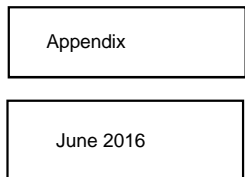
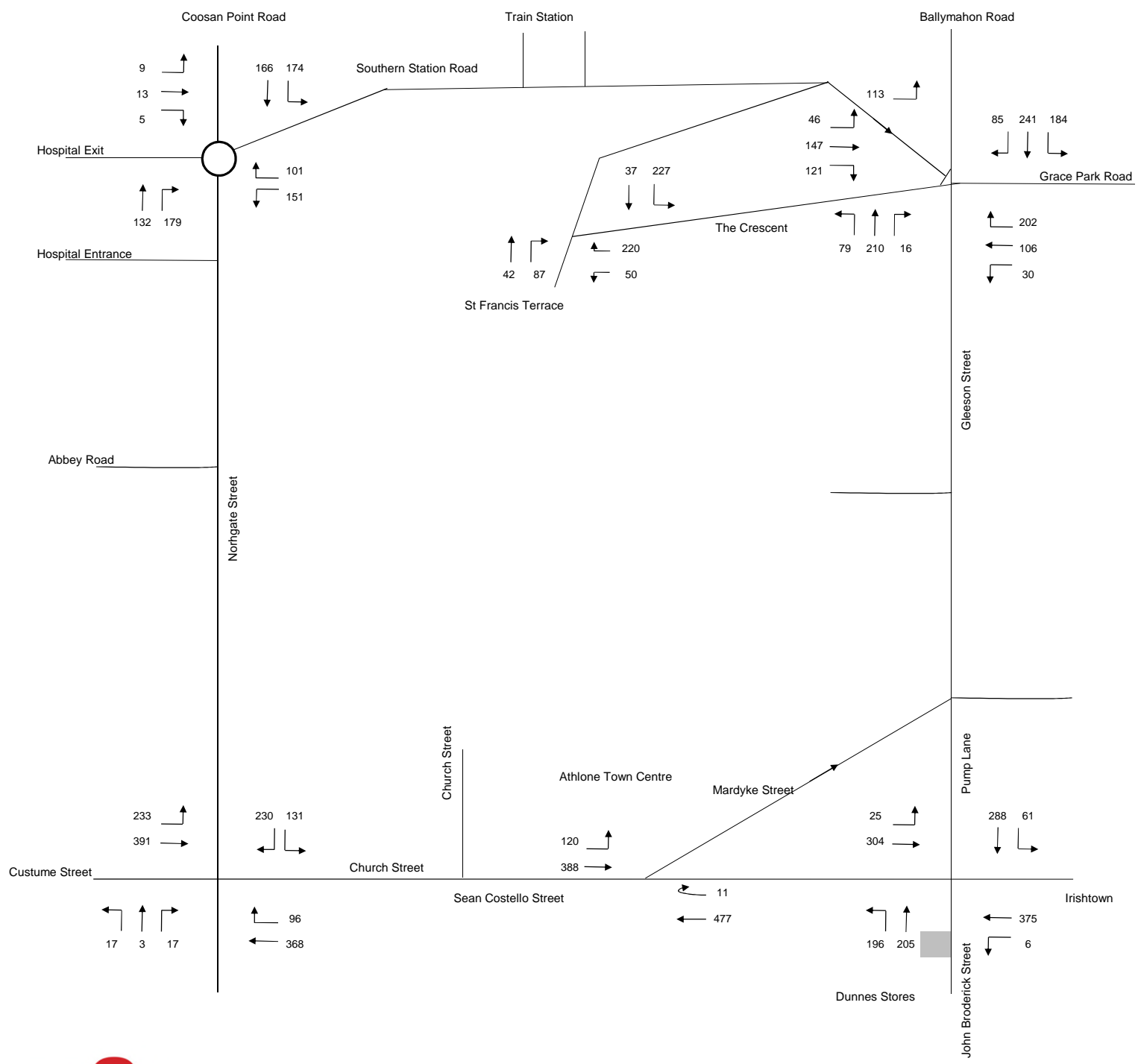


Appendix A – Traffic Flows AM & PM



BASE (PCU) AM
Enhancement Works to Church Street, Athlone

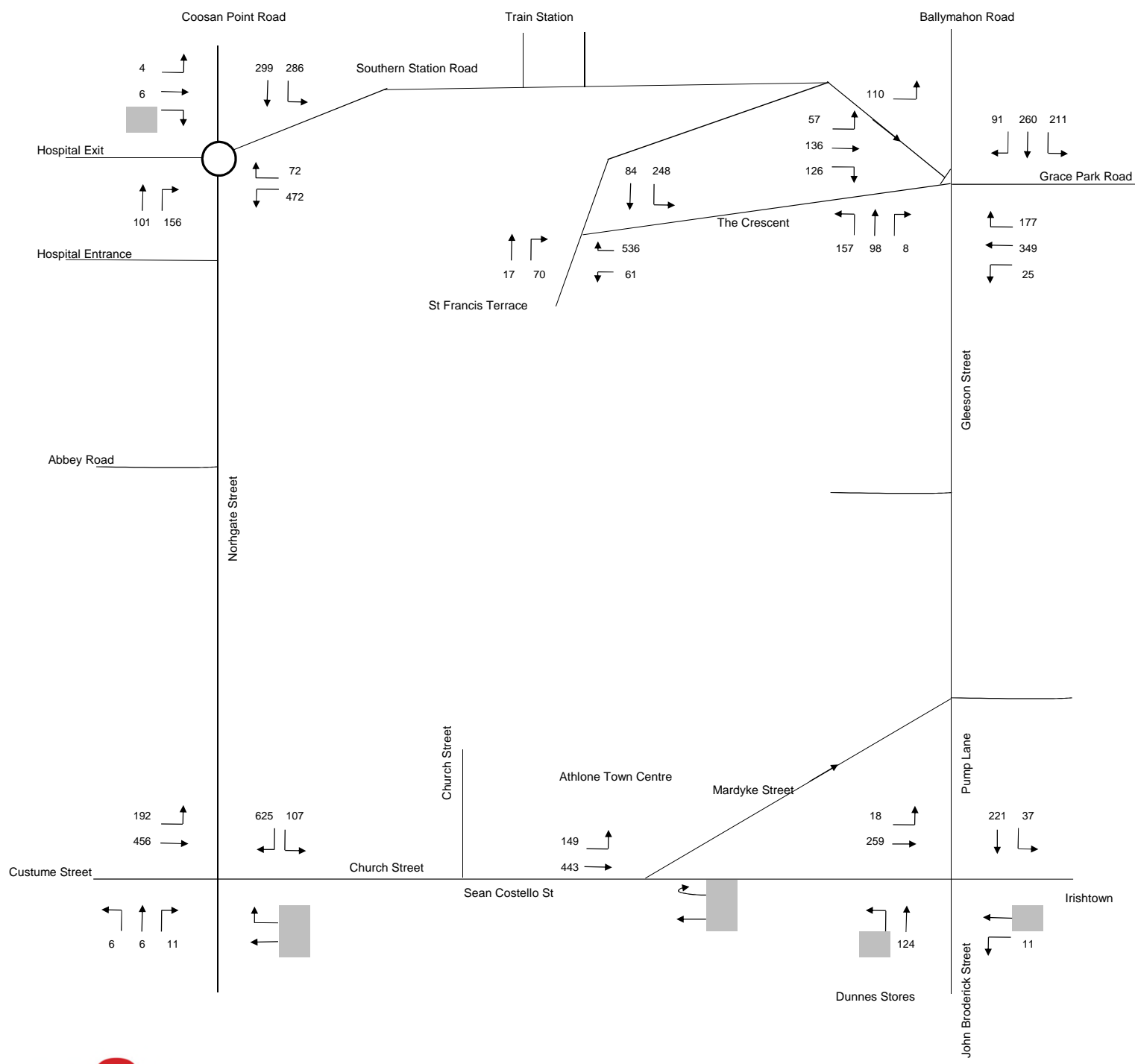
SYSTRA



Appendix
June 2016

BASE (PCU) PM
Enhancement Works to Church Street, Athlone





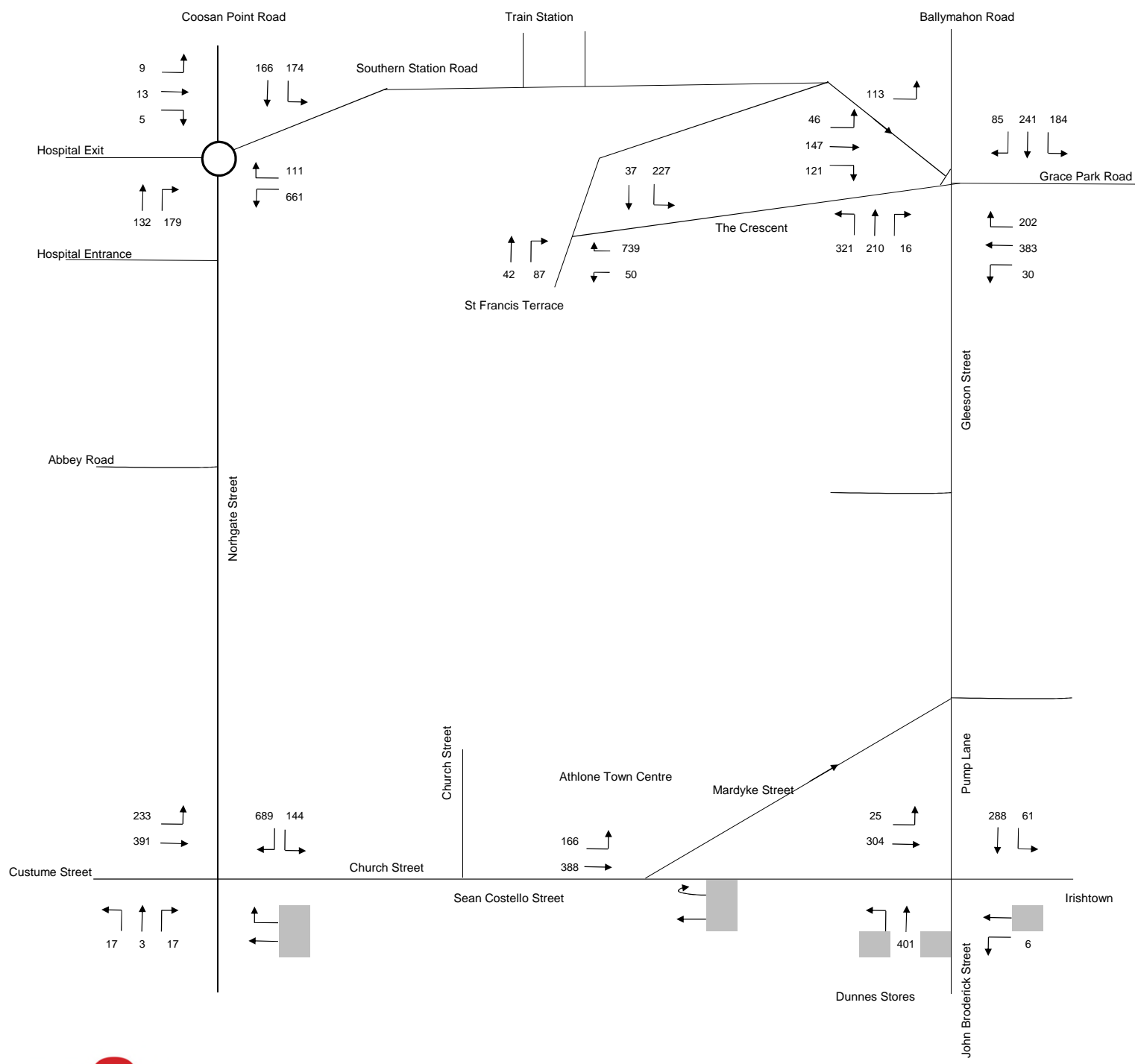
Appendix

Option B AM

June 2016

Enhancement Works to Church Street, Athlone

SYSTRA



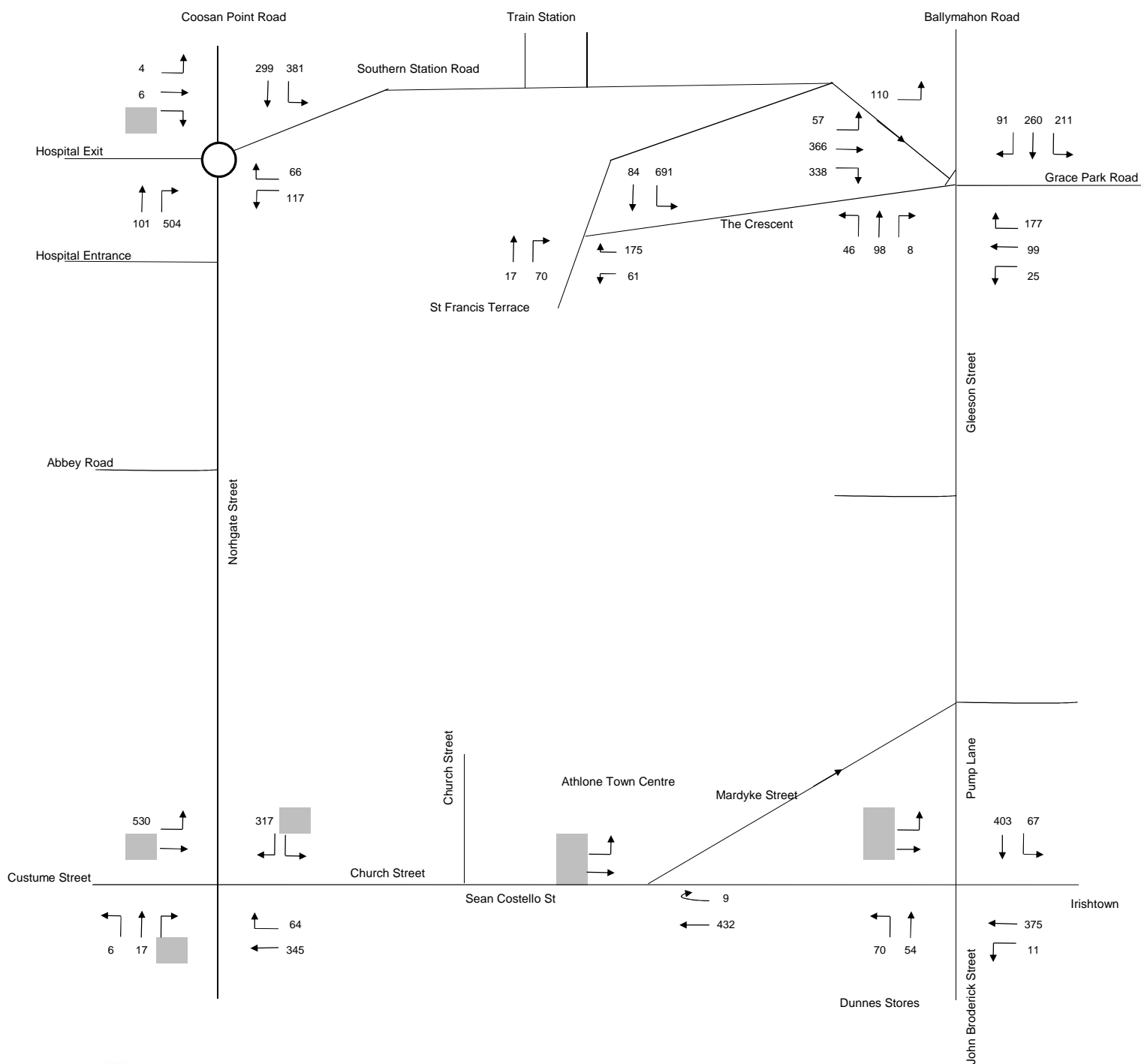
Appendix

Option B PM

June 2016

Enhancement Works to Church Street, Athlone





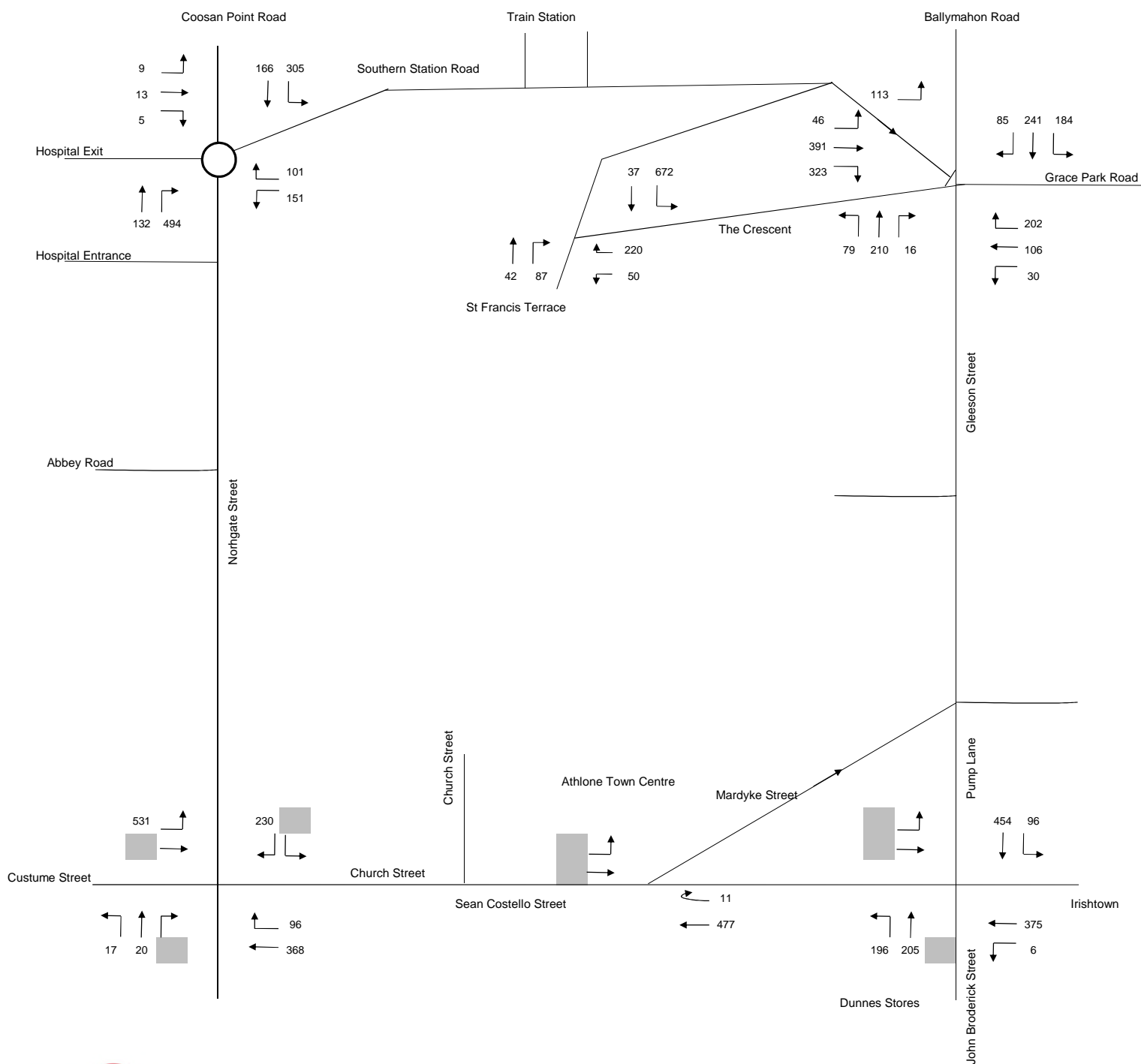
Appendix

Option C AM

June 2016

Enhancement Works to Church Street, Athlone

SYSTRA



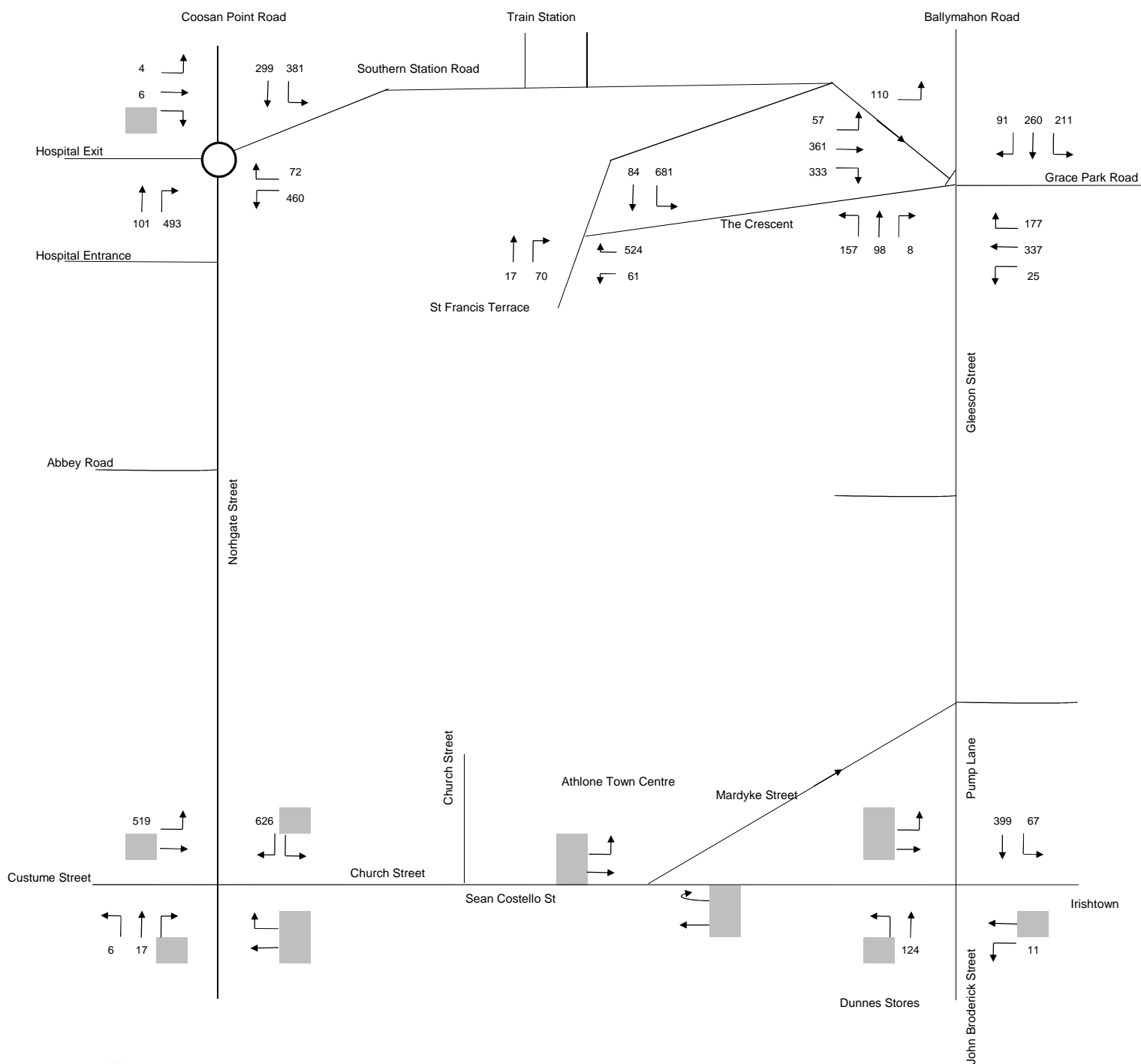
Appendix

Option C PM

June 2016

Enhancement Works to Church Street, Athlone

SYSTRA



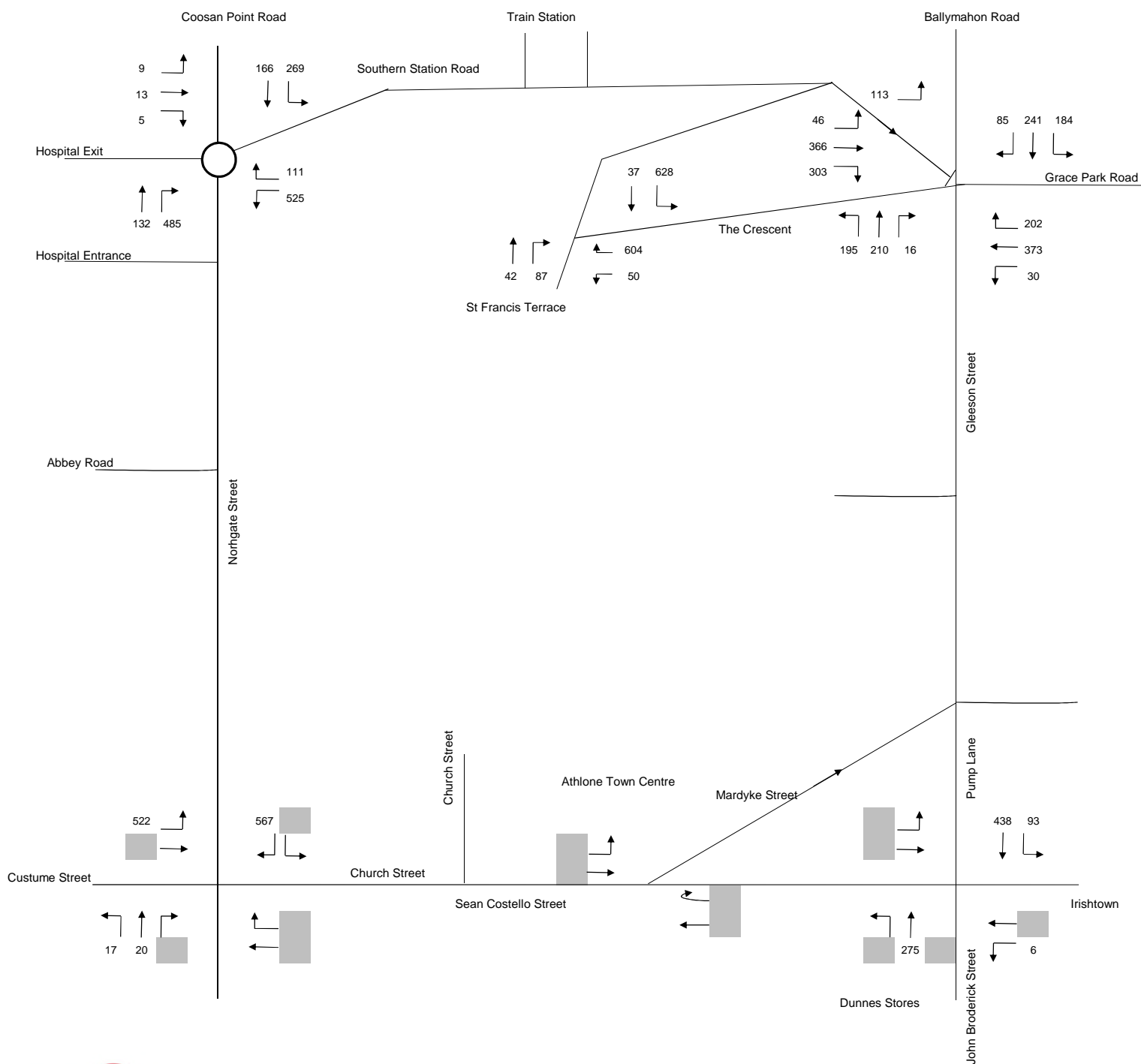
Appendix

Option D AM

June 2016

Enhancement Works to Church Street, Athlone

SYSTRA



Appendix

Option D PM

June 2016

Enhancement Works to Church Street, Athlone

SYSTRA

**Appendix B: Junction Assessment – LinSig
Ballymahon Road / Grace Park Road / Gleeson Street / The
Crescent**

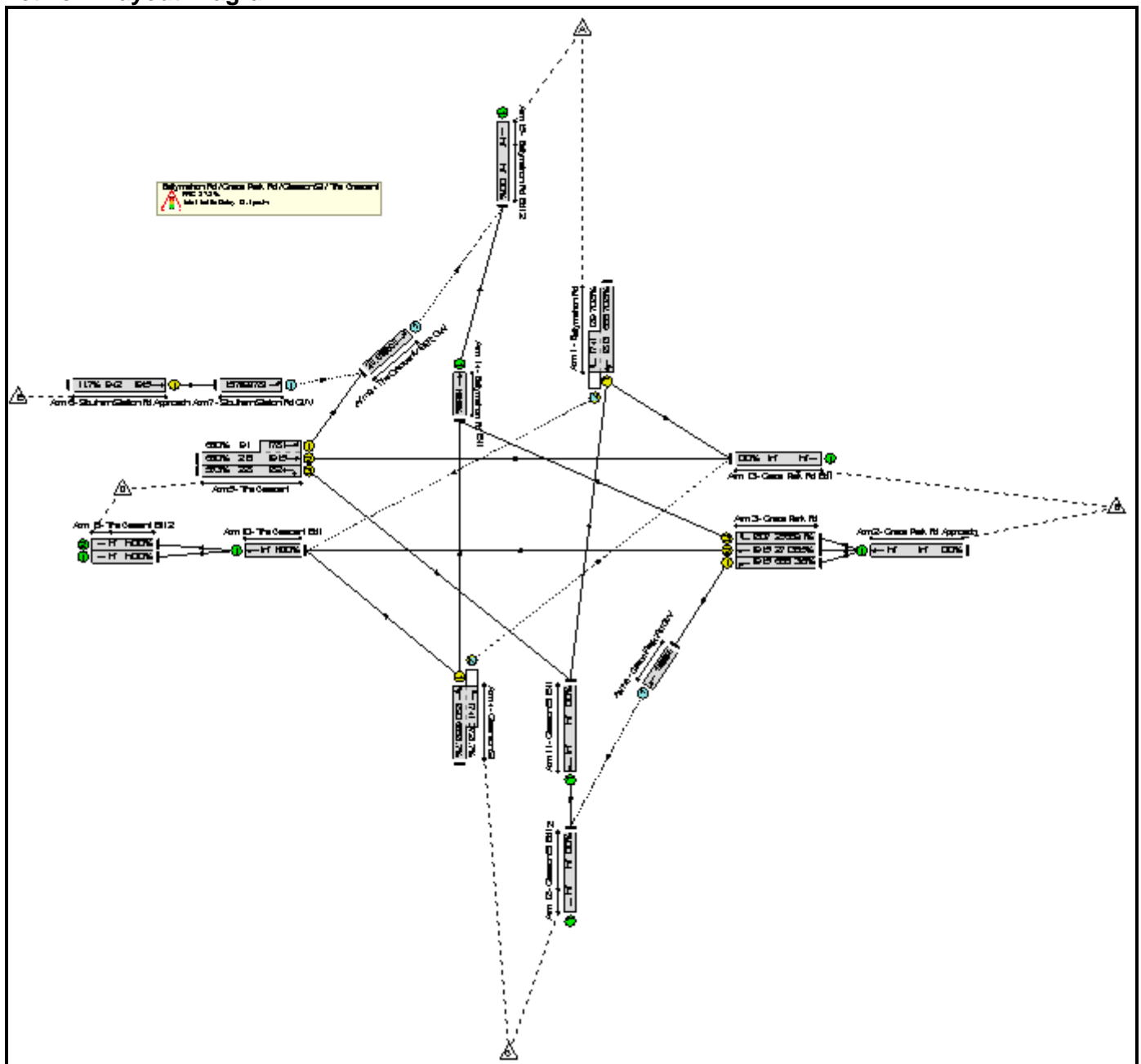
Basic Results Summary
Basic Results Summary

User and Project Details

Project:	SCT4241 - Athlone
Title:	Ballymahon Rd / Grace Park Rd / Gleenson St / The Crescent
Location:	
File name:	Ballymahon Rd-Grace Park Rd-Gleenson St-The Crescent.lsg3x
Author:	greenj
Company:	JMP Consultants Ltd
Address:	250 West George Street, Glasgow
Notes:	

Scenario 1: 'AM Base' (FG7: '2016 AM Base', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

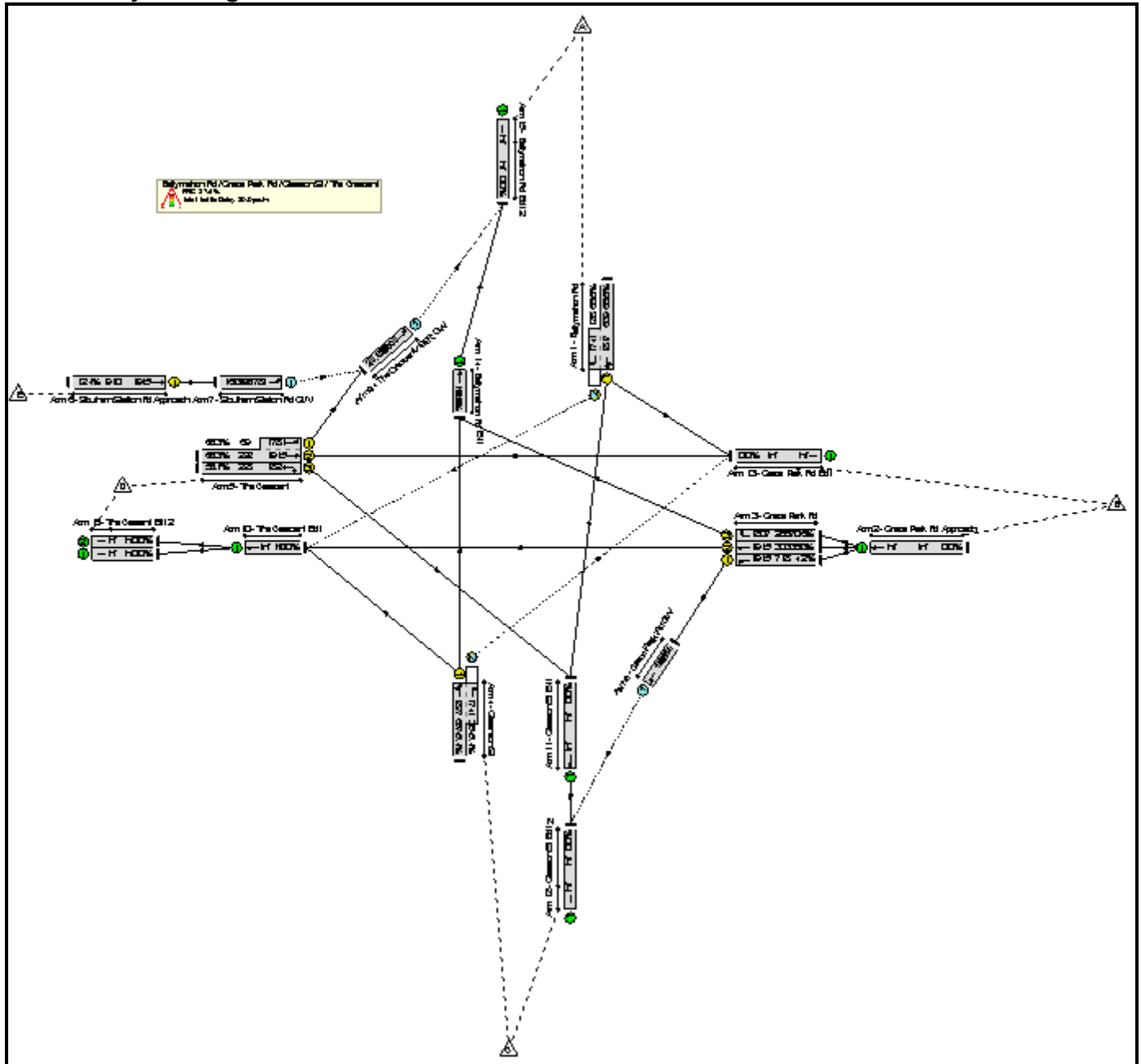
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ballymahon Rd / Grace Park Rd / Gleenson St / The Crescent	-	-	-		-	-	-	-	-	-	70.8%	390	9	2	18.1	-	-
Ballymahon Rd / Grace Park Rd / Gleeson St / The Crescent	-	-	-		-	-	-	-	-	-	70.8%	390	9	2	18.1	-	-
1/1+1/2	Ballymahon Rd Right Ahead Left	U+O	A	E	1	50	6	562	1813:1741	666+129	70.8 : 70.8%	86	3	2	5.5	35.4	15.4
3/1	Grace Park Rd Left	U	F		1	42	-	25	1915	686	3.6%	-	-	-	0.2	27.8	0.6
3/2	Grace Park Rd Ahead	U	D		1	16	-	99	1915	271	36.5%	-	-	-	1.6	57.0	3.3
3/3	Grace Park Rd Right	U	D		1	16	-	177	1807	256	69.1%	-	-	-	3.5	71.2	6.7
4/1+4/2	Gleenson St Left Right Ahead	U+O	B		1	44	-	152	1870:1741	665+37	21.7 : 21.7%	8	0	0	1.3	29.7	3.4
5/2+5/1	The Crescent Ahead Ahead2	U	C G		1:2	14:74	-	193	1915:1781	216+91	63.0 : 63.0%	-	-	-	2.8	51.8	5.1
5/3	The Crescent Right	U	C		1	14	-	126	1824	228	55.3%	-	-	-	2.3	66.8	4.5
6/1	Southern Station Rd Approach Ahead	U	H		1	58	-	110	1915	942	11.7%	-	-	-	0.6	18.6	2.0
7/1	Southern Station Rd GW Ahead	O	-		-	-	-	110	1781	702	15.7%	104	6	0	0.1	4.9	2.3
8/1	Grace Park Rd GW Ahead	O	-		-	-	-	25	1751	630	4.0%	25	0	0	0.0	3.6	0.6
9/1	The Crescent / SSR GW Left	O	-		-	-	-	167	1805	654	25.5%	167	0	0	0.2	4.0	2.4

Basic Results Summary

C1	PRC for Signalled Lanes (%):	27.2	Total Delay for Signalled Lanes (pcuHr):	17.72	Cycle Time (s):	120
	PRC Over All Lanes (%):	27.2	Total Delay Over All Lanes(pcuHr):	18.08		

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ballymahon Rd / Grace Park Rd / Gleenson St / The Crescent	-	-	-		-	-	-	-	-	-	70.6%	393	9	1	20.0	-	-
Ballymahon Rd / Grace Park Rd / Gleeson St / The Crescent	-	-	-		-	-	-	-	-	-	70.6%	393	9	1	20.0	-	-
1/1+1/2	Ballymahon Rd Right Ahead Left	U+O	A	E	1	48	6	510	1817:1741	639+128	66.6 : 66.6%	81	3	1	5.1	35.9	13.6
3/1	Grace Park Rd Left	U	F		1	44	-	30	1915	718	4.2%	-	-	-	0.2	26.5	0.7
3/2	Grace Park Rd Ahead	U	D		1	18	-	106	1915	303	35.0%	-	-	-	1.6	54.1	3.4
3/3	Grace Park Rd Right	U	D		1	18	-	202	1807	286	70.6%	-	-	-	3.9	68.7	7.5
4/1+4/2	Gleenson St Left Right Ahead	U+O	B		1	42	-	305	1877:1741	637+35	45.4 : 45.4%	16	0	0	3.0	35.0	7.8
5/2+5/1	The Crescent Ahead Ahead2	U	C G		1:2	14:74	-	193	1915:1781	222+69	66.3 : 66.3%	-	-	-	3.1	57.0	5.6
5/3	The Crescent Right	U	C		1	14	-	121	1824	228	53.1%	-	-	-	2.2	65.9	4.3
6/1	Southern Station Rd Approach Ahead	U	H		1	56	-	113	1915	910	12.4%	-	-	-	0.6	19.8	2.1
7/1	Southern Station Rd GW Ahead	O	-		-	-	-	113	1781	705	16.0%	107	6	0	0.2	5.1	2.4
8/1	Grace Park Rd GW Ahead	O	-		-	-	-	30	1751	635	4.7%	30	0	0	0.0	3.7	0.7
9/1	The Crescent / SSR GW Left	O	-		-	-	-	159	1805	624	25.5%	159	0	0	0.2	4.2	2.6

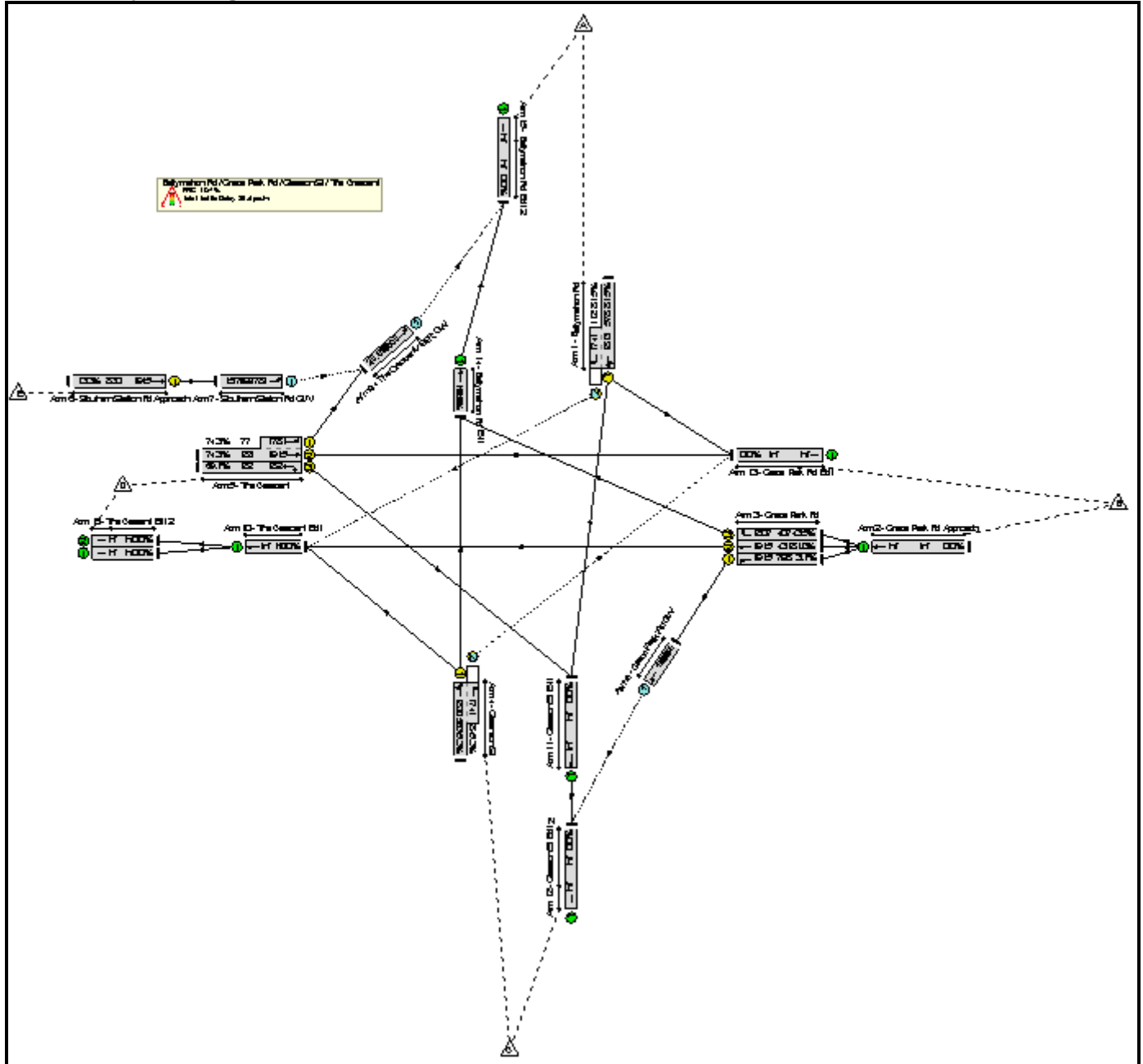
Basic Results Summary

C1	PRC for Signalled Lanes (%):	27.5	Total Delay for Signalled Lanes (pcuHr):	19.60	Cycle Time (s):	120
	PRC Over All Lanes (%):	27.5	Total Delay Over All Lanes(pcuHr):	19.98		

Basic Results Summary

Scenario 3: 'Option B AM' (FG1: 'Option B AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

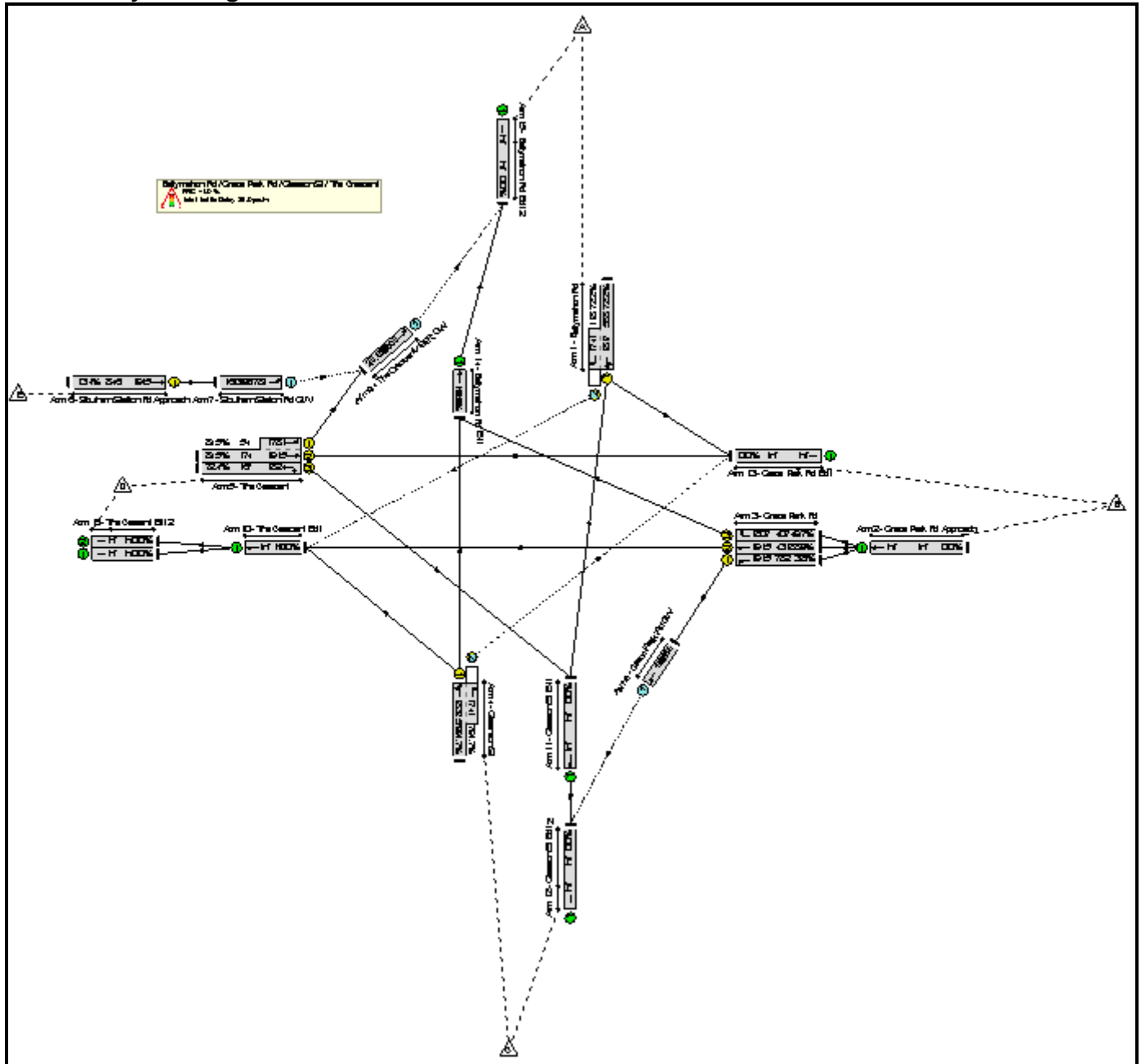
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ballymahon Rd / Grace Park Rd / Gleenson St / The Crescent	-	-	-		-	-	-	-	-	-	81.5%	390	9	2	26.5	-	-
Ballymahon Rd / Grace Park Rd / Gleeson St / The Crescent	-	-	-		-	-	-	-	-	-	81.5%	390	9	2	26.5	-	-
1/1+1/2	Ballymahon Rd Right Ahead Left	U+O	A	E	1	43	6	562	1813:1741	578+112	81.5 : 81.5%	86	3	2	7.5	47.9	17.9
3/1	Grace Park Rd Left	U	F		1	49	-	25	1915	798	3.1%	-	-	-	0.2	23.0	0.5
3/2	Grace Park Rd Ahead	U	D		1	26	-	349	1915	431	81.0%	-	-	-	6.3	65.0	13.0
3/3	Grace Park Rd Right	U	D		1	26	-	177	1807	407	43.5%	-	-	-	2.3	47.8	5.4
4/1+4/2	Gleenson St Left Right Ahead	U+O	B		1	37	-	263	1830:1741	563+18	45.3 : 45.3%	8	0	0	2.8	38.9	7.2
5/2+5/1	The Crescent Ahead Ahead2	U	C G		1:2	11:77	-	193	1915:1781	183+77	74.3 : 74.3%	-	-	-	3.4	63.9	5.8
5/3	The Crescent Right	U	C		1	11	-	126	1824	182	69.1%	-	-	-	2.9	82.9	5.1
6/1	Southern Station Rd Approach Ahead	U	H		1	51	-	110	1915	830	13.3%	-	-	-	0.7	22.9	2.3
7/1	Southern Station Rd GW Ahead	O	-		-	-	-	110	1781	702	15.7%	104	6	0	0.2	5.4	2.5
8/1	Grace Park Rd GW Ahead	O	-		-	-	-	25	1751	630	4.0%	25	0	0	0.0	3.5	0.5
9/1	The Crescent / SSR GW Left	O	-		-	-	-	167	1805	654	25.5%	167	0	0	0.2	3.9	2.6

Basic Results Summary

C1	PRC for Signalled Lanes (%):	10.4	Total Delay for Signalled Lanes (pcuHr):	26.16	Cycle Time (s):	120
	PRC Over All Lanes (%):	10.4	Total Delay Over All Lanes(pcuHr):	26.53		

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ballymahon Rd / Grace Park Rd / Gleenson St / The Crescent	-	-	-		-	-	-	-	-	-	91.7%	344	58	1	36.9	-	-
Ballymahon Rd / Grace Park Rd / Gleeson St / The Crescent	-	-	-		-	-	-	-	-	-	91.7%	344	58	1	36.9	-	-
1/1+1/2	Ballymahon Rd Right Ahead Left	U+O	A	E	1	44	6	510	1817:1741	588+118	72.2 : 72.2%	32	52	1	6.3	44.2	14.6
3/1	Grace Park Rd Left	U	F		1	48	-	30	1915	782	3.8%	-	-	-	0.2	23.8	0.6
3/2	Grace Park Rd Ahead	U	D		1	26	-	383	1915	431	88.9%	-	-	-	8.3	77.9	15.8
3/3	Grace Park Rd Right	U	D		1	26	-	202	1807	407	49.7%	-	-	-	2.8	49.3	6.3
4/1+4/2	Gleenson St Left Right Ahead	U+O	B		1	38	-	547	1832:1741	579+17	91.7 : 91.7%	16	0	0	10.6	69.8	22.0
5/2+5/1	The Crescent Ahead Ahead2	U	C G		1:2	10:78	-	193	1915:1781	174+54	84.5 : 84.5%	-	-	-	4.6	86.6	7.2
5/3	The Crescent Right	U	C		1	10	-	121	1824	167	72.4%	-	-	-	3.0	90.0	5.1
6/1	Southern Station Rd Approach Ahead	U	H		1	52	-	113	1915	846	13.4%	-	-	-	0.7	22.3	2.3
7/1	Southern Station Rd GW Ahead	O	-		-	-	-	113	1781	705	16.0%	107	6	0	0.2	5.3	2.6
8/1	Grace Park Rd GW Ahead	O	-		-	-	-	30	1751	635	4.7%	30	0	0	0.0	3.6	0.6
9/1	The Crescent / SSR GW Left	O	-		-	-	-	159	1805	624	25.5%	159	0	0	0.2	4.1	2.6

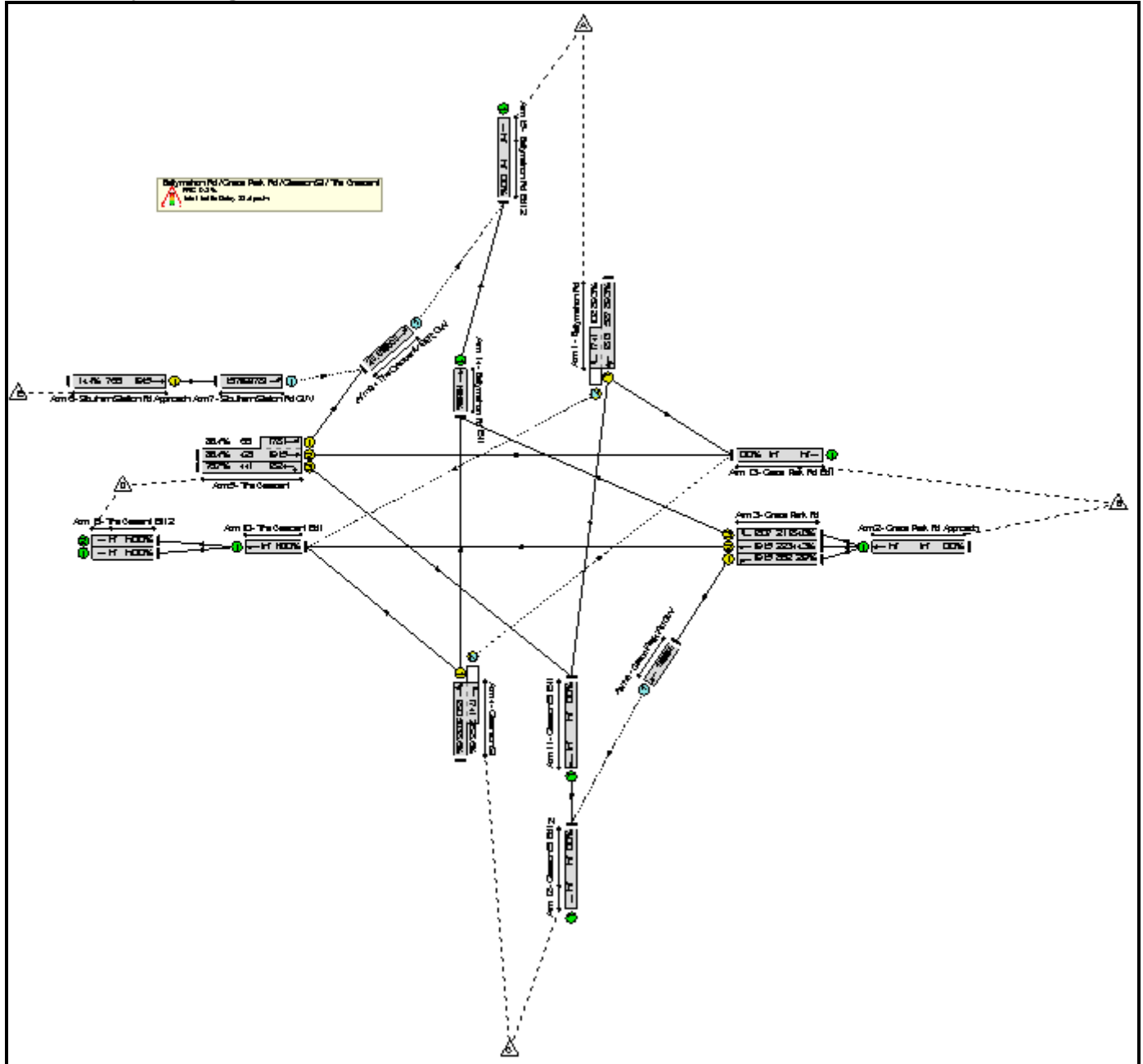
Basic Results Summary

C1	PRC for Signalled Lanes (%):	-1.9	Total Delay for Signalled Lanes (pcuHr):	36.48	Cycle Time (s):	120
	PRC Over All Lanes (%):	-1.9	Total Delay Over All Lanes(pcuHr):	36.86		

Basic Results Summary

Scenario 5: 'Option C AM ' (FG3: 'Option C AM ', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

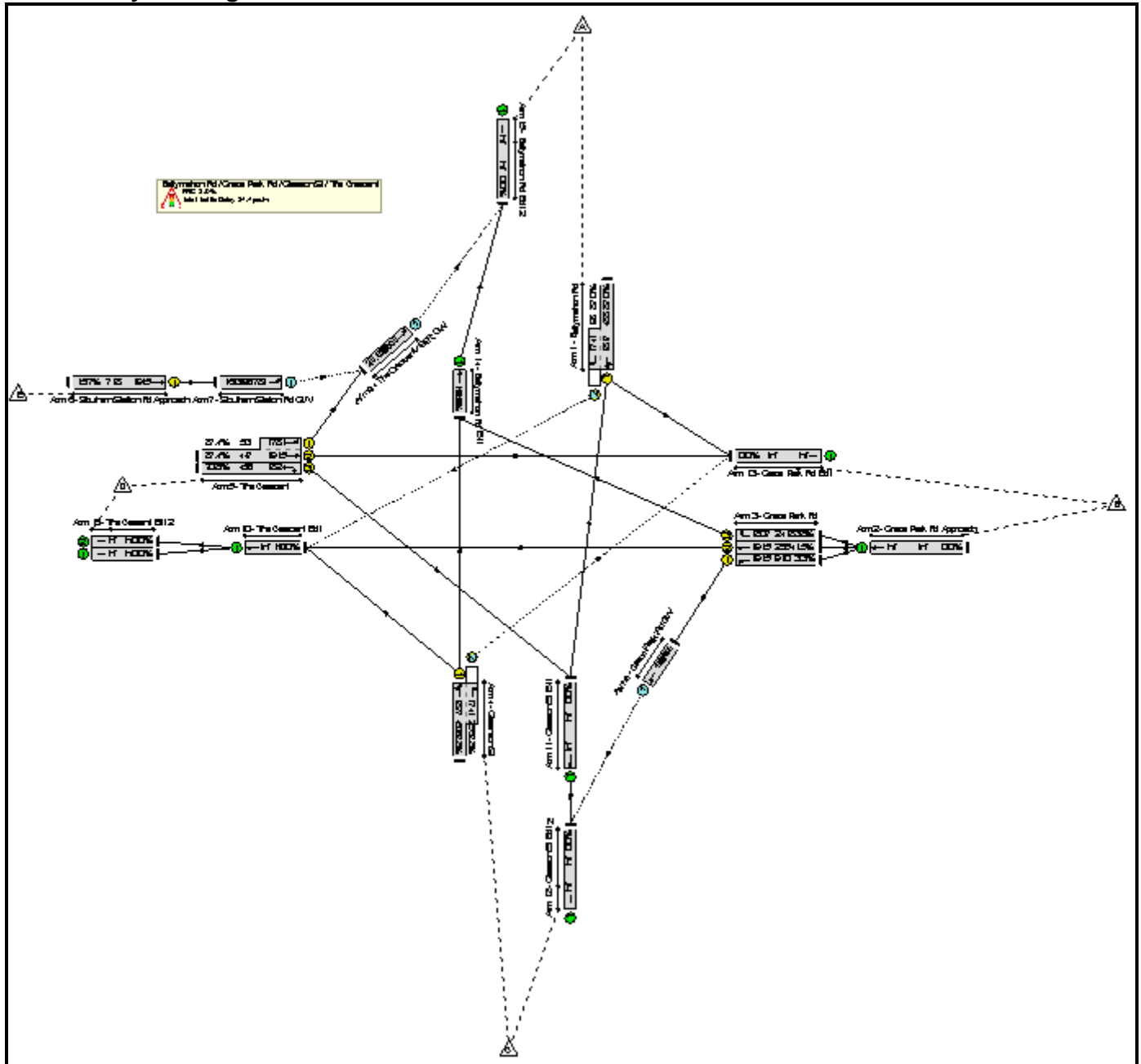
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ballymahon Rd / Grace Park Rd / Gleenson St / The Crescent	-	-	-		-	-	-	-	-	-	89.3%	390	9	2	32.5	-	-
Ballymahon Rd / Grace Park Rd / Gleeson St / The Crescent	-	-	-		-	-	-	-	-	-	89.3%	390	9	2	32.5	-	-
1/1+1/2	Ballymahon Rd Right Ahead Left	U+O	A	E	1	39	6	562	1813:1741	527+102	89.3 : 89.3%	86	3	2	9.6	61.5	20.4
3/1	Grace Park Rd Left	U	F		1	53	-	25	1915	862	2.9%	-	-	-	0.1	20.6	0.5
3/2	Grace Park Rd Ahead	U	D		1	13	-	99	1915	223	44.3%	-	-	-	1.8	63.8	3.4
3/3	Grace Park Rd Right	U	D		1	13	-	177	1807	211	84.0%	-	-	-	4.9	98.8	8.1
4/1+4/2	Gleenson St Left Right Ahead	U+O	B		1	33	-	152	1870:1741	503+28	28.6 : 28.6%	8	0	0	1.7	39.5	3.9
5/2+5/1	The Crescent Ahead Ahead2	U	C G		1:2	28:60	-	423	1915:1781	423+66	86.4 : 86.4%	-	-	-	7.7	65.7	15.5
5/3	The Crescent Right	U	C		1	28	-	338	1824	441	76.7%	-	-	-	5.6	59.3	12.0
6/1	Southern Station Rd Approach Ahead	U	H		1	47	-	110	1915	766	14.4%	-	-	-	0.8	25.7	2.4
7/1	Southern Station Rd GW Ahead	O	-		-	-	-	110	1781	702	15.7%	104	6	0	0.2	5.7	2.7
8/1	Grace Park Rd GW Ahead	O	-		-	-	-	25	1751	583	4.3%	25	0	0	0.0	3.6	0.5
9/1	The Crescent / SSR GW Left	O	-		-	-	-	167	1805	654	25.5%	167	0	0	0.2	4.9	2.8

Basic Results Summary

C1	PRC for Signalled Lanes (%):	0.8	Total Delay for Signalled Lanes (pcuHr):	32.09	Cycle Time (s):	120
	PRC Over All Lanes (%):	0.8	Total Delay Over All Lanes(pcuHr):	32.52		

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ballymahon Rd / Grace Park Rd / Gleenson St / The Crescent	-	-	-		-	-	-	-	-	-	87.4%	393	9	1	34.4	-	-
Ballymahon Rd / Grace Park Rd / Gleeson St / The Crescent	-	-	-		-	-	-	-	-	-	87.4%	393	9	1	34.4	-	-
1/1+1/2	Ballymahon Rd Right Ahead Left	U+O	A	E	1	36	6	510	1817:1741	488+98	87.0 : 87.0%	81	3	1	8.7	61.5	18.0
3/1	Grace Park Rd Left	U	F		1	56	-	30	1915	910	3.3%	-	-	-	0.2	18.8	0.6
3/2	Grace Park Rd Ahead	U	D		1	15	-	106	1915	255	41.5%	-	-	-	1.8	59.7	3.6
3/3	Grace Park Rd Right	U	D		1	15	-	202	1807	241	83.8%	-	-	-	5.2	92.1	8.9
4/1+4/2	Gleenson St Left Right Ahead	U+O	B		1	30	-	305	1877:1741	460+25	62.8 : 62.8%	16	0	0	4.3	50.2	9.5
5/2+5/1	The Crescent Ahead Ahead2	U	C G		1:2	29:59	-	437	1915:1781	447+53	87.4 : 87.4%	-	-	-	8.1	67.1	16.4
5/3	The Crescent Right	U	C		1	29	-	323	1824	456	70.8%	-	-	-	4.9	54.3	11.0
6/1	Southern Station Rd Approach Ahead	U	H		1	44	-	113	1915	718	15.7%	-	-	-	0.9	27.9	2.6
7/1	Southern Station Rd GW Ahead	O	-		-	-	-	113	1781	705	16.0%	107	6	0	0.2	5.9	2.9
8/1	Grace Park Rd GW Ahead	O	-		-	-	-	30	1751	591	5.1%	30	0	0	0.0	3.7	0.6
9/1	The Crescent / SSR GW Left	O	-		-	-	-	159	1805	624	25.5%	159	0	0	0.2	4.9	2.9

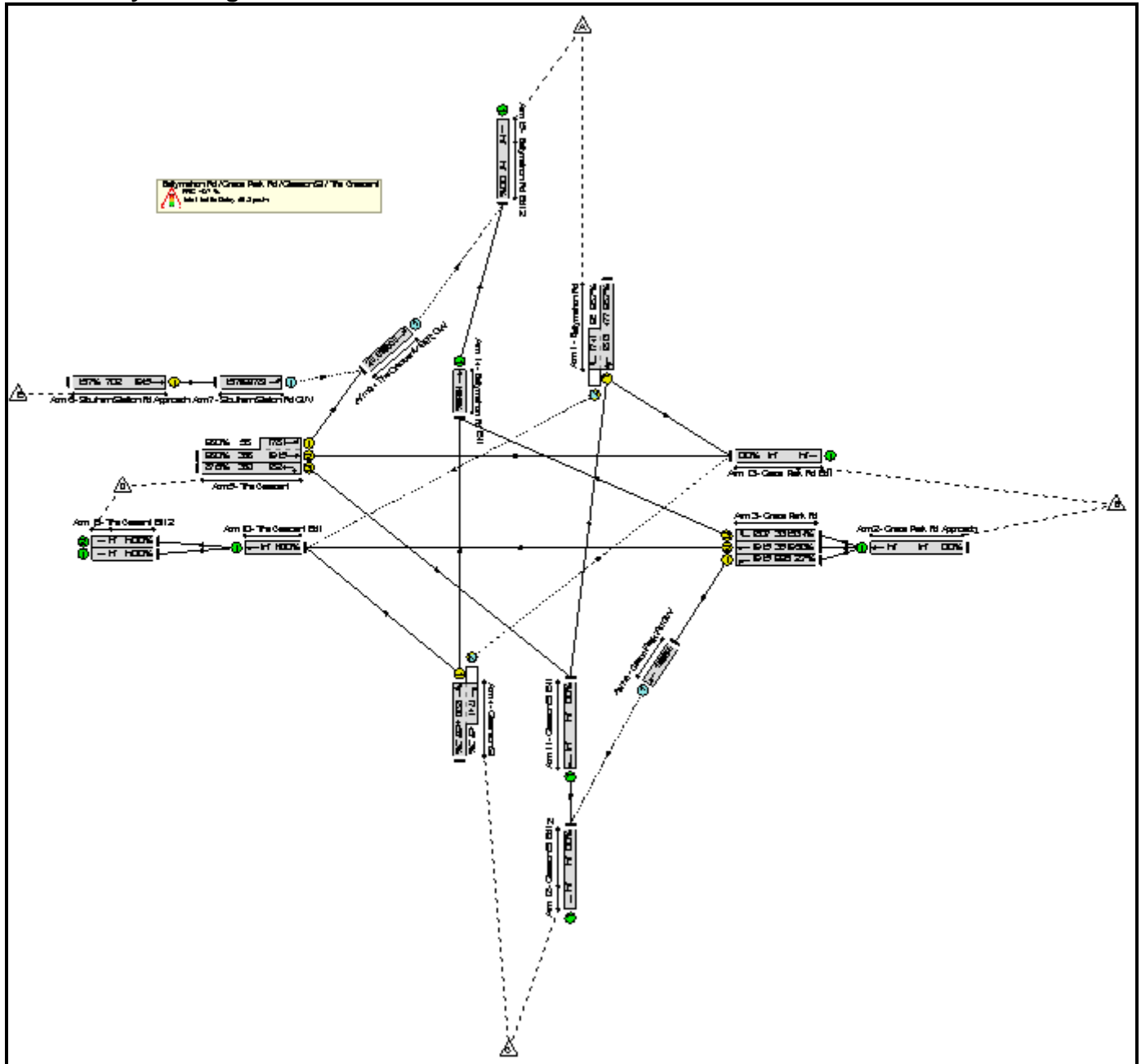
Basic Results Summary

C1	PRC for Signalled Lanes (%):	3.0	Total Delay for Signalled Lanes (pcuHr):	33.94	Cycle Time (s):	120
	PRC Over All Lanes (%):	3.0	Total Delay Over All Lanes(pcuHr):	34.37		

Basic Results Summary

Scenario 7: 'Option D AM' (FG5: 'Option D AM ', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ballymahon Rd / Grace Park Rd / Gleenson St / The Crescent	-	-	-		-	-	-	-	-	-	98.7%	378	16	7	56.2	-	-
Ballymahon Rd / Grace Park Rd / Gleeson St / The Crescent	-	-	-		-	-	-	-	-	-	98.7%	378	16	7	56.2	-	-
1/1+1/2	Ballymahon Rd Right Ahead Left	U+O	A	E	1	35	6	562	1813:1741	477+92	98.7 : 98.7%	78	10	4	16.7	107.2	27.8
3/1	Grace Park Rd Left	U	F		1	57	-	25	1915	926	2.7%	-	-	-	0.1	18.3	0.4
3/2	Grace Park Rd Ahead	U	D		1	21	-	337	1915	351	96.0%	-	-	-	10.9	116.0	17.4
3/3	Grace Park Rd Right	U	D		1	21	-	177	1807	331	53.4%	-	-	-	2.8	56.0	5.9
4/1+4/2	Gleenson St Left Right Ahead	U+O	B		1	29	-	263	1830:1741	445+14	57.3 : 57.3%	5	0	3	3.6	49.2	8.1
5/2+5/1	The Crescent Ahead Ahead2	U	C G		1:2	24:64	-	418	1915:1781	368+58	98.0 : 98.0%	-	-	-	13.4	115.6	21.4
5/3	The Crescent Right	U	C		1	24	-	333	1824	380	87.6%	-	-	-	7.4	79.8	13.9
6/1	Southern Station Rd Approach Ahead	U	H		1	43	-	110	1915	702	15.7%	-	-	-	0.9	28.6	2.5
7/1	Southern Station Rd GW Ahead	O	-		-	-	-	110	1781	702	15.7%	104	6	0	0.2	5.9	2.8
8/1	Grace Park Rd GW Ahead	O	-		-	-	-	25	1751	584	4.3%	25	0	0	0.0	3.5	0.4
9/1	The Crescent / SSR GW Left	O	-		-	-	-	167	1805	654	25.5%	167	0	0	0.2	4.6	2.7

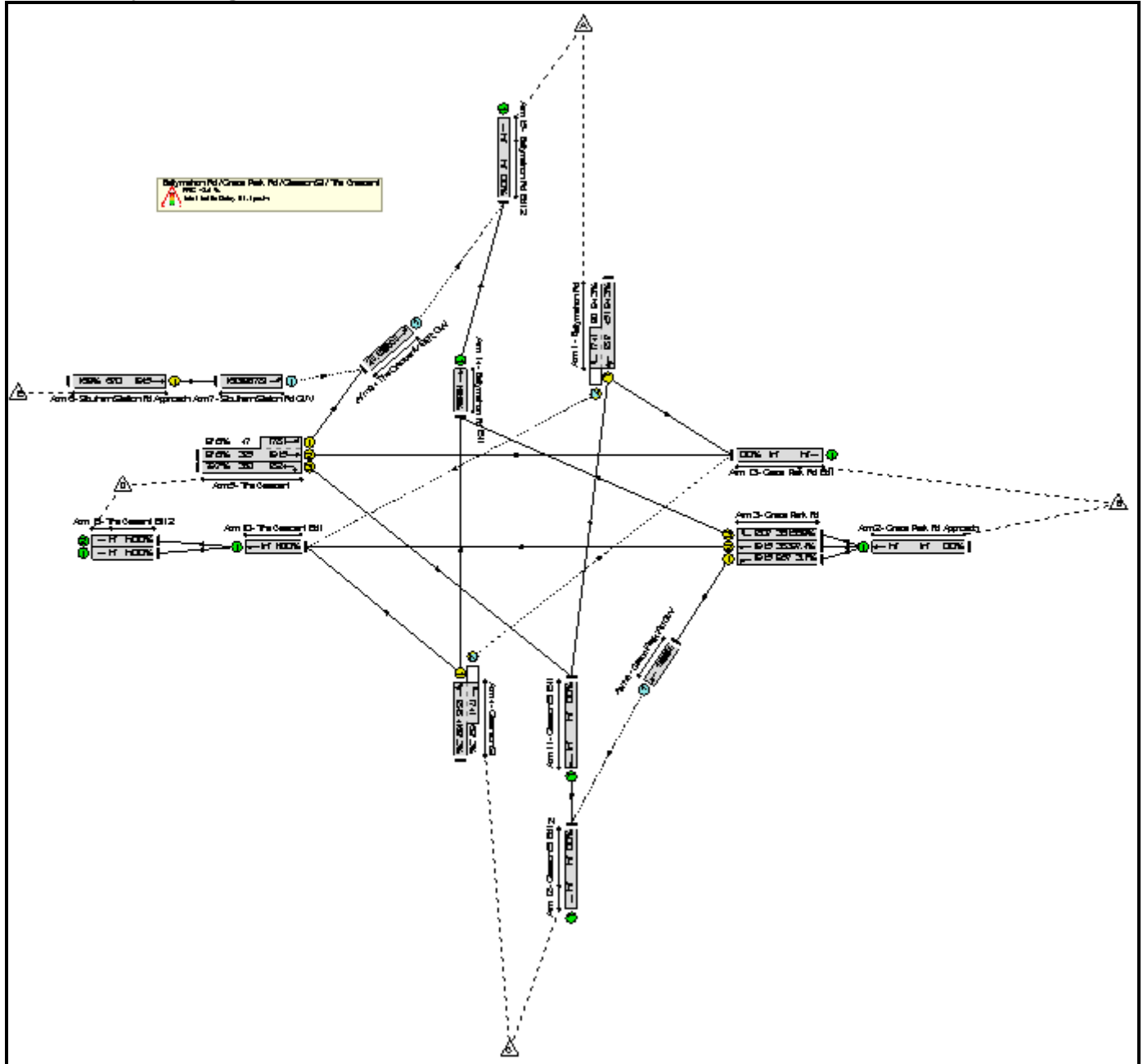
Basic Results Summary

C1	PRC for Signalled Lanes (%):	-9.7	Total Delay for Signalled Lanes (pcuHr):	55.74	Cycle Time (s):	120
	PRC Over All Lanes (%):	-9.7	Total Delay Over All Lanes(pcuHr):	56.16		

Basic Results Summary

Scenario 8: 'Option D PM' (FG6: 'Option D PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ballymahon Rd / Grace Park Rd / Gleenson St / The Crescent	-	-	-		-	-	-	-	-	-	97.6%	320	64	19	61.1	-	-
Ballymahon Rd / Grace Park Rd / Gleeson St / The Crescent	-	-	-		-	-	-	-	-	-	97.6%	320	64	19	61.1	-	-
1/1+1/2	Ballymahon Rd Right Ahead Left	U+O	A	E	1	33	6	510	1817:1741	451+90	94.3 : 94.3%	8	58	19	12.2	86.0	21.5
3/1	Grace Park Rd Left	U	F		1	59	-	30	1915	957	3.1%	-	-	-	0.1	17.2	0.5
3/2	Grace Park Rd Ahead	U	D		1	23	-	373	1915	383	97.4%	-	-	-	12.4	119.8	19.8
3/3	Grace Park Rd Right	U	D		1	23	-	202	1807	361	55.9%	-	-	-	3.1	54.4	6.7
4/1+4/2	Gleenson St Left Right Ahead	U+O	B		1	27	-	421	1848:1741	416+16	97.3 : 97.3%	16	0	0	13.2	112.8	21.5
5/2+5/1	The Crescent Ahead Ahead2	U	C G		1:2	24:64	-	412	1915:1781	375+47	97.6 : 97.6%	-	-	-	13.0	113.9	20.9
5/3	The Crescent Right	U	C		1	24	-	303	1824	380	79.7%	-	-	-	5.7	67.4	11.4
6/1	Southern Station Rd Approach Ahead	U	H		1	41	-	113	1915	670	16.9%	-	-	-	0.9	30.2	2.7
7/1	Southern Station Rd GW Ahead	O	-		-	-	-	113	1781	705	16.0%	107	6	0	0.2	6.1	3.0
8/1	Grace Park Rd GW Ahead	O	-		-	-	-	30	1751	595	5.0%	30	0	0	0.0	3.6	0.5
9/1	The Crescent / SSR GW Left	O	-		-	-	-	159	1805	624	25.5%	159	0	0	0.2	4.6	1.5

Basic Results Summary

C1	PRC for Signalled Lanes (%):	-8.5	Total Delay for Signalled Lanes (pcuHr):	60.64	Cycle Time (s):	120
	PRC Over All Lanes (%):	-8.5	Total Delay Over All Lanes(pcuHr):	61.06		

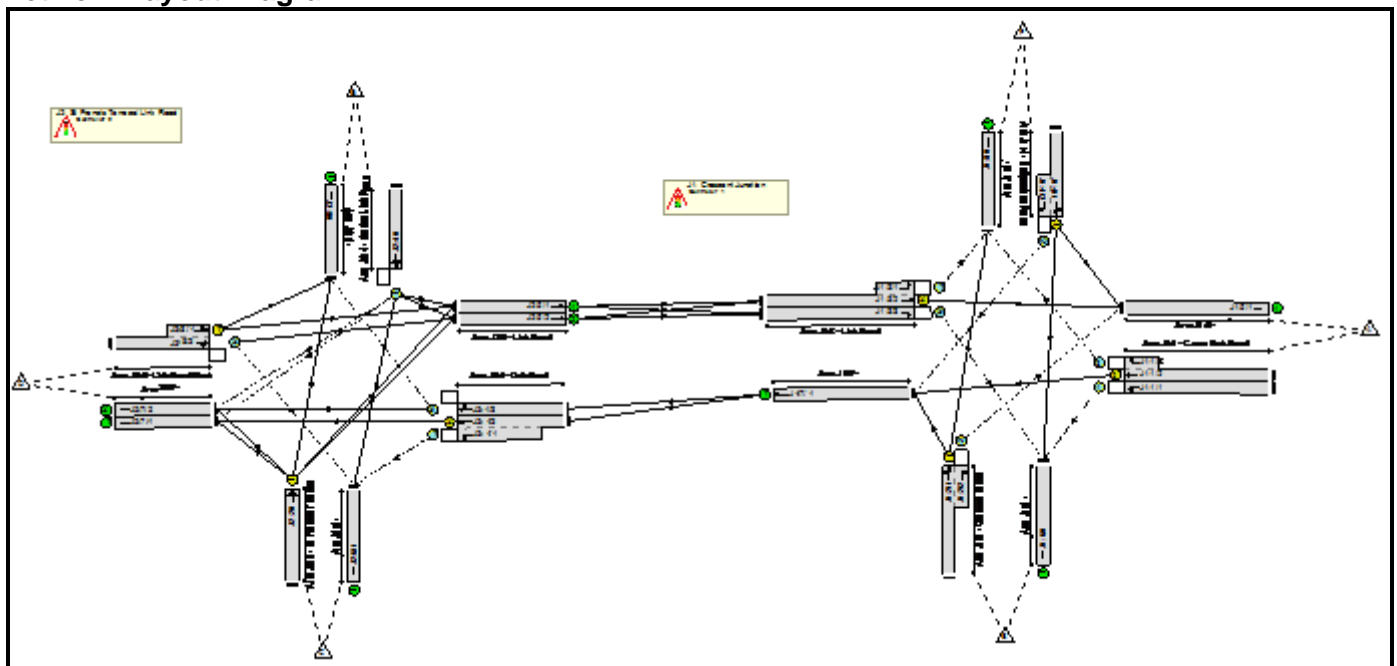
Appendix B1: Junction Assessment – Linked LinSig Ballymahon Road / Grace Park Road / Gleeson Street / The Crescent

Full Input Data And Results
Full Input Data And Results

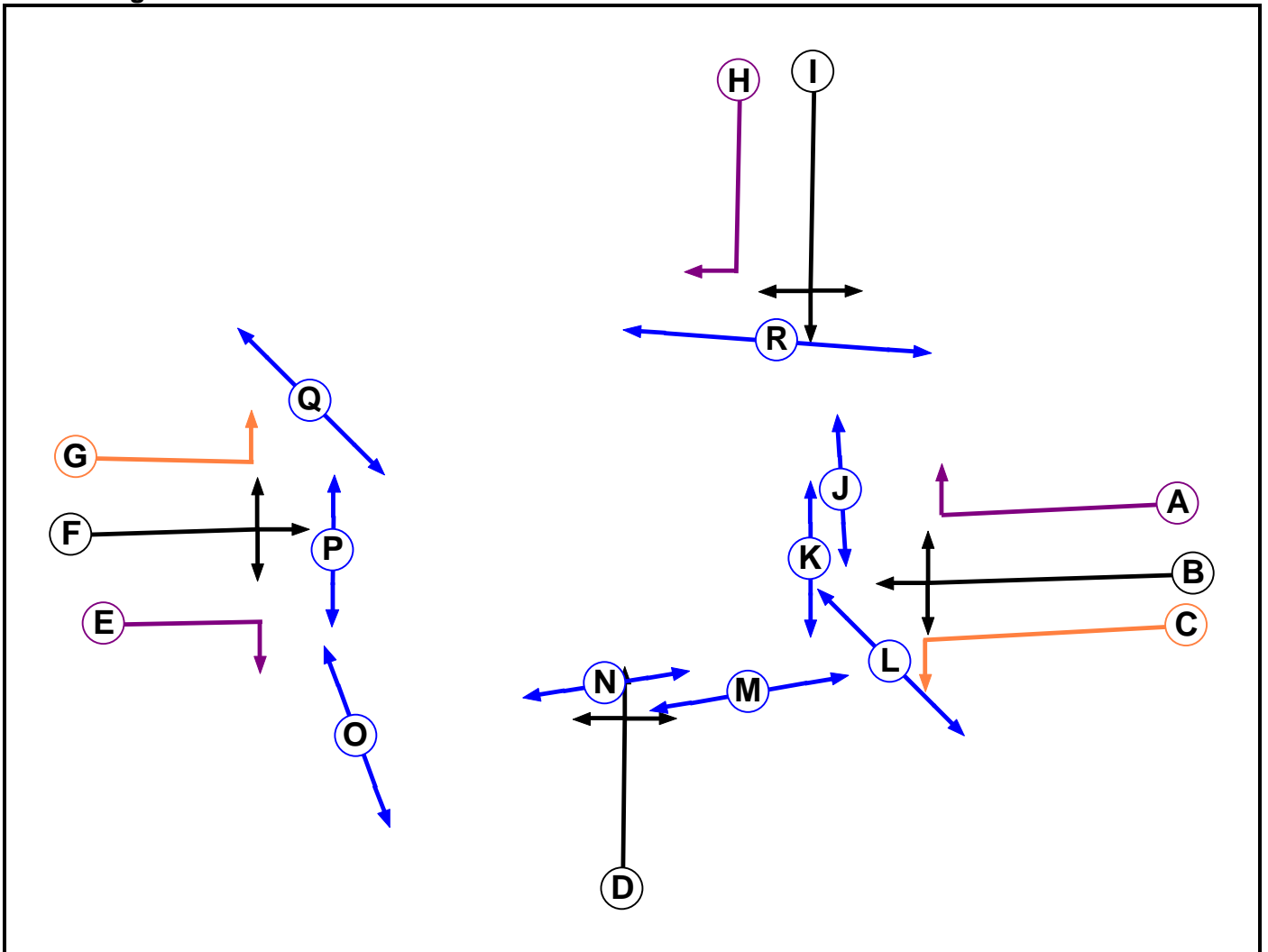
User and Project Details

Project:	
Title:	
Location:	
File name:	Athlone Linked Signals.lsg3x
Author:	
Company:	
Address:	
Notes:	

Network Layout Diagram



C1
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Ind. Arrow	B	4	4
B	Traffic		7	7
C	Filter with Closing Amber (Not UK)		4	4
D	Traffic	F	7	7
E	Ind. Arrow		4	4
F	Traffic		7	7
G	Filter with Closing Amber (Not UK)	I	4	4
H	Ind. Arrow		4	4
I	Traffic		7	7
J	Pedestrian		3	3
K	Pedestrian		4	4
L	Pedestrian		3	3
M	Pedestrian		3	3
N	Pedestrian		4	4
O	Pedestrian		3	3
P	Pedestrian		4	4
Q	Pedestrian		4	4
R	Pedestrian		6	6

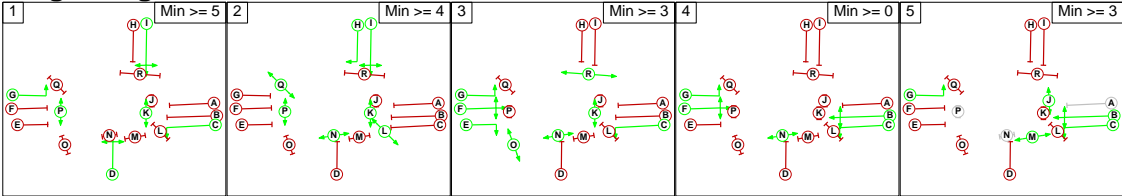
Phase Intergreens Matrix

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

Phases in Stage

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

Stage Diagram



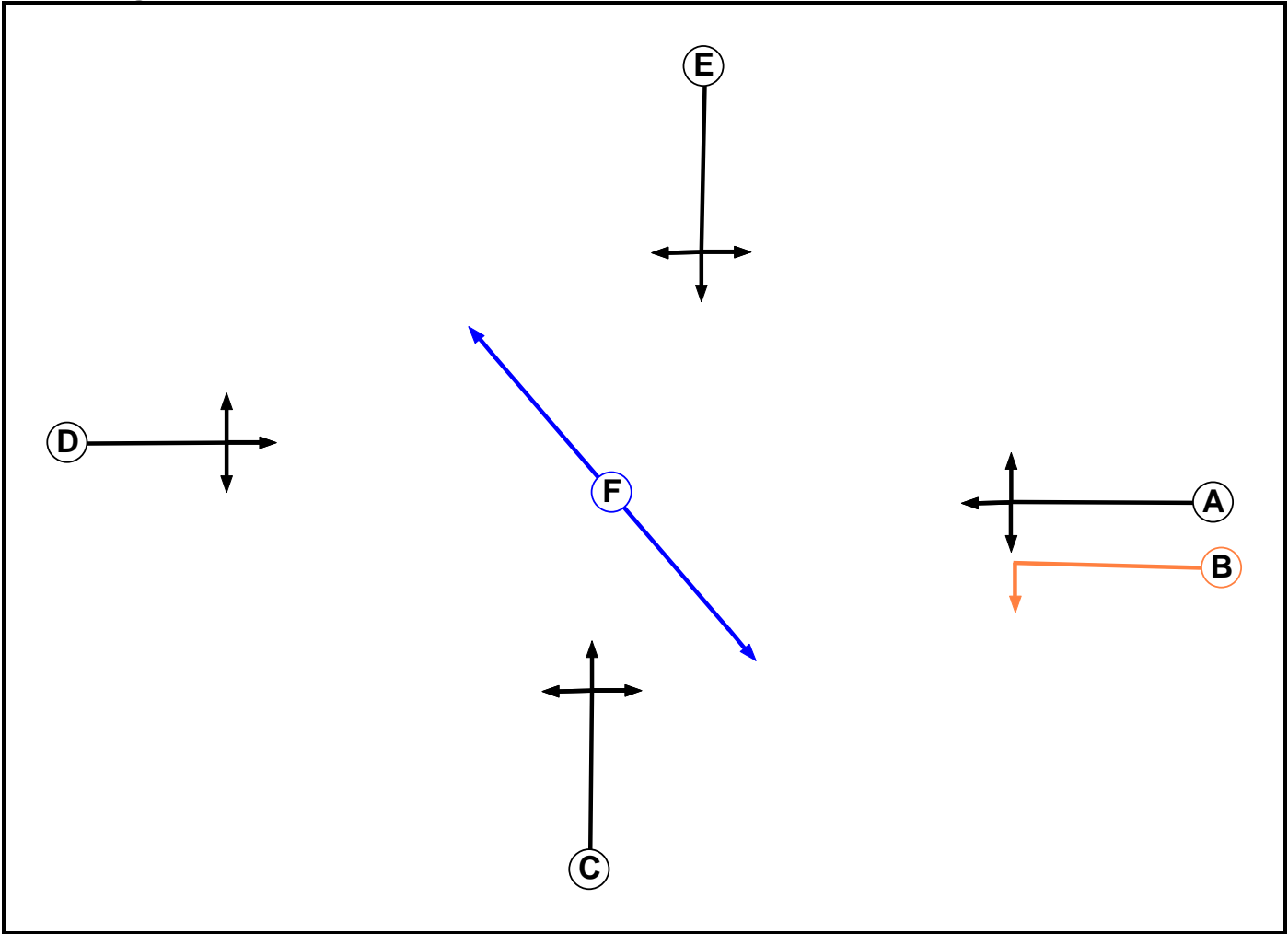
Phase Delays

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

Prohibited Stage Change

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

C2
Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Filter with Closing Amber (Not UK)		4	4
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Pedestrian		9	9

Full Input Data And Results

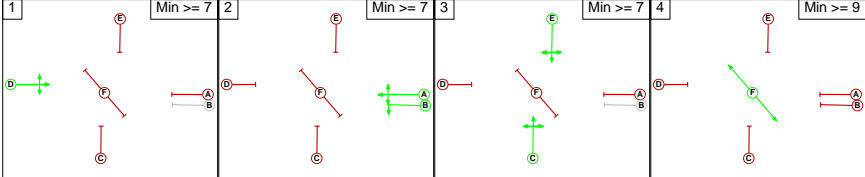
Phase Intergreens Matrix

Terminating Phase	Starting Phase						
		A	B	C	D	E	F
	A		-	5	5	5	8
	B	-		-	-	-	5
	C	5	-		5	-	9
	D	5	-	5		5	8
	E	5	-	-	5		8
	F	15	15	15	15	15	

Phases in Stage

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

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	3	4
	1		5	5	8
	2	5		5	8
	3	5	5		9
	4	15	15	15	

Full Input Data And Results

Give-Way Lane Input Data

Junction: J1: Crescent 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)
J1:1/1 (Grace Park Road)	J1:6/1 (Left)	1439	0	J1:4/1	1.09	All	2.00	-	0.50	2	2.00
J1:1/3 (Grace Park Road)	J1:8/1 (Right)	1439	0	J1:4/1	1.09	All	2.00	-	0.50	2	2.00
				J1:4/2	1.09	All					
J1:2/2 (Gleeson Street)	J1:5/1 (Right)	1439	0	J1:4/1	1.09	All	2.00	-	0.50	2	2.00
J1:3/1 (Link Road)	J1:8/1 (Left)	1439	0	J1:2/1	1.09	All	2.00	-	0.50	2	2.00
J1:3/3 (Link Road)	J1:6/1 (Right)	1439	0	J1:2/1	1.09	All	2.00	-	0.50	2	2.00
J1:4/2 (Ballymahon Road)	J1:7/1 (Right)	1439	0	J1:2/1	1.09	All	2.00	-	0.50	2	2.00

Full Input Data And Results

Junction: J2: St Francis Terrace/ Link Road											
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)
J2:1/1 (Link Road)	J2:6/1 (Left)	1439	0	J2:4/1	1.09	To J2:6/1 (Ahead) To J2:7/2 (Right)	2.00	-	0.50	2	2.00
J2:1/3 (Link Road)	J2:8/1 (Right)	1439	0	J2:3/2	1.09	All	2.00	2.00	0.50	2	2.00
J2:3/2 (Link Road West)	J2:6/1 (Right)	1439	0	J2:1/2	1.09	All	2.00	2.00	0.50	2	2.00
J2:4/1 (Station Link Road)	J2:7/1 (Right)	1439	0	J2:2/1	1.09	All	2.00	2.00	0.50	2	2.00
	J2:7/2 (Right)	1439	0	J2:2/1	1.09	All					

Full Input Data And Results

Lane Input Data

Junction: J1: Crescent 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)
J1:1/1 (Grace Park Road)	O	B C	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J1:6 Left	10.00
J1:1/2 (Grace Park Road)	U	B	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J1:7 Ahead	Inf
J1:1/3 (Grace Park Road)	O	B A	2	3	4.0	Geom	-	3.00	0.00	Y	Arm J1:8 Right	25.00
J1:2/1 (Gleeson Street)	U	D	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J1:7 Left	20.00
											Arm J1:8 Ahead	Inf
J1:2/2 (Gleeson Street)	O	D	2	3	5.0	Geom	-	3.00	0.00	Y	Arm J1:5 Right	Inf
J1:3/1 (Link Road)	O	F G	2	3	4.7	Geom	-	3.00	0.00	Y	Arm J1:8 Left	20.00
J1:3/2 (Link Road)	U	F	2	3	8.7	Geom	-	3.00	0.00	Y	Arm J1:5 Ahead	Inf
J1:3/3 (Link Road)	O	F E	2	3	8.7	Geom	-	3.00	0.00	Y	Arm J1:6 Right	30.00
J1:4/1 (Ballymahon Road)	U	I	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J1:5 Left	12.00
											Arm J1:6 Ahead	Inf
J1:4/2 (Ballymahon Road)	O	I H	2	3	5.0	Geom	-	3.00	0.00	Y	Arm J1:7 Right	15.00
J1:5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:7/1	U		2	3	1.7	Inf	-	-	-	-	-	-
J1:8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Junction: J2: St Francis Terrace/ Link Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J2:1/1 (Link Road)	O	A B	2	3	54.0	Geom	-	3.00	0.00	Y	Arm J2:6 Left	10.00
J2:1/2 (Link Road)	U	A	2	3	9.4	Geom	-	3.00	0.00	N	Arm J2:7 Ahead	Inf
J2:1/3 (Link Road)	O	A	2	3	9.4	Geom	-	3.00	0.00	Y	Arm J2:7 Ahead	Inf
											Arm J2:8 Right	15.00
J2:2/1 (St Francis Terrace)	U	C	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J2:5 Right	15.00
											Arm J2:7 Left	10.00
											Arm J2:8 Ahead	Inf
J2:3/1 (Link Road West)	U	D	2	3	5.0	Geom	-	3.00	0.00	Y	Arm J2:5 Ahead	Inf
											Arm J2:8 Left	10.00
J2:3/2 (Link Road West)	O	D	2	3	60.0	Geom	-	3.00	0.00	N	Arm J2:5 Ahead	Inf
											Arm J2:6 Right	15.00
J2:4/1 (Station Link Road)	O	E	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J2:5 Left	10.00
											Arm J2:6 Ahead	Inf
											Arm J2:7 Right	15.00
J2:5/1 (Link Road)	U		2	3	1.7	Inf	-	-	-	-	-	-
J2:5/2 (Link Road)	U		2	3	1.7	Inf	-	-	-	-	-	-
J2:6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:7/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM Base'	08:00	09:00	01:00	
2: 'PM Base'	17:00	18:00	01:00	
3: 'Option B AM'	08:00	09:00	01:00	
4: 'Option B PM'	17:00	18:00	01:00	
5: 'Option C AM'	08:00	09:00	01:00	
6: 'Option C PM '	17:00	18:00	01:00	
7: 'Option D AM'	08:00	09:00	01:00	
8: 'Option D PM'	17:00	18:00	01:00	

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

Traffic Flows, Desired

Desired Flow :

	Destination							
Origin		A	B	C	D	E	F	Tot.
	A	0	27	27	68	5	197	324
	B	9	0	11	34	1	109	164
	C	24	22	0	12	5	31	94
	D	86	79	79	0	5	103	352
	E	2	2	0	5	0	2	11
	F	234	282	24	63	4	0	607
	Tot.	355	412	141	182	20	442	1552

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: AM Base
Junction: J1: Crescent Junction	
J1:1/1	27
J1:1/2 (with short)	297(In) 100(Out)
J1:1/3 (short)	197
J1:2/1 (with short)	164(In) 155(Out)
J1:2/2 (short)	9
J1:3/1 (short)	136
J1:3/2 (with short)	248(In) 112(Out)
J1:3/3	103
J1:4/1 (with short)	607(In) 516(Out)
J1:4/2 (short)	91
J1:5/1	355
J1:6/1	412
J1:7/1	237
J1:8/1	442
Junction: J2: St Francis Terrace/ Link Road	
J2:1/1 (short)	62
J2:1/2 (with short)	131(In) 69(Out)
J2:1/3	106
J2:2/1	94
J2:3/1 (short)	171
J2:3/2 (with short)	352(In) 181(Out)
J2:4/1	11
J2:5/1	207
J2:5/2	144
J2:6/1	141
J2:7/1	80
J2:7/2	102
J2:8/1	20

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crescent Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Grace Park Road)	3.00	0.00	Y	Arm J1:6 Left	10.00	100.0 %	1665	1665
J1:1/2 (Grace Park Road)	3.00	0.00	Y	Arm J1:7 Ahead	Inf	100.0 %	1915	1915
J1:1/3 (Grace Park Road)	3.00	0.00	Y	Arm J1:8 Right	25.00	100.0 %	1807	1807
J1:2/1 (Gleeson Street)	3.00	0.00	Y	Arm J1:7 Left Arm J1:8 Ahead	20.00 Inf	29.7 % 70.3 %	1873	1873
J1:2/2 (Gleeson Street)	3.00	0.00	Y	Arm J1:5 Right	Inf	100.0 %	1915	1915
J1:3/1 (Link Road)	3.00	0.00	Y	Arm J1:8 Left	20.00	100.0 %	1781	1781
J1:3/2 (Link Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J1:3/3 (Link Road)	3.00	0.00	Y	Arm J1:6 Right	30.00	100.0 %	1824	1824
J1:4/1 (Ballymahon Road)	3.00	0.00	Y	Arm J1:5 Left Arm J1:6 Ahead	12.00 Inf	45.3 % 54.7 %	1812	1812
J1:4/2 (Ballymahon Road)	3.00	0.00	Y	Arm J1:7 Right	15.00	100.0 %	1741	1741
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:7/1	Infinite Saturation Flow						Inf	Inf
J1:8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J2: St Francis Terrace/ Link Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Link Road)	3.00	0.00	Y	Arm J2:6 Left	10.00	100.0 %	1665	1665
J2:1/2 (Link Road)	3.00	0.00	N	Arm J2:7 Ahead	Inf	100.0 %	2055	2055
J2:1/3 (Link Road)	3.00	0.00	Y	Arm J2:7 Ahead	Inf	90.6 %	1897	1897
				Arm J2:8 Right	15.00	9.4 %		
J2:2/1 (St Francis Terrace)	3.00	0.00	Y	Arm J2:5 Right	15.00	81.9 %	1739	1739
				Arm J2:7 Left	10.00	12.8 %		
				Arm J2:8 Ahead	Inf	5.3 %		
J2:3/1 (Link Road West)	3.00	0.00	Y	Arm J2:5 Ahead	Inf	97.1 %	1907	1907
				Arm J2:8 Left	10.00	2.9 %		
J2:3/2 (Link Road West)	3.00	0.00	N	Arm J2:5 Ahead	Inf	56.4 %	1969	1969
				Arm J2:6 Right	15.00	43.6 %		
J2:4/1 (Station Link Road)	3.00	0.00	Y	Arm J2:5 Left	10.00	54.5 %	1699	1699
				Arm J2:6 Ahead	Inf	0.0 %		
				Arm J2:7 Right	15.00	45.5 %		
J2:5/1 (Link Road Lane 1)				Infinite Saturation Flow			Inf	Inf
J2:5/2 (Link Road Lane 2)				Infinite Saturation Flow			Inf	Inf
J2:6/1				Infinite Saturation Flow			Inf	Inf
J2:7/1				Infinite Saturation Flow			Inf	Inf
J2:7/2				Infinite Saturation Flow			Inf	Inf
J2:8/1				Infinite Saturation Flow			Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	34	21	83	4	220	362
	B	19	0	15	63	3	228	328
	C	35	27	0	37	5	35	139
	D	86	70	37	0	5	86	284
	E	2	1	0	5	0	2	10
	F	205	260	15	64	3	0	547
	Tot.	347	392	88	252	20	571	1670

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: PM Base
Junction: J1: Crescent Junction	
J1:1/1	34
J1:1/2 (with short)	328(In) 108(Out)
J1:1/3 (short)	220
J1:2/1 (with short)	328(In) 309(Out)
J1:2/2 (short)	19
J1:3/1 (short)	123
J1:3/2 (with short)	246(In) 123(Out)
J1:3/3	98
J1:4/1 (with short)	547(In) 465(Out)
J1:4/2 (short)	82
J1:5/1	347
J1:6/1	392
J1:7/1	271
J1:8/1	571
Junction: J2: St Francis Terrace/ Link Road	
J2:1/1 (short)	51
J2:1/2 (with short)	171(In) 120(Out)
J2:1/3	100
J2:2/1	139
J2:3/1 (short)	138
J2:3/2 (with short)	284(In) 146(Out)
J2:4/1	10
J2:5/1	183
J2:5/2	161
J2:6/1	88
J2:7/1	143
J2:7/2	109
J2:8/1	20

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crescent Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Grace Park Road)	3.00	0.00	Y	Arm J1:6 Left	10.00	100.0 %	1665	1665
J1:1/2 (Grace Park Road)	3.00	0.00	Y	Arm J1:7 Ahead	Inf	100.0 %	1915	1915
J1:1/3 (Grace Park Road)	3.00	0.00	Y	Arm J1:8 Right	25.00	100.0 %	1807	1807
J1:2/1 (Gleeson Street)	3.00	0.00	Y	Arm J1:7 Left Arm J1:8 Ahead	20.00 Inf	26.2 % 73.8 %	1878	1878
J1:2/2 (Gleeson Street)	3.00	0.00	Y	Arm J1:5 Right	Inf	100.0 %	1915	1915
J1:3/1 (Link Road)	3.00	0.00	Y	Arm J1:8 Left	20.00	100.0 %	1781	1781
J1:3/2 (Link Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J1:3/3 (Link Road)	3.00	0.00	Y	Arm J1:6 Right	30.00	100.0 %	1824	1824
J1:4/1 (Ballymahon Road)	3.00	0.00	Y	Arm J1:5 Left Arm J1:6 Ahead	12.00 Inf	44.1 % 55.9 %	1815	1815
J1:4/2 (Ballymahon Road)	3.00	0.00	Y	Arm J1:7 Right	15.00	100.0 %	1741	1741
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:7/1	Infinite Saturation Flow						Inf	Inf
J1:8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J2: St Francis Terrace/ Link Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Link Road)	3.00	0.00	Y	Arm J2:6 Left	10.00	100.0 %	1665	1665
J2:1/2 (Link Road)	3.00	0.00	N	Arm J2:7 Ahead	Inf	100.0 %	2055	2055
J2:1/3 (Link Road)	3.00	0.00	Y	Arm J2:7 Ahead	Inf	90.0 %	1896	1896
				Arm J2:8 Right	15.00	10.0 %		
J2:2/1 (St Francis Terrace)	3.00	0.00	Y	Arm J2:5 Right	15.00	69.8 %	1726	1726
				Arm J2:7 Left	10.00	26.6 %		
				Arm J2:8 Ahead	Inf	3.6 %		
J2:3/1 (Link Road West)	3.00	0.00	Y	Arm J2:5 Ahead	Inf	96.4 %	1905	1905
				Arm J2:8 Left	10.00	3.6 %		
J2:3/2 (Link Road West)	3.00	0.00	N	Arm J2:5 Ahead	Inf	74.7 %	2004	2004
				Arm J2:6 Right	15.00	25.3 %		
J2:4/1 (Station Link Road)	3.00	0.00	Y	Arm J2:5 Left	10.00	50.0 %	1702	1702
				Arm J2:6 Ahead	Inf	0.0 %		
				Arm J2:7 Right	15.00	50.0 %		
J2:5/1 (Link Road Lane 1)				Infinite Saturation Flow			Inf	Inf
J2:5/2 (Link Road Lane 2)				Infinite Saturation Flow			Inf	Inf
J2:6/1				Infinite Saturation Flow			Inf	Inf
J2:7/1				Infinite Saturation Flow			Inf	Inf
J2:7/2				Infinite Saturation Flow			Inf	Inf
J2:8/1				Infinite Saturation Flow			Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	29	43	305	7	200	584
	B	10	0	14	143	2	110	279
	C	25	22	0	11	2	30	90
	D	87	79	82	0	5	100	353
	E	2	2	0	5	0	2	11
	F	232	279	6	79	1	0	597
	Tot.	356	411	145	543	17	442	1914

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: Option B AM
Junction: J1: Crescent Junction	
J1:1/1	29
J1:1/2 (with short)	555(In) 355(Out)
J1:1/3 (short)	200
J1:2/1 (with short)	279(In) 269(Out)
J1:2/2 (short)	10
J1:3/1 (short)	132
J1:3/2 (with short)	246(In) 114(Out)
J1:3/3	103
J1:4/1 (with short)	597(In) 511(Out)
J1:4/2 (short)	86
J1:5/1	356
J1:6/1	411
J1:7/1	600
J1:8/1	442
Junction: J2: St Francis Terrace/ Link Road	
J2:1/1 (short)	63
J2:1/2 (with short)	368(In) 305(Out)
J2:1/3	232
J2:2/1	90
J2:3/1 (short)	171
J2:3/2 (with short)	353(In) 182(Out)
J2:4/1	11
J2:5/1	207
J2:5/2	142
J2:6/1	145
J2:7/1	315
J2:7/2	228
J2:8/1	17

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crescent Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Grace Park Road)	3.00	0.00	Y	Arm J1:6 Left	10.00	100.0 %	1665	1665
J1:1/2 (Grace Park Road)	3.00	0.00	Y	Arm J1:7 Ahead	Inf	100.0 %	1915	1915
J1:1/3 (Grace Park Road)	3.00	0.00	Y	Arm J1:8 Right	25.00	100.0 %	1807	1807
J1:2/1 (Gleeson Street)	3.00	0.00	Y	Arm J1:7 Left Arm J1:8 Ahead	20.00 Inf	59.1 % 40.9 %	1834	1834
J1:2/2 (Gleeson Street)	3.00	0.00	Y	Arm J1:5 Right	Inf	100.0 %	1915	1915
J1:3/1 (Link Road)	3.00	0.00	Y	Arm J1:8 Left	20.00	100.0 %	1781	1781
J1:3/2 (Link Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J1:3/3 (Link Road)	3.00	0.00	Y	Arm J1:6 Right	30.00	100.0 %	1824	1824
J1:4/1 (Ballymahon Road)	3.00	0.00	Y	Arm J1:5 Left Arm J1:6 Ahead	12.00 Inf	45.4 % 54.6 %	1812	1812
J1:4/2 (Ballymahon Road)	3.00	0.00	Y	Arm J1:7 Right	15.00	100.0 %	1741	1741
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:7/1	Infinite Saturation Flow						Inf	Inf
J1:8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J2: St Francis Terrace/ Link Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Link Road)	3.00	0.00	Y	Arm J2:6 Left	10.00	100.0 %	1665	1665
J2:1/2 (Link Road)	3.00	0.00	N	Arm J2:7 Ahead	Inf	100.0 %	2055	2055
J2:1/3 (Link Road)	3.00	0.00	Y	Arm J2:7 Ahead	Inf	95.7 %	1907	1907
				Arm J2:8 Right	15.00	4.3 %		
J2:2/1 (St Francis Terrace)	3.00	0.00	Y	Arm J2:5 Right	15.00	85.6 %	1735	1735
				Arm J2:7 Left	10.00	12.2 %		
				Arm J2:8 Ahead	Inf	2.2 %		
J2:3/1 (Link Road West)	3.00	0.00	Y	Arm J2:5 Ahead	Inf	97.1 %	1907	1907
				Arm J2:8 Left	10.00	2.9 %		
J2:3/2 (Link Road West)	3.00	0.00	N	Arm J2:5 Ahead	Inf	54.9 %	1966	1966
				Arm J2:6 Right	15.00	45.1 %		
J2:4/1 (Station Link Road)	3.00	0.00	Y	Arm J2:5 Left	10.00	54.5 %	1699	1699
				Arm J2:6 Ahead	Inf	0.0 %		
				Arm J2:7 Right	15.00	45.5 %		
J2:5/1 (Link Road Lane 1)				Infinite Saturation Flow			Inf	Inf
J2:5/2 (Link Road Lane 2)				Infinite Saturation Flow			Inf	Inf
J2:6/1				Infinite Saturation Flow			Inf	Inf
J2:7/1				Infinite Saturation Flow			Inf	Inf
J2:7/2				Infinite Saturation Flow			Inf	Inf
J2:8/1				Infinite Saturation Flow			Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	36	28	356	6	222	648
	B	20	0	22	300	4	231	577
	C	35	27	0	35	5	34	136
	D	86	70	35	0	5	82	278
	E	2	2	0	5	0	2	11
	F	204	258	2	74	0	0	538
	Tot.	347	393	87	770	20	571	2188

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: Option B PM
Junction: J1: Crescent Junction	
J1:1/1	36
J1:1/2 (with short)	612(In) 390(Out)
J1:1/3 (short)	222
J1:2/1 (with short)	577(In) 557(Out)
J1:2/2 (short)	20
J1:3/1 (short)	118
J1:3/2 (with short)	241(In) 123(Out)
J1:3/3	99
J1:4/1 (with short)	538(In) 462(Out)
J1:4/2 (short)	76
J1:5/1	347
J1:6/1	393
J1:7/1	792
J1:8/1	571
Junction: J2: St Francis Terrace/ Link Road	
J2:1/1 (short)	52
J2:1/2 (with short)	475(In) 423(Out)
J2:1/3	317
J2:2/1	136
J2:3/1 (short)	134
J2:3/2 (with short)	278(In) 144(Out)
J2:4/1	11
J2:5/1	180
J2:5/2	160
J2:6/1	87
J2:7/1	445
J2:7/2	325
J2:8/1	20

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crescent Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Grace Park Road)	3.00	0.00	Y	Arm J1:6 Left	10.00	100.0 %	1665	1665
J1:1/2 (Grace Park Road)	3.00	0.00	Y	Arm J1:7 Ahead	Inf	100.0 %	1915	1915
J1:1/3 (Grace Park Road)	3.00	0.00	Y	Arm J1:8 Right	25.00	100.0 %	1807	1807
J1:2/1 (Gleeson Street)	3.00	0.00	Y	Arm J1:7 Left Arm J1:8 Ahead	20.00 Inf	58.5 % 41.5 %	1834	1834
J1:2/2 (Gleeson Street)	3.00	0.00	Y	Arm J1:5 Right	Inf	100.0 %	1915	1915
J1:3/1 (Link Road)	3.00	0.00	Y	Arm J1:8 Left	20.00	100.0 %	1781	1781
J1:3/2 (Link Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J1:3/3 (Link Road)	3.00	0.00	Y	Arm J1:6 Right	30.00	100.0 %	1824	1824
J1:4/1 (Ballymahon Road)	3.00	0.00	Y	Arm J1:5 Left Arm J1:6 Ahead	12.00 Inf	44.2 % 55.8 %	1815	1815
J1:4/2 (Ballymahon Road)	3.00	0.00	Y	Arm J1:7 Right	15.00	100.0 %	1741	1741
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:7/1	Infinite Saturation Flow						Inf	Inf
J1:8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J2: St Francis Terrace/ Link Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Link Road)	3.00	0.00	Y	Arm J2:6 Left	10.00	100.0 %	1665	1665
J2:1/2 (Link Road)	3.00	0.00	N	Arm J2:7 Ahead	Inf	100.0 %	2055	2055
J2:1/3 (Link Road)	3.00	0.00	Y	Arm J2:7 Ahead	Inf	96.8 %	1909	1909
				Arm J2:8 Right	15.00	3.2 %		
J2:2/1 (St Francis Terrace)	3.00	0.00	Y	Arm J2:5 Right	15.00	70.6 %	1726	1726
				Arm J2:7 Left	10.00	25.7 %		
				Arm J2:8 Ahead	Inf	3.7 %		
J2:3/1 (Link Road West)	3.00	0.00	Y	Arm J2:5 Ahead	Inf	96.3 %	1904	1904
				Arm J2:8 Left	10.00	3.7 %		
J2:3/2 (Link Road West)	3.00	0.00	N	Arm J2:5 Ahead	Inf	75.7 %	2006	2006
				Arm J2:6 Right	15.00	24.3 %		
J2:4/1 (Station Link Road)	3.00	0.00	Y	Arm J2:5 Left	10.00	54.5 %	1699	1699
				Arm J2:6 Ahead	Inf	0.0 %		
				Arm J2:7 Right	15.00	45.5 %		
J2:5/1 (Link Road Lane 1)				Infinite Saturation Flow			Inf	Inf
J2:5/2 (Link Road Lane 2)				Infinite Saturation Flow			Inf	Inf
J2:6/1				Infinite Saturation Flow			Inf	Inf
J2:7/1				Infinite Saturation Flow			Inf	Inf
J2:7/2				Infinite Saturation Flow			Inf	Inf
J2:8/1				Infinite Saturation Flow			Inf	Inf

Scenario 5: 'Option C AM' (FG5: 'Option C AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	25	26	68	5	177	301
	B	8	0	11	34	1	98	152
	C	36	32	0	12	5	2	87
	D	328	304	84	0	5	54	775
	E	3	2	0	5	0	0	10
	F	211	260	24	63	4	0	562
	Tot.	586	623	145	182	20	331	1887

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: Option C AM
Junction: J1: Crescent Junction	
J1:1/1	25
J1:1/2 (with short)	276(In) 99(Out)
J1:1/3 (short)	177
J1:2/1 (with short)	152(In) 144(Out)
J1:2/2 (short)	8
J1:3/1 (short)	56
J1:3/2 (with short)	423(In) 367(Out)
J1:3/3	338
J1:4/1 (with short)	562(In) 471(Out)
J1:4/2 (short)	91
J1:5/1	586
J1:6/1	623
J1:7/1	236
J1:8/1	331
Junction: J2: St Francis Terrace/ Link Road	
J2:1/1 (short)	61
J2:1/2 (with short)	129(In) 68(Out)
J2:1/3	107
J2:2/1	87
J2:3/1 (short)	373
J2:3/2 (with short)	775(In) 402(Out)
J2:4/1	10
J2:5/1	406
J2:5/2	355
J2:6/1	145
J2:7/1	79
J2:7/2	103
J2:8/1	20

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crescent Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Grace Park Road)	3.00	0.00	Y	Arm J1:6 Left	10.00	100.0 %	1665	1665
J1:1/2 (Grace Park Road)	3.00	0.00	Y	Arm J1:7 Ahead	Inf	100.0 %	1915	1915
J1:1/3 (Grace Park Road)	3.00	0.00	Y	Arm J1:8 Right	25.00	100.0 %	1807	1807
J1:2/1 (Gleeson Street)	3.00	0.00	Y	Arm J1:7 Left Arm J1:8 Ahead	20.00 Inf	31.9 % 68.1 %	1870	1870
J1:2/2 (Gleeson Street)	3.00	0.00	Y	Arm J1:5 Right	Inf	100.0 %	1915	1915
J1:3/1 (Link Road)	3.00	0.00	Y	Arm J1:8 Left	20.00	100.0 %	1781	1781
J1:3/2 (Link Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J1:3/3 (Link Road)	3.00	0.00	Y	Arm J1:6 Right	30.00	100.0 %	1824	1824
J1:4/1 (Ballymahon Road)	3.00	0.00	Y	Arm J1:5 Left Arm J1:6 Ahead	12.00 Inf	44.8 % 55.2 %	1813	1813
J1:4/2 (Ballymahon Road)	3.00	0.00	Y	Arm J1:7 Right	15.00	100.0 %	1741	1741
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:7/1	Infinite Saturation Flow						Inf	Inf
J1:8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J2: St Francis Terrace/ Link Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Link Road)	3.00	0.00	Y	Arm J2:6 Left	10.00	100.0 %	1665	1665
J2:1/2 (Link Road)	3.00	0.00	N	Arm J2:7 Ahead	Inf	100.0 %	2055	2055
J2:1/3 (Link Road)	3.00	0.00	Y	Arm J2:7 Ahead	Inf	90.7 %	1897	1897
				Arm J2:8 Right	15.00	9.3 %		
J2:2/1 (St Francis Terrace)	3.00	0.00	Y	Arm J2:5 Right	15.00	80.5 %	1739	1739
				Arm J2:7 Left	10.00	13.8 %		
				Arm J2:8 Ahead	Inf	5.7 %		
J2:3/1 (Link Road West)	3.00	0.00	Y	Arm J2:5 Ahead	Inf	98.7 %	1911	1911
				Arm J2:8 Left	10.00	1.3 %		
J2:3/2 (Link Road West)	3.00	0.00	N	Arm J2:5 Ahead	Inf	79.1 %	2013	2013
				Arm J2:6 Right	15.00	20.9 %		
J2:4/1 (Station Link Road)	3.00	0.00	Y	Arm J2:5 Left	10.00	50.0 %	1702	1702
				Arm J2:6 Ahead	Inf	0.0 %		
				Arm J2:7 Right	15.00	50.0 %		
J2:5/1 (Link Road Lane 1)				Infinite Saturation Flow			Inf	Inf
J2:5/2 (Link Road Lane 2)				Infinite Saturation Flow			Inf	Inf
J2:6/1				Infinite Saturation Flow			Inf	Inf
J2:7/1				Infinite Saturation Flow			Inf	Inf
J2:7/2				Infinite Saturation Flow			Inf	Inf
J2:8/1				Infinite Saturation Flow			Inf	Inf

Scenario 6: 'Option C PM' (FG6: 'Option C PM ', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	35	21	84	4	213	357
	B	19	0	15	64	3	222	323
	C	48	36	0	36	5	12	137
	D	321	264	36	0	5	123	749
	E	3	2	0	5	0	1	11
	F	200	258	15	63	3	0	539
	Tot.	591	595	87	252	20	571	2116

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: Option C PM
Junction: J1: Crescent Junction	
J1:1/1	35
J1:1/2 (with short)	322(In) 109(Out)
J1:1/3 (short)	213
J1:2/1 (with short)	323(In) 304(Out)
J1:2/2 (short)	19
J1:3/1 (short)	136
J1:3/2 (with short)	508(In) 372(Out)
J1:3/3	302
J1:4/1 (with short)	539(In) 458(Out)
J1:4/2 (short)	81
J1:5/1	591
J1:6/1	595
J1:7/1	272
J1:8/1	571
Junction: J2: St Francis Terrace/ Link Road	
J2:1/1 (short)	51
J2:1/2 (with short)	198(In) 147(Out)
J2:1/3	74
J2:2/1	137
J2:3/1 (short)	362
J2:3/2 (with short)	749(In) 387(Out)
J2:4/1	11
J2:5/1	407
J2:5/2	403
J2:6/1	87
J2:7/1	170
J2:7/2	82
J2:8/1	20

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crescent Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Grace Park Road)	3.00	0.00	Y	Arm J1:6 Left	10.00	100.0 %	1665	1665
J1:1/2 (Grace Park Road)	3.00	0.00	Y	Arm J1:7 Ahead	Inf	100.0 %	1915	1915
J1:1/3 (Grace Park Road)	3.00	0.00	Y	Arm J1:8 Right	25.00	100.0 %	1807	1807
J1:2/1 (Gleeson Street)	3.00	0.00	Y	Arm J1:7 Left Arm J1:8 Ahead	20.00 Inf	27.0 % 73.0 %	1877	1877
J1:2/2 (Gleeson Street)	3.00	0.00	Y	Arm J1:5 Right	Inf	100.0 %	1915	1915
J1:3/1 (Link Road)	3.00	0.00	Y	Arm J1:8 Left	20.00	100.0 %	1781	1781
J1:3/2 (Link Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J1:3/3 (Link Road)	3.00	0.00	Y	Arm J1:6 Right	30.00	100.0 %	1824	1824
J1:4/1 (Ballymahon Road)	3.00	0.00	Y	Arm J1:5 Left Arm J1:6 Ahead	12.00 Inf	43.7 % 56.3 %	1816	1816
J1:4/2 (Ballymahon Road)	3.00	0.00	Y	Arm J1:7 Right	15.00	100.0 %	1741	1741
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:7/1	Infinite Saturation Flow						Inf	Inf
J1:8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J2: St Francis Terrace/ Link Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Link Road)	3.00	0.00	Y	Arm J2:6 Left	10.00	100.0 %	1665	1665
J2:1/2 (Link Road)	3.00	0.00	N	Arm J2:7 Ahead	Inf	100.0 %	2055	2055
J2:1/3 (Link Road)	3.00	0.00	Y	Arm J2:7 Ahead	Inf	86.5 %	1889	1889
				Arm J2:8 Right	15.00	13.5 %		
J2:2/1 (St Francis Terrace)	3.00	0.00	Y	Arm J2:5 Right	15.00	70.1 %	1726	1726
				Arm J2:7 Left	10.00	26.3 %		
				Arm J2:8 Ahead	Inf	3.6 %		
J2:3/1 (Link Road West)	3.00	0.00	Y	Arm J2:5 Ahead	Inf	98.6 %	1911	1911
				Arm J2:8 Left	10.00	1.4 %		
J2:3/2 (Link Road West)	3.00	0.00	N	Arm J2:5 Ahead	Inf	90.7 %	2036	2036
				Arm J2:6 Right	15.00	9.3 %		
J2:4/1 (Station Link Road)	3.00	0.00	Y	Arm J2:5 Left	10.00	54.5 %	1699	1699
				Arm J2:6 Ahead	Inf	0.0 %		
				Arm J2:7 Right	15.00	45.5 %		
J2:5/1 (Link Road Lane 1)				Infinite Saturation Flow			Inf	Inf
J2:5/2 (Link Road Lane 2)				Infinite Saturation Flow			Inf	Inf
J2:6/1				Infinite Saturation Flow			Inf	Inf
J2:7/1				Infinite Saturation Flow			Inf	Inf
J2:7/2				Infinite Saturation Flow			Inf	Inf
J2:8/1				Infinite Saturation Flow			Inf	Inf

Scenario 7: 'Option D AM' (FG7: 'Option D AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	29	43	294	7	192	565
	B	10	0	15	143	2	106	276
	C	35	30	0	11	5	10	91
	D	305	279	81	0	5	133	803
	E	3	2	0	5	0	1	11
	F	228	277	6	78	1	0	590
	Tot.	581	617	145	531	20	442	2336

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: Option D AM
Junction: J1: Crescent Junction	
J1:1/1	29
J1:1/2 (with short)	536(In) 344(Out)
J1:1/3 (short)	192
J1:2/1 (with short)	276(In) 266(Out)
J1:2/2 (short)	10
J1:3/1 (short)	144
J1:3/2 (with short)	487(In) 343(Out)
J1:3/3	311
J1:4/1 (with short)	590(In) 505(Out)
J1:4/2 (short)	85
J1:5/1	581
J1:6/1	617
J1:7/1	589
J1:8/1	442
Junction: J2: St Francis Terrace/ Link Road	
J2:1/1 (short)	64
J2:1/2 (with short)	407(In) 343(Out)
J2:1/3	182
J2:2/1	91
J2:3/1 (short)	390
J2:3/2 (with short)	803(In) 413(Out)
J2:4/1	11
J2:5/1	425
J2:5/2	373
J2:6/1	145
J2:7/1	353
J2:7/2	178
J2:8/1	20

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crescent Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Grace Park Road)	3.00	0.00	Y	Arm J1:6 Left	10.00	100.0 %	1665	1665
J1:1/2 (Grace Park Road)	3.00	0.00	Y	Arm J1:7 Ahead	Inf	100.0 %	1915	1915
J1:1/3 (Grace Park Road)	3.00	0.00	Y	Arm J1:8 Right	25.00	100.0 %	1807	1807
J1:2/1 (Gleeson Street)	3.00	0.00	Y	Arm J1:7 Left Arm J1:8 Ahead	20.00 Inf	60.2 % 39.8 %	1832	1832
J1:2/2 (Gleeson Street)	3.00	0.00	Y	Arm J1:5 Right	Inf	100.0 %	1915	1915
J1:3/1 (Link Road)	3.00	0.00	Y	Arm J1:8 Left	20.00	100.0 %	1781	1781
J1:3/2 (Link Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J1:3/3 (Link Road)	3.00	0.00	Y	Arm J1:6 Right	30.00	100.0 %	1824	1824
J1:4/1 (Ballymahon Road)	3.00	0.00	Y	Arm J1:5 Left Arm J1:6 Ahead	12.00 Inf	45.1 % 54.9 %	1813	1813
J1:4/2 (Ballymahon Road)	3.00	0.00	Y	Arm J1:7 Right	15.00	100.0 %	1741	1741
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:7/1	Infinite Saturation Flow						Inf	Inf
J1:8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J2: St Francis Terrace/ Link Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Link Road)	3.00	0.00	Y	Arm J2:6 Left	10.00	100.0 %	1665	1665
J2:1/2 (Link Road)	3.00	0.00	N	Arm J2:7 Ahead	Inf	100.0 %	2055	2055
J2:1/3 (Link Road)	3.00	0.00	Y	Arm J2:7 Ahead	Inf	94.5 %	1905	1905
				Arm J2:8 Right	15.00	5.5 %		
J2:2/1 (St Francis Terrace)	3.00	0.00	Y	Arm J2:5 Right	15.00	82.4 %	1740	1740
				Arm J2:7 Left	10.00	12.1 %		
				Arm J2:8 Ahead	Inf	5.5 %		
J2:3/1 (Link Road West)	3.00	0.00	Y	Arm J2:5 Ahead	Inf	98.7 %	1911	1911
				Arm J2:8 Left	10.00	1.3 %		
J2:3/2 (Link Road West)	3.00	0.00	N	Arm J2:5 Ahead	Inf	80.4 %	2015	2015
				Arm J2:6 Right	15.00	19.6 %		
J2:4/1 (Station Link Road)	3.00	0.00	Y	Arm J2:5 Left	10.00	54.5 %	1699	1699
				Arm J2:6 Ahead	Inf	0.0 %		
				Arm J2:7 Right	15.00	45.5 %		
J2:5/1 (Link Road Lane 1)				Infinite Saturation Flow			Inf	Inf
J2:5/2 (Link Road Lane 2)				Infinite Saturation Flow			Inf	Inf
J2:6/1				Infinite Saturation Flow			Inf	Inf
J2:7/1				Infinite Saturation Flow			Inf	Inf
J2:7/2				Infinite Saturation Flow			Inf	Inf
J2:8/1				Infinite Saturation Flow			Inf	Inf

Scenario 8: 'Option D PM' (FG8: 'Option D PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination							
		A	B	C	D	E	F	Tot.
Origin	A	0	36	35	340	7	216	634
	B	19	0	14	183	3	223	442
	C	47	35	0	35	5	13	135
	D	296	244	35	0	5	118	698
	E	3	2	0	5	0	1	11
	F	200	257	3	74	1	0	535
	Tot.	565	574	87	637	21	571	2455

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: Option D PM
Junction: J1: Crescent Junction	
J1:1/1	36
J1:1/2 (with short)	598(In) 382(Out)
J1:1/3 (short)	216
J1:2/1 (with short)	442(In) 423(Out)
J1:2/2 (short)	19
J1:3/1 (short)	132
J1:3/2 (with short)	478(In) 346(Out)
J1:3/3	281
J1:4/1 (with short)	535(In) 457(Out)
J1:4/2 (short)	78
J1:5/1	565
J1:6/1	574
J1:7/1	660
J1:8/1	571
Junction: J2: St Francis Terrace/ Link Road	
J2:1/1 (short)	52
J2:1/2 (with short)	465(In) 413(Out)
J2:1/3	195
J2:2/1	135
J2:3/1 (short)	338
J2:3/2 (with short)	698(In) 360(Out)
J2:4/1	11
J2:5/1	383
J2:5/2	376
J2:6/1	87
J2:7/1	435
J2:7/2	202
J2:8/1	21

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Crescent Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Grace Park Road)	3.00	0.00	Y	Arm J1:6 Left	10.00	100.0 %	1665	1665
J1:1/2 (Grace Park Road)	3.00	0.00	Y	Arm J1:7 Ahead	Inf	100.0 %	1915	1915
J1:1/3 (Grace Park Road)	3.00	0.00	Y	Arm J1:8 Right	25.00	100.0 %	1807	1807
J1:2/1 (Gleeson Street)	3.00	0.00	Y	Arm J1:7 Left Arm J1:8 Ahead	20.00 Inf	47.3 % 52.7 %	1849	1849
J1:2/2 (Gleeson Street)	3.00	0.00	Y	Arm J1:5 Right	Inf	100.0 %	1915	1915
J1:3/1 (Link Road)	3.00	0.00	Y	Arm J1:8 Left	20.00	100.0 %	1781	1781
J1:3/2 (Link Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J1:3/3 (Link Road)	3.00	0.00	Y	Arm J1:6 Right	30.00	100.0 %	1824	1824
J1:4/1 (Ballymahon Road)	3.00	0.00	Y	Arm J1:5 Left Arm J1:6 Ahead	12.00 Inf	43.8 % 56.2 %	1816	1816
J1:4/2 (Ballymahon Road)	3.00	0.00	Y	Arm J1:7 Right	15.00	100.0 %	1741	1741
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf
J1:7/1	Infinite Saturation Flow						Inf	Inf
J1:8/1	Infinite Saturation Flow						Inf	Inf

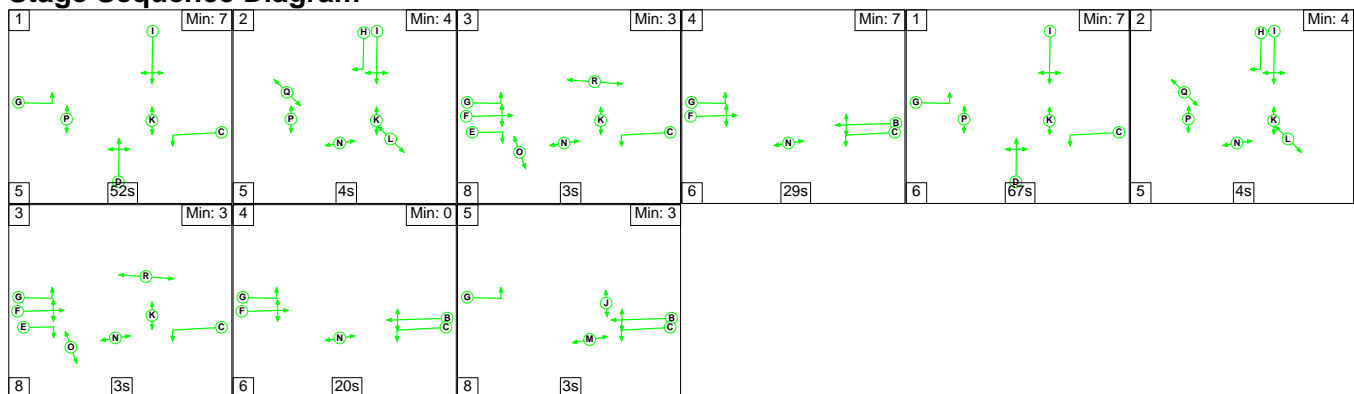
Full Input Data And Results

Junction: J2: St Francis Terrace/ Link Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Link Road)	3.00	0.00	Y	Arm J2:6 Left	10.00	100.0 %	1665	1665
J2:1/2 (Link Road)	3.00	0.00	N	Arm J2:7 Ahead	Inf	100.0 %	2055	2055
J2:1/3 (Link Road)	3.00	0.00	Y	Arm J2:7 Ahead	Inf	94.4 %	1904	1904
				Arm J2:8 Right	15.00	5.6 %		
J2:2/1 (St Francis Terrace)	3.00	0.00	Y	Arm J2:5 Right	15.00	70.4 %		
				Arm J2:7 Left	10.00	25.9 %	1726	1726
				Arm J2:8 Ahead	Inf	3.7 %		
J2:3/1 (Link Road West)	3.00	0.00	Y	Arm J2:5 Ahead	Inf	98.5 %	1911	1911
				Arm J2:8 Left	10.00	1.5 %		
J2:3/2 (Link Road West)	3.00	0.00	N	Arm J2:5 Ahead	Inf	90.3 %	2035	2035
				Arm J2:6 Right	15.00	9.7 %		
J2:4/1 (Station Link Road)	3.00	0.00	Y	Arm J2:5 Left	10.00	54.5 %	1699	1699
				Arm J2:6 Ahead	Inf	0.0 %		
				Arm J2:7 Right	15.00	45.5 %		
J2:5/1 (Link Road Lane 1)				Infinite Saturation Flow			Inf	Inf
J2:5/2 (Link Road Lane 2)				Infinite Saturation Flow			Inf	Inf
J2:6/1				Infinite Saturation Flow			Inf	Inf
J2:7/1				Infinite Saturation Flow			Inf	Inf
J2:7/2				Infinite Saturation Flow			Inf	Inf
J2:8/1				Infinite Saturation Flow			Inf	Inf

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

C1

Stage Sequence Diagram

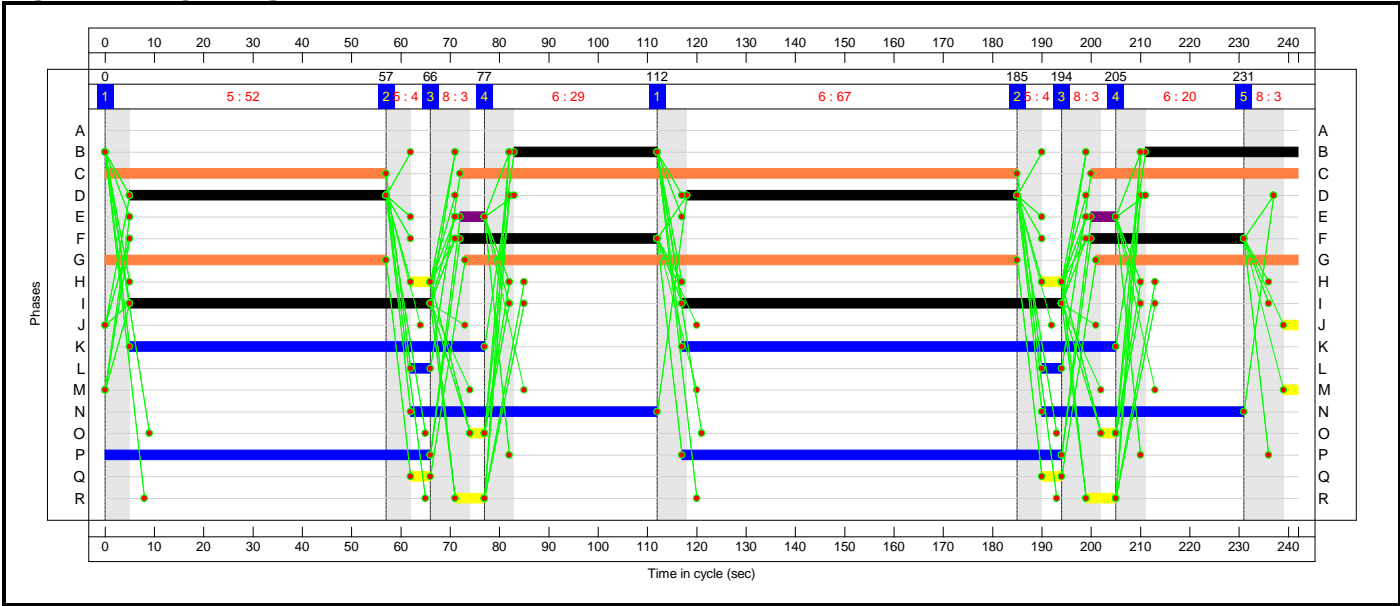


Full Input Data And Results

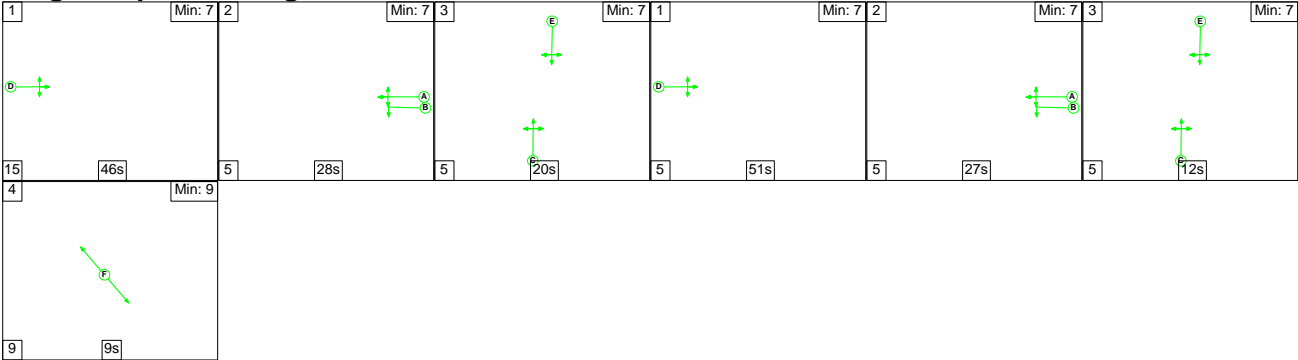
Stage Timings

Stage	1	2	3	4	1	2	3	4	5
Duration	52	4	3	29	67	4	3	20	3
Change Point	0	57	66	77	112	185	194	205	231

Signal Timings Diagram



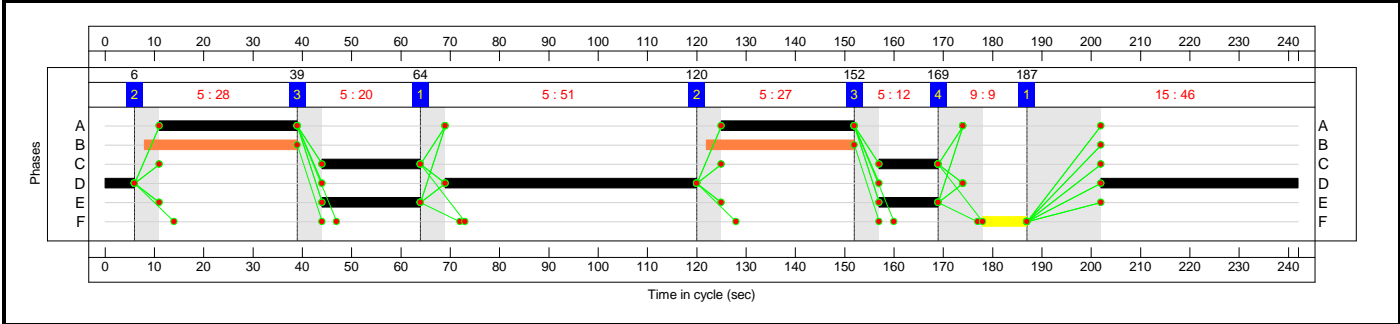
C2
Stage Sequence Diagram



Stage Timings

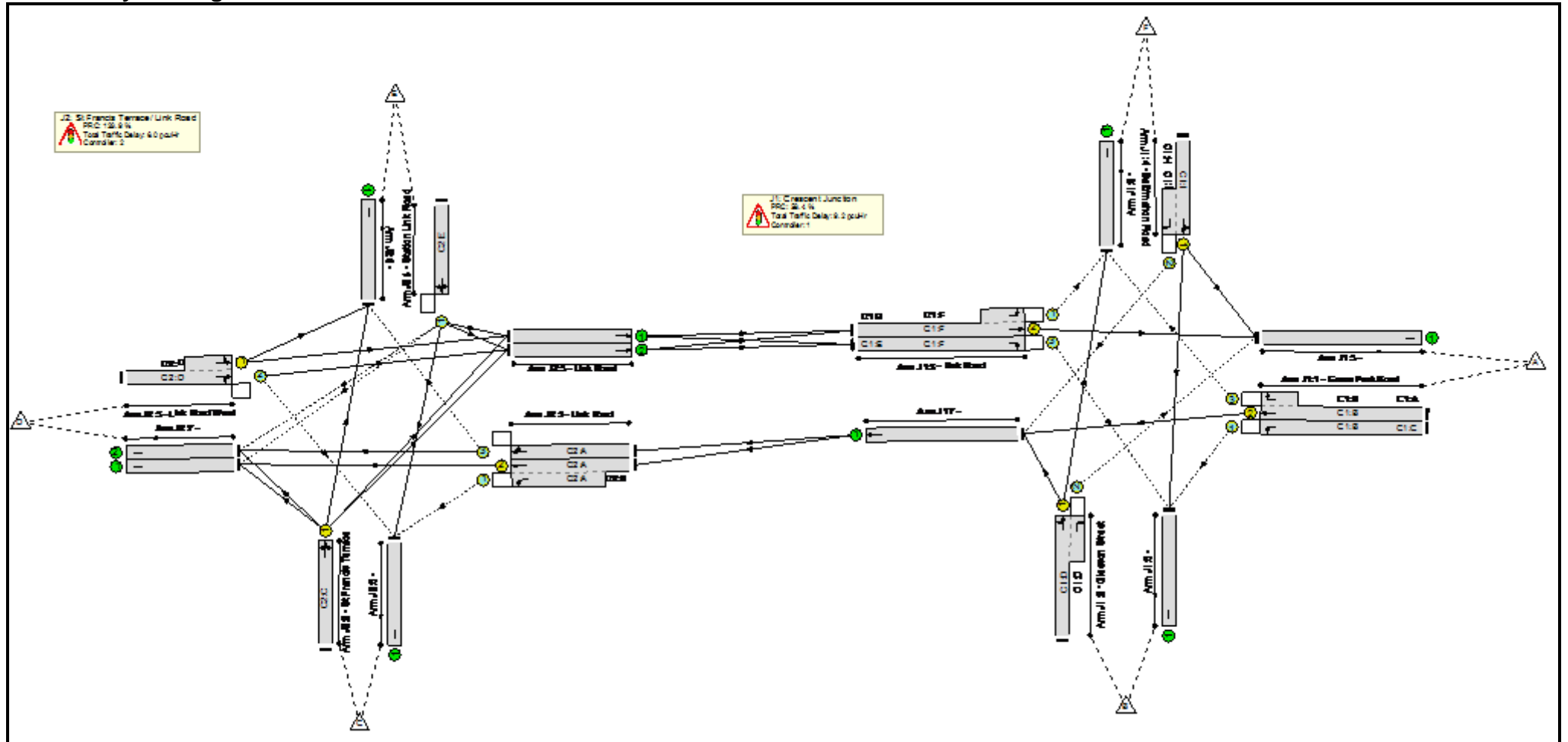
Stage	1	2	3	1	2	3	4
Duration	46	28	20	51	27	12	9
Change Point	187	6	39	64	120	152	169

Signal Timings Diagram



Full Input Data And Results

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	-	-		-	-	-	-	-	-	56.8%
J1: Crescent Junction	-	-	N/A	-	-		-	-	-	-	-	-	56.8%
1/1	Grace Park Road Left	O	N/A	N/A	C1:B	C1:C	2	212	212	27	1665	922	2.9%
1/2+1/3	Grace Park Road Ahead Right	U+O	N/A	N/A	C1:B	C1:A	2	60	0	297	1915:1807	178+351	56.1 : 56.1%
2/1+2/2	Gleeson Street Right Left Ahead	U+O	N/A	N/A	C1:D		2	119	-	164	1873:1915	888+52	17.4 : 17.4%
3/2+3/1	Link Road Ahead Left	U+O	N/A	N/A	C1:F	C1:G	2	71:212	210	248	1915:1781	332+403	33.7 : 33.7%
3/3	Link Road Right	O	N/A	N/A	C1:F	C1:E	2	71	10	103	1824	550	18.7%
4/1+4/2	Ballymahon Road Left Ahead Right	U+O	N/A	N/A	C1:I	C1:H	2	138	8	607	1812:1741	908+160	56.8 : 56.8%
5/1		U	N/A	N/A	-		-	-	-	355	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	412	Inf	Inf	0.0%
7/1	Ahead	U	N/A	N/A	-		-	-	-	237	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	442	Inf	Inf	0.0%
J2: St Francis Terrace/ Link Road	-	-	N/A	-	-		-	-	-	-	-	-	38.5%
1/2+1/1	Link Road Left Ahead	U+O	N/A	N/A	C2:A	C2:B	2	55:61	61	131	2055:1665	484+433	14.3 : 14.3%
1/3	Link Road Ahead Right	O	N/A	N/A	C2:A		2	55	-	106	1897	447	23.7%
2/1	St Francis Terrace Right Left Ahead	U	N/A	N/A	C2:C		2	32	-	94	1739	244	38.5%
3/2+3/1	Link Road West Ahead Right Left	O+U	N/A	N/A	C2:D		2	97	-	352	1969:1907	482+456	37.5 : 37.5%

Full Input Data And Results

4/1	Station Link Road Left Ahead Right	O	N/A	N/A	C2:E		2	32	-	11	1699	222	4.9%
5/1	Link Road Ahead	U	N/A	N/A	-		-	-	-	207	Inf	Inf	0.0%
5/2	Link Road Ahead	U	N/A	N/A	-		-	-	-	144	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	141	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	80	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	102	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	20	Inf	Inf	0.0%

Full Input Data And Results

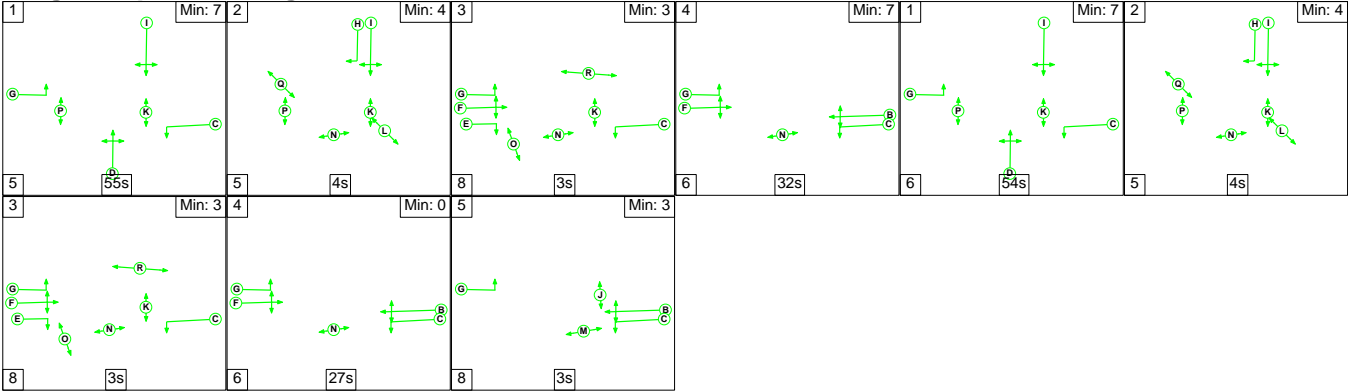
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	153	558	8	12.5	2.7	0.1	15.2	-	-	-	-
J1: Crescent Junction	-	-	148	409	6	7.3	1.8	0.1	9.2	-	-	-	-
1/1	27	27	14	13	0	0.0	0.0	0.0	0.0	5.7	0.1	0.0	0.1
1/2+1/3	297	297	0	194	3	3.1	0.6	0.0	3.7	45.4	7.2	0.6	7.8
2/1+2/2	164	164	9	0	0	0.7	0.1	0.0	0.9	19.5	2.8	0.1	2.9
3/2+3/1	248	248	40	96	0	0.5	0.3	0.0	0.7	10.8	8.4	0.3	8.7
3/3	103	103	0	102	1	0.4	0.1	0.0	0.5	19.1	1.4	0.1	1.5
4/1+4/2	607	607	84	5	2	2.6	0.7	0.0	3.3	19.4	11.8	0.7	12.4
5/1	355	355	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	412	412	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	237	237	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	442	442	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: St Francis Terrace/ Link Road	-	-	5	149	2	5.1	0.9	0.0	6.0	-	-	-	-
1/2+1/1	131	131	0	61	1	0.7	0.1	0.0	0.8	20.9	1.5	0.1	1.6
1/3	106	106	0	10	0	0.7	0.2	0.0	0.9	30.7	1.7	0.2	1.9
2/1	94	94	-	-	-	1.3	0.3	-	1.6	59.8	3.2	0.3	3.5
3/2+3/1	352	352	0	78	1	2.3	0.3	0.0	2.6	26.7	4.5	0.3	4.8
4/1	11	11	5	0	0	0.1	0.0	0.0	0.2	56.6	0.4	0.0	0.4
5/1	207	207	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	144	144	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	141	141	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	80	80	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	102	102	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	20	20	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	58.4	Total Delay for Signalled Lanes (pcuHr):	9.23	Cycle Time (s):	242
C2	PRC for Signalled Lanes (%):	133.9	Total Delay for Signalled Lanes (pcuHr):	6.01	Cycle Time (s):	242
	PRC Over All Lanes (%):	58.4	Total Delay Over All Lanes(pcuHr):	15.24		

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

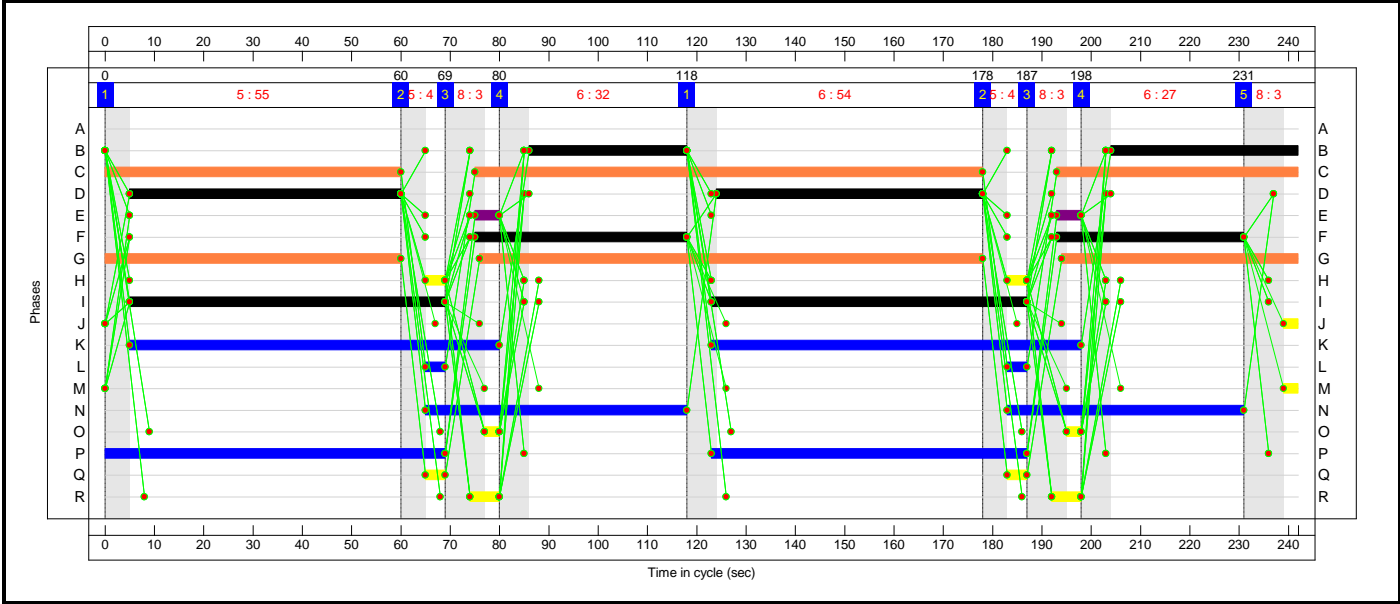
Stage Sequence Diagram



Stage Timings

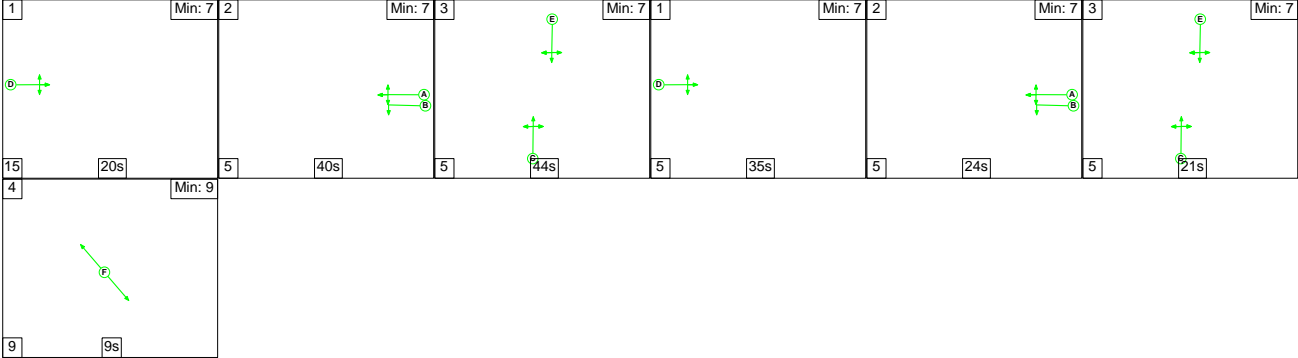
Stage	1	2	3	4	1	2	3	4	5
Duration	55	4	3	32	54	4	3	27	3
Change Point	0	60	69	80	118	178	187	198	231

Signal Timings Diagram



C2

Stage Sequence Diagram

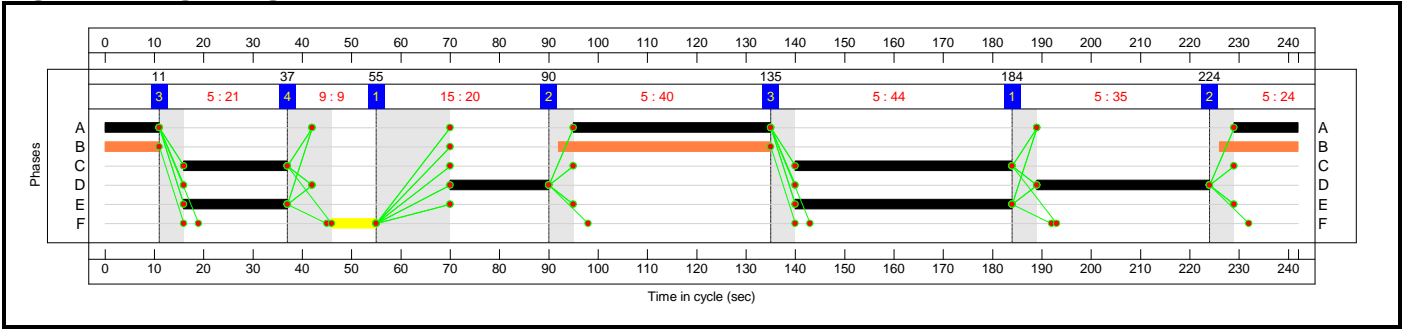


Full Input Data And Results

Stage Timings

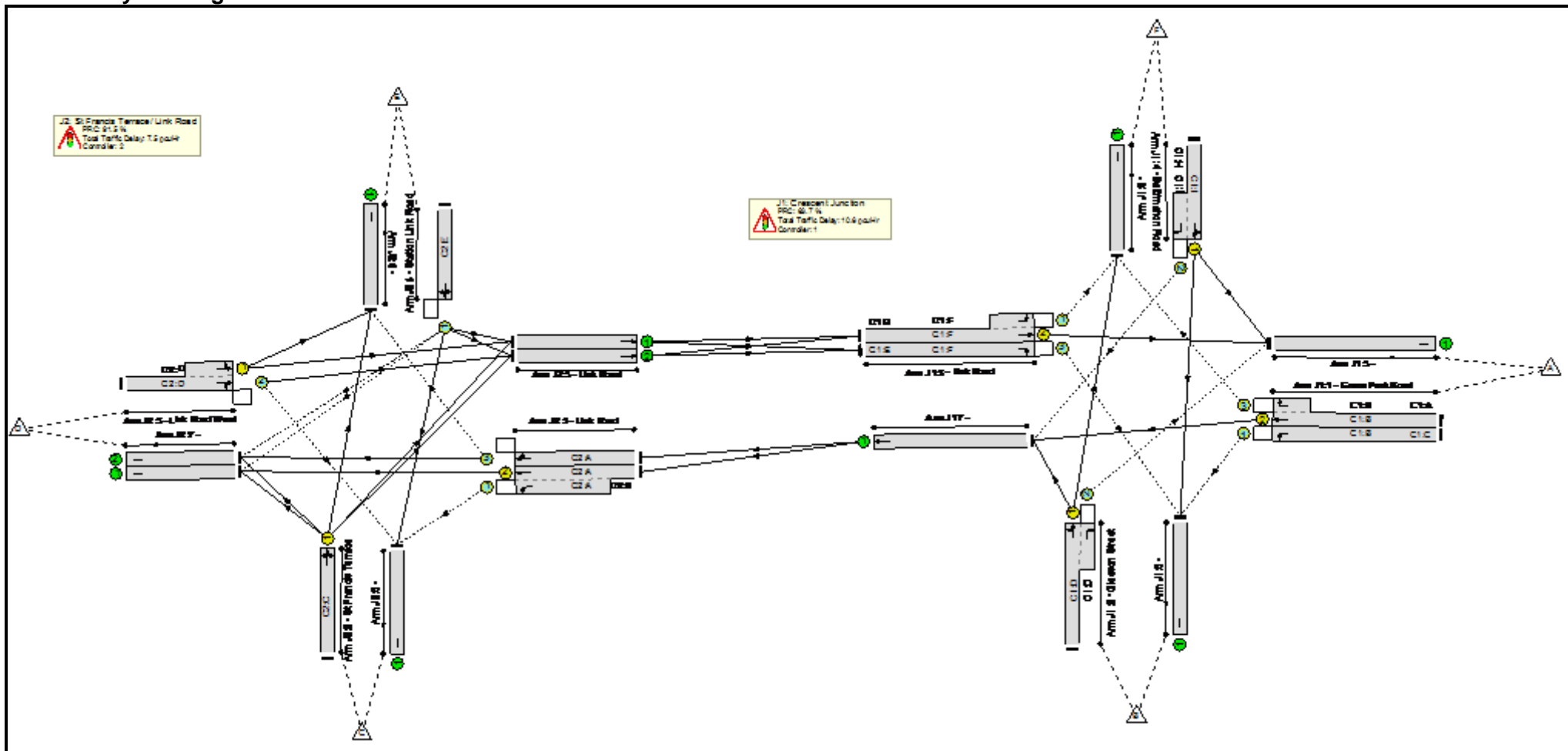
Stage	1	2	3	1	2	3	4
Duration	20	40	44	35	24	21	9
Change Point	55	90	135	184	224	11	37

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	-	-		-	-	-	-	-	-	55.0%
J1: Crescent Junction	-	-	N/A	-	-		-	-	-	-	-	-	55.0%
1/1	Grace Park Road Left	O	N/A	N/A	C1:B	C1:C	2	212	212	34	1665	980	3.5%
1/2+1/3	Grace Park Road Ahead Right	U+O	N/A	N/A	C1:B	C1:A	2	70	0	328	1915:1807	199+405	54.4 : 54.4%
2/1+2/2	Gleeson Street Right Left Ahead	U+O	N/A	N/A	C1:D		2	109	-	328	1878:1915	815+50	37.9 : 37.9%
3/2+3/1	Link Road Ahead Left	U+O	N/A	N/A	C1:F	C1:G	2	81:212	210	246	1915:1781	391+391	31.4 : 31.4%
3/3	Link Road Right	O	N/A	N/A	C1:F	C1:E	2	81	10	98	1824	626	15.7%
4/1+4/2	Ballymahon Road Left Ahead Right	U+O	N/A	N/A	C1:I	C1:H	2	128	8	547	1815:1741	846+149	55.0 : 55.0%
5/1		U	N/A	N/A	-		-	-	-	347	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	392	Inf	Inf	0.0%
7/1	Ahead	U	N/A	N/A	-		-	-	-	271	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	571	Inf	Inf	0.0%
J2: St Francis Terrace/ Link Road	-	-	N/A	-	-		-	-	-	-	-	-	47.0%
1/2+1/1	Link Road Left Ahead	U+O	N/A	N/A	C2:A	C2:B	2	64:70	70	171	2055:1665	560+238	21.4 : 21.4%
1/3	Link Road Ahead Right	O	N/A	N/A	C2:A		2	64	-	100	1896	517	19.3%
2/1	St Francis Terrace Right Left Ahead	U	N/A	N/A	C2:C		2	65	-	139	1726	478	29.1%
3/2+3/1	Link Road West Ahead Right Left	O+U	N/A	N/A	C2:D		2	55	-	284	2004:1905	311+294	47.0 : 47.0%

Full Input Data And Results

4/1	Station Link Road Left Ahead Right	O	N/A	N/A	C2:E		2	65	-	10	1702	426	2.3%
5/1	Link Road Ahead	U	N/A	N/A	-		-	-	-	183	Inf	Inf	0.0%
5/2	Link Road Ahead	U	N/A	N/A	-		-	-	-	161	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	88	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	143	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	109	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	20	Inf	Inf	0.0%

Full Input Data And Results

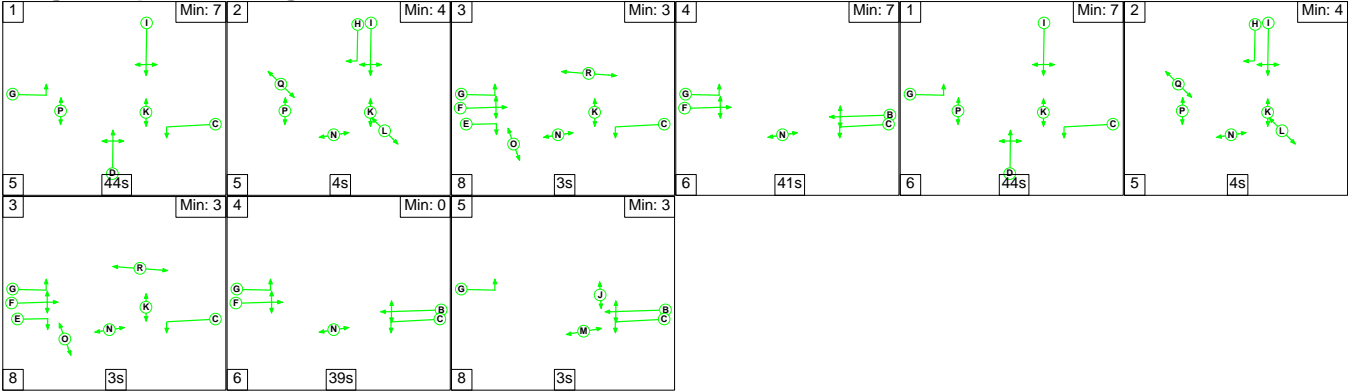
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	151	521	6	15.1	2.8	0.2	18.0	-	-	-	-
J1: Crescent Junction	-	-	146	424	5	8.5	1.8	0.2	10.6	-	-	-	-
1/1	34	34	16	18	0	0.0	0.0	0.0	0.0	5.2	0.1	0.0	0.2
1/2+1/3	328	328	0	216	4	3.1	0.6	0.0	3.7	40.4	7.0	0.6	7.6
2/1+2/2	328	328	19	0	0	1.9	0.3	0.1	2.3	25.3	7.2	0.3	7.5
3/2+3/1	246	246	35	88	0	0.5	0.2	0.0	0.7	10.1	8.9	0.2	9.1
3/3	98	98	0	98	0	0.3	0.1	0.0	0.4	15.5	1.2	0.1	1.3
4/1+4/2	547	547	76	5	1	2.7	0.6	0.1	3.4	22.4	11.6	0.6	12.2
5/1	347	347	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	392	392	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	271	271	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	571	571	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: St Francis Terrace/ Link Road	-	-	5	97	1	6.6	0.9	0.0	7.5	-	-	-	-
1/2+1/1	171	171	0	51	0	1.7	0.1	0.0	1.8	38.4	3.9	0.1	4.1
1/3	100	100	0	10	0	0.4	0.1	0.0	0.5	18.4	2.9	0.1	3.1
2/1	139	139	-	-	-	1.4	0.2	-	1.6	40.7	4.2	0.2	4.5
3/2+3/1	284	284	0	36	1	3.0	0.4	0.0	3.5	43.9	4.3	0.4	4.7
4/1	10	10	5	0	0	0.1	0.0	0.0	0.1	40.1	0.3	0.0	0.3
5/1	183	183	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	161	161	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	88	88	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	143	143	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	109	109	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	20	20	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	63.7	Total Delay for Signalled Lanes (pcuHr):	10.55	Cycle Time (s):	242
C2	PRC for Signalled Lanes (%):	91.5	Total Delay for Signalled Lanes (pcuHr):	7.48	Cycle Time (s):	242
	PRC Over All Lanes (%):	63.7	Total Delay Over All Lanes(pcuHr):	18.03		

Full Input Data And Results
Scenario 3: 'Option B AM' (FG3: 'Option B AM', Plan 1: 'Network Control Plan 1')
C1

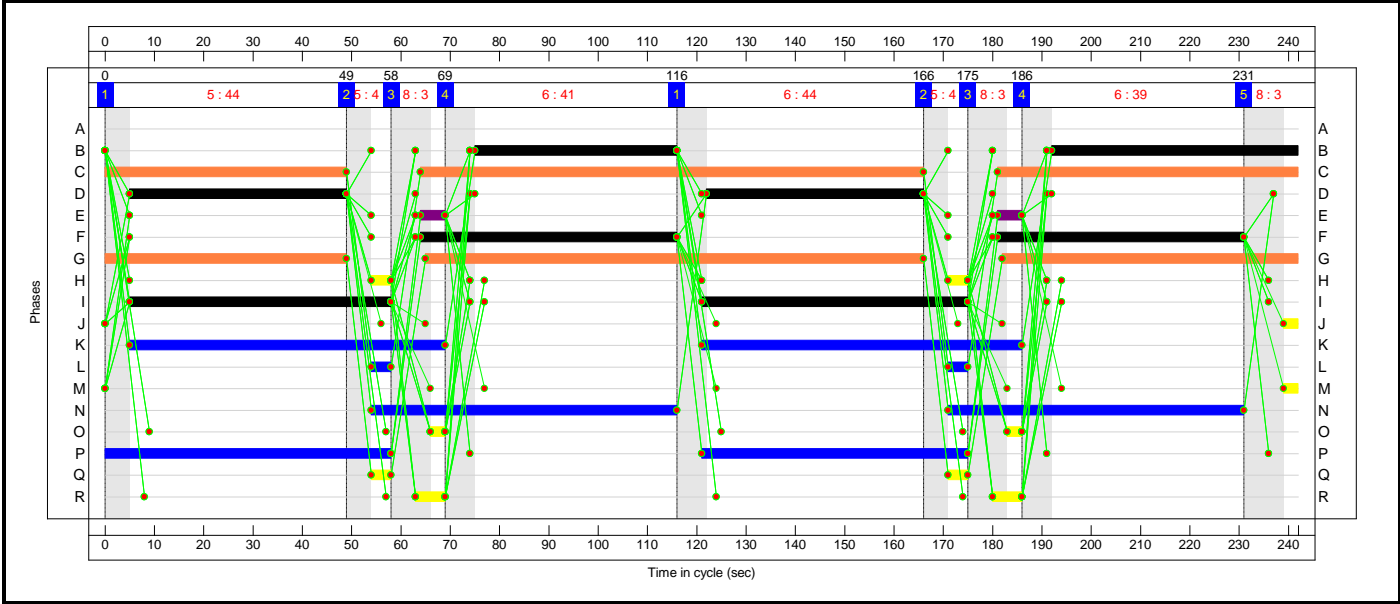
Stage Sequence Diagram



Stage Timings

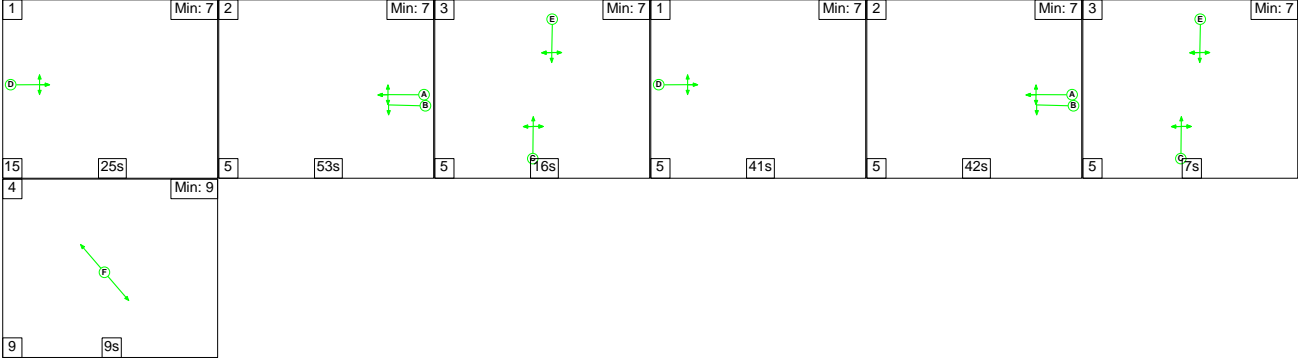
Stage	1	2	3	4	1	2	3	4	5
Duration	44	4	3	41	44	4	3	39	3
Change Point	0	49	58	69	116	166	175	186	231

Signal Timings Diagram



C2

Stage Sequence Diagram

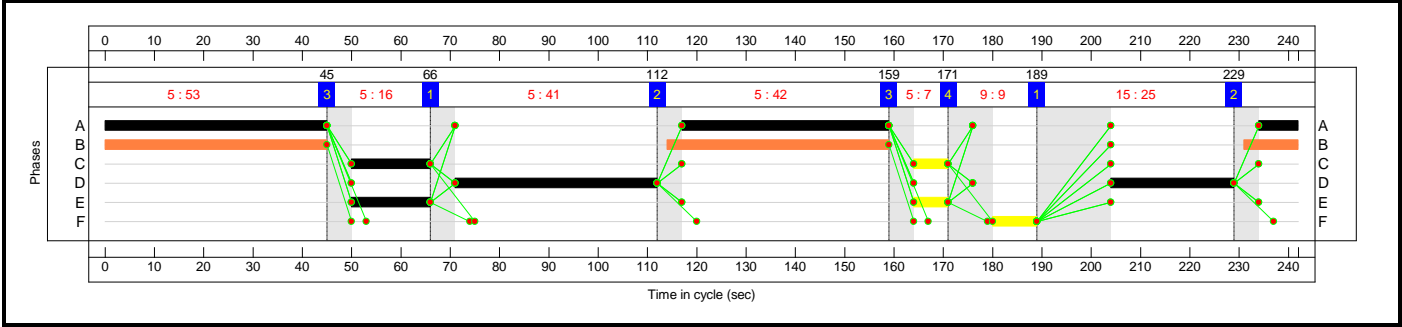


Full Input Data And Results

Stage Timings

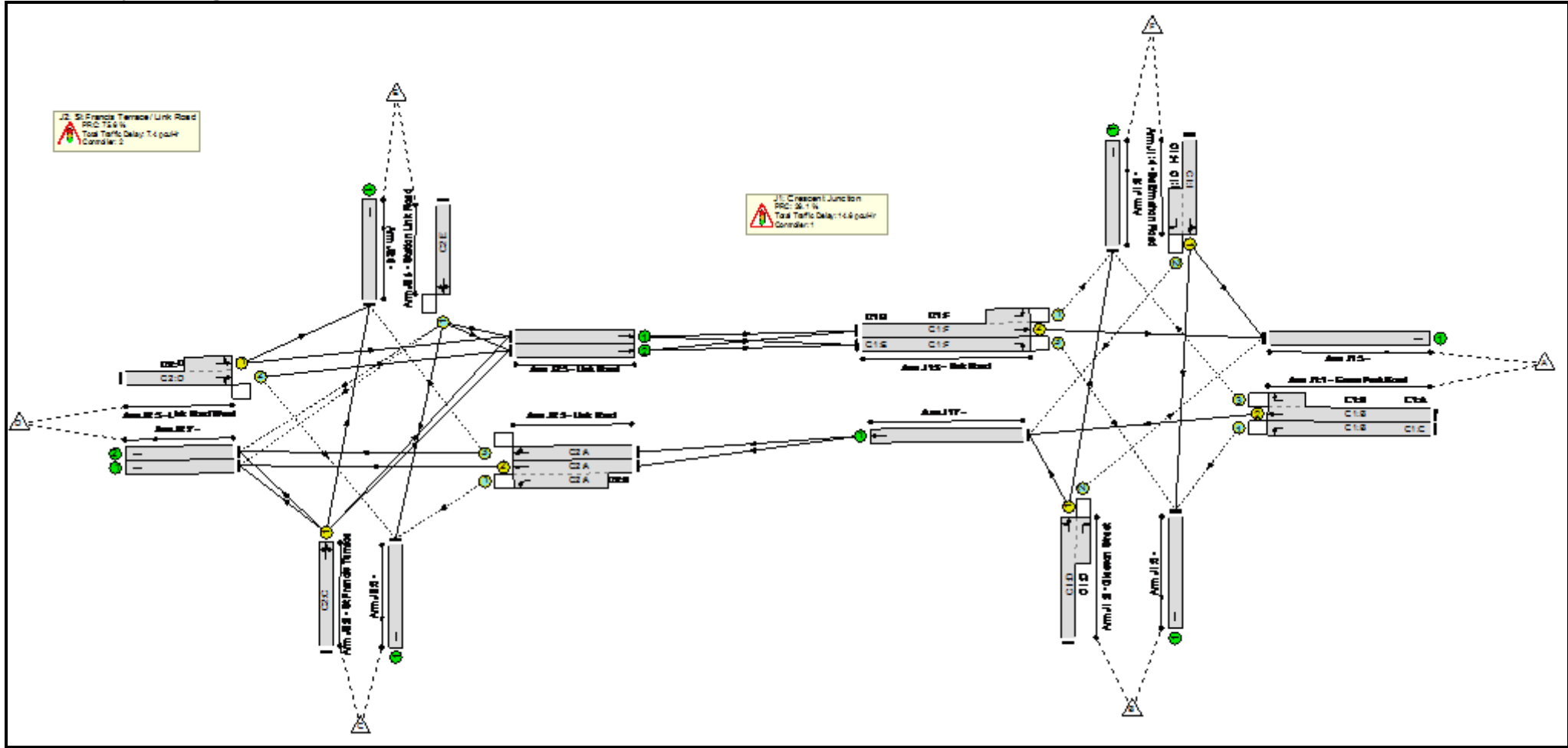
Stage	1	2	3	1	2	3	4
Duration	25	53	16	41	42	7	9
Change Point	189	229	45	66	112	159	171

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	-	-		-	-	-	-	-	-	71.4%
J1: Crescent Junction	-	-	N/A	-	-		-	-	-	-	-	-	71.4%
1/1	Grace Park Road Left	O	N/A	N/A	C1:B	C1:C	2	212	212	29	1665	972	3.0%
1/2+1/3	Grace Park Road Ahead Right	U+O	N/A	N/A	C1:B	C1:A	2	91	0	555	1915:1807	501+282	70.9 : 70.9%
2/1+2/2	Gleeson Street Right Left Ahead	U+O	N/A	N/A	C1:D		2	88	-	279	1834:1915	661+25	40.7 : 40.7%
3/2+3/1	Link Road Ahead Left	U+O	N/A	N/A	C1:F	C1:G	2	102:212	210	246	1915:1781	446+517	25.5 : 25.5%
3/3	Link Road Right	O	N/A	N/A	C1:F	C1:E	2	102	10	103	1824	784	13.1%
4/1+4/2	Ballymahon Road Left Ahead Right	U+O	N/A	N/A	C1:I	C1:H	2	107	8	597	1812:1741	716+120	71.4 : 71.4%
5/1		U	N/A	N/A	-		-	-	-	356	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	411	Inf	Inf	0.0%
7/1	Ahead	U	N/A	N/A	-		-	-	-	600	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	442	Inf	Inf	0.0%
J2: St Francis Terrace/ Link Road	-	-	N/A	-	-		-	-	-	-	-	-	51.3%
1/2+1/1	Link Road Left Ahead	U+O	N/A	N/A	C2:A	C2:B	2	95:101	101	368	2055:1665	824+170	37.0 : 37.0%
1/3	Link Road Ahead Right	O	N/A	N/A	C2:A		2	95	-	232	1907	764	30.4%
2/1	St Francis Terrace Right Left Ahead	U	N/A	N/A	C2:C		2	23	-	90	1735	179	50.2%
3/2+3/1	Link Road West Ahead Right Left	O+U	N/A	N/A	C2:D		2	66	-	353	1966:1907	355+334	51.3 : 51.3%

Full Input Data And Results

4/1	Station Link Road Left Ahead Right	O	N/A	N/A	C2:E		2	23	-	11	1699	166	6.6%
5/1	Link Road Ahead	U	N/A	N/A	-		-	-	-	207	Inf	Inf	0.0%
5/2	Link Road Ahead	U	N/A	N/A	-		-	-	-	142	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	145	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	315	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	228	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	17	Inf	Inf	0.0%

Full Input Data And Results

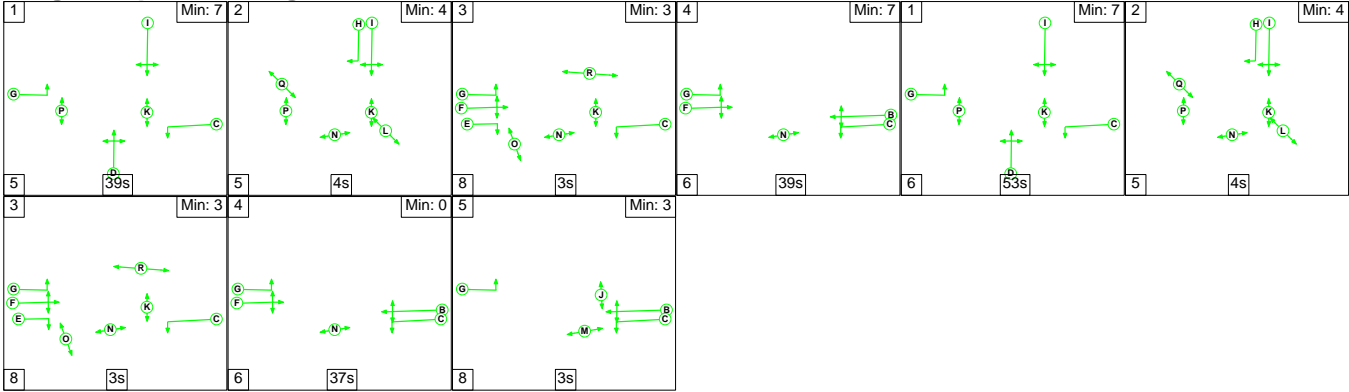
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	106	605	9	17.1	4.6	0.2	22.0	-	-	-	-
J1: Crescent Junction	-	-	101	453	6	11.3	3.0	0.2	14.6	-	-	-	-
1/1	29	29	11	18	0	0.0	0.0	0.0	0.1	7.3	0.1	0.0	0.1
1/2+1/3	555	555	0	197	3	4.6	1.2	0.0	5.8	37.4	13.2	1.2	14.4
2/1+2/2	279	279	10	0	0	2.2	0.3	0.1	2.6	33.2	7.1	0.3	7.4
3/2+3/1	246	246	0	132	0	0.2	0.2	0.0	0.3	5.0	9.0	0.2	9.1
3/3	103	103	0	102	1	0.1	0.1	0.0	0.2	5.8	0.9	0.1	1.0
4/1+4/2	597	597	80	5	1	4.3	1.2	0.1	5.7	34.3	16.2	1.2	17.5
5/1	356	356	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	411	411	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	600	600	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	442	442	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: St Francis Terrace/ Link Road	-	-	5	152	3	5.8	1.6	0.0	7.4	-	-	-	-
1/2+1/1	368	368	0	61	2	0.3	0.3	0.0	0.6	6.1	1.0	0.3	1.3
1/3	232	232	0	10	0	0.7	0.2	0.0	0.9	13.5	1.4	0.2	1.7
2/1	90	90	-	-	-	1.3	0.5	-	1.8	71.8	3.1	0.5	3.6
3/2+3/1	353	353	0	81	1	3.4	0.5	0.0	3.9	39.8	5.2	0.5	5.7
4/1	11	11	5	0	0	0.2	0.0	0.0	0.2	63.7	0.4	0.0	0.4
5/1	207	207	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	142	142	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	145	145	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	315	315	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	228	228	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	17	17	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	26.1	Total Delay for Signalled Lanes (pcuHr):	14.60	Cycle Time (s):	242
C2	PRC for Signalled Lanes (%):	75.6	Total Delay for Signalled Lanes (pcuHr):	7.39	Cycle Time (s):	242
	PRC Over All Lanes (%):	26.1	Total Delay Over All Lanes(pcuHr):	21.99		

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

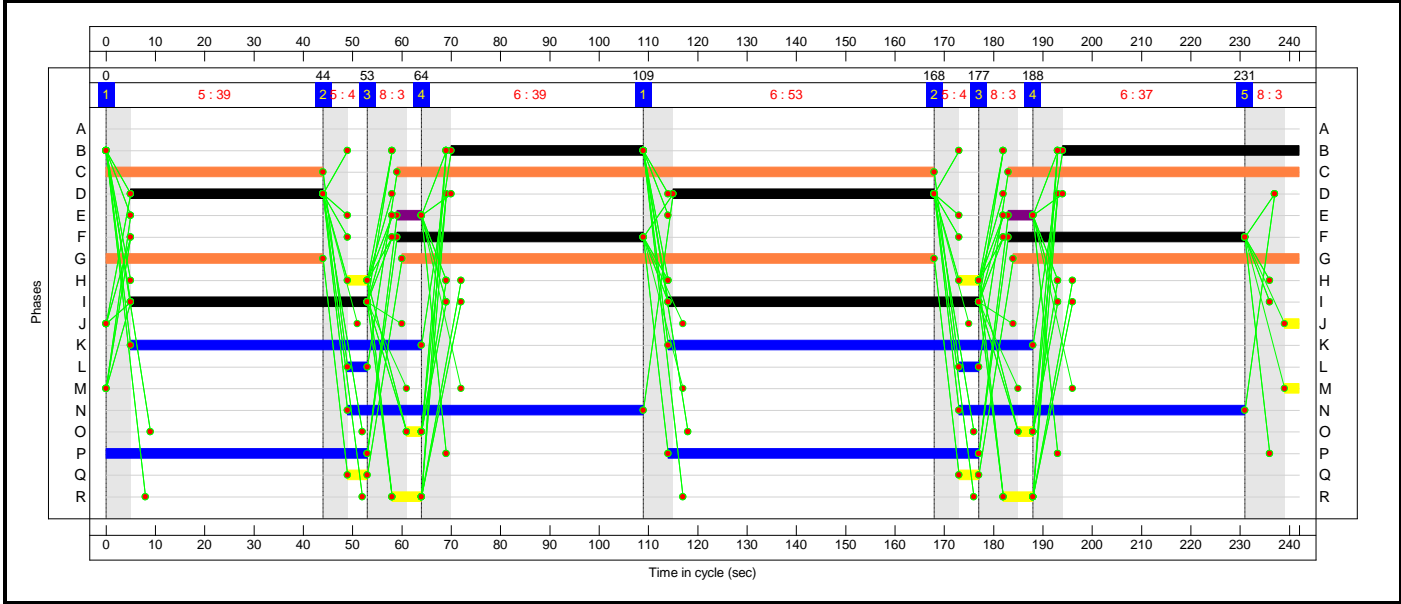
Stage Sequence Diagram



Stage Timings

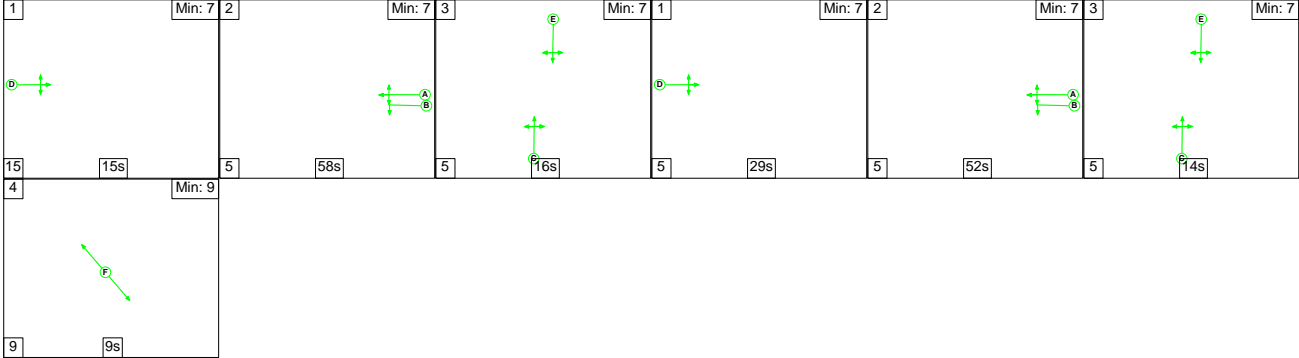
Stage	1	2	3	4	1	2	3	4	5
Duration	39	4	3	39	53	4	3	37	3
Change Point	0	44	53	64	109	168	177	188	231

Signal Timings Diagram



C2

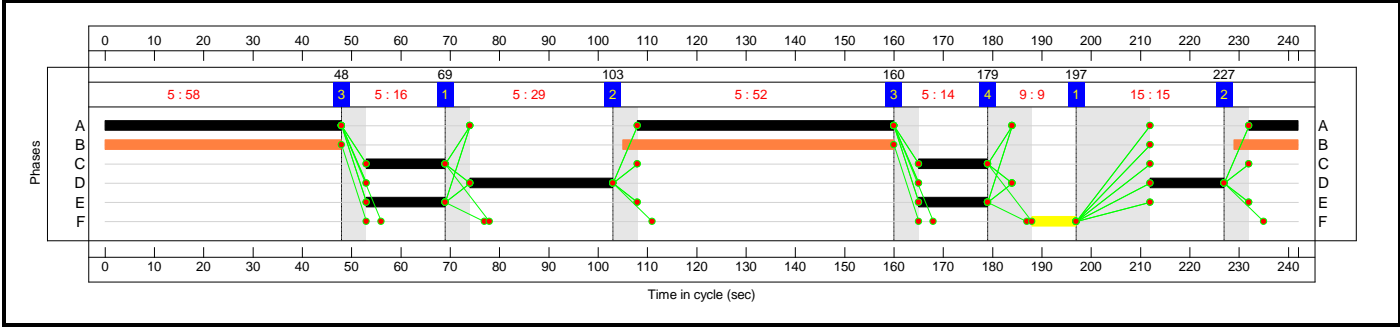
Stage Sequence Diagram



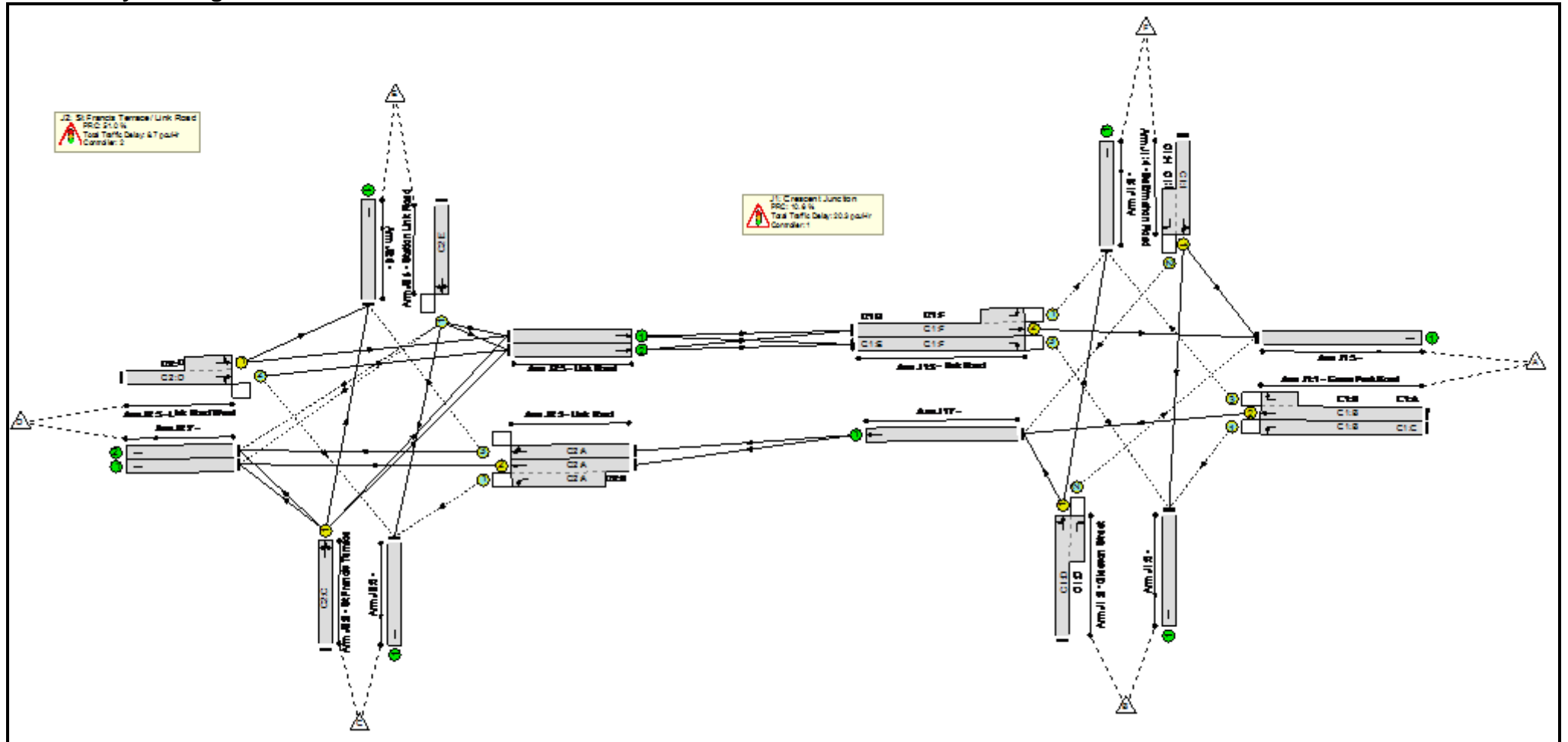
Stage Timings

Stage	1	2	3	1	2	3	4
Duration	15	58	16	29	52	14	9
Change Point	197	227	48	69	103	160	179

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	-	-		-	-	-	-	-	-	81.4%
J1: Crescent Junction	-	-	N/A	-	-		-	-	-	-	-	-	81.4%
1/1	Grace Park Road Left	O	N/A	N/A	C1:B	C1:C	2	212	212	36	1665	1008	3.6%
1/2+1/3	Grace Park Road Ahead Right	U+O	N/A	N/A	C1:B	C1:A	2	87	0	612	1915:1807	479+273	81.4 : 81.4%
2/1+2/2	Gleeson Street Right Left Ahead	U+O	N/A	N/A	C1:D		2	92	-	577	1834:1915	691+25	80.6 : 80.6%
3/2+3/1	Link Road Ahead Left	U+O	N/A	N/A	C1:F	C1:G	2	98:212	210	241	1915:1781	463+444	26.6 : 26.6%
3/3	Link Road Right	O	N/A	N/A	C1:F	C1:E	2	98	10	99	1824	754	13.1%
4/1+4/2	Ballymahon Road Left Ahead Right	U+O	N/A	N/A	C1:I	C1:H	2	111	8	538	1815:1741	744+122	62.1 : 62.1%
5/1		U	N/A	N/A	-		-	-	-	347	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	393	Inf	Inf	0.0%
7/1	Ahead	U	N/A	N/A	-		-	-	-	792	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	571	Inf	Inf	0.0%
J2: St Francis Terrace/ Link Road	-	-	N/A	-	-		-	-	-	-	-	-	59.6%
1/2+1/1	Link Road Left Ahead	U+O	N/A	N/A	C2:A	C2:B	2	110:116	116	475	2055:1665	951+117	44.5 : 44.5%
1/3	Link Road Ahead Right	O	N/A	N/A	C2:A		2	110	-	317	1909	884	35.9%
2/1	St Francis Terrace Right Left Ahead	U	N/A	N/A	C2:C		2	30	-	136	1726	228	59.6%
3/2+3/1	Link Road West Ahead Right Left	O+U	N/A	N/A	C2:D		2	44	-	278	2006:1904	266+247	54.1 : 54.1%

Full Input Data And Results

4/1	Station Link Road Left Ahead Right	O	N/A	N/A	C2:E		2	30	-	11	1699	173	6.4%
5/1	Link Road Ahead	U	N/A	N/A	-		-	-	-	180	Inf	Inf	0.0%
5/2	Link Road Ahead	U	N/A	N/A	-		-	-	-	160	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	87	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	445	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	325	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	20	Inf	Inf	0.0%

Full Input Data And Results

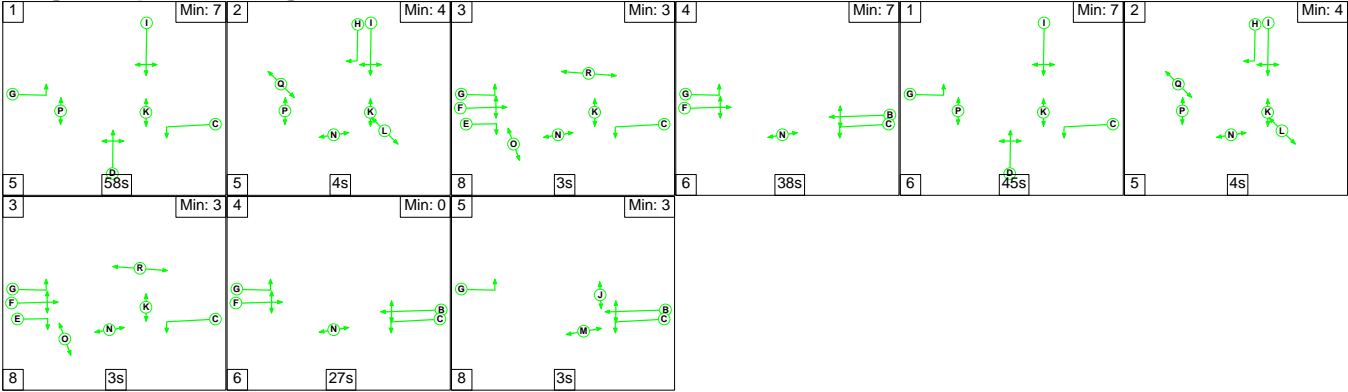
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	90	574	8	21.3	7.3	0.6	29.1	-	-	-	-
J1: Crescent Junction	-	-	85	479	6	14.6	5.2	0.5	20.3	-	-	-	-
1/1	36	36	15	21	0	0.0	0.0	0.0	0.1	5.9	0.1	0.0	0.2
1/2+1/3	612	612	0	218	4	5.6	2.1	0.0	7.7	45.4	17.8	2.1	19.9
2/1+2/2	577	577	20	0	0	5.3	2.0	0.1	7.4	45.9	17.9	2.0	20.0
3/2+3/1	241	241	0	118	0	0.1	0.2	0.0	0.3	4.6	9.8	0.2	10.0
3/3	99	99	0	98	1	0.1	0.1	0.0	0.1	4.7	0.9	0.1	1.0
4/1+4/2	538	538	51	24	1	3.5	0.8	0.5	4.8	32.0	13.5	0.8	14.3
5/1	347	347	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	393	393	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	792	792	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	571	571	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: St Francis Terrace/ Link Road	-	-	5	95	2	6.7	2.0	0.0	8.7	-	-	-	-
1/2+1/1	475	475	0	51	1	0.7	0.4	0.0	1.1	8.6	2.3	0.4	2.7
1/3	317	317	0	10	0	0.6	0.3	0.0	0.9	9.9	1.7	0.3	2.0
2/1	136	136	-	-	-	1.9	0.7	-	2.6	69.1	4.7	0.7	5.4
3/2+3/1	278	278	0	34	1	3.3	0.6	0.0	3.9	50.8	4.6	0.6	5.2
4/1	11	11	5	0	0	0.1	0.0	0.0	0.2	61.3	0.4	0.0	0.4
5/1	180	180	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	160	160	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	87	87	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	445	445	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	325	325	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	20	20	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	10.6	Total Delay for Signalled Lanes (pcuHr):	20.35	Cycle Time (s):	242
C2	PRC for Signalled Lanes (%):	51.0	Total Delay for Signalled Lanes (pcuHr):	8.73	Cycle Time (s):	242
	PRC Over All Lanes (%):	10.6	Total Delay Over All Lanes(pcuHr):	29.08		

Full Input Data And Results
Scenario 5: 'Option C AM' (FG5: 'Option C AM', Plan 1: 'Network Control Plan 1')
C1

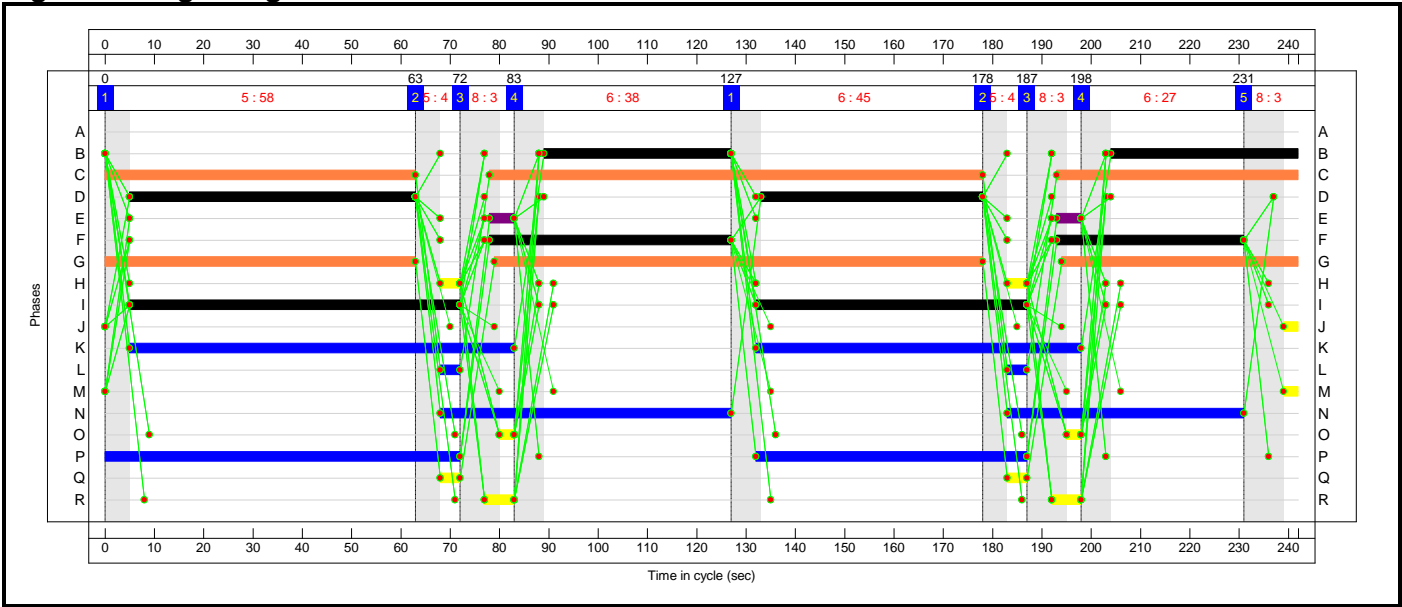
Stage Sequence Diagram



Stage Timings

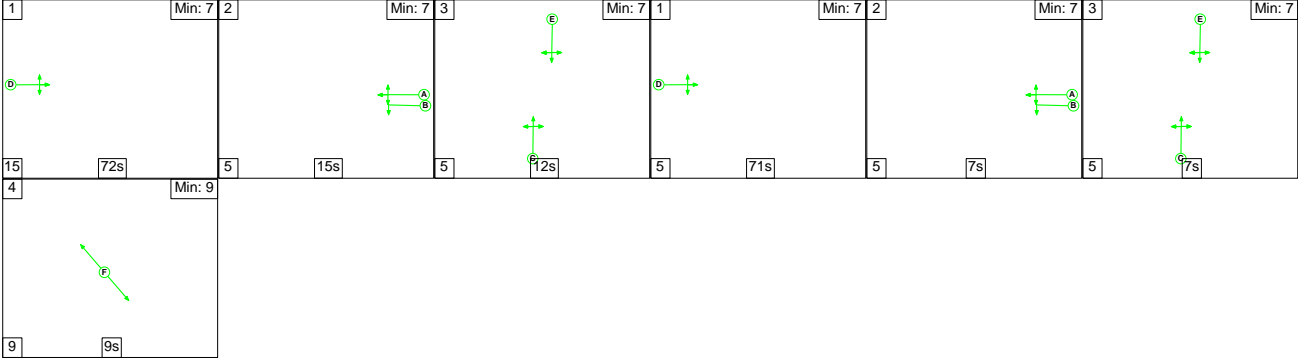
Stage	1	2	3	4	1	2	3	4	5
Duration	58	4	3	38	45	4	3	27	3
Change Point	0	63	72	83	127	178	187	198	231

Signal Timings Diagram



C2

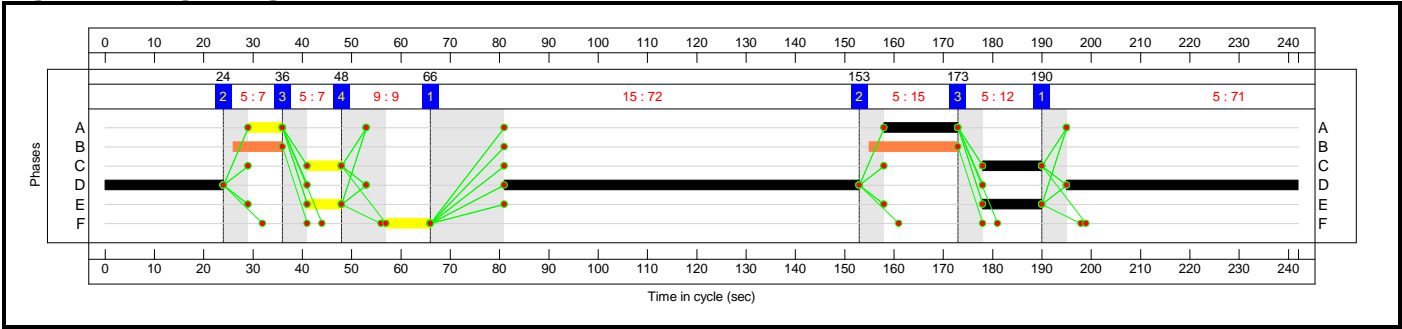
Stage Sequence Diagram



Stage Timings

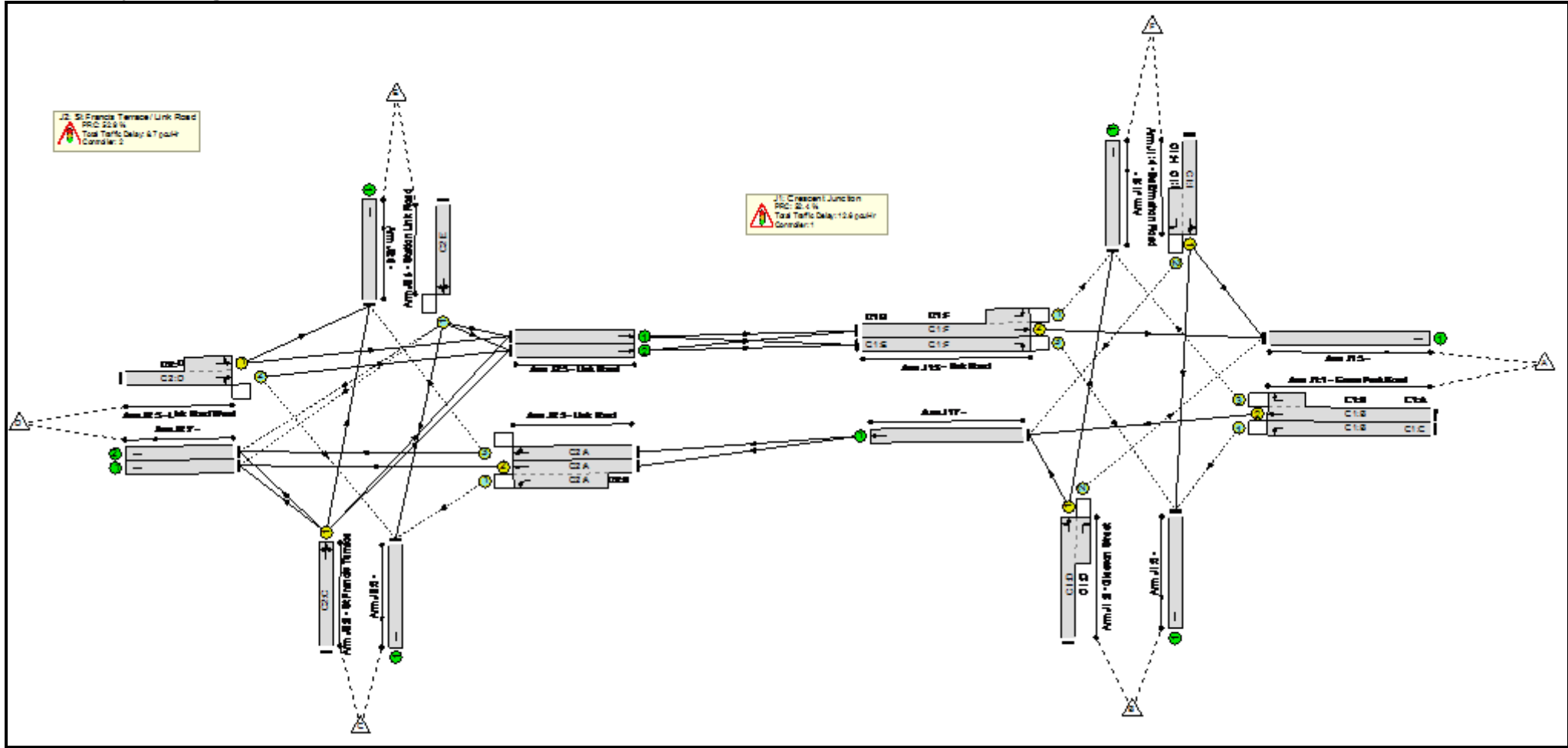
Stage	1	2	3	1	2	3	4
Duration	72	15	12	71	7	7	9
Change Point	66	153	173	190	24	36	48

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	-	-		-	-	-	-	-	-	59.1%
J1: Crescent Junction	-	-	N/A	-	-		-	-	-	-	-	-	59.1%
1/1	Grace Park Road Left	O	N/A	N/A	C1:B	C1:C	2	212	212	25	1665	982	2.5%
1/2+1/3	Grace Park Road Ahead Right	U+O	N/A	N/A	C1:B	C1:A	2	76	0	276	1915:1807	236+422	41.9 : 41.9%
2/1+2/2	Gleeson Street Right Left Ahead	U+O	N/A	N/A	C1:D		2	103	-	152	1870:1915	772+43	18.7 : 18.7%
3/2+3/1	Link Road Ahead Left	U+O	N/A	N/A	C1:F	C1:G	2	87:212	210	423	1915:1781	627+96	58.5 : 58.5%
3/3	Link Road Right	O	N/A	N/A	C1:F	C1:E	2	87	10	338	1824	671	50.4%
4/1+4/2	Ballymahon Road Left Ahead Right	U+O	N/A	N/A	C1:I	C1:H	2	122	8	562	1813:1741	797+154	59.1 : 59.1%
5/1		U	N/A	N/A	-		-	-	-	586	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	623	Inf	Inf	0.0%
7/1	Ahead	U	N/A	N/A	-		-	-	-	236	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	331	Inf	Inf	0.0%
J2: St Francis Terrace/ Link Road	-	-	N/A	-	-		-	-	-	-	-	-	58.9%
1/2+1/1	Link Road Left Ahead	U+O	N/A	N/A	C2:A	C2:B	2	22:28	28	129	2055:1665	204+206	33.4 : 29.6%
1/3	Link Road Ahead Right	O	N/A	N/A	C2:A		2	22	-	107	1897	188	56.9%
2/1	St Francis Terrace Right Left Ahead	U	N/A	N/A	C2:C		2	19	-	87	1739	151	57.7%
3/2+3/1	Link Road West Ahead Right Left	O+U	N/A	N/A	C2:D		2	143	-	775	2013:1911	683+634	58.9 : 58.9%

Full Input Data And Results

4/1	Station Link Road Left Ahead Right	O	N/A	N/A	C2:E		2	19	-	10	1702	127	7.8%
5/1	Link Road Ahead	U	N/A	N/A	-		-	-	-	406	Inf	Inf	0.0%
5/2	Link Road Ahead	U	N/A	N/A	-		-	-	-	355	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	145	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	79	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	103	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	20	Inf	Inf	0.0%

Full Input Data And Results

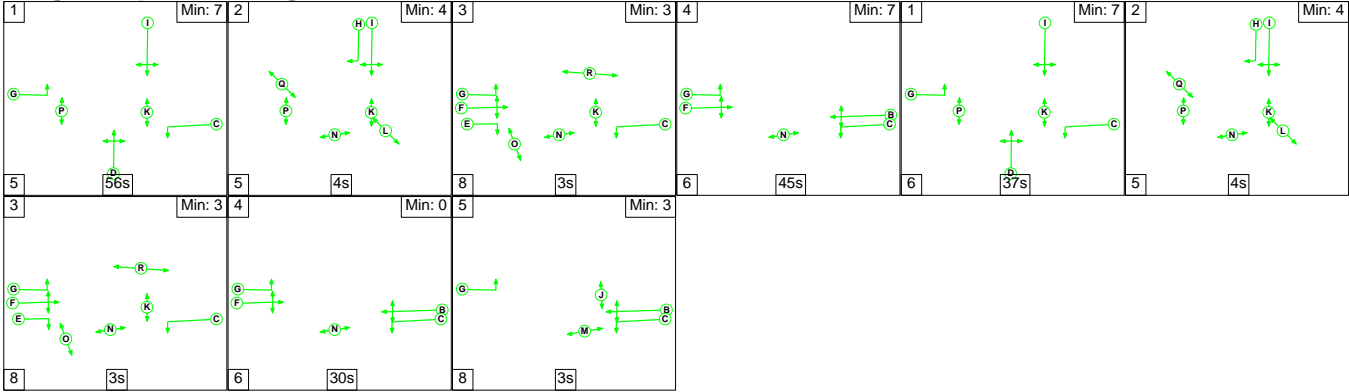
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	122	721	11	16.5	4.7	0.1	21.4	-	-	-	-
J1: Crescent Junction	-	-	117	568	9	10.1	2.4	0.1	12.6	-	-	-	-
1/1	25	25	11	14	0	0.0	0.0	0.0	0.0	5.7	0.1	0.0	0.1
1/2+1/3	276	276	0	174	3	2.3	0.4	0.0	2.7	35.3	5.3	0.4	5.6
2/1+2/2	152	152	8	0	0	0.9	0.1	0.0	1.0	24.5	3.0	0.1	3.1
3/2+3/1	423	423	14	42	0	2.0	0.7	0.0	2.7	22.9	7.9	0.7	8.6
3/3	338	338	0	333	5	1.8	0.5	0.0	2.3	24.8	4.6	0.5	5.1
4/1+4/2	562	562	84	5	2	3.1	0.7	0.1	3.8	24.6	11.8	0.7	12.6
5/1	586	586	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	623	623	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	236	236	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	331	331	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: St Francis Terrace/ Link Road	-	-	5	153	2	6.4	2.3	0.0	8.7	-	-	-	-
1/2+1/1	129	129	0	61	0	1.2	0.2	0.0	1.4	38.8	2.4	0.2	2.6
1/3	107	107	0	10	0	1.0	0.6	0.0	1.7	56.3	3.8	0.6	4.5
2/1	87	87	-	-	-	1.3	0.7	-	2.0	82.2	3.3	0.7	3.9
3/2+3/1	775	775	0	83	1	2.8	0.7	0.0	3.5	16.1	12.2	0.7	12.9
4/1	10	10	5	0	0	0.1	0.0	0.0	0.2	70.6	0.4	0.0	0.4
5/1	406	406	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	355	355	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	145	145	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	79	79	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	103	103	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	20	20	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	52.4	Total Delay for Signalled Lanes (pcuHr):	12.63	Cycle Time (s):	242
C2	PRC for Signalled Lanes (%):	52.9	Total Delay for Signalled Lanes (pcuHr):	8.72	Cycle Time (s):	242
	PRC Over All Lanes (%):	52.4	Total Delay Over All Lanes(pcuHr):	21.35		

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

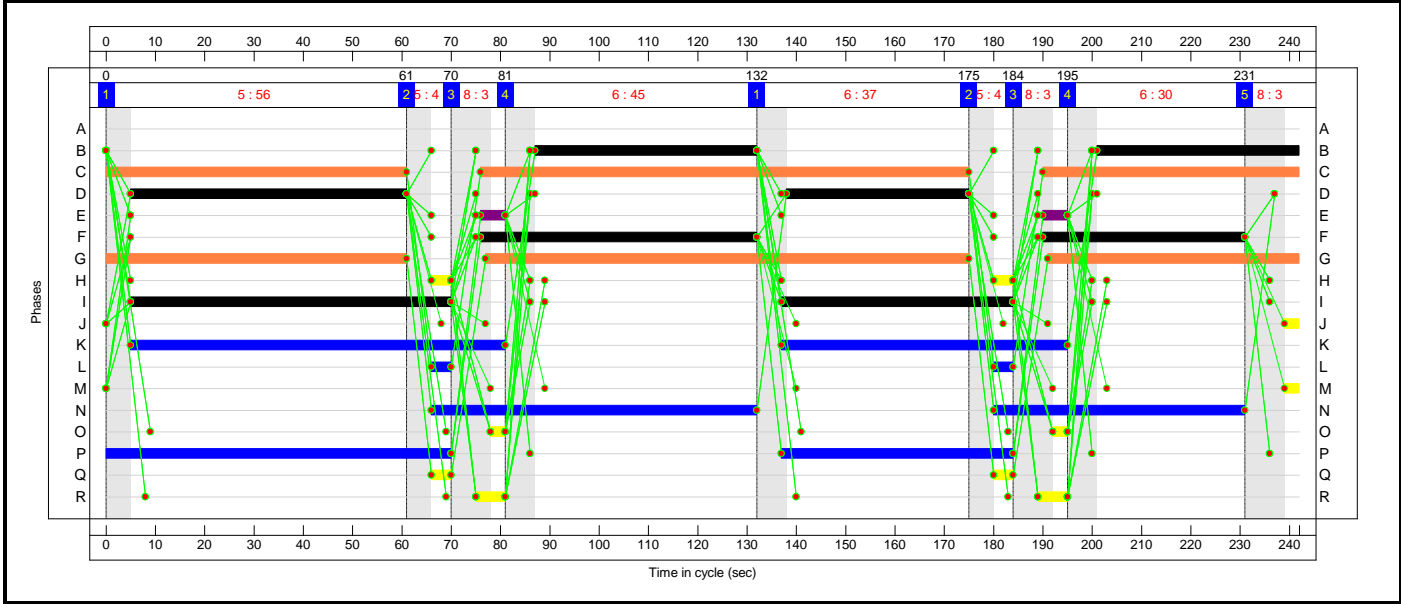
Stage Sequence Diagram



Stage Timings

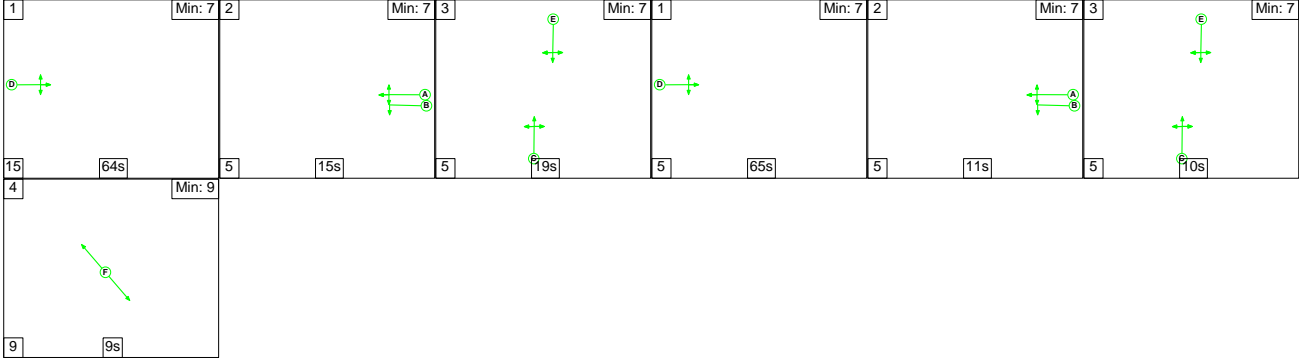
Stage	1	2	3	4	1	2	3	4	5
Duration	56	4	3	45	37	4	3	30	3
Change Point	0	61	70	81	132	175	184	195	231

Signal Timings Diagram



C2

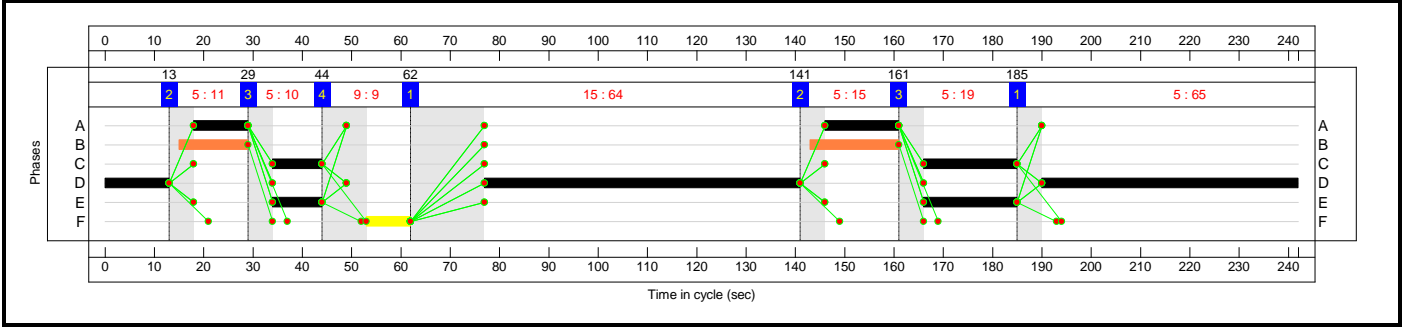
Stage Sequence Diagram



Stage Timings

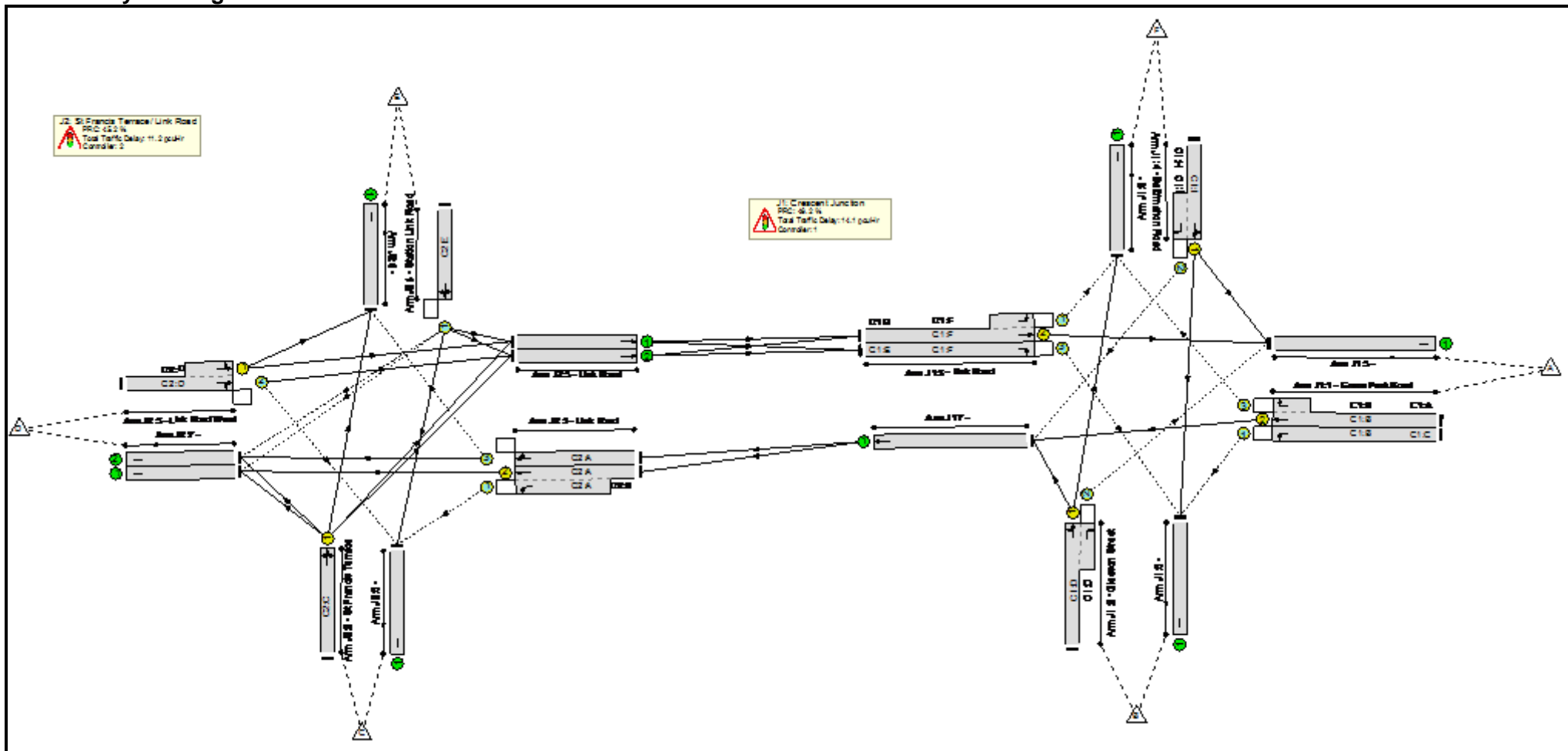
Stage	1	2	3	1	2	3	4
Duration	64	15	19	65	11	10	9
Change Point	62	141	161	185	13	29	44

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	-	-		-	-	-	-	-	-	62.0%
J1: Crescent Junction	-	-	N/A	-	-		-	-	-	-	-	-	61.6%
1/1	Grace Park Road Left	O	N/A	N/A	C1:B	C1:C	2	212	212	35	1665	1008	3.5%
1/2+1/3	Grace Park Road Ahead Right	U+O	N/A	N/A	C1:B	C1:A	2	86	0	322	1915:1807	246+482	44.2 : 44.2%
2/1+2/2	Gleeson Street Right Left Ahead	U+O	N/A	N/A	C1:D		2	93	-	323	1877:1915	697+44	43.6 : 43.6%
3/2+3/1	Link Road Ahead Left	U+O	N/A	N/A	C1:F	C1:G	2	97:212	210	508	1915:1781	604+221	61.6 : 61.6%
3/3	Link Road Right	O	N/A	N/A	C1:F	C1:E	2	97	10	302	1824	746	40.5%
4/1+4/2	Ballymahon Road Left Ahead Right	U+O	N/A	N/A	C1:I	C1:H	2	112	8	539	1816:1741	744+132	61.5 : 61.5%
5/1		U	N/A	N/A	-		-	-	-	591	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	595	Inf	Inf	0.0%
7/1	Ahead	U	N/A	N/A	-		-	-	-	272	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	571	Inf	Inf	0.0%
J2: St Francis Terrace/ Link Road	-	-	N/A	-	-		-	-	-	-	-	-	62.0%
1/2+1/1	Link Road Left Ahead	U+O	N/A	N/A	C2:A	C2:B	2	26:32	32	198	2055:1665	238+82	61.8 : 61.8%
1/3	Link Road Ahead Right	O	N/A	N/A	C2:A		2	26	-	74	1889	219	33.9%
2/1	St Francis Terrace Right Left Ahead	U	N/A	N/A	C2:C		2	29	-	137	1726	221	62.0%
3/2+3/1	Link Road West Ahead Right Left	O+U	N/A	N/A	C2:D		2	129	-	749	2036:1911	625+585	61.9 : 61.9%

Full Input Data And Results

4/1	Station Link Road Left Ahead Right	O	N/A	N/A	C2:E		2	29	-	11	1699	173	6.4%
5/1	Link Road Ahead	U	N/A	N/A	-		-	-	-	407	Inf	Inf	0.0%
5/2	Link Road Ahead	U	N/A	N/A	-		-	-	-	403	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	87	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	170	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	82	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	20	Inf	Inf	0.0%

Full Input Data And Results

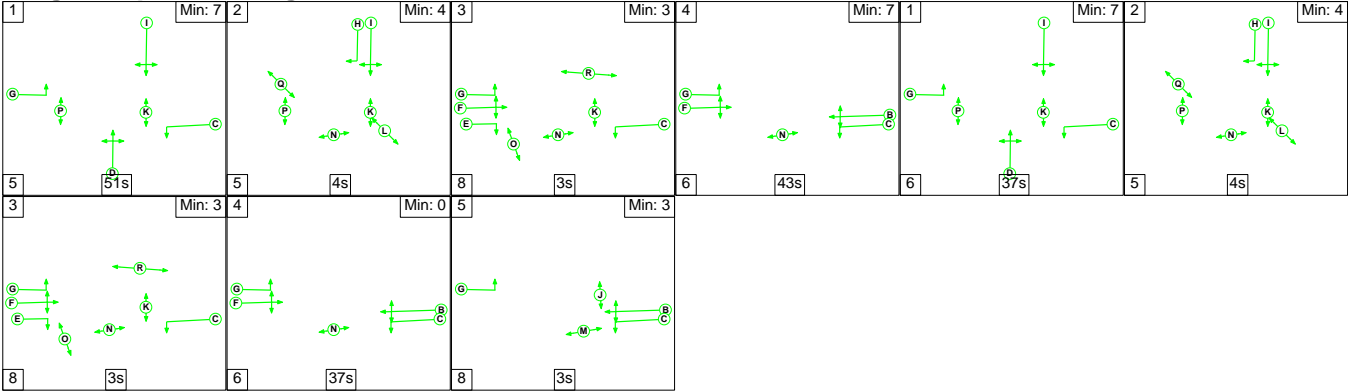
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	137	740	11	19.6	5.4	0.3	25.3	-	-	-	-
J1: Crescent Junction	-	-	132	645	9	11.0	2.7	0.3	14.1	-	-	-	-
1/1	35	35	14	21	0	0.0	0.0	0.0	0.1	5.8	0.1	0.0	0.2
1/2+1/3	322	322	0	209	4	2.5	0.4	0.0	2.9	32.3	6.8	0.4	7.2
2/1+2/2	323	323	19	0	0	2.4	0.4	0.1	2.9	31.9	7.9	0.4	8.2
3/2+3/1	508	508	23	113	0	1.5	0.8	0.0	2.4	16.8	11.5	0.8	12.3
3/3	302	302	0	298	4	1.2	0.3	0.0	1.5	18.0	3.3	0.3	3.7
4/1+4/2	539	539	75	5	1	3.4	0.8	0.1	4.4	29.2	12.7	0.8	13.5
5/1	591	591	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	595	595	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	272	272	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	571	571	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: St Francis Terrace/ Link Road	-	-	5	95	2	8.5	2.7	0.0	11.2	-	-	-	-
1/2+1/1	198	198	0	50	1	2.3	0.8	0.0	3.1	56.9	5.2	0.8	6.0
1/3	74	74	0	10	0	0.6	0.3	0.0	0.9	43.5	1.6	0.3	1.9
2/1	137	137	-	-	-	1.9	0.8	-	2.7	72.1	5.0	0.8	5.8
3/2+3/1	749	749	0	35	1	3.5	0.8	0.0	4.3	20.5	13.4	0.8	14.2
4/1	11	11	5	0	0	0.1	0.0	0.0	0.2	62.4	0.4	0.0	0.4
5/1	407	407	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	403	403	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	87	87	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	170	170	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	82	82	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	20	20	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	46.2	Total Delay for Signalled Lanes (pcuHr):	14.07	Cycle Time (s):	242
C2	PRC for Signalled Lanes (%):	45.2	Total Delay for Signalled Lanes (pcuHr):	11.22	Cycle Time (s):	242
	PRC Over All Lanes (%):	45.2	Total Delay Over All Lanes(pcuHr):	25.30		

Full Input Data And Results
Scenario 7: 'Option D AM' (FG7: 'Option D AM', Plan 1: 'Network Control Plan 1')
C1

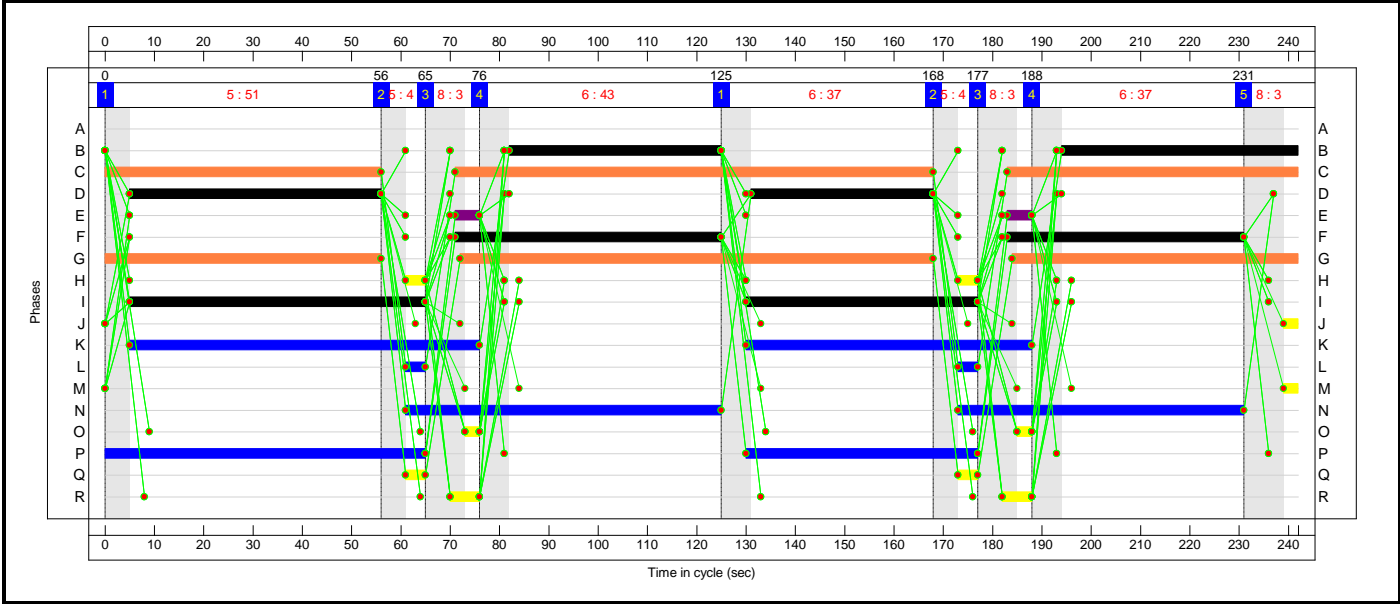
Stage Sequence Diagram



Stage Timings

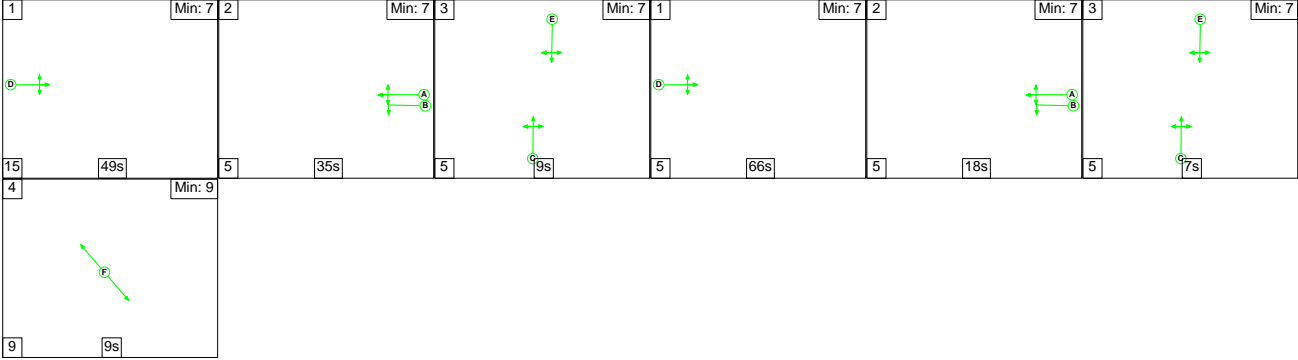
Stage	1	2	3	4	1	2	3	4	5
Duration	51	4	3	43	37	4	3	37	3
Change Point	0	56	65	76	125	168	177	188	231

Signal Timings Diagram



C2

Stage Sequence Diagram

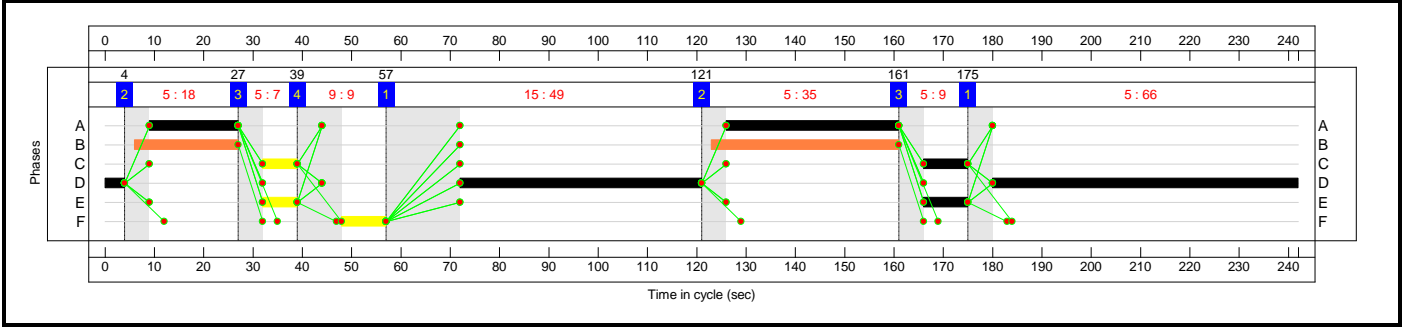


Full Input Data And Results

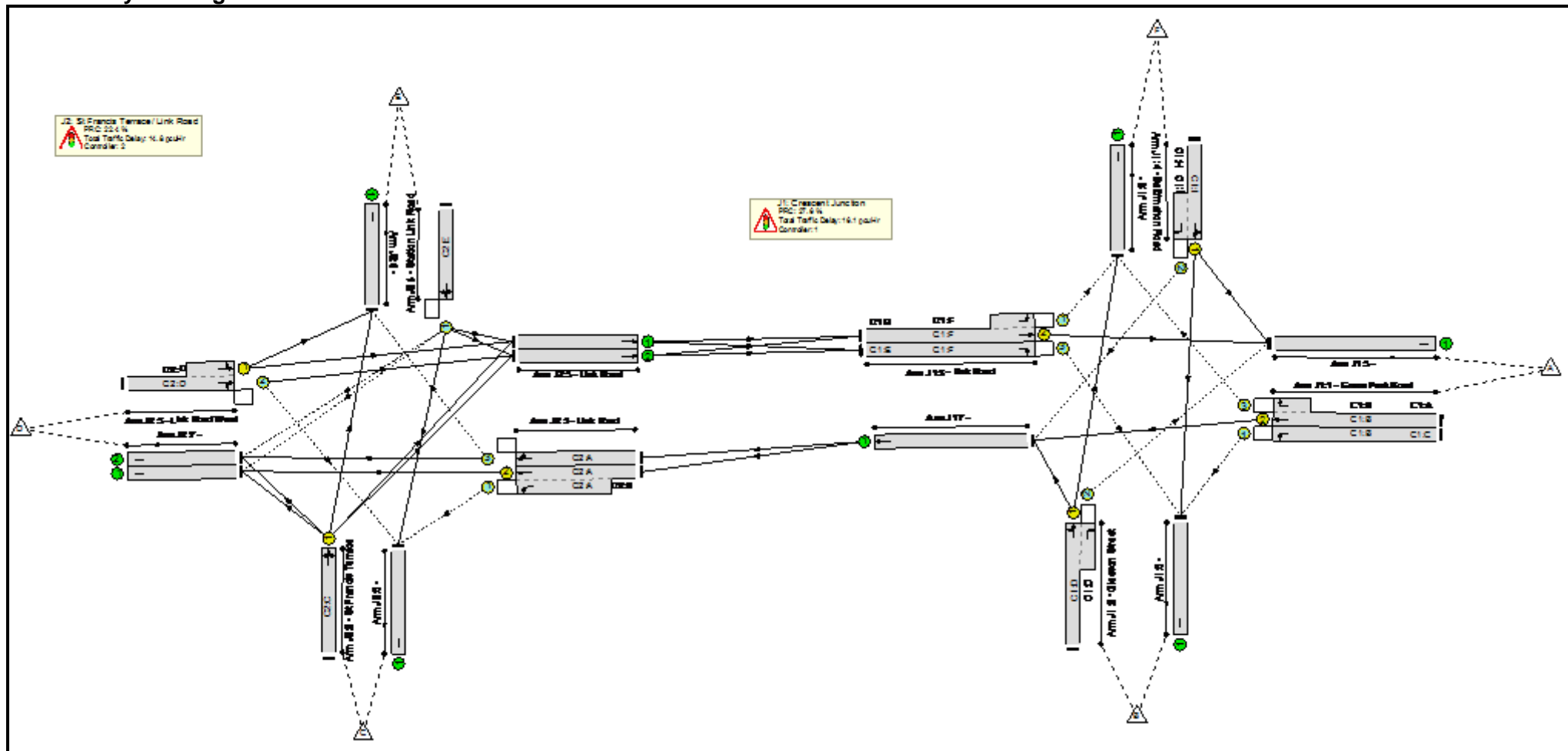
Stage Timings

Stage	1	2	3	1	2	3	4
Duration	49	35	9	66	18	7	9
Change Point	57	121	161	175	4	27	39

Signal Timings Diagram



Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	73.5%
J1: Crescent Junction	-	-	N/A	-	-		-	-	-	-	-	-	70.5%
1/1	Grace Park Road Left	O	N/A	N/A	C1:B	C1:C	2	212	212	29	1665	977	3.0%
1/2+1/3	Grace Park Road Ahead Right	U+O	N/A	N/A	C1:B	C1:A	2	91	0	536	1915:1807	502+280	68.5 : 68.5%
2/1+2/2	Gleeson Street Right Left Ahead	U+O	N/A	N/A	C1:D		2	88	-	276	1832:1915	660+25	40.3 : 40.3%
3/2+3/1	Link Road Ahead Left	U+O	N/A	N/A	C1:F	C1:G	2	102:212	210	487	1915:1781	613+257	56.0 : 56.0%
3/3	Link Road Right	O	N/A	N/A	C1:F	C1:E	2	102	10	311	1824	784	39.7%
4/1+4/2	Ballymahon Road Left Ahead Right	U+O	N/A	N/A	C1:I	C1:H	2	107	8	590	1813:1741	716+121	70.5 : 70.5%
5/1		U	N/A	N/A	-		-	-	-	581	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	617	Inf	Inf	0.0%
7/1	Ahead	U	N/A	N/A	-		-	-	-	589	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	442	Inf	Inf	0.0%
J2: St Francis Terrace/ Link Road	-	-	N/A	-	-		-	-	-	-	-	-	73.5%
1/2+1/1	Link Road Left Ahead	U+O	N/A	N/A	C2:A	C2:B	2	53:59	59	407	2055:1665	467+87	73.4 : 73.4%
1/3	Link Road Ahead Right	O	N/A	N/A	C2:A		2	53	-	182	1905	433	42.0%
2/1	St Francis Terrace Right Left Ahead	U	N/A	N/A	C2:C		2	16	-	91	1740	129	70.3%
3/2+3/1	Link Road West Ahead Right Left	O+U	N/A	N/A	C2:D		2	115	-	803	2015:1911	562+531	73.5 : 73.5%

Full Input Data And Results

4/1	Station Link Road Left Ahead Right	O	N/A	N/A	C2:E		2	16	-	11	1699	119	9.2%
5/1	Link Road Ahead	U	N/A	N/A	-		-	-	-	425	Inf	Inf	0.0%
5/2	Link Road Ahead	U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	145	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	353	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	178	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	20	Inf	Inf	0.0%

Full Input Data And Results

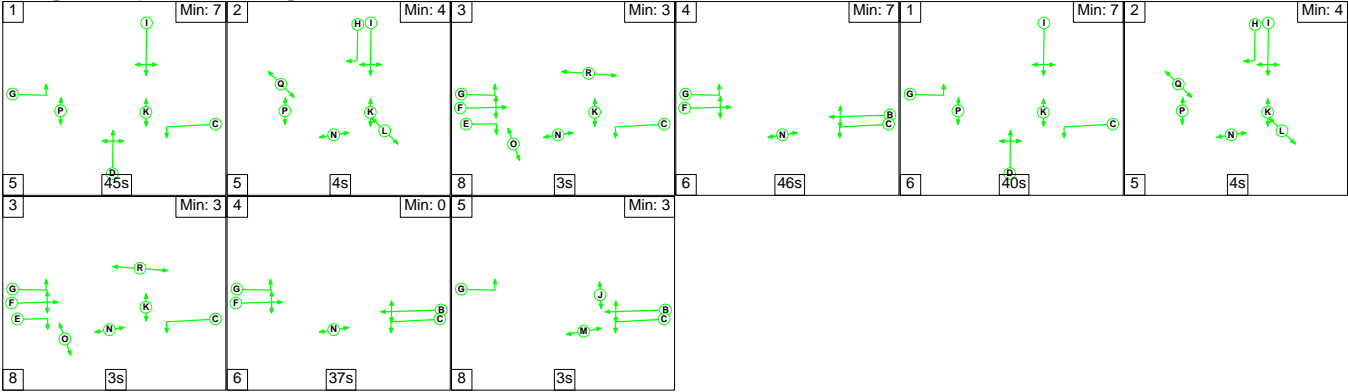
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	115	803	13	22.9	7.8	0.2	31.0	-	-	-	-
J1: Crescent Junction	-	-	110	652	9	12.3	3.6	0.2	16.1	-	-	-	-
1/1	29	29	11	18	0	0.0	0.0	0.0	0.1	7.1	0.1	0.0	0.1
1/2+1/3	536	536	0	189	3	4.4	1.1	0.0	5.5	36.7	13.7	1.1	14.8
2/1+2/2	276	276	10	0	0	2.1	0.3	0.1	2.5	33.1	6.8	0.3	7.1
3/2+3/1	487	487	10	134	0	0.8	0.6	0.0	1.5	11.0	9.5	0.6	10.2
3/3	311	311	0	306	5	0.7	0.3	0.0	1.1	12.2	2.6	0.3	3.0
4/1+4/2	590	590	79	5	1	4.2	1.2	0.1	5.6	33.9	15.5	1.2	16.7
5/1	581	581	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	617	617	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	589	589	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	442	442	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: St Francis Terrace/ Link Road	-	-	5	151	4	10.5	4.3	0.0	14.8	-	-	-	-
1/2+1/1	407	407	0	62	2	2.9	1.4	0.0	4.3	37.9	10.3	1.4	11.6
1/3	182	182	0	10	0	1.2	0.4	0.0	1.5	30.2	2.9	0.4	3.2
2/1	91	91	-	-	-	1.4	1.1	-	2.5	99.8	3.3	1.1	4.5
3/2+3/1	803	803	0	80	1	4.9	1.4	0.0	6.3	28.0	17.1	1.4	18.5
4/1	11	11	5	0	0	0.2	0.1	0.0	0.2	72.3	0.4	0.1	0.4
5/1	425	425	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	145	145	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	353	353	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	178	178	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	20	20	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	27.6	Total Delay for Signalled Lanes (pcuHr):	16.15	Cycle Time (s):	242
C2	PRC for Signalled Lanes (%):	22.4	Total Delay for Signalled Lanes (pcuHr):	14.81	Cycle Time (s):	242
	PRC Over All Lanes (%):	22.4	Total Delay Over All Lanes(pcuHr):	30.96		

Full Input Data And Results
Scenario 8: 'Option D PM' (FG8: 'Option D PM', Plan 1: 'Network Control Plan 1')
C1

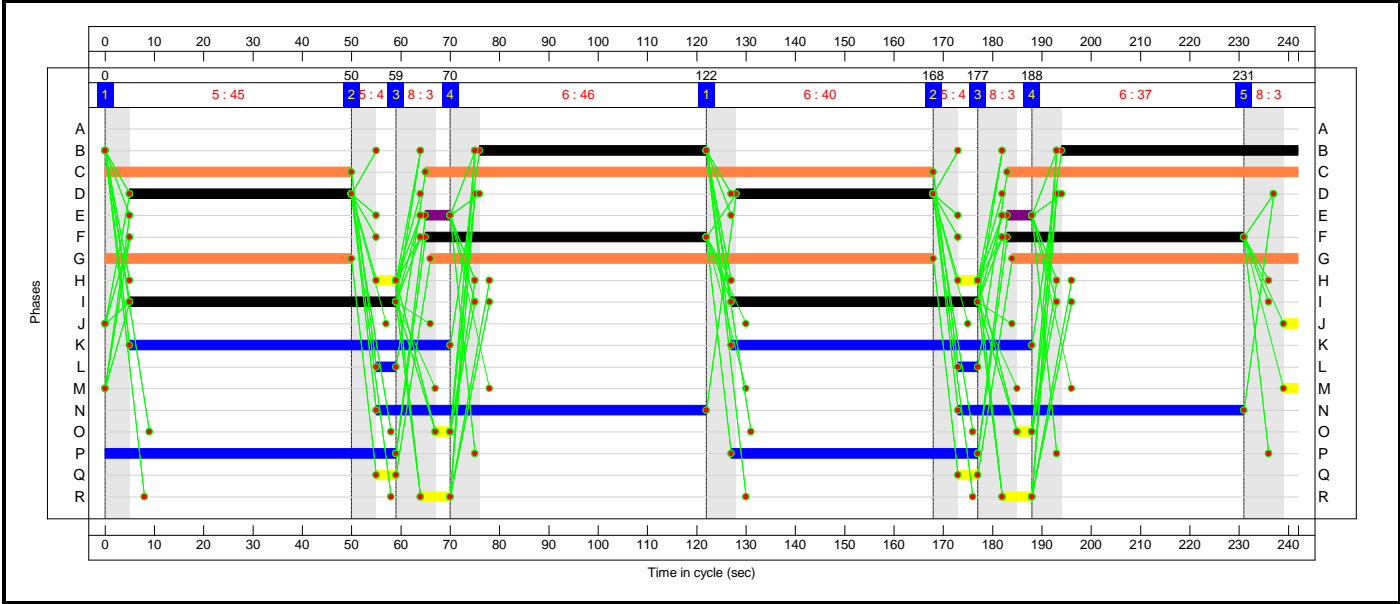
Stage Sequence Diagram



Stage Timings

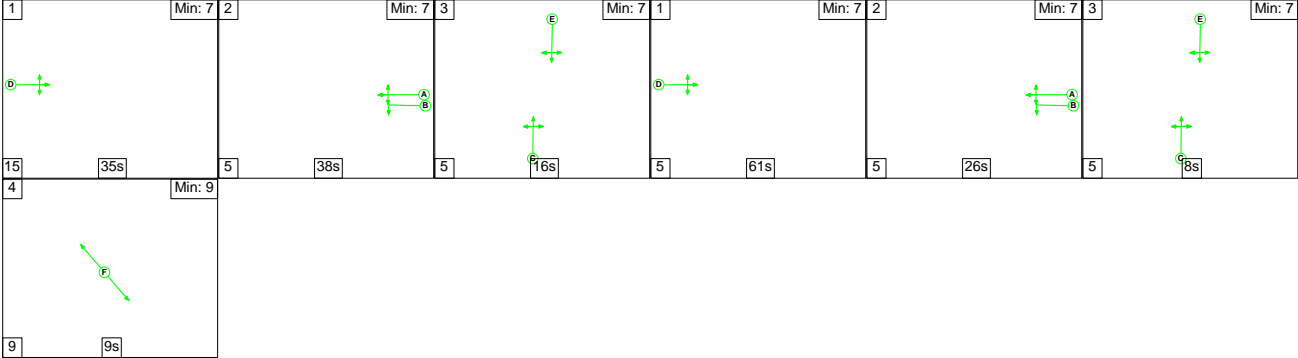
Stage	1	2	3	4	1	2	3	4	5
Duration	45	4	3	46	40	4	3	37	3
Change Point	0	50	59	70	122	168	177	188	231

Signal Timings Diagram



C2

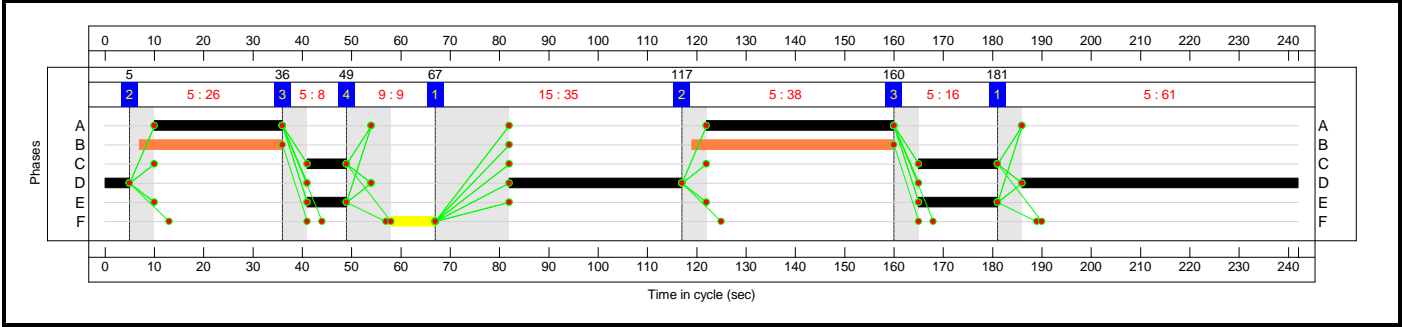
Stage Sequence Diagram



Stage Timings

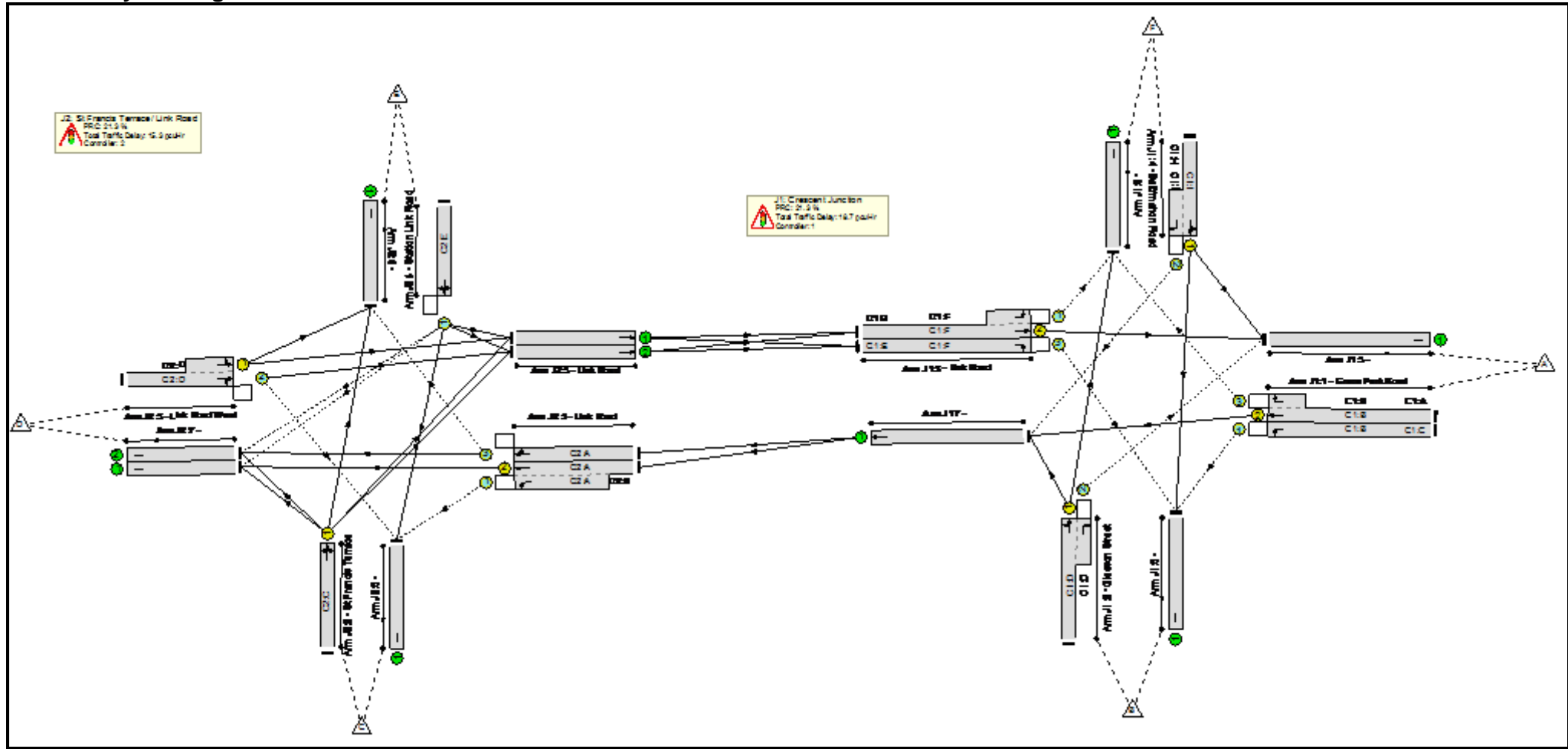
Stage	1	2	3	1	2	3	4
Duration	35	38	16	61	26	8	9
Change Point	67	117	160	181	5	36	49

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	-	-		-	-	-	-	-	-	74.2%
J1: Crescent Junction	-	-	N/A	-	-		-	-	-	-	-	-	74.2%
1/1	Grace Park Road Left	O	N/A	N/A	C1:B	C1:C	2	212	212	36	1665	1020	3.5%
1/2+1/3	Grace Park Road Ahead Right	U+O	N/A	N/A	C1:B	C1:A	2	94	0	598	1915:1807	515+291	74.2 : 74.2%
2/1+2/2	Gleeson Street Right Left Ahead	U+O	N/A	N/A	C1:D		2	85	-	442	1849:1915	639+29	66.2 : 66.2%
3/2+3/1	Link Road Ahead Left	U+O	N/A	N/A	C1:F	C1:G	2	105:212	210	478	1915:1781	643+245	53.8 : 53.8%
3/3	Link Road Right	O	N/A	N/A	C1:F	C1:E	2	105	10	281	1824	806	34.8%
4/1+4/2	Ballymahon Road Left Ahead Right	U+O	N/A	N/A	C1:I	C1:H	2	104	8	535	1816:1741	697+119	65.6 : 65.6%
5/1		U	N/A	N/A	-		-	-	-	565	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	574	Inf	Inf	0.0%
7/1	Ahead	U	N/A	N/A	-		-	-	-	660	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	571	Inf	Inf	0.0%
J2: St Francis Terrace/ Link Road	-	-	N/A	-	-		-	-	-	-	-	-	74.2%
1/2+1/1	Link Road Left Ahead	U+O	N/A	N/A	C2:A	C2:B	2	64:70	70	465	2055:1665	560+71	73.7 : 73.7%
1/3	Link Road Ahead Right	O	N/A	N/A	C2:A		2	64	-	195	1904	519	37.6%
2/1	St Francis Terrace Right Left Ahead	U	N/A	N/A	C2:C		2	24	-	135	1726	185	72.8%
3/2+3/1	Link Road West Ahead Right Left	O+U	N/A	N/A	C2:D		2	96	-	698	2035:1911	485+456	74.2 : 74.2%

Full Input Data And Results

4/1	Station Link Road Left Ahead Right	O	N/A	N/A	C2:E		2	24	-	11	1699	148	7.4%
5/1	Link Road Ahead	U	N/A	N/A	-		-	-	-	383	Inf	Inf	0.0%
5/2	Link Road Ahead	U	N/A	N/A	-		-	-	-	376	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	87	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	435	Inf	Inf	0.0%
7/2		U	N/A	N/A	-		-	-	-	202	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	21	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	-	-	116	736	13	25.0	8.6	0.4	34.0	-	-	-	-
J1: Crescent Junction	-	-	112	641	9	14.1	4.2	0.4	18.7	-	-	-	-
1/1	36	36	14	22	0	0.0	0.0	0.0	0.1	6.2	0.1	0.0	0.2
1/2+1/3	598	598	0	212	4	4.9	1.4	0.0	6.3	37.8	15.0	1.4	16.4
2/1+2/2	442	442	19	0	0	4.0	1.0	0.1	5.0	40.9	12.3	1.0	13.3
3/2+3/1	478	478	7	125	0	0.8	0.6	0.0	1.4	10.5	11.5	0.6	12.1
3/3	281	281	0	277	4	0.6	0.3	0.0	0.8	10.7	2.7	0.3	2.9
4/1+4/2	535	535	72	5	1	3.9	0.9	0.3	5.1	34.3	13.3	0.9	14.2
5/1	565	565	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	574	574	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	660	660	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	571	571	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: St Francis Terrace/ Link Road	-	-	4	95	4	10.9	4.4	0.0	15.3	-	-	-	-
1/2+1/1	465	465	0	50	2	2.6	1.4	0.0	4.0	31.0	13.2	1.4	14.5
1/3	195	195	0	11	0	0.8	0.3	0.0	1.1	20.7	1.6	0.3	1.9
2/1	135	135	-	-	-	2.0	1.3	-	3.2	86.5	4.7	1.3	5.9
3/2+3/1	698	698	0	34	1	5.3	1.4	0.0	6.8	34.8	15.5	1.4	16.9
4/1	11	11	4	0	1	0.1	0.0	0.0	0.2	65.9	0.4	0.0	0.4
5/1	383	383	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	376	376	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	87	87	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	435	435	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	202	202	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	21	21	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	21.3	Total Delay for Signalled Lanes (pcuHr):	18.69	Cycle Time (s):	242
C2	PRC for Signalled Lanes (%):	21.3	Total Delay for Signalled Lanes (pcuHr):	15.33	Cycle Time (s):	242
	PRC Over All Lanes (%):	21.3	Total Delay Over All Lanes(pcuHr):	34.02		

Appendix C: Junction Assessment – LinSig Pump Lane / John Broderick Street / Sean Costello Street

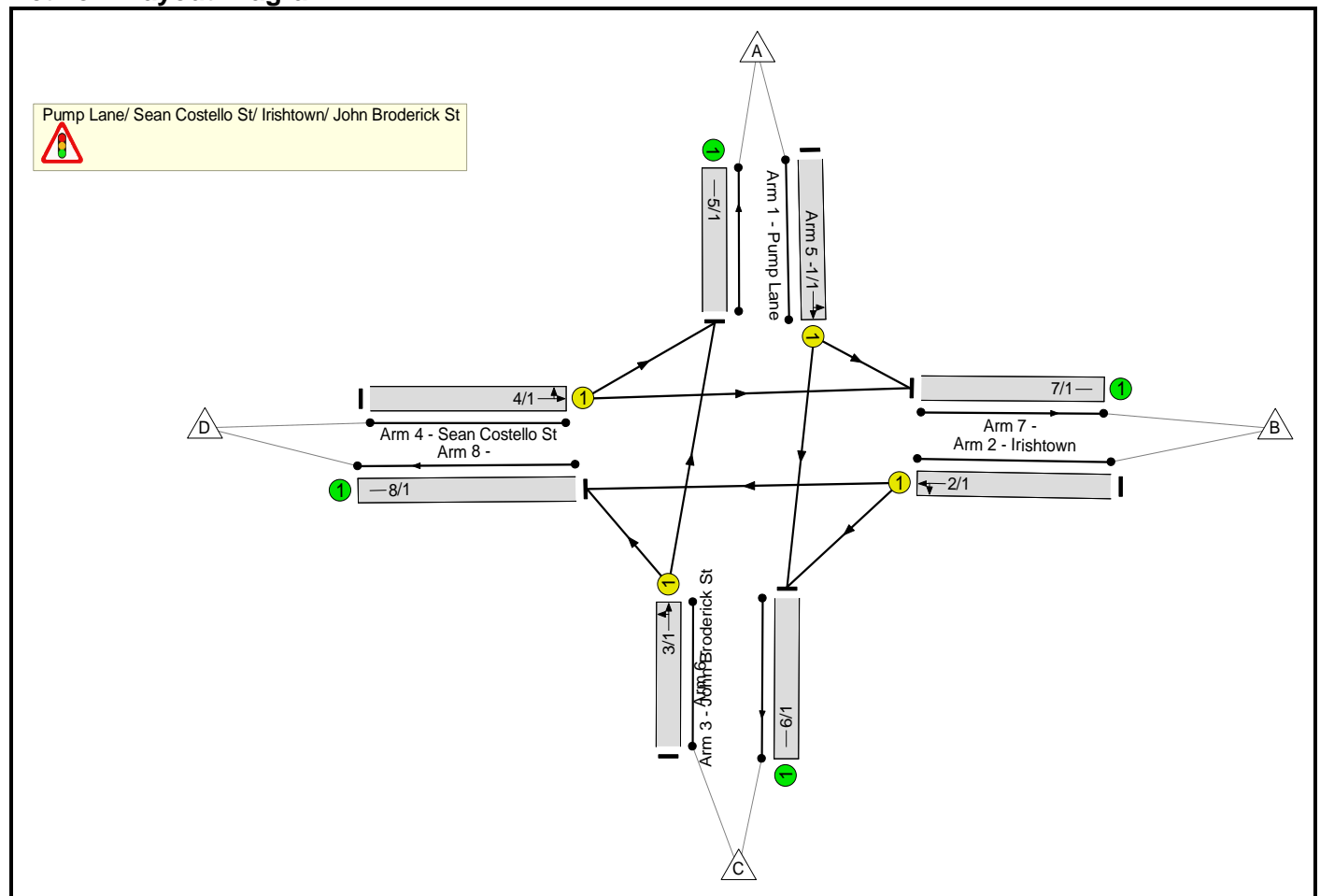
Full Input Data And Results

Full Input Data And Results

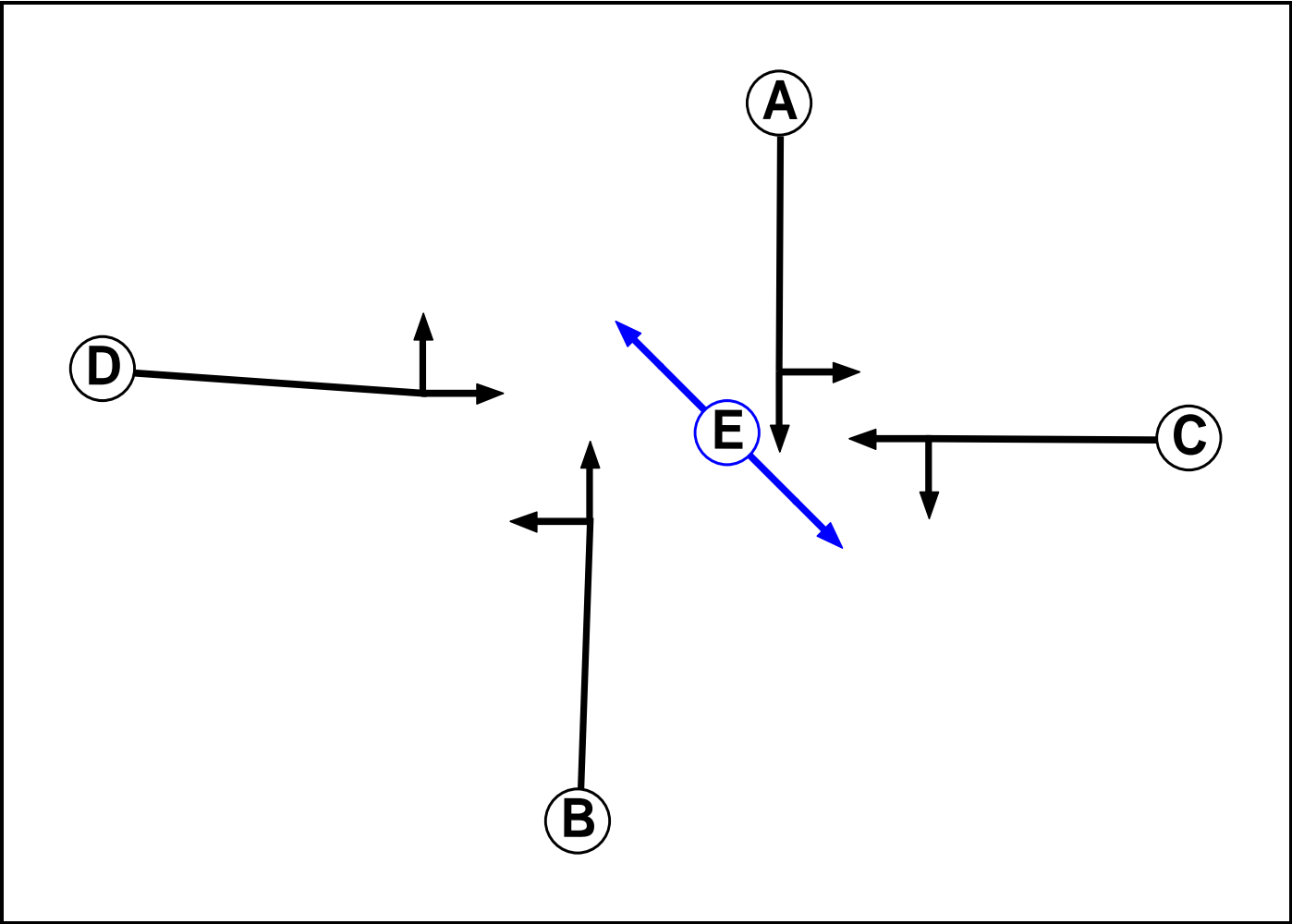
User and Project Details

Project:	
Title:	
Location:	
File name:	Pump Lane-Irish Town- John Broderick Street-Sean Costello.lsg3x
Author:	
Company:	
Address:	
Notes:	

Network Layout Diagram



Phase Diagram



Phase Input Data

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

Full Input Data And Results

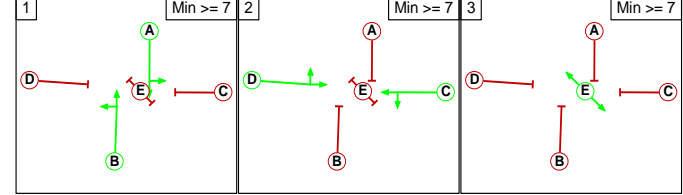
Phase Intergreens Matrix

Terminating Phase	Starting Phase					
		A	B	C	D	E
	A		-	5	5	6
	B	-		5	5	6
	C	5	5		-	6
	D	5	5	-		6
	E	10	10	10	10	

Phases in Stage

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

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	3
	1		5 6
	2	5	
3	10	10	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St												
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 (Pump Lane)	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 6 Ahead	Inf
											Arm 7 Left	10.00
2/1 (Irishtown)	U	C	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 6 Left	10.00
											Arm 8 Ahead	Inf
3/1 (John Broderick St)	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	10.00
4/1 (Sean Costello St)	U	D	2	3	60.0	Geom	-	2.85	0.00	Y	Arm 5 Left	10.00
											Arm 7 Ahead	Inf
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2016 AM Base'	08:00	09:00	01:00	
2: '2016 PM Base'	17:00	18:00	01:00	
3: 'Option B - AM'	08:00	09:00	01:00	
4: 'Option B - PM'	17:00	18:00	01:00	
5: 'Option C - AM'	08:00	09:00	01:00	
6: 'Option C - PM'	17:00	18:00	01:00	
7: 'Option D- AM '	08:00	09:00	01:00	
8: 'Option D - PM'	17:00	18:00	01:00	

Scenario 1: '2016 AM Base' (FG1: '2016 AM Base', Plan 1: 'Network Control Plan 1')**Traffic Flows, Desired****Desired Flow :**

	Destination					
Origin		A	B	C	D	Tot.
	A	0	37	221	0	258
	B	0	0	11	375	386
	C	54	0	0	70	124
	D	18	259	0	0	277
	Tot.	72	296	232	445	1045

Traffic Lane Flows

Lane	Scenario 1: 2016 AM Base
Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	
1/1	258
2/1	386
3/1	124
4/1	277
5/1	72
6/1	232
7/1	296
8/1	445

Lane Saturation Flows

Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St								
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 (Pump Lane)	3.00	0.00	Y	Arm 6 Ahead	Inf	85.7 %	1875	1875
				Arm 7 Left	10.00	14.3 %		
2/1 (Irishtown)	3.00	0.00	Y	Arm 6 Left	10.00	2.8 %	1907	1907
				Arm 8 Ahead	Inf	97.2 %		
3/1 (John Broderick St)	3.50	0.00	Y	Arm 5 Ahead	Inf	43.5 %	1812	1812
				Arm 8 Left	10.00	56.5 %		
4/1 (Sean Costello St)	2.85	0.00	Y	Arm 5 Left	10.00	6.5 %	1882	1882
				Arm 7 Ahead	Inf	93.5 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 2: '2016 PM Base' (FG2: '2016 PM Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin	A	A	B	C	D	Tot.
	A	0	51	288	0	339
	B	0	0	6	375	381
	C	205	0	0	196	401
	D	25	304	0	0	329
	Tot.	230	355	294	571	1450

Traffic Lane Flows

Lane	Scenario 2: 2016 PM Base
Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	
1/1	339
2/1	381
3/1	401
4/1	329
5/1	230
6/1	294
7/1	355
8/1	571

Lane Saturation Flows

Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St								
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 (Pump Lane)	3.00	0.00	Y	Arm 6 Ahead	Inf	85.0 %	1873	1873
				Arm 7 Left	10.00	15.0 %		
2/1 (Irishtown)	3.00	0.00	Y	Arm 6 Left	10.00	1.6 %	1910	1910
				Arm 8 Ahead	Inf	98.4 %		
3/1 (John Broderick St)	3.50	0.00	Y	Arm 5 Ahead	Inf	51.1 %	1831	1831
				Arm 8 Left	10.00	48.9 %		
4/1 (Sean Costello St)	2.85	0.00	Y	Arm 5 Left	10.00	7.6 %	1879	1879
				Arm 7 Ahead	Inf	92.4 %		
5/1	Infinite Saturation Flow					Inf	Inf	
6/1	Infinite Saturation Flow					Inf	Inf	
7/1	Infinite Saturation Flow					Inf	Inf	
8/1	Infinite Saturation Flow					Inf	Inf	

Full Input Data And Results

Scenario 3: 'Option B AM' (FG3: 'Option B - AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	37	221	0	258
	B	0	0	11	0	11
	C	124	0	0	0	124
	D	18	259	0	0	277
	Tot.	142	296	232	0	670

Traffic Lane Flows

Lane	Scenario 3: Option B AM
Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	
1/1	258
2/1	11
3/1	124
4/1	277
5/1	142
6/1	232
7/1	296
8/1	0

Lane Saturation Flows

Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St								
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 (Pump Lane)	3.00	0.00	Y	Arm 6 Ahead	Inf	85.7 %	1875	1875
				Arm 7 Left	10.00	14.3 %		
2/1 (Irishtown)	3.00	0.00	Y	Arm 6 Left	10.00	100.0 %	1665	1665
				Arm 8 Ahead	Inf	0.0 %		
3/1 (John Broderick St)	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
				Arm 8 Left	10.00	0.0 %		
4/1 (Sean Costello St)	2.85	0.00	Y	Arm 5 Left	10.00	6.5 %	1882	1882
				Arm 7 Ahead	Inf	93.5 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 4: 'Option B PM' (FG4: 'Option B - PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	61	288	0	349
	B	0	0	6	0	6
	C	401	0	0	0	401
	D	25	304	0	0	329
	Tot.	426	365	294	0	1085

Traffic Lane Flows

Lane	Scenario 4: Option B PM
Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	
1/1	349
2/1	6
3/1	401
4/1	329
5/1	426
6/1	294
7/1	365
8/1	0

Lane Saturation Flows

Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St								
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 (Pump Lane)	3.00	0.00	Y	Arm 6 Ahead	Inf	82.5 %	1866	1866
				Arm 7 Left	10.00	17.5 %		
2/1 (Irishtown)	3.00	0.00	Y	Arm 6 Left	10.00	100.0 %	1665	1665
				Arm 8 Ahead	Inf	0.0 %		
3/1 (John Broderick St)	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
				Arm 8 Left	10.00	0.0 %		
4/1 (Sean Costello St)	2.85	0.00	Y	Arm 5 Left	10.00	7.6 %	1879	1879
				Arm 7 Ahead	Inf	92.4 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 5: 'Option C AM' (FG5: 'Option C - AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	67	403	0	470
	B	0	0	11	375	386
	C	54	0	0	70	124
	D	0	0	0	0	0
	Tot.	54	67	414	445	980

Traffic Lane Flows

Lane	Scenario 5: Option C AM
Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	
1/1	470
2/1	386
3/1	124
4/1	0
5/1	54
6/1	414
7/1	67
8/1	445

Lane Saturation Flows

Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St								
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 (Pump Lane)	3.00	0.00	Y	Arm 6 Ahead	Inf	85.7 %	1875	1875
				Arm 7 Left	10.00	14.3 %		
2/1 (Irishtown)	3.00	0.00	Y	Arm 6 Left	10.00	2.8 %	1907	1907
				Arm 8 Ahead	Inf	97.2 %		
3/1 (John Broderick St)	3.50	0.00	Y	Arm 5 Ahead	Inf	43.5 %	1812	1812
				Arm 8 Left	10.00	56.5 %		
4/1 (Sean Costello St)	2.85	0.00	Y	Arm 5 Left	10.00	0.0 %	1900	1900
				Arm 7 Ahead	Inf	0.0 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 6: 'Option C PM' (FG6: 'Option C - PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	96	454	0	550
	B	0	0	6	375	381
	C	205	0	0	196	401
	D	0	0	0	0	0
	Tot.	205	96	460	571	1332

Traffic Lane Flows

Lane	Scenario 6: Option C PM
Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	
1/1	550
2/1	381
3/1	401
4/1	0
5/1	205
6/1	460
7/1	96
8/1	571

Lane Saturation Flows

Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St								
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 (Pump Lane)	3.00	0.00	Y	Arm 6 Ahead	Inf	82.5 %	1866	1866
				Arm 7 Left	10.00	17.5 %		
2/1 (Irishtown)	3.00	0.00	Y	Arm 6 Left	10.00	1.6 %	1910	1910
				Arm 8 Ahead	Inf	98.4 %		
3/1 (John Broderick St)	3.50	0.00	Y	Arm 5 Ahead	Inf	51.1 %	1831	1831
				Arm 8 Left	10.00	48.9 %		
4/1 (Sean Costello St)	2.85	0.00	Y	Arm 5 Left	10.00	0.0 %	1900	1900
				Arm 7 Ahead	Inf	0.0 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 7: 'Option D AM' (FG7: 'Option D- AM ', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	67	399	0	466
	B	0	0	11	0	11
	C	124	0	0	0	124
	D	0	0	0	0	0
	Tot.	124	67	410	0	601

Traffic Lane Flows

Lane	Scenario 7: Option D AM
Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	
1/1	466
2/1	11
3/1	124
4/1	0
5/1	124
6/1	410
7/1	67
8/1	0

Lane Saturation Flows

Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St								
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 (Pump Lane)	3.00	0.00	Y	Arm 6 Ahead	Inf	85.6 %	1875	1875
				Arm 7 Left	10.00	14.4 %		
2/1 (Irishtown)	3.00	0.00	Y	Arm 6 Left	10.00	100.0 %	1665	1665
				Arm 8 Ahead	Inf	0.0 %		
3/1 (John Broderick St)	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
				Arm 8 Left	10.00	0.0 %		
4/1 (Sean Costello St)	2.85	0.00	Y	Arm 5 Left	10.00	0.0 %	1900	1900
				Arm 7 Ahead	Inf	0.0 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 8: 'Option D PM' (FG8: 'Option D - PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	93	438	0	531
	B	0	0	6	0	6
	C	275	0	0	0	275
	D	0	0	0	0	0
	Tot.	275	93	444	0	812

Traffic Lane Flows

Lane	Scenario 8: Option D PM
Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	
1/1	531
2/1	6
3/1	275
4/1	0
5/1	275
6/1	444
7/1	93
8/1	0

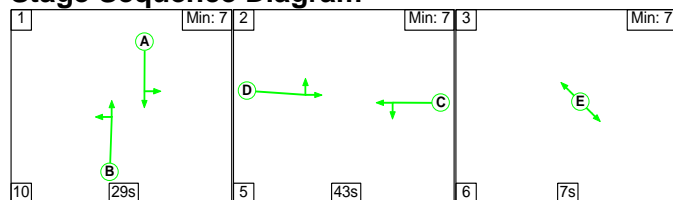
Lane Saturation Flows

Junction: Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St								
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 (Pump Lane)	3.00	0.00	Y	Arm 6 Ahead	Inf	82.5 %	1866	1866
				Arm 7 Left	10.00	17.5 %		
2/1 (Irishtown)	3.00	0.00	Y	Arm 6 Left	10.00	100.0 %	1665	1665
				Arm 8 Ahead	Inf	0.0 %		
3/1 (John Broderick St)	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
				Arm 8 Left	10.00	0.0 %		
4/1 (Sean Costello St)	2.85	0.00	Y	Arm 5 Left	10.00	0.0 %	1900	1900
				Arm 7 Ahead	Inf	0.0 %		
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf
7/1				Infinite Saturation Flow			Inf	Inf
8/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 1: '2016 AM Base' (FG1: '2016 AM Base', Plan 1: 'Network Control Plan 1')

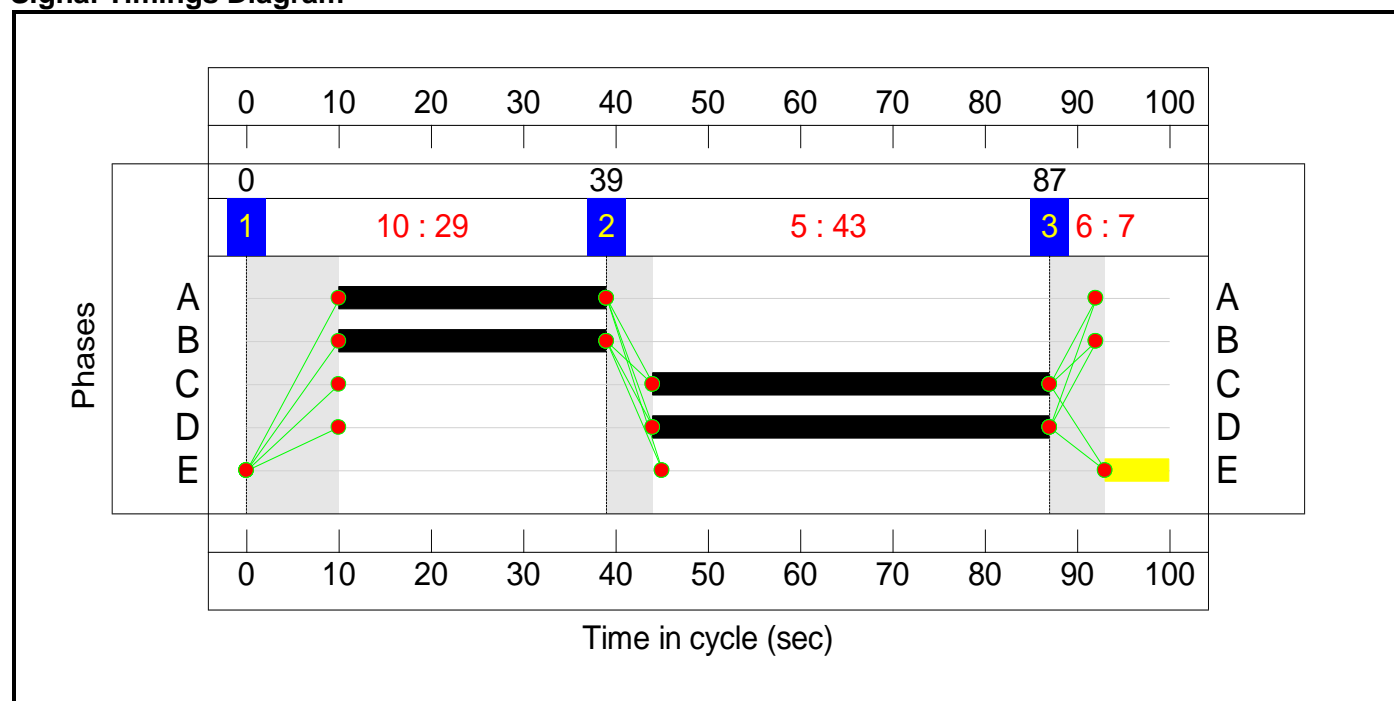
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	29	43	7
Change Point	0	39	87

Signal Timings Diagram



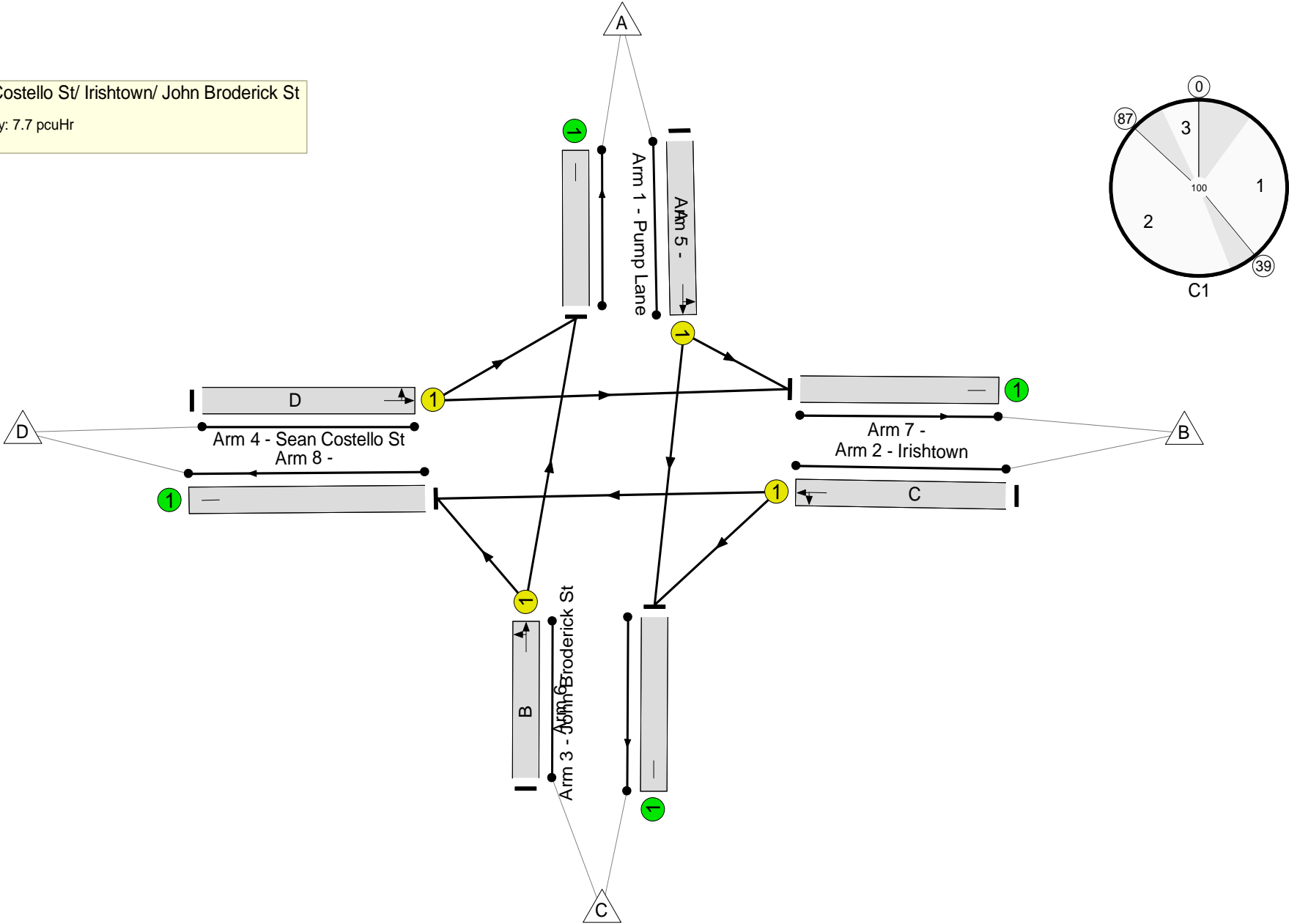
Full Input Data And Results
Network Layout Diagram



Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St

PRC: 95.6 %

Total Traffic Delay: 7.7 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	46.0%
Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	-	-	N/A	-	-		-	-	-	-	-	-	46.0%
1/1	Pump Lane Ahead Left	U	N/A	N/A	A		1	29	-	258	1875	563	45.9%
2/1	Irishtown Left Ahead	U	N/A	N/A	C		1	43	-	386	1907	839	46.0%
3/1	John Broderick St Ahead Left	U	N/A	N/A	B		1	29	-	124	1812	544	22.8%
4/1	Sean Costello St Left Ahead	U	N/A	N/A	D		1	43	-	277	1882	828	33.5%
5/1		U	N/A	N/A	-		-	-	-	72	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	232	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	296	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	445	Inf	Inf	0.0%

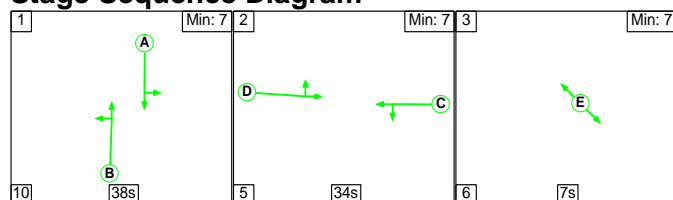
Full Input Data And Results

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	-	-	0	0	0	6.5	1.2	0.0	7.7	-	-	-	-
Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	-	-	0	0	0	6.5	1.2	0.0	7.7	-	-	-	-
1/1	258	258	-	-	-	2.0	0.4	-	2.5	34.3	5.8	0.4	6.2
2/1	386	386	-	-	-	2.1	0.4	-	2.5	23.6	7.5	0.4	7.9
3/1	124	124	-	-	-	0.9	0.1	-	1.1	30.6	2.6	0.1	2.7
4/1	277	277	-	-	-	1.4	0.3	-	1.7	21.7	5.0	0.3	5.3
5/1	72	72	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	232	232	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	296	296	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	445	445	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 95.6 Total Delay for Signalled Lanes (pcuHr): 7.71 Cycle Time (s): 100 PRC Over All Lanes (%): 95.6 Total Delay Over All Lanes(pcuHr): 7.71													

Full Input Data And Results

Scenario 2: '2016 PM Base' (FG2: '2016 PM Base', Plan 1: 'Network Control Plan 1')

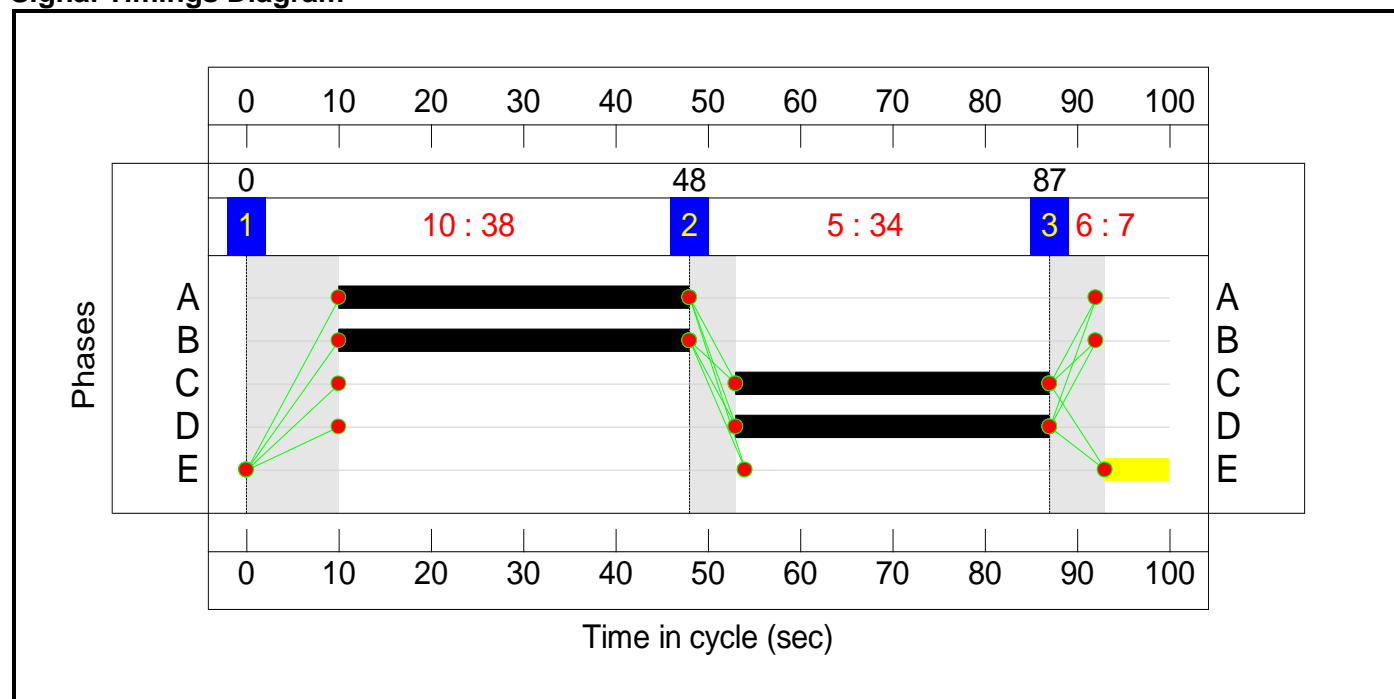
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	38	34	7
Change Point	0	48	87

Signal Timings Diagram



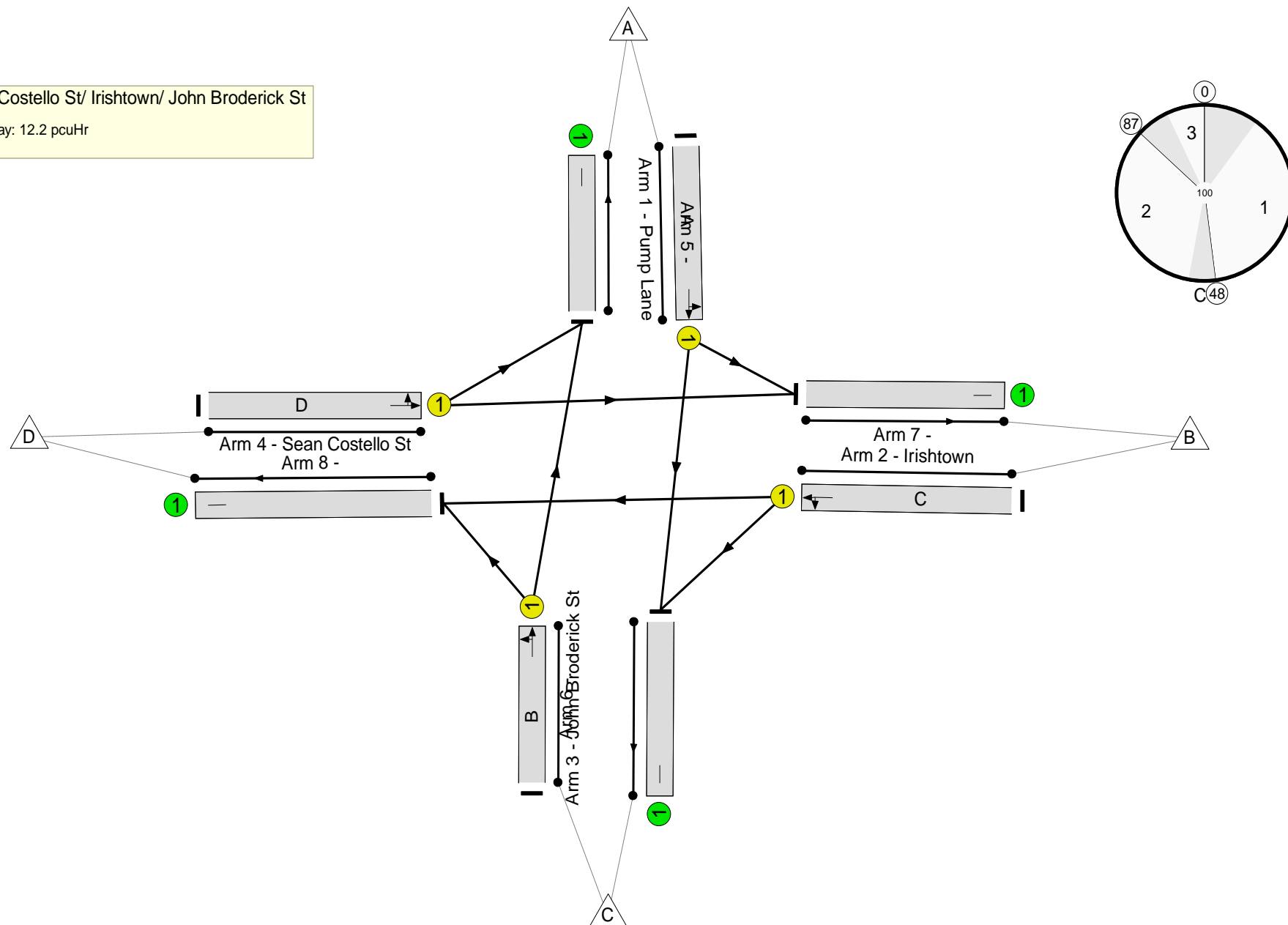
Full Input Data And Results
Network Layout Diagram



Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St

PRC: 57.9 %

Total Traffic Delay: 12.2 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	57.0%
Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	-	-	N/A	-	-		-	-	-	-	-	-	57.0%
1/1	Pump Lane Ahead Left	U	N/A	N/A	A		1	38	-	339	1873	730	46.4%
2/1	Irishtown Left Ahead	U	N/A	N/A	C		1	34	-	381	1910	669	57.0%
3/1	John Broderick St Ahead Left	U	N/A	N/A	B		1	38	-	401	1831	714	56.2%
4/1	Sean Costello St Left Ahead	U	N/A	N/A	D		1	34	-	329	1879	658	50.0%
5/1		U	N/A	N/A	-		-	-	-	230	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	294	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	355	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	571	Inf	Inf	0.0%

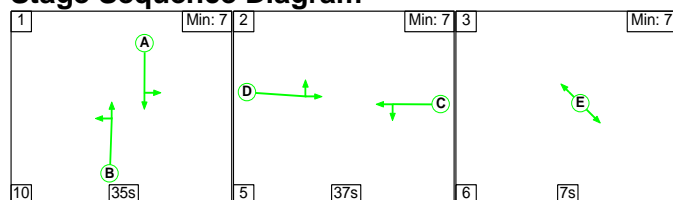
Full Input Data And Results

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	-	-	0	0	0	9.9	2.2	0.0	12.2	-	-	-	-
Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	-	-	0	0	0	9.9	2.2	0.0	12.2	-	-	-	-
1/1	339	339	-	-	-	2.1	0.4	-	2.6	27.3	7.0	0.4	7.4
2/1	381	381	-	-	-	2.8	0.7	-	3.5	32.6	8.6	0.7	9.2
3/1	401	401	-	-	-	2.7	0.6	-	3.3	29.5	8.7	0.6	9.3
4/1	329	329	-	-	-	2.3	0.5	-	2.8	31.1	7.1	0.5	7.6
5/1	230	230	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	294	294	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	355	355	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	571	571	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 57.9 Total Delay for Signalled Lanes (pcuHr): 12.16 Cycle Time (s): 100 PRC Over All Lanes (%): 57.9 Total Delay Over All Lanes(pcuHr): 12.16													

Full Input Data And Results

Scenario 3: 'Option B AM' (FG3: 'Option B - AM', Plan 1: 'Network Control Plan 1')

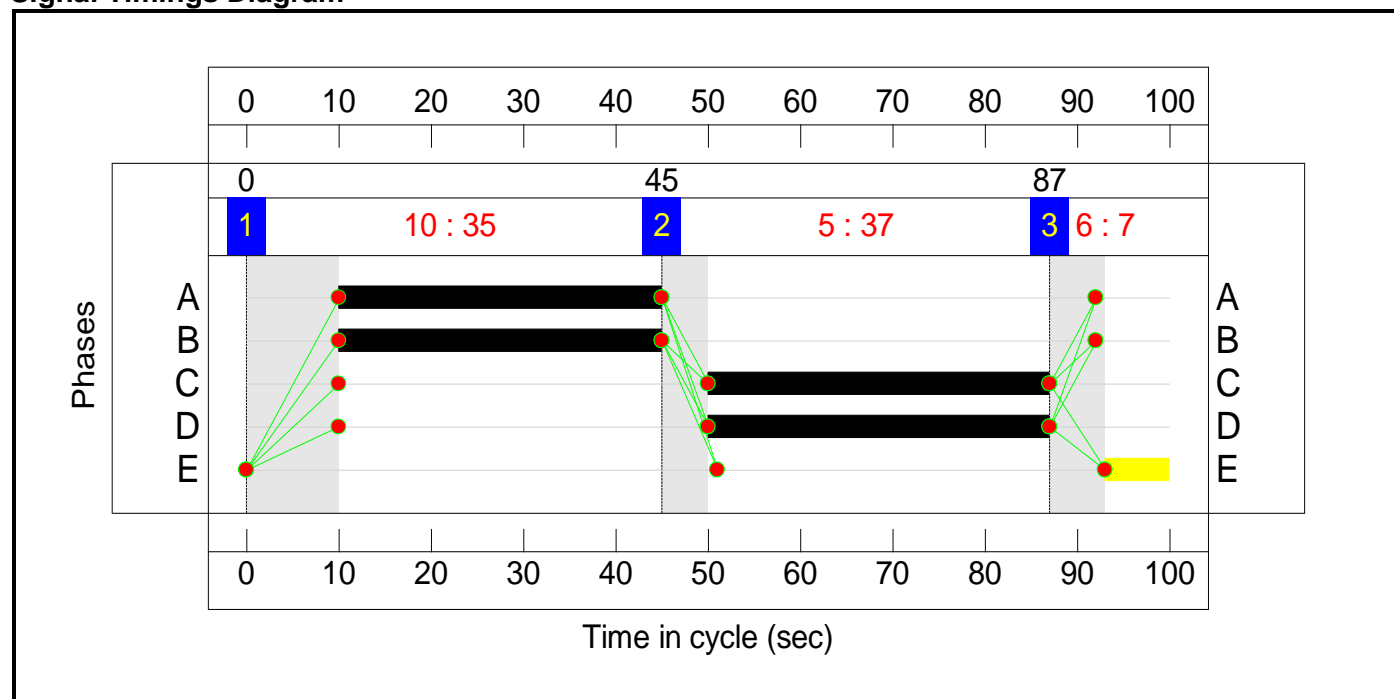
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	35	37	7
Change Point	0	45	87

Signal Timings Diagram



Full Input Data And Results

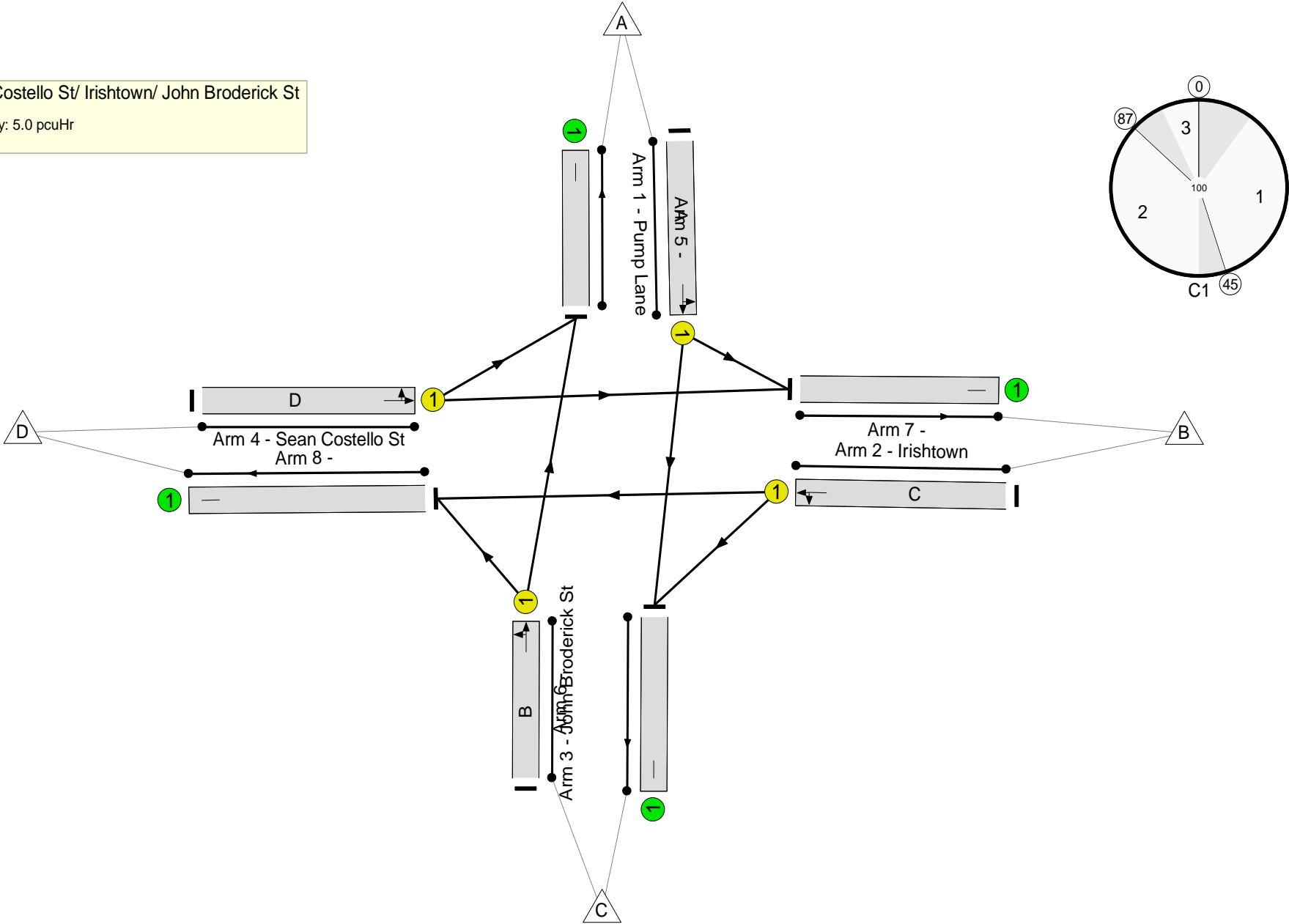
Network Layout Diagram



Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St

PRC: 132.4 %

Total Traffic Delay: 5.0 pcuHr



Full Input Data And Results

Network Results

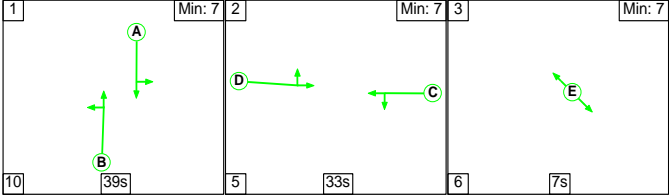
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	38.7%
Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	-	-	N/A	-	-		-	-	-	-	-	-	38.7%
1/1	Pump Lane Ahead Left	U	N/A	N/A	A		1	35	-	258	1875	675	38.2%
2/1	Irishtown Left Ahead	U	N/A	N/A	C		1	37	-	11	1665	633	1.7%
3/1	John Broderick St Ahead Left	U	N/A	N/A	B		1	35	-	124	1965	707	17.5%
4/1	Sean Costello St Left Ahead	U	N/A	N/A	D		1	37	-	277	1882	715	38.7%
5/1		U	N/A	N/A	-		-	-	-	142	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	232	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	296	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

Full Input Data And Results
Scenario 4: 'Option B PM' (FG4: 'Option B - PM', Plan 1: 'Network Control Plan 1')

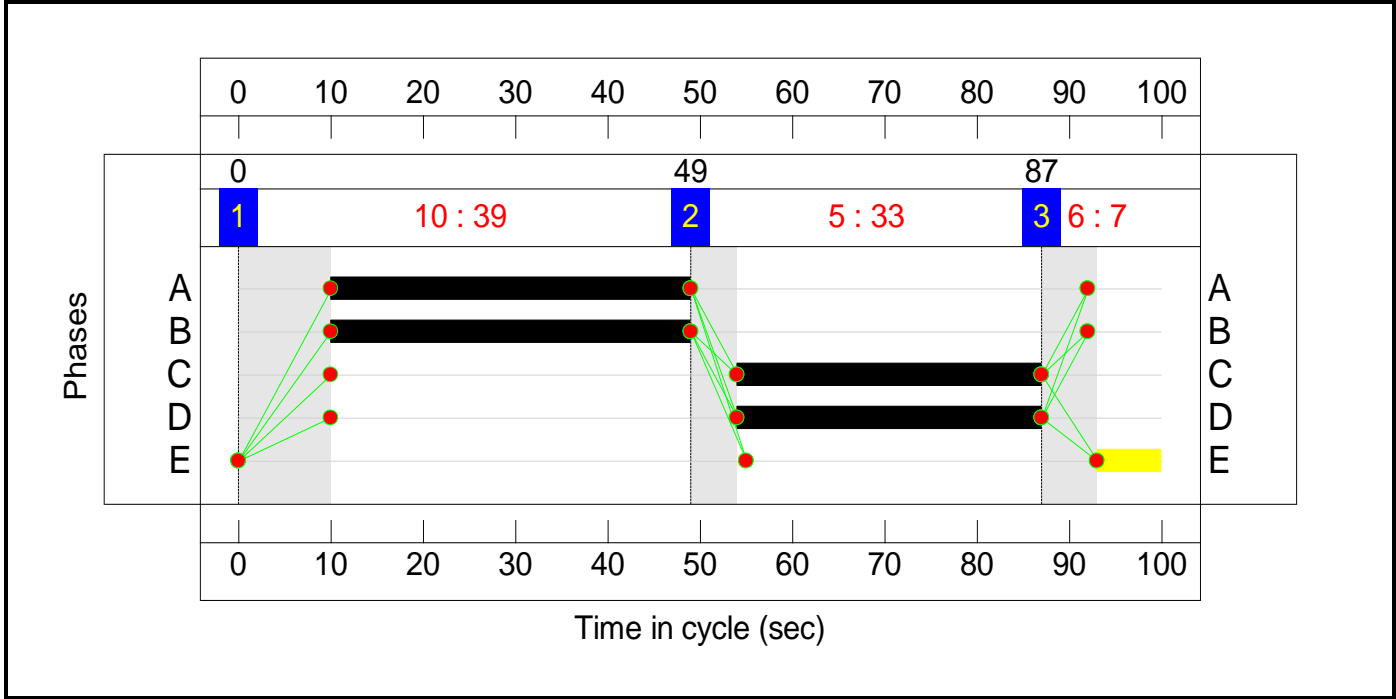
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	39	33	7
Change Point	0	49	87

Signal Timings Diagram



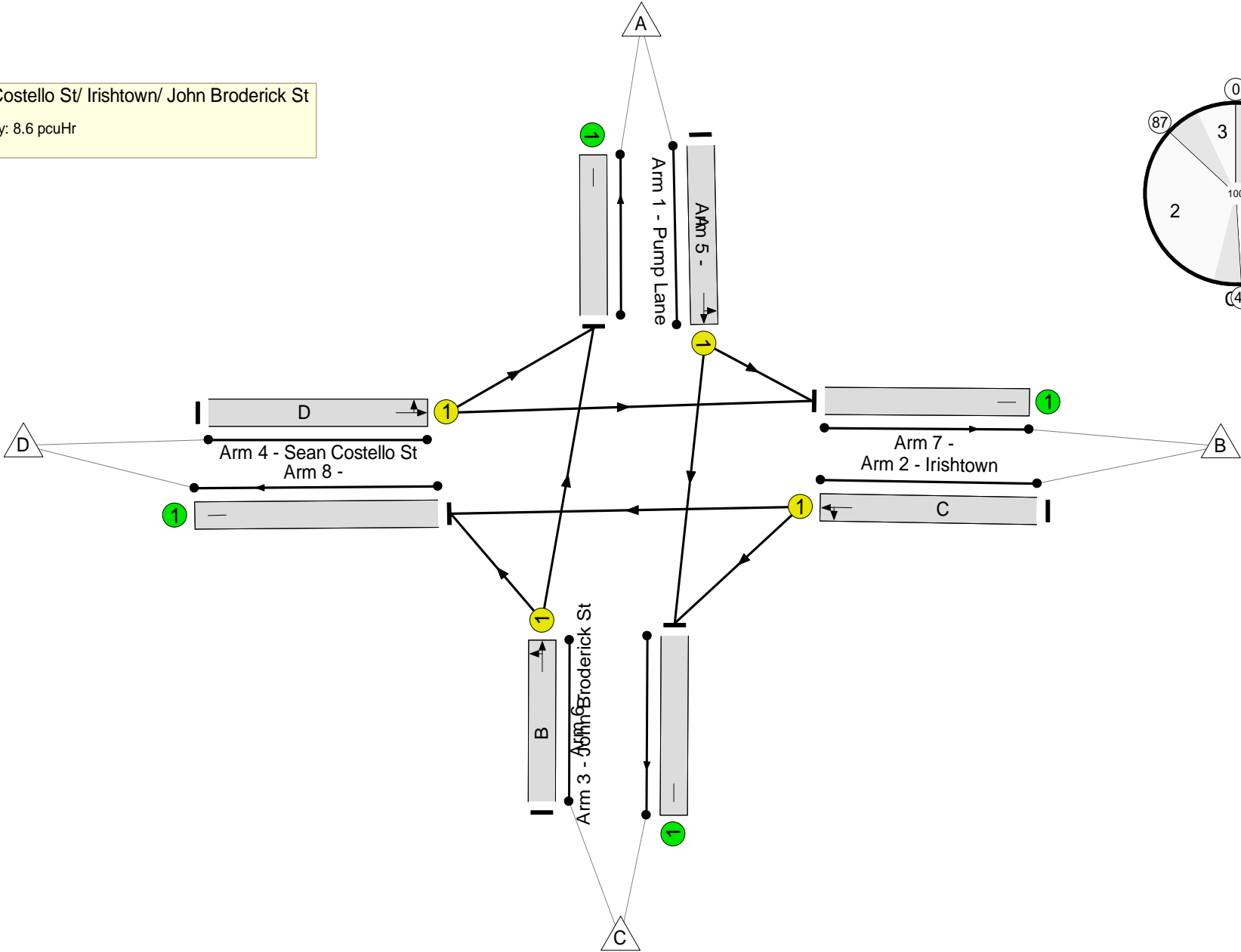
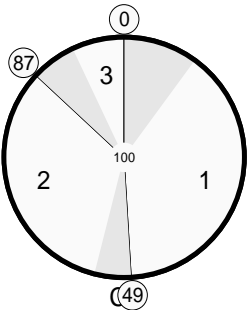
Full Input Data And Results
Network Layout Diagram



Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St

PRC: 74.8 %

Total Traffic Delay: 8.6 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	51.5%
Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	-	-	N/A	-	-		-	-	-	-	-	-	51.5%
1/1	Pump Lane Ahead Left	U	N/A	N/A	A		1	39	-	349	1866	746	46.8%
2/1	Irishtown Left Ahead	U	N/A	N/A	C		1	33	-	6	1665	566	1.1%
3/1	John Broderick St Ahead Left	U	N/A	N/A	B		1	39	-	401	1965	786	51.0%
4/1	Sean Costello St Left Ahead	U	N/A	N/A	D		1	33	-	329	1879	639	51.5%
5/1		U	N/A	N/A	-		-	-	-	426	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	294	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	365	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

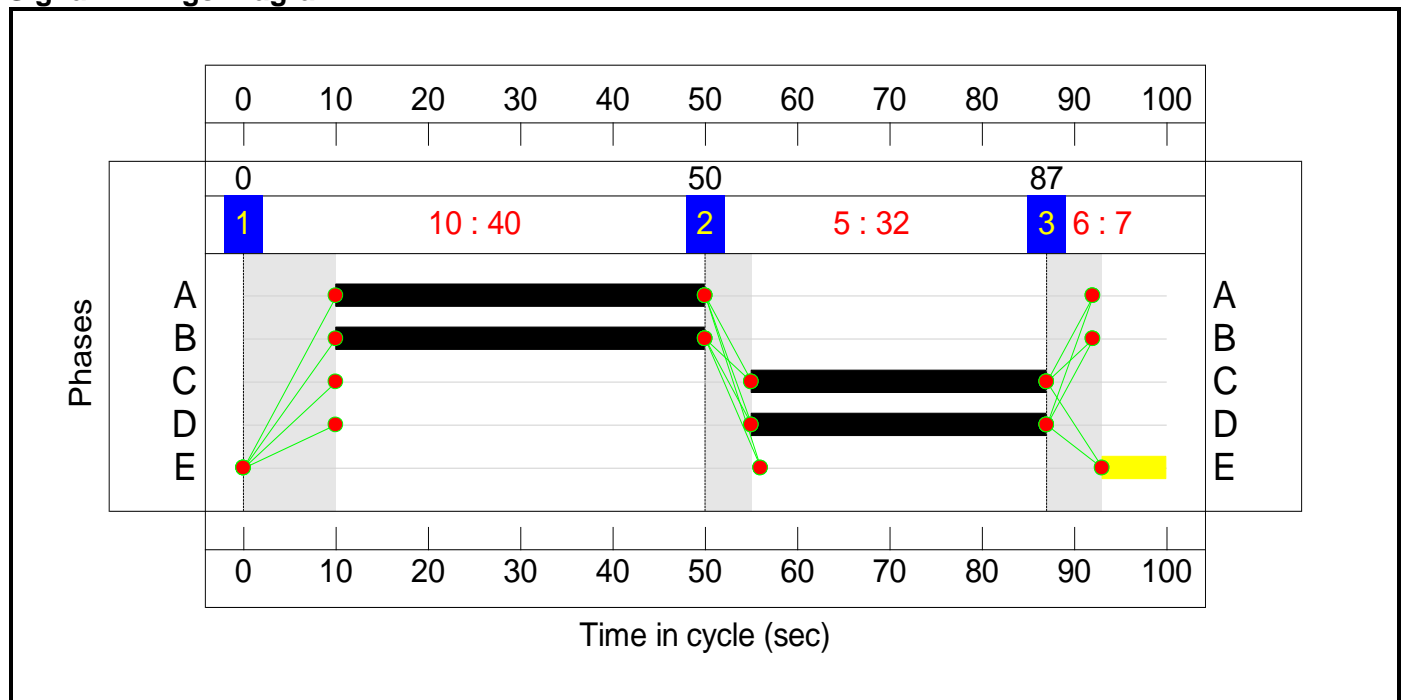
Full Input Data And Results

[illegible]

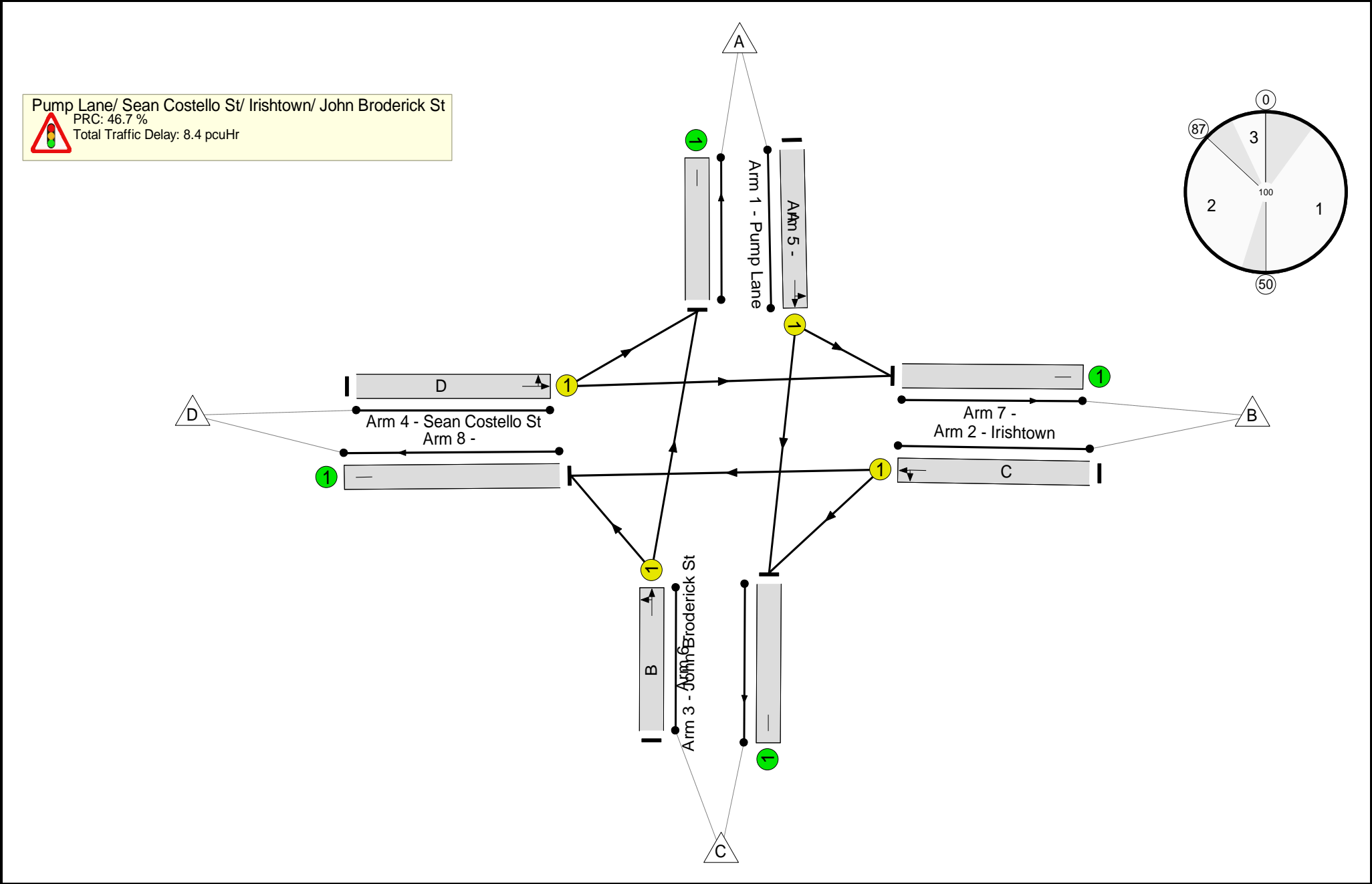
Stage Sequence Diagram



Signal Timings Diagram



Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	61.3%
Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	-	-	N/A	-	-		-	-	-	-	-	-	61.3%
1/1	Pump Lane Ahead Left	U	N/A	N/A	A		1	40	-	470	1875	769	61.1%
2/1	Irishtown Left Ahead	U	N/A	N/A	C		1	32	-	386	1907	629	61.3%
3/1	John Broderick St Ahead Left	U	N/A	N/A	B		1	40	-	124	1812	743	16.7%
4/1	Sean Costello St Left Ahead	U	N/A	N/A	D		1	32	-	0	1900	627	0.0%
5/1		U	N/A	N/A	-		-	-	-	54	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	414	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	67	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	445	Inf	Inf	0.0%

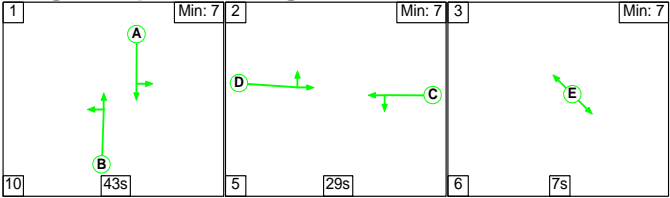
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 6: 'Option C PM' (FG6: 'Option C - PM', Plan 1: 'Network Control Plan 1')

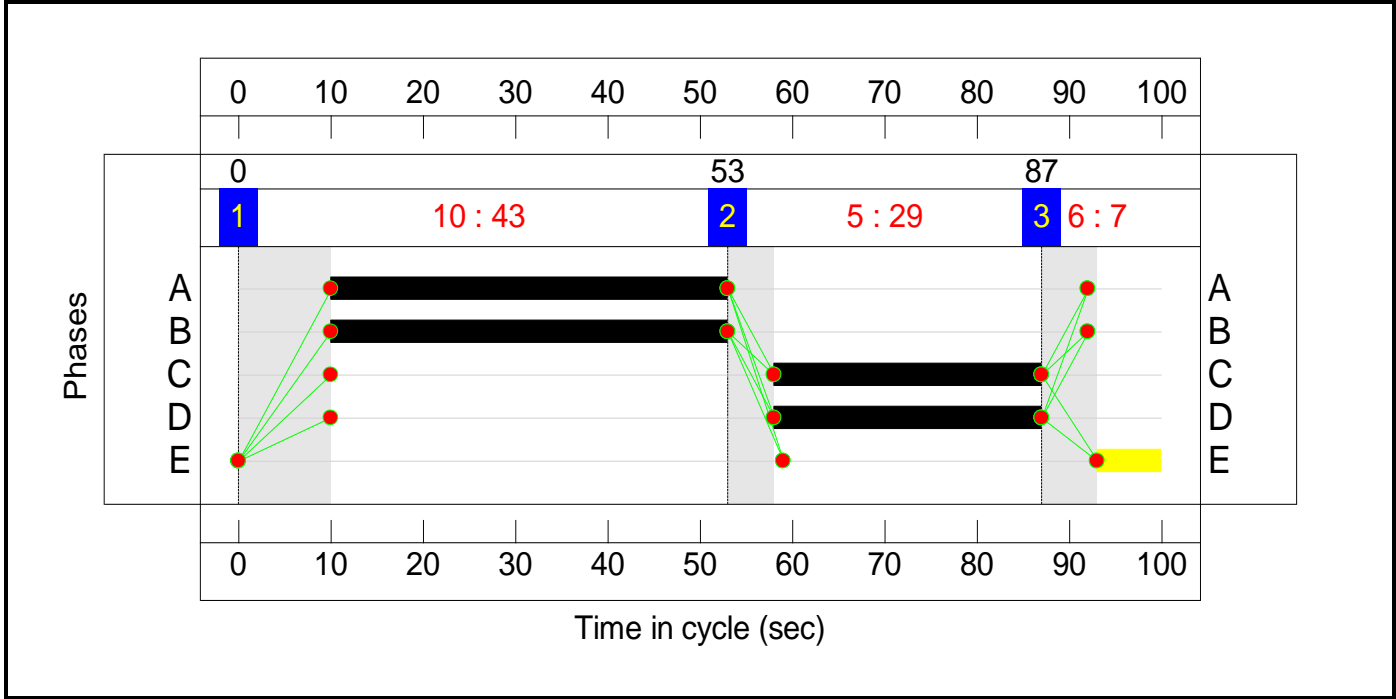
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	43	29	7
Change Point	0	53	87

Signal Timings Diagram



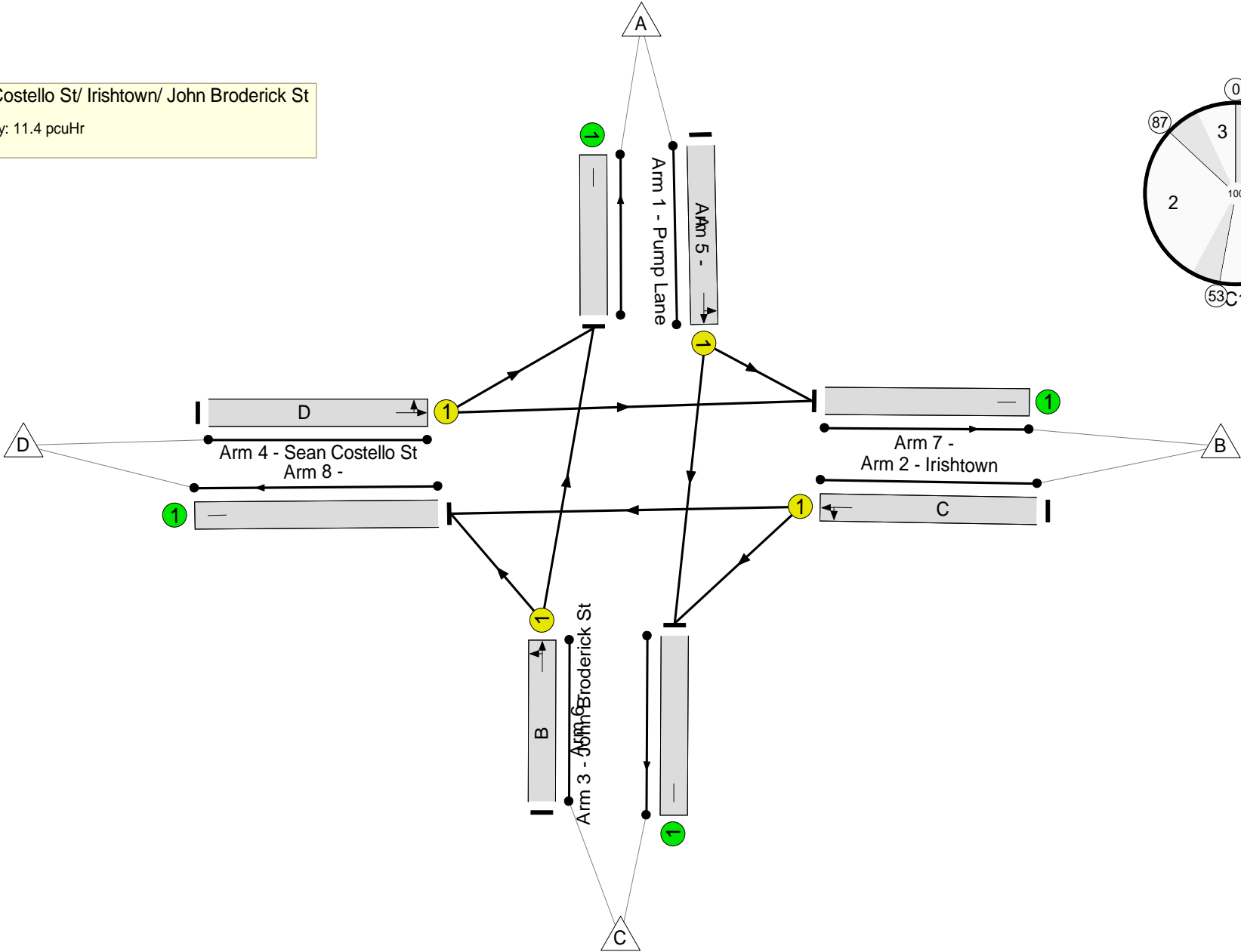
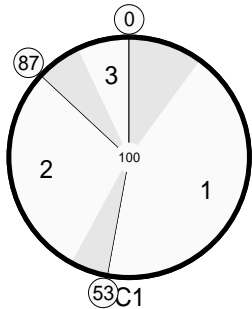
Full Input Data And Results
Network Layout Diagram



Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St

PRC: 34.4 %

Total Traffic Delay: 11.4 pcuHr



Full Input Data And Results

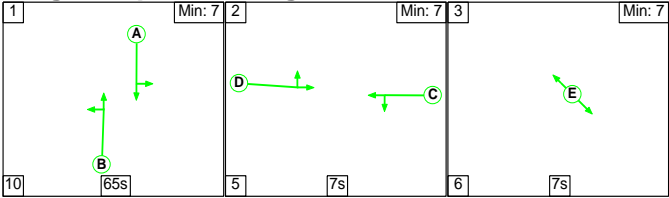
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	67.0%
Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	-	-	N/A	-	-		-	-	-	-	-	-	67.0%
1/1	Pump Lane Ahead Left	U	N/A	N/A	A		1	43	-	550	1866	821	67.0%
2/1	Irishtown Left Ahead	U	N/A	N/A	C		1	29	-	381	1910	573	66.5%
3/1	John Broderick St Ahead Left	U	N/A	N/A	B		1	43	-	401	1831	806	49.8%
4/1	Sean Costello St Left Ahead	U	N/A	N/A	D		1	29	-	0	1900	570	0.0%
5/1		U	N/A	N/A	-		-	-	-	205	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	460	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	96	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	571	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

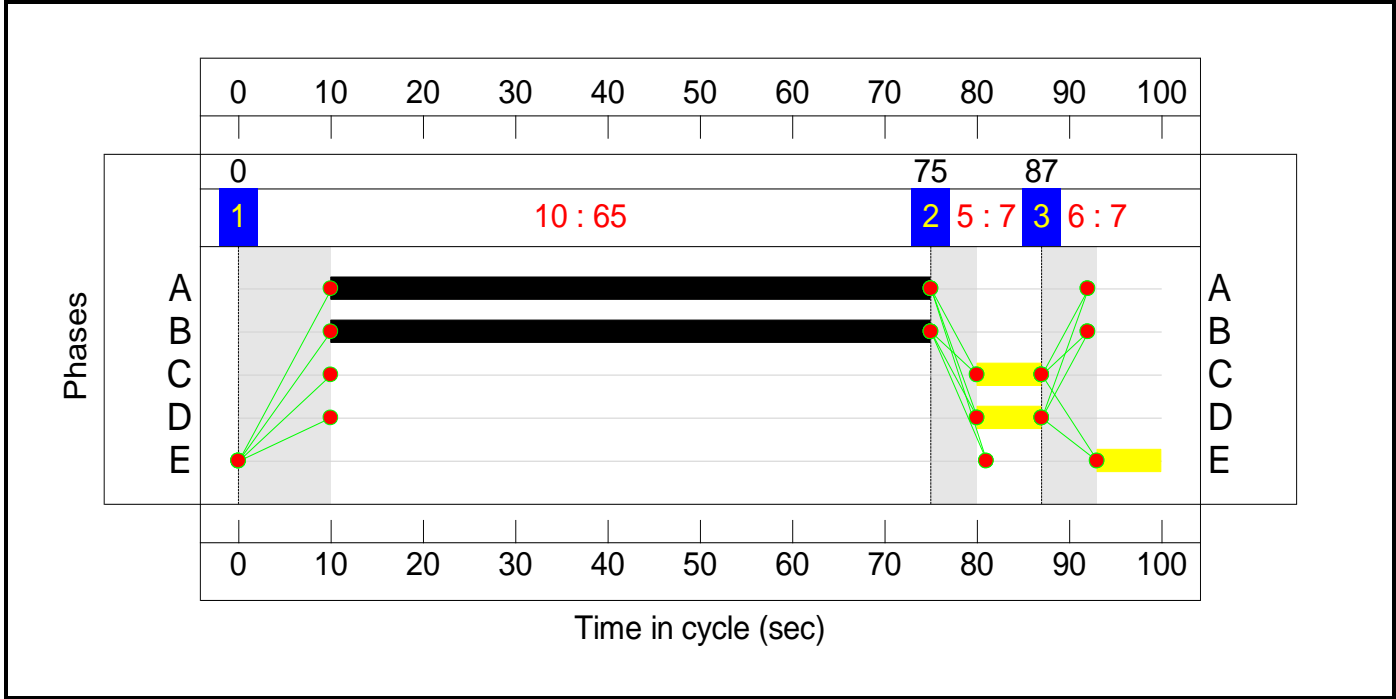
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	65	7	7
Change Point	0	75	87

Signal Timings Diagram



Full Input Data And Results

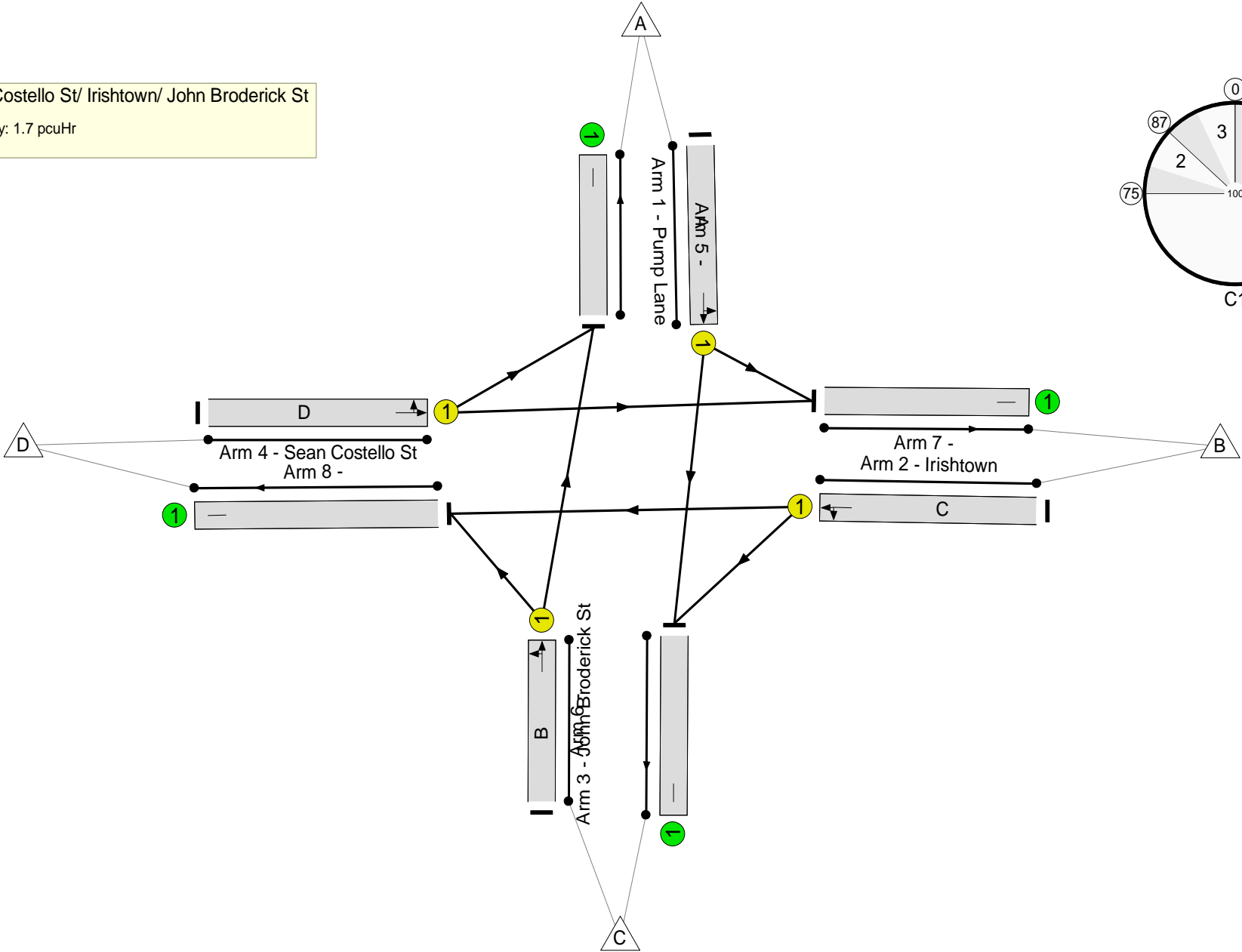
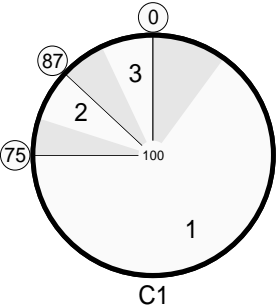
Network Layout Diagram



Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St

PRC: 139.0 %

Total Traffic Delay: 1.7 pcuHr



Full Input Data And Results

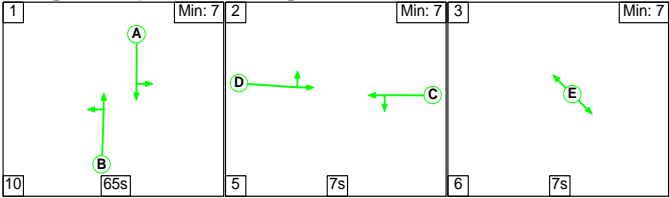
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	37.7%
Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	-	-	N/A	-	-		-	-	-	-	-	-	37.7%
1/1	Pump Lane Ahead Left	U	N/A	N/A	A		1	65	-	466	1875	1238	37.7%
2/1	Irishtown Left Ahead	U	N/A	N/A	C		1	7	-	11	1665	133	8.3%
3/1	John Broderick St Ahead Left	U	N/A	N/A	B		1	65	-	124	1965	1297	9.6%
4/1	Sean Costello St Left Ahead	U	N/A	N/A	D		1	7	-	0	1900	152	0.0%
5/1		U	N/A	N/A	-		-	-	-	124	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	410	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	67	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

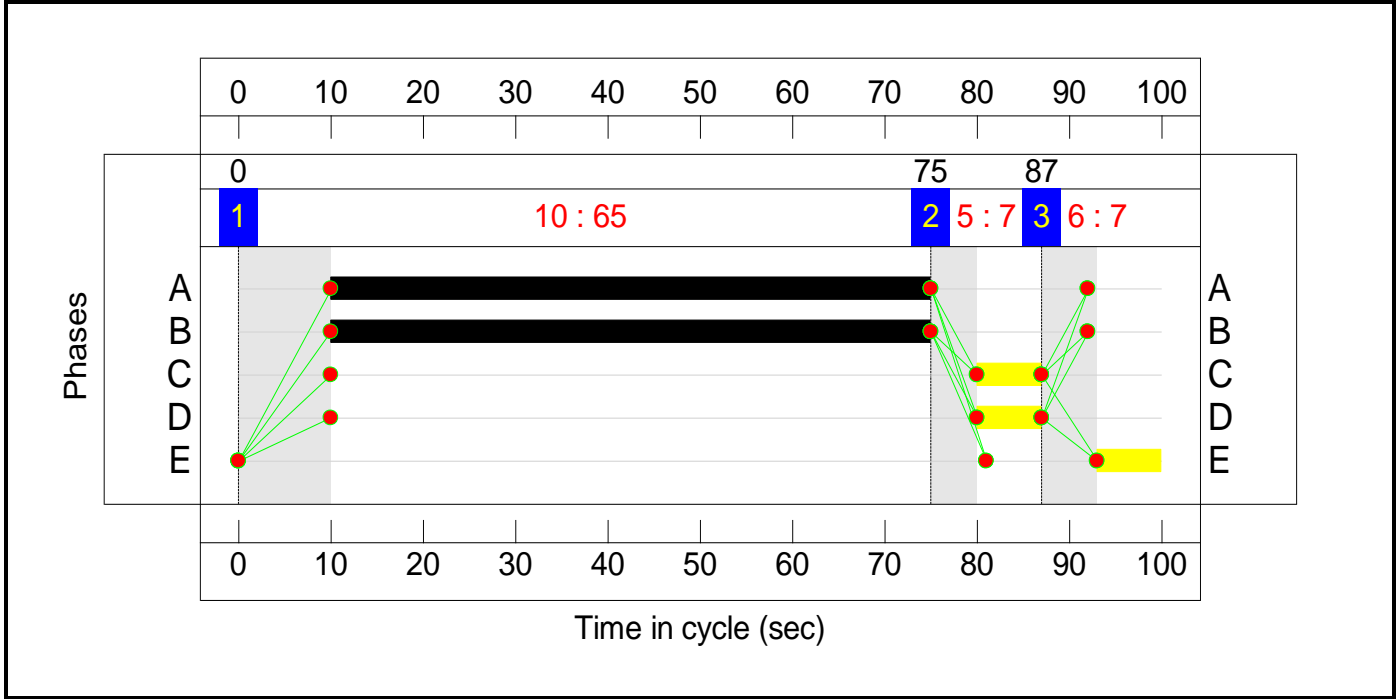
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	65	7	7
Change Point	0	75	87

Signal Timings Diagram



Full Input Data And Results

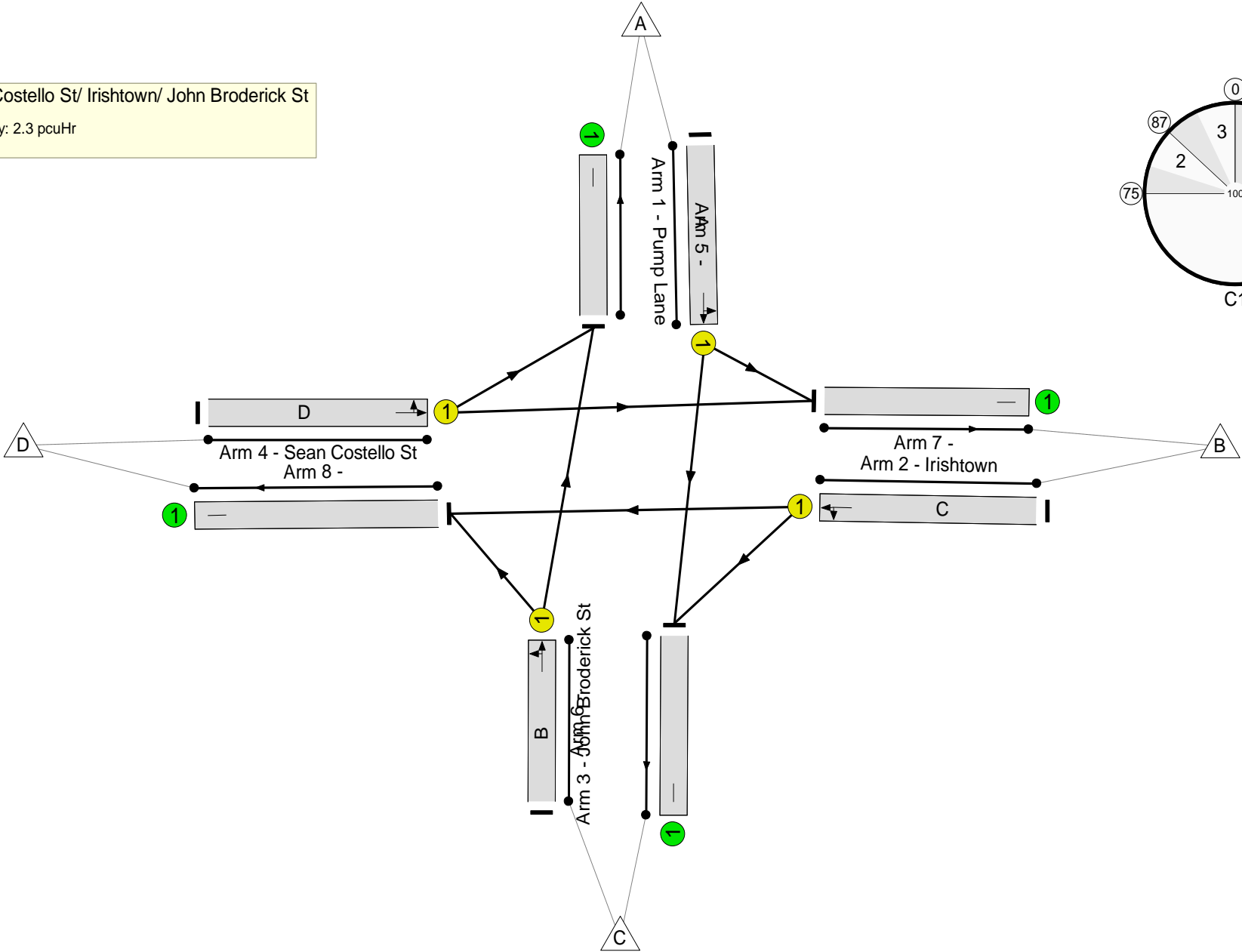
Network Layout Diagram



Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St

PRC: 108.7 %

Total Traffic Delay: 2.3 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	43.1%
Pump Lane/ Sean Costello St/ Irishtown/ John Broderick St	-	-	N/A	-	-		-	-	-	-	-	-	43.1%
1/1	Pump Lane Ahead Left	U	N/A	N/A	A		1	65	-	531	1866	1232	43.1%
2/1	Irishtown Left Ahead	U	N/A	N/A	C		1	7	-	6	1665	133	4.5%
3/1	John Broderick St Ahead Left	U	N/A	N/A	B		1	65	-	275	1965	1297	21.2%
4/1	Sean Costello St Left Ahead	U	N/A	N/A	D		1	7	-	0	1900	152	0.0%
5/1		U	N/A	N/A	-		-	-	-	275	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	444	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	93	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

Appendix D: Junction Assessment – LinSig Custume Place / Northgate Street / Church Street

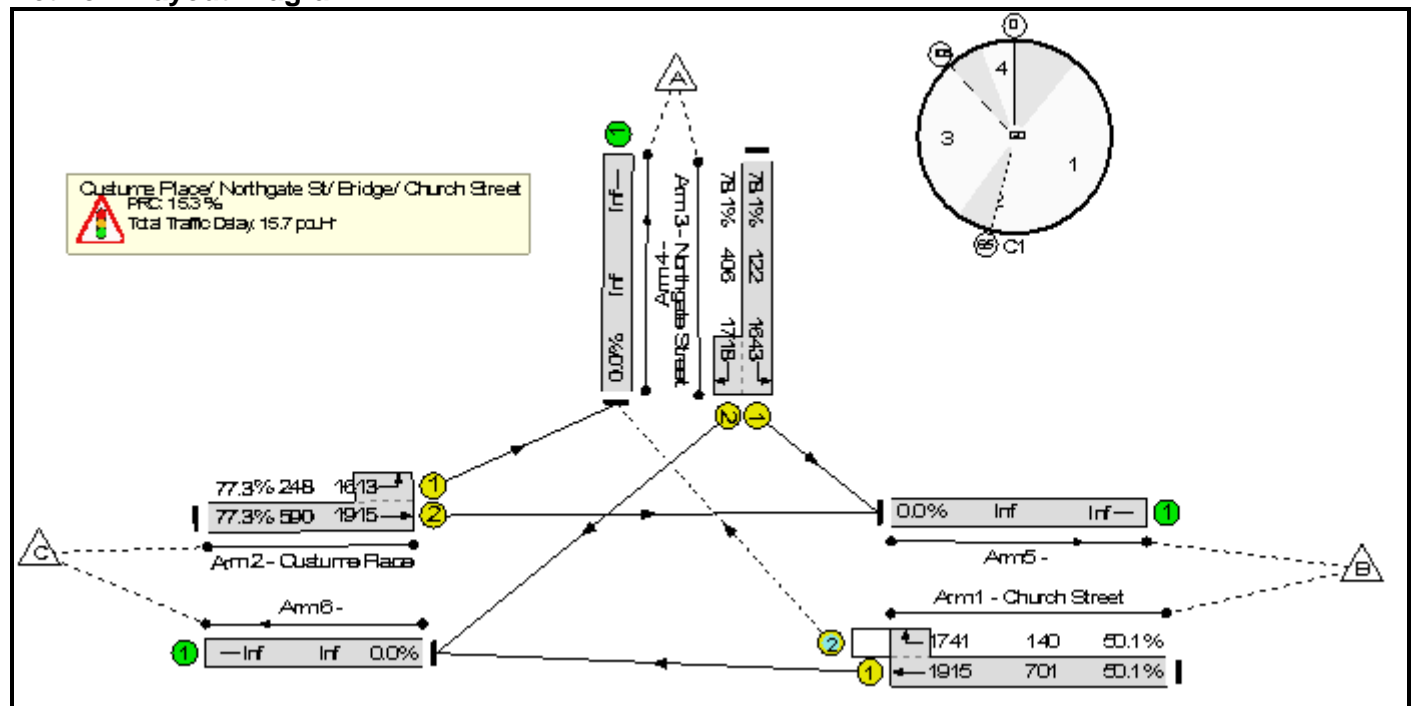
Basic Results Summary
Basic Results Summary

User and Project Details

Project:	
Title:	
Location:	
File name:	Custume Place-Church St-Northgate St (3 Second Safety Factor).lsg3x
Author:	
Company:	
Address:	
Notes:	

Scenario 1: '2016 AM Base' (FG2: '2016 PM Base', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



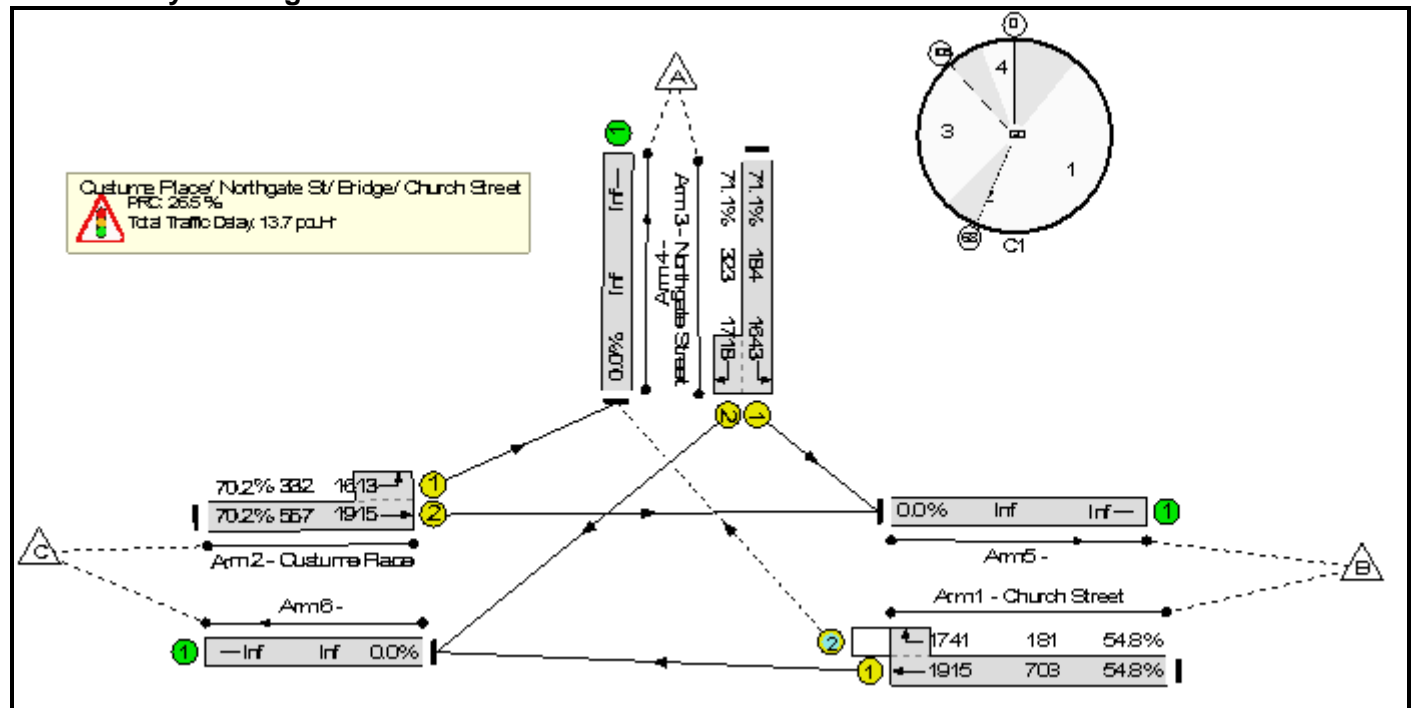
Network Results

[illegible]

Basic Results Summary

Scenario 2: '2016 PM Base' (FG2: '2016 PM Base', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



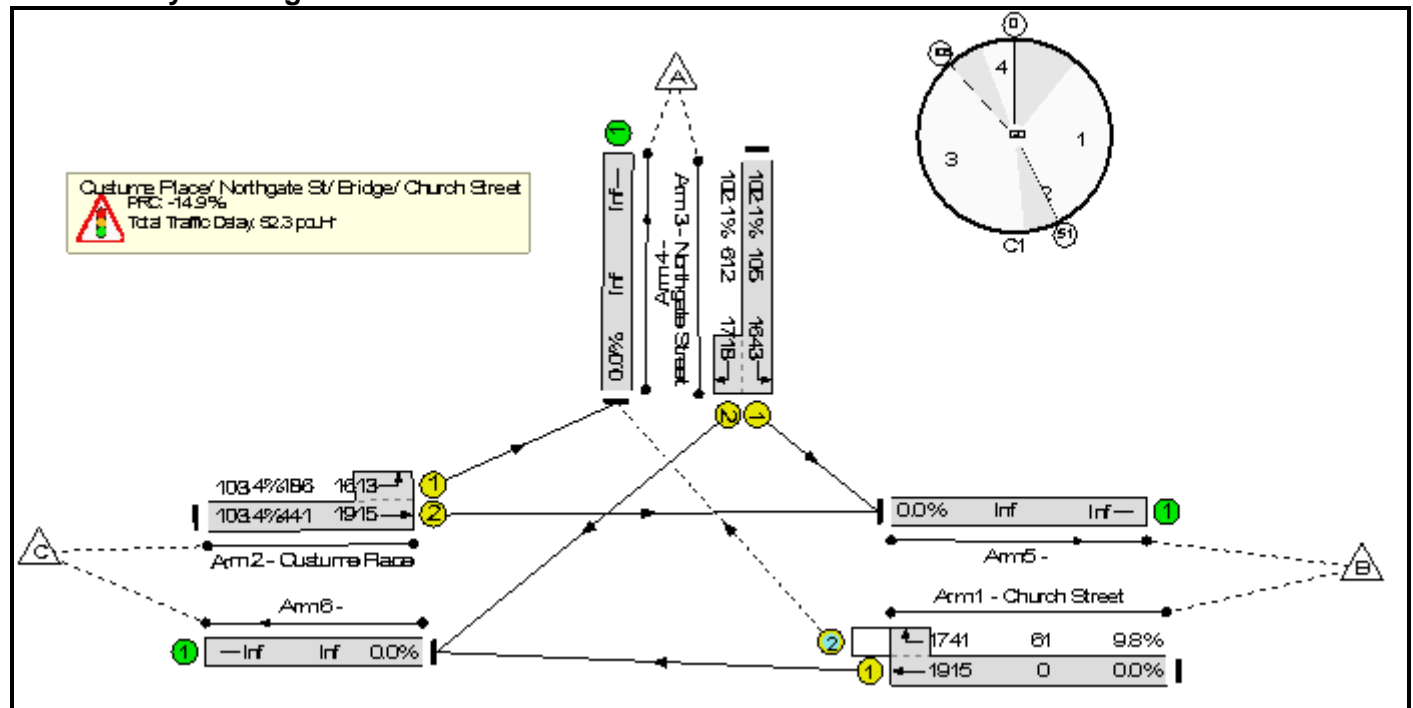
Network Results

[illegible]

Basic Results Summary

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

Network Layout Diagram



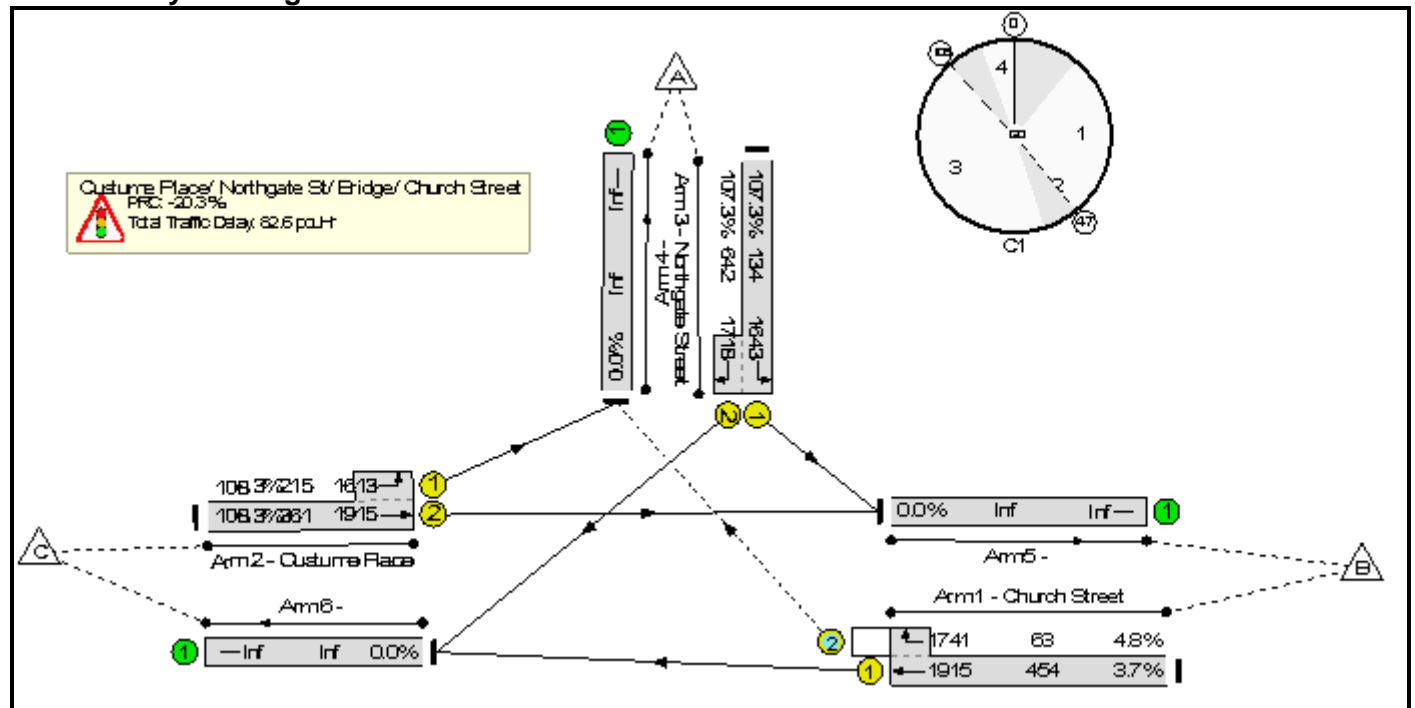
Network Results

[illegible]

Basic Results Summary

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

Network Layout Diagram



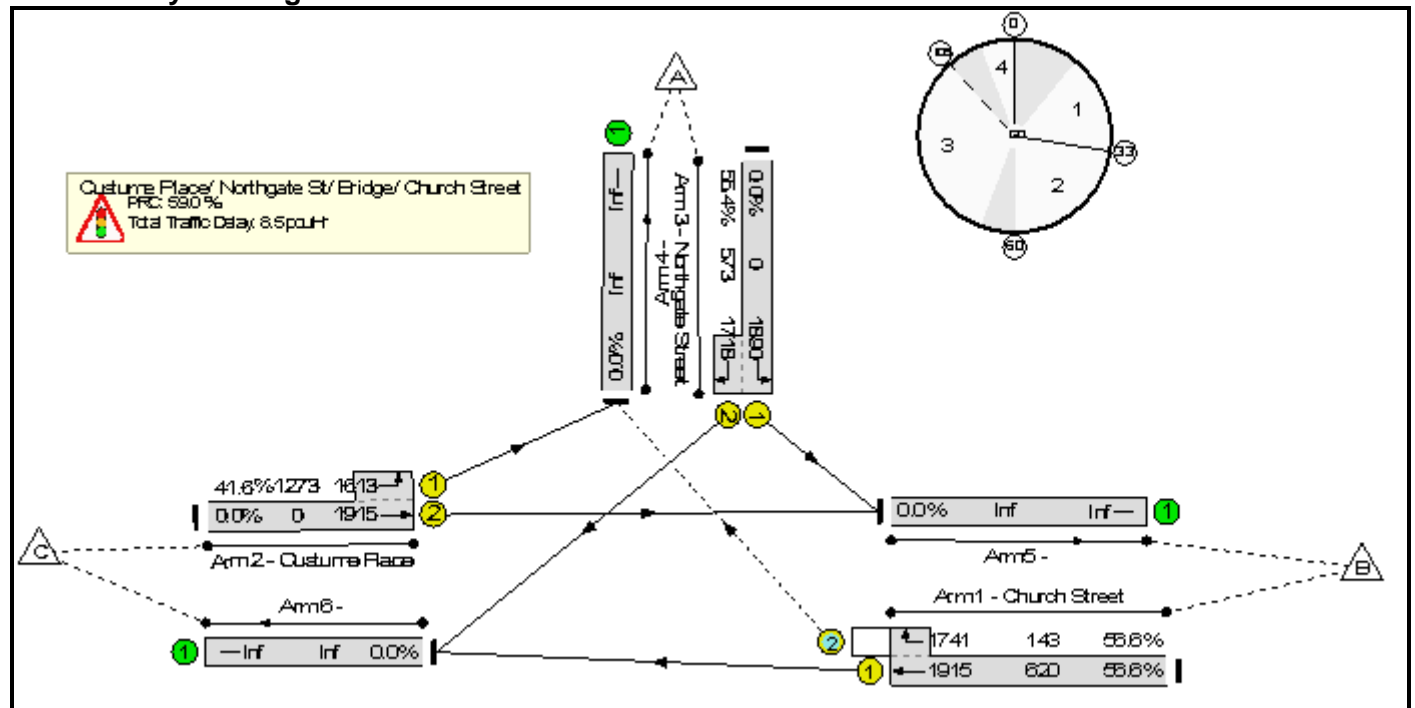
Network Results

[illegible]

Basic Results Summary

Scenario 5: 'Option C AM' (FG5: 'Option C AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



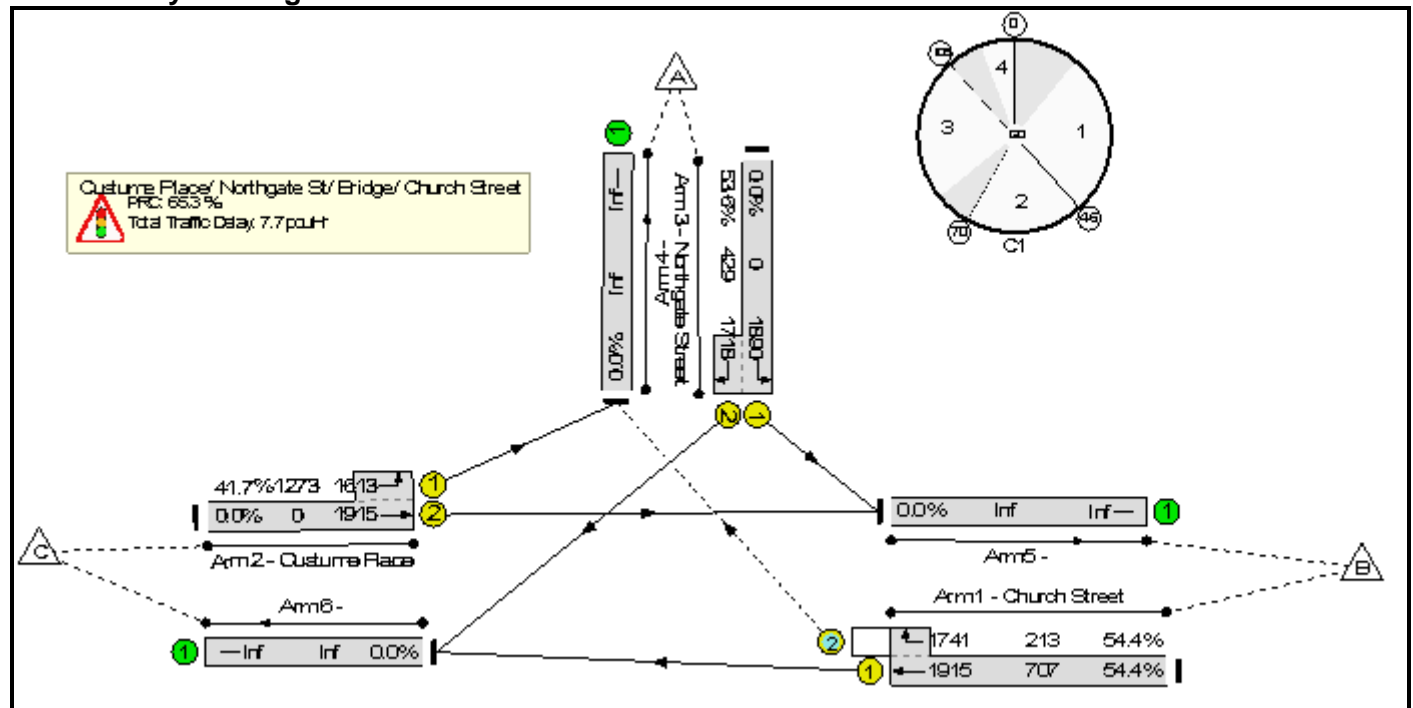
Network Results

[illegible]

Basic Results Summary

Scenario 6: 'Option C PM' (FG6: 'Option C PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



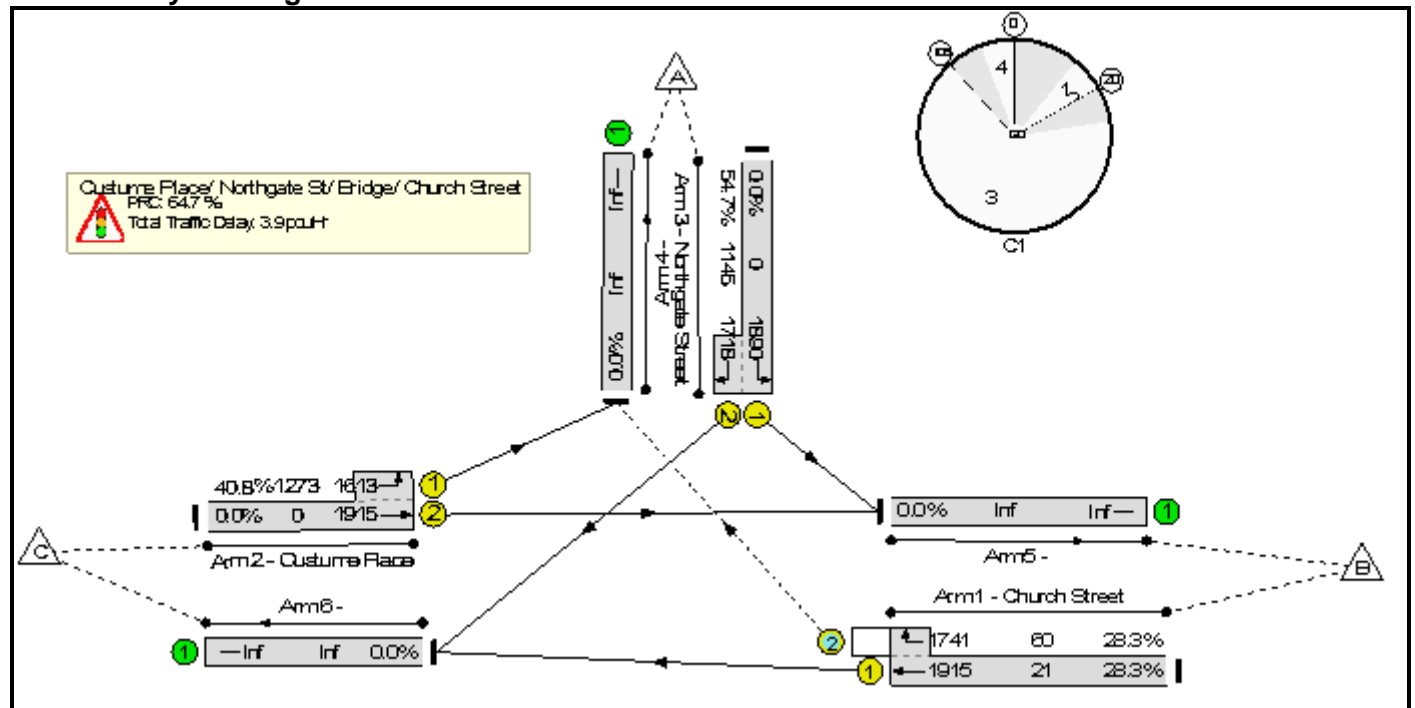
Network Results

[illegible]

Basic Results Summary

Scenario 7: 'Option D AM' (FG7: 'Option D AM ', Plan 1: 'Network Control Plan 1')

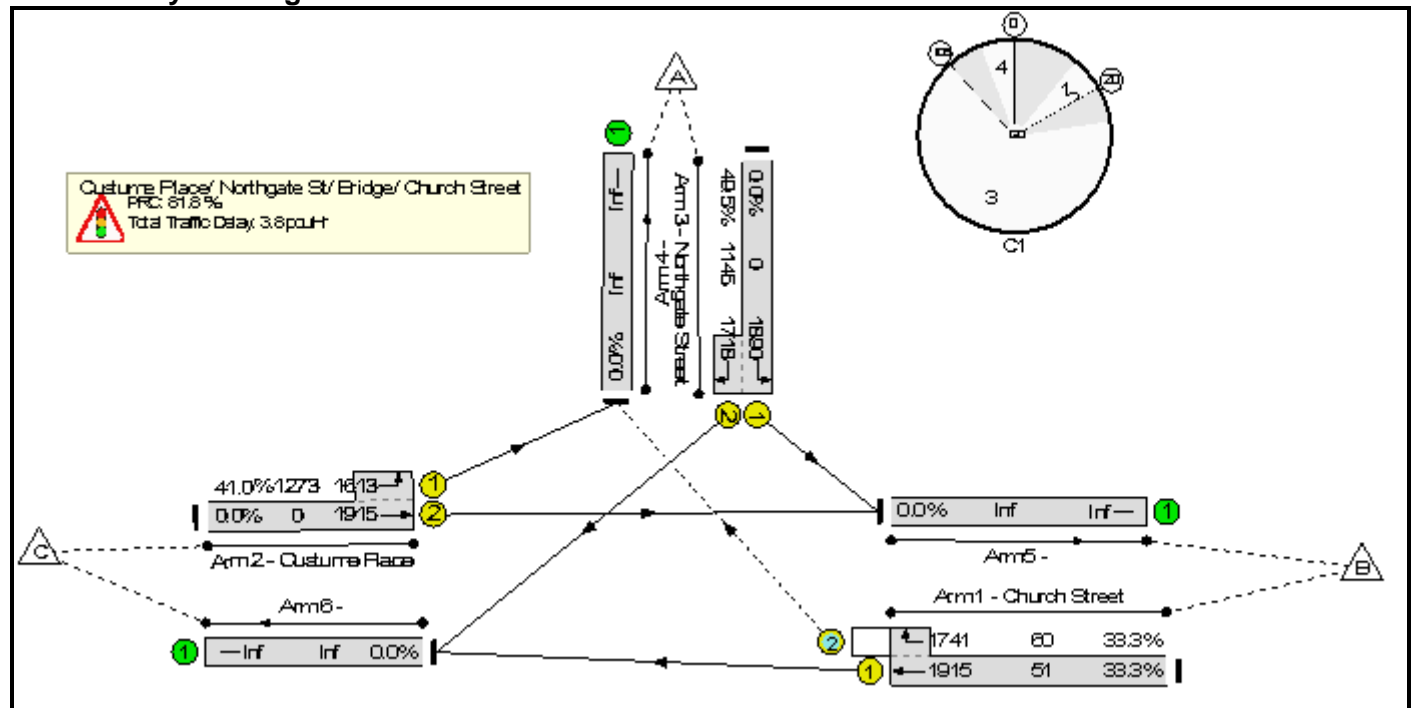
Network Layout Diagram



Network Results

[illegible]

Network Layout Diagram



Network Results

[illegible]

Appendix E: Junction Assessment – ARCADY Coosan Point / Northgate Street / Church Street

ARCADY 6

ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY

Analysis Program: Release 5.0 (JANUARY 2009)

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Nine Mile Ride Email: software@trl.co.uk
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RG40 3GA,UK

THE USER OF THIS COMPUTER PROGRAM FOR THE SOLUTION OF AN ENGINEERING PROBLEM IS
IN NO WAY RELIEVED OF THEIR RESPONSIBILITY FOR THE CORRECTNESS OF THE SOLUTION

Run with file:-
"u:\SCT\2016\SCT4147-\SCT4241_AthloneJunctionAssessments\CALCULATIONS\TRAFFIC\ARCADY\Hospital AM.vai"
(drive-on-the-left) at 11:42:24 on Thursday, 30 June 2016

FILE PROPERTIES

RUN TITLE: Athlone Roundabout
LOCATION:
DATE: 29/06/16
CLIENT:
ENUMERATOR: fstewart [GLA0921]
JOB NUMBER: SCT4241
STATUS:
DESCRIPTION:

INPUT DATA

ARM A - Coosan Point Road
ARM B - Southern Station Road
ARM C - Northgate Street
ARM D - Hospital Exit

MINI-ROUNDABOUT GEOMETRIC DATA

LIGHTING CONDITIONS : NORMAL
ROAD SURFACE CONDITION: NORMAL
ARM A HAS A CENTRAL ISLAND
ARM C HAS A CENTRAL ISLAND

T5																				
I	ARM	I	V (M)	I	E (M)	I	Lm(M)	I	Vm(M)	I	A (M)	I	K (M)	I	G (%)	I	SLOPE	I	INTERCEPT	I
I		I		I		I		I		I		I		I		I		I	(PCU/MIN)	I
I	ARM A	I	3.50	I	3.50	I	0.00	I	3.50	I	7.00	I	2.00	I	0.00	I	0.397	I	11.825	I
I	ARM B	I	3.00	I	5.00	I	10.00	I	3.00	I	15.00	I	20.00	I	-5.00	I	1.392	I	31.410	I
I	ARM C	I	4.00	I	4.00	I	0.00	I	4.00	I	8.00	I	7.00	I	0.00	I	0.423	I	14.725	I
I	ARM D	I	2.50	I	3.00	I	0.10	I	2.50	I	10.00	I	7.00	I	0.00	I	0.481	I	12.559	I

V = approach half-width Lm = effective flare length A = distance between arms
E = entry width Vm = minimum approach half-width K= entry corner kerb line G=gradient over 50 m
WARNING One or more intercept values (flagged * in the table)
have been adjusted according to local input values
from a previous run and listed below -

			T6
I	I	ADJUSTMENT TO	I
I	I	INTERCEPT (PCU/MIN)	I

TRAFFIC DEMAND DATA

Only sets included in the current run are shown

SCALING FACTORS

----- T13			
I	ARM	I	FLOW SCALE(%)
I	A	I	100
I	B	I	100
I	C	I	100
I	D	I	100

TIME PERIOD BEGINS(07.45)AND ENDS(09.15)

LENGTH OF TIME PERIOD -(90) MINUTES

LENGTH OF TIME SEGMENT - (15) MINUTES

DEMAND FLOW PROFILES ARE SYNTHESISED FROM THE TURNING COUNT DATA

DEMAND SET TITLE: AM Base

----- T15								
I	NUMBER OF MINUTES FROM START WHEN				RATE OF FLOW (VEH/MIN)			
I	ARM	I	FLOW STARTS	I	TOP OF PEAK	I	FLOW STOPS	I
I		I		I		I		I
I		I	TO RISE	I	IS REACHED	I	FALLING	I

I	ARM	A	I	15.00	I	45.00	I	75.00
I	ARM	B	I	15.00	I	45.00	I	75.00
I	ARM	C	I	15.00	I	45.00	I	75.00
I	ARM	D	I	15.00	I	45.00	I	75.00

DEMAND SET TITLE: AM Base

-----										T33		
I		I	TURNING PROPORTIONS							I		
I		I	TURNING COUNTS							I		
I		I	(PERCENTAGE OF H.V.S)							I		
I			-----									
I	TIME	I	FROM/TO	I	ARM A	I	ARM B	I	ARM C	I	ARM D	I

I	07.45 - 09.15	I		I		I		I		I		I
I		I	ARM A	I	0.000	I	0.489	I	0.511	I	0.000	I
I		I		I	0.0	I	286.0	I	299.0	I	0.0	I
I		I		I	(0.0)	I	(0.0)	I	(0.0)	I	(0.0)	I
I		I		I		I		I		I		I
I		I	ARM B	I	0.361	I	0.000	I	0.639	I	0.000	I
I		I		I	66.0	I	0.0	I	117.0	I	0.0	I
I		I		I	(0.0)	I	(0.0)	I	(0.0)	I	(0.0)	I
I		I		I		I		I		I		I
I		I	ARM C	I	0.393	I	0.607	I	0.000	I	0.000	I
I		I		I	101.0	I	156.0	I	0.0	I	0.0	I
I		I		I	(0.0)	I	(0.0)	I	(0.0)	I	(0.0)	I
I		I		I		I		I		I		I
I		I	ARM D	I	0.400	I	0.600	I	0.000	I	0.000	I
I		I		I	4.0	I	6.0	I	0.0	I	0.0	I
I		I		I	(0.0)	I	(0.0)	I	(0.0)	I	(0.0)	I
I		I		I		I		I		I		I

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	1.9	**
08.15	3.7	****
08.30	13.6	*****
08.45	19.3	*****
09.00	5.0	*****
09.15	2.1	**

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.1	
08.15	0.1	
08.30	0.2	
08.45	0.2	
09.00	0.1	
09.15	0.1	

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.3	
08.15	0.4	
08.30	0.5	
08.45	0.5	
09.00	0.4	
09.15	0.3	

QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.0	
08.15	0.0	
08.30	0.0	
08.45	0.0	
09.00	0.0	
09.15	0.0	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

-----											T75	
I	ARM	I	TOTAL DEMAND		I	* QUEUEING *		I	* INCLUSIVE QUEUEING *		I	
I		I			I	* DELAY *		I	* DELAY *		I	
I		I	-----									I
I		I	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	I	(MIN)	(MIN/VEH)	I	

I	A	I	805.2	I 536.8	I	643.1	I 0.80	I	643.3	I 0.80	I	
I	B	I	251.9	I 167.9	I	11.4	I 0.05	I	11.4	I 0.05	I	
I	C	I	353.7	I 235.8	I	34.3	I 0.10	I	34.3	I 0.10	I	
I	D	I	13.8	I 9.2	I	1.4	I 0.10	I	1.4	I 0.10	I	

I	ALL	I	1424.6	I 949.7	I	690.1	I 0.48	I	690.3	I 0.48	I	

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

A R C A D Y 6

ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY

Analysis Program: Release 5.0 (JANUARY 2009)

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Run with file:-
"u:\SCT\2016\SCT4147-\SCT4241_AthloneJunctionAssessments\CALCULATIONS\TRAFFIC\ARCADY\Hospital AM.vai"
(drive-on-the-left) at 11:32:29 on Thursday, 30 June 2016

FILE PROPERTIES

RUN TITLE: Athlone Roundabout
LOCATION:
DATE: 29/06/16
CLIENT:
ENUMERATOR: fstewart [GLA0921]
JOB NUMBER: SCT4241
STATUS:
DESCRIPTION:

INPUT DATA

ARM A - Coosan Point Road
ARM B - Southern Station Road
ARM C - Northgate Street
ARM D - Hospital Exit

MINI-ROUNDABOUT GEOMETRIC DATA

LIGHTING CONDITIONS : NORMAL
ROAD SURFACE CONDITION: NORMAL
ARM A HAS A CENTRAL ISLAND
ARM C HAS A CENTRAL ISLAND

																	T5			
I	ARM	I	V (M)	I	E (M)	I	Lm(M)	I	Vm(M)	I	A (M)	I	K (M)	I	G (%)	I	SLOPE	I	INTERCEPT	I
I		I		I		I		I		I		I		I		I		I	(PCU/MIN)	I
I	ARM A	I	3.50	I	3.50	I	0.00	I	3.50	I	7.00	I	2.00	I	0.00	I	0.397	I	11.825	I
I	ARM B	I	3.00	I	5.00	I	10.00	I	3.00	I	15.00	I	20.00	I	-5.00	I	1.392	I	31.410	I
I	ARM C	I	4.00	I	4.00	I	0.00	I	4.00	I	8.00	I	7.00	I	0.00	I	0.423	I	14.725	I
I	ARM D	I	2.50	I	3.00	I	0.10	I	2.50	I	10.00	I	7.00	I	0.00	I	0.481	I	12.559	I

V = approach half-width Lm = effective flare length A = distance between arms
E = entry width Vm = minimum approach half-width K= entry corner kerb line G=gradient over 50 m
WARNING One or more intercept values (flagged * in the table)
have been adjusted according to local input values
from a previous run and listed below -

				T6
I	I	ADJUSTMENT TO	I	
I	I	INTERCEPT (PCU/MIN)	I	

TRAFFIC DEMAND DATA

Only sets included in the current run are shown

SCALING FACTORS

T13			
I ARM	I	FLOW SCALE(%)	I
I A	I	100	I
I B	I	100	I
I C	I	100	I
I D	I	100	I

TIME PERIOD BEGINS(07.45)AND ENDS(09.15)

LENGTH OF TIME PERIOD -(90) MINUTES

LENGTH OF TIME SEGMENT - (15) MINUTES

DEMAND FLOW PROFILES ARE SYNTHESISED FROM THE TURNING COUNT DATA

DEMAND SET TITLE: AM Option C

T15									
I		NUMBER OF MINUTES FROM START WHEN				RATE OF FLOW (VEH/MIN)			
I	ARM	I	FLOW STARTS	I	TOP OF PEAK	I	BEFORE	I	AT TOP
I		I		I		I		I	
I		I	TO RISE	I	IS REACHED	I	PEAK	I	OF PEAK
I ARM A	I	I	15.00	I	45.00	I	8.50	I	12.75
I ARM B	I	I	15.00	I	45.00	I	2.29	I	3.43
I ARM C	I	I	15.00	I	45.00	I	7.56	I	11.34
I ARM D	I	I	15.00	I	45.00	I	0.13	I	0.19

DEMAND SET TITLE: AM Option C

T33									
I		TURNING PROPORTIONS							
I		TURNING COUNTS							
I		(PERCENTAGE OF H.V.S)							
I									
I	TIME	I	FROM/TO	I	ARM A	I	ARM B	I	ARM C
I	07.45 - 09.15	I		I		I		I	
I		I	ARM A	I	0.000	I	0.560	I	0.440
I		I		I	0.0	I	381.0	I	299.0
I		I	(0.0)	I	(0.0)	I	(0.0)	I	(0.0)
I		I		I		I		I	
I		I	ARM B	I	0.361	I	0.000	I	0.639
I		I		I	66.0	I	0.0	I	117.0
I		I	(0.0)	I	(0.0)	I	(0.0)	I	(0.0)
I		I		I		I		I	
I		I	ARM C	I	0.167	I	0.833	I	0.000
I		I		I	101.0	I	504.0	I	0.0
I		I	(0.0)	I	(0.0)	I	(0.0)	I	(0.0)
I		I		I		I		I	
I		I	ARM D	I	0.400	I	0.600	I	0.000
I		I		I	4.0	I	6.0	I	0.0
I		I	(0.0)	I	(0.0)	I	(0.0)	I	(0.0)
I		I		I		I		I	

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

T70										
TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)		AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	
07.45-08.00										
ARM A	8.53	9.31	0.917	-	0.0	6.6	73.3	-	0.676	
ARM B	2.30	26.46	0.087	-	0.0	0.1	1.4	-	0.041	
ARM C	7.59	14.38	0.528	-	0.0	1.1	15.5	-	0.144	
ARM D	0.13	8.54	0.015	-	0.0	0.0	0.2	-	0.119	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)		AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	
08.00-08.15										
ARM A	10.19	8.80	1.157	-	6.6	29.5	276.3	-	2.427	
ARM B	2.74	26.10	0.105	-	0.1	0.1	1.7	-	0.043	
ARM C	9.06	14.31	0.634	-	1.1	1.7	23.8	-	0.188	
ARM D	0.15	7.74	0.019	-	0.0	0.0	0.3	-	0.132	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)		AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	
08.15-08.30										
ARM A	12.48	8.14	1.532	-	29.5	94.6	931.0	-	7.865	
ARM B	3.36	26.43	0.127	-	0.1	0.1	2.2	-	0.043	
ARM C	11.10	14.21	0.781	-	1.7	3.3	44.2	-	0.301	
ARM D	0.18	6.68	0.027	-	0.0	0.0	0.4	-	0.154	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)		AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	
08.30-08.45										
ARM A	12.48	8.11	1.538	-	94.6	160.1	1910.6	-	15.238	
ARM B	3.36	26.44	0.127	-	0.1	0.1	2.2	-	0.043	
ARM C	11.10	14.21	0.781	-	3.3	3.4	50.4	-	0.318	
ARM D	0.18	6.64	0.028	-	0.0	0.0	0.4	-	0.155	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)		AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	
08.45-09.00										
ARM A	10.19	8.75	1.164	-	160.1	181.7	2563.6	-	19.423	
ARM B	2.74	26.05	0.105	-	0.1	0.1	1.8	-	0.043	
ARM C	9.06	14.31	0.634	-	3.4	1.8	28.7	-	0.199	
ARM D	0.15	7.67	0.020	-	0.0	0.0	0.3	-	0.133	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)		AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	
09.00-09.15										
ARM A	8.53	9.27	0.920	-	181.7	171.4	2647.9	-	19.151	
ARM B	2.30	25.77	0.089	-	0.1	0.1	1.5	-	0.043	
ARM C	7.59	14.38	0.528	-	1.8	1.1	17.9	-	0.149	
ARM D	0.13	8.49	0.015	-	0.0	0.0	0.2	-	0.120	

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	6.6	*****
08.15	29.5	*****
08.30	94.6	*****
08.45	160.1	*****
09.00	181.7	*****
09.15	171.4	*****

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.1	
08.15	0.1	
08.30	0.1	
08.45	0.1	
09.00	0.1	
09.15	0.1	

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	1.1	*
08.15	1.7	**
08.30	3.3	***
08.45	3.4	***
09.00	1.8	**
09.15	1.1	*

QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.0	
08.15	0.0	
08.30	0.0	
08.45	0.0	
09.00	0.0	
09.15	0.0	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

-----											T75	
I	ARM	I	TOTAL DEMAND		I	* QUEUEING *		I	* INCLUSIVE QUEUEING *		I	
I		I			I	* DELAY *		I	* DELAY *		I	
I		I	-----									I
I		I	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	I	(MIN)	(MIN/VEH)	I	

I	A	I	936.0	I 624.0	I 8402.7	I 8.98	I	9987.0	I 10.67	I		
I	B	I	251.9	I 167.9	I 10.7	I 0.04	I	10.7	I 0.04	I		
I	C	I	832.7	I 555.2	I 180.5	I 0.22	I	180.6	I 0.22	I		
I	D	I	13.8	I 9.2	I 1.9	I 0.14	I	1.9	I 0.14	I		

I	ALL	I	2034.4	I 1356.2	I 8595.8	I 4.23	I	10180.2	I 5.00	I		

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

ARCADY 6

ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY

Analysis Program: Release 5.0 (JANUARY 2009)

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IN NO WAY RELIEVED OF THEIR RESPONSIBILITY FOR THE CORRECTNESS OF THE SOLUTION

Run with file:-
"u:\SCT\2016\SCT4147-\SCT4241_AthloneJunctionAssessments\CALCULATIONS\TRAFFIC\ARCADY\Hospital PM.vai"
(drive-on-the-left) at 11:43:32 on Thursday, 30 June 2016

FILE PROPERTIES

RUN TITLE: Athlone Roundabout
LOCATION:
DATE: 29/06/16
CLIENT:
ENUMERATOR: fstewart [GLA0921]
JOB NUMBER: SCT4241
STATUS:
DESCRIPTION:

INPUT DATA

ARM A - Coosan Point Road
ARM B - Southern Station Road
ARM C - Northgate Street
ARM D - Hospital Exit

MINI-ROUNDABOUT GEOMETRIC DATA

LIGHTING CONDITIONS : NORMAL
ROAD SURFACE CONDITION: NORMAL
ARM A HAS A CENTRAL ISLAND
ARM C HAS A CENTRAL ISLAND

T5																				
I	ARM	I	V (M)	I	E (M)	I	Lm(M)	I	Vm(M)	I	A (M)	I	K (M)	I	G (%)	I	SLOPE	I	INTERCEPT	I
I		I		I		I		I		I		I		I		I		I	(PCU/MIN)	I
I	ARM A	I	3.50	I	3.50	I	0.00	I	3.50	I	7.00	I	2.00	I	0.00	I	0.397	I	11.825	I
I	ARM B	I	3.00	I	5.00	I	10.00	I	3.00	I	15.00	I	20.00	I	-5.00	I	1.392	I	31.410	I
I	ARM C	I	4.00	I	4.00	I	0.00	I	4.00	I	8.00	I	7.00	I	0.00	I	0.423	I	14.725	I
I	ARM D	I	2.50	I	3.00	I	0.10	I	2.50	I	10.00	I	7.00	I	0.00	I	0.481	I	12.559	I

V = approach half-width Lm = effective flare length A = distance between arms
E = entry width Vm = minimum approach half-width K= entry corner kerb line G=gradient over 50 m
WARNING One or more intercept values (flagged * in the table)
have been adjusted according to local input values
from a previous run and listed below -

			T6
I	I	ADJUSTMENT TO	I
I	I	INTERCEPT (PCU/MIN)	I

TRAFFIC DEMAND DATA

Only sets included in the current run are shown

SCALING FACTORS

T13			
I ARM	I	FLOW SCALE(%)	I
I A	I	100	I
I B	I	100	I
I C	I	100	I
I D	I	100	I

TIME PERIOD BEGINS(07.45)AND ENDS(09.15)

LENGTH OF TIME PERIOD -(90) MINUTES

LENGTH OF TIME SEGMENT - (15) MINUTES

DEMAND FLOW PROFILES ARE SYNTHESISED FROM THE TURNING COUNT DATA

DEMAND SET TITLE: PM Option D

T15									
I	ARM	I	NUMBER OF MINUTES FROM START WHEN			I	RATE OF FLOW (VEH/MIN)		
I		I	FLOW STARTS	TOP OF PEAK	FLOW STOPS	I	BEFORE	AT TOP	AFTER
I		I				I			
I		I	TO RISE	IS REACHED	FALLING	I	PEAK	OF PEAK	PEAK
I ARM A	I	I	15.00	I 45.00	I 75.00	I	5.44	I 8.16	I 5.44
I ARM B	I	I	15.00	I 45.00	I 75.00	I	7.95	I 11.92	I 7.95
I ARM C	I	I	15.00	I 45.00	I 75.00	I	7.71	I 11.57	I 7.71
I ARM D	I	I	15.00	I 45.00	I 75.00	I	0.34	I 0.51	I 0.34

DEMAND SET TITLE: PM Option D

										T33		
I		I	TURNING PROPORTIONS							I		
I		I	TURNING COUNTS							I		
I		I	(PERCENTAGE OF H.V.S)							I		
I												
I	TIME	I	FROM/TO	I	ARM A	I	ARM B	I	ARM C	I	ARM D	I
I	07.45 - 09.15	I		I		I		I		I		I
I		I	ARM A	I	0.000	I	0.618	I	0.382	I	0.000	I
I		I		I	0.0	I	269.0	I	166.0	I	0.0	I
I		I		I	(0.0)	I	(0.0)	I	(0.0)	I	(0.0)	I
I		I		I		I		I		I		I
I		I	ARM B	I	0.175	I	0.000	I	0.825	I	0.000	I
I		I		I	111.0	I	0.0	I	525.0	I	0.0	I
I		I		I	(0.0)	I	(0.0)	I	(0.0)	I	(0.0)	I
I		I		I		I		I		I		I
I		I	ARM C	I	0.214	I	0.786	I	0.000	I	0.000	I
I		I		I	132.0	I	485.0	I	0.0	I	0.0	I
I		I		I	(0.0)	I	(0.0)	I	(0.0)	I	(0.0)	I
I		I		I		I		I		I		I
I		I	ARM D	I	0.333	I	0.481	I	0.185	I	0.000	I
I		I		I	9.0	I	13.0	I	5.0	I	0.0	I
I		I		I	(0.0)	I	(0.0)	I	(0.0)	I	(0.0)	I
I		I		I		I		I		I		I

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

											T70	
I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY		AVERAGE DELAY	I	
I		(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/		PER ARRIVING	I	
I				(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)		VEHICLE (MIN)	I	
-											-	
I	07.45-08.00										I	
I	ARM A	5.46	9.34	0.584	- -	-	0.0	1.4	18.5	-	0.246	I
I	ARM B	7.98	28.47	0.280	- -	-	0.0	0.4	5.7	-	0.049	I
I	ARM C	7.74	14.14	0.548	- -	-	0.0	1.2	16.7	-	0.153	I
I	ARM D	0.34	8.20	0.041	- -	-	0.0	0.0	0.6	-	0.127	I
I												I

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)		AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	
08.00-08.15										
ARM A	6.52	8.85	0.737	-	1.4	2.6	34.3	-	0.403	
ARM B	9.53	27.89	0.342	-	0.4	0.5	7.6	-	0.054	
ARM C	9.24	14.02	0.659	-	1.2	1.9	26.3	-	0.205	
ARM D	0.40	7.33	0.055	-	0.0	0.1	0.8	-	0.144	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)		AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	
08.15-08.30										
ARM A	7.98	8.20	0.973	-	2.6	9.3	100.5	-	1.082	
ARM B	11.67	27.28	0.428	-	0.5	0.7	10.9	-	0.064	
ARM C	11.32	13.87	0.817	-	1.9	4.0	52.1	-	0.356	
ARM D	0.50	6.20	0.080	-	0.1	0.1	1.2	-	0.175	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)		AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	
08.30-08.45										
ARM A	7.98	8.16	0.978	-	9.3	12.6	166.4	-	1.646	
ARM B	11.67	27.16	0.430	-	0.7	0.7	11.2	-	0.065	
ARM C	11.32	13.86	0.817	-	4.0	4.2	61.4	-	0.387	
ARM D	0.50	6.14	0.081	-	0.1	0.1	1.3	-	0.177	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)		AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	
08.45-09.00										
ARM A	6.52	8.79	0.742	-	12.6	3.2	78.2	-	0.750	
ARM B	9.53	27.51	0.346	-	0.7	0.5	8.1	-	0.056	
ARM C	9.24	14.02	0.659	-	4.2	2.0	32.8	-	0.222	
ARM D	0.40	7.24	0.056	-	0.1	0.1	0.9	-	0.146	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)		AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	
09.00-09.15										
ARM A	5.46	9.30	0.587	-	3.2	1.5	24.3	-	0.276	
ARM B	7.98	28.36	0.281	-	0.5	0.4	6.0	-	0.049	
ARM C	7.74	14.14	0.548	-	2.0	1.2	19.5	-	0.159	
ARM D	0.34	8.14	0.042	-	0.1	0.0	0.7	-	0.128	

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	1.4	*
08.15	2.6	***
08.30	9.3	*****
08.45	12.6	*****
09.00	3.2	***
09.15	1.5	*

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.4	
08.15	0.5	*
08.30	0.7	*
08.45	0.7	*
09.00	0.5	*
09.15	0.4	

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	1.2	*
08.15	1.9	**
08.30	4.0	****
08.45	4.2	****
09.00	2.0	**
09.15	1.2	*

QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.0	
08.15	0.1	
08.30	0.1	
08.45	0.1	
09.00	0.1	
09.15	0.0	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

-----											T75	
I	ARM	I	TOTAL DEMAND		I	* QUEUEING *		I	* INCLUSIVE QUEUEING *		I	
I		I			I	* DELAY *		I	* DELAY *		I	
I		I	-----									I
I		I	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	I	(MIN)	(MIN/VEH)	I	

I	A	I	598.7	I 399.2	I	422.3	I 0.71	I	422.4	I 0.71	I	
I	B	I	875.4	I 583.6	I	49.6	I 0.06	I	49.6	I 0.06	I	
I	C	I	849.3	I 566.2	I	208.8	I 0.25	I	208.9	I 0.25	I	
I	D	I	37.2	I 24.8	I	5.6	I 0.15	I	5.6	I 0.15	I	

I	ALL	I	2360.6	I 1573.7	I	686.3	I 0.29	I	686.5	I 0.29	I	

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

===== end of file =====

ARCADY 6

ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY

Analysis Program: Release 5.0 (JANUARY 2009)

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THE USER OF THIS COMPUTER PROGRAM FOR THE SOLUTION OF AN ENGINEERING PROBLEM IS
IN NO WAY RELIEVED OF THEIR RESPONSIBILITY FOR THE CORRECTNESS OF THE SOLUTION

Run with file:-
"u:\SCT\2016\SCT4147-\SCT4241_AthloneJunctionAssessments\CALCULATIONS\TRAFFIC\ARCADY\Hospital PM.vai"
(drive-on-the-left) at 11:35:07 on Thursday, 30 June 2016

FILE PROPERTIES

RUN TITLE: Athlone Roundabout
LOCATION:
DATE: 29/06/16
CLIENT:
ENUMERATOR: fstewart [GLA0921]
JOB NUMBER: SCT4241
STATUS:
DESCRIPTION:

INPUT DATA

ARM A - Coosan Point Road
ARM B - Southern Station Road
ARM C - Northgate Street
ARM D - Hospital Exit

MINI-ROUNDABOUT GEOMETRIC DATA

LIGHTING CONDITIONS : NORMAL
ROAD SURFACE CONDITION: NORMAL
ARM A HAS A CENTRAL ISLAND
ARM C HAS A CENTRAL ISLAND

T5																				
I	ARM	I	V (M)	I	E (M)	I	Lm(M)	I	Vm(M)	I	A (M)	I	K (M)	I	G (%)	I	SLOPE	I	INTERCEPT	I
I		I		I		I		I		I		I		I		I		I	(PCU/MIN)	I
I	ARM A	I	3.50	I	3.50	I	0.00	I	3.50	I	7.00	I	2.00	I	0.00	I	0.397	I	11.825	I
I	ARM B	I	3.00	I	5.00	I	10.00	I	3.00	I	15.00	I	20.00	I	-5.00	I	1.392	I	31.410	I
I	ARM C	I	4.00	I	4.00	I	0.00	I	4.00	I	8.00	I	7.00	I	0.00	I	0.423	I	14.725	I
I	ARM D	I	2.50	I	3.00	I	0.10	I	2.50	I	10.00	I	7.00	I	0.00	I	0.481	I	12.559	I

V = approach half-width Lm = effective flare length A = distance between arms
E = entry width Vm = minimum approach half-width K= entry corner kerb line G=gradient over 50 m
WARNING One or more intercept values (flagged * in the table)
have been adjusted according to local input values
from a previous run and listed below -

				T6
I	I	ADJUSTMENT TO	I	
I	I	INTERCEPT (PCU/MIN)	I	

TRAFFIC DEMAND DATA

Only sets included in the current run are shown

SCALING FACTORS

----- T13			
I ARM	I	FLOW SCALE(%)	I

I A	I	100	I
I B	I	100	I
I C	I	100	I
I D	I	100	I

TIME PERIOD BEGINS(07.45)AND ENDS(09.15)

LENGTH OF TIME PERIOD -(90) MINUTES

LENGTH OF TIME SEGMENT - (15) MINUTES

DEMAND FLOW PROFILES ARE SYNTHESISED FROM THE TURNING COUNT DATA

DEMAND SET TITLE: PM Option C

----- T15									
I	NUMBER OF MINUTES FROM START WHEN				RATE OF FLOW (VEH/MIN)				
I ARM	I	FLOW STARTS	I	TOP OF PEAK	I	FLOW STOPS	I	BEFORE	I
I	I	I	I	I	I	I	I	AT TOP	I
I	I	I	I	I	I	I	I	I	I
I	I	TO RISE	I	IS REACHED	I	FALLING	I	PEAK	I

I ARM	A	I	15.00	I	45.00	I	75.00	I	5.89
I ARM	B	I	15.00	I	45.00	I	75.00	I	3.15
I ARM	C	I	15.00	I	45.00	I	75.00	I	7.82
I ARM	D	I	15.00	I	45.00	I	75.00	I	0.34

DEMAND SET TITLE: PM Option C

-----										T33		
I		I	TURNING PROPORTIONS							I		
I		I	TURNING COUNTS							I		
I		I	(PERCENTAGE OF H.V.S)							I		
I		-----										
I	TIME	I	FROM/TO	I	ARM A	I	ARM B	I	ARM C	I	ARM D	I

I	07.45 - 09.15	I		I		I		I		I		I
I		I	ARM A	I	0.000	I	0.648	I	0.352	I	0.000	I
I		I		I	0.0	I	305.0	I	166.0	I	0.0	I
I		I		I	(0.0)	I	(0.0)	I	(0.0)	I	(0.0)	I
I		I		I		I		I		I		I
I		I	ARM B	I	0.401	I	0.000	I	0.599	I	0.000	I
I		I		I	101.0	I	0.0	I	151.0	I	0.0	I
I		I		I	(0.0)	I	(0.0)	I	(0.0)	I	(0.0)	I
I		I		I		I		I		I		I
I		I	ARM C	I	0.211	I	0.789	I	0.000	I	0.000	I
I		I		I	132.0	I	494.0	I	0.0	I	0.0	I
I		I		I	(0.0)	I	(0.0)	I	(0.0)	I	(0.0)	I
I		I		I		I		I		I		I
I		I	ARM D	I	0.333	I	0.481	I	0.185	I	0.000	I
I		I		I	9.0	I	13.0	I	5.0	I	0.0	I
I		I		I	(0.0)	I	(0.0)	I	(0.0)	I	(0.0)	I
I		I		I		I		I		I		I

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

											T70	
I	TIME	DEMAND	CAPACITY	DEMAND/	PEDESTRIAN	START	END	DELAY		AVERAGE DELAY	I	
I		(VEH/MIN)	(VEH/MIN)	CAPACITY	FLOW	QUEUE	QUEUE	(VEH.MIN/		PER ARRIVING	I	
I				(RFC)	(PEDS/MIN)	(VEHS)	(VEHS)	TIME SEGMENT)		VEHICLE (MIN)	I	
-											-	
I	07.45-08.00										I	
I	ARM A	5.91	9.30	0.635	- -	-	0.0	1.7	22.4	-	0.277	I
I	ARM B	3.16	28.48	0.111	- -	-	0.0	0.1	1.8	-	0.039	I
I	ARM C	7.85	14.19	0.554	- -	-	0.0	1.2	17.1	-	0.154	I
I	ARM D	0.34	8.21	0.041	- -	-	0.0	0.0	0.6	-	0.127	I
I												I

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)		AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	
08.00-08.15										
ARM A	7.06	8.79	0.803	-	1.7	3.5	45.4	-	0.508	
ARM B	3.78	27.91	0.135	-	0.1	0.2	2.3	-	0.041	
ARM C	9.38	14.09	0.666	-	1.2	1.9	27.0	-	0.208	
ARM D	0.40	7.34	0.055	-	0.0	0.1	0.8	-	0.144	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)		AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	
08.15-08.30										
ARM A	8.64	8.14	1.062	-	3.5	16.1	157.4	-	1.596	
ARM B	4.62	27.45	0.168	-	0.2	0.2	3.0	-	0.044	
ARM C	11.49	13.94	0.824	-	1.9	4.1	54.1	-	0.364	
ARM D	0.50	6.21	0.080	-	0.1	0.1	1.2	-	0.175	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)		AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	
08.30-08.45										
ARM A	8.64	8.10	1.067	-	16.1	26.0	317.8	-	2.902	
ARM B	4.62	27.36	0.169	-	0.2	0.2	3.0	-	0.044	
ARM C	11.49	13.94	0.824	-	4.1	4.4	64.1	-	0.398	
ARM D	0.50	6.15	0.081	-	0.1	0.1	1.3	-	0.177	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)		AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	
08.45-09.00										
ARM A	7.06	8.73	0.808	-	26.0	6.3	238.4	-	2.066	
ARM B	3.78	27.20	0.139	-	0.2	0.2	2.5	-	0.043	
ARM C	9.38	14.09	0.666	-	4.4	2.1	34.0	-	0.227	
ARM D	0.40	7.24	0.056	-	0.1	0.1	0.9	-	0.146	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)		AVERAGE DELAY PER ARRIVING VEHICLE (MIN)	
09.00-09.15										
ARM A	5.91	9.26	0.638	-	6.3	1.9	34.4	-	0.355	
ARM B	3.16	28.28	0.112	-	0.2	0.1	1.9	-	0.040	
ARM C	7.85	14.19	0.554	-	2.1	1.3	20.0	-	0.161	
ARM D	0.34	8.14	0.042	-	0.1	0.0	0.7	-	0.128	

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	1.7	**
08.15	3.5	***
08.30	16.1	*****
08.45	26.0	*****
09.00	6.3	*****
09.15	1.9	**

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.1	
08.15	0.2	
08.30	0.2	
08.45	0.2	
09.00	0.2	
09.15	0.1	

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	1.2	*
08.15	1.9	**
08.30	4.1	****
08.45	4.4	****
09.00	2.1	**
09.15	1.3	*

QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.0	
08.15	0.1	
08.30	0.1	
08.45	0.1	
09.00	0.1	
09.15	0.0	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

----- T75										
I	ARM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I		I
I		I		I	* DELAY *	I	* DELAY *	I		I
I		I	-----							
I		I	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	I	(MIN)	(MIN/VEH)

I	A	I	648.3	I	432.2	I	815.7	I	1.26	I
I	B	I	346.9	I	231.2	I	14.6	I	0.04	I
I	C	I	861.6	I	574.4	I	216.3	I	0.25	I
I	D	I	37.2	I	24.8	I	5.6	I	0.15	I

I	ALL	I	1894.0	I	1262.6	I	1052.2	I	0.56	I

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

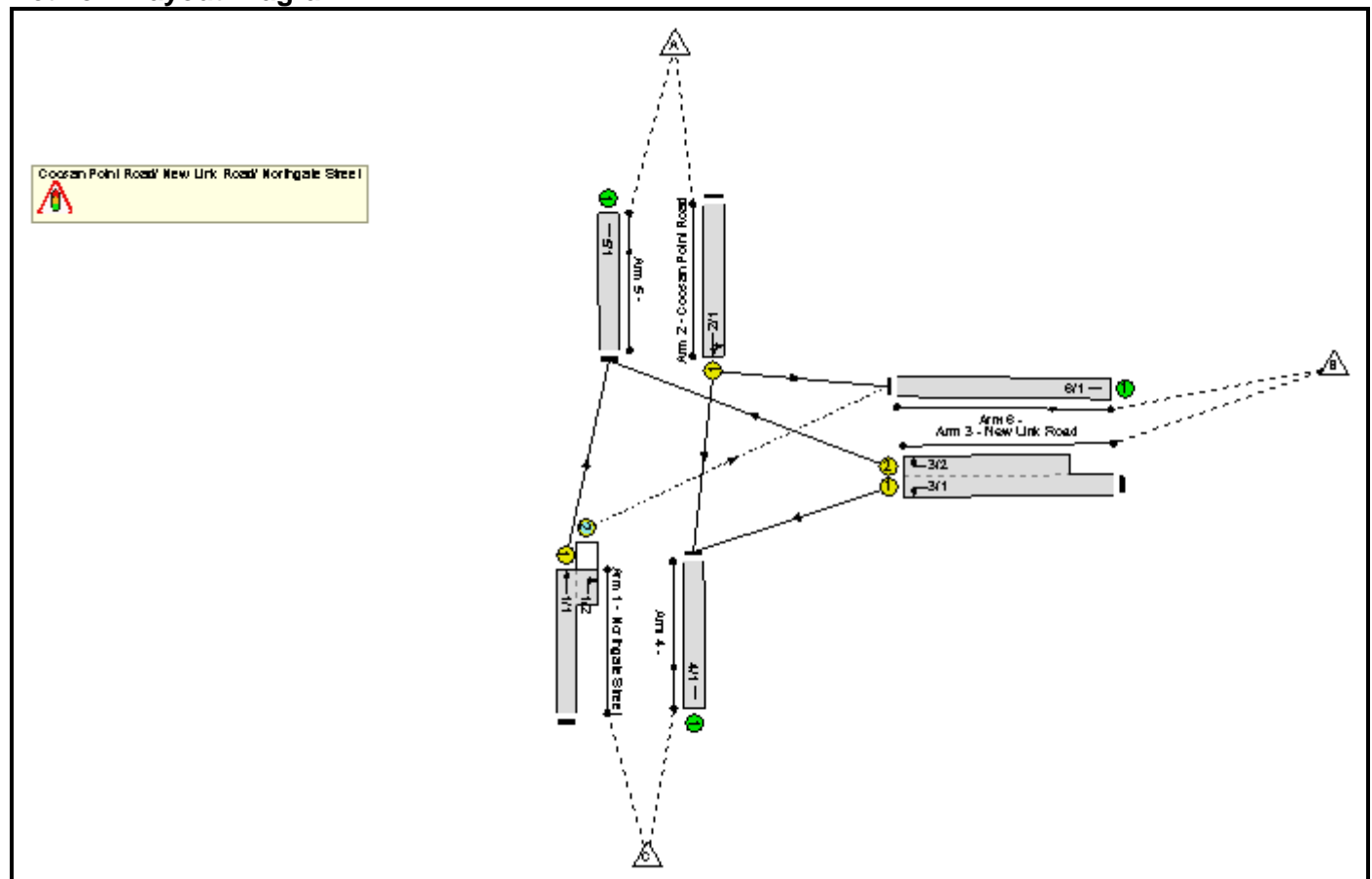
END OF JOB

===== end of file =====

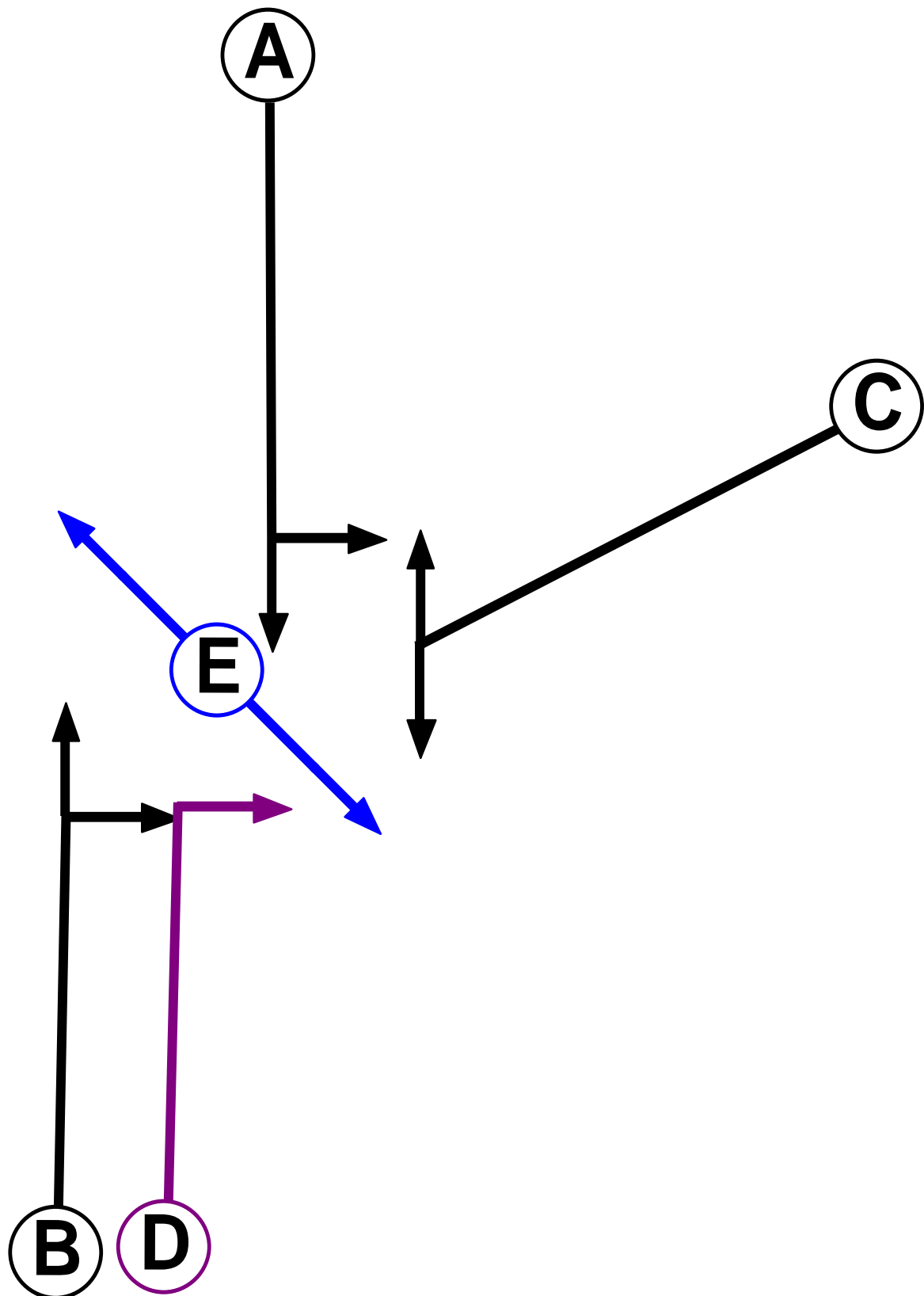
Appendix E1: Junction Assessment – LinSig Coosan Point / Northgate Street / Church Street

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

Project:	
Title:	
Location:	
File name:	Coosan Point Traffic Signals (New Link Road).lsg3x
Author:	
Company:	
Address:	
Notes:	

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	Ind. Arrow	B	4	4
E	Pedestrian		7	7

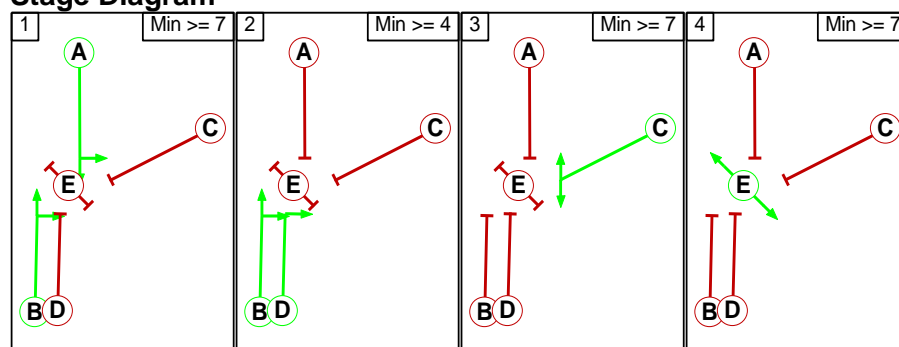
Phase Intergreens Matrix

		Starting Phase					
Terminating Phase		A	B	C	D	E	
	A		-	5	5	6	
	B	-		5	-	5	
	C	6	5		5	5	
	D	6	-	5		5	
	E	11	11	11	11		

Phases in Stage

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

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	3	4
	1		5	5	6
	2	6		5	5
	3	6	5		5
	4	11	11	11	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Coosan Point Road/ New Link Road/ Northgate Street											
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 (Northgate Street)	6/1 (Right)	1439	0	2/1	1.09	All	2.00	-	0.50	2	3.00

Lane Input Data

Junction: Coosan Point Road/ New Link Road/ Northgate Street												
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 (Northgate Street)	U	B	2	3	22.8	Geom	-	3.25	0.00	Y	Arm 5 Ahead	Inf
1/2 (Northgate Street)	O	B D	2	3	2.6	Geom	-	3.25	0.00	N	Arm 6 Right	15.00
2/1 (Coosan Point Road)	U	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 4 Ahead	Inf
											Arm 6 Left	10.00
3/1 (New Link Road)	U	C	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Left	10.00
3/2 (New Link Road)	U	C	2	3	12.2	Geom	-	3.00	0.00	N	Arm 5 Right	15.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Option C AM'	08:00	09:00	01:00	
2: 'Option C PM '	17:00	18:00	01:00	
3: 'Option B AM'	08:00	09:00	01:00	
4: 'Option B PM'	17:00	18:00	01:00	
5: 'Option D AM '	08:00	09:00	01:00	
6: 'Option D PM '	17:00	18:00	01:00	
7: 'AM Base'	08:00	09:00	01:00	
8: 'PM Base'	08:00	09:00	01:00	

Scenario 1: 'AM Base' (FG7: 'AM Base', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	286	299	585
	B	66	0	117	183
	C	101	156	0	257
	Tot.	167	442	416	1025

Traffic Lane Flows

Lane	Scenario 1: AM Base
Junction: Coosan Point Road/ New Link Road/ Northgate Street	
1/1 (with short)	257(In) 101(Out)
1/2 (short)	156
2/1	585
3/1 (with short)	183(In) 117(Out)
3/2 (short)	66
4/1	416
5/1	167
6/1	442

Lane Saturation Flows

Junction: Coosan Point Road/ New Link Road/ Northgate Street								
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 (Northgate Street)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
1/2 (Northgate Street)	3.25	0.00	N	Arm 6 Right	15.00	100.0 %	1891	1891
2/1 (Coosan Point Road)	3.50	0.00	Y	Arm 4 Ahead	Inf	51.1 %	1831	1831
				Arm 6 Left	10.00	48.9 %		
3/1 (New Link Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (New Link Road)	3.00	0.00	N	Arm 5 Right	15.00	100.0 %	1868	1868
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'PM Base' (FG8: 'PM Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	174	166	340
	B	101	0	151	252
	C	132	179	0	311
	Tot.	233	353	317	903

Traffic Lane Flows

Lane	Scenario 2: PM Base
Junction: Coosan Point Road/ New Link Road/ Northgate Street	
1/1 (with short)	311(In) 132(Out)
1/2 (short)	179
2/1	340
3/1 (with short)	252(In) 151(Out)
3/2 (short)	101
4/1	317
5/1	233
6/1	353

Lane Saturation Flows

Junction: Coosan Point Road/ New Link Road/ Northgate Street								
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 (Northgate Street)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
1/2 (Northgate Street)	3.25	0.00	N	Arm 6 Right	15.00	100.0 %	1891	1891
2/1 (Coosan Point Road)	3.50	0.00	Y	Arm 4 Ahead	Inf	48.8 %	1825	1825
				Arm 6 Left	10.00	51.2 %		
3/1 (New Link Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (New Link Road)	3.00	0.00	N	Arm 5 Right	15.00	100.0 %	1868	1868
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	286	299	585
	B	72	0	472	544
	C	101	156	0	257
	Tot.	173	442	771	1386

Traffic Lane Flows

Lane	Scenario 3: Option B AM
Junction: Coosan Point Road/ New Link Road/ Northgate Street	
1/1 (with short)	257(In) 101(Out)
1/2 (short)	156
2/1	585
3/1 (with short)	544(In) 472(Out)
3/2 (short)	72
4/1	771
5/1	173
6/1	442

Lane Saturation Flows

Junction: Coosan Point Road/ New Link Road/ Northgate Street								
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 (Northgate Street)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
1/2 (Northgate Street)	3.25	0.00	N	Arm 6 Right	15.00	100.0 %	1891	1891
2/1 (Coosan Point Road)	3.50	0.00	Y	Arm 4 Ahead	Inf	51.1 %	1831	1831
				Arm 6 Left	10.00	48.9 %		
3/1 (New Link Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (New Link Road)	3.00	0.00	N	Arm 5 Right	15.00	100.0 %	1868	1868
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	174	166	340
	B	111	0	661	772
	C	132	179	0	311
	Tot.	243	353	827	1423

Traffic Lane Flows

Lane	Scenario 4: Option B PM
Junction: Coosan Point Road/ New Link Road/ Northgate Street	
1/1 (with short)	311(In) 132(Out)
1/2 (short)	179
2/1	340
3/1 (with short)	772(In) 661(Out)
3/2 (short)	111
4/1	827
5/1	243
6/1	353

Lane Saturation Flows

Junction: Coosan Point Road/ New Link Road/ Northgate Street								
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 (Northgate Street)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
1/2 (Northgate Street)	3.25	0.00	N	Arm 6 Right	15.00	100.0 %	1891	1891
2/1 (Coosan Point Road)	3.50	0.00	Y	Arm 4 Ahead	Inf	48.8 %	1825	1825
				Arm 6 Left	10.00	51.2 %		
3/1 (New Link Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (New Link Road)	3.00	0.00	N	Arm 5 Right	15.00	100.0 %	1868	1868
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'Option C AM' (FG1: 'Option C AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	381	299	680
	B	66	0	117	183
	C	101	504	0	605
	Tot.	167	885	416	1468

Traffic Lane Flows

Lane	Scenario 5: Option C AM
Junction: Coosan Point Road/ New Link Road/ Northgate Street	
1/1 (with short)	605(In) 101(Out)
1/2 (short)	504
2/1	680
3/1 (with short)	183(In) 117(Out)
3/2 (short)	66
4/1	416
5/1	167
6/1	885

Lane Saturation Flows

Junction: Coosan Point Road/ New Link Road/ Northgate Street								
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 (Northgate Street)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
1/2 (Northgate Street)	3.25	0.00	N	Arm 6 Right	15.00	100.0 %	1891	1891
2/1 (Coosan Point Road)	3.50	0.00	Y	Arm 4 Ahead	Inf	44.0 %	1813	1813
				Arm 6 Left	10.00	56.0 %		
3/1 (New Link Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (New Link Road)	3.00	0.00	N	Arm 5 Right	15.00	100.0 %	1868	1868
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Option C PM' (FG2: 'Option C PM ', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	305	166	471
	B	101	0	151	252
	C	132	494	0	626
	Tot.	233	799	317	1349

Traffic Lane Flows

Lane	Scenario 6: Option C PM
Junction: Coosan Point Road/ New Link Road/ Northgate Street	
1/1 (with short)	626(In) 132(Out)
1/2 (short)	494
2/1	471
3/1 (with short)	252(In) 151(Out)
3/2 (short)	101
4/1	317
5/1	233
6/1	799

Lane Saturation Flows

Junction: Coosan Point Road/ New Link Road/ Northgate Street								
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 (Northgate Street)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
1/2 (Northgate Street)	3.25	0.00	N	Arm 6 Right	15.00	100.0 %	1891	1891
2/1 (Coosan Point Road)	3.50	0.00	Y	Arm 4 Ahead	Inf	35.2 %	1791	1791
				Arm 6 Left	10.00	64.8 %		
3/1 (New Link Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (New Link Road)	3.00	0.00	N	Arm 5 Right	15.00	100.0 %	1868	1868
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 7: 'Option D AM' (FG5: 'Option D AM ', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	381	299	680
	B	72	0	460	532
	C	101	493	0	594
	Tot.	173	874	759	1806

Traffic Lane Flows

Lane	Scenario 7: Option D AM
Junction: Coosan Point Road/ New Link Road/ Northgate Street	
1/1 (with short)	594(In) 101(Out)
1/2 (short)	493
2/1	680
3/1 (with short)	532(In) 460(Out)
3/2 (short)	72
4/1	759
5/1	173
6/1	874

Lane Saturation Flows

Junction: Coosan Point Road/ New Link Road/ Northgate Street								
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 (Northgate Street)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
1/2 (Northgate Street)	3.25	0.00	N	Arm 6 Right	15.00	100.0 %	1891	1891
2/1 (Coosan Point Road)	3.50	0.00	Y	Arm 4 Ahead	Inf	44.0 %	1813	1813
				Arm 6 Left	10.00	56.0 %		
3/1 (New Link Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (New Link Road)	3.00	0.00	N	Arm 5 Right	15.00	100.0 %	1868	1868
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Option D PM' (FG6: 'Option D PM ', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	166	269	435
	B	111	0	525	636
	C	132	485	0	617
	Tot.	243	651	794	1688

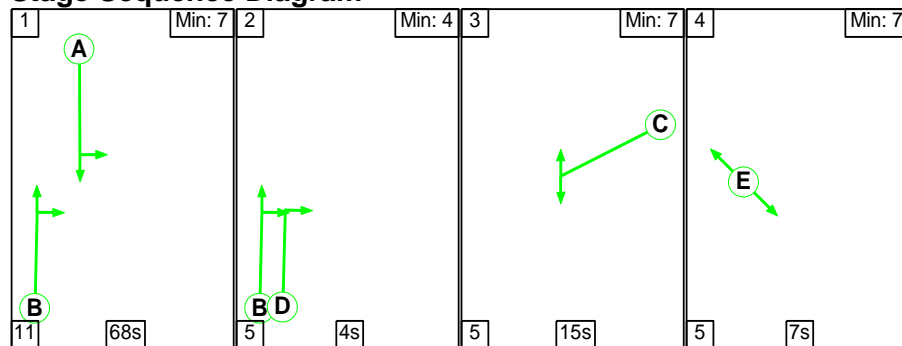
Traffic Lane Flows

Lane	Scenario 8: Option D PM
Junction: Coosan Point Road/ New Link Road/ Northgate Street	
1/1 (with short)	617(In) 132(Out)
1/2 (short)	485
2/1	435
3/1 (with short)	636(In) 525(Out)
3/2 (short)	111
4/1	794
5/1	243
6/1	651

Lane Saturation Flows

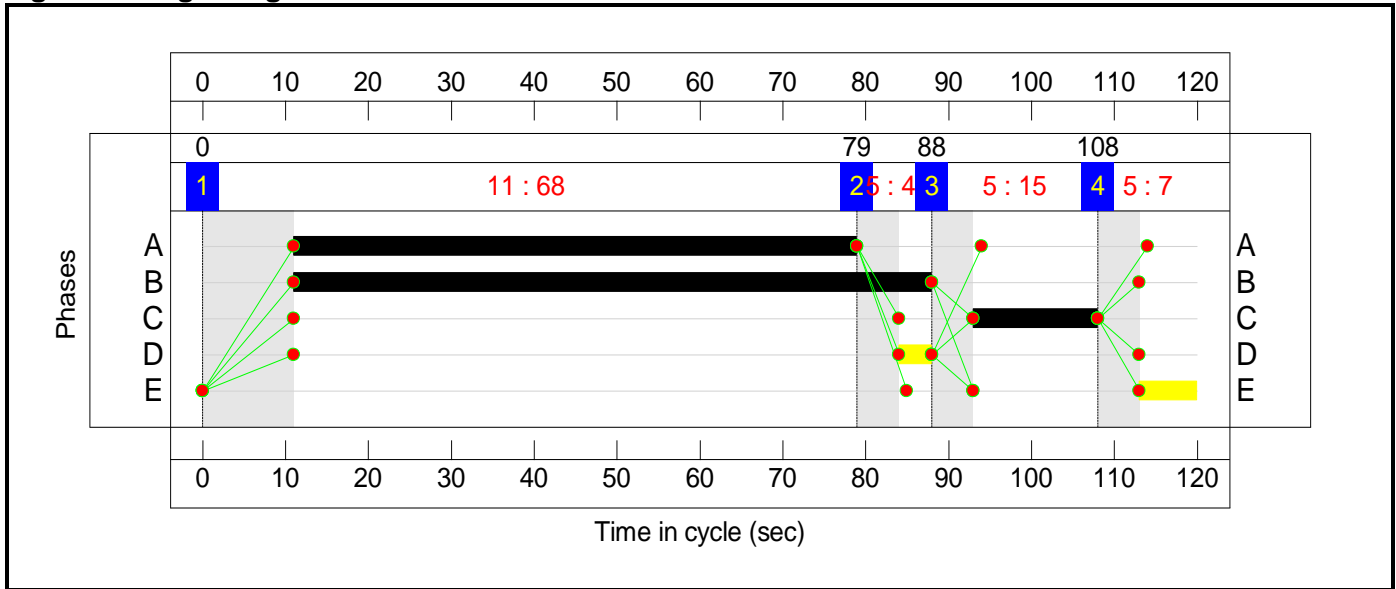
Junction: Coosan Point Road/ New Link Road/ Northgate Street								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Northgate Street)	3.25	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1940	1940
1/2 (Northgate Street)	3.25	0.00	N	Arm 6 Right	15.00	100.0 %	1891	1891
2/1 (Coosan Point Road)	3.50	0.00	Y	Arm 4 Ahead	Inf	61.8 %	1859	1859
				Arm 6 Left	10.00	38.2 %		
3/1 (New Link Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (New Link Road)	3.00	0.00	N	Arm 5 Right	15.00	100.0 %	1868	1868
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'AM Base' (FG7: 'AM Base', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram**Stage Timings**

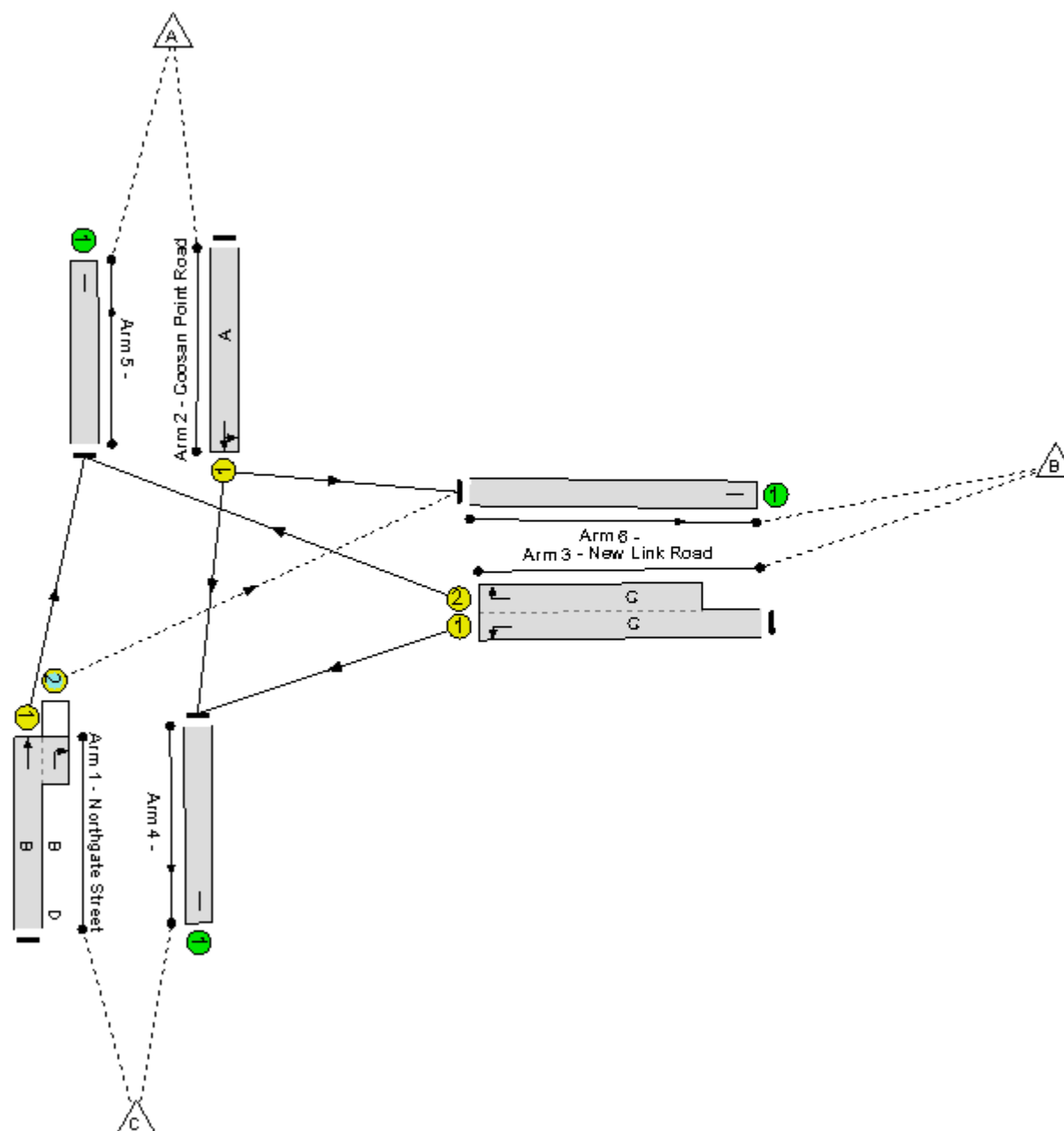
Stage	1	2	3	4
Duration	68	4	15	7
Change Point	0	79	88	108

Signal Timings Diagram



Network Layout Diagram

Coosan Point Road/ New Link Road/ Northgate Street
 PRC: 62.0 %
 Total Traffic Delay: 7.6 per Hr



Full Input Data And Results

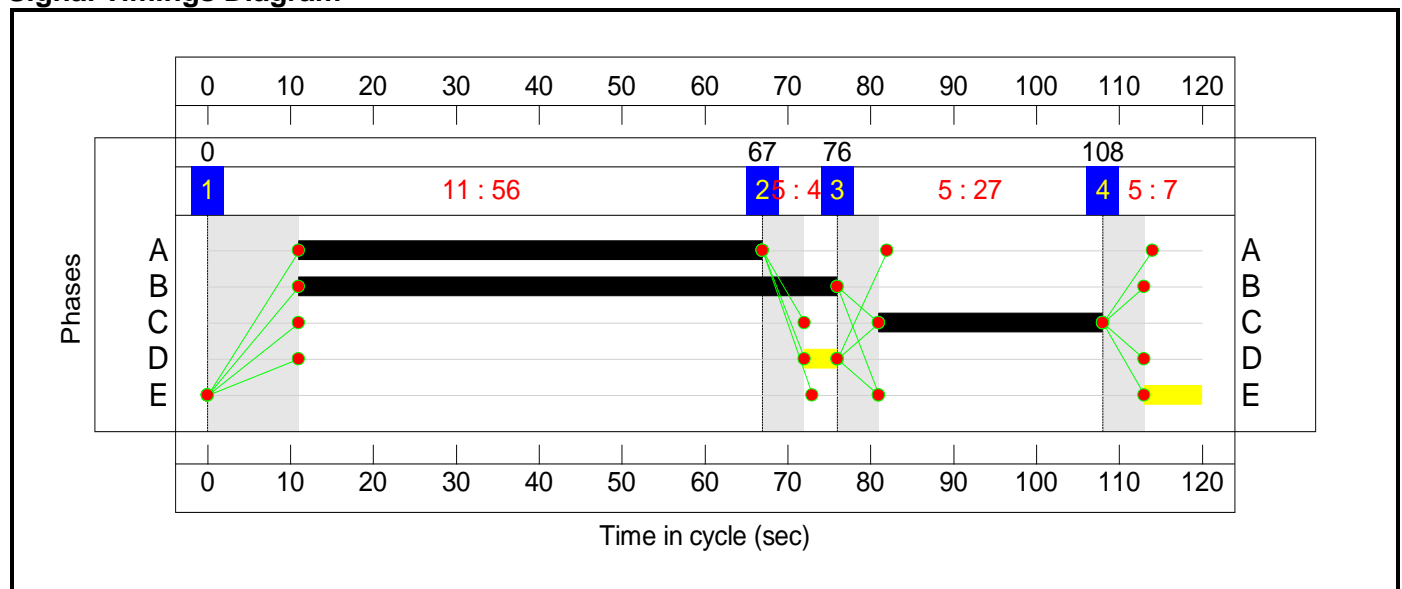
Network Results

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	-	-		-	-	-	-	-	-	55.6%
Coosan Point Road/ New Link Road/ Northgate Street	-	-	N/A	-	-		-	-	-	-	-	-	55.6%
1/1+1/2	Northgate Street Ahead Right	U+O	N/A	N/A	B	D	1	77	4	257	1940:1891	305+471	33.1 : 33.1%
2/1	Coosan Point Road Ahead Left	U	N/A	N/A	A		1	68	-	585	1831	1053	55.6%
3/1+3/2	New Link Road Left Right	U	N/A	N/A	C		1	15	-	183	1665:1868	222+125	52.7 : 52.7%
4/1		U	N/A	N/A	-		-	-	-	416	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	167	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	442	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	144	9	3	5.7	1.4	0.5	7.6	-	-	-	-
Coosan Point Road/ New Link Road/ Northgate Street	-	-	144	9	3	5.7	1.4	0.5	7.6	-	-	-	-
1/1+1/2	257	257	144	9	3	0.7	0.2	0.5	1.4	20.2	1.9	0.2	2.2
2/1	585	585	-	-	-	2.6	0.6	-	3.2	19.8	12.0	0.6	12.6
3/1+3/2	183	183	-	-	-	2.4	0.6	-	3.0	58.7	3.6	0.6	4.2
4/1	416	416	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	167	167	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	442	442	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 62.0 Total Delay for Signalled Lanes (pcuHr): 7.64 Cycle Time (s): 120 PRC Over All Lanes (%): 62.0 Total Delay Over All Lanes(pcuHr): 7.64													

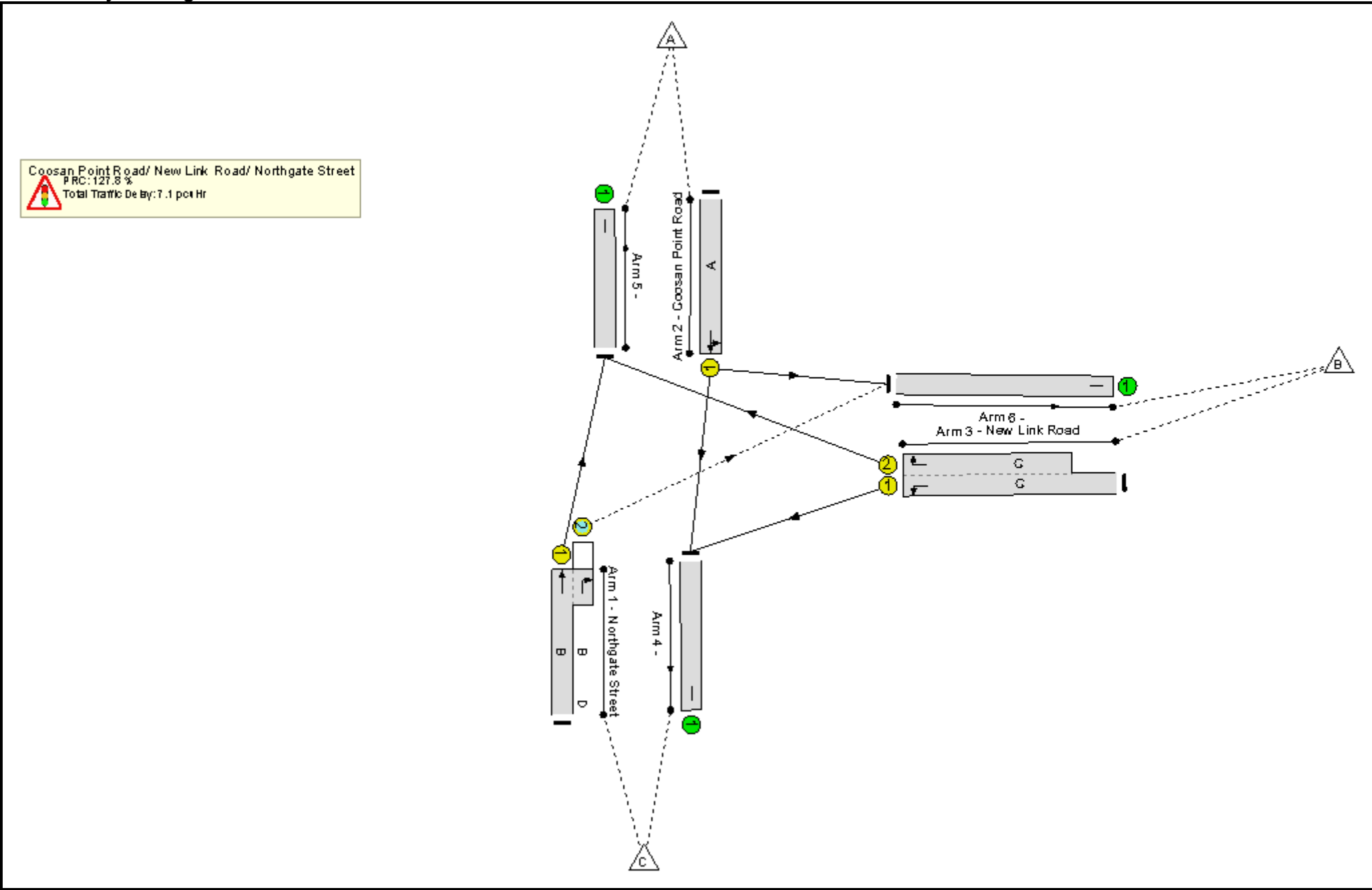
Stage Sequence Diagram



Signal Timings Diagram



Network Layout Diagram



Full Input Data And Results

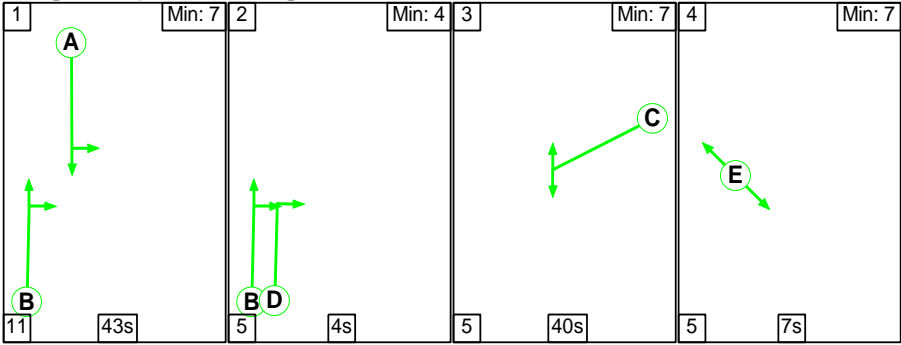
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	39.5%
Coosan Point Road/ New Link Road/ Northgate Street	-	-	N/A	-	-		-	-	-	-	-	-	39.5%
1/1+1/2	Northgate Street Ahead Right	U+O	N/A	N/A	B	D	1	65	4	311	1940:1891	396+537	33.3 : 33.3%
2/1	Coosan Point Road Ahead Left	U	N/A	N/A	A		1	56	-	340	1825	867	39.2%
3/1+3/2	New Link Road Left Right	U	N/A	N/A	C		1	27	-	252	1665:1868	382+256	39.5 : 39.5%
4/1		U	N/A	N/A	-		-	-	-	317	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	233	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	353	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	166	10	3	5.9	0.9	0.3	7.1	-	-	-	-
Coosan Point Road/ New Link Road/ Northgate Street	-	-	166	10	3	5.9	0.9	0.3	7.1	-	-	-	-
1/1+1/2	311	311	166	10	3	1.3	0.2	0.3	1.9	22.0	3.8	0.2	4.0
2/1	340	340	-	-	-	1.9	0.3	-	2.2	23.7	7.3	0.3	7.6
3/1+3/2	252	252	-	-	-	2.7	0.3	-	3.0	42.8	4.2	0.3	4.6
4/1	317	317	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	233	233	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	353	353	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 127.8 Total Delay for Signalled Lanes (pcuHr): 7.14 Cycle Time (s): 120 PRC Over All Lanes (%): 127.8 Total Delay Over All Lanes(pcuHr): 7.14													

Full Input Data And Results

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

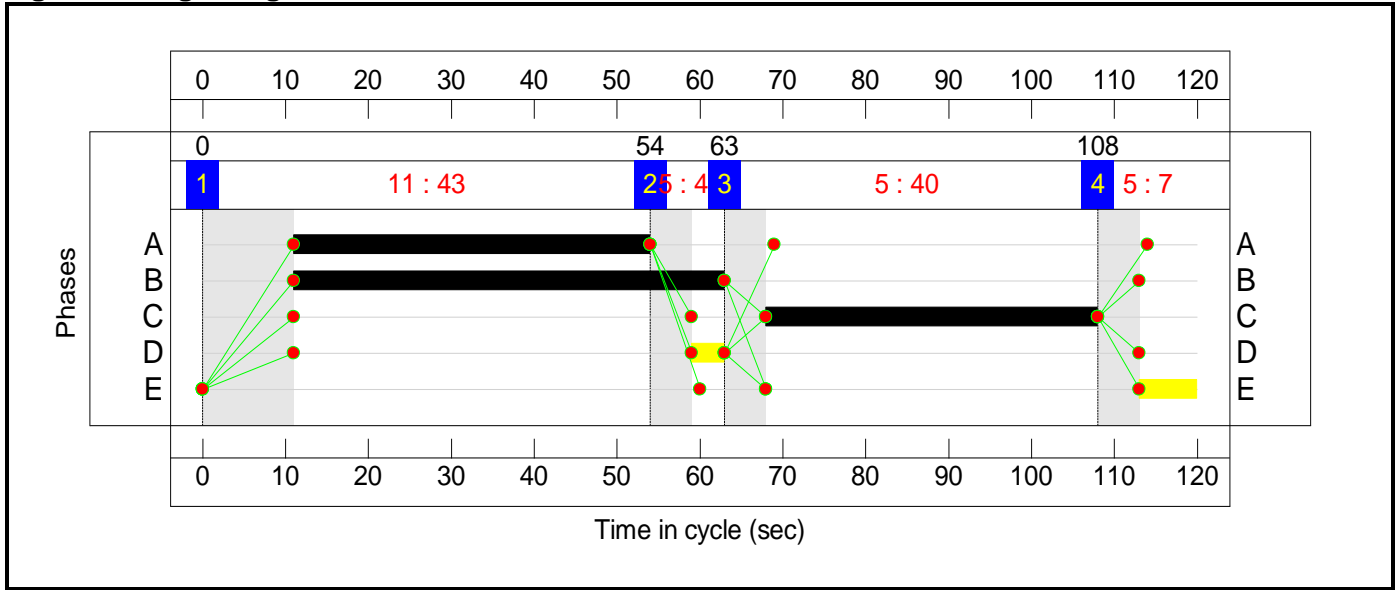
Stage Sequence Diagram



Stage Timings

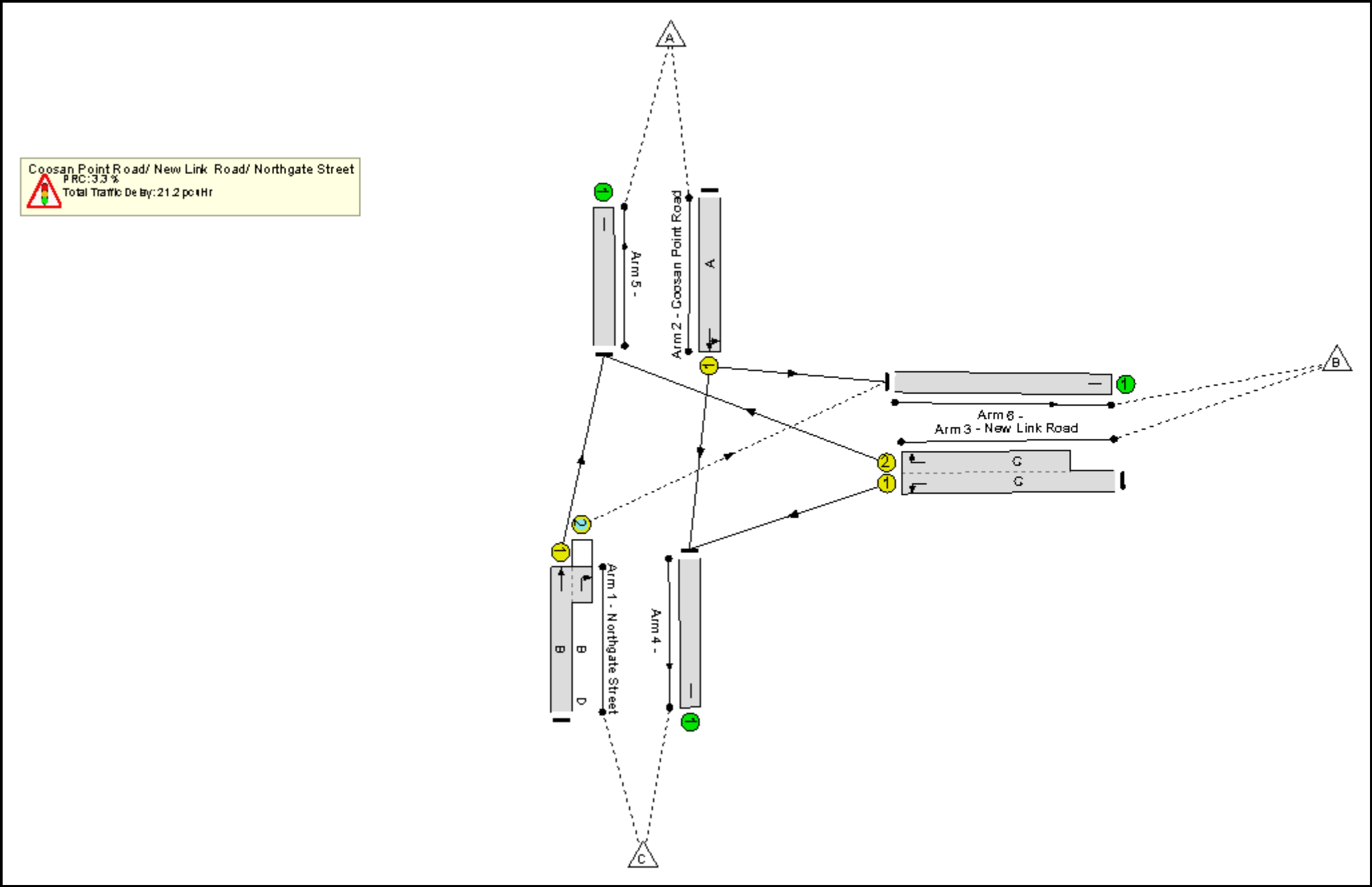
Stage	1	2	3	4
Duration	43	4	40	7
Change Point	0	54	63	108

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

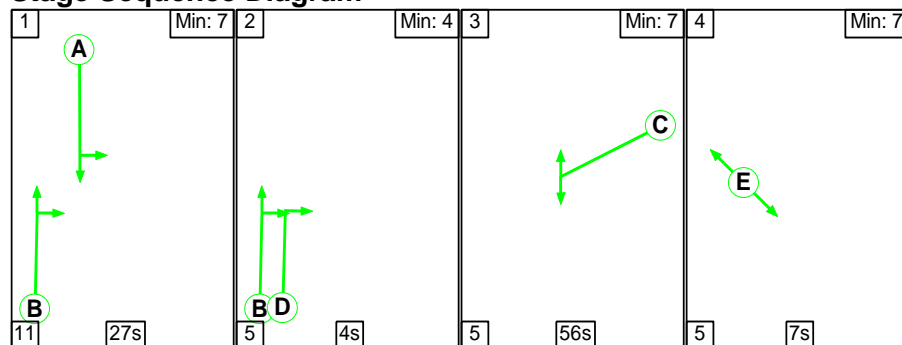
Network Results

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	-	-		-	-	-	-	-	-	87.1%
Coosan Point Road/ New Link Road/ Northgate Street	-	-	N/A	-	-		-	-	-	-	-	-	87.1%
1/1+1/2	Northgate Street Ahead Right	U+O	N/A	N/A	B	D	1	52	4	257	1940:1891	143+220	70.8 : 70.8%
2/1	Coosan Point Road Ahead Left	U	N/A	N/A	A		1	43	-	585	1831	671	87.1%
3/1+3/2	New Link Road Left Right	U	N/A	N/A	C		1	40	-	544	1665:1868	547+83	86.3 : 86.3%
4/1		U	N/A	N/A	-		-	-	-	771	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	173	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	442	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	53	100	3	13.2	7.3	0.7	21.2	-	-	-	-
Coosan Point Road/ New Link Road/ Northgate Street	-	-	53	100	3	13.2	7.3	0.7	21.2	-	-	-	-
1/1+1/2	257	257	53	100	3	2.1	1.2	0.7	4.0	55.9	5.0	1.2	6.2
2/1	585	585	-	-	-	5.7	3.2	-	8.9	54.8	18.0	3.2	21.2
3/1+3/2	544	544	-	-	-	5.3	2.9	-	8.3	54.7	14.8	2.9	17.7
4/1	771	771	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	173	173	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	442	442	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 3.3 Total Delay for Signalled Lanes (pcuHr): 21.16 Cycle Time (s): 120 PRC Over All Lanes (%): 3.3 Total Delay Over All Lanes(pcuHr): 21.16													

Full Input Data And Results

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

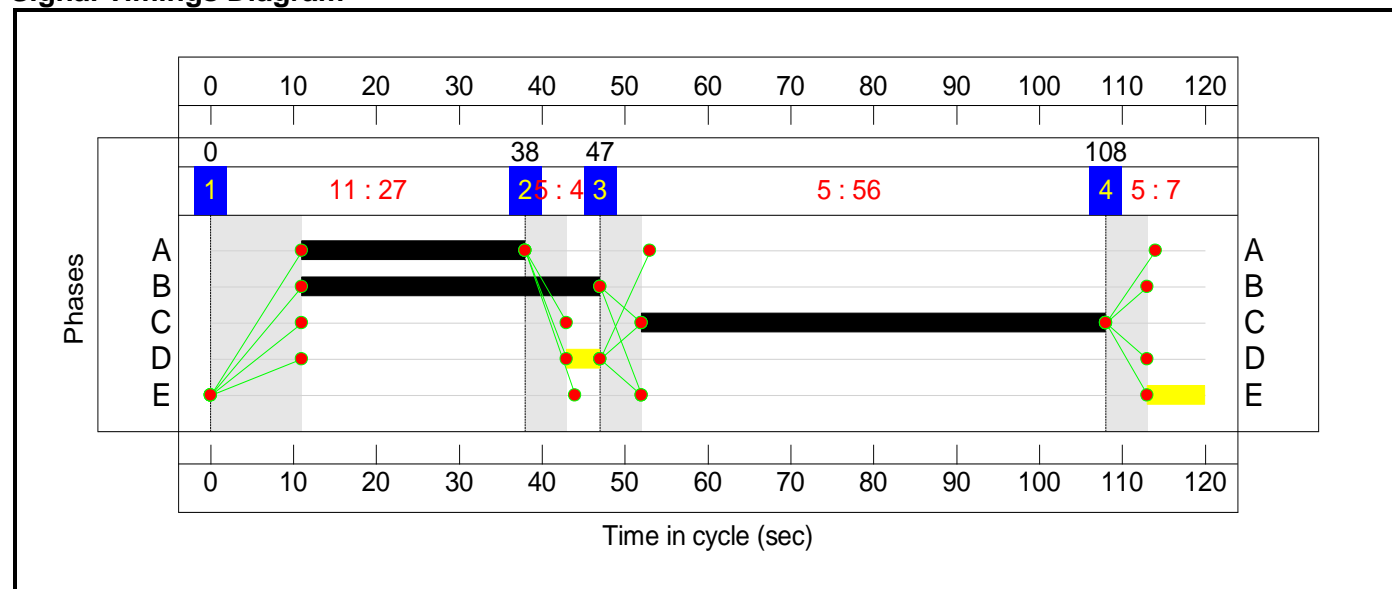
Stage Sequence Diagram



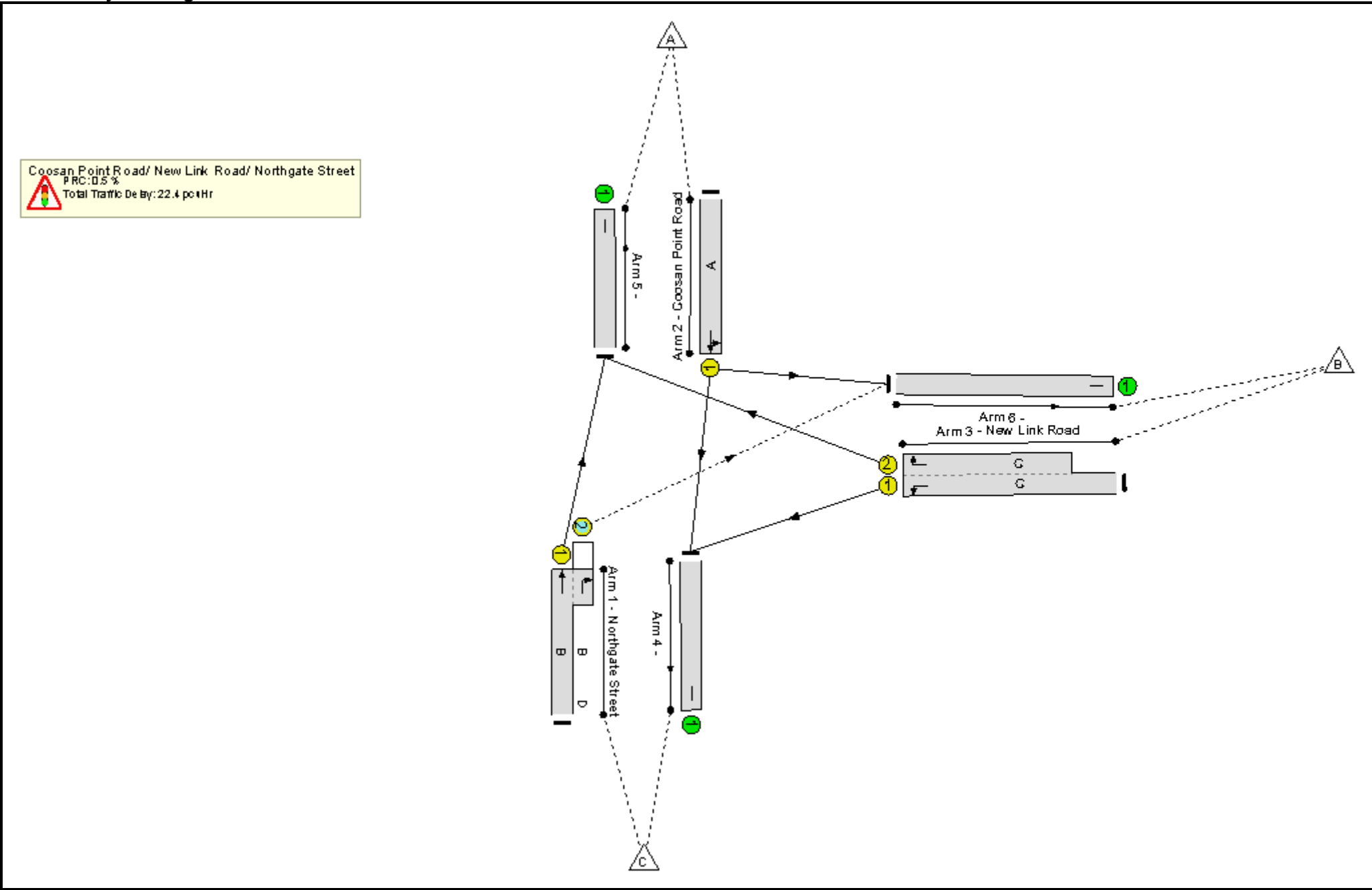
Stage Timings

Stage	1	2	3	4
Duration	27	4	56	7
Change Point	0	38	47	108

Signal Timings Diagram



Network Layout Diagram



Full Input Data And Results

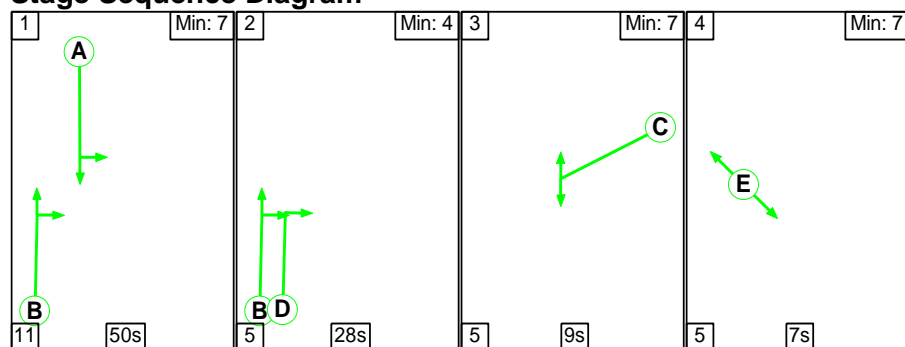
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	89.6%
Coosan Point Road/ New Link Road/ Northgate Street	-	-	N/A	-	-		-	-	-	-	-	-	89.6%
1/1+1/2	Northgate Street Ahead Right	U+O	N/A	N/A	B	D	1	36	4	311	1940:1891	153+207	86.4 : 86.4%
2/1	Coosan Point Road Ahead Left	U	N/A	N/A	A		1	27	-	340	1825	426	79.8%
3/1+3/2	New Link Road Left Right	U	N/A	N/A	C		1	56	-	772	1665:1868	738+124	89.6 : 89.6%
4/1		U	N/A	N/A	-		-	-	-	827	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	243	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	353	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	61	110	7	13.2	8.7	0.4	22.4	-	-	-	-
Coosan Point Road/ New Link Road/ Northgate Street	-	-	61	110	7	13.2	8.7	0.4	22.4	-	-	-	-
1/1+1/2	311	311	61	110	7	3.4	2.9	0.4	6.7	77.4	8.1	2.9	11.0
2/1	340	340	-	-	-	4.1	1.9	-	6.0	63.4	10.7	1.9	12.6
3/1+3/2	772	772	-	-	-	5.8	3.9	-	9.7	45.3	21.1	3.9	25.1
4/1	827	827	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	243	243	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	353	353	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 0.5 Total Delay for Signalled Lanes (pcuHr): 22.39 Cycle Time (s): 120 PRC Over All Lanes (%): 0.5 Total Delay Over All Lanes(pcuHr): 22.39													

Full Input Data And Results

Scenario 5: 'Option C AM' (FG1: 'Option C AM', Plan 1: 'Network Control Plan 1')

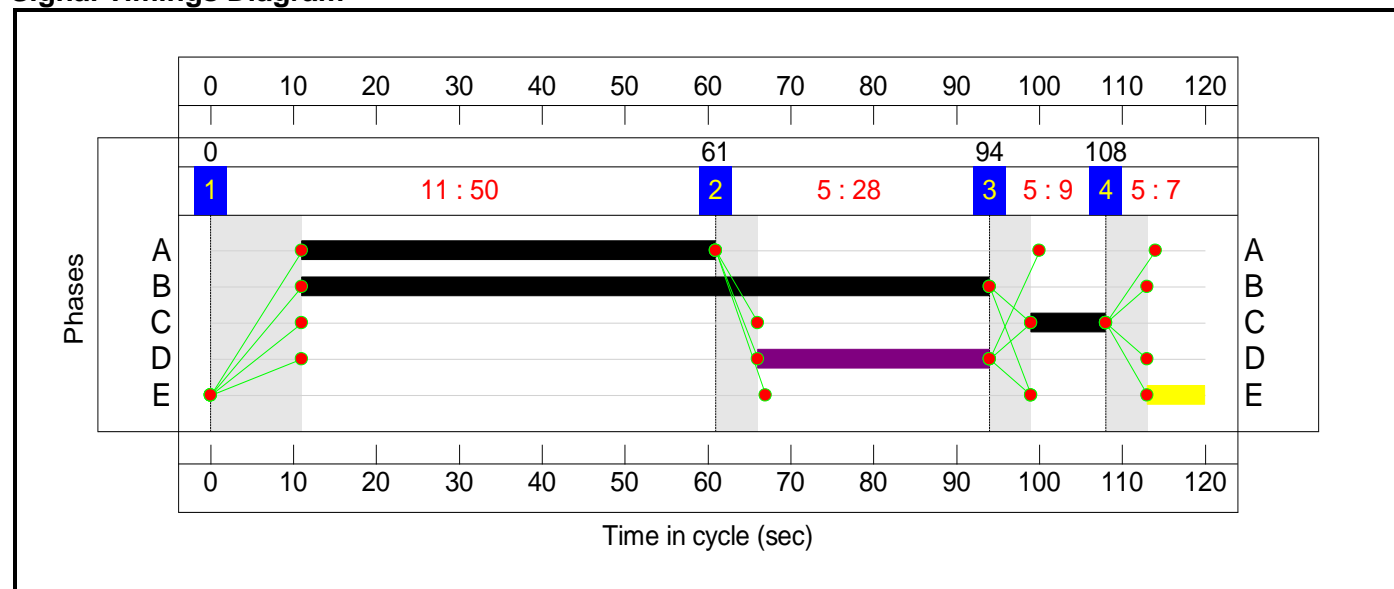
Stage Sequence Diagram



Stage Timings

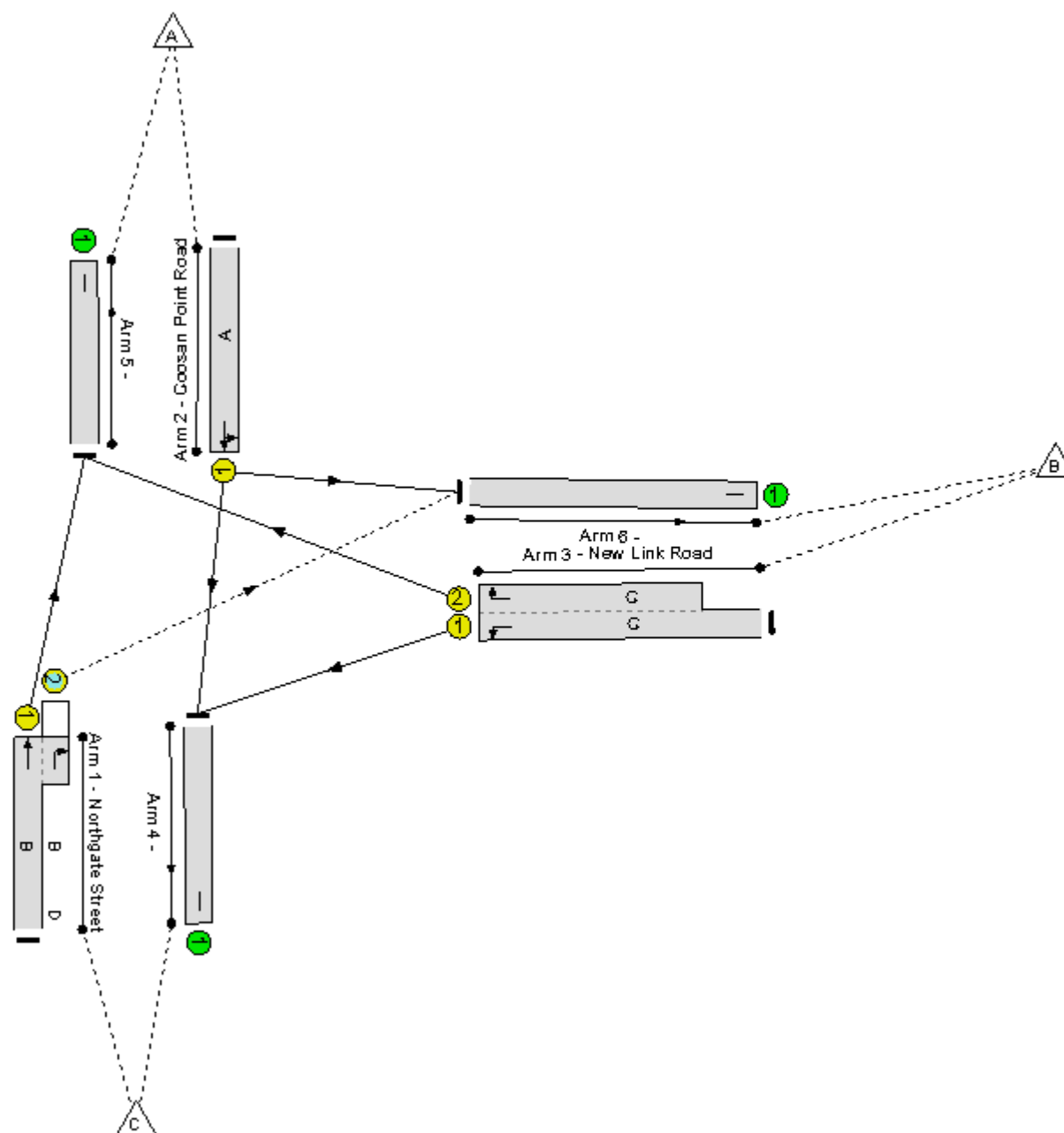
Stage	1	2	3	4
Duration	50	28	9	7
Change Point	0	61	94	108

Signal Timings Diagram



Network Layout Diagram

Coosan Point Road/ New Link Road/ Northgate Street
 PRC: 2.0 %
 Total Traffic Delay: 24.1 per Hr



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 (%)
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	Description	Type	Stream	Filtered Route		Phase	Greens	(s)	Green (s)	Flow (pcu)	(pcu/h)	(pcu)	(%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	88.3%
Coosan Point Road/ New Link Road/ Northgate Street	-	-	N/A	-	-		-	-	-	-	-	-	88.3%
1/1+1/2	Northgate Street Ahead Right	U+O	N/A	N/A	B	D	1	83	28	605	1940:1891	115+574	87.8 : 87.8%
2/1	Coosan Point Road Ahead Left	U	N/A	N/A	A		1	50	-	680	1813	771	88.3%
3/1+3/2	New Link Road Left Right	U	N/A	N/A	C		1	9	-	183	1665:1868	139+78	84.3 : 84.3%
4/1		U	N/A	N/A	-		-	-	-	416	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	167	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	885	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	54	442	8	13.9	9.2	1.0	24.1	-	-	-	-
Coosan Point Road/ New Link Road/ Northgate Street	-	-	54	442	8	13.9	9.2	1.0	24.1	-	-	-	-
1/1+1/2	605	605	54	442	8	5.2	3.3	1.0	9.5	56.7	18.3	3.3	21.6
2/1	680	680	-	-	-	6.0	3.5	-	9.5	50.2	20.8	3.5	24.3
3/1+3/2	183	183	-	-	-	2.7	2.4	-	5.1	100.0	3.8	2.4	6.2
4/1	416	416	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	167	167	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	885	885	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

PRC for Signalled Lanes (%):
PRC Over All Lanes (%):

2.0

Total Delay Over All Lanes(pcuHr):

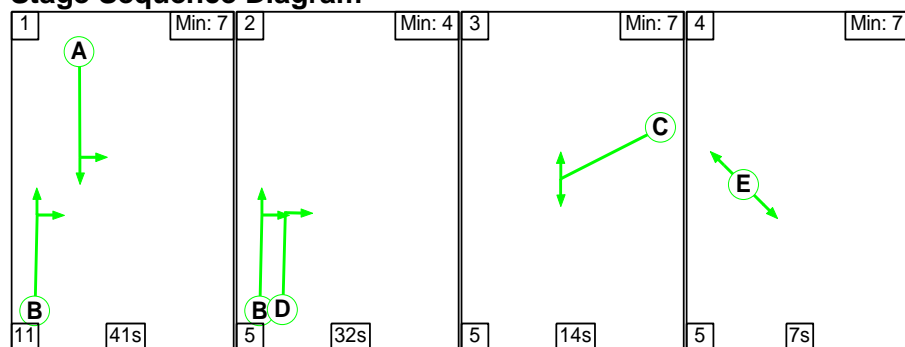
24.10

Cycle time (s): 120

Full Input Data And Results

Scenario 6: 'Option C PM' (FG2: 'Option C PM ', Plan 1: 'Network Control Plan 1')

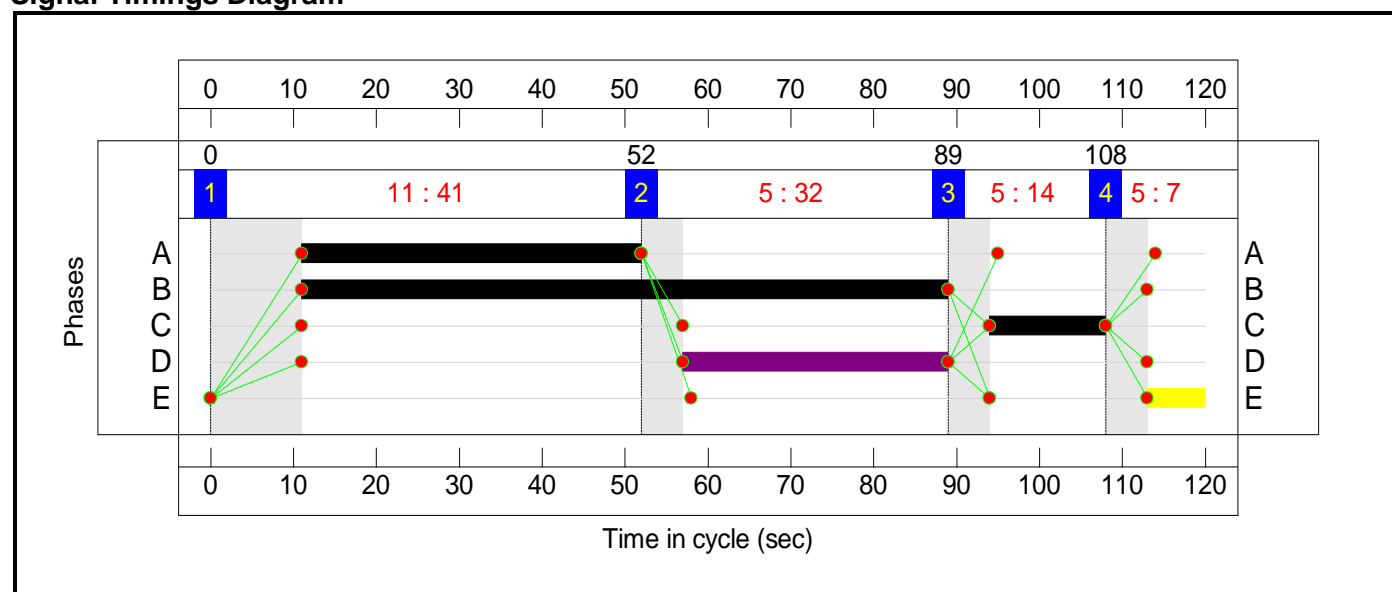
Stage Sequence Diagram



Stage Timings

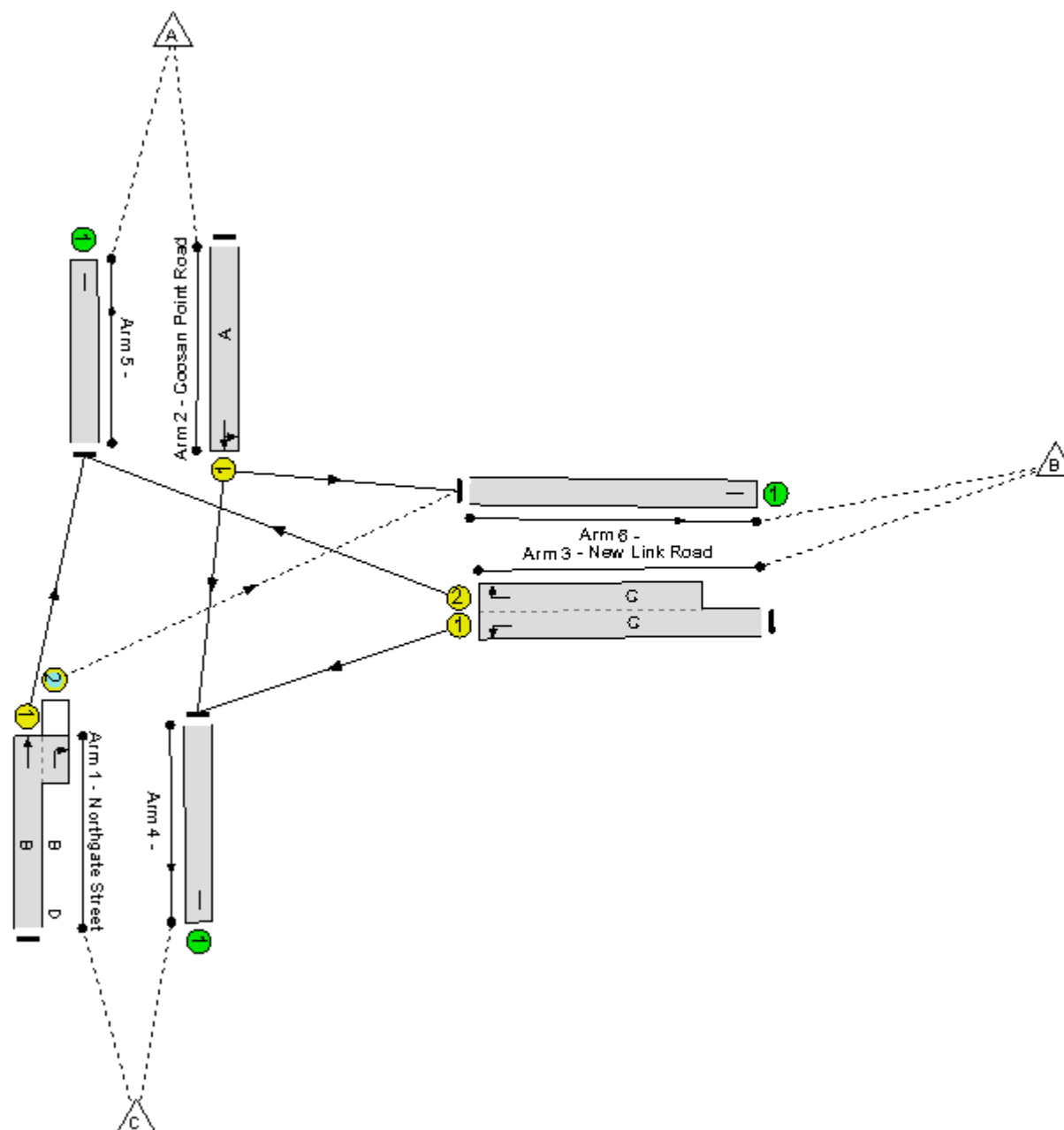
Stage	1	2	3	4
Duration	41	32	14	7
Change Point	0	52	89	108

Signal Timings Diagram



Network Layout Diagram

Coosan Point Road/ New Link Road/ Northgate Street
 PRC: 19.8 %
 Total Traffic Delay: 17.4 per Hr



Full Input Data And Results

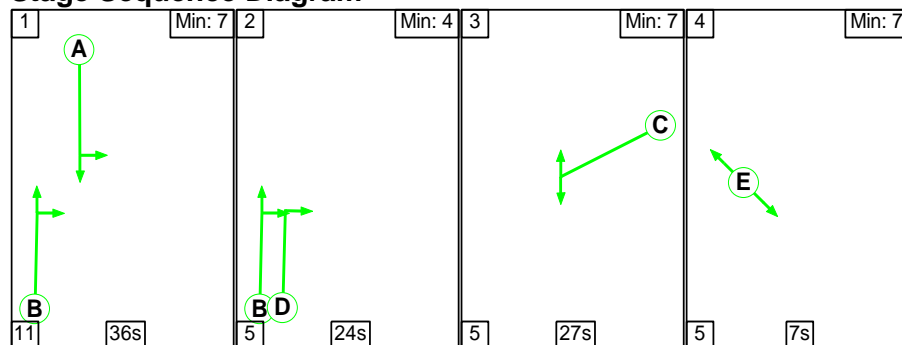
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	75.1%
Coosan Point Road/ New Link Road/ Northgate Street	-	-	N/A	-	-		-	-	-	-	-	-	75.1%
1/1+1/2	Northgate Street Ahead Right	U+O	N/A	N/A	B	D	1	78	32	626	1940:1891	176+657	75.1 : 75.1%
2/1	Coosan Point Road Ahead Left	U	N/A	N/A	A		1	41	-	471	1791	627	75.1%
3/1+3/2	New Link Road Left Right	U	N/A	N/A	C		1	14	-	252	1665:1868	208+139	72.6 : 72.6%
4/1		U	N/A	N/A	-		-	-	-	317	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	233	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	799	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	108	378	8	12.3	4.3	0.8	17.4	-	-	-	-
Coosan Point Road/ New Link Road/ Northgate Street	-	-	108	378	8	12.3	4.3	0.8	17.4	-	-	-	-
1/1+1/2	626	626	108	378	8	4.4	1.5	0.8	6.6	38.0	16.7	1.5	18.2
2/1	471	471	-	-	-	4.5	1.5	-	6.0	45.7	13.7	1.5	15.2
3/1+3/2	252	252	-	-	-	3.5	1.3	-	4.8	68.1	4.8	1.3	6.1
4/1	317	317	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	233	233	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	799	799	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 19.8 Total Delay for Signalled Lanes (pcuHr): 17.36 Cycle Time (s): 120 PRC Over All Lanes (%): 19.8 Total Delay Over All Lanes(pcuHr): 17.36													

Full Input Data And Results

Scenario 7: 'Option D AM' (FG5: 'Option D AM ', Plan 1: 'Network Control Plan 1')

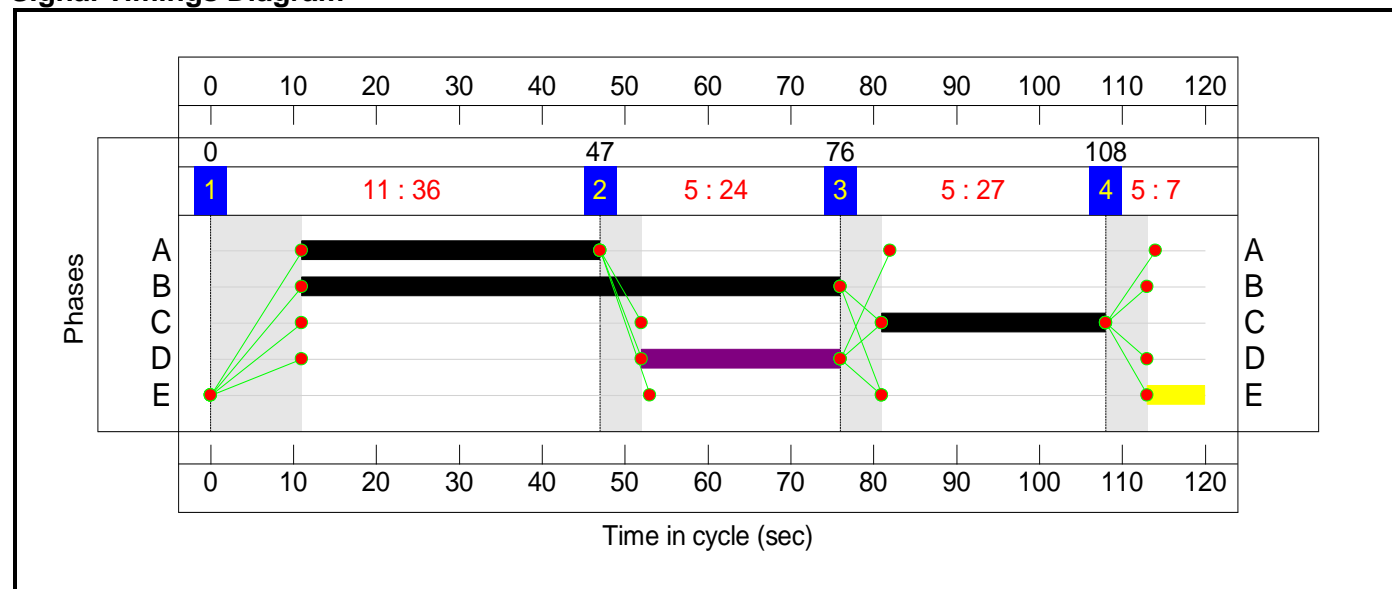
Stage Sequence Diagram



Stage Timings

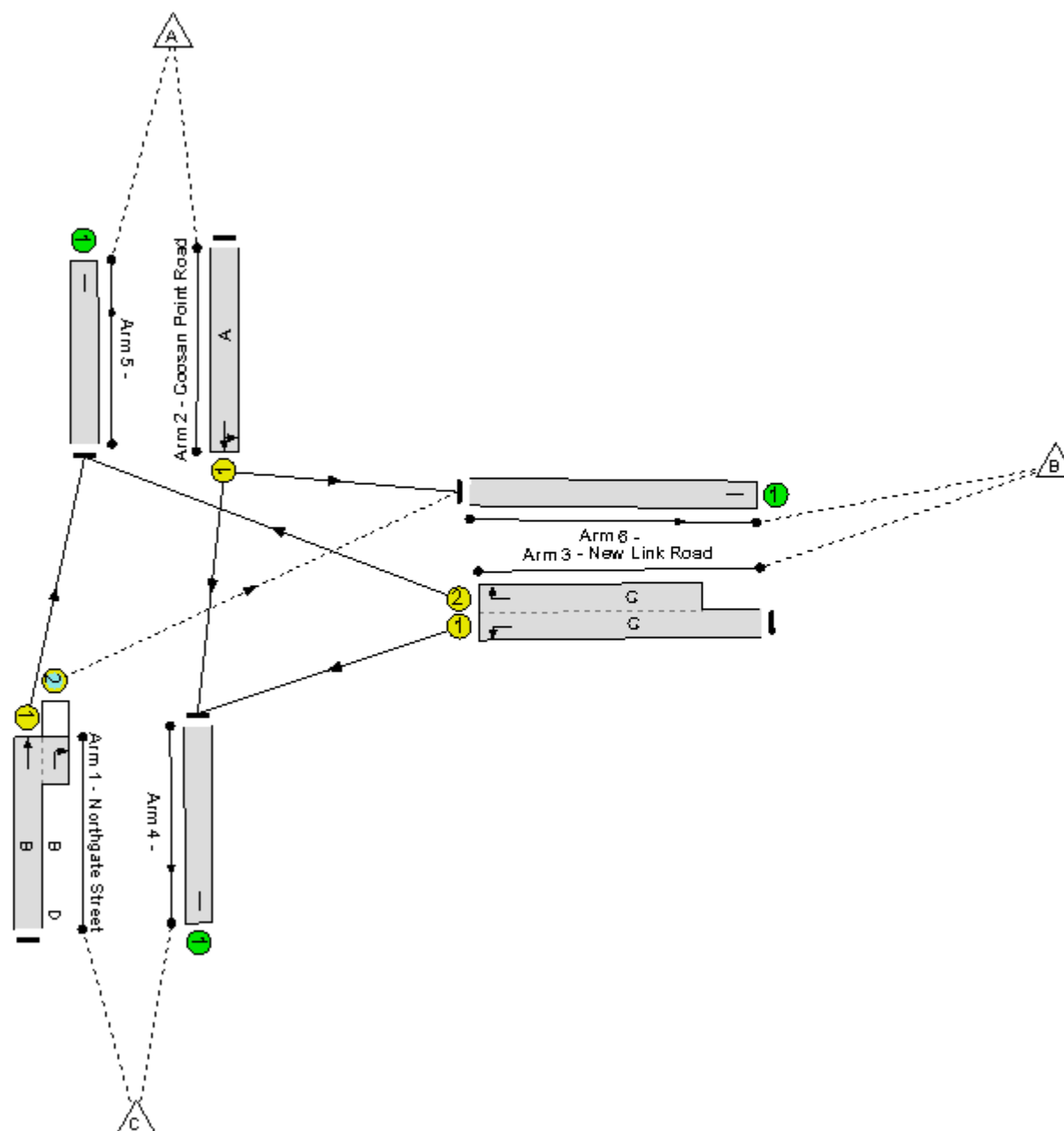
Stage	1	2	3	4
Duration	36	24	27	7
Change Point	0	47	76	108

Signal Timings Diagram



Network Layout Diagram

Coosan Point Road/ New Link Road/ Northgate Street
 PRC: -35.2 %
 Total Traffic De By: 199.4 per Hr



Full Input Data And Results

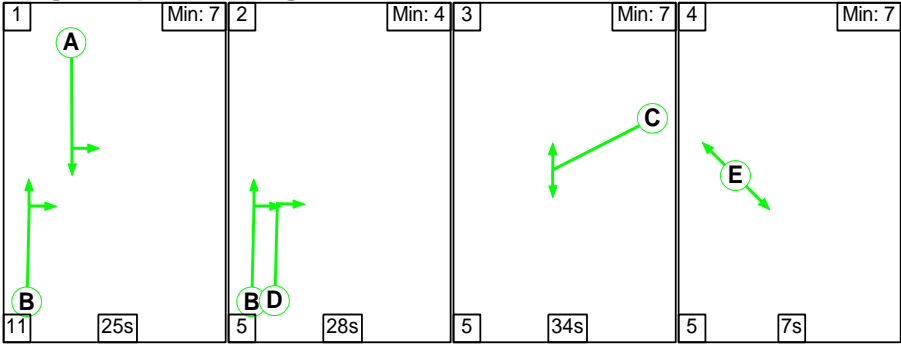
Network Results

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	-	-		-	-	-	-	-	-	121.6%
Coosan Point Road/ New Link Road/ Northgate Street	-	-	N/A	-	-		-	-	-	-	-	-	121.6%
1/1+1/2	Northgate Street Ahead Right	U+O	N/A	N/A	B	D	1	65	24	594	1940:1891	83+407	121.3 : 121.3%
2/1	Coosan Point Road Ahead Left	U	N/A	N/A	A		1	36	-	680	1813	559	121.6%
3/1+3/2	New Link Road Left Right	U	N/A	N/A	C		1	27	-	532	1665:1868	388+61	118.5 : 118.5%
4/1		U	N/A	N/A	-		-	-	-	759	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	173	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	874	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	380	26	36.3	162.5	0.6	199.4	-	-	-	-
Coosan Point Road/ New Link Road/ Northgate Street	-	-	0	380	26	36.3	162.5	0.6	199.4	-	-	-	-
1/1+1/2	594	490	0	380	26	11.6	54.8	0.6	67.0	406.2	23.1	54.8	77.9
2/1	680	559	-	-	-	14.9	63.2	-	78.0	413.2	26.7	63.2	89.9
3/1+3/2	532	449	-	-	-	9.8	44.5	-	54.4	367.8	19.9	44.5	64.5
4/1	634	634	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	144	144	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	720	720	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -35.2 Total Delay for Signalled Lanes (pcuHr): 199.43 Cycle Time (s): 120 PRC Over All Lanes (%): -35.2 Total Delay Over All Lanes(pcuHr): 199.43													

Full Input Data And Results

Scenario 8: 'Option D PM' (FG6: 'Option D PM ', Plan 1: 'Network Control Plan 1')

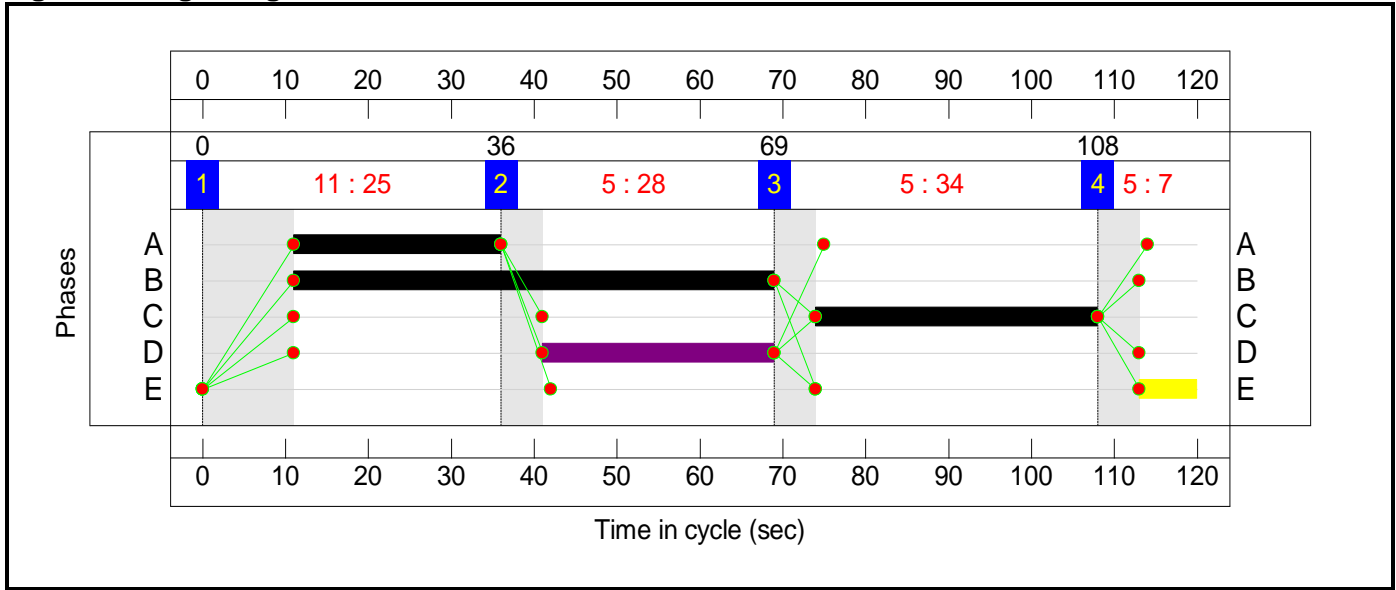
Stage Sequence Diagram



Stage Timings

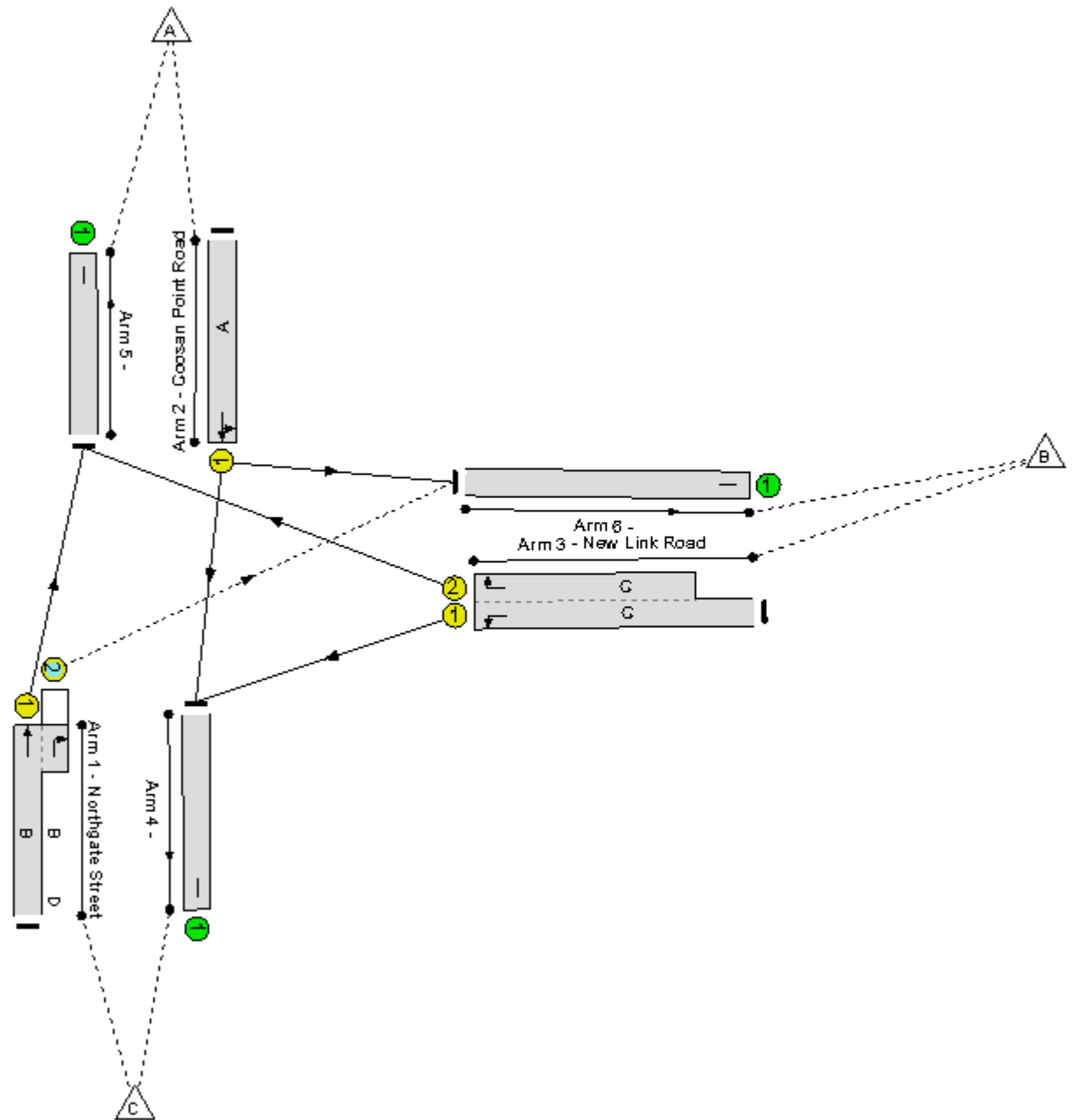
Stage	1	2	3	4
Duration	25	28	34	7
Change Point	0	36	69	108

Signal Timings Diagram



Network Layout Diagram

Coosan Point Road/ New Link Road/ Northgate Street
 PRC: -24.4 %
 Total Traffic De By: 118.4 per Hr



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	-	-		-	-	-	-	-	-	111.9%
Coosan Point Road/ New Link Road/ Northgate Street	-	-	N/A	-	-		-	-	-	-	-	-	111.9%
1/1+1/2	Northgate Street Ahead Right	U+O	N/A	N/A	B	D	1	58	28	617	1940:1891	120+443	109.6 : 109.6%
2/1	Coosan Point Road Ahead Left	U	N/A	N/A	A		1	25	-	435	1859	403	108.0%
3/1+3/2	New Link Road Left Right	U	N/A	N/A	C		1	34	-	636	1665:1868	469+99	111.9 : 111.9%
4/1		U	N/A	N/A	-		-	-	-	794	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	243	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	651	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	418	25	26.8	91.1	0.4	118.4	-	-	-	-
Coosan Point Road/ New Link Road/ Northgate Street	-	-	0	418	25	26.8	91.1	0.4	118.4	-	-	-	-
1/1+1/2	617	563	0	418	25	9.4	31.8	0.4	41.6	242.9	22.0	31.8	53.8
2/1	435	403	-	-	-	7.6	21.2	-	28.8	238.6	15.6	21.2	36.8
3/1+3/2	636	568	-	-	-	9.9	38.1	-	47.9	271.3	22.5	38.1	60.5
4/1	718	718	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	220	220	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	596	596	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -24.4 Total Delay for Signalled Lanes (pcuHr): 118.39 Cycle Time (s): 120 PRC Over All Lanes (%): -24.4 Total Delay Over All Lanes(pcuHr): 118.39													

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