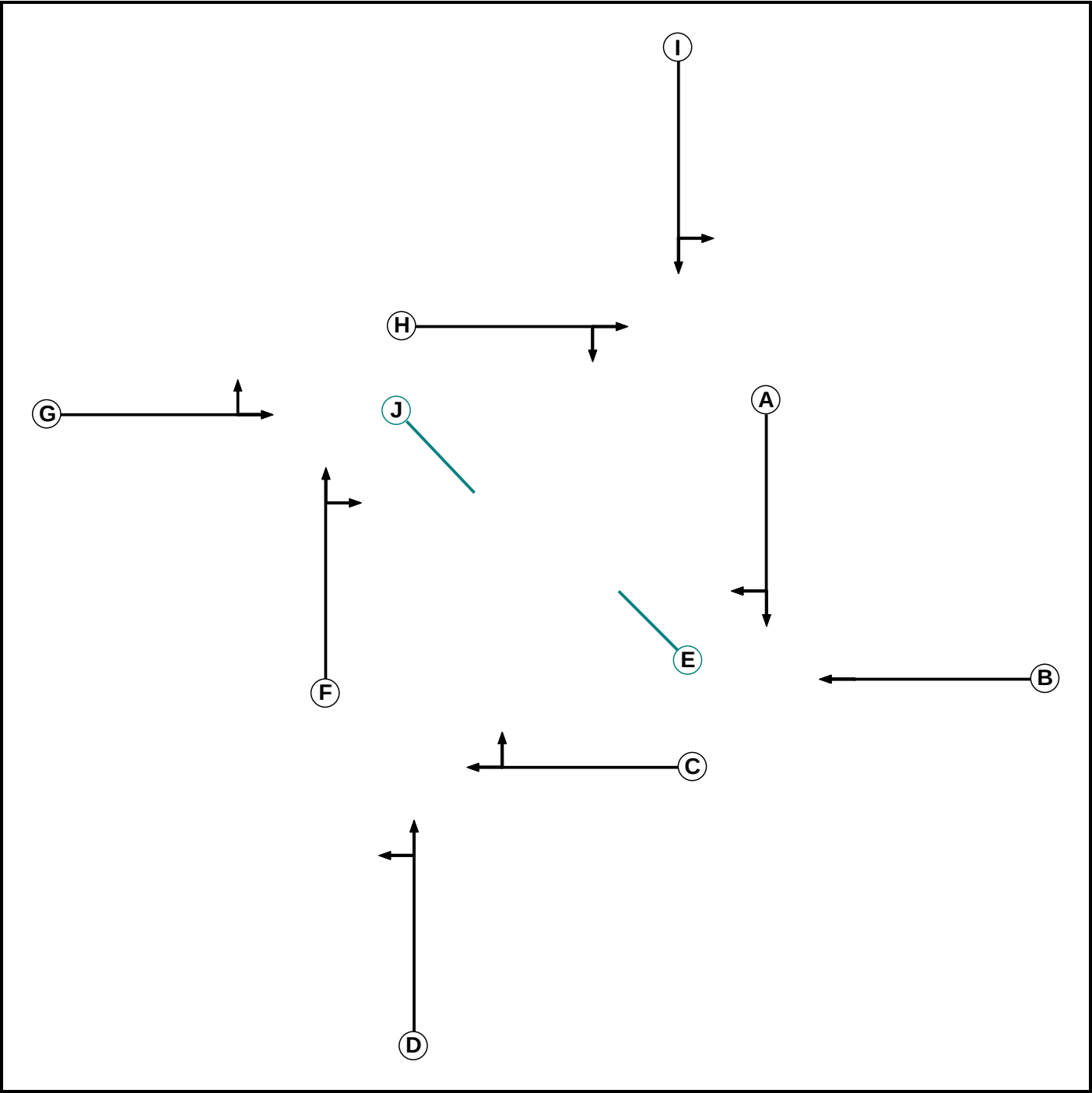
Full Input Data And Results**User and Project Details**

Project:	M62 J20 (Thornham Interchange)
Title:	Northern Gateway (Stakehill)
Location:	Castleton
Client:	Oldham / Rochdale / TfGM
Site Ref(s):	Junction 2
Date Started:	06/11/2019
Additional detail:	
File name:	J2 M62 J20 with Mitigation.lsg3x
Author:	UKDJS002
Company:	WSP
Address:	8 First Street

Network Layout Diagram



Phase Diagram



Full Input Data And Results

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	1		7	7
D	Traffic	1		7	7
E	Dummy	1		7	7
F	Traffic	2		7	7
G	Traffic	2		7	7
H	Traffic	2		7	7
I	Traffic	2		7	7
J	Dummy	2		7	7

Phase Intergreens Matrix

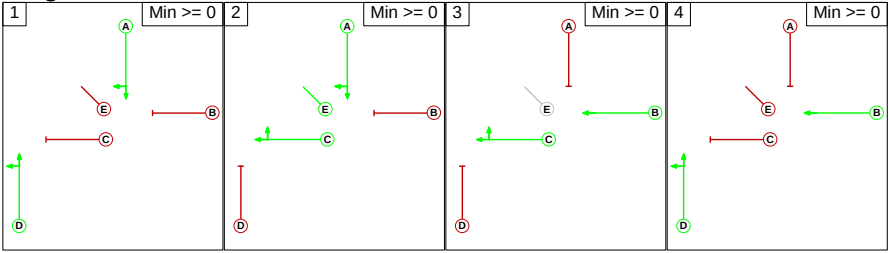
Terminating Phase	Starting Phase										
		A	B	C	D	E	F	G	H	I	J
	A		5	-	-	-	-	-	-	-	-
	B	7		-	-	-	-	-	-	-	-
	C	-	-		5	-	-	-	-	-	-
	D	-	-	7		7	-	-	-	-	-
	E	-	-	-	-		-	-	-	-	-
	F	-	-	-	-	-		5	-	-	-
	G	-	-	-	-	-	7		-	-	-
	H	-	-	-	-	-	-	-		5	-
	I	-	-	-	-	-	-	-	7		7
	J	-	-	-	-	-	-	-	-	-	

Phases in Stage

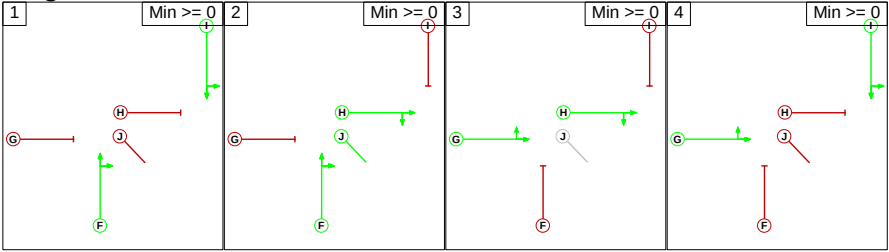
Stream	Stage No.	Phases in Stage
1	1	A D
1	2	A C E
1	3	B C
1	4	B D
2	1	F I
2	2	F H J
2	3	G H
2	4	G I

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Prohibited Stage Change

Stage Stream: 1

	To Stage				
		1	2	3	4
From Stage	1		7	7	5
	2	5		5	5
	3	7	7		5
	4	7	7	7	

Stage Stream: 2

	To Stage				
		1	2	3	4
From Stage	1		7	7	5
	2	5		5	5
	3	7	7		5
	4	7	7	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: M62 J20 (Thornham Interchange)
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: M62 J20 (Thornham 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 (A627(M) N Approach)	U		2	3	60.0	Inf	-	-	-	-	-	-
1/2 (A627(M) N Approach)	U		2	3	60.0	Inf	-	-	-	-	-	-
2/1 (A627(M) N Entry)	U	I	2	3	60.0	User	1900	-	-	-	-	-
2/2 (A627(M) N Entry)	U	I	2	3	60.0	User	1900	-	-	-	-	-
2/3 (A627(M) N Entry)	U	I	2	3	60.0	User	1900	-	-	-	-	-
3/1 (A637(M) N Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
3/2 (A637(M) N Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
4/1 (M62 E Off Entry)	U		2	3	60.0	User	1900	-	-	-	-	-
4/2 (M62 E Off Entry)	U	B	2	3	60.0	User	1900	-	-	-	-	-
5/1 (M62 E On Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2 (M62 E On Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (A627(M) S Entry)	U		2	3	60.0	User	1900	-	-	-	-	-
6/2 (A627(M) S Entry)	U	D	2	3	60.0	User	1900	-	-	-	-	-
6/3 (A627(M) S Entry)	U	D	2	3	60.0	User	1900	-	-	-	-	-
6/4 (A627(M) S Entry)	U	D	2	3	60.0	User	1900	-	-	-	-	-
7/1 (A627(M) S Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2 (A627(M) S Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

7/3 (A627(M) S Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (M62 W Off Entry)	U	G	2	3	60.0	User	1900	-	-	-	-	-
8/2 (M62 W Off Entry)	U	G	2	3	60.0	User	1900	-	-	-	-	-
8/3 (M62 W Off Entry)	U	G	2	3	60.0	User	1900	-	-	-	-	-
9/1 (M62 W Off Approach)	U		2	3	60.0	User	1900	-	-	-	-	-
9/2 (M62 W Off Approach)	U		2	3	60.0	User	1900	-	-	-	-	-
10/1 (M62 W On Exit)	U		2	3	60.0	Geom	-	3.25	0.00	Y	Arm 15 Ahead	Inf
10/2 (M62 W On Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
10/3 (M62 W On Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
11/1 (A627(M) N Circ)	U	H	2	3	60.0	User	1900	-	-	-	-	-
11/2 (A627(M) N Circ)	U	H	2	3	60.0	User	1900	-	-	-	-	-
11/3 (A627(M) N Circ)	U	H	2	3	60.0	User	1900	-	-	-	-	-
12/1 (A62 E Circ)	U	A	2	3	60.0	User	1900	-	-	-	-	-
12/2 (A62 E Circ)	U	A	2	3	60.0	User	1900	-	-	-	-	-
12/3 (A62 E Circ)	U	A	2	3	60.0	User	1900	-	-	-	-	-
13/1 (A627(M) S Circ)	U	C	2	3	60.0	User	1900	-	-	-	-	-
13/2 (A627(M) S Circ)	U	C	2	3	60.0	User	1900	-	-	-	-	-
13/3 (A627(M) S Circ)	U	C	2	3	60.0	User	1900	-	-	-	-	-
14/1 (M62 W Circ)	U	F	2	3	60.0	User	1900	-	-	-	-	-
14/2 (M62 W Circ)	U	F	2	3	60.0	User	1900	-	-	-	-	-
14/3 (M62 W Circ)	U	F	2	3	60.0	User	1900	-	-	-	-	-

Full Input Data And Results

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	60.0	Inf	-	-	-	-	-	-
18/2	U		2	3	60.0	Inf	-	-	-	-	-	-
19/1	U		2	3	60.0	Inf	-	-	-	-	-	-
19/2	U		2	3	60.0	Inf	-	-	-	-	-	-
19/3	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2025 Base AM'	08:00	09:00	01:00	
2: '2025 Base PM'	17:00	18:00	01:00	
3: '2040 DM AM'	08:00	09:00	01:00	
4: '2040 DM PM'	17:00	18:00	01:00	
5: '2040 DS AM'	08:00	09:00	01:00	
6: '2040 DS PM'	17:00	18:00	01:00	

Scenario 1: '2025 Base AM' (FG1: '2025 Base AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	255	886	1032	2173
	B	190	0	987	0	1177
	C	647	645	0	1481	2773
	D	940	0	1236	0	2176
	Tot.	1777	900	3109	2513	8299

Traffic Lane Flows

Lane	Scenario 1: 2025 Base AM
Junction: M62 J20 (Thornham Interchange)	
1/1	996
1/2	1150
2/1	253
2/2	743
2/3	1150
3/1	1401
3/2	141
4/1	869
4/2	115
5/1	733
5/2	285
6/1	1641
6/2	704
6/3	648
6/4	158
7/1	869
7/2	1191
7/3	601
8/1	682
8/2	448
8/3	601
9/1	1130
9/2	601
10/1	1641
10/2	572
10/3	578
11/1	607
11/2	606
11/3	601
12/1	1191
12/2	1173
12/3	578
13/1	572
13/2	593
13/3	100
14/1	719
14/2	748
14/3	158
15/1	2213
15/2	578

Full Input Data And Results

16/1	2060
16/2	601
17/1	733
17/2	285
18/1	1401
18/2	141
19/1	1641
19/2	1352
19/3	158

Lane Saturation Flows

Junction: M62 J20 (Thornham 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 (A627(M) N Approach Lane 1)				Infinite Saturation Flow			Inf	Inf
1/2 (A627(M) N Approach Lane 2)				Infinite Saturation Flow			Inf	Inf
2/1 (A627(M) N Entry Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
2/2 (A627(M) N Entry Lane 2)				This lane uses a directly entered Saturation Flow			1900	1900
2/3 (A627(M) N Entry Lane 3)				This lane uses a directly entered Saturation Flow			1900	1900
3/1 (A637(M) N Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
3/2 (A637(M) N Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
4/1 (M62 E Off Entry Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
4/2 (M62 E Off Entry Lane 2)				This lane uses a directly entered Saturation Flow			1900	1900
5/1 (M62 E On Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
5/2 (M62 E On Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
6/1 (A627(M) S Entry Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
6/2 (A627(M) S Entry Lane 2)				This lane uses a directly entered Saturation Flow			1900	1900
6/3 (A627(M) S Entry Lane 3)				This lane uses a directly entered Saturation Flow			1900	1900
6/4 (A627(M) S Entry Lane 4)				This lane uses a directly entered Saturation Flow			1900	1900
7/1 (A627(M) S Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/2 (A627(M) S Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
7/3 (A627(M) S Exit Lane 3)				Infinite Saturation Flow			Inf	Inf
8/1 (M62 W Off Entry Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
8/2 (M62 W Off Entry Lane 2)				This lane uses a directly entered Saturation Flow			1900	1900
8/3 (M62 W Off Entry Lane 3)				This lane uses a directly entered Saturation Flow			1900	1900
9/1 (M62 W Off Approach Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
9/2 (M62 W Off Approach Lane 2)				This lane uses a directly entered Saturation Flow			1900	1900

10/1 (M62 W On Exit)	3.25	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1940	1940
10/2 (M62 W On Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/3 (M62 W On Exit Lane 3)	Infinite Saturation Flow						Inf	Inf
11/1 (A627(M) N Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
11/2 (A627(M) N Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
11/3 (A627(M) N Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
12/1 (A62 E Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
12/2 (A62 E Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
12/3 (A62 E Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
13/1 (A627(M) S Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
13/2 (A627(M) S Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
13/3 (A627(M) S Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
14/1 (M62 W Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
14/2 (M62 W Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
14/3 (M62 W Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
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
18/2	Infinite Saturation Flow						Inf	Inf
19/1	Infinite Saturation Flow						Inf	Inf
19/2	Infinite Saturation Flow						Inf	Inf
19/3	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 2: '2025 Base PM' (FG2: '2025 Base PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	253	763	1150	2166
	B	115	0	869	0	984
	C	745	765	0	1641	3151
	D	682	0	1049	0	1731
	Tot.	1542	1018	2681	2791	8032

Traffic Lane Flows

Lane	Scenario 2: 2025 Base PM
Junction: M62 J20 (Thornham Interchange)	
1/1	1016
1/2	1150
2/1	253
2/2	763
2/3	1150
3/1	1407
3/2	135
4/1	869
4/2	115
5/1	729
5/2	289
6/1	1641
6/2	681
6/3	667
6/4	162
7/1	869
7/2	1212
7/3	600
8/1	682
8/2	449
8/3	600
9/1	1131
9/2	600
10/1	1641
10/2	583
10/3	567
11/1	603
11/2	611
11/3	600
12/1	1212
12/2	1183
12/3	567
13/1	583
13/2	611
13/3	71
14/1	725
14/2	738
14/3	162
15/1	2224
15/2	567

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16/1	2081
16/2	600
17/1	729
17/2	289
18/1	1407
18/2	135
19/1	1641
19/2	1348
19/3	162

Lane Saturation Flows

Junction: M62 J20 (Thornham 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 (A627(M) N Approach Lane 1)				Infinite Saturation Flow			Inf	Inf
1/2 (A627(M) N Approach Lane 2)				Infinite Saturation Flow			Inf	Inf
2/1 (A627(M) N Entry Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
2/2 (A627(M) N Entry Lane 2)				This lane uses a directly entered Saturation Flow			1900	1900
2/3 (A627(M) N Entry Lane 3)				This lane uses a directly entered Saturation Flow			1900	1900
3/1 (A637(M) N Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
3/2 (A637(M) N Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
4/1 (M62 E Off Entry Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
4/2 (M62 E Off Entry Lane 2)				This lane uses a directly entered Saturation Flow			1900	1900
5/1 (M62 E On Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
5/2 (M62 E On Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
6/1 (A627(M) S Entry Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
6/2 (A627(M) S Entry Lane 2)				This lane uses a directly entered Saturation Flow			1900	1900
6/3 (A627(M) S Entry Lane 3)				This lane uses a directly entered Saturation Flow			1900	1900
6/4 (A627(M) S Entry Lane 4)				This lane uses a directly entered Saturation Flow			1900	1900
7/1 (A627(M) S Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/2 (A627(M) S Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
7/3 (A627(M) S Exit Lane 3)				Infinite Saturation Flow			Inf	Inf
8/1 (M62 W Off Entry Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
8/2 (M62 W Off Entry Lane 2)				This lane uses a directly entered Saturation Flow			1900	1900
8/3 (M62 W Off Entry Lane 3)				This lane uses a directly entered Saturation Flow			1900	1900
9/1 (M62 W Off Approach Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
9/2 (M62 W Off Approach Lane 2)				This lane uses a directly entered Saturation Flow			1900	1900

10/1 (M62 W On Exit)	3.25	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1940	1940
10/2 (M62 W On Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/3 (M62 W On Exit Lane 3)	Infinite Saturation Flow						Inf	Inf
11/1 (A627(M) N Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
11/2 (A627(M) N Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
11/3 (A627(M) N Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
12/1 (A62 E Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
12/2 (A62 E Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
12/3 (A62 E Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
13/1 (A627(M) S Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
13/2 (A627(M) S Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
13/3 (A627(M) S Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
14/1 (M62 W Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
14/2 (M62 W Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
14/3 (M62 W Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
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
18/2	Infinite Saturation Flow						Inf	Inf
19/1	Infinite Saturation Flow						Inf	Inf
19/2	Infinite Saturation Flow						Inf	Inf
19/3	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: '2040 DM AM' (FG3: '2040 DM AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	393	889	1266	2548
	B	192	0	1436	0	1628
	C	842	720	0	2941	4503
	D	1107	0	1719	0	2826
	Tot.	2141	1113	4044	4207	11505

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2040 DM AM
Junction: M62 J20 (Thornham Interchange)	
1/1	1284
1/2	1266
2/1	393
2/2	891
2/3	1266
3/1	1949
3/2	194
4/1	1438
4/2	192
5/1	910
5/2	204
6/1	2337
6/2	1259
6/3	905
6/4	7
7/1	1438
7/2	1725
7/3	887
8/1	1107
8/2	834
8/3	887
9/1	1941
9/2	887
10/1	2337
10/2	1032
10/3	840
11/1	714
11/2	841
11/3	887
12/1	1725
12/2	1616
12/3	537
13/1	729
13/2	726
13/3	3
14/1	842
14/2	908
14/3	7
15/1	3369
15/2	840

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16/1	3163
16/2	887
17/1	910
17/2	204
18/1	1949
18/2	194
19/1	2337
19/2	2164
19/3	7

Junction: M62 J20 (Thornham 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 (A627(M) N Approach Lane 1)	Infinite Saturation Flow						Inf	Inf
1/2 (A627(M) N Approach Lane 2)	Infinite Saturation Flow						Inf	Inf
2/1 (A627(M) N Entry Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (A627(M) N Entry Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (A627(M) N Entry Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A637(M) N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
3/2 (A637(M) N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
4/1 (M62 E Off Entry Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (M62 E Off Entry Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (M62 E On Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (M62 E On Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (A627(M) S Entry Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (A627(M) S Entry Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
6/3 (A627(M) S Entry Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/4 (A627(M) S Entry Lane 4)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A627(M) S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A627(M) S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A627(M) S Exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (M62 W Off Entry Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
8/2 (M62 W Off Entry Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
8/3 (M62 W Off Entry Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
9/1 (M62 W Off Approach Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
9/2 (M62 W Off Approach Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900

10/1 (M62 W On Exit)	3.25	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1940	1940
10/2 (M62 W On Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/3 (M62 W On Exit Lane 3)	Infinite Saturation Flow						Inf	Inf
11/1 (A627(M) N Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
11/2 (A627(M) N Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
11/3 (A627(M) N Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
12/1 (A62 E Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
12/2 (A62 E Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
12/3 (A62 E Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
13/1 (A627(M) S Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
13/2 (A627(M) S Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
13/3 (A627(M) S Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
14/1 (M62 W Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
14/2 (M62 W Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
14/3 (M62 W Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
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
18/2	Infinite Saturation Flow						Inf	Inf
19/1	Infinite Saturation Flow						Inf	Inf
19/2	Infinite Saturation Flow						Inf	Inf
19/3	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 4: '2040 DM PM' (FG4: '2040 DM PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	338	776	1184	2298
	B	150	0	1478	0	1628
	C	1030	928	0	2937	4895
	D	753	0	1604	0	2357
	Tot.	1933	1266	3858	4121	11178

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2040 DM PM
Junction: M62 J20 (Thornham Interchange)	
1/1	1116
1/2	1184
2/1	338
2/2	778
2/3	1184
3/1	1597
3/2	338
4/1	1479
4/2	150
5/1	907
5/2	360
6/1	2295
6/2	1338
6/3	1076
6/4	191
7/1	1479
7/2	1491
7/3	893
8/1	753
8/2	713
8/3	893
9/1	1466
9/2	893
10/1	2295
10/2	1008
10/3	820
11/1	738
11/2	904
11/3	893
12/1	1491
12/2	1579
12/3	498
13/1	686
13/2	648
13/3	0
14/1	844
14/2	1076
14/3	191
15/1	3303
15/2	820

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16/1	2970
16/2	893
17/1	907
17/2	360
18/1	1597
18/2	338
19/1	2295
19/2	2414
19/3	191

Junction: M62 J20 (Thornham 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 (A627(M) N Approach Lane 1)	Infinite Saturation Flow						Inf	Inf
1/2 (A627(M) N Approach Lane 2)	Infinite Saturation Flow						Inf	Inf
2/1 (A627(M) N Entry Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (A627(M) N Entry Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (A627(M) N Entry Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A637(M) N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
3/2 (A637(M) N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
4/1 (M62 E Off Entry Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (M62 E Off Entry Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (M62 E On Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (M62 E On Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (A627(M) S Entry Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (A627(M) S Entry Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
6/3 (A627(M) S Entry Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/4 (A627(M) S Entry Lane 4)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A627(M) S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A627(M) S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A627(M) S Exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (M62 W Off Entry Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
8/2 (M62 W Off Entry Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
8/3 (M62 W Off Entry Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
9/1 (M62 W Off Approach Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
9/2 (M62 W Off Approach Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900

10/1 (M62 W On Exit)	3.25	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1940	1940
10/2 (M62 W On Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/3 (M62 W On Exit Lane 3)	Infinite Saturation Flow						Inf	Inf
11/1 (A627(M) N Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
11/2 (A627(M) N Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
11/3 (A627(M) N Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
12/1 (A62 E Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
12/2 (A62 E Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
12/3 (A62 E Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
13/1 (A627(M) S Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
13/2 (A627(M) S Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
13/3 (A627(M) S Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
14/1 (M62 W Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
14/2 (M62 W Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
14/3 (M62 W Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
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
18/2	Infinite Saturation Flow						Inf	Inf
19/1	Infinite Saturation Flow						Inf	Inf
19/2	Infinite Saturation Flow						Inf	Inf
19/3	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '2040 DS AM' (FG5: '2040 DS AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	393	891	1266	2550
	B	192	0	1438	0	1630
	C	844	721	0	2943	4508
	D	1107	0	1721	0	2828
	Tot.	2143	1114	4050	4209	11516

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2040 DS AM
Junction: M62 J20 (Thornham Interchange)	
1/1	1284
1/2	1266
2/1	393
2/2	891
2/3	1266
3/1	1949
3/2	194
4/1	1438
4/2	192
5/1	910
5/2	204
6/1	2337
6/2	1259
6/3	905
6/4	7
7/1	1438
7/2	1725
7/3	887
8/1	1107
8/2	834
8/3	887
9/1	1941
9/2	887
10/1	2337
10/2	1032
10/3	840
11/1	714
11/2	841
11/3	887
12/1	1725
12/2	1616
12/3	537
13/1	729
13/2	726
13/3	3
14/1	842
14/2	908
14/3	7
15/1	3369
15/2	840

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16/1	3163
16/2	887
17/1	910
17/2	204
18/1	1949
18/2	194
19/1	2337
19/2	2164
19/3	7

Lane Saturation Flows

Junction: M62 J20 (Thornham 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 (A627(M) N Approach Lane 1)				Infinite Saturation Flow			Inf	Inf
1/2 (A627(M) N Approach Lane 2)				Infinite Saturation Flow			Inf	Inf
2/1 (A627(M) N Entry Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
2/2 (A627(M) N Entry Lane 2)				This lane uses a directly entered Saturation Flow			1900	1900
2/3 (A627(M) N Entry Lane 3)				This lane uses a directly entered Saturation Flow			1900	1900
3/1 (A637(M) N Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
3/2 (A637(M) N Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
4/1 (M62 E Off Entry Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
4/2 (M62 E Off Entry Lane 2)				This lane uses a directly entered Saturation Flow			1900	1900
5/1 (M62 E On Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
5/2 (M62 E On Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
6/1 (A627(M) S Entry Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
6/2 (A627(M) S Entry Lane 2)				This lane uses a directly entered Saturation Flow			1900	1900
6/3 (A627(M) S Entry Lane 3)				This lane uses a directly entered Saturation Flow			1900	1900
6/4 (A627(M) S Entry Lane 4)				This lane uses a directly entered Saturation Flow			1900	1900
7/1 (A627(M) S Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/2 (A627(M) S Exit Lane 2)				Infinite Saturation Flow			Inf	Inf
7/3 (A627(M) S Exit Lane 3)				Infinite Saturation Flow			Inf	Inf
8/1 (M62 W Off Entry Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
8/2 (M62 W Off Entry Lane 2)				This lane uses a directly entered Saturation Flow			1900	1900
8/3 (M62 W Off Entry Lane 3)				This lane uses a directly entered Saturation Flow			1900	1900
9/1 (M62 W Off Approach Lane 1)				This lane uses a directly entered Saturation Flow			1900	1900
9/2 (M62 W Off Approach Lane 2)				This lane uses a directly entered Saturation Flow			1900	1900

10/1 (M62 W On Exit)	3.25	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1940	1940
10/2 (M62 W On Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/3 (M62 W On Exit Lane 3)	Infinite Saturation Flow						Inf	Inf
11/1 (A627(M) N Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
11/2 (A627(M) N Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
11/3 (A627(M) N Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
12/1 (A62 E Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
12/2 (A62 E Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
12/3 (A62 E Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
13/1 (A627(M) S Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
13/2 (A627(M) S Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
13/3 (A627(M) S Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
14/1 (M62 W Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
14/2 (M62 W Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
14/3 (M62 W Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
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
18/2	Infinite Saturation Flow						Inf	Inf
19/1	Infinite Saturation Flow						Inf	Inf
19/2	Infinite Saturation Flow						Inf	Inf
19/3	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2040 DS PM' (FG6: '2040 DS PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	338	778	1184	2300
	B	150	0	1479	0	1629
	C	1032	929	0	2939	4900
	D	753	0	1606	0	2359
	Tot.	1935	1267	3863	4123	11188

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2040 DS PM
Junction: M62 J20 (Thornham Interchange)	
1/1	1116
1/2	1184
2/1	338
2/2	778
2/3	1184
3/1	1597
3/2	338
4/1	1479
4/2	150
5/1	907
5/2	360
6/1	2295
6/2	1338
6/3	1076
6/4	191
7/1	1479
7/2	1491
7/3	893
8/1	753
8/2	713
8/3	893
9/1	1466
9/2	893
10/1	2295
10/2	1008
10/3	820
11/1	738
11/2	904
11/3	893
12/1	1491
12/2	1579
12/3	498
13/1	686
13/2	648
13/3	0
14/1	844
14/2	1076
14/3	191
15/1	3303
15/2	820

Full Input Data And Results

16/1	2970
16/2	893
17/1	907
17/2	360
18/1	1597
18/2	338
19/1	2295
19/2	2414
19/3	191

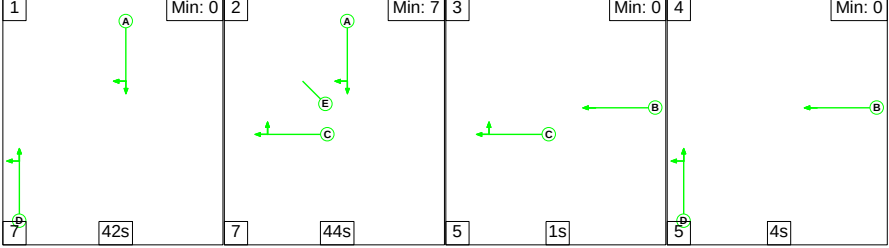
Junction: M62 J20 (Thornham Interchange)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A627(M) N Approach Lane 1)	Infinite Saturation Flow						Inf	Inf
1/2 (A627(M) N Approach Lane 2)	Infinite Saturation Flow						Inf	Inf
2/1 (A627(M) N Entry Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
2/2 (A627(M) N Entry Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
2/3 (A627(M) N Entry Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A637(M) N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
3/2 (A637(M) N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
4/1 (M62 E Off Entry Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (M62 E Off Entry Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (M62 E On Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (M62 E On Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (A627(M) S Entry Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (A627(M) S Entry Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
6/3 (A627(M) S Entry Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/4 (A627(M) S Entry Lane 4)	This lane uses a directly entered Saturation Flow						1900	1900
7/1 (A627(M) S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A627(M) S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A627(M) S Exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (M62 W Off Entry Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
8/2 (M62 W Off Entry Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
8/3 (M62 W Off Entry Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
9/1 (M62 W Off Approach Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
9/2 (M62 W Off Approach Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900

10/1 (M62 W On Exit)	3.25	0.00	Y	Arm 15 Ahead	Inf	100.0 %	1940	1940
10/2 (M62 W On Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
10/3 (M62 W On Exit Lane 3)	Infinite Saturation Flow						Inf	Inf
11/1 (A627(M) N Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
11/2 (A627(M) N Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
11/3 (A627(M) N Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
12/1 (A62 E Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
12/2 (A62 E Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
12/3 (A62 E Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
13/1 (A627(M) S Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
13/2 (A627(M) S Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
13/3 (A627(M) S Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
14/1 (M62 W Circ Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
14/2 (M62 W Circ Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
14/3 (M62 W Circ Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
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
18/2	Infinite Saturation Flow						Inf	Inf
19/1	Infinite Saturation Flow						Inf	Inf
19/2	Infinite Saturation Flow						Inf	Inf
19/3	Infinite Saturation Flow						Inf	Inf

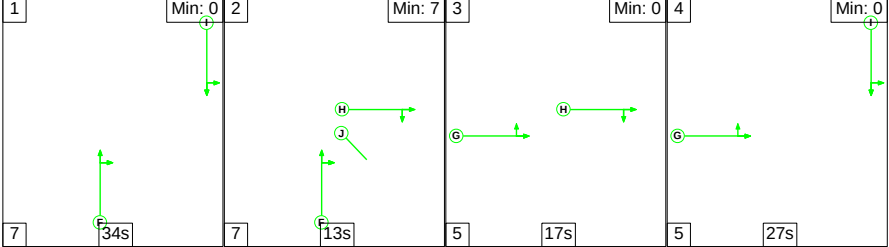
Scenario 1: '2025 Base AM' (FG1: '2025 Base AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

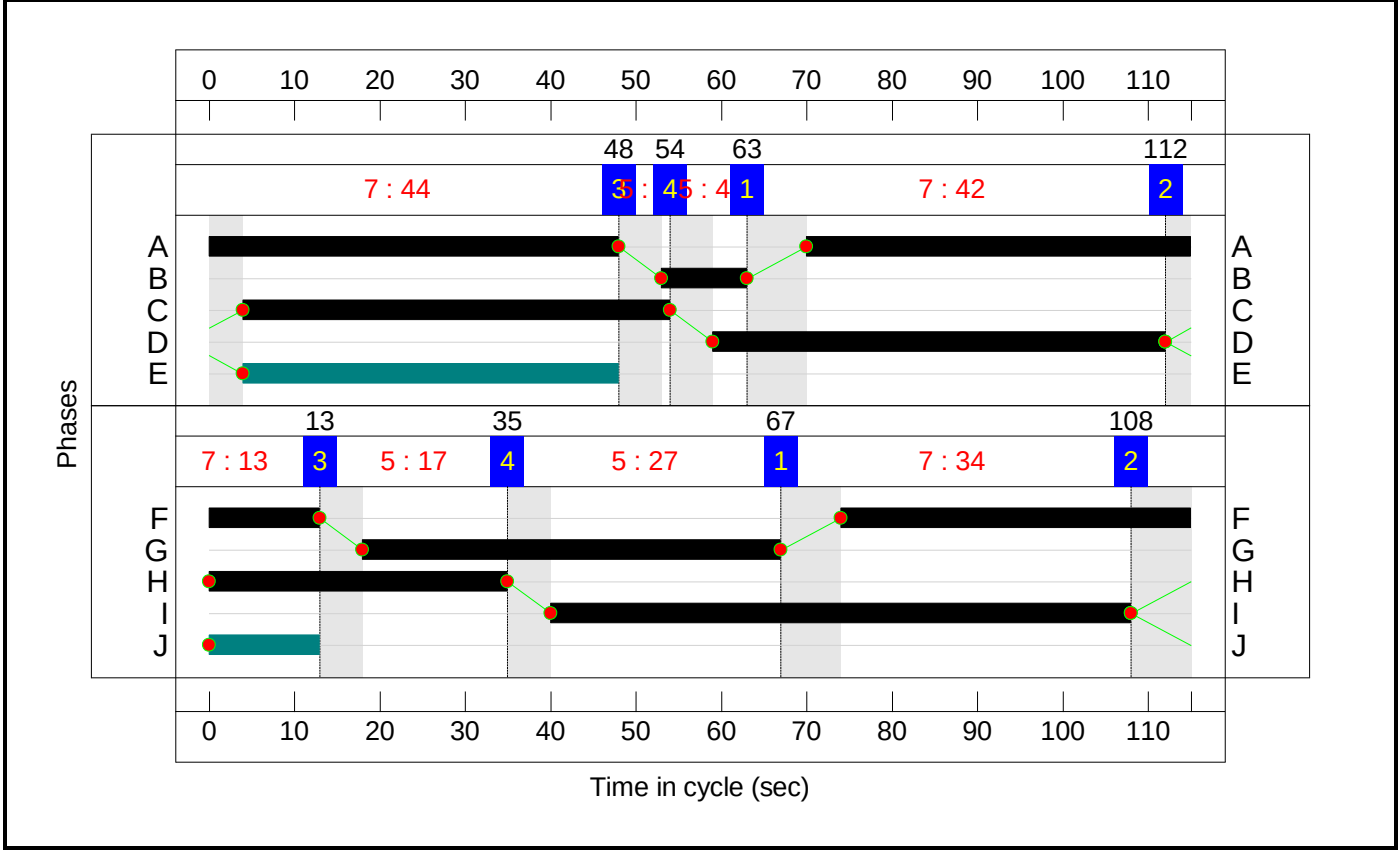
Stage Stream: 1

Stage	1	2	3	4
Duration	42	44	1	4
Change Point	63	112	48	54

Stage Stream: 2

Stage	1	2	3	4
Duration	34	13	17	27
Change Point	67	108	13	35

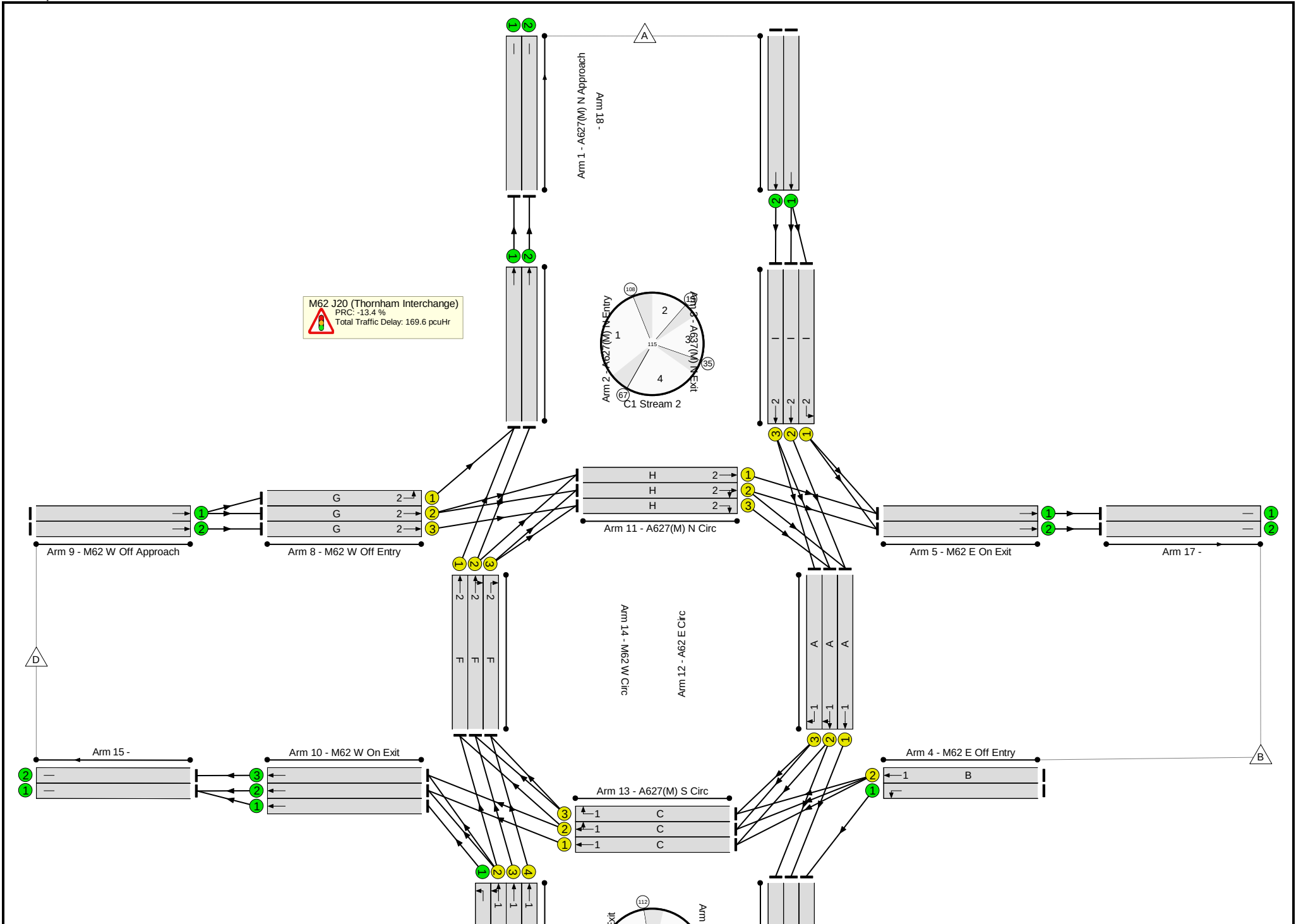
Signal Timings Diagram



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: Northern Gateway (Stakehill)	-	-	N/A	-	-		-	-	-	-	-	-	102.1%
M62 J20 (Thornham Interchange)	-	-	N/A	-	-		-	-	-	-	-	-	102.1%
1/1	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	996	Inf	Inf	0.0%
1/2	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	1150	Inf	Inf	0.0%
2/1	A627(M) N Entry Left	U	2	N/A	I		1	68	-	253	1900	1140	22.2%
2/2	A627(M) N Entry Ahead	U	2	N/A	I		1	68	-	743	1900	1140	65.2%
2/3	A627(M) N Entry Ahead	U	2	N/A	I		1	68	-	1150	1900	1140	100.9%
3/1	A637(M) N Exit Ahead	U	N/A	N/A	-		-	-	-	1401	Inf	Inf	0.0%
3/2	A637(M) N Exit Ahead	U	N/A	N/A	-		-	-	-	141	Inf	Inf	0.0%
4/1	M62 E Off Entry Left	U	N/A	N/A	-		-	-	-	869	1900	1900	45.7%
4/2	M62 E Off Entry Ahead	U	1	N/A	B		1	10	-	115	1900	182	63.3%
5/1	M62 E On Exit Ahead	U	N/A	N/A	-		-	-	-	733	Inf	Inf	0.0%
5/2	M62 E On Exit Ahead	U	N/A	N/A	-		-	-	-	285	Inf	Inf	0.0%
6/1	A627(M) S Entry Left	U	N/A	N/A	-		-	-	-	1641	1900	1900	86.4%
6/2	A627(M) S Entry Left Ahead	U	1	N/A	D		1	53	-	704	1900	892	78.9%

Full Input Data And Results

6/3	A627(M) S Entry Ahead	U	1	N/A	D		1	53	-	648	1900	892	72.6%
6/4	A627(M) S Entry Ahead	U	1	N/A	D		1	53	-	158	1900	892	17.7%
7/1	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	869	Inf	Inf	0.0%
7/2	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	1191	Inf	Inf	0.0%
7/3	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	601	Inf	Inf	0.0%
8/1	M62 W Off Entry Left	U	2	N/A	G		1	49	-	682	1900	826	82.6%
8/2	M62 W Off Entry Ahead	U	2	N/A	G		1	49	-	448	1900	826	54.2%
8/3	M62 W Off Entry Ahead	U	2	N/A	G		1	49	-	601	1900	826	72.8%
9/1	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	1130	1900	1900	59.5%
9/2	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	601	1900	1900	31.6%
10/1	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	1641	1940	1940	84.6%
10/2	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	572	Inf	Inf	0.0%
10/3	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	578	Inf	Inf	0.0%
11/1	A627(M) N Circ Ahead	U	2	N/A	H		1	35	-	607	1900	595	102.1%
11/2	A627(M) N Circ Ahead Right	U	2	N/A	H		1	35	-	606	1900	595	101.9%
11/3	A627(M) N Circ Right	U	2	N/A	H		1	35	-	601	1900	595	101.0%
12/1	A62 E Circ Ahead	U	1	N/A	A		1	93	-	1191	1900	1553	76.0%
12/2	A62 E Circ Ahead Right	U	1	N/A	A		1	93	-	1173	1900	1553	74.8%

Full Input Data And Results

12/3	A62 E Circ Right	U	1	N/A	A		1	93	-	578	1900	1553	36.9%
13/1	A627(M) S Circ Ahead	U	1	N/A	C		1	50	-	572	1900	843	67.3%
13/2	A627(M) S Circ Ahead Right	U	1	N/A	C		1	50	-	593	1900	843	69.8%
13/3	A627(M) S Circ Right	U	1	N/A	C		1	50	-	100	1900	843	11.9%
14/1	M62 W Circ Ahead	U	2	N/A	F		1	54	-	719	1900	909	79.1%
14/2	M62 W Circ Ahead Right	U	2	N/A	F		1	54	-	748	1900	909	82.3%
14/3	M62 W Circ Right	U	2	N/A	F		1	54	-	158	1900	909	17.4%
15/1		U	N/A	N/A	-		-	-	-	2213	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	578	Inf	Inf	0.0%
16/1		U	N/A	N/A	-		-	-	-	2060	Inf	Inf	0.0%
16/2		U	N/A	N/A	-		-	-	-	601	Inf	Inf	0.0%
17/1		U	N/A	N/A	-		-	-	-	733	Inf	Inf	0.0%
17/2		U	N/A	N/A	-		-	-	-	285	Inf	Inf	0.0%
18/1		U	N/A	N/A	-		-	-	-	1401	Inf	Inf	0.0%
18/2		U	N/A	N/A	-		-	-	-	141	Inf	Inf	0.0%
19/1	Ahead	U	N/A	N/A	-		-	-	-	1641	Inf	Inf	0.0%
19/2	Ahead	U	N/A	N/A	-		-	-	-	1352	Inf	Inf	0.0%
19/3	Ahead	U	N/A	N/A	-		-	-	-	158	Inf	Inf	0.0%

Full Input Data And Results

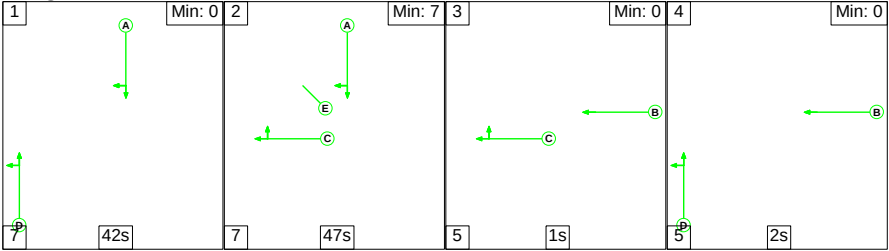
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Northern Gateway (Stakehill)	-	-	0	0	0	78.6	91.1	0.0	169.6	-	-	-	-
M62 J20 (Thornham Interchange)	-	-	0	0	0	78.6	91.1	0.0	169.6	-	-	-	-
1/1	996	996	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
1/2	1150	1150	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	253	253	-	-	-	0.7	0.1	-	0.9	12.6	3.7	0.1	3.9
2/2	743	743	-	-	-	3.1	0.9	-	4.0	19.6	15.5	0.9	16.4
2/3	1150	1140	-	-	-	7.8	19.6	-	27.4	85.8	37.1	19.6	56.7
3/1	1401	1401	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	141	141	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	869	869	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
4/2	115	115	-	-	-	1.6	0.8	-	2.4	76.4	3.5	0.8	4.4
5/1	721	721	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	285	285	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	1641	1641	-	-	-	0.0	3.1	-	3.1	6.8	0.0	3.1	3.1
6/2	704	704	-	-	-	5.0	1.8	-	6.9	35.1	18.8	1.8	20.6
6/3	648	648	-	-	-	4.4	1.3	-	5.7	31.8	16.6	1.3	17.9
6/4	158	158	-	-	-	0.8	0.1	-	0.9	20.1	2.9	0.1	3.0
7/1	869	869	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1180	1180	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	595	595	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	682	682	-	-	-	5.4	2.3	-	7.7	40.8	19.1	2.3	21.4
8/2	448	448	-	-	-	3.0	0.6	-	3.6	28.8	10.6	0.6	11.2
8/3	601	601	-	-	-	4.5	1.3	-	5.8	34.8	15.9	1.3	17.2
9/1	1130	1130	-	-	-	0.0	0.7	-	0.7	2.3	0.0	0.7	0.7

Full Input Data And Results

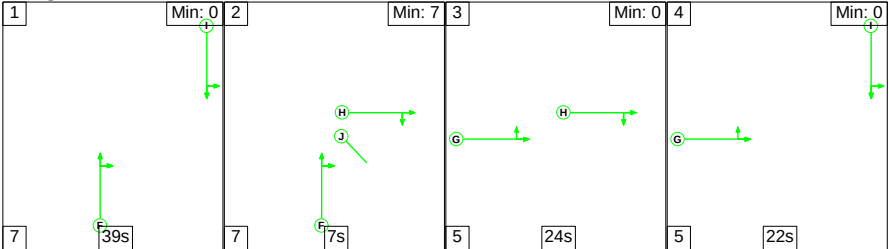
9/2	601	601	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
10/1	1641	1641	-	-	-	0.0	2.7	-	2.7	5.9	0.0	2.7	2.7
10/2	567	567	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/3	573	573	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	607	595	-	-	-	3.4	15.7	-	19.2	113.7	19.8	15.7	35.5
11/2	606	595	-	-	-	10.8	15.4	-	26.2	155.6	19.7	15.4	35.1
11/3	601	595	-	-	-	12.3	13.9	-	26.2	156.8	19.4	13.9	33.3
12/1	1180	1180	-	-	-	2.3	1.6	-	3.8	11.7	20.8	1.6	22.3
12/2	1162	1162	-	-	-	1.1	1.5	-	2.5	7.9	11.2	1.5	12.7
12/3	573	573	-	-	-	0.4	0.3	-	0.7	4.3	6.5	0.3	6.8
13/1	567	567	-	-	-	3.5	1.0	-	4.5	28.9	17.9	1.0	19.0
13/2	588	588	-	-	-	4.2	1.1	-	5.4	32.8	18.6	1.1	19.8
13/3	100	100	-	-	-	1.3	0.1	-	1.4	50.3	3.2	0.1	3.3
14/1	719	719	-	-	-	0.5	1.9	-	2.4	11.8	3.7	1.9	5.6
14/2	748	748	-	-	-	2.4	2.3	-	4.7	22.4	21.2	2.3	23.4
14/3	158	158	-	-	-	0.1	0.1	-	0.2	3.7	0.6	0.1	0.7
15/1	2208	2208	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	573	573	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1	2049	2049	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/2	595	595	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/1	721	721	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/2	285	285	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	1401	1401	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	141	141	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	1641	1641	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/2	1352	1352	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/3	158	158	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 14.1 C1 Stream: 2 PRC for Signalled Lanes (%): -13.4 PRC Over All Lanes (%): -13.4 Total Delay for Signalled Lanes (pcuHr): 34.27 Total Delay for Signalled Lanes (pcuHr): 128.18 Total Delay Over All Lanes(pcuHr): 169.62 Cycle Time (s): 115 Cycle Time (s): 115													

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

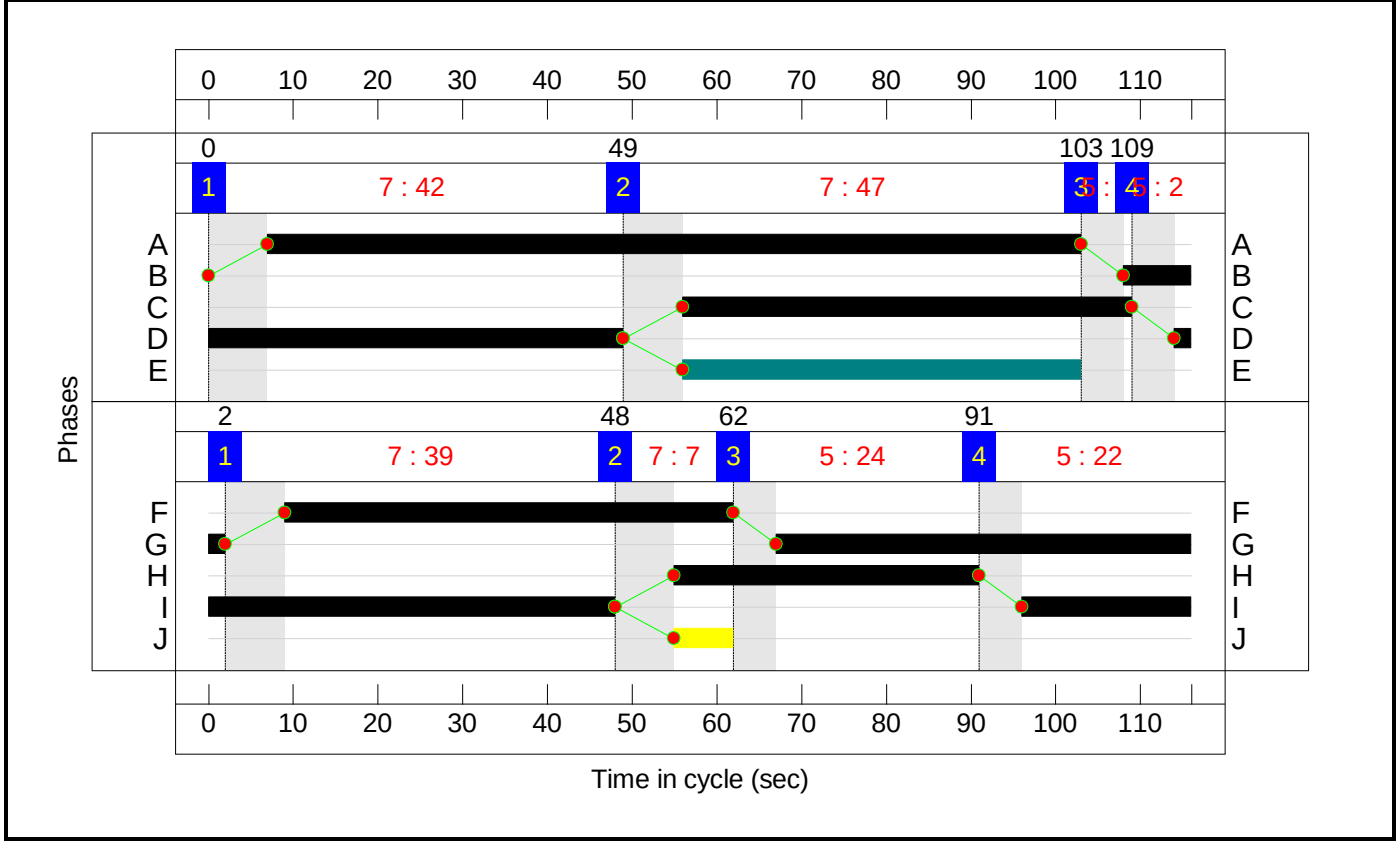
Stage Stream: 1

Stage	1	2	3	4
Duration	42	47	1	2
Change Point	0	49	103	109

Stage Stream: 2

Stage	1	2	3	4
Duration	39	7	24	22
Change Point	2	48	62	91

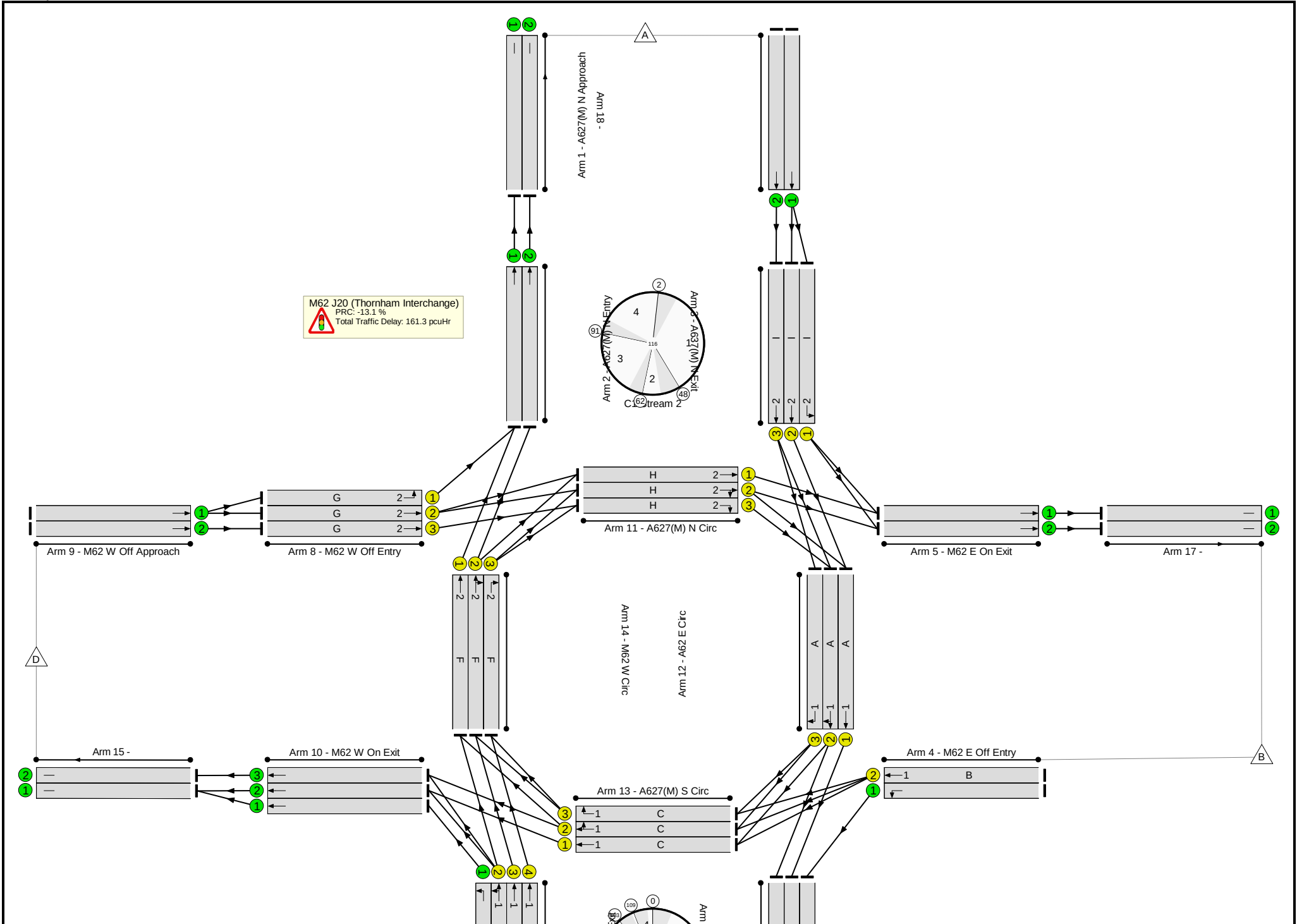
Signal Timings Diagram



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: Northern Gateway (Stakehill)	-	-	N/A	-	-		-	-	-	-	-	-	101.8%
M62 J20 (Thornham Interchange)	-	-	N/A	-	-		-	-	-	-	-	-	101.8%
1/1	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	1016	Inf	Inf	0.0%
1/2	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	1150	Inf	Inf	0.0%
2/1	A627(M) N Entry Left	U	2	N/A	I		1	68	-	253	1900	1130	22.4%
2/2	A627(M) N Entry Ahead	U	2	N/A	I		1	68	-	763	1900	1130	67.5%
2/3	A627(M) N Entry Ahead	U	2	N/A	I		1	68	-	1150	1900	1130	101.8%
3/1	A637(M) N Exit Ahead	U	N/A	N/A	-		-	-	-	1407	Inf	Inf	0.0%
3/2	A637(M) N Exit Ahead	U	N/A	N/A	-		-	-	-	135	Inf	Inf	0.0%
4/1	M62 E Off Entry Left	U	N/A	N/A	-		-	-	-	869	1900	1900	45.7%
4/2	M62 E Off Entry Ahead	U	1	N/A	B		1	8	-	115	1900	147	78.0%
5/1	M62 E On Exit Ahead	U	N/A	N/A	-		-	-	-	729	Inf	Inf	0.0%
5/2	M62 E On Exit Ahead	U	N/A	N/A	-		-	-	-	289	Inf	Inf	0.0%
6/1	A627(M) S Entry Left	U	N/A	N/A	-		-	-	-	1641	1900	1900	86.4%
6/2	A627(M) S Entry Left Ahead	U	1	N/A	D		1	51	-	681	1900	852	80.0%

Full Input Data And Results

6/3	A627(M) S Entry Ahead	U	1	N/A	D		1	51	-	667	1900	852	78.3%
6/4	A627(M) S Entry Ahead	U	1	N/A	D		1	51	-	162	1900	852	19.0%
7/1	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	869	Inf	Inf	0.0%
7/2	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	1212	Inf	Inf	0.0%
7/3	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	600	Inf	Inf	0.0%
8/1	M62 W Off Entry Left	U	2	N/A	G		1	51	-	682	1900	852	80.1%
8/2	M62 W Off Entry Ahead	U	2	N/A	G		1	51	-	449	1900	852	52.7%
8/3	M62 W Off Entry Ahead	U	2	N/A	G		1	51	-	600	1900	852	70.4%
9/1	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	1131	1900	1900	59.5%
9/2	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	600	1900	1900	31.6%
10/1	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	1641	1940	1940	84.6%
10/2	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	583	Inf	Inf	0.0%
10/3	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	567	Inf	Inf	0.0%
11/1	A627(M) N Circ Ahead	U	2	N/A	H		1	36	-	603	1900	606	99.5%
11/2	A627(M) N Circ Ahead Right	U	2	N/A	H		1	36	-	611	1900	606	100.8%
11/3	A627(M) N Circ Right	U	2	N/A	H		1	36	-	600	1900	606	99.0%
12/1	A62 E Circ Ahead	U	1	N/A	A		1	96	-	1212	1900	1589	76.0%
12/2	A62 E Circ Ahead Right	U	1	N/A	A		1	96	-	1183	1900	1589	73.8%

Full Input Data And Results

12/3	A62 E Circ Right	U	1	N/A	A		1	96	-	567	1900	1589	35.1%
13/1	A627(M) S Circ Ahead	U	1	N/A	C		1	53	-	583	1900	884	64.8%
13/2	A627(M) S Circ Ahead Right	U	1	N/A	C		1	53	-	611	1900	884	68.0%
13/3	A627(M) S Circ Right	U	1	N/A	C		1	53	-	71	1900	884	8.0%
14/1	M62 W Circ Ahead	U	2	N/A	F		1	53	-	725	1900	884	82.0%
14/2	M62 W Circ Ahead Right	U	2	N/A	F		1	53	-	738	1900	884	83.4%
14/3	M62 W Circ Right	U	2	N/A	F		1	53	-	162	1900	884	18.3%
15/1		U	N/A	N/A	-		-	-	-	2224	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	567	Inf	Inf	0.0%
16/1		U	N/A	N/A	-		-	-	-	2081	Inf	Inf	0.0%
16/2		U	N/A	N/A	-		-	-	-	600	Inf	Inf	0.0%
17/1		U	N/A	N/A	-		-	-	-	729	Inf	Inf	0.0%
17/2		U	N/A	N/A	-		-	-	-	289	Inf	Inf	0.0%
18/1		U	N/A	N/A	-		-	-	-	1407	Inf	Inf	0.0%
18/2		U	N/A	N/A	-		-	-	-	135	Inf	Inf	0.0%
19/1	Ahead	U	N/A	N/A	-		-	-	-	1641	Inf	Inf	0.0%
19/2	Ahead	U	N/A	N/A	-		-	-	-	1348	Inf	Inf	0.0%
19/3	Ahead	U	N/A	N/A	-		-	-	-	162	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: Northern Gateway (Stakehill)	-	-	0	0	0	75.1	86.2	0.0	161.3	-	-	-	-
M62 J20 (Thornham Interchange)	-	-	0	0	0	75.1	86.2	0.0	161.3	-	-	-	-
1/1	1016	1016	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
1/2	1150	1150	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	253	253	-	-	-	0.8	0.1	-	0.9	13.0	3.8	0.1	3.9
2/2	763	763	-	-	-	3.4	1.0	-	4.4	20.8	16.5	1.0	17.6
2/3	1150	1130	-	-	-	8.7	22.6	-	31.3	98.0	37.7	22.6	60.3
3/1	1407	1407	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	135	135	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	869	869	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
4/2	115	115	-	-	-	1.7	1.6	-	3.3	103.0	3.6	1.6	5.2
5/1	729	729	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	289	289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	1641	1641	-	-	-	0.0	3.1	-	3.1	6.8	0.0	3.1	3.1
6/2	681	681	-	-	-	5.2	1.9	-	7.2	37.8	18.7	1.9	20.7
6/3	667	667	-	-	-	5.0	1.8	-	6.8	36.8	18.2	1.8	19.9
6/4	162	162	-	-	-	0.9	0.1	-	1.0	21.9	3.1	0.1	3.2
7/1	869	869	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1207	1207	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	600	600	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	682	682	-	-	-	5.2	2.0	-	7.2	37.9	18.8	2.0	20.7
8/2	449	449	-	-	-	2.9	0.6	-	3.4	27.6	10.4	0.6	10.9
8/3	600	600	-	-	-	4.3	1.2	-	5.5	32.9	15.5	1.2	16.7
9/1	1131	1131	-	-	-	0.0	0.7	-	0.7	2.3	0.0	0.7	0.7

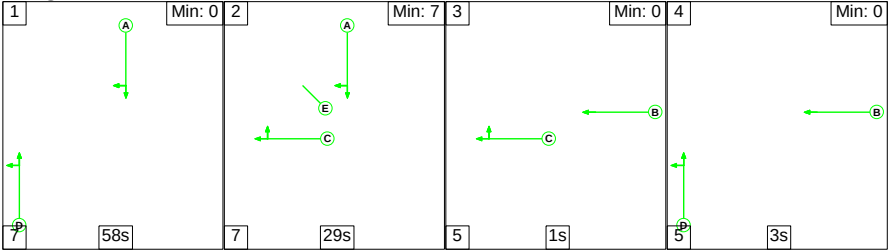
Full Input Data And Results

9/2	600	600	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
10/1	1641	1641	-	-	-	0.0	2.7	-	2.7	5.9	0.0	2.7	2.7
10/2	573	573	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/3	557	557	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	603	603	-	-	-	3.6	11.5	-	15.2	90.5	19.4	11.5	31.0
11/2	611	606	-	-	-	8.3	13.7	-	22.0	129.7	19.8	13.7	33.5
11/3	600	600	-	-	-	10.0	10.8	-	20.8	125.0	17.5	10.8	28.3
12/1	1207	1207	-	-	-	2.6	1.6	-	4.2	12.5	23.8	1.6	25.4
12/2	1173	1173	-	-	-	0.9	1.4	-	2.3	7.2	10.7	1.4	12.1
12/3	557	557	-	-	-	0.2	0.3	-	0.5	3.2	4.8	0.3	5.1
13/1	573	573	-	-	-	3.3	0.9	-	4.2	26.5	18.2	0.9	19.1
13/2	601	601	-	-	-	4.4	1.1	-	5.4	32.5	19.2	1.1	20.2
13/3	71	71	-	-	-	0.9	0.0	-	0.9	47.3	2.3	0.0	2.3
14/1	725	725	-	-	-	1.1	2.2	-	3.3	16.5	2.8	2.2	5.1
14/2	738	738	-	-	-	1.5	2.4	-	4.0	19.3	6.4	2.4	8.8
14/3	162	162	-	-	-	0.1	0.1	-	0.2	4.7	0.2	0.1	0.3
15/1	2214	2214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	557	557	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1	2076	2076	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/2	600	600	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/1	729	729	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/2	289	289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	1407	1407	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	135	135	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	1641	1641	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/2	1348	1348	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/3	162	162	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

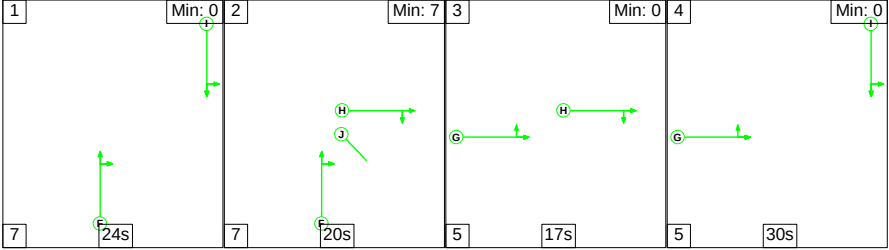
C1	Stream: 1 PRC for Signalled Lanes (%):	12.6	Total Delay for Signalled Lanes (pcuHr):	35.84	Cycle Time (s):	116
C1	Stream: 2 PRC for Signalled Lanes (%):	-13.1	Total Delay for Signalled Lanes (pcuHr):	118.25	Cycle Time (s):	116
	PRC Over All Lanes (%):	-13.1	Total Delay Over All Lanes (pcuHr):	161.27		

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

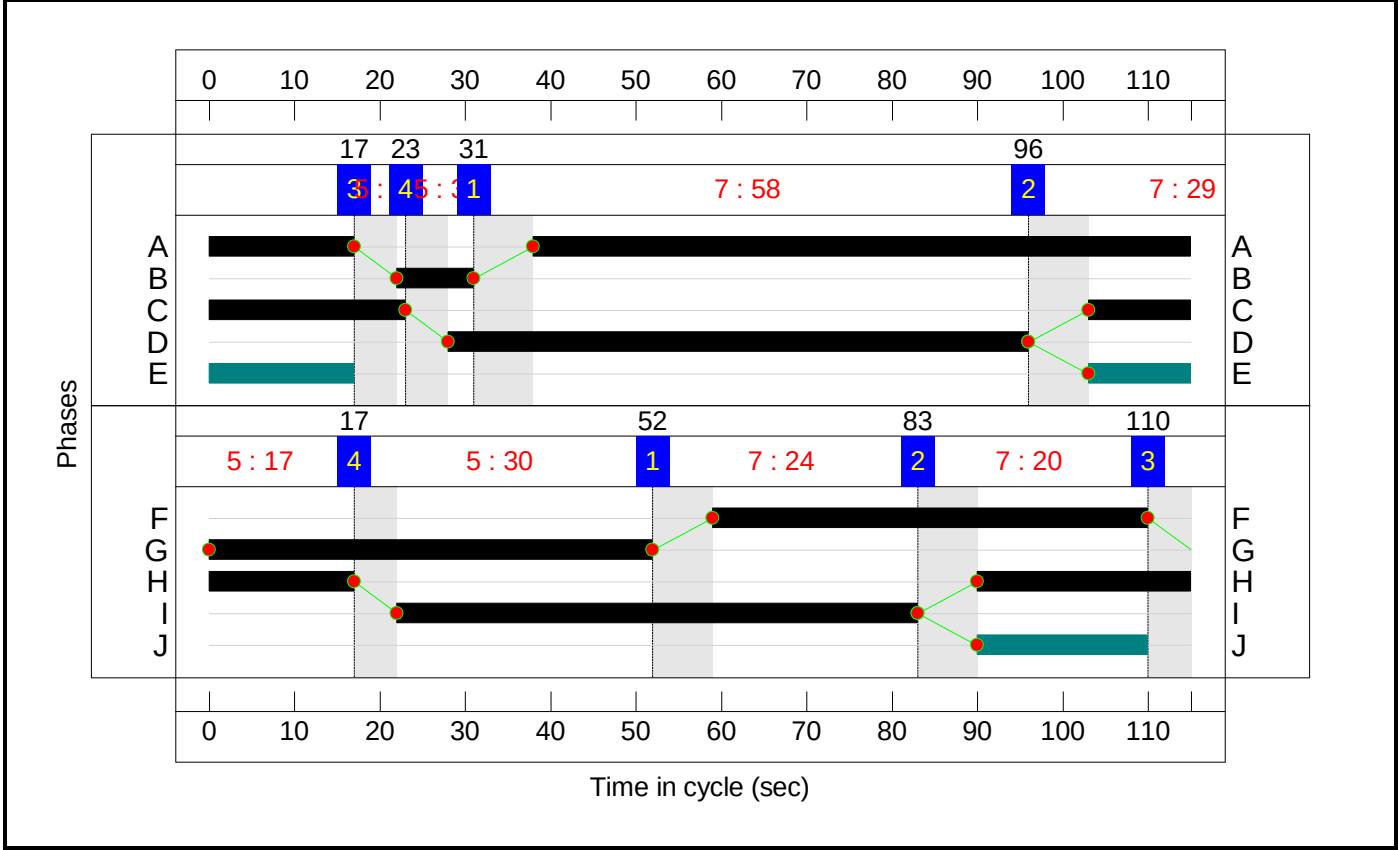
Stage Stream: 1

Stage	1	2	3	4
Duration	58	29	1	3
Change Point	31	96	17	23

Stage Stream: 2

Stage	1	2	3	4
Duration	24	20	17	30
Change Point	52	83	110	17

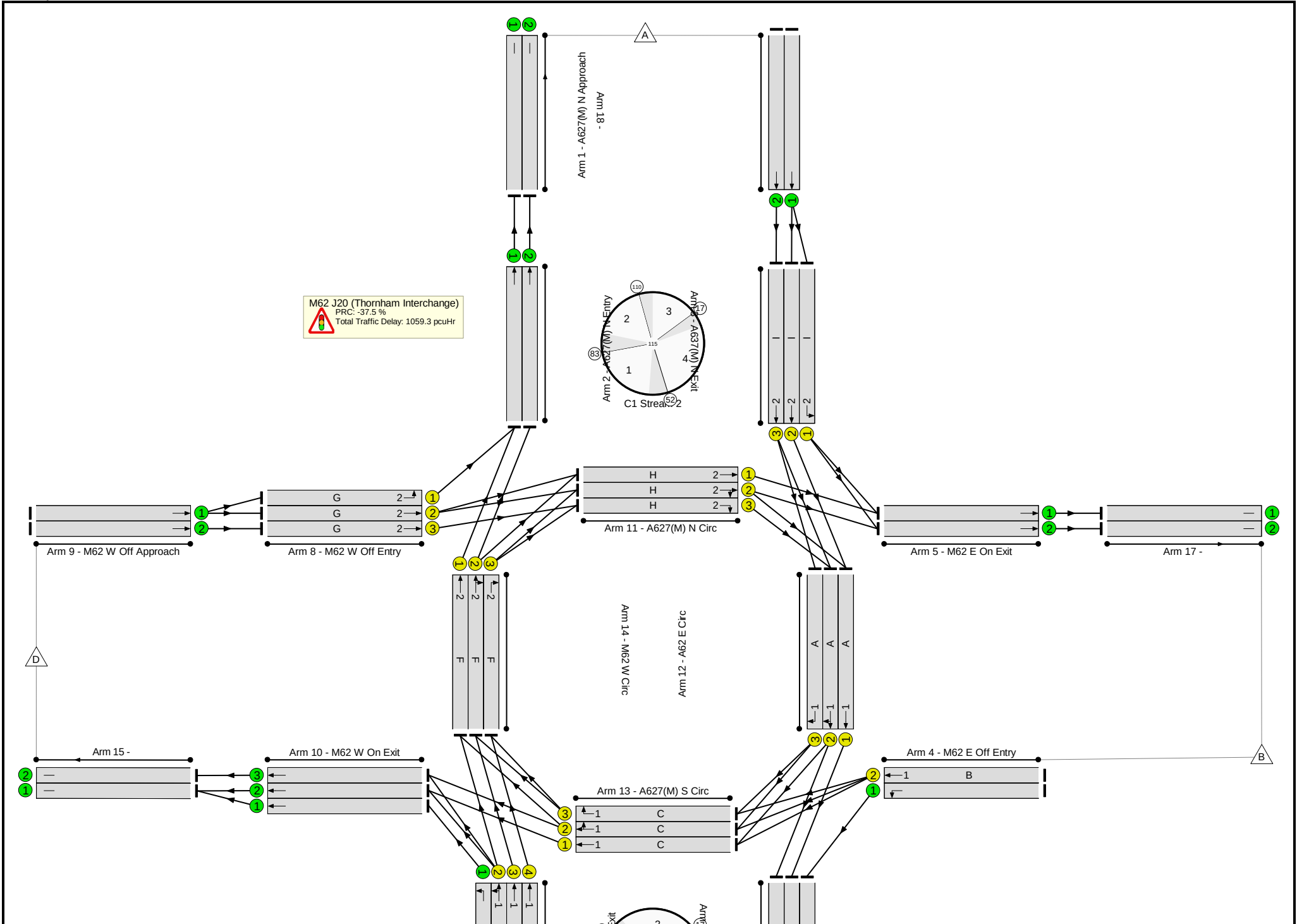
Signal Timings Diagram



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: Northern Gateway (Stakehill)	-	-	N/A	-	-		-	-	-	-	-	-	123.7%
M62 J20 (Thornham Interchange)	-	-	N/A	-	-		-	-	-	-	-	-	123.7%
1/1	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	1284	Inf	Inf	0.0%
1/2	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	1266	Inf	Inf	0.0%
2/1	A627(M) N Entry Left	U	2	N/A	I		1	61	-	393	1900	1024	38.4%
2/2	A627(M) N Entry Ahead	U	2	N/A	I		1	61	-	891	1900	1024	87.0%
2/3	A627(M) N Entry Ahead	U	2	N/A	I		1	61	-	1266	1900	1024	123.6%
3/1	A637(M) N Exit Ahead	U	N/A	N/A	-		-	-	-	1949	Inf	Inf	0.0%
3/2	A637(M) N Exit Ahead	U	N/A	N/A	-		-	-	-	194	Inf	Inf	0.0%
4/1	M62 E Off Entry Left	U	N/A	N/A	-		-	-	-	1438	1900	1900	75.7%
4/2	M62 E Off Entry Ahead	U	1	N/A	B		1	9	-	192	1900	165	116.2%
5/1	M62 E On Exit Ahead	U	N/A	N/A	-		-	-	-	910	Inf	Inf	0.0%
5/2	M62 E On Exit Ahead	U	N/A	N/A	-		-	-	-	204	Inf	Inf	0.0%
6/1	A627(M) S Entry Left	U	N/A	N/A	-		-	-	-	2337	1900	1900	123.0%
6/2	A627(M) S Entry Left Ahead	U	1	N/A	D		1	68	-	1259	1900	1140	110.4%

Full Input Data And Results

6/3	A627(M) S Entry Ahead	U	1	N/A	D		1	68	-	905	1900	1140	79.4%
6/4	A627(M) S Entry Ahead	U	1	N/A	D		1	68	-	7	1900	1140	0.6%
7/1	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	1438	Inf	Inf	0.0%
7/2	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	1725	Inf	Inf	0.0%
7/3	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	887	Inf	Inf	0.0%
8/1	M62 W Off Entry Left	U	2	N/A	G		1	52	-	1107	1900	876	123.7%
8/2	M62 W Off Entry Ahead	U	2	N/A	G		1	52	-	834	1900	876	93.2%
8/3	M62 W Off Entry Ahead	U	2	N/A	G		1	52	-	887	1900	876	101.3%
9/1	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	1941	1900	1900	102.2%
9/2	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	887	1900	1900	46.7%
10/1	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	2337	1940	1940	97.9%
10/2	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	1032	Inf	Inf	0.0%
10/3	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	840	Inf	Inf	0.0%
11/1	A627(M) N Circ Ahead	U	2	N/A	H		1	42	-	714	1900	710	95.1%
11/2	A627(M) N Circ Ahead Right	U	2	N/A	H		1	42	-	841	1900	710	115.9%
11/3	A627(M) N Circ Right	U	2	N/A	H		1	42	-	887	1900	710	123.3%
12/1	A62 E Circ Ahead	U	1	N/A	A		1	94	-	1725	1900	1570	101.6%
12/2	A62 E Circ Ahead Right	U	1	N/A	A		1	94	-	1616	1900	1570	82.8%

Full Input Data And Results

12/3	A62 E Circ Right	U	1	N/A	A		1	94	-	537	1900	1570	27.7%
13/1	A627(M) S Circ Ahead	U	1	N/A	C		1	35	-	729	1900	595	99.2%
13/2	A627(M) S Circ Ahead Right	U	1	N/A	C		1	35	-	726	1900	595	100.4%
13/3	A627(M) S Circ Right	U	1	N/A	C		1	35	-	3	1900	595	0.4%
14/1	M62 W Circ Ahead	U	2	N/A	F		1	51	-	842	1900	859	87.7%
14/2	M62 W Circ Ahead Right	U	2	N/A	F		1	51	-	908	1900	859	105.6%
14/3	M62 W Circ Right	U	2	N/A	F		1	51	-	7	1900	859	0.8%
15/1		U	N/A	N/A	-		-	-	-	3369	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	840	Inf	Inf	0.0%
16/1		U	N/A	N/A	-		-	-	-	3163	Inf	Inf	0.0%
16/2		U	N/A	N/A	-		-	-	-	887	Inf	Inf	0.0%
17/1		U	N/A	N/A	-		-	-	-	910	Inf	Inf	0.0%
17/2		U	N/A	N/A	-		-	-	-	204	Inf	Inf	0.0%
18/1		U	N/A	N/A	-		-	-	-	1949	Inf	Inf	0.0%
18/2		U	N/A	N/A	-		-	-	-	194	Inf	Inf	0.0%
19/1	Ahead	U	N/A	N/A	-		-	-	-	2337	Inf	Inf	0.0%
19/2	Ahead	U	N/A	N/A	-		-	-	-	2164	Inf	Inf	0.0%
19/3	Ahead	U	N/A	N/A	-		-	-	-	7	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: Northern Gateway (Stakehill)	-	-	0	0	0	207.6	851.8	0.0	1059.3	-	-	-	-
M62 J20 (Thornham Interchange)	-	-	0	0	0	207.6	851.8	0.0	1059.3	-	-	-	-
1/1	1284	1284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
1/2	1266	1266	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	393	393	-	-	-	1.7	0.3	-	2.0	18.2	7.2	0.3	7.5
2/2	891	891	-	-	-	5.7	3.2	-	8.9	35.9	24.5	3.2	27.7
2/3	1266	1024	-	-	-	21.1	123.4	-	144.5	410.9	48.2	123.4	171.6
3/1	1629	1629	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	183	183	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	1438	1438	-	-	-	0.0	1.5	-	1.5	3.9	0.0	1.5	1.5
4/2	192	165	-	-	-	4.3	16.3	-	20.6	386.8	7.0	16.3	23.3
5/1	872	872	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	204	204	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2337	1900	-	-	-	35.0	221.1	-	256.1	394.5	224.0	221.1	445.1
6/2	1259	1140	-	-	-	13.5	64.4	-	77.9	222.8	44.0	64.4	108.4
6/3	905	905	-	-	-	4.4	1.9	-	6.3	25.1	21.9	1.9	23.8
6/4	7	7	-	-	-	0.0	0.0	-	0.0	11.0	0.1	0.0	0.1
7/1	1438	1438	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1570	1570	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	710	710	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	1084	876	-	-	-	21.0	106.5	-	127.5	423.7	41.3	106.5	147.8
8/2	816	816	-	-	-	6.6	5.8	-	12.4	54.7	24.5	5.8	30.3
8/3	887	876	-	-	-	8.3	18.0	-	26.3	106.6	28.7	18.0	46.7
9/1	1941	1900	-	-	-	3.3	34.5	-	37.8	70.2	186.0	34.5	220.6

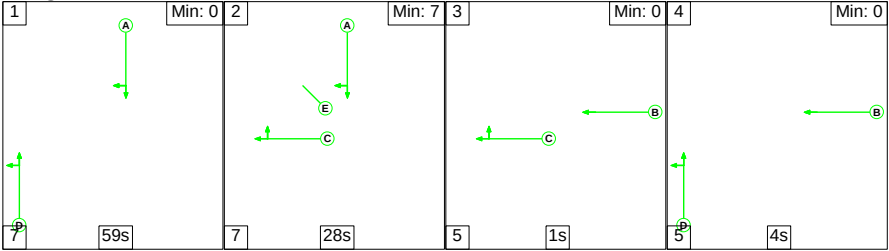
Full Input Data And Results

9/2	887	887	-	-	-	0.0	0.4	-	0.4	1.8	0.0	0.4	0.4
10/1	1900	1900	-	-	-	0.0	14.0	-	14.0	26.5	0.0	14.0	14.0
10/2	864	864	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/3	707	707	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	676	676	-	-	-	1.8	7.0	-	8.7	46.6	21.3	7.0	28.3
11/2	823	710	-	-	-	21.9	59.9	-	81.8	357.6	32.4	59.9	92.3
11/3	876	710	-	-	-	25.9	85.2	-	111.1	456.8	37.4	85.2	122.6
12/1	1594	1570	-	-	-	7.1	27.1	-	34.2	77.2	51.7	27.1	78.9
12/2	1300	1300	-	-	-	2.4	2.4	-	4.8	13.2	20.6	2.4	23.0
12/3	434	434	-	-	-	0.0	0.2	-	0.2	1.6	0.2	0.2	0.4
13/1	590	590	-	-	-	4.6	11.0	-	15.6	94.9	18.8	11.0	29.8
13/2	597	595	-	-	-	7.6	12.8	-	20.4	123.0	19.2	12.8	32.0
13/3	3	3	-	-	-	0.0	0.0	-	0.0	62.0	0.1	0.0	0.1
14/1	753	753	-	-	-	4.6	3.3	-	7.9	37.9	20.3	3.3	23.6
14/2	908	859	-	-	-	6.8	31.4	-	38.2	151.6	31.8	31.4	63.2
14/3	7	7	-	-	-	0.0	0.0	-	0.0	10.4	0.1	0.0	0.1
15/1	2764	2764	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	707	707	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1	3008	3008	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/2	710	710	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/1	872	872	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/2	204	204	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	1629	1629	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	183	183	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	2337	2337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/2	2164	2164	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/3	7	7	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

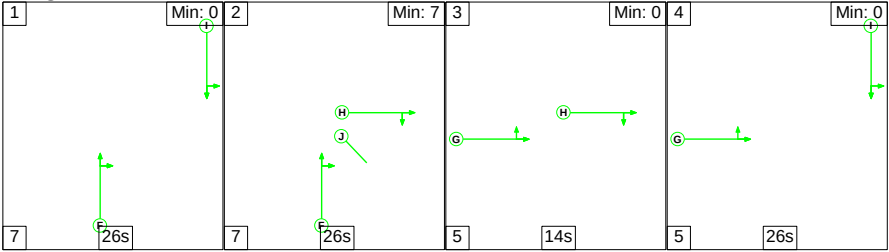
C1	Stream: 1 PRC for Signalled Lanes (%):	-29.1	Total Delay for Signalled Lanes (pcuHr):	180.04	Cycle Time (s):	115
C1	Stream: 2 PRC for Signalled Lanes (%):	-37.5	Total Delay for Signalled Lanes (pcuHr):	569.38	Cycle Time (s):	115
	PRC Over All Lanes (%):	-37.5	Total Delay Over All Lanes (pcuHr):	1059.32		

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

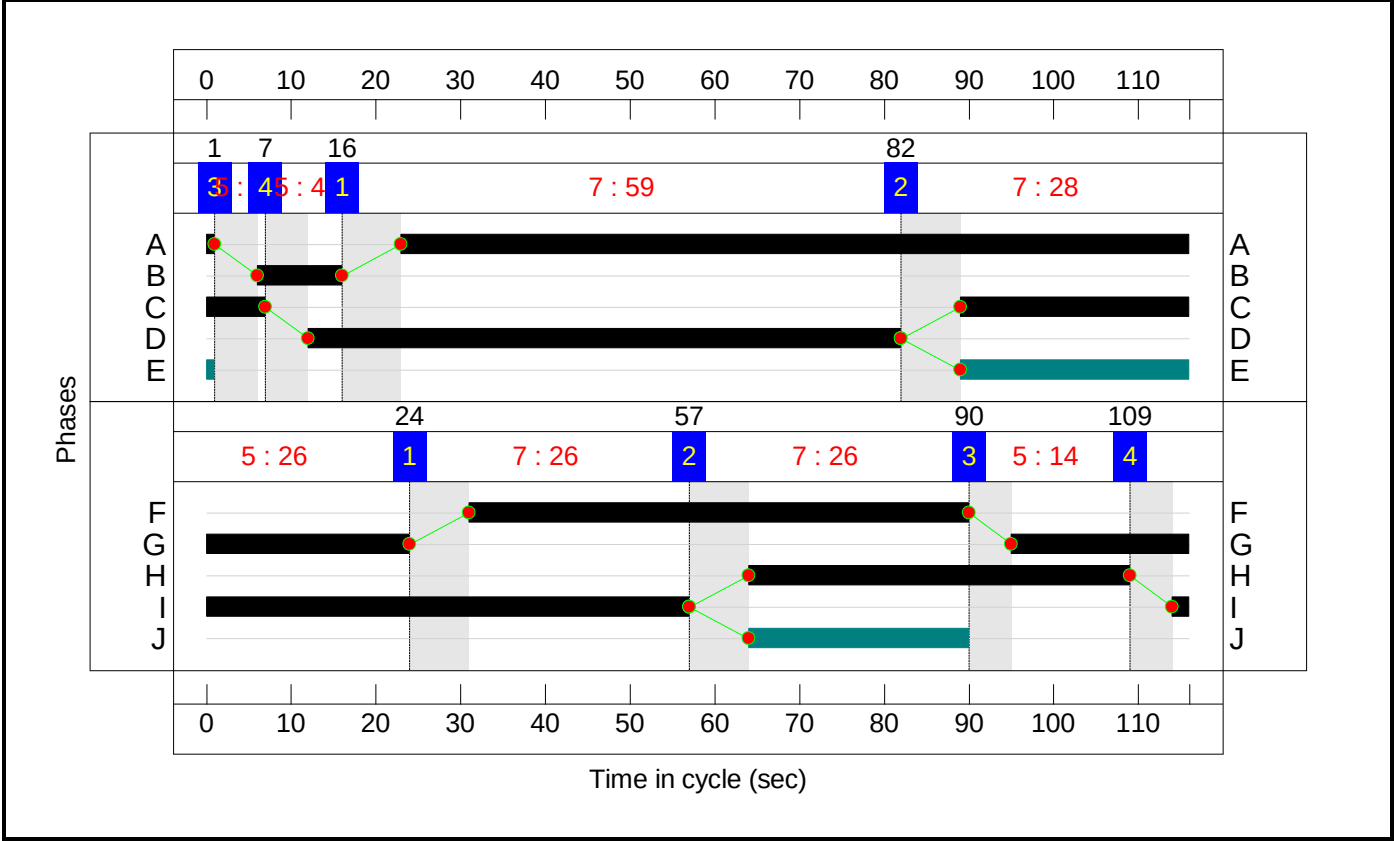
Stage Stream: 1

Stage	1	2	3	4
Duration	59	28	1	4
Change Point	16	82	1	7

Stage Stream: 2

Stage	1	2	3	4
Duration	26	26	14	26
Change Point	24	57	90	109

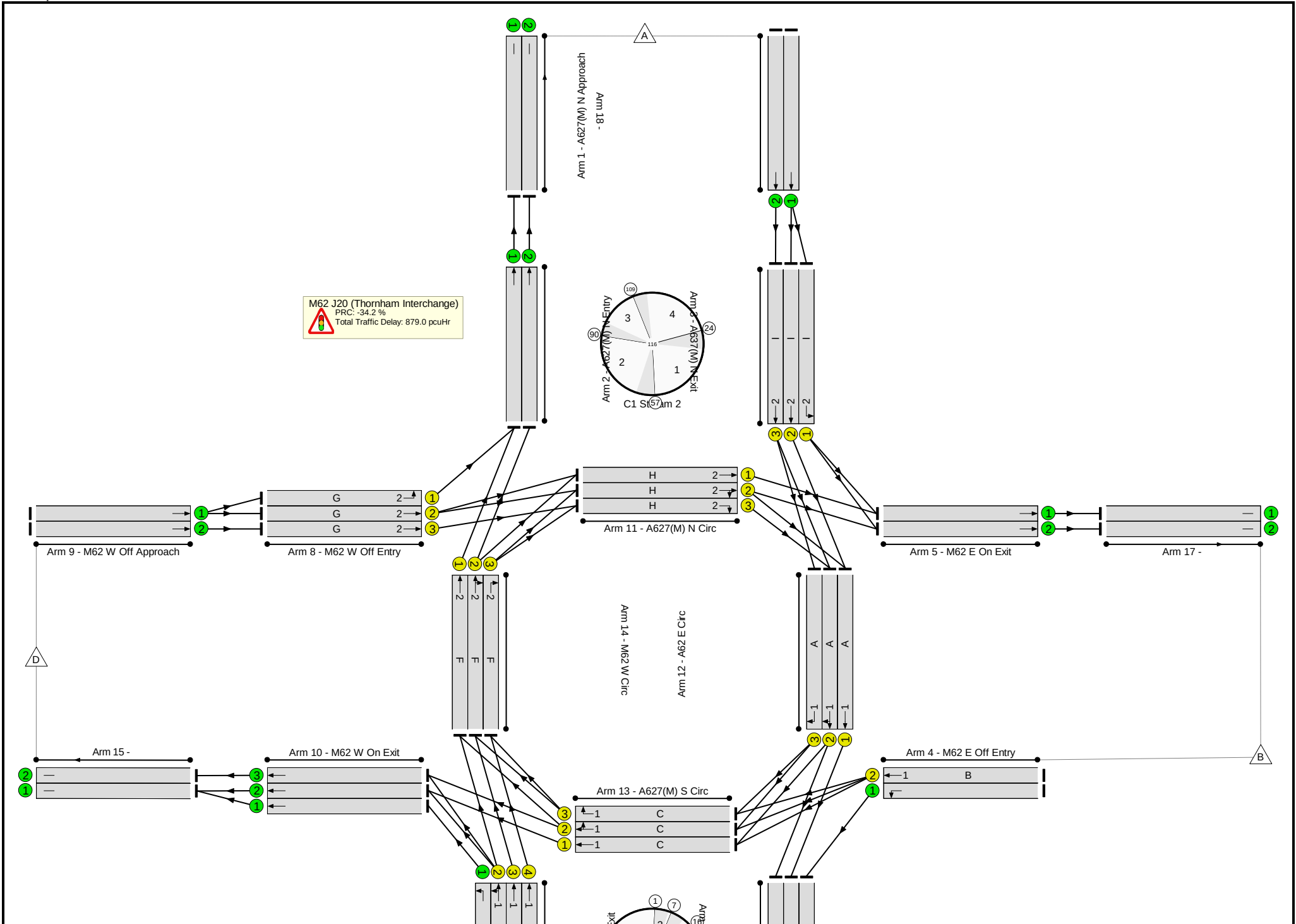
Signal Timings Diagram



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: Northern Gateway (Stakehill)	-	-	N/A	-	-		-	-	-	-	-	-	120.8%
M62 J20 (Thornham Interchange)	-	-	N/A	-	-		-	-	-	-	-	-	120.8%
1/1	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	1116	Inf	Inf	0.0%
1/2	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	1184	Inf	Inf	0.0%
2/1	A627(M) N Entry Left	U	2	N/A	I		1	59	-	338	1900	983	34.4%
2/2	A627(M) N Entry Ahead	U	2	N/A	I		1	59	-	778	1900	983	79.2%
2/3	A627(M) N Entry Ahead	U	2	N/A	I		1	59	-	1184	1900	983	120.5%
3/1	A637(M) N Exit Ahead	U	N/A	N/A	-		-	-	-	1597	Inf	Inf	0.0%
3/2	A637(M) N Exit Ahead	U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%
4/1	M62 E Off Entry Left	U	N/A	N/A	-		-	-	-	1479	1900	1900	77.8%
4/2	M62 E Off Entry Ahead	U	1	N/A	B		1	10	-	150	1900	180	83.3%
5/1	M62 E On Exit Ahead	U	N/A	N/A	-		-	-	-	907	Inf	Inf	0.0%
5/2	M62 E On Exit Ahead	U	N/A	N/A	-		-	-	-	360	Inf	Inf	0.0%
6/1	A627(M) S Entry Left	U	N/A	N/A	-		-	-	-	2295	1900	1900	120.8%
6/2	A627(M) S Entry Left Ahead	U	1	N/A	D		1	70	-	1338	1900	1163	115.1%

Full Input Data And Results

6/3	A627(M) S Entry Ahead	U	1	N/A	D		1	70	-	1076	1900	1163	92.5%
6/4	A627(M) S Entry Ahead	U	1	N/A	D		1	70	-	191	1900	1163	16.4%
7/1	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	1479	Inf	Inf	0.0%
7/2	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	1491	Inf	Inf	0.0%
7/3	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	893	Inf	Inf	0.0%
8/1	M62 W Off Entry Left	U	2	N/A	G		1	45	-	753	1900	753	99.9%
8/2	M62 W Off Entry Ahead	U	2	N/A	G		1	45	-	713	1900	753	94.6%
8/3	M62 W Off Entry Ahead	U	2	N/A	G		1	45	-	893	1900	753	118.5%
9/1	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	1466	1900	1900	77.2%
9/2	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	893	1900	1900	47.0%
10/1	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	2295	1940	1940	97.9%
10/2	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	1008	Inf	Inf	0.0%
10/3	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	820	Inf	Inf	0.0%
11/1	A627(M) N Circ Ahead	U	2	N/A	H		1	45	-	738	1900	753	89.5%
11/2	A627(M) N Circ Ahead Right	U	2	N/A	H		1	45	-	904	1900	753	120.0%
11/3	A627(M) N Circ Right	U	2	N/A	H		1	45	-	893	1900	753	100.0%
12/1	A62 E Circ Ahead	U	1	N/A	A		1	94	-	1491	1900	1556	86.1%
12/2	A62 E Circ Ahead Right	U	1	N/A	A		1	94	-	1579	1900	1556	85.0%

Full Input Data And Results

12/3	A62 E Circ Right	U	1	N/A	A		1	94	-	498	1900	1556	26.6%
13/1	A627(M) S Circ Ahead	U	1	N/A	C		1	34	-	686	1900	573	99.3%
13/2	A627(M) S Circ Ahead Right	U	1	N/A	C		1	34	-	648	1900	573	98.3%
13/3	A627(M) S Circ Right	U	1	N/A	C		1	34	-	0	1900	573	0.0%
14/1	M62 W Circ Ahead	U	2	N/A	F		1	59	-	844	1900	983	76.6%
14/2	M62 W Circ Ahead Right	U	2	N/A	F		1	59	-	1076	1900	983	109.5%
14/3	M62 W Circ Right	U	2	N/A	F		1	59	-	191	1900	983	19.4%
15/1		U	N/A	N/A	-		-	-	-	3303	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	820	Inf	Inf	0.0%
16/1		U	N/A	N/A	-		-	-	-	2970	Inf	Inf	0.0%
16/2		U	N/A	N/A	-		-	-	-	893	Inf	Inf	0.0%
17/1		U	N/A	N/A	-		-	-	-	907	Inf	Inf	0.0%
17/2		U	N/A	N/A	-		-	-	-	360	Inf	Inf	0.0%
18/1		U	N/A	N/A	-		-	-	-	1597	Inf	Inf	0.0%
18/2		U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%
19/1	Ahead	U	N/A	N/A	-		-	-	-	2295	Inf	Inf	0.0%
19/2	Ahead	U	N/A	N/A	-		-	-	-	2414	Inf	Inf	0.0%
19/3	Ahead	U	N/A	N/A	-		-	-	-	191	Inf	Inf	0.0%

Full Input Data And Results

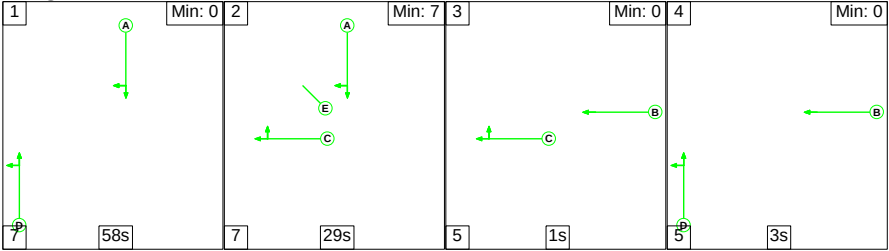
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Northern Gateway (Stakehill)	-	-	0	0	0	187.2	691.8	0.0	879.0	-	-	-	-
M62 J20 (Thornham Interchange)	-	-	0	0	0	187.2	691.8	0.0	879.0	-	-	-	-
1/1	1116	1116	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
1/2	1184	1184	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	338	338	-	-	-	1.5	0.3	-	1.8	19.2	6.4	0.3	6.6
2/2	778	778	-	-	-	4.9	1.9	-	6.8	31.5	20.3	1.9	22.2
2/3	1184	983	-	-	-	20.5	103.5	-	124.0	377.1	44.6	103.5	148.1
3/1	1506	1506	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	309	309	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	1479	1479	-	-	-	0.0	1.7	-	1.7	4.2	0.0	1.7	1.7
4/2	150	150	-	-	-	2.1	2.2	-	4.3	103.7	4.8	2.2	6.9
5/1	843	843	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	360	360	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2295	1900	-	-	-	31.9	200.4	-	232.2	364.3	221.9	200.4	422.2
6/2	1338	1163	-	-	-	17.3	91.2	-	108.5	291.8	48.8	91.2	140.0
6/3	1076	1076	-	-	-	6.0	5.5	-	11.5	38.5	30.8	5.5	36.3
6/4	191	191	-	-	-	0.5	0.1	-	0.6	11.6	2.7	0.1	2.8
7/1	1479	1479	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1340	1340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	753	753	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	753	753	-	-	-	7.3	13.6	-	20.9	100.0	24.1	13.6	37.7
8/2	713	713	-	-	-	6.7	6.6	-	13.3	67.3	22.2	6.6	28.8
8/3	893	753	-	-	-	17.5	72.8	-	90.4	364.4	33.3	72.8	106.1
9/1	1466	1466	-	-	-	0.0	1.7	-	1.7	4.1	0.0	1.7	1.7

Full Input Data And Results

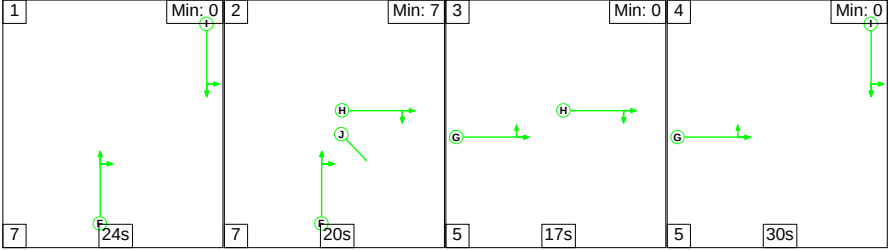
9/2	893	893	-	-	-	0.0	0.4	-	0.4	1.8	0.0	0.4	0.4
10/1	1900	1900	-	-	-	0.0	14.0	-	14.0	26.5	0.0	14.0	14.0
10/2	849	849	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/3	693	693	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	674	674	-	-	-	1.7	3.9	-	5.5	29.5	19.1	3.9	23.0
11/2	904	753	-	-	-	24.1	78.2	-	102.3	407.3	37.6	78.2	115.7
11/3	753	753	-	-	-	13.8	13.7	-	27.6	131.7	24.3	13.7	38.0
12/1	1340	1340	-	-	-	4.3	3.0	-	7.3	19.6	30.7	3.0	33.7
12/2	1323	1323	-	-	-	1.8	2.8	-	4.6	12.4	17.1	2.8	19.9
12/3	413	413	-	-	-	0.1	0.2	-	0.3	2.6	2.8	0.2	3.0
13/1	569	569	-	-	-	5.9	11.0	-	16.9	107.0	18.3	11.0	29.3
13/2	563	563	-	-	-	8.1	9.6	-	17.7	113.3	18.2	9.6	27.8
13/3	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	753	753	-	-	-	3.7	1.6	-	5.3	25.4	16.1	1.6	17.7
14/2	1076	983	-	-	-	7.0	51.8	-	58.8	196.7	37.7	51.8	89.5
14/3	191	191	-	-	-	0.3	0.1	-	0.4	7.9	2.8	0.1	3.0
15/1	2749	2749	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	693	693	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1	2819	2819	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/2	753	753	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/1	843	843	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/2	360	360	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	1506	1506	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	309	309	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	2295	2295	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/2	2414	2414	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/3	191	191	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalised Lanes (%): -27.8 C1 Stream: 2 PRC for Signalised Lanes (%): -33.9 PRC Over All Lanes (%): -34.2 Total Delay for Signalised Lanes (pcuHr): 171.74 Total Delay for Signalised Lanes (pcuHr): 457.17 Total Delay Over All Lanes(pcuHr): 878.99 Cycle Time (s): 116 Cycle Time (s): 116													

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

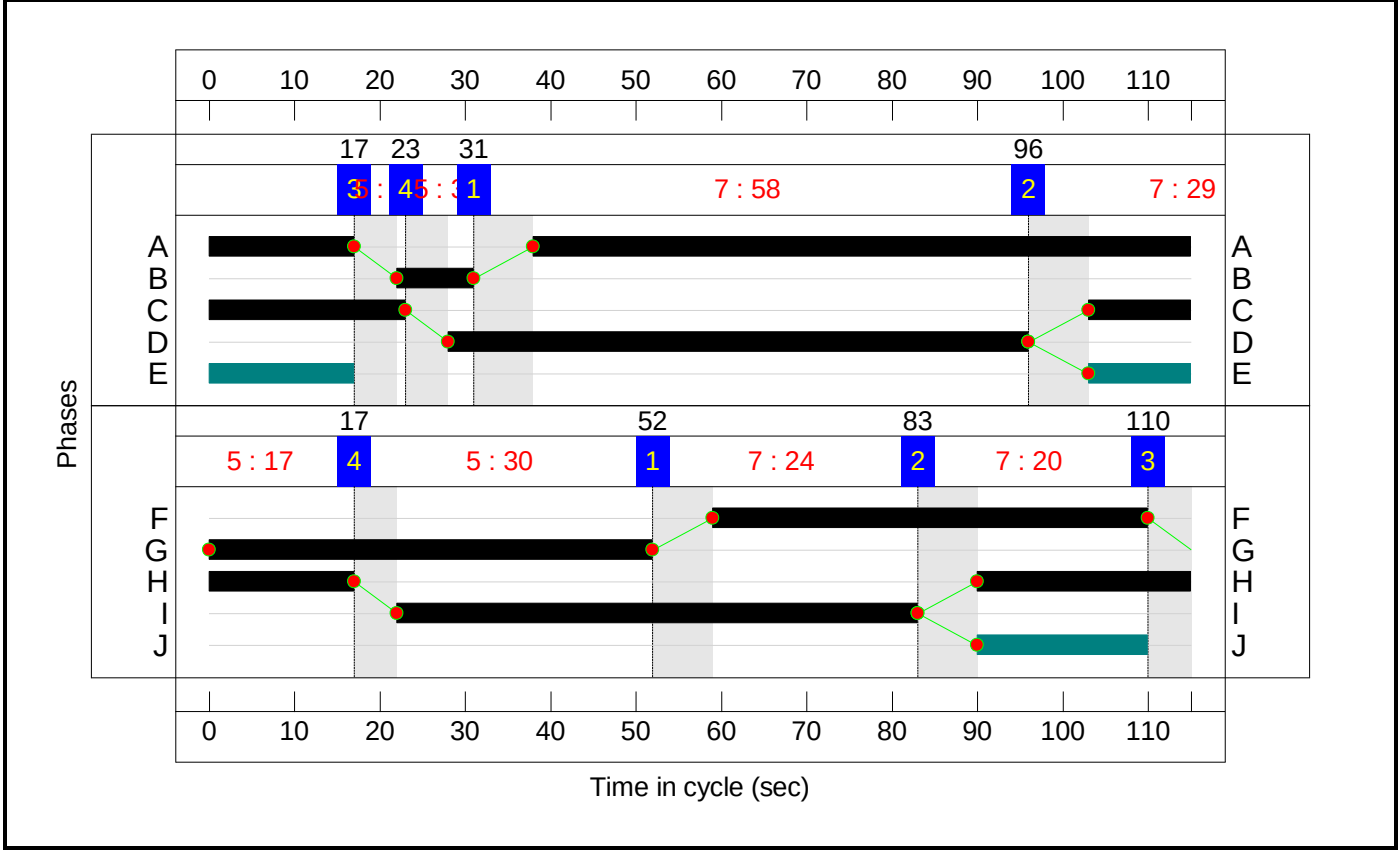
Stage Stream: 1

Stage	1	2	3	4
Duration	58	29	1	3
Change Point	31	96	17	23

Stage Stream: 2

Stage	1	2	3	4
Duration	24	20	17	30
Change Point	52	83	110	17

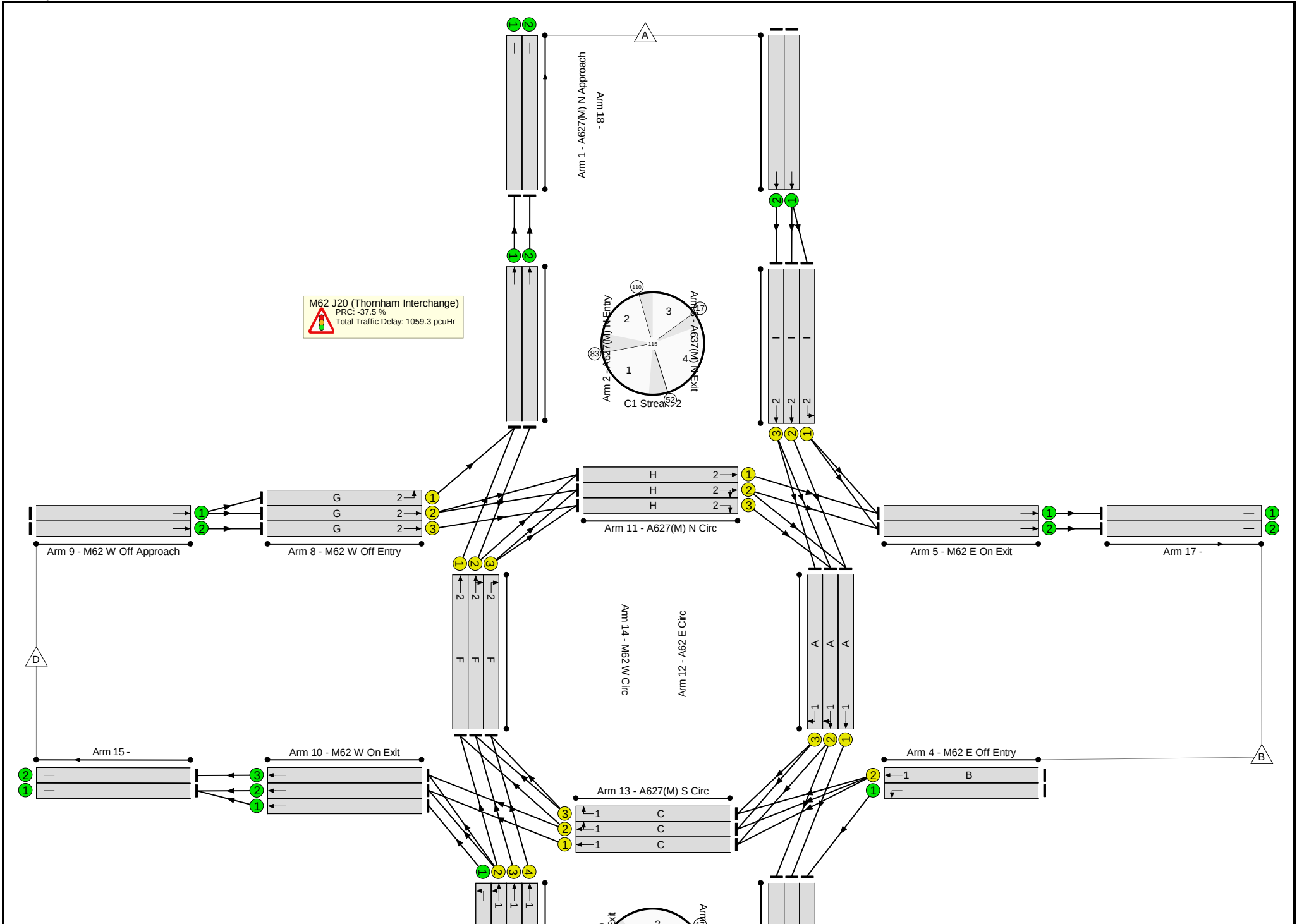
Signal Timings Diagram



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: Northern Gateway (Stakehill)	-	-	N/A	-	-		-	-	-	-	-	-	123.7%
M62 J20 (Thornham Interchange)	-	-	N/A	-	-		-	-	-	-	-	-	123.7%
1/1	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	1284	Inf	Inf	0.0%
1/2	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	1266	Inf	Inf	0.0%
2/1	A627(M) N Entry Left	U	2	N/A	I		1	61	-	393	1900	1024	38.4%
2/2	A627(M) N Entry Ahead	U	2	N/A	I		1	61	-	891	1900	1024	87.0%
2/3	A627(M) N Entry Ahead	U	2	N/A	I		1	61	-	1266	1900	1024	123.6%
3/1	A637(M) N Exit Ahead	U	N/A	N/A	-		-	-	-	1949	Inf	Inf	0.0%
3/2	A637(M) N Exit Ahead	U	N/A	N/A	-		-	-	-	194	Inf	Inf	0.0%
4/1	M62 E Off Entry Left	U	N/A	N/A	-		-	-	-	1438	1900	1900	75.7%
4/2	M62 E Off Entry Ahead	U	1	N/A	B		1	9	-	192	1900	165	116.2%
5/1	M62 E On Exit Ahead	U	N/A	N/A	-		-	-	-	910	Inf	Inf	0.0%
5/2	M62 E On Exit Ahead	U	N/A	N/A	-		-	-	-	204	Inf	Inf	0.0%
6/1	A627(M) S Entry Left	U	N/A	N/A	-		-	-	-	2337	1900	1900	123.0%
6/2	A627(M) S Entry Left Ahead	U	1	N/A	D		1	68	-	1259	1900	1140	110.4%

Full Input Data And Results

6/3	A627(M) S Entry Ahead	U	1	N/A	D		1	68	-	905	1900	1140	79.4%
6/4	A627(M) S Entry Ahead	U	1	N/A	D		1	68	-	7	1900	1140	0.6%
7/1	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	1438	Inf	Inf	0.0%
7/2	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	1725	Inf	Inf	0.0%
7/3	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	887	Inf	Inf	0.0%
8/1	M62 W Off Entry Left	U	2	N/A	G		1	52	-	1107	1900	876	123.7%
8/2	M62 W Off Entry Ahead	U	2	N/A	G		1	52	-	834	1900	876	93.2%
8/3	M62 W Off Entry Ahead	U	2	N/A	G		1	52	-	887	1900	876	101.3%
9/1	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	1941	1900	1900	102.2%
9/2	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	887	1900	1900	46.7%
10/1	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	2337	1940	1940	97.9%
10/2	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	1032	Inf	Inf	0.0%
10/3	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	840	Inf	Inf	0.0%
11/1	A627(M) N Circ Ahead	U	2	N/A	H		1	42	-	714	1900	710	95.1%
11/2	A627(M) N Circ Ahead Right	U	2	N/A	H		1	42	-	841	1900	710	115.9%
11/3	A627(M) N Circ Right	U	2	N/A	H		1	42	-	887	1900	710	123.3%
12/1	A62 E Circ Ahead	U	1	N/A	A		1	94	-	1725	1900	1570	101.6%
12/2	A62 E Circ Ahead Right	U	1	N/A	A		1	94	-	1616	1900	1570	82.8%

Full Input Data And Results

12/3	A62 E Circ Right	U	1	N/A	A		1	94	-	537	1900	1570	27.7%
13/1	A627(M) S Circ Ahead	U	1	N/A	C		1	35	-	729	1900	595	99.2%
13/2	A627(M) S Circ Ahead Right	U	1	N/A	C		1	35	-	726	1900	595	100.4%
13/3	A627(M) S Circ Right	U	1	N/A	C		1	35	-	3	1900	595	0.4%
14/1	M62 W Circ Ahead	U	2	N/A	F		1	51	-	842	1900	859	87.7%
14/2	M62 W Circ Ahead Right	U	2	N/A	F		1	51	-	908	1900	859	105.6%
14/3	M62 W Circ Right	U	2	N/A	F		1	51	-	7	1900	859	0.8%
15/1		U	N/A	N/A	-		-	-	-	3369	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	840	Inf	Inf	0.0%
16/1		U	N/A	N/A	-		-	-	-	3163	Inf	Inf	0.0%
16/2		U	N/A	N/A	-		-	-	-	887	Inf	Inf	0.0%
17/1		U	N/A	N/A	-		-	-	-	910	Inf	Inf	0.0%
17/2		U	N/A	N/A	-		-	-	-	204	Inf	Inf	0.0%
18/1		U	N/A	N/A	-		-	-	-	1949	Inf	Inf	0.0%
18/2		U	N/A	N/A	-		-	-	-	194	Inf	Inf	0.0%
19/1	Ahead	U	N/A	N/A	-		-	-	-	2337	Inf	Inf	0.0%
19/2	Ahead	U	N/A	N/A	-		-	-	-	2164	Inf	Inf	0.0%
19/3	Ahead	U	N/A	N/A	-		-	-	-	7	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: Northern Gateway (Stakehill)	-	-	0	0	0	207.6	851.8	0.0	1059.3	-	-	-	-
M62 J20 (Thornham Interchange)	-	-	0	0	0	207.6	851.8	0.0	1059.3	-	-	-	-
1/1	1284	1284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
1/2	1266	1266	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	393	393	-	-	-	1.7	0.3	-	2.0	18.2	7.2	0.3	7.5
2/2	891	891	-	-	-	5.7	3.2	-	8.9	35.9	24.5	3.2	27.7
2/3	1266	1024	-	-	-	21.1	123.4	-	144.5	410.9	48.2	123.4	171.6
3/1	1629	1629	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	183	183	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	1438	1438	-	-	-	0.0	1.5	-	1.5	3.9	0.0	1.5	1.5
4/2	192	165	-	-	-	4.3	16.3	-	20.6	386.8	7.0	16.3	23.3
5/1	872	872	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	204	204	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2337	1900	-	-	-	35.0	221.1	-	256.1	394.5	224.0	221.1	445.1
6/2	1259	1140	-	-	-	13.5	64.4	-	77.9	222.8	44.0	64.4	108.4
6/3	905	905	-	-	-	4.4	1.9	-	6.3	25.1	21.9	1.9	23.8
6/4	7	7	-	-	-	0.0	0.0	-	0.0	11.0	0.1	0.0	0.1
7/1	1438	1438	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1570	1570	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	710	710	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	1084	876	-	-	-	21.0	106.5	-	127.5	423.7	41.3	106.5	147.8
8/2	816	816	-	-	-	6.6	5.8	-	12.4	54.7	24.5	5.8	30.3
8/3	887	876	-	-	-	8.3	18.0	-	26.3	106.6	28.7	18.0	46.7
9/1	1941	1900	-	-	-	3.3	34.5	-	37.8	70.2	186.0	34.5	220.6

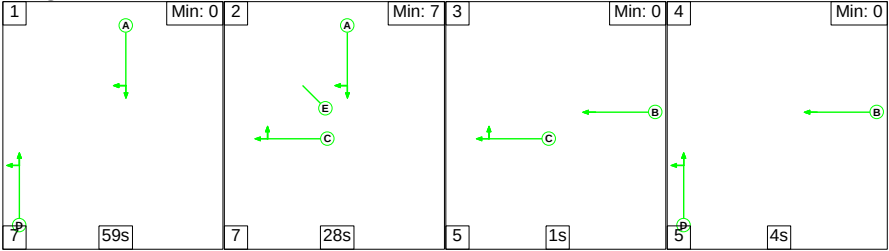
Full Input Data And Results

9/2	887	887	-	-	-	0.0	0.4	-	0.4	1.8	0.0	0.4	0.4
10/1	1900	1900	-	-	-	0.0	14.0	-	14.0	26.5	0.0	14.0	14.0
10/2	864	864	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/3	707	707	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	676	676	-	-	-	1.8	7.0	-	8.7	46.6	21.3	7.0	28.3
11/2	823	710	-	-	-	21.9	59.9	-	81.8	357.6	32.4	59.9	92.3
11/3	876	710	-	-	-	25.9	85.2	-	111.1	456.8	37.4	85.2	122.6
12/1	1594	1570	-	-	-	7.1	27.1	-	34.2	77.2	51.7	27.1	78.9
12/2	1300	1300	-	-	-	2.4	2.4	-	4.8	13.2	20.6	2.4	23.0
12/3	434	434	-	-	-	0.0	0.2	-	0.2	1.6	0.2	0.2	0.4
13/1	590	590	-	-	-	4.6	11.0	-	15.6	94.9	18.8	11.0	29.8
13/2	597	595	-	-	-	7.6	12.8	-	20.4	123.0	19.2	12.8	32.0
13/3	3	3	-	-	-	0.0	0.0	-	0.0	62.0	0.1	0.0	0.1
14/1	753	753	-	-	-	4.6	3.3	-	7.9	37.9	20.3	3.3	23.6
14/2	908	859	-	-	-	6.8	31.4	-	38.2	151.6	31.8	31.4	63.2
14/3	7	7	-	-	-	0.0	0.0	-	0.0	10.4	0.1	0.0	0.1
15/1	2764	2764	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	707	707	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1	3008	3008	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/2	710	710	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/1	872	872	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/2	204	204	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	1629	1629	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	183	183	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	2337	2337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/2	2164	2164	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/3	7	7	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

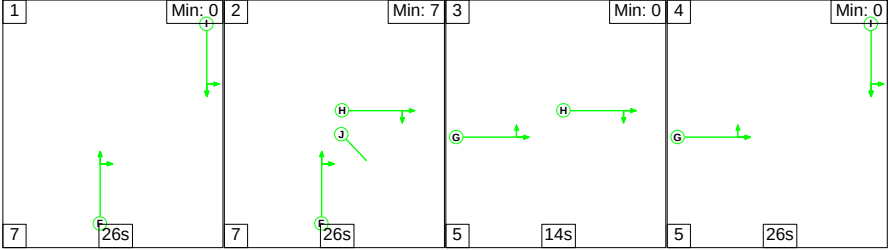
C1	Stream: 1 PRC for Signalled Lanes (%):	-29.1	Total Delay for Signalled Lanes (pcuHr):	180.04	Cycle Time (s):	115
C1	Stream: 2 PRC for Signalled Lanes (%):	-37.5	Total Delay for Signalled Lanes (pcuHr):	569.38	Cycle Time (s):	115
	PRC Over All Lanes (%):	-37.5	Total Delay Over All Lanes (pcuHr):	1059.32		

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

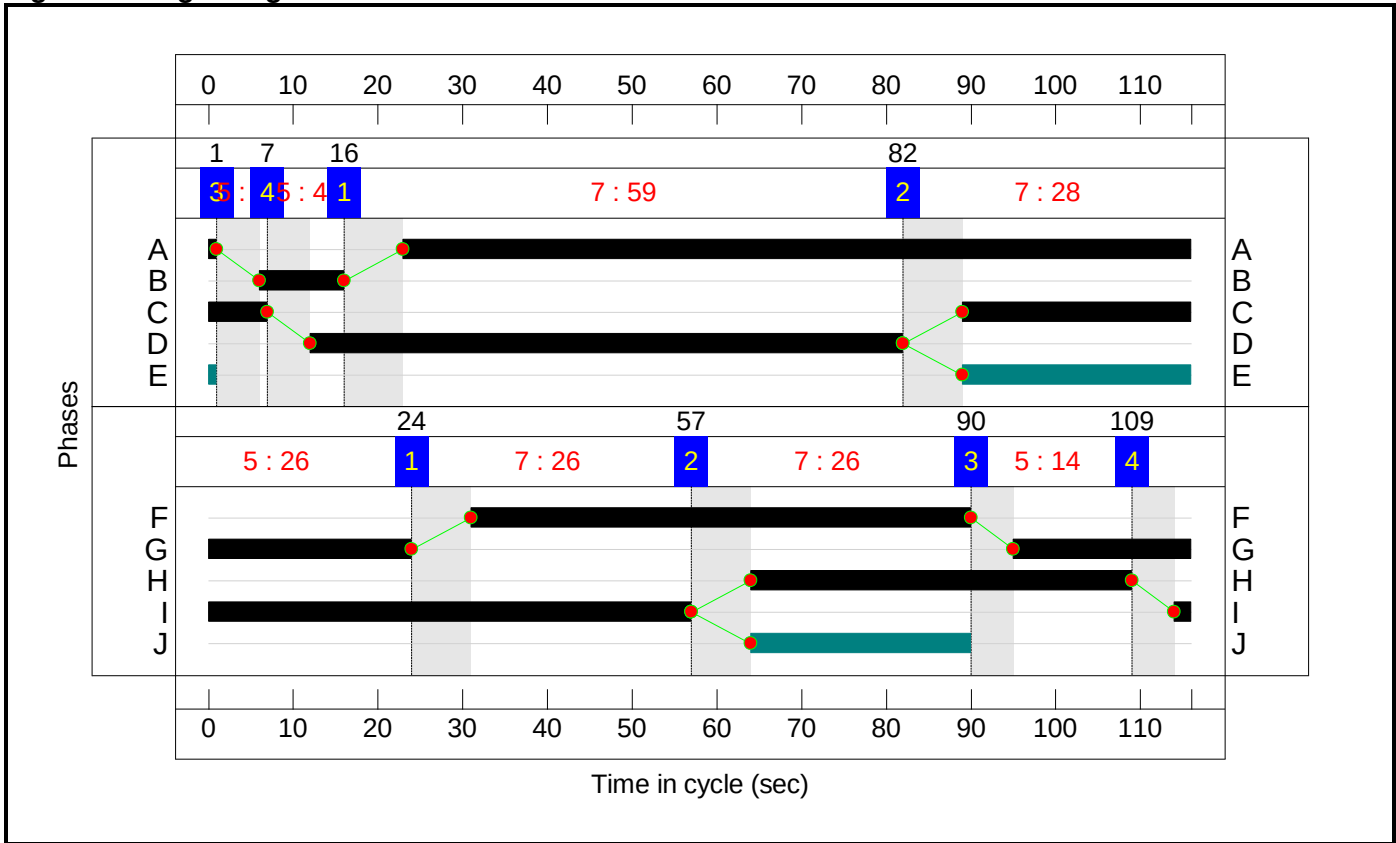
Stage Stream: 1

Stage	1	2	3	4
Duration	59	28	1	4
Change Point	16	82	1	7

Stage Stream: 2

Stage	1	2	3	4
Duration	26	26	14	26
Change Point	24	57	90	109

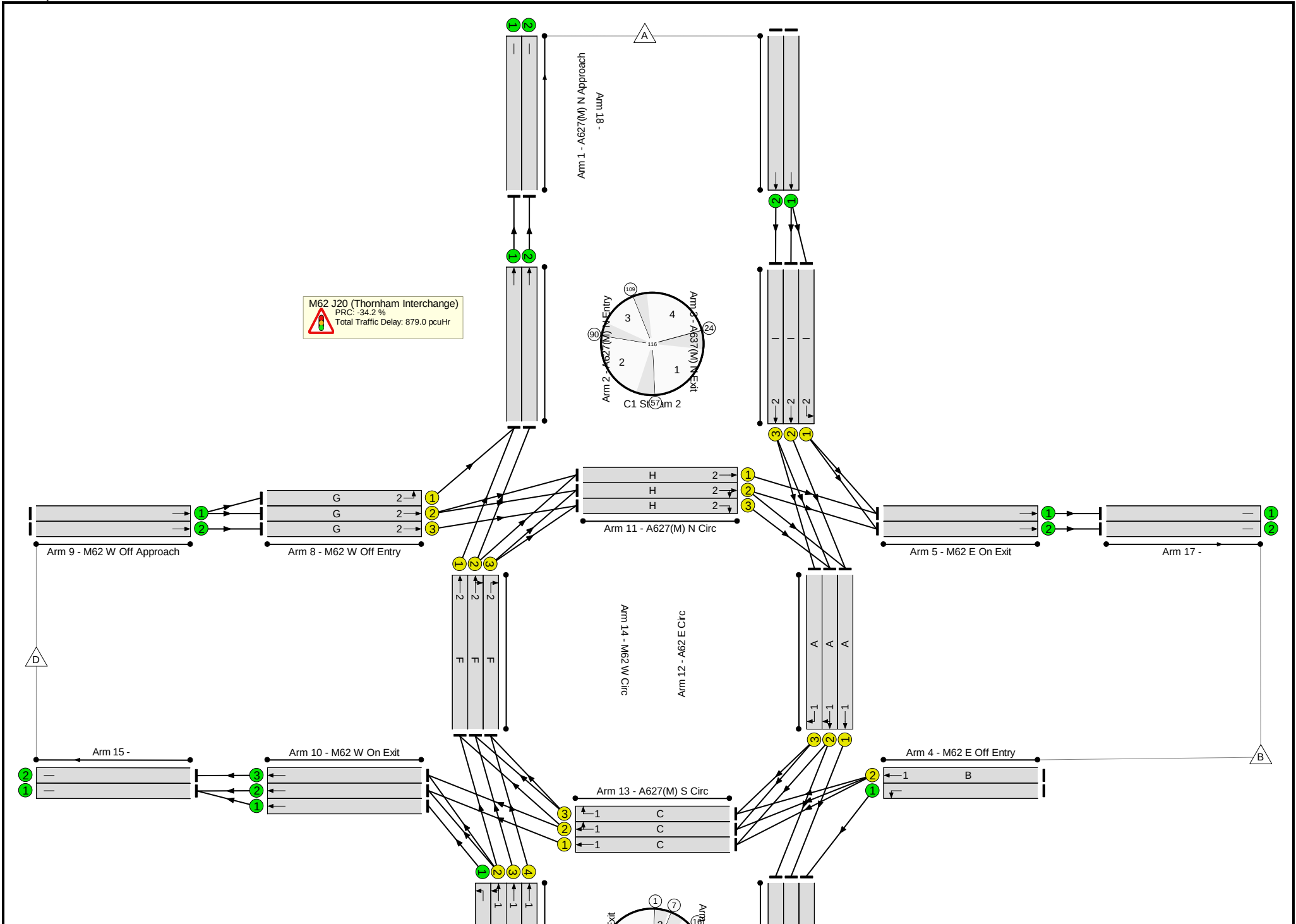
Signal Timings Diagram



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: Northern Gateway (Stakehill)	-	-	N/A	-	-		-	-	-	-	-	-	120.8%
M62 J20 (Thornham Interchange)	-	-	N/A	-	-		-	-	-	-	-	-	120.8%
1/1	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	1116	Inf	Inf	0.0%
1/2	A627(M) N Approach Ahead	U	N/A	N/A	-		-	-	-	1184	Inf	Inf	0.0%
2/1	A627(M) N Entry Left	U	2	N/A	I		1	59	-	338	1900	983	34.4%
2/2	A627(M) N Entry Ahead	U	2	N/A	I		1	59	-	778	1900	983	79.2%
2/3	A627(M) N Entry Ahead	U	2	N/A	I		1	59	-	1184	1900	983	120.5%
3/1	A637(M) N Exit Ahead	U	N/A	N/A	-		-	-	-	1597	Inf	Inf	0.0%
3/2	A637(M) N Exit Ahead	U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%
4/1	M62 E Off Entry Left	U	N/A	N/A	-		-	-	-	1479	1900	1900	77.8%
4/2	M62 E Off Entry Ahead	U	1	N/A	B		1	10	-	150	1900	180	83.3%
5/1	M62 E On Exit Ahead	U	N/A	N/A	-		-	-	-	907	Inf	Inf	0.0%
5/2	M62 E On Exit Ahead	U	N/A	N/A	-		-	-	-	360	Inf	Inf	0.0%
6/1	A627(M) S Entry Left	U	N/A	N/A	-		-	-	-	2295	1900	1900	120.8%
6/2	A627(M) S Entry Left Ahead	U	1	N/A	D		1	70	-	1338	1900	1163	115.1%

Full Input Data And Results

6/3	A627(M) S Entry Ahead	U	1	N/A	D		1	70	-	1076	1900	1163	92.5%
6/4	A627(M) S Entry Ahead	U	1	N/A	D		1	70	-	191	1900	1163	16.4%
7/1	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	1479	Inf	Inf	0.0%
7/2	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	1491	Inf	Inf	0.0%
7/3	A627(M) S Exit Ahead	U	N/A	N/A	-		-	-	-	893	Inf	Inf	0.0%
8/1	M62 W Off Entry Left	U	2	N/A	G		1	45	-	753	1900	753	99.9%
8/2	M62 W Off Entry Ahead	U	2	N/A	G		1	45	-	713	1900	753	94.6%
8/3	M62 W Off Entry Ahead	U	2	N/A	G		1	45	-	893	1900	753	118.5%
9/1	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	1466	1900	1900	77.2%
9/2	M62 W Off Approach Ahead	U	N/A	N/A	-		-	-	-	893	1900	1900	47.0%
10/1	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	2295	1940	1940	97.9%
10/2	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	1008	Inf	Inf	0.0%
10/3	M62 W On Exit Ahead	U	N/A	N/A	-		-	-	-	820	Inf	Inf	0.0%
11/1	A627(M) N Circ Ahead	U	2	N/A	H		1	45	-	738	1900	753	89.5%
11/2	A627(M) N Circ Ahead Right	U	2	N/A	H		1	45	-	904	1900	753	120.0%
11/3	A627(M) N Circ Right	U	2	N/A	H		1	45	-	893	1900	753	100.0%
12/1	A62 E Circ Ahead	U	1	N/A	A		1	94	-	1491	1900	1556	86.1%
12/2	A62 E Circ Ahead Right	U	1	N/A	A		1	94	-	1579	1900	1556	85.0%

Full Input Data And Results

12/3	A62 E Circ Right	U	1	N/A	A		1	94	-	498	1900	1556	26.6%
13/1	A627(M) S Circ Ahead	U	1	N/A	C		1	34	-	686	1900	573	99.3%
13/2	A627(M) S Circ Ahead Right	U	1	N/A	C		1	34	-	648	1900	573	98.3%
13/3	A627(M) S Circ Right	U	1	N/A	C		1	34	-	0	1900	573	0.0%
14/1	M62 W Circ Ahead	U	2	N/A	F		1	59	-	844	1900	983	76.6%
14/2	M62 W Circ Ahead Right	U	2	N/A	F		1	59	-	1076	1900	983	109.5%
14/3	M62 W Circ Right	U	2	N/A	F		1	59	-	191	1900	983	19.4%
15/1		U	N/A	N/A	-		-	-	-	3303	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	820	Inf	Inf	0.0%
16/1		U	N/A	N/A	-		-	-	-	2970	Inf	Inf	0.0%
16/2		U	N/A	N/A	-		-	-	-	893	Inf	Inf	0.0%
17/1		U	N/A	N/A	-		-	-	-	907	Inf	Inf	0.0%
17/2		U	N/A	N/A	-		-	-	-	360	Inf	Inf	0.0%
18/1		U	N/A	N/A	-		-	-	-	1597	Inf	Inf	0.0%
18/2		U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%
19/1	Ahead	U	N/A	N/A	-		-	-	-	2295	Inf	Inf	0.0%
19/2	Ahead	U	N/A	N/A	-		-	-	-	2414	Inf	Inf	0.0%
19/3	Ahead	U	N/A	N/A	-		-	-	-	191	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: Northern Gateway (Stakehill)	-	-	0	0	0	187.2	691.8	0.0	879.0	-	-	-	-
M62 J20 (Thornham Interchange)	-	-	0	0	0	187.2	691.8	0.0	879.0	-	-	-	-
1/1	1116	1116	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
1/2	1184	1184	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	338	338	-	-	-	1.5	0.3	-	1.8	19.2	6.4	0.3	6.6
2/2	778	778	-	-	-	4.9	1.9	-	6.8	31.5	20.3	1.9	22.2
2/3	1184	983	-	-	-	20.5	103.5	-	124.0	377.1	44.6	103.5	148.1
3/1	1506	1506	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	309	309	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	1479	1479	-	-	-	0.0	1.7	-	1.7	4.2	0.0	1.7	1.7
4/2	150	150	-	-	-	2.1	2.2	-	4.3	103.7	4.8	2.2	6.9
5/1	843	843	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	360	360	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2295	1900	-	-	-	31.9	200.4	-	232.2	364.3	221.9	200.4	422.2
6/2	1338	1163	-	-	-	17.3	91.2	-	108.5	291.8	48.8	91.2	140.0
6/3	1076	1076	-	-	-	6.0	5.5	-	11.5	38.5	30.8	5.5	36.3
6/4	191	191	-	-	-	0.5	0.1	-	0.6	11.6	2.7	0.1	2.8
7/1	1479	1479	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1340	1340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	753	753	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	753	753	-	-	-	7.3	13.6	-	20.9	100.0	24.1	13.6	37.7
8/2	713	713	-	-	-	6.7	6.6	-	13.3	67.3	22.2	6.6	28.8
8/3	893	753	-	-	-	17.5	72.8	-	90.4	364.4	33.3	72.8	106.1
9/1	1466	1466	-	-	-	0.0	1.7	-	1.7	4.1	0.0	1.7	1.7

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9/2	893	893	-	-	-	0.0	0.4	-	0.4	1.8	0.0	0.4	0.4
10/1	1900	1900	-	-	-	0.0	14.0	-	14.0	26.5	0.0	14.0	14.0
10/2	849	849	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/3	693	693	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	674	674	-	-	-	1.7	3.9	-	5.5	29.5	19.1	3.9	23.0
11/2	904	753	-	-	-	24.1	78.2	-	102.3	407.3	37.6	78.2	115.7
11/3	753	753	-	-	-	13.8	13.7	-	27.6	131.7	24.3	13.7	38.0
12/1	1340	1340	-	-	-	4.3	3.0	-	7.3	19.6	30.7	3.0	33.7
12/2	1323	1323	-	-	-	1.8	2.8	-	4.6	12.4	17.1	2.8	19.9
12/3	413	413	-	-	-	0.1	0.2	-	0.3	2.6	2.8	0.2	3.0
13/1	569	569	-	-	-	5.9	11.0	-	16.9	107.0	18.3	11.0	29.3
13/2	563	563	-	-	-	8.1	9.6	-	17.7	113.3	18.2	9.6	27.8
13/3	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	753	753	-	-	-	3.7	1.6	-	5.3	25.4	16.1	1.6	17.7
14/2	1076	983	-	-	-	7.0	51.8	-	58.8	196.7	37.7	51.8	89.5
14/3	191	191	-	-	-	0.3	0.1	-	0.4	7.9	2.8	0.1	3.0
15/1	2749	2749	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	693	693	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1	2819	2819	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/2	753	753	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/1	843	843	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17/2	360	360	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	1506	1506	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	309	309	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	2295	2295	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/2	2414	2414	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/3	191	191	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	-27.8	Total Delay for Signalled Lanes (pcuHr):	171.74	Cycle Time (s):	116
C1	Stream: 2 PRC for Signalled Lanes (%):	-33.9	Total Delay for Signalled Lanes (pcuHr):	457.17	Cycle Time (s):	116
	PRC Over All Lanes (%):	-34.2	Total Delay Over All Lanes (pcuHr):	878.99		

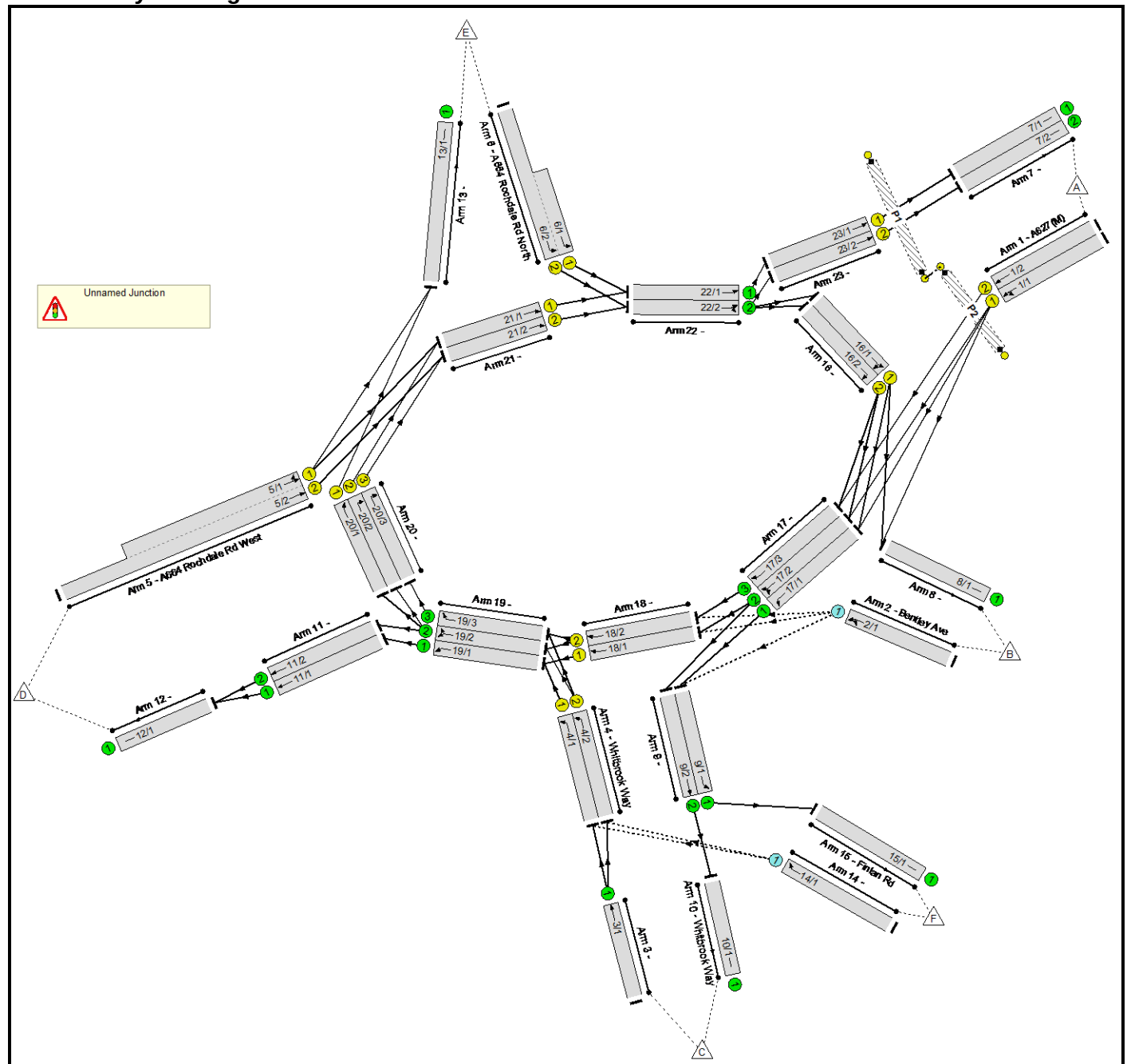
Full Input Data And Results

Full Input Data And Results

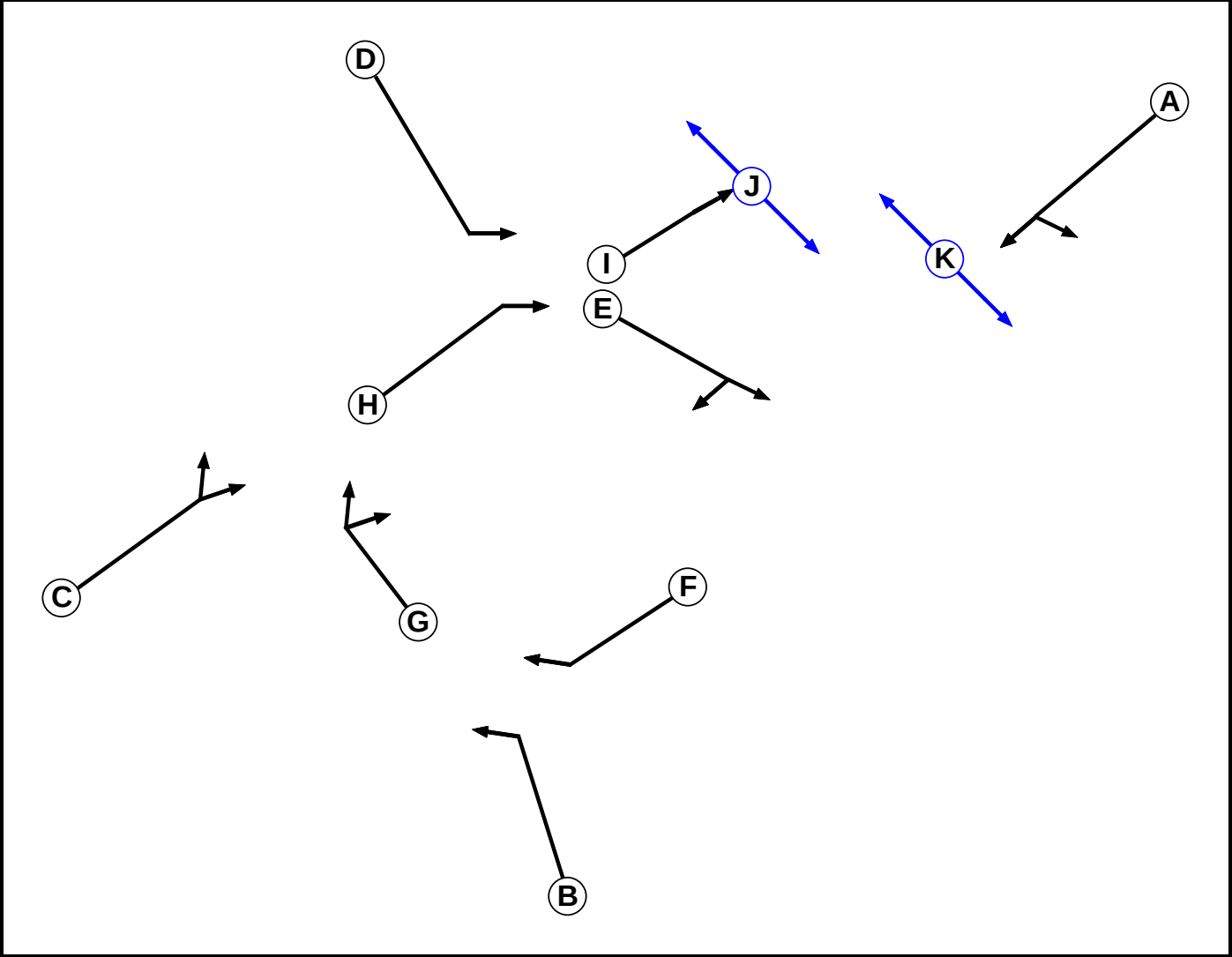
User and Project Details

Project:	GMSF GM2 Stakehill
Title:	
Location:	
Site Ref(s):	A627(M) / A664
Additional detail:	
File name:	J4 Slattocks Signalised.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	4		7	7
C	Traffic	3		7	7
D	Traffic	2		7	7
E	Traffic	1		7	7
F	Traffic	4		7	7
G	Traffic	3		7	7
H	Traffic	2		7	7
I	Traffic	1		7	7
J	Pedestrian	1		7	7
K	Pedestrian	1		7	7

Phase Intergreens Matrix

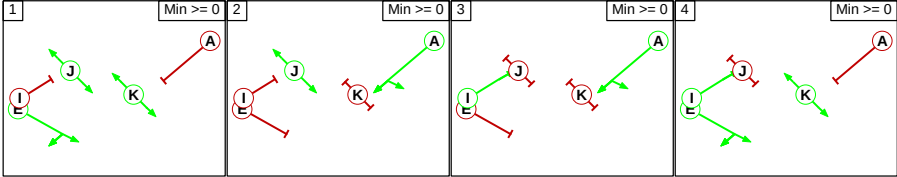
Terminating Phase	Starting Phase											
		A	B	C	D	E	F	G	H	I	J	K
	A		-	-	-	5	-	-	-	-	-	7
	B	-		-	-	-	5	-	-	-	-	-
	C	-	-		-	-	-	5	-	-	-	-
	D	-	-	-		-	-	-	5	-	-	-
	E	5	-	-	-		-	-	-	-	-	-
	F	-	5	-	-	-		-	-	-	-	-
	G	-	-	5	-	-	-		-	-	-	-
	H	-	-	-	5	-	-	-		-	-	-
	I	-	-	-	-	-	-	-	-		7	-
	J	-	-	-	-	-	-	-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

Phases in Stage

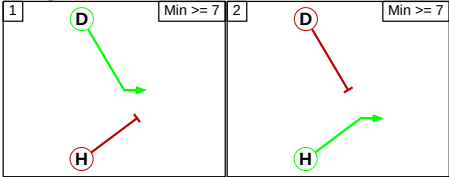
Stream	Stage No.	Phases in Stage
1	1	E J K
1	2	A J
1	3	A I
1	4	E I K
2	1	D
2	2	H
3	1	C
3	2	G
4	1	B
4	2	F

Stage Diagram

Stage Stream: 1

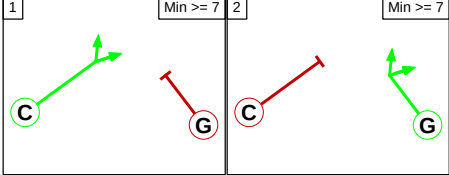


Stage Stream: 2

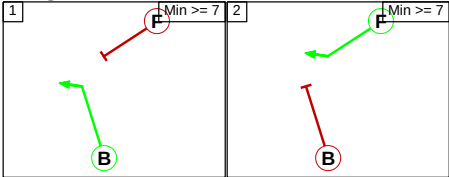


Full Input Data And Results

Stage Stream: 3



Stage Stream: 4



Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Stage Stream: 3

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

Stage Stream: 4

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

Prohibited Stage Change

Stage Stream: 1

	To Stage				
From Stage		1	2	3	4
	1		5	5	5
	2	7		5	7
	3	7	7		7
	4	7	7	5	

Stage Stream: 2

	To Stage		
From Stage		1	2
	1		5
	2	5	

Full Input Data And Results

Stage Stream: 3

From Stage	To Stage		
		1	2
	1		5
	2	5	

Stage Stream: 4

From Stage	To Stage		
		1	2
	1		5
	2	5	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction											
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 (Bentley Ave)	9/1 (Left)	1000	0	17/1	0.33	All	-	-	-	-	-
	18/1 (Ahead)	1000	0	17/1	0.33	All					
	18/2 (Ahead)	1000	0	17/1	0.33	All					
				17/2	0.33	All					
14/1	4/1 (Right)	1439	0	9/2	1.09	All	-	-	-	-	-
	4/2 (Right)	1439	0	9/2	0.22	All					
				3/1	0.19	All					

Full Input Data And Results

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A627(M))	U	A	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 8 Left	28.00
1/2 (A627(M))	U	A	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 17 Ahead	38.00
2/1 (Bentley Ave)	O		2	3	60.0	Geom	-	3.20	0.00	Y	Arm 17 Ahead	50.00
											Arm 9 Left	31.00
											Arm 18 Ahead	49.50
3/1	U		2	3	60.0	Geom	-	3.65	0.00	Y	Arm 4 Ahead	Inf
4/1 (Whitbrook Way)	U	B	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 19 Left	51.00
4/2 (Whitbrook Way)	U	B	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 19 Left	42.00
5/1 (A664 Rochdale Rd West)	U	C	2	3	19.1	Geom	-	3.20	0.00	Y	Arm 13 Left	52.00
											Arm 21 Ahead	52.00
5/2 (A664 Rochdale Rd West)	U	C	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 21 Ahead	63.00
6/1 (A664 Rochdale Rd North)	U	D	2	3	8.7	Geom	-	3.90	0.00	Y	Arm 22 Left	33.00
6/2 (A664 Rochdale Rd North)	U	D	2	3	60.0	Geom	-	3.90	0.00	Y	Arm 22 Left	33.00
7/1	U		2	3	60.0	Geom	-	3.65	0.00	Y		
7/2	U		2	3	60.0	Geom	-	3.65	0.00	Y		
8/1	U		2	3	60.0	Geom	-	3.20	0.00	Y		
9/1	U		2	3	60.0	Geom	-	4.00	0.00	Y	Arm 15 Left	20.00
9/2	U		2	3	60.0	Geom	-	4.00	0.00	Y	Arm 10 Ahead	Inf
10/1 (Whitbrook Way)	U		2	3	60.0	Geom	-	3.65	0.00	Y		
11/1	U		2	3	8.7	User	1200	-	-	-	-	-
11/2	U		2	3	8.7	User	1200	-	-	-	-	-
12/1	U		2	3	60.0	Geom	-	3.65	0.00	Y		
13/1	U		2	3	60.0	Geom	-	3.65	0.00	Y		

Full Input Data And Results

14/1	O		2	3	60.0	Geom	-	3.65	0.00	Y	Arm 4 Right	30.00
15/1 (Finlan Rd)	U		2	3	60.0	Geom	-	3.65	0.00	Y		
16/1	U	E	2	3	3.0	Geom	-	5.00	0.00	Y	Arm 8 Ahead	27.00
											Arm 17 Right	27.00
16/2	U	E	2	3	3.0	Geom	-	5.00	0.00	Y	Arm 17 Right	27.00
17/1	U		2	3	12.0	Geom	-	3.30	0.00	Y	Arm 9 Left	13.50
17/2	U		2	3	12.0	Geom	-	3.30	0.00	Y	Arm 9 Left	Inf
											Arm 18 Ahead	Inf
17/3	U		2	3	12.0	Geom	-	3.30	0.00	Y	Arm 18 Ahead	Inf
18/1	U	F	2	3	2.0	Geom	-	5.00	0.00	Y	Arm 19 Ahead	Inf
18/2	U	F	2	3	2.0	Geom	-	5.00	0.00	Y	Arm 19 Ahead	Inf
19/1	U		2	3	8.7	Geom	-	3.30	0.00	Y	Arm 11 Ahead	270.00
19/2	U		2	3	8.7	Geom	-	3.30	0.00	Y	Arm 11 Ahead	27.00
											Arm 20 Right	31.00
19/3	U		2	3	8.7	Geom	-	3.30	0.00	Y	Arm 20 Right	27.00
20/1	U	G	2	3	3.0	Geom	-	3.30	0.00	Y	Arm 13 Ahead	37.00
20/2	U	G	2	3	3.0	Geom	-	3.30	0.00	Y	Arm 21 Right	Inf
20/3	U	G	2	3	3.0	Geom	-	3.30	0.00	Y	Arm 21 Right	Inf
21/1	U	H	2	3	11.0	Geom	-	5.00	0.00	Y	Arm 22 Ahead	50.00
21/2	U	H	2	3	11.0	Geom	-	5.00	0.00	Y	Arm 22 Ahead	50.00
22/1	U		2	3	10.4	Geom	-	5.00	0.00	Y	Arm 23 Ahead	Inf
22/2	U		2	3	10.4	Geom	-	5.00	0.00	Y	Arm 16 Right	71.00
											Arm 23 Ahead	Inf
23/1	U	I	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 7 Ahead	Inf
23/2	U	I	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 7 Ahead	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2040 DM AM'	08:00	09:00	01:00	
2: '2040 DM PM'	16:00	17:00	01:00	
3: '2040 DS AM'	08:00	09:00	01:00	
4: '2040 DS PM'	16:00	17:00	01:00	

Scenario 1: '2040 DM AM' (FG1: '2040 DM AM', Plan 1: 'AM')

Traffic Flows, Desired

Desired Flow :

Origin	Destination							
		A	B	C	D	E	F	Tot.
	A	0	635	368	718	220	367	2308
	B	130	0	1	63	6	0	200
	C	185	0	0	125	14	0	324
	D	606	31	163	0	361	163	1324
	E	997	40	41	364	0	41	1483
	F	185	0	0	125	13	0	323
	Tot.	2103	706	573	1395	614	571	5962

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2040 DM AM
Junction: Unnamed Junction	
1/1	1370
1/2	938
2/1	199
3/1	324
4/1	250
4/2	397
5/1 (short)	761
5/2 (with short)	1324(In) 563(Out)
6/1 (short)	531
6/2 (with short)	1483(In) 952(Out)
7/1	1261
7/2	842
8/1	706
9/1	571
9/2	572
10/1	572
11/1	677
11/2	718
12/1	1395
13/1	614
14/1	323
15/1	571
16/1	275
16/2	568
17/1	571
17/2	936
17/3	938
18/1	427
18/2	1074
19/1	677
19/2	1301
19/3	170
20/1	253
20/2	330
20/3	170
21/1	730
21/2	733
22/1	1261

Full Input Data And Results

22/2	1685
23/1	1261
23/2	842

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A627(M))	3.65	0.00	Y	Arm 8 Left	28.00	46.4 %	1893	1893
				Arm 17 Ahead	38.00	53.6 %		
1/2 (A627(M))	3.65	0.00	Y	Arm 17 Ahead	50.00	100.0 %	1922	1922
2/1 (Bentley Ave)	3.20	0.00	Y	Arm 9 Left	31.00	0.0 %	1878	1878
				Arm 18 Ahead	49.50	100.0 %		
3/1	3.65	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1980	1980
4/1 (Whitbrook Way)	4.00	0.00	Y	Arm 19 Left	51.00	100.0 %	1957	1957
4/2 (Whitbrook Way)	4.00	0.00	Y	Arm 19 Left	42.00	100.0 %	1946	1946
5/1 (A664 Rochdale Rd West)	3.20	0.00	Y	Arm 13 Left	52.00	47.4 %	1881	1881
				Arm 21 Ahead	52.00	52.6 %		
5/2 (A664 Rochdale Rd West)	3.65	0.00	Y	Arm 21 Ahead	63.00	100.0 %	1934	1934
6/1 (A664 Rochdale Rd North)	3.90	0.00	Y	Arm 22 Left	33.00	100.0 %	1918	1918
6/2 (A664 Rochdale Rd North)	3.90	0.00	Y	Arm 22 Left	33.00	100.0 %	1918	1918
7/1	3.65	0.00	Y				1980	1980
7/2	3.65	0.00	Y				1980	1980
8/1	3.20	0.00	Y				1935	1935
9/1	4.00	0.00	Y	Arm 15 Left	20.00	100.0 %	1874	1874
9/2	4.00	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2015	2015
10/1 (Whitbrook Way)	3.65	0.00	Y				1980	1980
11/1	This lane uses a directly entered Saturation Flow						1200	1200
11/2	This lane uses a directly entered Saturation Flow						1200	1200
12/1	3.65	0.00	Y				1980	1980
13/1	3.65	0.00	Y				1980	1980
14/1	3.65	0.00	Y	Arm 4 Right	30.00	100.0 %	1886	1886
15/1 (Finlan Rd)	3.65	0.00	Y				1980	1980
16/1	5.00	0.00	Y	Arm 8 Ahead	27.00	25.8 %	2004	2004
				Arm 17 Right	27.00	74.2 %		
16/2	5.00	0.00	Y	Arm 17 Right	27.00	100.0 %	2004	2004
17/1	3.30	0.00	Y	Arm 9 Left	13.50	100.0 %	1751	1751
17/2	3.30	0.00	Y	Arm 9 Left	Inf	61.1 %	1945	1945
				Arm 18 Ahead	Inf	38.9 %		
17/3	3.30	0.00	Y	Arm 18 Ahead	Inf	100.0 %	1945	1945

Full Input Data And Results

18/1	5.00	0.00	Y	Arm 19 Ahead	Inf	100.0 %	2115	2115
18/2	5.00	0.00	Y	Arm 19 Ahead	Inf	100.0 %	2115	2115
19/1	3.30	0.00	Y	Arm 11 Ahead	270.00	100.0 %	1934	1934
19/2	3.30	0.00	Y	Arm 11 Ahead	27.00	55.2 %	1848	1848
				Arm 20 Right	31.00	44.8 %		
19/3	3.30	0.00	Y	Arm 20 Right	27.00	100.0 %	1843	1843
20/1	3.30	0.00	Y	Arm 13 Ahead	37.00	100.0 %	1869	1869
20/2	3.30	0.00	Y	Arm 21 Right	Inf	100.0 %	1945	1945
20/3	3.30	0.00	Y	Arm 21 Right	Inf	100.0 %	1945	1945
21/1	5.00	0.00	Y	Arm 22 Ahead	50.00	100.0 %	2053	2053
21/2	5.00	0.00	Y	Arm 22 Ahead	50.00	100.0 %	2053	2053
22/1	5.00	0.00	Y	Arm 23 Ahead	Inf	100.0 %	2115	2115
22/2	5.00	0.00	Y	Arm 16 Right	71.00	50.0 %	2093	2093
				Arm 23 Ahead	Inf	50.0 %		
23/1	3.65	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1980	1980
23/2	3.65	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1980	1980

Scenario 2: '2040 DM PM' (FG2: '2040 DM PM', Plan 1: 'AM')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	267	69	871	440	69	1716
	B	304	0	1	51	28	0	384
	C	220	0	0	223	45	0	488
	D	375	0	34	0	695	33	1137
	E	644	12	3	294	0	3	956
	F	219	0	0	223	44	0	486
	Tot.	1762	279	107	1662	1252	105	5167

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2040 DM PM
Junction: Unnamed Junction	
1/1	890
1/2	779
2/1	395
3/1	495
4/1	391
4/2	597
5/1 (short)	913
5/2 (with short)	1192(In) 279(Out)
6/1 (short)	389
6/2 (with short)	861(In) 472(Out)
7/1	969
7/2	750
8/1	296
9/1	106
9/2	108
10/1	108
11/1	1169
11/2	469
12/1	1638
13/1	1238
14/1	493
15/1	106
16/1	83
16/2	327
17/1	106
17/2	852
17/3	825
18/1	778
18/2	1186
19/1	1169
19/2	1374
19/3	409
20/1	548
20/2	357
20/3	409
21/1	580
21/2	688
22/1	969

Full Input Data And Results

22/2	1160
23/1	969
23/2	750

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A627(M))	3.65	0.00	Y	Arm 8 Left	28.00	28.0 %	1898	1898
				Arm 17 Ahead	38.00	72.0 %		
1/2 (A627(M))	3.65	0.00	Y	Arm 17 Ahead	50.00	100.0 %	1922	1922
2/1 (Bentley Ave)	3.20	0.00	Y	Arm 9 Left	31.00	0.0 %	1878	1878
				Arm 18 Ahead	49.50	100.0 %		
3/1	3.65	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1980	1980
4/1 (Whitbrook Way)	4.00	0.00	Y	Arm 19 Left	51.00	100.0 %	1957	1957
4/2 (Whitbrook Way)	4.00	0.00	Y	Arm 19 Left	42.00	100.0 %	1946	1946
5/1 (A664 Rochdale Rd West)	3.20	0.00	Y	Arm 13 Left	52.00	75.6 %	1881	1881
				Arm 21 Ahead	52.00	24.4 %		
5/2 (A664 Rochdale Rd West)	3.65	0.00	Y	Arm 21 Ahead	63.00	100.0 %	1934	1934
6/1 (A664 Rochdale Rd North)	3.90	0.00	Y	Arm 22 Left	33.00	100.0 %	1918	1918
6/2 (A664 Rochdale Rd North)	3.90	0.00	Y	Arm 22 Left	33.00	100.0 %	1918	1918
7/1	3.65	0.00	Y				1980	1980
7/2	3.65	0.00	Y				1980	1980
8/1	3.20	0.00	Y				1935	1935
9/1	4.00	0.00	Y	Arm 15 Left	20.00	100.0 %	1874	1874
9/2	4.00	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2015	2015
10/1 (Whitbrook Way)	3.65	0.00	Y				1980	1980
11/1	This lane uses a directly entered Saturation Flow						1200	1200
11/2	This lane uses a directly entered Saturation Flow						1200	1200
12/1	3.65	0.00	Y				1980	1980
13/1	3.65	0.00	Y				1980	1980
14/1	3.65	0.00	Y	Arm 4 Right	30.00	100.0 %	1886	1886
15/1 (Finlan Rd)	3.65	0.00	Y				1980	1980
16/1	5.00	0.00	Y	Arm 8 Ahead	27.00	56.6 %	2004	2004
				Arm 17 Right	27.00	43.4 %		
16/2	5.00	0.00	Y	Arm 17 Right	27.00	100.0 %	2004	2004
17/1	3.30	0.00	Y	Arm 9 Left	13.50	100.0 %	1751	1751
17/2	3.30	0.00	Y	Arm 9 Left	Inf	12.7 %	1945	1945
				Arm 18 Ahead	Inf	87.3 %		
17/3	3.30	0.00	Y	Arm 18 Ahead	Inf	100.0 %	1945	1945

Full Input Data And Results

18/1	5.00	0.00	Y	Arm 19 Ahead	Inf	100.0 %	2115	2115
18/2	5.00	0.00	Y	Arm 19 Ahead	Inf	100.0 %	2115	2115
19/1	3.30	0.00	Y	Arm 11 Ahead	270.00	100.0 %	1934	1934
19/2	3.30	0.00	Y	Arm 11 Ahead	27.00	34.1 %	1851	1851
				Arm 20 Right	31.00	65.9 %		
19/3	3.30	0.00	Y	Arm 20 Right	27.00	100.0 %	1843	1843
20/1	3.30	0.00	Y	Arm 13 Ahead	37.00	100.0 %	1869	1869
20/2	3.30	0.00	Y	Arm 21 Right	Inf	100.0 %	1945	1945
20/3	3.30	0.00	Y	Arm 21 Right	Inf	100.0 %	1945	1945
21/1	5.00	0.00	Y	Arm 22 Ahead	50.00	100.0 %	2053	2053
21/2	5.00	0.00	Y	Arm 22 Ahead	50.00	100.0 %	2053	2053
22/1	5.00	0.00	Y	Arm 23 Ahead	Inf	100.0 %	2115	2115
22/2	5.00	0.00	Y	Arm 16 Right	71.00	35.3 %	2099	2099
				Arm 23 Ahead	Inf	64.7 %		
23/1	3.65	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1980	1980
23/2	3.65	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1980	1980

Scenario 3: '2040 DS AM' (FG3: '2040 DS AM', Plan 1: 'AM')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	639	372	718	220	371	2320
	B	141	0	1	63	9	0	214
	C	186	0	0	126	14	0	326
	D	606	55	167	0	361	167	1356
	E	997	41	45	364	0	45	1492
	F	185	0	0	125	14	0	324
	Tot.	2115	735	585	1396	618	583	6032

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2040 DS AM
Junction: Unnamed Junction	
1/1	1382
1/2	938
2/1	213
3/1	326
4/1	251
4/2	399
5/1 (short)	769
5/2 (with short)	1356(In) 587(Out)
6/1 (short)	533
6/2 (with short)	1492(In) 959(Out)
7/1	1284
7/2	831
8/1	735
9/1	583
9/2	584
10/1	584
11/1	678
11/2	718
12/1	1396
13/1	618
14/1	324
15/1	583
16/1	308
16/2	576
17/1	583
17/2	948
17/3	938
18/1	427
18/2	1088
19/1	678
19/2	1318
19/3	169
20/1	257
20/2	343
20/3	169
21/1	751
21/2	756
22/1	1284

Full Input Data And Results

22/2	1715
23/1	1284
23/2	831

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A627(M))	3.65	0.00	Y	Arm 8 Left	28.00	46.2 %	1893	1893
				Arm 17 Ahead	38.00	53.8 %		
1/2 (A627(M))	3.65	0.00	Y	Arm 17 Ahead	50.00	100.0 %	1922	1922
2/1 (Bentley Ave)	3.20	0.00	Y	Arm 9 Left	31.00	0.0 %	1878	1878
				Arm 18 Ahead	49.50	100.0 %		
3/1	3.65	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1980	1980
4/1 (Whitbrook Way)	4.00	0.00	Y	Arm 19 Left	51.00	100.0 %	1957	1957
4/2 (Whitbrook Way)	4.00	0.00	Y	Arm 19 Left	42.00	100.0 %	1946	1946
5/1 (A664 Rochdale Rd West)	3.20	0.00	Y	Arm 13 Left	52.00	46.9 %	1881	1881
				Arm 21 Ahead	52.00	53.1 %		
5/2 (A664 Rochdale Rd West)	3.65	0.00	Y	Arm 21 Ahead	63.00	100.0 %	1934	1934
6/1 (A664 Rochdale Rd North)	3.90	0.00	Y	Arm 22 Left	33.00	100.0 %	1918	1918
6/2 (A664 Rochdale Rd North)	3.90	0.00	Y	Arm 22 Left	33.00	100.0 %	1918	1918
7/1	3.65	0.00	Y				1980	1980
7/2	3.65	0.00	Y				1980	1980
8/1	3.20	0.00	Y				1935	1935
9/1	4.00	0.00	Y	Arm 15 Left	20.00	100.0 %	1874	1874
9/2	4.00	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2015	2015
10/1 (Whitbrook Way)	3.65	0.00	Y				1980	1980
11/1	This lane uses a directly entered Saturation Flow						1200	1200
11/2	This lane uses a directly entered Saturation Flow						1200	1200
12/1	3.65	0.00	Y				1980	1980
13/1	3.65	0.00	Y				1980	1980
14/1	3.65	0.00	Y	Arm 4 Right	30.00	100.0 %	1886	1886
15/1 (Finlan Rd)	3.65	0.00	Y				1980	1980
16/1	5.00	0.00	Y	Arm 8 Ahead	27.00	31.2 %	2004	2004
				Arm 17 Right	27.00	68.8 %		
16/2	5.00	0.00	Y	Arm 17 Right	27.00	100.0 %	2004	2004
17/1	3.30	0.00	Y	Arm 9 Left	13.50	100.0 %	1751	1751
17/2	3.30	0.00	Y	Arm 9 Left	Inf	61.6 %	1945	1945
				Arm 18 Ahead	Inf	38.4 %		
17/3	3.30	0.00	Y	Arm 18 Ahead	Inf	100.0 %	1945	1945

Full Input Data And Results

18/1	5.00	0.00	Y	Arm 19 Ahead	Inf	100.0 %	2115	2115
18/2	5.00	0.00	Y	Arm 19 Ahead	Inf	100.0 %	2115	2115
19/1	3.30	0.00	Y	Arm 11 Ahead	270.00	100.0 %	1934	1934
19/2	3.30	0.00	Y	Arm 11 Ahead	27.00	54.5 %	1848	1848
				Arm 20 Right	31.00	45.5 %		
19/3	3.30	0.00	Y	Arm 20 Right	27.00	100.0 %	1843	1843
20/1	3.30	0.00	Y	Arm 13 Ahead	37.00	100.0 %	1869	1869
20/2	3.30	0.00	Y	Arm 21 Right	Inf	100.0 %	1945	1945
20/3	3.30	0.00	Y	Arm 21 Right	Inf	100.0 %	1945	1945
21/1	5.00	0.00	Y	Arm 22 Ahead	50.00	100.0 %	2053	2053
21/2	5.00	0.00	Y	Arm 22 Ahead	50.00	100.0 %	2053	2053
22/1	5.00	0.00	Y	Arm 23 Ahead	Inf	100.0 %	2115	2115
22/2	5.00	0.00	Y	Arm 16 Right	71.00	51.5 %	2092	2092
				Arm 23 Ahead	Inf	48.5 %		
23/1	3.65	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1980	1980
23/2	3.65	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1980	1980

Scenario 4: '2040 DS PM' (FG4: '2040 DS PM', Plan 1: 'AM')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	277	70	871	440	70	1728
	B	309	0	1	51	29	0	390
	C	223	0	0	226	53	0	502
	D	375	54	35	0	695	34	1193
	E	644	15	4	294	0	4	961
	F	222	0	0	226	52	0	500
	Tot.	1773	346	110	1668	1269	108	5274

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2040 DS PM
Junction: Unnamed Junction	
1/1	1049
1/2	679
2/1	389
3/1	502
4/1	174
4/2	828
5/1 (short)	948
5/2 (with short)	1193(In) 245(Out)
6/1 (short)	350
6/2 (with short)	961(In) 611(Out)
7/1	959
7/2	814
8/1	346
9/1	108
9/2	109
10/1	109
11/1	1150
11/2	518
12/1	1668
13/1	1269
14/1	500
15/1	108
16/1	107
16/2	333
17/1	108
17/2	1034
17/3	680
18/1	976
18/2	1018
19/1	1150
19/2	1448
19/3	398
20/1	574
20/2	356
20/3	398
21/1	609
21/2	643
22/1	959

Full Input Data And Results

22/2	1254
23/1	959
23/2	814

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A627(M))	3.65	0.00	Y	Arm 8 Left	28.00	26.4 %	1898	1898
				Arm 17 Ahead	38.00	73.6 %		
1/2 (A627(M))	3.65	0.00	Y	Arm 17 Ahead	50.00	100.0 %	1922	1922
2/1 (Bentley Ave)	3.20	0.00	Y	Arm 9 Left	31.00	0.0 %	1878	1878
				Arm 18 Ahead	49.50	100.0 %		
3/1	3.65	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1980	1980
4/1 (Whitbrook Way)	4.00	0.00	Y	Arm 19 Left	51.00	100.0 %	1957	1957
4/2 (Whitbrook Way)	4.00	0.00	Y	Arm 19 Left	42.00	100.0 %	1946	1946
5/1 (A664 Rochdale Rd West)	3.20	0.00	Y	Arm 13 Left	52.00	73.3 %	1881	1881
				Arm 21 Ahead	52.00	26.7 %		
5/2 (A664 Rochdale Rd West)	3.65	0.00	Y	Arm 21 Ahead	63.00	100.0 %	1934	1934
6/1 (A664 Rochdale Rd North)	3.90	0.00	Y	Arm 22 Left	33.00	100.0 %	1918	1918
6/2 (A664 Rochdale Rd North)	3.90	0.00	Y	Arm 22 Left	33.00	100.0 %	1918	1918
7/1	3.65	0.00	Y				1980	1980
7/2	3.65	0.00	Y				1980	1980
8/1	3.20	0.00	Y				1935	1935
9/1	4.00	0.00	Y	Arm 15 Left	20.00	100.0 %	1874	1874
9/2	4.00	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2015	2015
10/1 (Whitbrook Way)	3.65	0.00	Y				1980	1980
11/1	This lane uses a directly entered Saturation Flow						1200	1200
11/2	This lane uses a directly entered Saturation Flow						1200	1200
12/1	3.65	0.00	Y				1980	1980
13/1	3.65	0.00	Y				1980	1980
14/1	3.65	0.00	Y	Arm 4 Right	30.00	100.0 %	1886	1886
15/1 (Finlan Rd)	3.65	0.00	Y				1980	1980
16/1	5.00	0.00	Y	Arm 8 Ahead	27.00	64.5 %	2004	2004
				Arm 17 Right	27.00	35.5 %		
16/2	5.00	0.00	Y	Arm 17 Right	27.00	100.0 %	2004	2004
17/1	3.30	0.00	Y	Arm 9 Left	13.50	100.0 %	1751	1751
17/2	3.30	0.00	Y	Arm 9 Left	Inf	10.5 %	1945	1945
				Arm 18 Ahead	Inf	89.5 %		
17/3	3.30	0.00	Y	Arm 18 Ahead	Inf	100.0 %	1945	1945

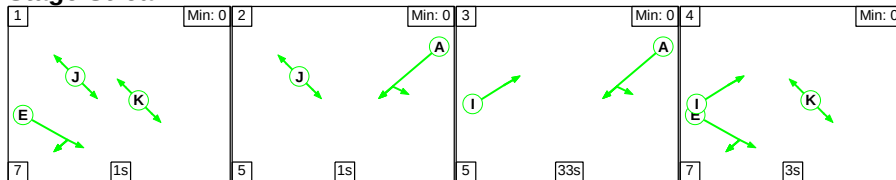
Full Input Data And Results

18/1	5.00	0.00	Y	Arm 19 Ahead	Inf	100.0 %	2115	2115
18/2	5.00	0.00	Y	Arm 19 Ahead	Inf	100.0 %	2115	2115
19/1	3.30	0.00	Y	Arm 11 Ahead	270.00	100.0 %	1934	1934
19/2	3.30	0.00	Y	Arm 11 Ahead	27.00	35.8 %	1851	1851
				Arm 20 Right	31.00	64.2 %		
19/3	3.30	0.00	Y	Arm 20 Right	27.00	100.0 %	1843	1843
20/1	3.30	0.00	Y	Arm 13 Ahead	37.00	100.0 %	1869	1869
20/2	3.30	0.00	Y	Arm 21 Right	Inf	100.0 %	1945	1945
20/3	3.30	0.00	Y	Arm 21 Right	Inf	100.0 %	1945	1945
21/1	5.00	0.00	Y	Arm 22 Ahead	50.00	100.0 %	2053	2053
21/2	5.00	0.00	Y	Arm 22 Ahead	50.00	100.0 %	2053	2053
22/1	5.00	0.00	Y	Arm 23 Ahead	Inf	100.0 %	2115	2115
22/2	5.00	0.00	Y	Arm 16 Right	71.00	35.1 %	2099	2099
				Arm 23 Ahead	Inf	64.9 %		
23/1	3.65	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1980	1980
23/2	3.65	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1980	1980

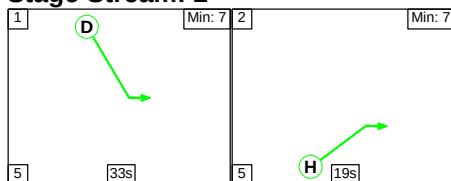
Scenario 1: '2040 DM AM' (FG1: '2040 DM AM', Plan 1: 'AM')

Stage Sequence Diagram

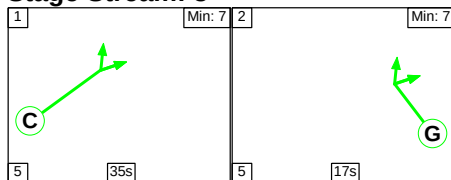
Stage Stream: 1



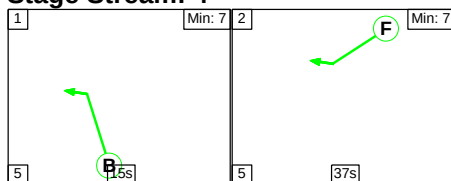
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2	3	4
Duration	1	1	33	3
Change Point	0	8	14	52

Stage Stream: 2

Stage	1	2
Duration	33	19
Change Point	20	58

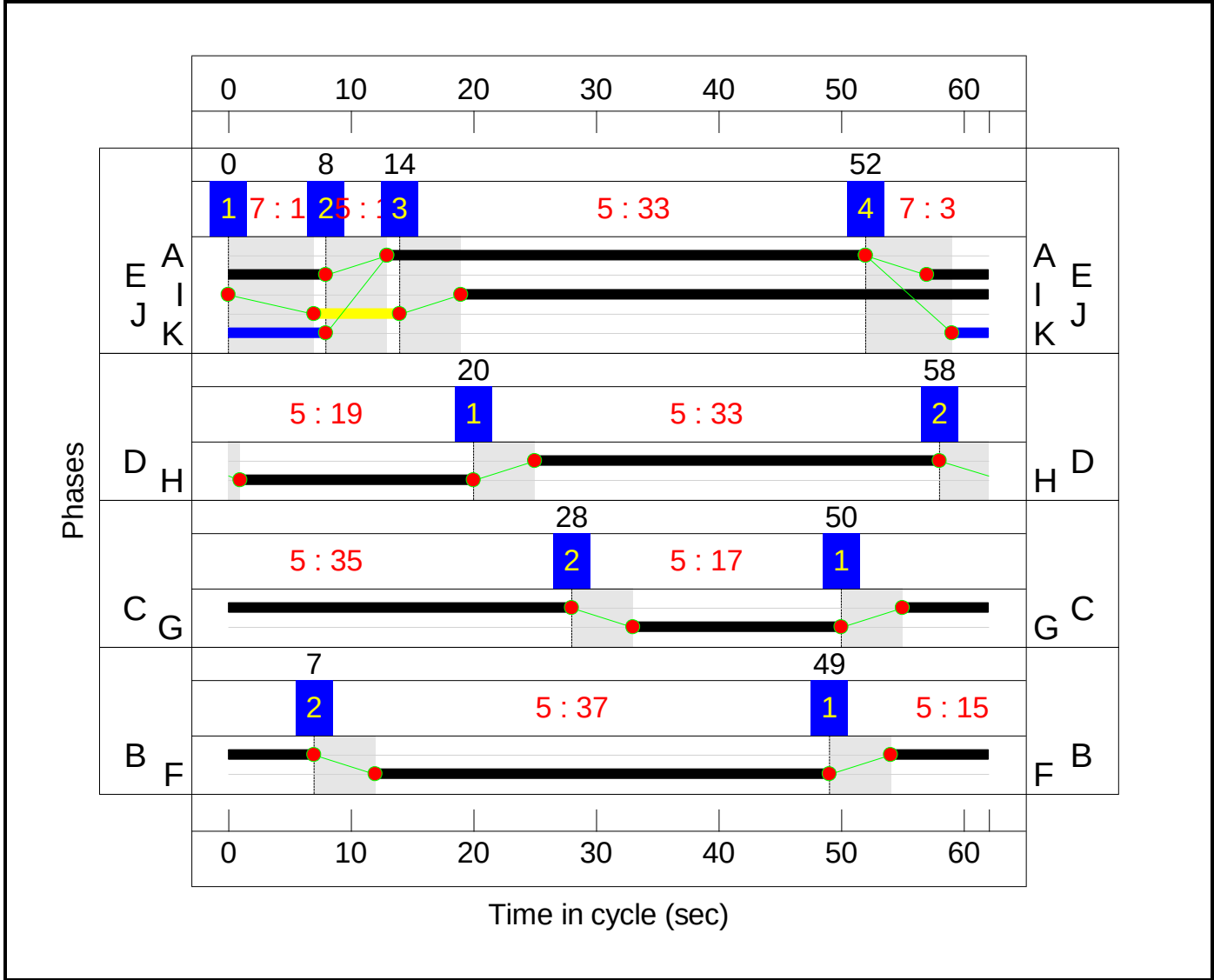
Stage Stream: 3

Stage	1	2
Duration	35	17
Change Point	50	28

Stage Stream: 4

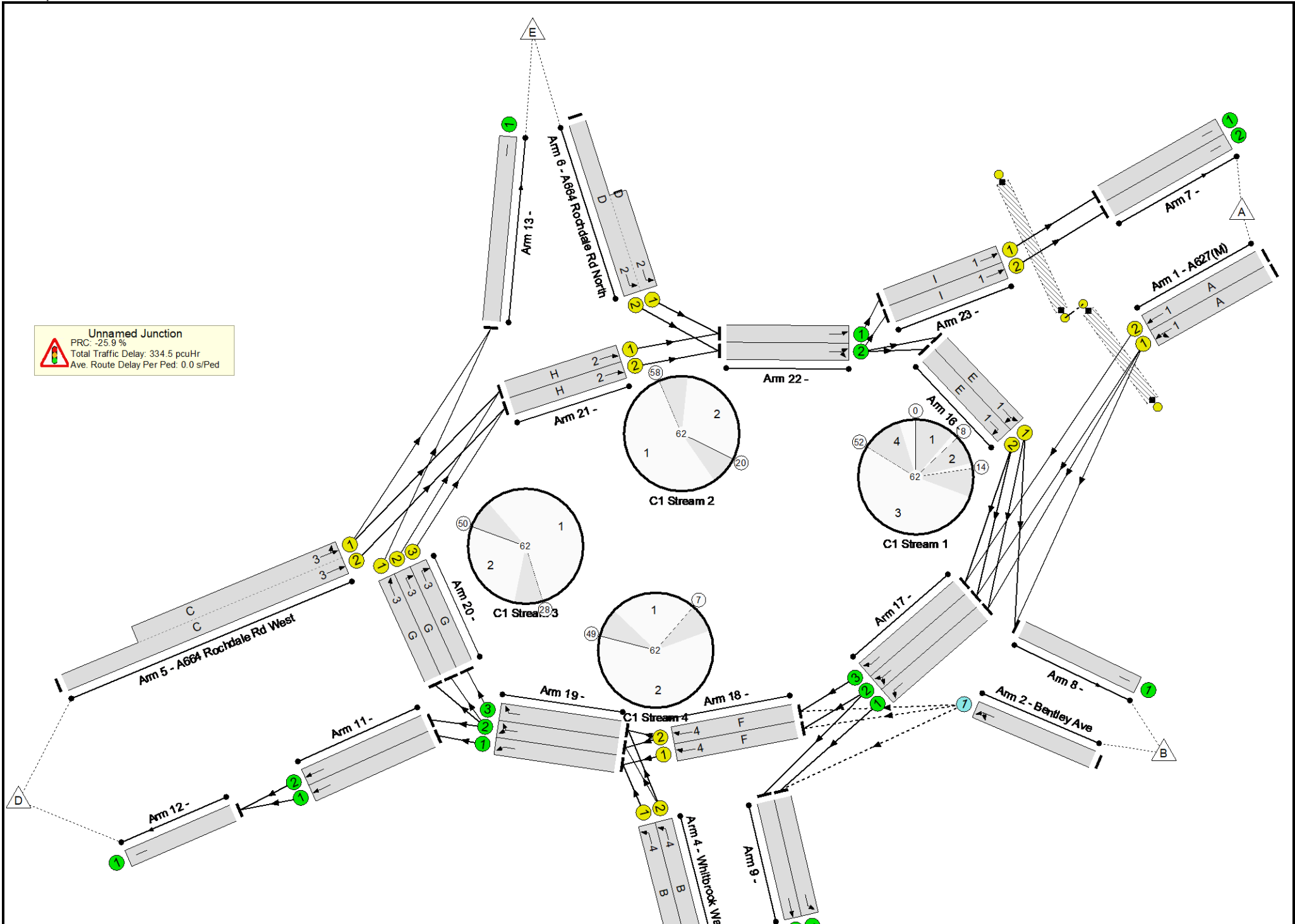
Stage	1	2
Duration	15	37
Change Point	49	7

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	-	-		-	-	-	-	-	-	113.3%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	113.3%
1/1	A627(M) Left Ahead	U	1	N/A	A		1	39	-	1370	1893	1221	112.2%
1/2	A627(M) Ahead	U	1	N/A	A		1	39	-	938	1922	1240	75.6%
2/1	Bentley Ave Left Ahead	O	N/A	N/A	-		-	-	-	199	1878	623	31.9%
3/1	Ahead	U	N/A	N/A	-		-	-	-	324	1980	1980	16.4%
4/1	Whitbrook Way Left	U	4	N/A	B		1	15	-	250	1957	505	49.5%
4/2	Whitbrook Way Left	U	4	N/A	B		1	15	-	397	1946	502	79.1%
5/2+5/1	A664 Rochdale Rd West Left Ahead	U	3	N/A	C		1	35	-	1324	1934:1881	809+1092	69.6 : 69.7%
6/2+6/1	A664 Rochdale Rd North Left	U	2	N/A	D		1	33	-	1483	1918:1918	871+486	109.4 : 109.4%
7/1		U	N/A	N/A	-		-	-	-	1261	1980	1980	58.0%
7/2		U	N/A	N/A	-		-	-	-	842	1980	1980	39.2%
8/1		U	N/A	N/A	-		-	-	-	706	1935	1935	32.5%
9/1	Left	U	N/A	N/A	-		-	-	-	571	1874	1874	27.1%
9/2	Ahead	U	N/A	N/A	-		-	-	-	572	2015	2015	22.2%
10/1	Whitbrook Way	U	N/A	N/A	-		-	-	-	572	1980	1980	22.6%
11/1	Ahead	U	N/A	N/A	-		-	-	-	677	1200	1200	53.8%
11/2	Ahead	U	N/A	N/A	-		-	-	-	718	1200	1200	59.8%
12/1		U	N/A	N/A	-		-	-	-	1395	1980	1980	68.9%
13/1		U	N/A	N/A	-		-	-	-	614	1980	1980	31.0%
14/1	Right	O	N/A	N/A	-		-	-	-	323	1886	1125	28.7%
15/1	Finlan Rd	U	N/A	N/A	-		-	-	-	571	1980	1980	25.6%

Full Input Data And Results

16/1	Ahead Right	U	1	N/A	E		1	13	-	275	2004	453	53.9%
16/2	Right	U	1	N/A	E		1	13	-	568	2004	453	113.3%
17/1	Left	U	N/A	N/A	-		-	-	-	571	1751	1751	29.0%
17/2	Left Ahead	U	N/A	N/A	-		-	-	-	936	1945	1945	40.1%
17/3	Ahead	U	N/A	N/A	-		-	-	-	938	1945	1945	48.2%
18/1	Ahead	U	4	N/A	F		1	37	-	427	2115	1296	30.5%
18/2	Ahead	U	4	N/A	F		1	37	-	1074	2115	1296	82.9%
19/1	Ahead	U	N/A	N/A	-		-	-	-	677	1934	1934	33.4%
19/2	Ahead Right	U	N/A	N/A	-		-	-	-	1301	1848	1848	70.4%
19/3	Right	U	N/A	N/A	-		-	-	-	170	1843	1843	9.2%
20/1	Ahead	U	3	N/A	G		1	17	-	253	1869	543	46.6%
20/2	Right	U	3	N/A	G		1	17	-	330	1945	565	58.4%
20/3	Right	U	3	N/A	G		1	17	-	170	1945	565	30.1%
21/1	Ahead	U	2	N/A	H		1	19	-	730	2053	662	110.2%
21/2	Ahead	U	2	N/A	H		1	19	-	733	2053	662	110.7%
22/1	Ahead	U	N/A	N/A	-		-	-	-	1261	2115	2115	54.3%
22/2	Right Ahead	U	N/A	N/A	-		-	-	-	1685	2093	2093	73.2%
23/1	Ahead	U	1	N/A	I		1	43	-	1261	1980	1405	81.7%
23/2	Ahead	U	1	N/A	I		1	43	-	842	1980	1405	55.2%
Ped Link: P1	Unnamed Ped Link	-	1	-	J		1	7	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	1	-	K		1	11	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	522	0	0	52.7	281.9	0.0	334.5	-	-	-	-
Unnamed Junction	-	-	522	0	0	52.7	281.9	0.0	334.5	-	-	-	-
1/1	1370	1221	-	-	-	7.9	78.7	-	86.6	227.5	26.2	78.7	104.9
1/2	938	938	-	-	-	2.0	1.5	-	3.5	13.5	10.9	1.5	12.5
2/1	199	199	199	0	0	0.0	0.2	-	0.3	4.7	0.7	0.2	1.0
3/1	324	324	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
4/1	250	250	-	-	-	1.4	0.5	-	1.8	26.6	3.6	0.5	4.1
4/2	397	397	-	-	-	2.4	1.8	-	4.2	38.0	6.3	1.8	8.1
5/2+5/1	1324	1324	-	-	-	3.1	1.1	-	4.3	11.6	9.1	1.1	10.2
6/2+6/1	1483	1356	-	-	-	7.6	68.8	-	76.4	185.6	23.6	68.8	92.4
7/1	1148	1148	-	-	-	0.0	0.7	-	0.7	2.2	0.0	0.7	0.7
7/2	776	776	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
8/1	630	630	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
9/1	507	507	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/2	448	448	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
10/1	448	448	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
11/1	645	645	-	-	-	0.4	0.6	-	1.0	5.3	6.2	0.6	6.8
11/2	718	718	-	-	-	0.2	0.7	-	0.9	4.7	9.8	0.7	10.5
12/1	1363	1363	-	-	-	0.1	1.1	-	1.2	3.1	8.3	1.1	9.4
13/1	614	614	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
14/1	323	323	323	0	0	0.0	0.2	-	0.2	2.2	0.0	0.2	0.2
15/1	507	507	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
16/1	244	244	-	-	-	1.9	0.6	-	2.5	36.4	3.6	0.6	4.2
16/2	513	453	-	-	-	5.3	34.0	-	39.3	275.7	9.9	34.0	43.8
17/1	507	507	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
17/2	781	781	-	-	-	0.0	0.3	-	0.3	1.6	5.0	0.3	5.3

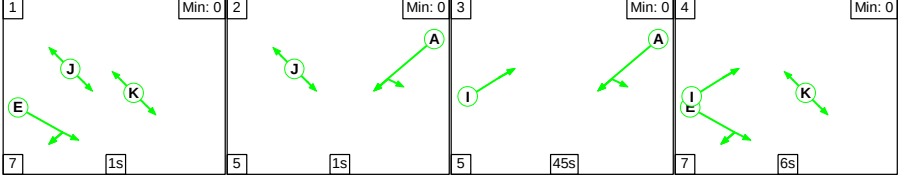
Full Input Data And Results

[illegible]

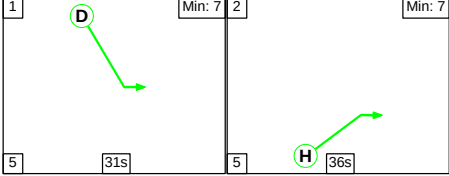
Full Input Data And Results
Scenario 2: '2040 DM PM' (FG2: '2040 DM PM', Plan 1: 'AM')

Stage Sequence Diagram

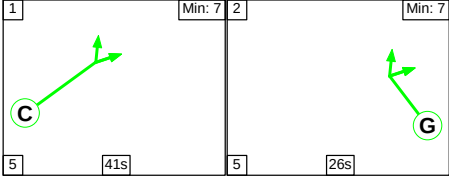
Stage Stream: 1



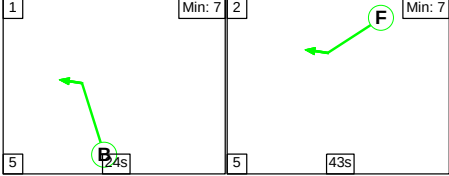
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2	3	4
Duration	1	1	45	6
Change Point	0	8	14	64

Stage Stream: 2

Stage	1	2
Duration	31	36
Change Point	61	20

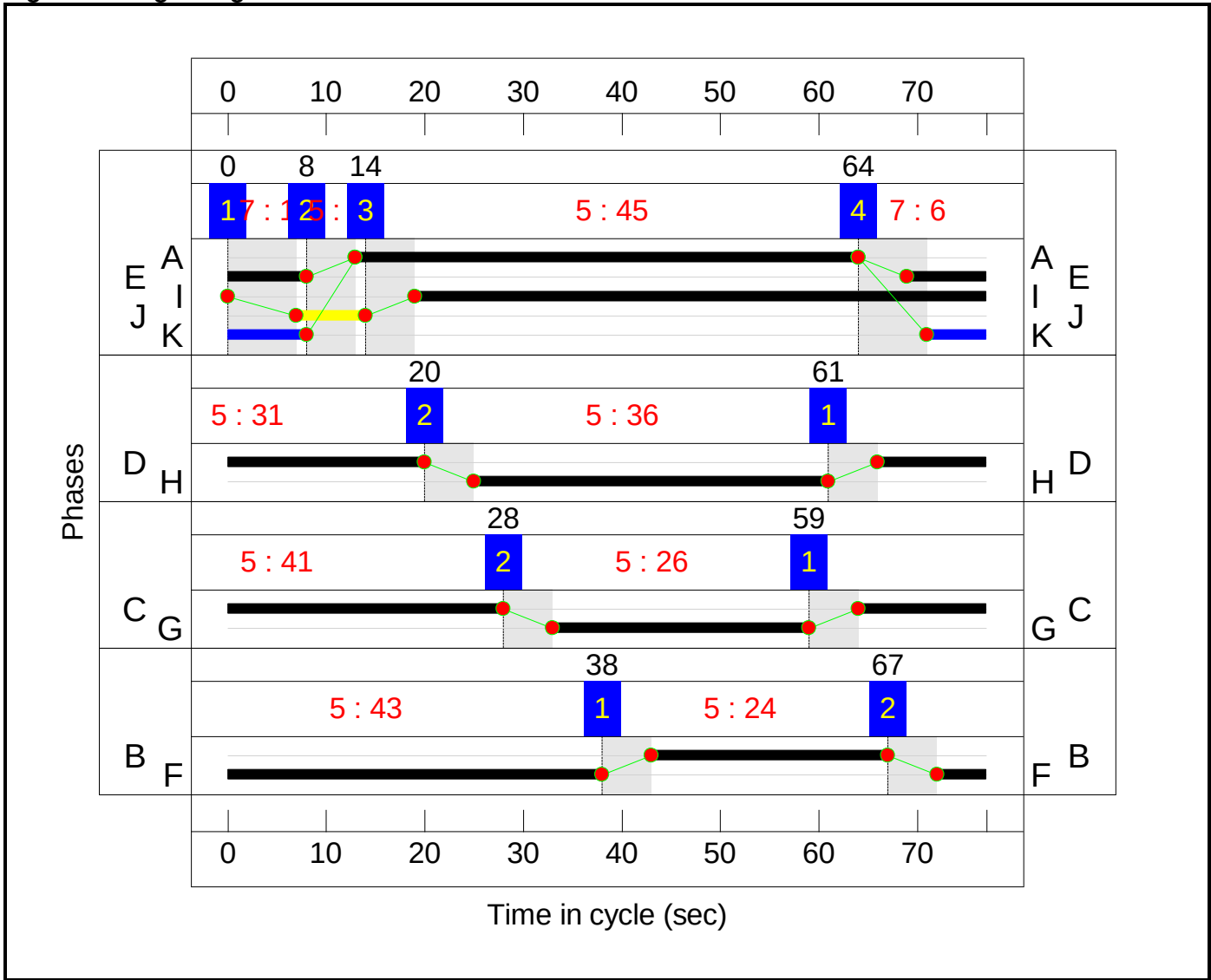
Stage Stream: 3

Stage	1	2
Duration	41	26
Change Point	59	28

Stage Stream: 4

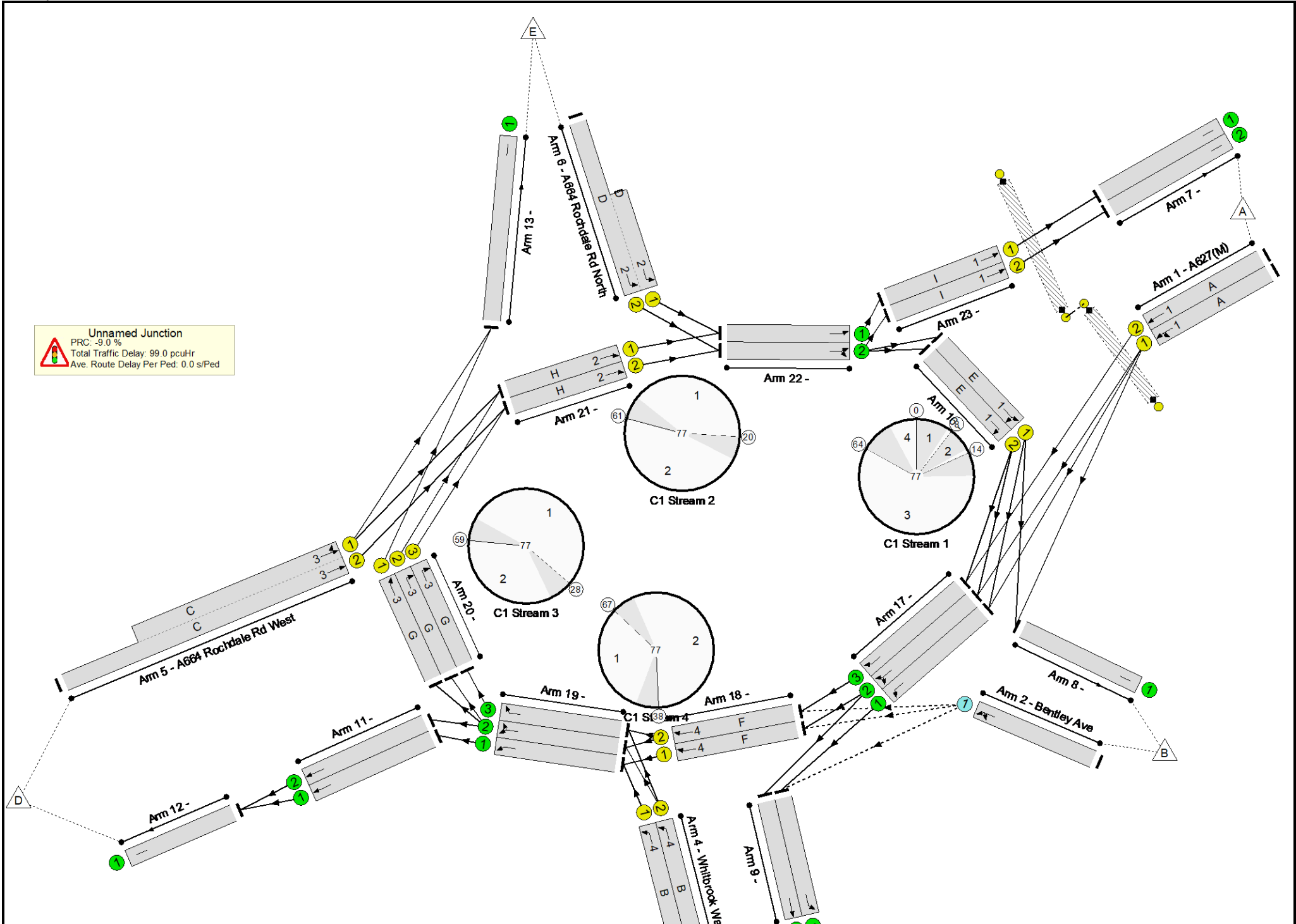
Stage	1	2
Duration	24	43
Change Point	38	67

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	-	-		-	-	-	-	-	-	98.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	98.1%
1/1	A627(M) Left Ahead	U	1	N/A	A		1	51	-	890	1898	1282	69.4%
1/2	A627(M) Ahead	U	1	N/A	A		1	51	-	779	1922	1298	60.0%
2/1	Bentley Ave Left Ahead	O	N/A	N/A	-		-	-	-	395	1878	699	56.5%
3/1	Ahead	U	N/A	N/A	-		-	-	-	495	1980	1980	25.0%
4/1	Whitbrook Way Left	U	4	N/A	B		1	24	-	391	1957	635	61.5%
4/2	Whitbrook Way Left	U	4	N/A	B		1	24	-	597	1946	632	94.5%
5/2+5/1	A664 Rochdale Rd West Left Ahead	U	3	N/A	C		1	41	-	1192	1934:1881	307+1004	90.9 : 90.9%
6/2+6/1	A664 Rochdale Rd North Left	U	2	N/A	D		1	31	-	861	1918:1918	631+520	74.8 : 74.8%
7/1		U	N/A	N/A	-		-	-	-	969	1980	1980	48.9%
7/2		U	N/A	N/A	-		-	-	-	750	1980	1980	37.9%
8/1		U	N/A	N/A	-		-	-	-	296	1935	1935	15.3%
9/1	Left	U	N/A	N/A	-		-	-	-	106	1874	1874	5.7%
9/2	Ahead	U	N/A	N/A	-		-	-	-	108	2015	2015	5.4%
10/1	Whitbrook Way	U	N/A	N/A	-		-	-	-	108	1980	1980	5.5%
11/1	Ahead	U	N/A	N/A	-		-	-	-	1169	1200	1200	97.4%
11/2	Ahead	U	N/A	N/A	-		-	-	-	469	1200	1200	39.1%
12/1		U	N/A	N/A	-		-	-	-	1638	1980	1980	82.7%
13/1		U	N/A	N/A	-		-	-	-	1238	1980	1980	62.5%
14/1	Right	O	N/A	N/A	-		-	-	-	493	1886	1321	37.3%
15/1	Finlan Rd	U	N/A	N/A	-		-	-	-	106	1980	1980	5.4%

Full Input Data And Results

16/1	Ahead Right	U	1	N/A	E		1	16	-	83	2004	442	18.8%
16/2	Right	U	1	N/A	E		1	16	-	327	2004	442	73.9%
17/1	Left	U	N/A	N/A	-		-	-	-	106	1751	1751	6.1%
17/2	Left Ahead	U	N/A	N/A	-		-	-	-	852	1945	1945	43.8%
17/3	Ahead	U	N/A	N/A	-		-	-	-	825	1945	1945	42.4%
18/1	Ahead	U	4	N/A	F		1	43	-	778	2115	1209	64.4%
18/2	Ahead	U	4	N/A	F		1	43	-	1186	2115	1209	98.1%
19/1	Ahead	U	N/A	N/A	-		-	-	-	1169	1934	1934	60.4%
19/2	Ahead Right	U	N/A	N/A	-		-	-	-	1374	1851	1851	74.2%
19/3	Right	U	N/A	N/A	-		-	-	-	409	1843	1843	22.2%
20/1	Ahead	U	3	N/A	G		1	26	-	548	1869	655	83.6%
20/2	Right	U	3	N/A	G		1	26	-	357	1945	682	52.3%
20/3	Right	U	3	N/A	G		1	26	-	409	1945	682	60.0%
21/1	Ahead	U	2	N/A	H		1	36	-	580	2053	987	58.8%
21/2	Ahead	U	2	N/A	H		1	36	-	688	2053	987	69.7%
22/1	Ahead	U	N/A	N/A	-		-	-	-	969	2115	2115	45.8%
22/2	Right Ahead	U	N/A	N/A	-		-	-	-	1160	2099	2099	55.3%
23/1	Ahead	U	1	N/A	I		1	58	-	969	1980	1517	63.9%
23/2	Ahead	U	1	N/A	I		1	58	-	750	1980	1517	49.4%
Ped Link: P1	Unnamed Ped Link	-	1	-	J		1	7	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	1	-	K		1	14	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	888	0	0	41.3	57.7	0.0	99.0	-	-	-	-
Unnamed Junction	-	-	888	0	0	41.3	57.7	0.0	99.0	-	-	-	-
1/1	890	890	-	-	-	1.9	1.1	-	3.0	12.2	11.6	1.1	12.7
1/2	779	779	-	-	-	1.5	0.7	-	2.2	10.3	9.1	0.7	9.8
2/1	395	395	395	0	0	0.0	0.6	-	0.6	5.9	0.7	0.6	1.3
3/1	495	495	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
4/1	391	391	-	-	-	2.4	0.8	-	3.2	29.3	7.0	0.8	7.7
4/2	597	597	-	-	-	4.2	6.3	-	10.5	63.3	12.4	6.3	18.7
5/2+5/1	1192	1192	-	-	-	4.6	4.6	-	9.3	28.0	17.2	4.6	21.9
6/2+6/1	861	861	-	-	-	4.1	1.5	-	5.5	23.2	7.7	1.5	9.2
7/1	969	969	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
7/2	750	750	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
8/1	296	296	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
9/1	106	106	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
9/2	108	108	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
10/1	108	108	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
11/1	1169	1169	-	-	-	1.7	11.0	-	12.7	39.2	24.8	11.0	35.8
11/2	469	469	-	-	-	0.0	0.3	-	0.3	2.5	0.0	0.3	0.3
12/1	1638	1638	-	-	-	0.0	2.4	-	2.4	5.2	0.0	2.4	2.4
13/1	1238	1238	-	-	-	0.0	0.8	-	0.8	2.4	0.0	0.8	0.8
14/1	493	493	493	0	0	0.0	0.3	-	0.3	2.2	0.0	0.3	0.3
15/1	106	106	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
16/1	83	83	-	-	-	0.7	0.1	-	0.8	35.0	1.5	0.1	1.6
16/2	327	327	-	-	-	1.5	1.4	-	2.8	31.3	3.5	1.4	4.9
17/1	106	106	-	-	-	0.0	0.0	-	0.0	1.1	0.0	0.0	0.0
17/2	852	852	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4

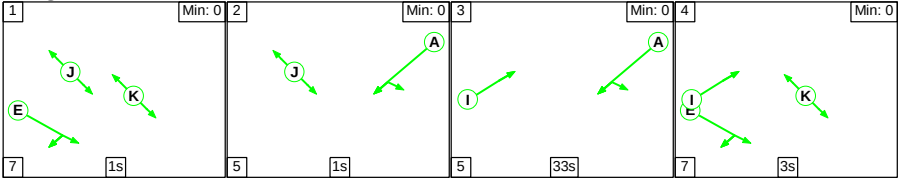
Full Input Data And Results

[illegible]

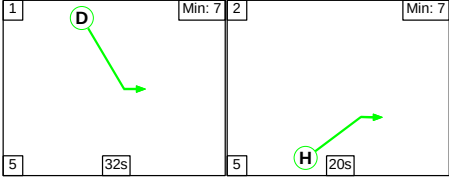
Full Input Data And Results
Scenario 3: '2040 DS AM' (FG3: '2040 DS AM', Plan 1: 'AM')

Stage Sequence Diagram

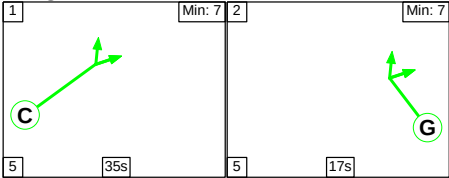
Stage Stream: 1



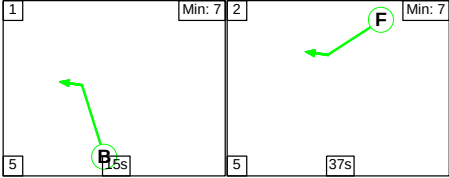
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2	3	4
Duration	1	1	33	3
Change Point	0	8	14	52

Stage Stream: 2

Stage	1	2
Duration	32	20
Change Point	28	3

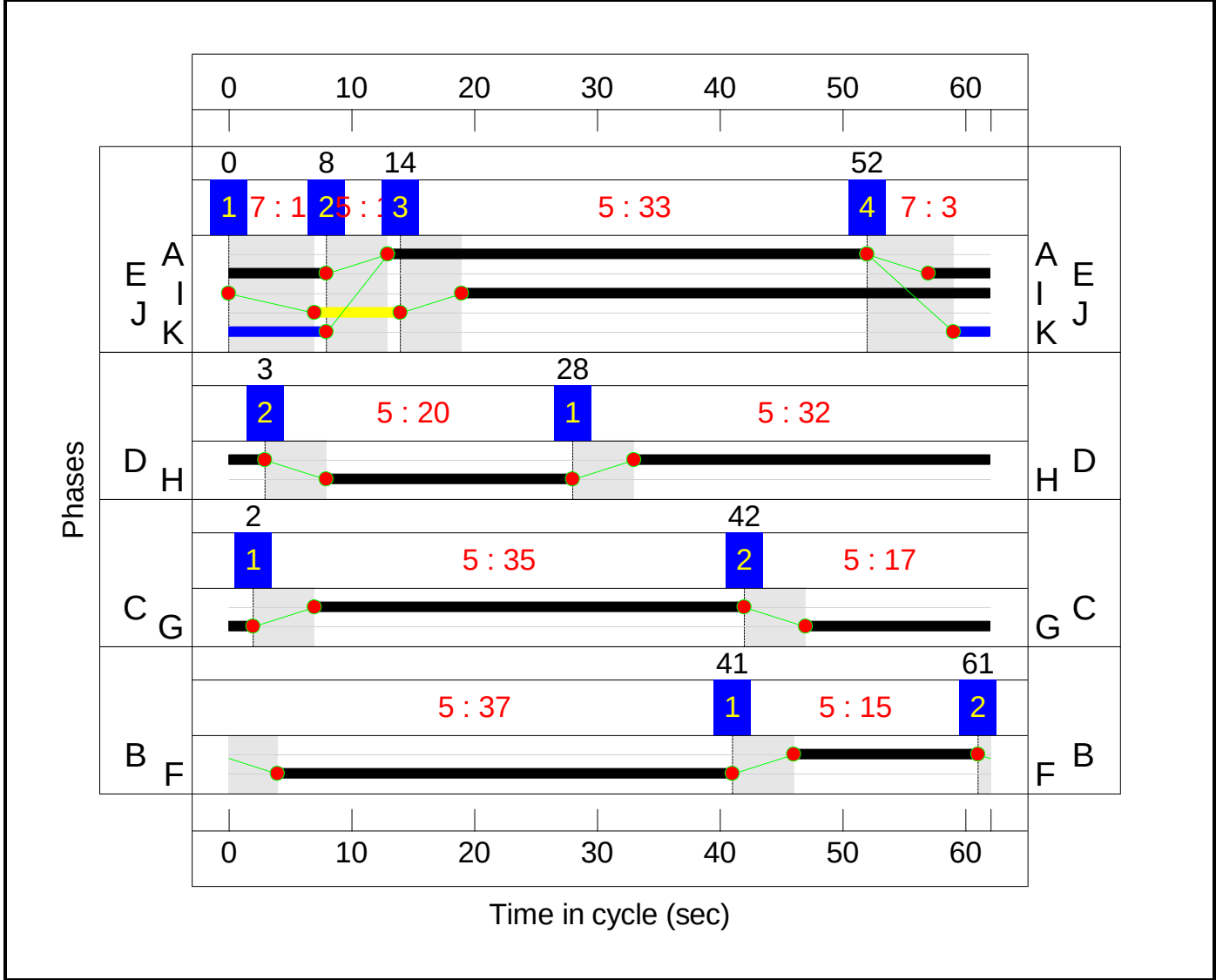
Stage Stream: 3

Stage	1	2
Duration	35	17
Change Point	2	42

Stage Stream: 4

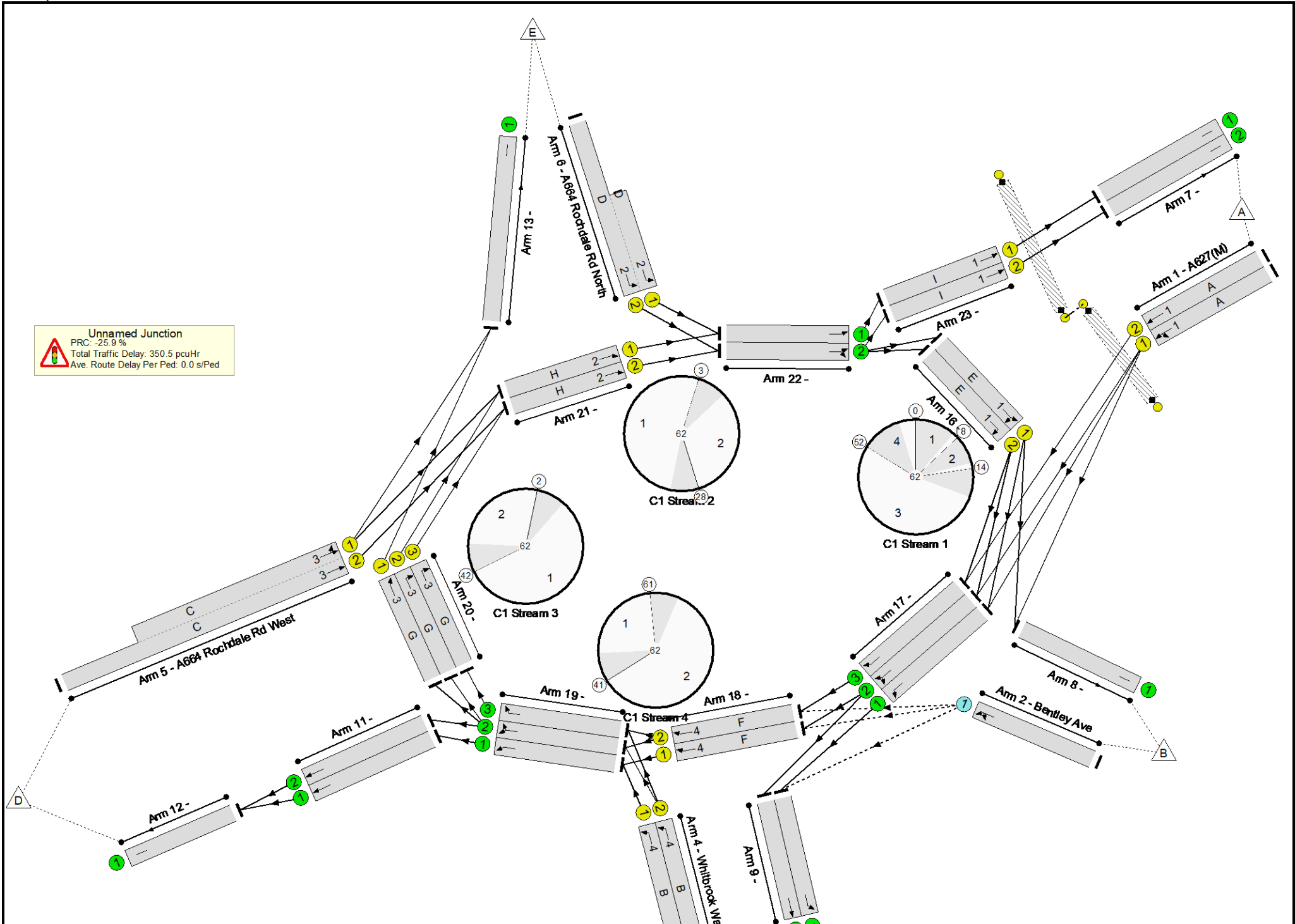
Stage	1	2
Duration	15	37
Change Point	41	61

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	-	-		-	-	-	-	-	-	113.3%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	113.3%
1/1	A627(M) Left Ahead	U	1	N/A	A		1	39	-	1382	1893	1221	113.2%
1/2	A627(M) Ahead	U	1	N/A	A		1	39	-	938	1922	1240	75.6%
2/1	Bentley Ave Left Ahead	O	N/A	N/A	-		-	-	-	213	1878	617	34.5%
3/1	Ahead	U	N/A	N/A	-		-	-	-	326	1980	1980	16.5%
4/1	Whitbrook Way Left	U	4	N/A	B		1	15	-	251	1957	505	49.7%
4/2	Whitbrook Way Left	U	4	N/A	B		1	15	-	399	1946	502	79.5%
5/2+5/1	A664 Rochdale Rd West Left Ahead	U	3	N/A	C		1	35	-	1356	1934:1881	824+1080	71.2 : 71.2%
6/2+6/1	A664 Rochdale Rd North Left	U	2	N/A	D		1	32	-	1492	1918:1918	851+473	112.7 : 112.7%
7/1		U	N/A	N/A	-		-	-	-	1284	1980	1980	59.0%
7/2		U	N/A	N/A	-		-	-	-	831	1980	1980	38.3%
8/1		U	N/A	N/A	-		-	-	-	735	1935	1935	33.6%
9/1	Left	U	N/A	N/A	-		-	-	-	583	1874	1874	27.6%
9/2	Ahead	U	N/A	N/A	-		-	-	-	584	2015	2015	24.1%
10/1	Whitbrook Way	U	N/A	N/A	-		-	-	-	584	1980	1980	24.5%
11/1	Ahead	U	N/A	N/A	-		-	-	-	678	1200	1200	50.9%
11/2	Ahead	U	N/A	N/A	-		-	-	-	718	1200	1200	59.8%
12/1		U	N/A	N/A	-		-	-	-	1396	1980	1980	67.1%
13/1		U	N/A	N/A	-		-	-	-	618	1980	1980	31.2%
14/1	Right	O	N/A	N/A	-		-	-	-	324	1886	1097	29.5%
15/1	Finlan Rd	U	N/A	N/A	-		-	-	-	583	1980	1980	26.1%

Full Input Data And Results

16/1	Ahead Right	U	1	N/A	E		1	13	-	308	2004	453	60.9%
16/2	Right	U	1	N/A	E		1	13	-	576	2004	453	113.3%
17/1	Left	U	N/A	N/A	-		-	-	-	583	1751	1751	29.6%
17/2	Left Ahead	U	N/A	N/A	-		-	-	-	948	1945	1945	40.2%
17/3	Ahead	U	N/A	N/A	-		-	-	-	938	1945	1945	48.2%
18/1	Ahead	U	4	N/A	F		1	37	-	427	2115	1296	27.7%
18/2	Ahead	U	4	N/A	F		1	37	-	1088	2115	1296	83.9%
19/1	Ahead	U	N/A	N/A	-		-	-	-	678	1934	1934	31.6%
19/2	Ahead Right	U	N/A	N/A	-		-	-	-	1318	1848	1848	71.3%
19/3	Right	U	N/A	N/A	-		-	-	-	169	1843	1843	9.2%
20/1	Ahead	U	3	N/A	G		1	17	-	257	1869	543	47.4%
20/2	Right	U	3	N/A	G		1	17	-	343	1945	565	60.7%
20/3	Right	U	3	N/A	G		1	17	-	169	1945	565	29.9%
21/1	Ahead	U	2	N/A	H		1	20	-	751	2053	695	108.0%
21/2	Ahead	U	2	N/A	H		1	20	-	756	2053	695	108.7%
22/1	Ahead	U	N/A	N/A	-		-	-	-	1284	2115	2115	55.2%
22/2	Right Ahead	U	N/A	N/A	-		-	-	-	1715	2092	2092	73.9%
23/1	Ahead	U	1	N/A	I		1	43	-	1284	1980	1405	83.2%
23/2	Ahead	U	1	N/A	I		1	43	-	831	1980	1405	54.0%
Ped Link: P1	Unnamed Ped Link	-	1	-	J		1	7	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	1	-	K		1	11	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	537	0	0	52.3	298.2	0.0	350.5	-	-	-	-
Unnamed Junction	-	-	537	0	0	52.3	298.2	0.0	350.5	-	-	-	-
1/1	1382	1221	-	-	-	8.3	84.4	-	92.7	241.6	26.6	84.4	111.1
1/2	938	938	-	-	-	2.0	1.5	-	3.5	13.5	10.9	1.5	12.5
2/1	213	213	213	0	0	0.0	0.3	-	0.3	5.3	0.8	0.3	1.1
3/1	326	326	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
4/1	251	251	-	-	-	1.4	0.5	-	1.9	26.6	3.6	0.5	4.1
4/2	399	399	-	-	-	2.4	1.9	-	4.2	38.3	6.3	1.9	8.2
5/2+5/1	1356	1356	-	-	-	3.2	1.2	-	4.5	11.9	9.2	1.2	10.4
6/2+6/1	1492	1324	-	-	-	11.0	88.1	-	99.1	239.1	26.2	88.1	114.4
7/1	1168	1168	-	-	-	0.0	0.7	-	0.7	2.2	0.0	0.7	0.7
7/2	758	758	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
8/1	650	650	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
9/1	518	518	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/2	485	485	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
10/1	485	485	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
11/1	610	610	-	-	-	0.3	0.5	-	0.8	4.8	5.6	0.5	6.1
11/2	718	718	-	-	-	0.2	0.7	-	0.9	4.5	8.0	0.7	8.8
12/1	1328	1328	-	-	-	0.0	1.0	-	1.0	2.8	0.0	1.0	1.0
13/1	618	618	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
14/1	324	324	324	0	0	0.0	0.2	-	0.2	2.3	0.0	0.2	0.2
15/1	518	518	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
16/1	275	275	-	-	-	2.3	0.8	-	3.0	39.5	4.6	0.8	5.3
16/2	513	453	-	-	-	4.9	33.9	-	38.8	272.3	9.9	33.9	43.8
17/1	518	518	-	-	-	0.0	0.2	-	0.2	1.5	0.0	0.2	0.2
17/2	781	781	-	-	-	0.0	0.3	-	0.3	1.6	5.0	0.3	5.3

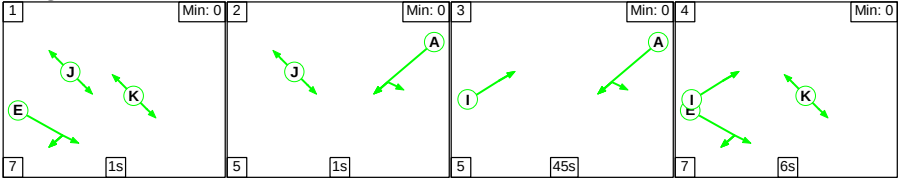
Full Input Data And Results

[illegible]

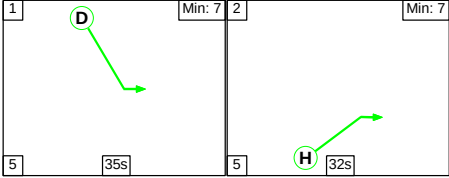
Full Input Data And Results
Scenario 4: '2040 DS PM' (FG4: '2040 DS PM', Plan 1: 'AM')

Stage Sequence Diagram

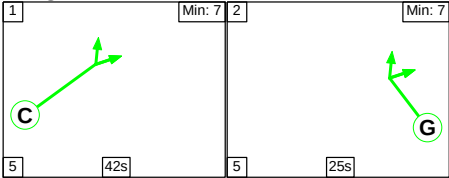
Stage Stream: 1



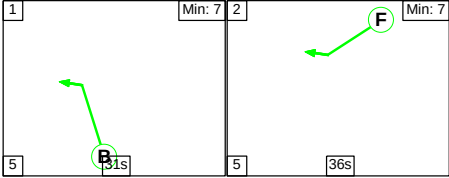
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2	3	4
Duration	1	1	45	6
Change Point	0	8	14	64

Stage Stream: 2

Stage	1	2
Duration	35	32
Change Point	55	18

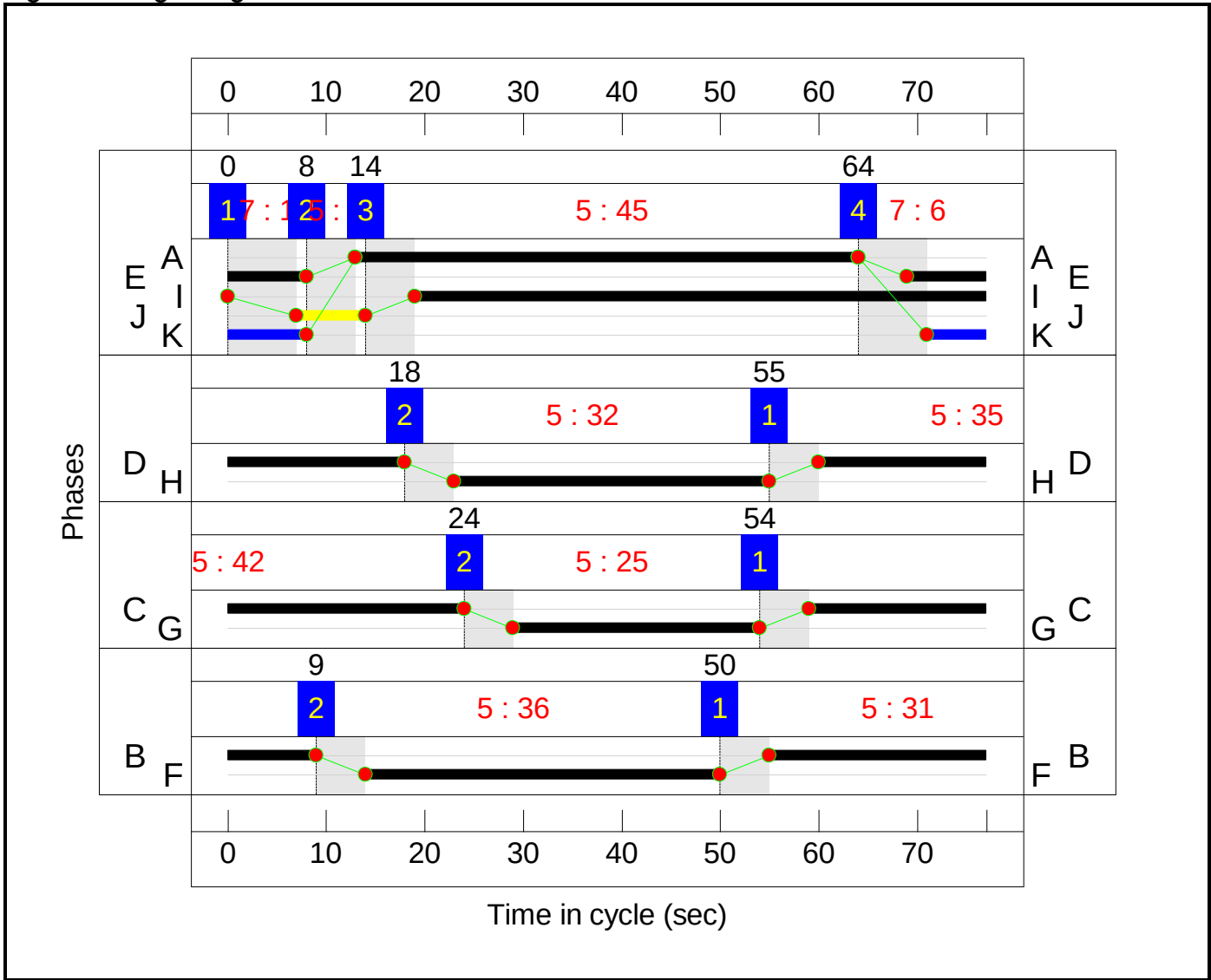
Stage Stream: 3

Stage	1	2
Duration	42	25
Change Point	54	24

Stage Stream: 4

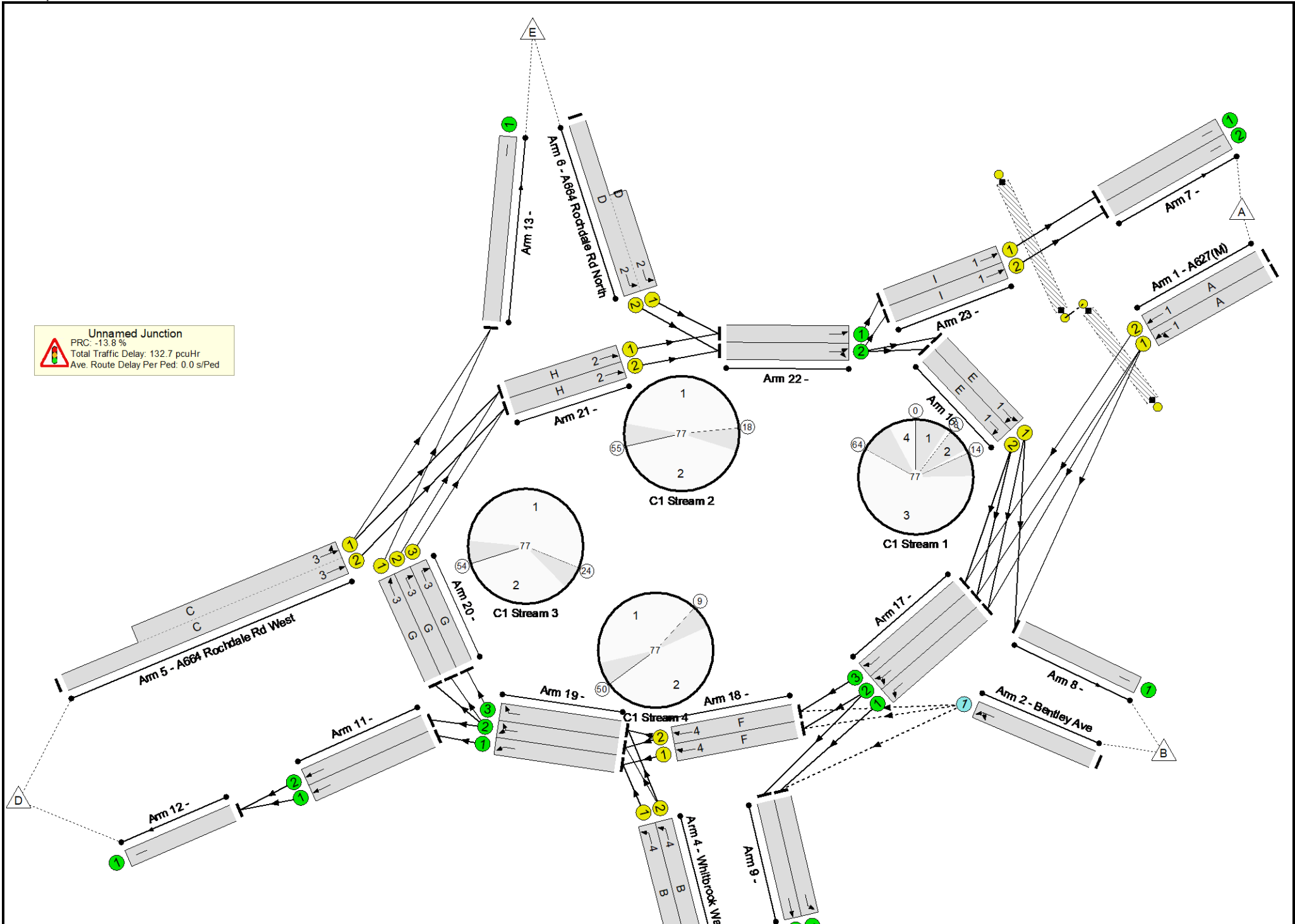
Stage	1	2
Duration	31	36
Change Point	50	9

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	-	-		-	-	-	-	-	-	102.4%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	102.4%
1/1	A627(M) Left Ahead	U	1	N/A	A		1	51	-	1049	1898	1282	81.8%
1/2	A627(M) Ahead	U	1	N/A	A		1	51	-	679	1922	1298	52.3%
2/1	Bentley Ave Left Ahead	O	N/A	N/A	-		-	-	-	389	1878	649	59.9%
3/1	Ahead	U	N/A	N/A	-		-	-	-	502	1980	1980	25.4%
4/1	Whitbrook Way Left	U	4	N/A	B		1	31	-	174	1957	813	21.4%
4/2	Whitbrook Way Left	U	4	N/A	B		1	31	-	828	1946	809	102.4%
5/2+5/1	A664 Rochdale Rd West Left Ahead	U	3	N/A	C		1	42	-	1193	1934:1881	266+1028	92.2 : 92.2%
6/2+6/1	A664 Rochdale Rd North Left	U	2	N/A	D		1	35	-	961	1918:1918	730+418	83.7 : 83.7%
7/1		U	N/A	N/A	-		-	-	-	959	1980	1980	48.2%
7/2		U	N/A	N/A	-		-	-	-	814	1980	1980	40.8%
8/1		U	N/A	N/A	-		-	-	-	346	1935	1935	17.9%
9/1	Left	U	N/A	N/A	-		-	-	-	108	1874	1874	5.8%
9/2	Ahead	U	N/A	N/A	-		-	-	-	109	2015	2015	5.4%
10/1	Whitbrook Way	U	N/A	N/A	-		-	-	-	109	1980	1980	5.5%
11/1	Ahead	U	N/A	N/A	-		-	-	-	1150	1200	1200	95.8%
11/2	Ahead	U	N/A	N/A	-		-	-	-	518	1200	1200	42.6%
12/1		U	N/A	N/A	-		-	-	-	1668	1980	1980	83.9%
13/1		U	N/A	N/A	-		-	-	-	1269	1980	1980	63.9%
14/1	Right	O	N/A	N/A	-		-	-	-	500	1886	1319	37.9%
15/1	Finlan Rd	U	N/A	N/A	-		-	-	-	108	1980	1980	5.5%

Full Input Data And Results

16/1	Ahead Right	U	1	N/A	E		1	16	-	107	2004	442	24.2%
16/2	Right	U	1	N/A	E		1	16	-	333	2004	442	75.3%
17/1	Left	U	N/A	N/A	-		-	-	-	108	1751	1751	6.2%
17/2	Left Ahead	U	N/A	N/A	-		-	-	-	1034	1945	1945	53.2%
17/3	Ahead	U	N/A	N/A	-		-	-	-	680	1945	1945	35.0%
18/1	Ahead	U	4	N/A	F		1	36	-	976	2115	1016	96.0%
18/2	Ahead	U	4	N/A	F		1	36	-	1018	2115	1016	100.2%
19/1	Ahead	U	N/A	N/A	-		-	-	-	1150	1934	1934	59.5%
19/2	Ahead Right	U	N/A	N/A	-		-	-	-	1448	1851	1851	77.4%
19/3	Right	U	N/A	N/A	-		-	-	-	398	1843	1843	21.3%
20/1	Ahead	U	3	N/A	G		1	25	-	574	1869	631	90.4%
20/2	Right	U	3	N/A	G		1	25	-	356	1945	657	53.4%
20/3	Right	U	3	N/A	G		1	25	-	398	1945	657	59.7%
21/1	Ahead	U	2	N/A	H		1	32	-	609	2053	880	68.6%
21/2	Ahead	U	2	N/A	H		1	32	-	643	2053	880	72.4%
22/1	Ahead	U	N/A	N/A	-		-	-	-	959	2115	2115	45.1%
22/2	Right Ahead	U	N/A	N/A	-		-	-	-	1254	2099	2099	59.5%
23/1	Ahead	U	1	N/A	I		1	58	-	959	1980	1517	62.9%
23/2	Ahead	U	1	N/A	I		1	58	-	814	1980	1517	53.3%
Ped Link: P1	Unnamed Ped Link	-	1	-	J		1	7	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	1	-	K		1	14	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	889	0	0	46.9	85.8	0.0	132.7	-	-	-	-
Unnamed Junction	-	-	889	0	0	46.9	85.8	0.0	132.7	-	-	-	-
1/1	1049	1049	-	-	-	2.6	2.2	-	4.9	16.7	16.0	2.2	18.2
1/2	679	679	-	-	-	1.2	0.5	-	1.7	9.2	7.2	0.5	7.7
2/1	389	389	389	0	0	0.0	0.7	-	0.8	7.0	1.3	0.7	2.0
3/1	502	502	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
4/1	174	174	-	-	-	0.7	0.1	-	0.8	17.3	2.4	0.1	2.5
4/2	828	809	-	-	-	6.0	20.0	-	26.0	113.1	18.1	20.0	38.1
5/2+5/1	1193	1193	-	-	-	4.6	5.4	-	9.9	29.9	17.9	5.4	23.3
6/2+6/1	961	961	-	-	-	4.1	2.5	-	6.6	24.6	11.4	2.5	13.9
7/1	954	954	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
7/2	808	808	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
8/1	346	346	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
9/1	108	108	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
9/2	109	109	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
10/1	109	109	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
11/1	1150	1150	-	-	-	3.9	8.6	-	12.5	39.0	24.4	8.6	32.9
11/2	511	511	-	-	-	0.0	0.4	-	0.4	2.6	0.0	0.4	0.4
12/1	1661	1661	-	-	-	0.0	2.6	-	2.6	5.6	0.0	2.6	2.6
13/1	1266	1266	-	-	-	0.0	0.9	-	0.9	2.5	0.0	0.9	0.9
14/1	500	500	500	0	0	0.0	0.3	-	0.3	2.2	0.0	0.3	0.3
15/1	108	108	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
16/1	107	107	-	-	-	1.0	0.2	-	1.1	38.3	2.1	0.2	2.2
16/2	333	333	-	-	-	1.5	1.5	-	3.0	32.1	5.6	1.5	7.1
17/1	108	108	-	-	-	0.0	0.0	-	0.0	1.1	0.0	0.0	0.0
17/2	1034	1034	-	-	-	0.0	0.6	-	0.6	2.0	2.8	0.6	3.3

Full Input Data And Results

17/3	680	680	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
18/1	976	976	-	-	-	4.3	8.5	-	12.8	47.3	20.1	8.5	28.7
18/2	1018	1016	-	-	-	4.5	16.4	-	20.9	73.9	21.8	16.4	38.2
19/1	1150	1150	-	-	-	0.4	0.7	-	1.1	3.5	20.0	0.7	20.7
19/2	1433	1433	-	-	-	0.1	1.7	-	1.8	4.4	11.5	1.7	13.2
19/3	392	392	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
20/1	571	571	-	-	-	1.8	4.2	-	6.0	37.6	10.6	4.2	14.7
20/2	351	351	-	-	-	2.3	0.6	-	2.9	29.7	6.6	0.6	7.1
20/3	392	392	-	-	-	2.7	0.7	-	3.4	31.6	7.4	0.7	8.2
21/1	604	604	-	-	-	1.7	1.1	-	2.8	16.8	6.3	1.1	7.4
21/2	637	637	-	-	-	2.1	1.3	-	3.4	19.2	5.7	1.3	7.0
22/1	954	954	-	-	-	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
22/2	1248	1248	-	-	-	0.0	0.7	-	0.7	2.1	0.0	0.7	0.7
23/1	954	954	-	-	-	0.9	0.8	-	1.7	6.5	6.7	0.8	7.5
23/2	808	808	-	-	-	0.6	0.6	-	1.1	5.1	5.3	0.6	5.9
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 Stream: 1 PRC for Signalled Lanes (%): 10.0 C1 Stream: 2 PRC for Signalled Lanes (%): 7.5 C1 Stream: 3 PRC for Signalled Lanes (%): -2.5 C1 Stream: 4 PRC for Signalled Lanes (%): -13.8 PRC Over All Lanes (%): -13.8 Total Delay for Signalled Lanes (pcuHr): 13.56 Total Delay for Signalled Lanes (pcuHr): 12.77 Total Delay for Signalled Lanes (pcuHr): 22.23 Total Delay for Signalled Lanes (pcuHr): 60.57 Total Delay Over All Lanes(pcuHr): 132.70 Cycle Time (s): 77 Cycle Time (s): 77 Cycle Time (s): 77 Cycle Time (s): 77													

Appendix G

PROPOSED JUNCTION MITIGATION MEASURES



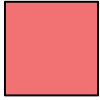
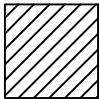
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DO NOT SCALE

Notes:

Proposed layout to inform junction modelling only.
Detailed design layout to be developed at future stages.
Layouts will be informed by DMRB standards for: lane widths, turning geometries, and merge lengths.

-  Existing Lanes
-  Proposed Turning Lane
-  Proposed Hatching

DRAWING STATUS: S2 - FOR INFORMATION



8 First Street, Manchester, M15 4GU, UK
T+ 44 (0) 161 200 5000
wsp.com

CLIENT: Trustee of J.P. Milne (dec'd) Will Trust

ARCHITECT: N/A

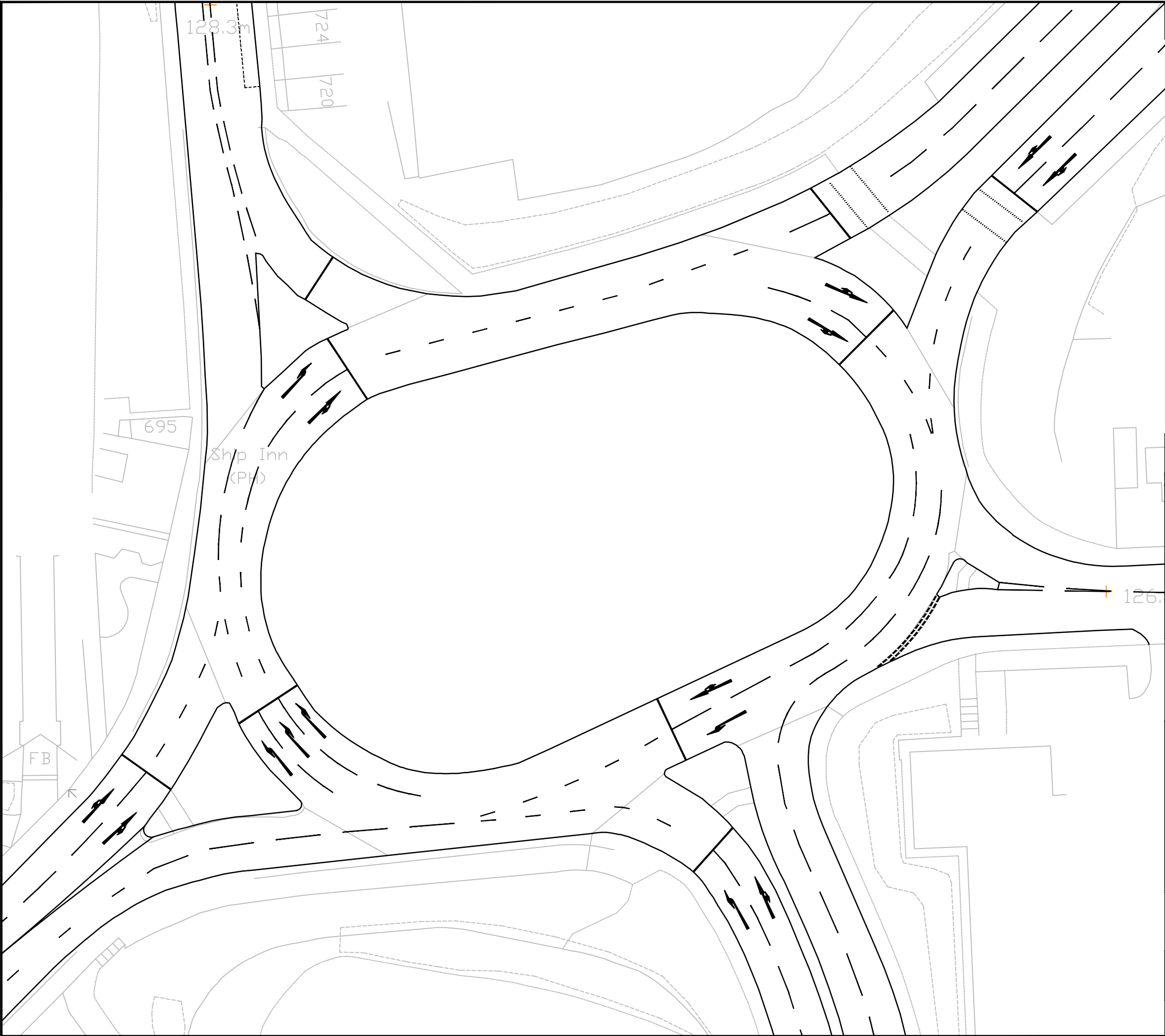
PROJECT: GMSF Skakehill

TITLE: Junction 2 - M60 / A627M
Proposed Slip Road Layout

SCALE @ A3: 1:1000	CHECKED: IH	APPROVED: IH
PROJECT No: 70065867	DESIGNED: DJS	DRAWN: DJS
DATE: March 20	REV: A	

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File name \\UK.WSPGROUP.COM\CENTRAL DATA\PROJECTS\700658XX\70065867 - GMSF STAKEHILL\03 WIP\TP TRANSPORT PLANNING\01 ANALYSIS & CALCS\02 JUNCTION MODELLING\04\05 OPTION 3 SIGNALISED\5867-SK-401.DWG, printed on 01 April 2020 07:30:16, by Polz Faggiani, Alberto



DO NOT SCALE

Notes:

Proposed layout to inform junction modeling only.
Detailed design layout to be developed at future stages.

B	01/04/2020	APF	PEDESTRIAN CROSSING ADDED ON A627(M)	IH	IH
A	04/12/2019	APF	FIRST ISSUE	IH	IH
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: S2 - FOR INFORMATION



8 First Street, Manchester, M15 4GU, UK
T+ 44 (0) 161 200 5000
wsp.com

CLIENT: Trustee of J.P. Milne (dec'd) Will Trust

ARCHITECT: N/A

PROJECT: GMSF Stakehill

TITLE: Junction 4 - A627(M) / A664 Rochdale Rd
Proposed Signalised Layout

SCALE @ A3: 1:500	CHECKED: IH	APPROVED: IH
PROJECT No: 70065867	DESIGNED: APF	DATE: December 19

DRAWING No: 5867-SK-401	REV: B
----------------------------	-----------

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