

Appendix A

CD122 Merge / Diverge Graphs

Figure 3.12a All-purpose road merging diagram

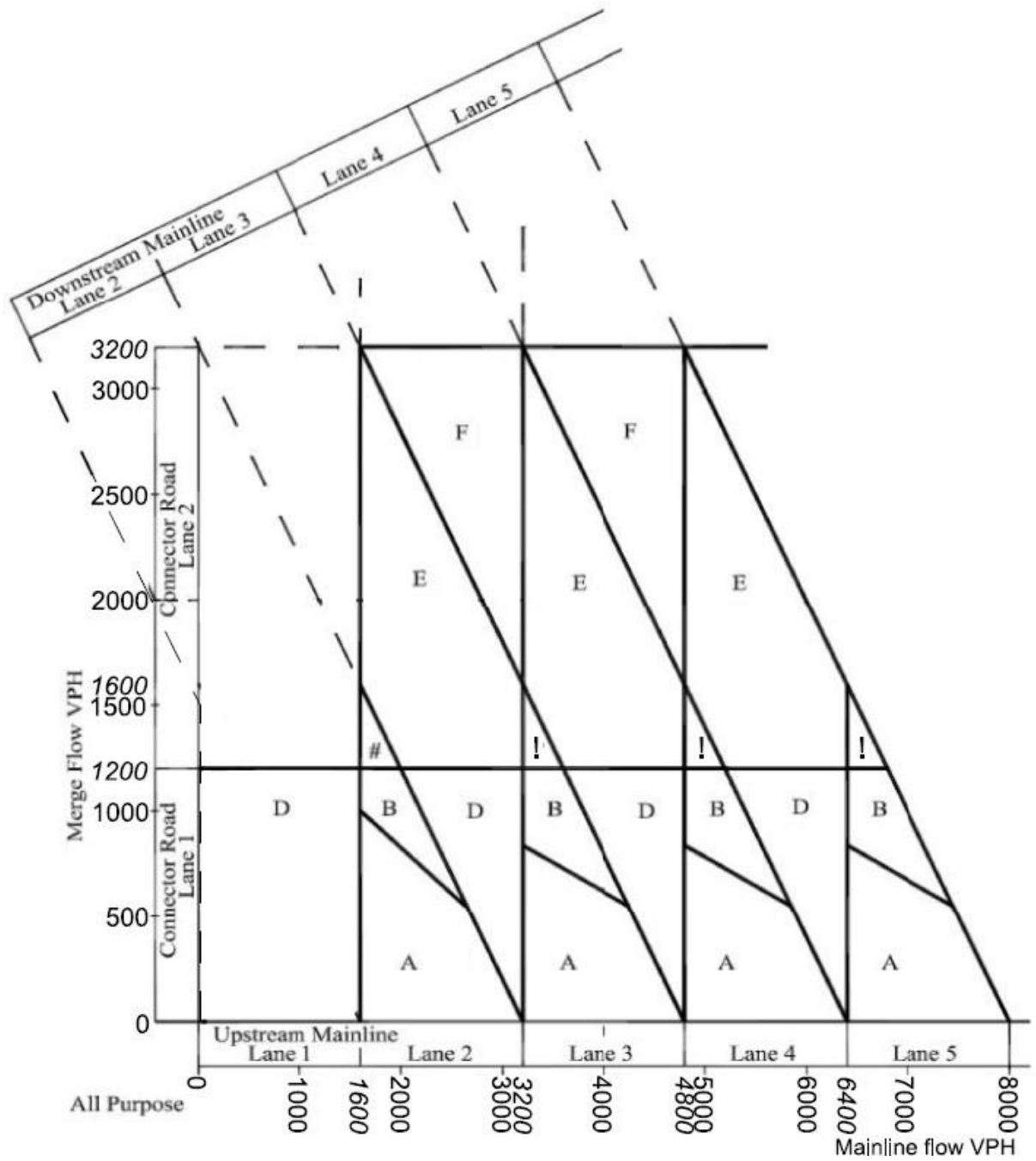
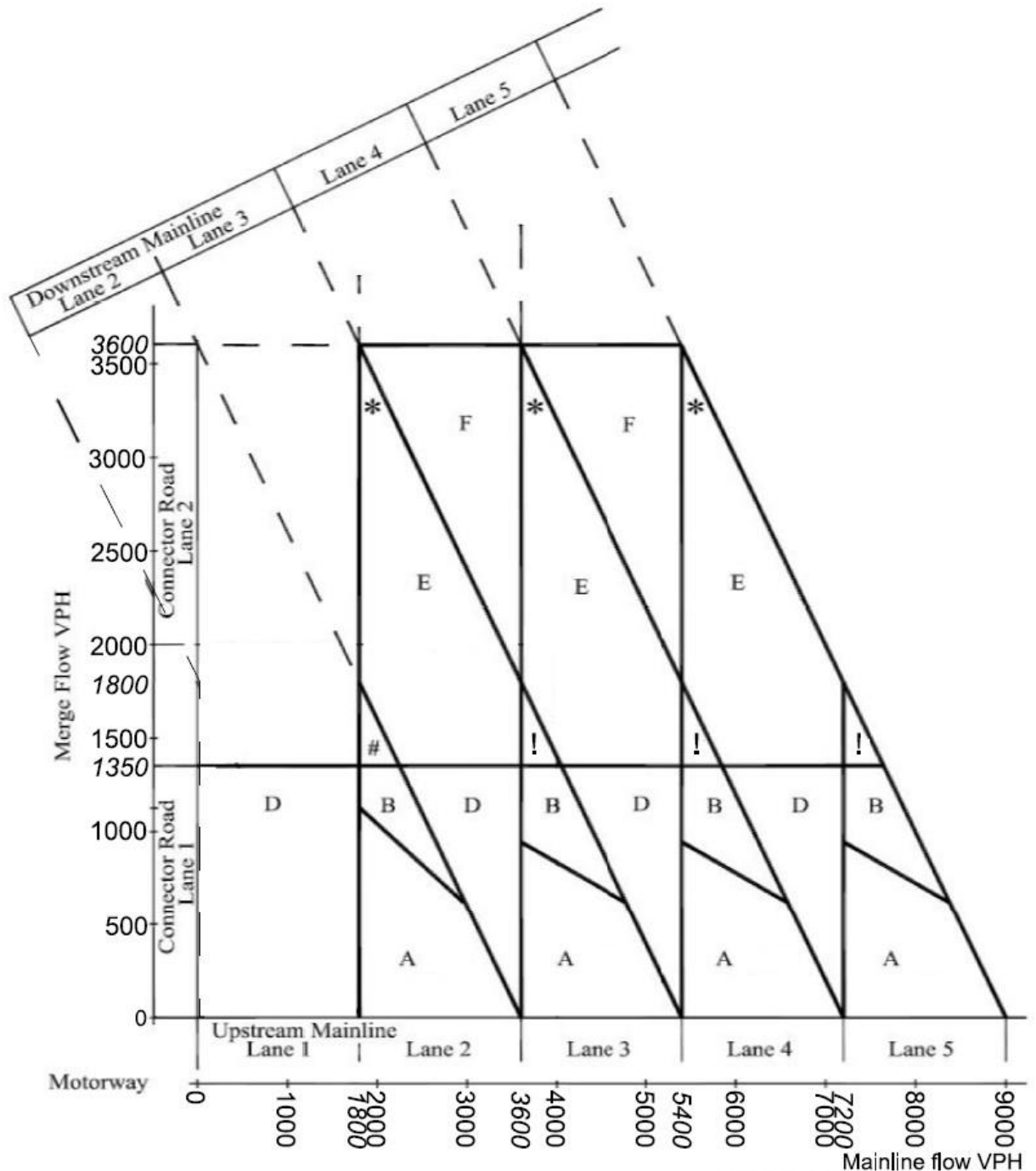


Figure 3.12b Motorway merging diagram



- NOTE 1 As an example of how to use Figures 3.12a and 3.12b, if the merge flow is 2000vph and the upstream mainline flow is 4000vph, this would give a Type E layout with 3 lanes upstream and 4 lanes downstream.
- NOTE 2 On Figures 3.12a and 3.12b, the # symbol indicates areas of uncertainty and the choice depends on the upstream and downstream provision and the ability for the mainline to accept the flows from the merge.
- NOTE 3 On Figures 3.12a and 3.12b, the ! symbol indicates that the minimum layout to be provided is:
- 1) Layout C for rural roads;
 - 2) Layout A Option 2 for urban roads.

Figure 3.26a All-purpose road diverging diagram

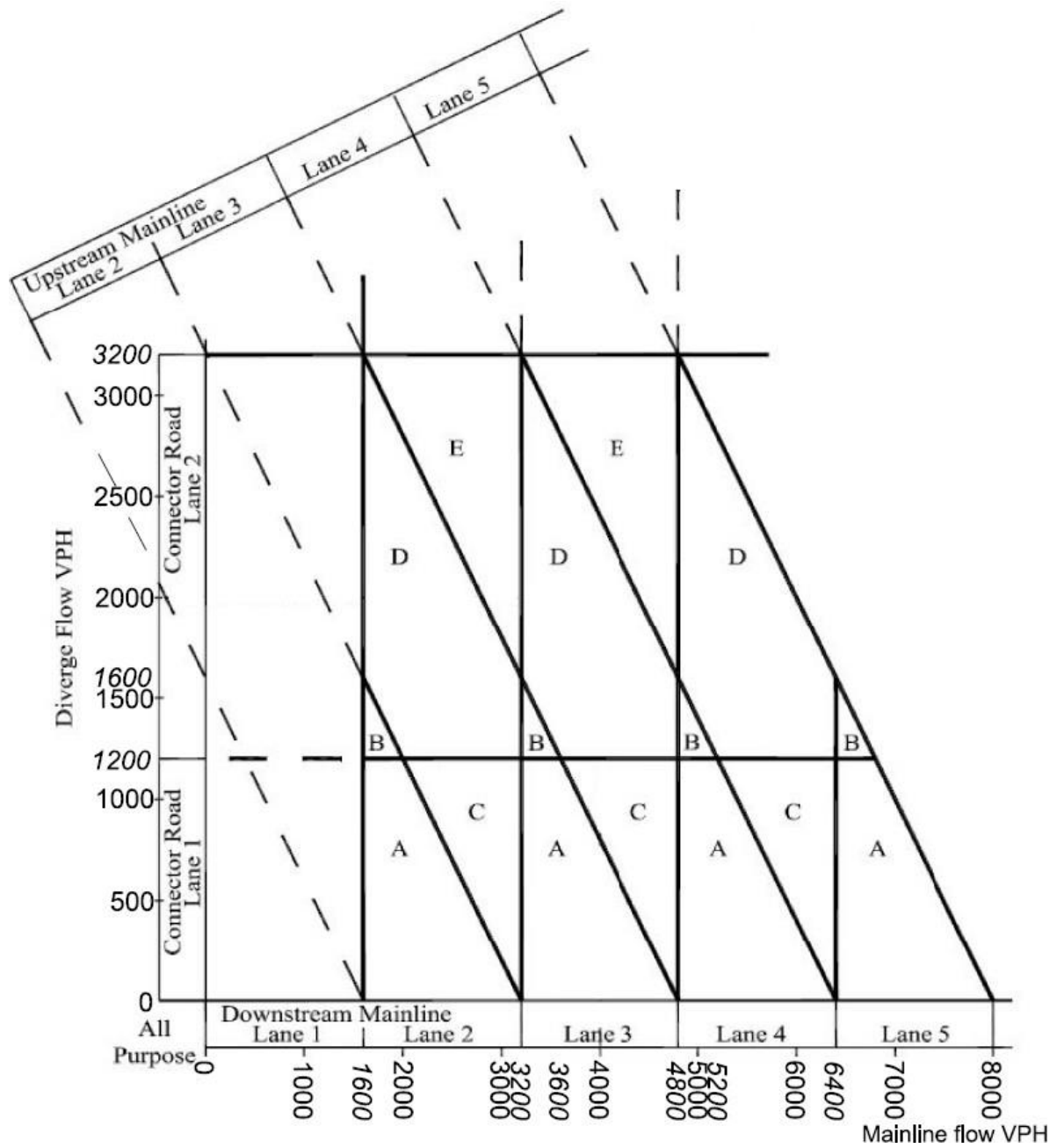
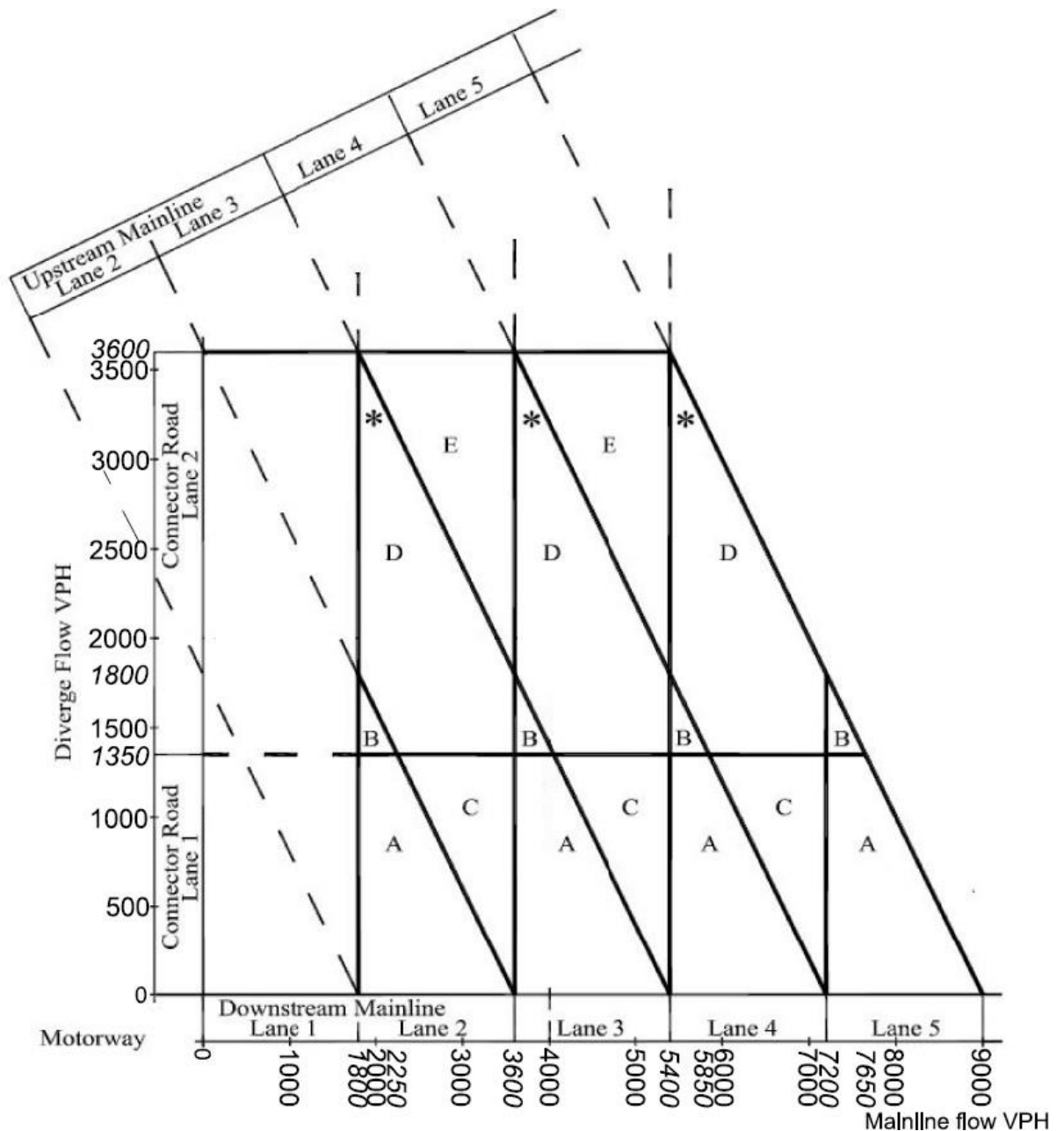


Figure 3.26b Motorway diverging diagram



- NOTE** As an example of how to use Figures 3.24a and 3.24b, if the diverge flow is 2000vph and the downstream mainline flow is 4000vph, this would give a Type D layout with 3 lanes downstream and 4 lanes upstream.
- 3.26.1 Where the flows are in the region indicated by the * symbol in Figures 3.25b and Layout D option 2 is to be used, an extended auxiliary lane should be provided instead of a taper diverge.
- 3.26.2 A diverge layout that offers a higher level of capacity than the worst case peak flow may be provided, e.g. Layout C instead of Layout A.
- NOTE** A diverge layout that offers less capacity than the worst case peak flow cannot be used e.g. a Layout C instead of Layout E.
- 3.27 For situations where 3 lanes on the diverge connector road are needed, Layout F shall be used.

Appendix B

CD122 Merge / Diverge Layouts

Figure 3.14a Layout A option 1 - taper merge

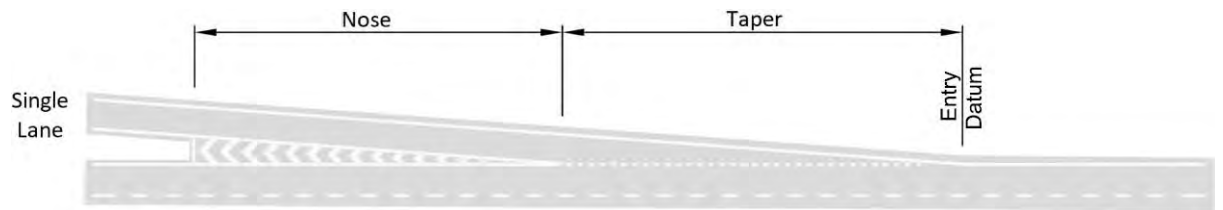


Figure 3.14b Layout A option 2 - 2 lane taper merge

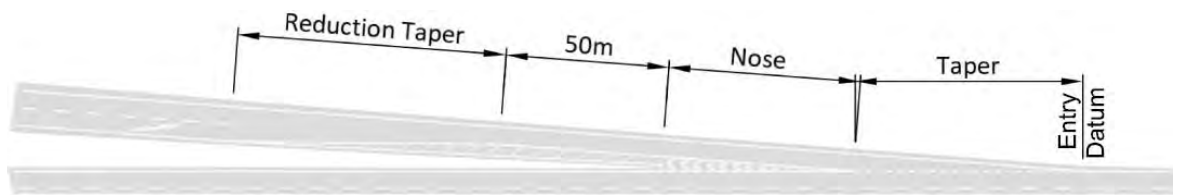


Figure 3.14c Layout B - parallel merge

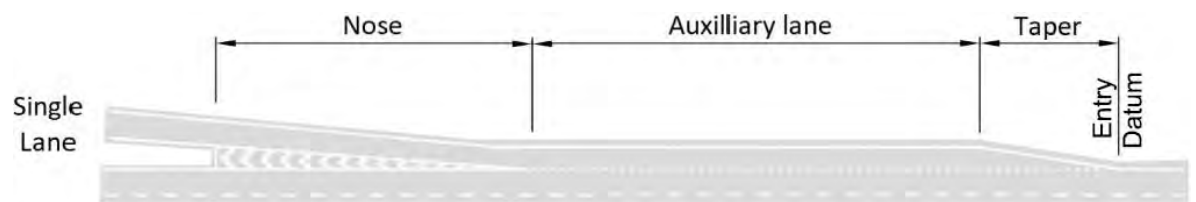


Figure 3.14d Layout C - ghost island merge

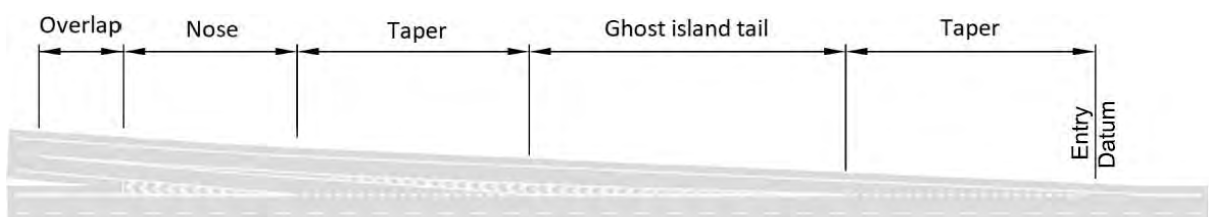


Figure 3.14e Layout D - lane gain

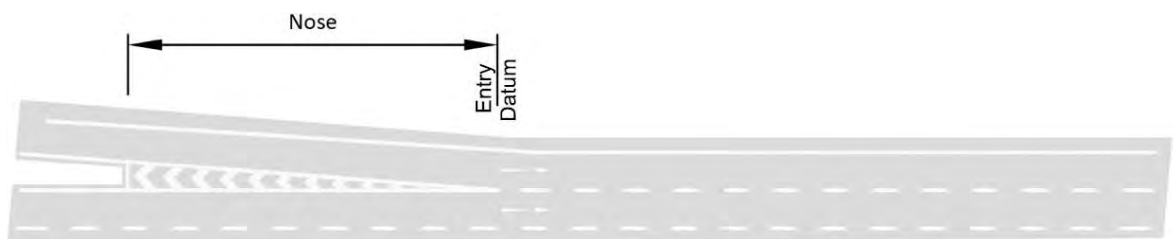


Figure 3.14f Layout E Option 1 - lane gain with ghost island offside merge

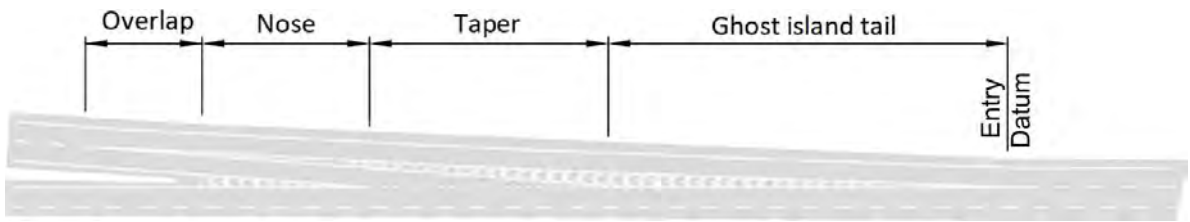


Figure 3.14g Layout E Option 2 - lane gain with ghost island nearside merge

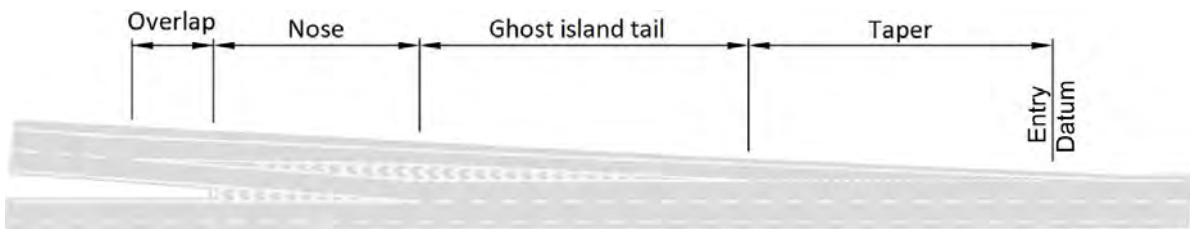


Figure 3.14h Layout F - 2 lane gain with ghost island

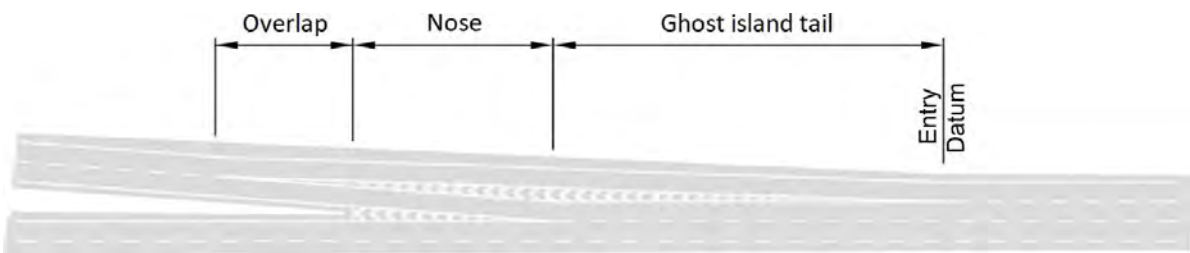


Figure 3.14i Layout G Option 1 - mainline lane gain and double ghost island merge

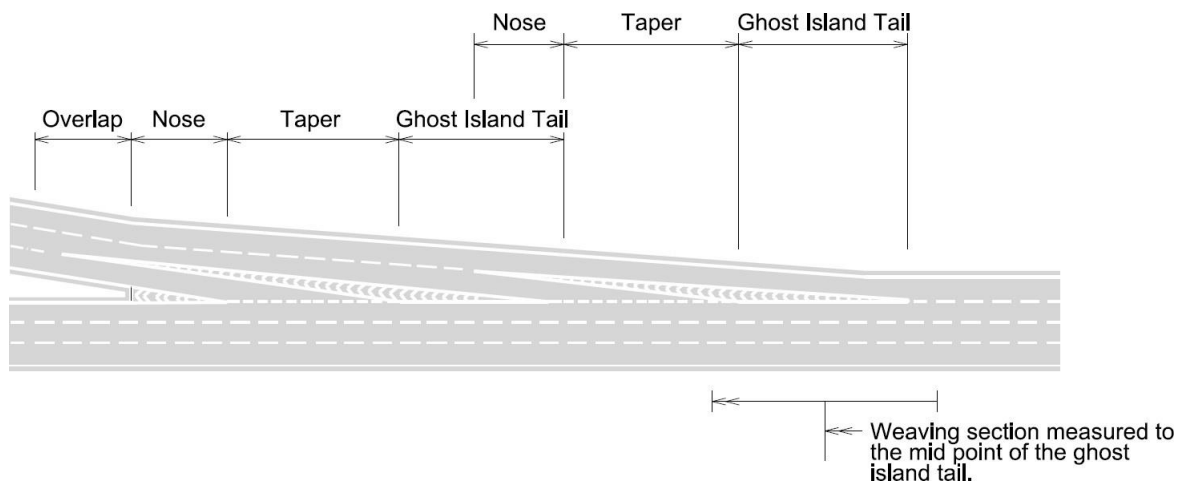


Figure 3.14j Layout G Option 2 - mainline lane gain and single ghost island merge

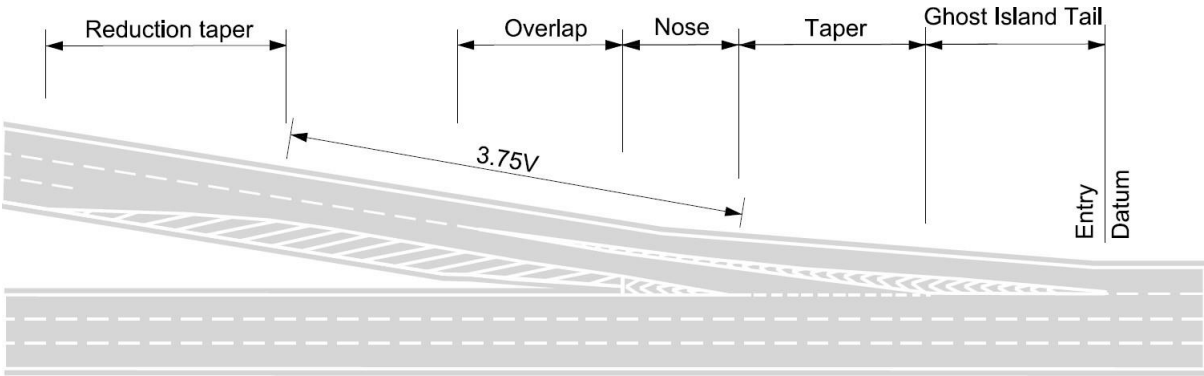


Figure 3.14k Layout H - mainline 2 lane gain and ghost island merge

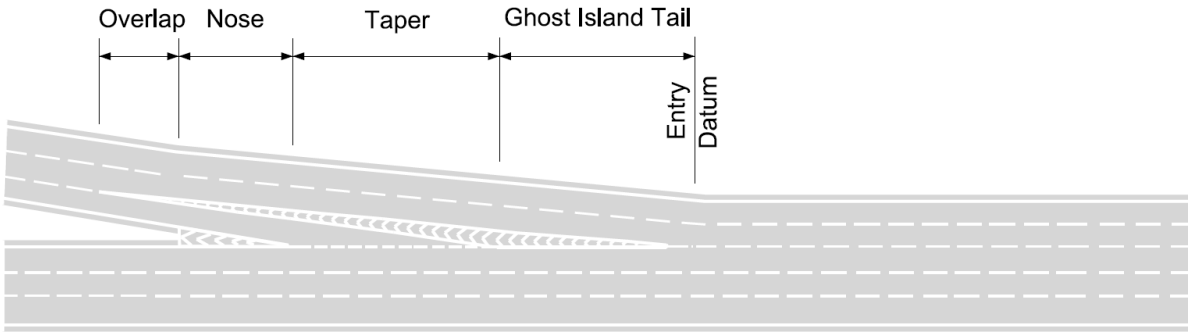


Figure 3.30a Layout A option 1 - taper diverge

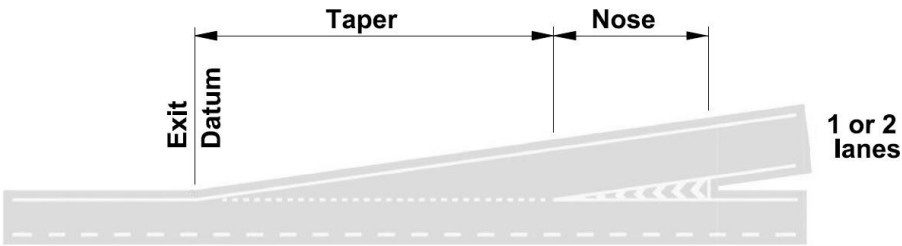


Figure 3.30b Layout A option 2 - Single lane auxillary diverge

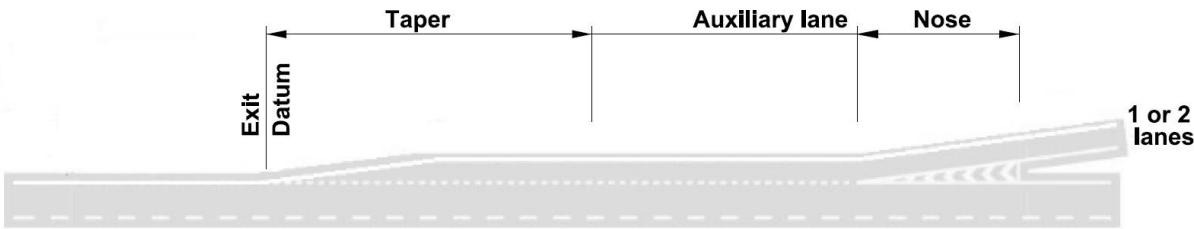


Figure 3.30c Layout B option 1 - ghost island diverge

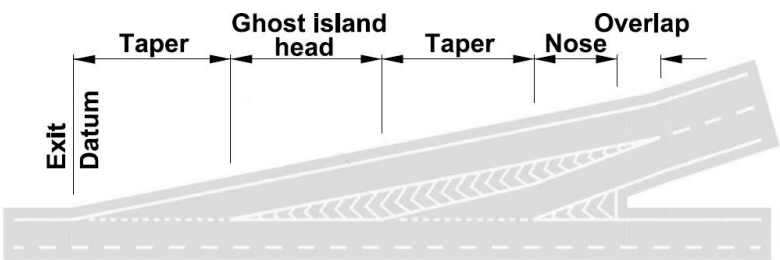


Figure 3.30d Layout B option 2 - Two lane auxillary diverge

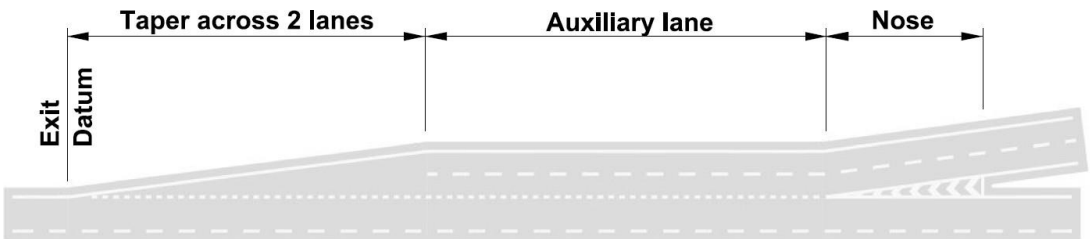


Figure 3.30e Layout C - lane drop

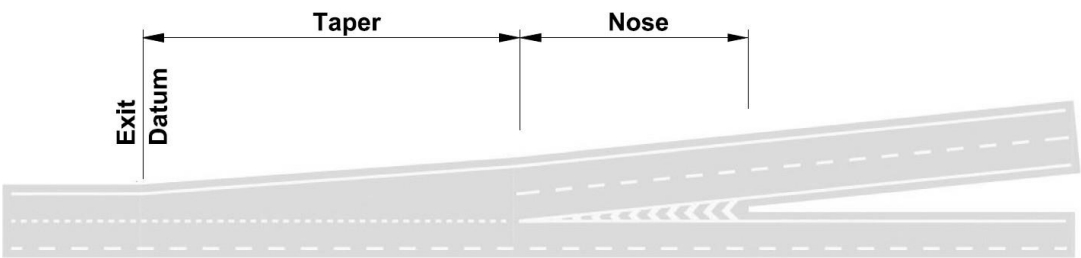


Figure 3.30f Layout D option 1 - ghost island lane drop

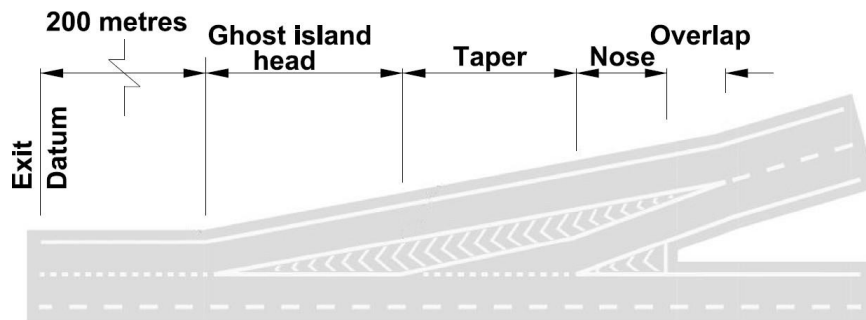


Figure 3.30g Layout D option 2 - auxilliary lane lane drop

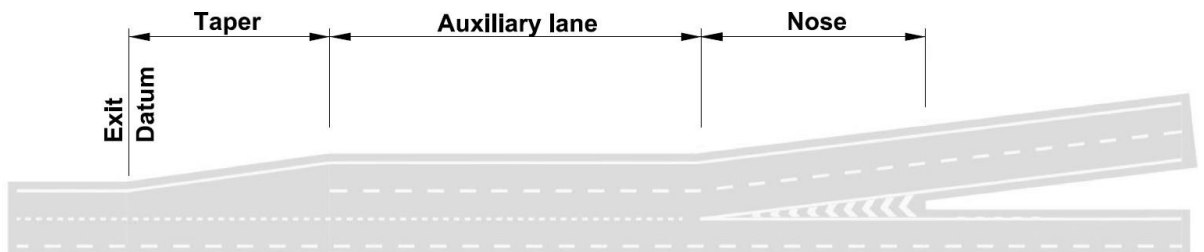


Figure 3.30h Layout E - 2 lane drop

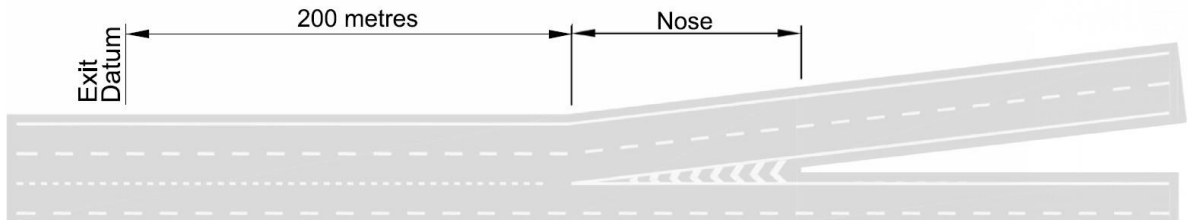
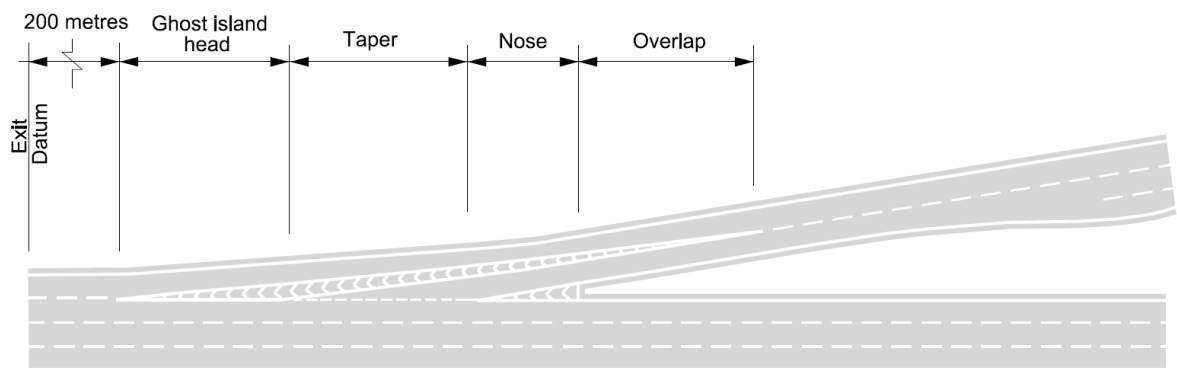


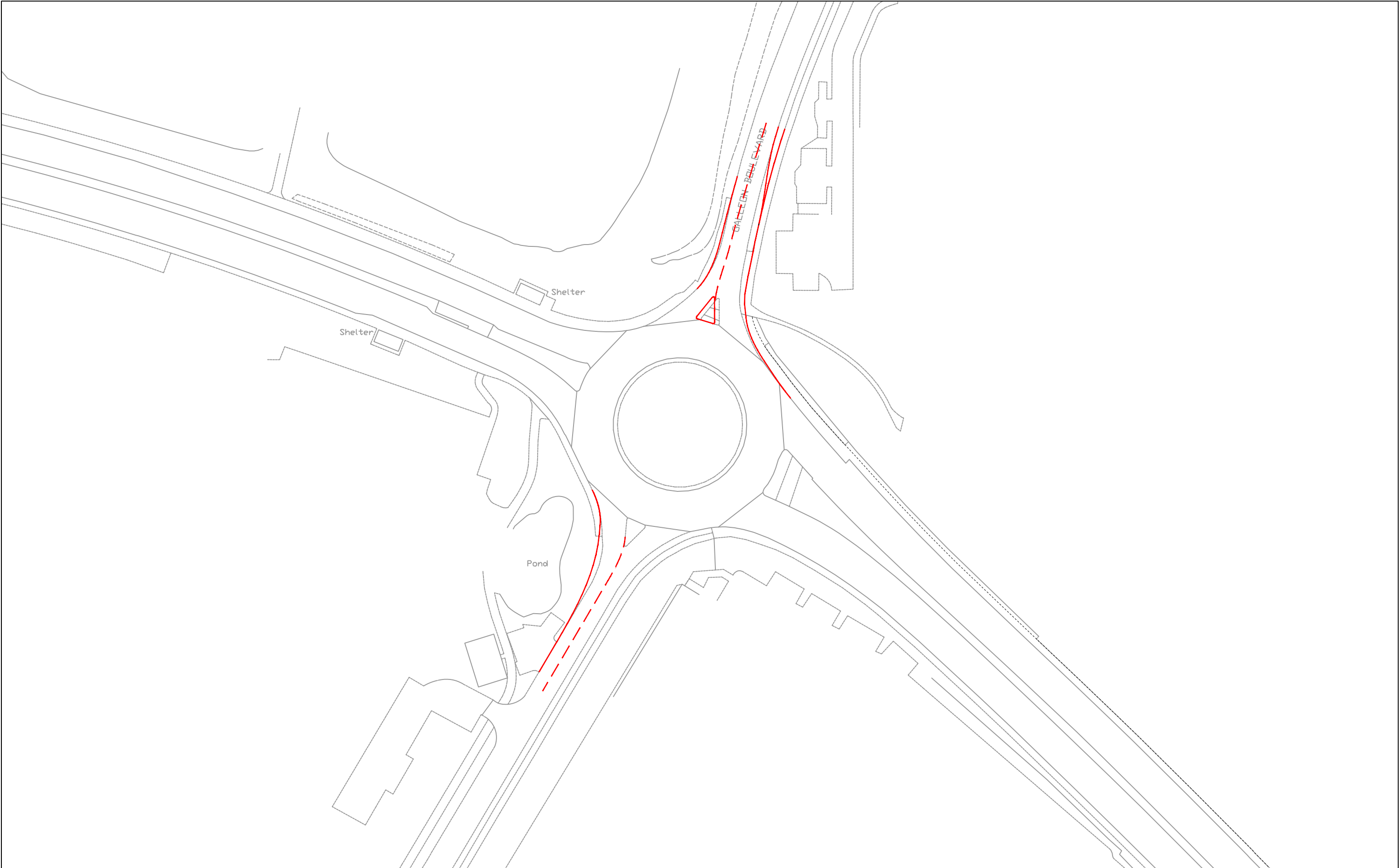
Figure 3.30i Layout F - mainline lane drop and ghost island diverge



Appendix C
A206 / Galleon Boulevard
Mitigation Scheme

J:\46416 - gh - dartford local plan (saturn)\3-autocad\drawings\5501\332410093_5501_001 - mitigation modelling

2021.11.04 4:07:59 PM



Stantec
Street Address
City, Province/State, Postal/Zip Code
Tel: +1.555.555.1234
www.stantec.com

Notes

Client/Project
DARTFORD DC

DARTFORD LP (SATURN)

Project No.
332410093

Title
INDICATIVE MITIGATION
SCHEME - A206 / GALLEON
BLVD

Revision #	Date 2021.11.04
Reference Sheet 0-001	Figure No. 1

Appendix D

A206 / Galleon Boulevard

Existing Layout Modelling Output

Junctions 10

Junctions 10										
ARCADY 10 - Roundabout Module										
Version: 10.0.0.1499										
© Copyright TRL Software Limited, 2021										
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com										
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution										

Filename: 1. A206 _ Galleon Blvd.j10

Path: J:\46416 - GH - Dartford Local Plan (SATURN)\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10

Report generation date: 06/12/2021 09:11:42

- »Ref no LTC, AM
- »Ref no LTC, PM
- »Ref LTC, AM
- »Ref LTC, PM
- »Pref no LTC, AM
- »Pref no LTC, PM
- »Pref LTC, AM
- »Pref LTC, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Ref no LTC									
1 - Galleon Blvd (N)	D1	1.1	9.05	0.52	A	D2	45.7	269.97	1.18	F
2 - A206 Crossways Blvd (E)		4.1	6.89	0.81	A		0.7	2.32	0.42	A
3 - Galleon Blvd (S)		0.2	7.94	0.18	A		49.8	211.08	1.12	F
4 - A206 Crossways Blvd (W)		2.1	5.50	0.67	A		6.5	16.21	0.87	C
	Ref LTC									
1 - Galleon Blvd (N)	D3	1.0	8.13	0.50	A	D4	32.0	181.91	1.09	F
2 - A206 Crossways Blvd (E)		3.6	6.19	0.78	A		0.6	2.23	0.38	A
3 - Galleon Blvd (S)		0.2	7.24	0.16	A		47.3	192.18	1.11	F
4 - A206 Crossways Blvd (W)		1.8	4.98	0.64	A		4.2	11.14	0.81	B
	Pref no LTC									
1 - Galleon Blvd (N)	D5	5.3	29.74	0.86	D	D6	161.3	804.46	1.59	F
2 - A206 Crossways Blvd (E)		4.8	8.10	0.83	A		0.8	2.38	0.43	A
3 - Galleon Blvd (S)		0.2	9.93	0.15	A		17.9	97.25	1.00	F
4 - A206 Crossways Blvd (W)		3.1	7.49	0.76	A		14.2	33.72	0.95	D
	Pref LTC									
1 - Galleon Blvd (N)	D7	7.0	39.38	0.89	E	D8	139.7	677.22	1.49	F
2 - A206 Crossways Blvd (E)		4.1	7.24	0.81	A		0.8	2.45	0.45	A
3 - Galleon Blvd (S)		0.2	9.13	0.14	A		20.9	113.04	1.02	F
4 - A206 Crossways Blvd (W)		3.9	8.97	0.80	A		7.7	19.39	0.90	C

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

File summary

File Description

Title	
Location	
Site number	
Date	22/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\dansmith
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D2	Ref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D3	Ref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D4	Ref LTC	PM	ONE HOUR	00:00	01:30	15	✓
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

Ref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.68	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Galleon Blvd (N)		
2	A206 Crossways Blvd (E)		
3	Galleon Blvd (S)		
4	A206 Crossways Blvd (W)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Galleon Blvd (N)	4.02	7.13	6.8	30.2	61.0	35.7		
2 - A206 Crossways Blvd (E)	9.16	10.89	26.9	26.8	61.0	45.1		
3 - Galleon Blvd (S)	3.15	6.58	8.7	31.3	61.0	42.1		
4 - A206 Crossways Blvd (W)	7.49	9.36	4.9	32.0	61.0	50.8		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Galleon Blvd (N)	0.533	1595
2 - A206 Crossways Blvd (E)	0.778	3082
3 - Galleon Blvd (S)	0.490	1378
4 - A206 Crossways Blvd (W)	0.655	2389

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Galleon Blvd (N)		ONE HOUR	✓	398	100.000
2 - A206 Crossways Blvd (E)		ONE HOUR	✓	2002	100.000
3 - Galleon Blvd (S)		ONE HOUR	✓	89	100.000
4 - A206 Crossways Blvd (W)		ONE HOUR	✓	1232	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	117	2	279
	2 - A206 Crossways Blvd (E)	194	0	932	876
	3 - Galleon Blvd (S)	2	87	0	0
	4 - A206 Crossways Blvd (W)	212	1020	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	4	9	7
	2 - A206 Crossways Blvd (E)	1	0	1	7
	3 - Galleon Blvd (S)	10	10	0	0
	4 - A206 Crossways Blvd (W)	5	9	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Galleon Blvd (N)	0.52	9.05	1.1	A	365	548
2 - A206 Crossways Blvd (E)	0.81	6.89	4.1	A	1837	2756
3 - Galleon Blvd (S)	0.18	7.94	0.2	A	82	122
4 - A206 Crossways Blvd (W)	0.67	5.50	2.1	A	1131	1696

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	300	75	830	1049	0.286	298	306	0.0	0.4	4.787	A
2 - A206 Crossways Blvd (E)	1507	377	210	2805	0.537	1503	918	0.0	1.2	2.756	A
3 - Galleon Blvd (S)	67	17	1012	775	0.086	66	701	0.0	0.1	5.081	A
4 - A206 Crossways Blvd (W)	928	232	212	2072	0.448	924	866	0.0	0.8	3.126	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	358	89	994	959	0.373	357	366	0.4	0.6	5.971	A
2 - A206 Crossways Blvd (E)	1800	450	252	2771	0.649	1797	1099	1.2	1.8	3.683	A
3 - Galleon Blvd (S)	80	20	1211	681	0.117	80	838	0.1	0.1	5.987	A
4 - A206 Crossways Blvd (W)	1108	277	254	2046	0.541	1106	1037	0.8	1.2	3.817	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	438	110	1216	837	0.523	436	448	0.6	1.1	8.925	A
2 - A206 Crossways Blvd (E)	2204	551	308	2727	0.808	2195	1344	1.8	4.1	6.666	A
3 - Galleon Blvd (S)	98	24	1479	554	0.177	97	1024	0.1	0.2	7.880	A
4 - A206 Crossways Blvd (W)	1356	339	310	2011	0.675	1353	1266	1.2	2.0	5.445	A

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	438	110	1219	836	0.524	438	449	1.1	1.1	9.046	A
2 - A206 Crossways Blvd (E)	2204	551	309	2725	0.809	2204	1348	4.1	4.1	6.892	A
3 - Galleon Blvd (S)	98	24	1485	551	0.177	98	1028	0.2	0.2	7.940	A
4 - A206 Crossways Blvd (W)	1356	339	311	2010	0.675	1356	1271	2.0	2.1	5.505	A

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	358	89	998	957	0.374	360	368	1.1	0.6	6.049	A
2 - A206 Crossways Blvd (E)	1800	450	254	2770	0.650	1809	1104	4.1	1.9	3.779	A
3 - Galleon Blvd (S)	80	20	1219	677	0.118	80	844	0.2	0.1	6.034	A
4 - A206 Crossways Blvd (W)	1108	277	255	2045	0.542	1111	1044	2.1	1.2	3.869	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	300	75	835	1046	0.286	300	308	0.6	0.4	4.833	A

2 - A206 Crossways Blvd (E)	1507	377	212	2804	0.53 8	1510	923	1.9	1.2	2.78 8	A
3 - Galleon Blvd (S)	67	17	1018	772	0.08 7	67	704	0.1	0.1	5.10 8	A
4 - A206 Crossways Blvd (W)	928	232	213	2072	0.44 8	929	871	1.2	0.8	3.15 6	A

Ref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	86.29	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	86.29	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Ref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Galleon Blvd (N)		ONE HOUR	✓	511	100.000
2 - A206 Crossways Blvd (E)		ONE HOUR	✓	1006	100.000
3 - Galleon Blvd (S)		ONE HOUR	✓	715	100.000
4 - A206 Crossways Blvd (W)		ONE HOUR	✓	1368	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	120	1	390
	2 - A206 Crossways Blvd (E)	139	0	176	691
	3 - Galleon Blvd (S)	1	714	0	0
	4 - A206 Crossways Blvd (W)	207	1161	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	7	23	3
	2 - A206 Crossways Blvd (E)	4	0	6	5
	3 - Galleon Blvd (S)	22	3	0	0
	4 - A206 Crossways Blvd (W)	6	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Galleon Blvd (N)	1.18	269.97	45.7	F	469	703
2 - A206 Crossways Blvd (E)	0.42	2.32	0.7	A	923	1385
3 - Galleon Blvd (S)	1.12	211.08	49.8	F	656	984
4 - A206 Crossways Blvd (W)	0.87	16.21	6.5	C	1255	1883

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	385	96	1401	786	0.490	381	260	0.0	0.9	8.816	A
2 - A206 Crossways Blvd (E)	757	189	291	2711	0.279	756	1491	0.0	0.4	1.838	A
3 - Galleon Blvd (S)	538	135	914	885	0.608	532	133	0.0	1.5	10.051	B
4 - A206 Crossways Blvd (W)	1030	257	637	1862	0.553	1025	810	0.0	1.2	4.274	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	459	115	1673	640	0.717	454	311	0.9	2.4	18.743	C
2 - A206 Crossways Blvd (E)	904	226	347	2669	0.339	904	1780	0.4	0.5	2.039	A
3 - Galleon Blvd (S)	643	161	1092	797	0.807	634	159	1.5	3.7	21.052	C
4 - A206 Crossways Blvd (W)	1230	307	759	1784	0.689	1226	967	1.2	2.2	6.409	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	563	141	1953	490	1.147	476	379	2.4	24.0	119.257	F
2 - A206 Crossways Blvd (E)	1108	277	364	2656	0.417	1107	2065	0.5	0.7	2.323	A
3 - Galleon Blvd (S)	787	197	1277	705	1.117	689	195	3.7	28.3	99.890	F
4 - A206 Crossways Blvd (W)	1506	377	842	1730	0.870	1491	1124	2.2	6.0	14.199	B

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	563	141	1977	478	1.178	476	382	24.0	45.7	269.973	F
2 - A206 Crossways Blvd (E)	1108	277	364	2656	0.417	1108	2089	0.7	0.7	2.324	A
3 - Galleon Blvd (S)	787	197	1277	705	1.117	702	195	28.3	49.8	211.076	F
4 - A206 Crossways Blvd (W)	1506	377	855	1722	0.875	1504	1124	6.0	6.5	16.208	C

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	459	115	1796	575	0.798	563	315	45.7	19.8	212.262	F
2 - A206 Crossways Blvd (E)	904	226	431	2605	0.347	905	1928	0.7	0.5	2.118	A
3 - Galleon Blvd (S)	643	161	1177	755	0.851	740	159	49.8	25.4	185.335	F
4 - A206 Crossways Blvd (W)	1230	307	865	1715	0.717	1245	1051	6.5	2.6	7.896	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	385	96	1510	728	0.528	459	262	19.8	1.2	17.526	C
2 - A206 Crossways Blvd (E)	757	189	351	2666	0.284	758	1618	0.5	0.4	1.889	A
3 - Galleon Blvd (S)	538	135	976	855	0.630	633	133	25.4	1.8	23.910	C
4 - A206 Crossways Blvd (W)	1030	257	737	1798	0.573	1035	871	2.6	1.4	4.750	A

Ref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.03	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.03	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Ref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Galleon Blvd (N)		ONE HOUR	✓	397	100.000
2 - A206 Crossways Blvd (E)		ONE HOUR	✓	1918	100.000
3 - Galleon Blvd (S)		ONE HOUR	✓	89	100.000
4 - A206 Crossways Blvd (W)		ONE HOUR	✓	1182	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	119	2	276
	2 - A206 Crossways Blvd (E)	198	0	957	763
	3 - Galleon Blvd (S)	2	87	0	0
	4 - A206 Crossways Blvd (W)	226	956	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	4	9	7
	2 - A206 Crossways Blvd (E)	1	0	1	11
	3 - Galleon Blvd (S)	10	10	0	0
	4 - A206 Crossways Blvd (W)	5	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Galleon Blvd (N)	0.50	8.13	1.0	A	364	546
2 - A206 Crossways Blvd (E)	0.78	6.19	3.6	A	1760	2640
3 - Galleon Blvd (S)	0.16	7.24	0.2	A	82	122
4 - A206 Crossways Blvd (W)	0.64	4.98	1.8	A	1085	1627

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	299	75	782	1078	0.277	297	320	0.0	0.4	4.600	A
2 - A206 Crossways Blvd (E)	1444	361	208	2770	0.521	1440	872	0.0	1.1	2.696	A
3 - Galleon Blvd (S)	67	17	928	805	0.083	67	720	0.0	0.1	4.875	A
4 - A206 Crossways Blvd (W)	890	222	215	2088	0.426	887	779	0.0	0.7	2.990	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	357	89	936	995	0.359	356	382	0.4	0.6	5.630	A
2 - A206 Crossways Blvd (E)	1724	431	249	2738	0.630	1722	1043	1.1	1.7	3.534	A
3 - Galleon Blvd (S)	80	20	1110	717	0.111	80	861	0.1	0.1	5.651	A
4 - A206 Crossways Blvd (W)	1063	266	257	2061	0.516	1061	933	0.7	1.1	3.597	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	437	109	1146	881	0.496	435	468	0.6	1.0	8.045	A
2 - A206 Crossways Blvd (E)	2112	528	305	2694	0.784	2104	1276	1.7	3.5	6.034	A
3 - Galleon Blvd (S)	98	24	1357	597	0.164	98	1052	0.1	0.2	7.200	A
4 - A206 Crossways Blvd (W)	1301	325	315	2025	0.643	1299	1140	1.1	1.8	4.939	A

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	437	109	1148	880	0.497	437	469	1.0	1.0	8.127	A
2 - A206 Crossways Blvd (E)	2112	528	306	2693	0.784	2112	1279	3.5	3.6	6.186	A
3 - Galleon Blvd (S)	98	24	1362	595	0.164	98	1056	0.2	0.2	7.238	A
4 - A206 Crossways Blvd (W)	1301	325	316	2024	0.643	1301	1144	1.8	1.8	4.982	A

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	357	89	940	993	0.359	358	384	1.0	0.6	5.690	A
2 - A206 Crossways Blvd (E)	1724	431	251	2737	0.630	1732	1048	3.6	1.7	3.607	A
3 - Galleon Blvd (S)	80	20	1117	713	0.112	80	866	0.2	0.1	5.686	A
4 - A206 Crossways Blvd (W)	1063	266	259	2060	0.516	1065	938	1.8	1.1	3.632	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	299	75	786	1076	0.278	299	321	0.6	0.4	4.639	A
2 - A206 Crossways Blvd (E)	1444	361	210	2769	0.521	1446	876	1.7	1.1	2.728	A
3 - Galleon Blvd (S)	67	17	933	802	0.083	67	723	0.1	0.1	4.898	A
4 - A206 Crossways Blvd (W)	890	222	216	2087	0.426	891	784	1.1	0.7	3.015	A

Ref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	73.03	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	73.03	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Ref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Galleon Blvd (N)		ONE HOUR	✓	535	100.000
2 - A206 Crossways Blvd (E)		ONE HOUR	✓	912	100.000
3 - Galleon Blvd (S)		ONE HOUR	✓	744	100.000
4 - A206 Crossways Blvd (W)		ONE HOUR	✓	1272	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	119	1	415
	2 - A206 Crossways Blvd (E)	145	0	173	594
	3 - Galleon Blvd (S)	1	743	0	0
	4 - A206 Crossways Blvd (W)	210	1062	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	4	10	1
	2 - A206 Crossways Blvd (E)	4	0	7	5
	3 - Galleon Blvd (S)	12	2	0	0
	4 - A206 Crossways Blvd (W)	3	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Galleon Blvd (N)	1.09	181.91	32.0	F	491	736
2 - A206 Crossways Blvd (E)	0.38	2.23	0.6	A	837	1255
3 - Galleon Blvd (S)	1.11	192.18	47.3	F	683	1024
4 - A206 Crossways Blvd (W)	0.81	11.14	4.2	B	1167	1751

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrival s (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	403	101	1349	839	0.480	399	267	0.0	0.9	8.114	A
2 - A206 Crossways Blvd (E)	687	172	310	2697	0.255	685	1438	0.0	0.3	1.789	A
3 - Galleon Blvd (S)	560	140	865	922	0.608	554	131	0.0	1.5	9.646	A
4 - A206 Crossways Blvd (W)	958	239	663	1872	0.511	953	756	0.0	1.0	3.901	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrival s (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	481	120	1612	697	0.690	476	319	0.9	2.1	15.943	C
2 - A206 Crossways Blvd (E)	820	205	370	2652	0.309	819	1718	0.3	0.4	1.964	A
3 - Galleon Blvd (S)	669	167	1033	838	0.798	661	156	1.5	3.6	19.442	C
4 - A206 Crossways Blvd (W)	1144	286	791	1790	0.639	1141	903	1.0	1.7	5.521	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrival s (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	589	147	1887	548	1.074	525	390	2.1	18.0	87.672	F
2 - A206 Crossways Blvd (E)	1004	251	408	2624	0.383	1003	2003	0.4	0.6	2.220	A
3 - Galleon Blvd (S)	819	205	1221	744	1.101	726	191	3.6	26.9	91.281	F
4 - A206 Crossways Blvd (W)	1400	350	885	1729	0.810	1391	1061	1.7	4.0	10.401	B

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrival s (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	589	147	1905	538	1.094	533	392	18.0	32.0	181.913	F
2 - A206 Crossways Blvd (E)	1004	251	414	2619	0.383	1004	2024	0.6	0.6	2.228	A
3 - Galleon Blvd (S)	819	205	1227	741	1.105	737	191	26.9	47.3	192.179	F
4 - A206 Crossways Blvd (W)	1400	350	897	1721	0.814	1400	1067	4.0	4.2	11.144	B

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	481	120	1738	630	0.764	592	322	32.0	4.2	106.658	F
2 - A206 Crossways Blvd (E)	820	205	461	2585	0.317	820	1870	0.6	0.5	2.041	A
3 - Galleon Blvd (S)	669	167	1124	794	0.843	777	157	47.3	20.2	160.308	F
4 - A206 Crossways Blvd (W)	1144	286	908	1715	0.667	1152	994	4.2	2.0	6.498	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	403	101	1436	793	0.508	415	269	4.2	1.1	9.839	A
2 - A206 Crossways Blvd (E)	687	172	323	2688	0.255	687	1529	0.5	0.3	1.799	A
3 - Galleon Blvd (S)	560	140	879	915	0.612	635	131	20.2	1.6	16.490	C
4 - A206 Crossways Blvd (W)	958	239	744	1820	0.526	961	770	2.0	1.1	4.207	A

Pref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	11.28	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.28	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Galleon Blvd (N)		ONE HOUR	✓	621	100.000
2 - A206 Crossways Blvd (E)		ONE HOUR	✓	1966	100.000
3 - Galleon Blvd (S)		ONE HOUR	✓	59	100.000
4 - A206 Crossways Blvd (W)		ONE HOUR	✓	1375	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	210	2	409
	2 - A206 Crossways Blvd (E)	269	0	823	874
	3 - Galleon Blvd (S)	2	57	0	0
	4 - A206 Crossways Blvd (W)	258	1117	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	5	9	7
	2 - A206 Crossways Blvd (E)	2	0	1	7
	3 - Galleon Blvd (S)	10	15	0	0
	4 - A206 Crossways Blvd (W)	5	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Galleon Blvd (N)	0.86	29.74	5.3	D	570	855
2 - A206 Crossways Blvd (E)	0.83	8.10	4.8	A	1804	2706
3 - Galleon Blvd (S)	0.15	9.93	0.2	A	54	81
4 - A206 Crossways Blvd (W)	0.76	7.49	3.1	A	1262	1893

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	467	117	880	1022	0.457	464	397	0.0	0.8	6.411	A

2 - A206 Crossways Blvd (E)	1480	370	307	2722	0.544	1475	1037	0.0	1.2	2.876	A
3 - Galleon Blvd (S)	44	11	1163	674	0.066	44	619	0.0	0.1	5.716	A
4 - A206 Crossways Blvd (W)	1035	259	246	2067	0.501	1031	962	0.0	1.0	3.462	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	558	140	1054	928	0.601	556	475	0.8	1.5	9.587	A
2 - A206 Crossways Blvd (E)	1767	442	368	2674	0.661	1764	1241	1.2	1.9	3.946	A
3 - Galleon Blvd (S)	53	13	1392	570	0.093	53	740	0.1	0.1	6.956	A
4 - A206 Crossways Blvd (W)	1236	309	294	2036	0.607	1234	1150	1.0	1.5	4.474	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	684	171	1287	801	0.853	670	580	1.5	4.9	25.179	D
2 - A206 Crossways Blvd (E)	2165	541	443	2613	0.828	2154	1514	1.9	4.6	7.665	A
3 - Galleon Blvd (S)	65	16	1694	434	0.149	64	904	0.1	0.2	9.739	A
4 - A206 Crossways Blvd (W)	1514	378	359	1995	0.759	1508	1399	1.5	3.0	7.296	A

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	684	171	1292	799	0.856	682	582	4.9	5.3	29.735	D
2 - A206 Crossways Blvd (E)	2165	541	451	2607	0.830	2164	1523	4.6	4.8	8.100	A
3 - Galleon Blvd (S)	65	16	1707	427	0.152	65	908	0.2	0.2	9.927	A
4 - A206 Crossways Blvd (W)	1514	378	361	1994	0.759	1514	1411	3.0	3.1	7.485	A

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	558	140	1061	925	0.604	573	478	5.3	1.6	10.661	B
2 - A206 Crossways Blvd (E)	1767	442	379	2665	0.663	1778	1255	4.8	2.0	4.113	A
3 - Galleon Blvd (S)	53	13	1412	561	0.094	53	746	0.2	0.1	7.092	A
4 - A206 Crossways Blvd (W)	1236	309	297	2035	0.607	1242	1168	3.1	1.6	4.577	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	467	117	886	1019	0.458	470	399	1.6	0.9	6.589	A
2 - A206 Crossways Blvd (E)	1480	370	311	2719	0.544	1483	1045	2.0	1.2	2.919	A
3 - Galleon Blvd (S)	44	11	1172	670	0.066	44	622	0.1	0.1	5.759	A
4 - A206 Crossways Blvd (W)	1035	259	247	2066	0.501	1037	969	1.6	1.0	3.508	A

Pref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	181.45	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	181.45	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Galleon Blvd (N)		ONE HOUR	✓	734	100.000
2 - A206 Crossways Blvd (E)		ONE HOUR	✓	1036	100.000
3 - Galleon Blvd (S)		ONE HOUR	✓	616	100.000
4 - A206 Crossways Blvd (W)		ONE HOUR	✓	1462	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	224	2	508
	2 - A206 Crossways Blvd (E)	227	0	153	656
	3 - Galleon Blvd (S)	1	615	0	0
	4 - A206 Crossways Blvd (W)	306	1156	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	6	19	3
	2 - A206 Crossways Blvd (E)	4	0	7	5
	3 - Galleon Blvd (S)	19	3	0	0
	4 - A206 Crossways Blvd (W)	5	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Galleon Blvd (N)	1.59	804.46	161.3	F	673	1010
2 - A206 Crossways Blvd (E)	0.43	2.38	0.8	A	951	1426
3 - Galleon Blvd (S)	1.00	97.25	17.9	F	565	848
4 - A206 Crossways Blvd (W)	0.95	33.72	14.2	D	1342	2012

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	552	138	1324	827	0.668	545	400	0.0	1.9	12.440	B
2 - A206 Crossways Blvd (E)	780	195	378	2644	0.295	778	1490	0.0	0.4	1.927	A
3 - Galleon Blvd (S)	464	116	1040	823	0.564	459	116	0.0	1.3	9.758	A
4 - A206 Crossways Blvd (W)	1101	275	629	1870	0.589	1095	870	0.0	1.4	4.616	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	660	165	1582	689	0.957	629	479	1.9	9.4	46.542	E
2 - A206 Crossways Blvd (E)	931	233	437	2599	0.358	931	1774	0.4	0.6	2.158	A
3 - Galleon Blvd (S)	554	138	1229	729	0.759	547	139	1.3	2.9	19.106	C
4 - A206 Crossways Blvd (W)	1314	329	751	1791	0.734	1309	1025	1.4	2.7	7.396	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	808	202	1881	529	1.527	527	580	9.4	79.6	322.908	F
2 - A206 Crossways Blvd (E)	1141	285	366	2653	0.430	1140	2042	0.6	0.8	2.377	A
3 - Galleon Blvd (S)	678	170	1337	675	1.004	636	170	2.9	13.3	61.672	F
4 - A206 Crossways Blvd (W)	1610	402	886	1704	0.945	1575	1087	2.7	11.3	23.458	C

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	808	202	1922	507	1.594	507	585	79.6	154.8	757.161	F
2 - A206 Crossways Blvd (E)	1141	285	352	2664	0.428	1141	2077	0.8	0.7	2.362	A
3 - Galleon Blvd (S)	678	170	1323	682	0.995	660	170	13.3	17.9	97.250	F
4 - A206 Crossways Blvd (W)	1610	402	910	1689	0.953	1598	1073	11.3	14.2	33.725	D

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	660	165	1685	634	1.040	634	490	154.8	161.3	804.456	F
2 - A206 Crossways Blvd (E)	931	233	440	2597	0.359	932	1878	0.7	0.6	2.164	A
3 - Galleon Blvd (S)	554	138	1233	727	0.761	611	139	17.9	3.6	40.837	E
4 - A206 Crossways Blvd (W)	1314	329	815	1750	0.751	1359	1029	14.2	3.1	10.199	B

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	552	138	1346	815	0.678	810	404	161.3	96.8	574.963	F

2 - A206 Crossways Blvd (E)	780	195	563	2503	0.31 2	780	1593	0.6	0.5	2.089	A
3 - Galleon Blvd (S)	464	116	1226	732	0.63 4	471	117	3.6	1.8	14.138	B
4 - A206 Crossways Blvd (W)	1101	275	642	1861	0.59 1	1107	1055	3.1	1.5	4.816	A

Pref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	12.86	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.86	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Galleon Blvd (N)		ONE HOUR	✓	620	100.000
2 - A206 Crossways Blvd (E)		ONE HOUR	✓	1905	100.000
3 - Galleon Blvd (S)		ONE HOUR	✓	59	100.000
4 - A206 Crossways Blvd (W)		ONE HOUR	✓	1442	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
	From				
	1 - Galleon Blvd (N)	0	211	2	407
	2 - A206 Crossways Blvd (E)	278	0	836	791
	3 - Galleon Blvd (S)	2	57	0	0
	4 - A206 Crossways Blvd (W)	266	1176	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	5	9	7
	2 - A206 Crossways Blvd (E)	2	0	1	9
	3 - Galleon Blvd (S)	10	15	0	0
	4 - A206 Crossways Blvd (W)	5	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Galleon Blvd (N)	0.89	39.38	7.0	E	569	853
2 - A206 Crossways Blvd (E)	0.81	7.24	4.1	A	1748	2622
3 - Galleon Blvd (S)	0.14	9.13	0.2	A	54	81
4 - A206 Crossways Blvd (W)	0.80	8.97	3.9	A	1323	1985

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	467	117	924	999	0.467	463	409	0.0	0.9	6.681	A
2 - A206 Crossways Blvd (E)	1434	359	306	2706	0.530	1430	1082	0.0	1.1	2.811	A
3 - Galleon Blvd (S)	44	11	1106	695	0.064	44	629	0.0	0.1	5.530	A
4 - A206 Crossways Blvd (W)	1086	271	253	2063	0.526	1081	898	0.0	1.1	3.651	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	557	139	1106	900	0.619	554	490	0.9	1.6	10.331	B
2 - A206 Crossways Blvd (E)	1713	428	366	2658	0.644	1710	1295	1.1	1.8	3.784	A
3 - Galleon Blvd (S)	53	13	1324	595	0.089	53	752	0.1	0.1	6.631	A
4 - A206 Crossways Blvd (W)	1296	324	302	2031	0.638	1294	1074	1.1	1.7	4.865	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	682	171	1351	767	0.890	664	598	1.6	6.1	30.840	D
2 - A206 Crossways Blvd (E)	2097	524	438	2601	0.807	2089	1577	1.8	4.0	6.913	A
3 - Galleon Blvd (S)	65	16	1608	465	0.139	65	919	0.1	0.2	8.976	A
4 - A206 Crossways Blvd (W)	1588	397	369	1989	0.798	1579	1304	1.7	3.8	8.629	A

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	682	171	1357	764	0.894	679	601	6.1	7.0	39.385	E
2 - A206 Crossways Blvd (E)	2097	524	448	2593	0.809	2097	1588	4.0	4.1	7.241	A
3 - Galleon Blvd (S)	65	16	1622	459	0.141	65	922	0.2	0.2	9.135	A
4 - A206 Crossways Blvd (W)	1588	397	371	1988	0.799	1587	1316	3.8	3.9	8.969	A

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	557	139	1115	895	0.623	578	494	7.0	1.7	12.084	B
2 - A206 Crossways Blvd (E)	1713	428	381	2646	0.647	1722	1312	4.1	1.9	3.934	A
3 - Galleon Blvd (S)	53	13	1346	585	0.090	53	757	0.2	0.1	6.767	A
4 - A206 Crossways Blvd (W)	1296	324	304	2030	0.639	1305	1095	3.9	1.8	5.018	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	467	117	931	995	0.469	470	412	1.7	0.9	6.894	A
2 - A206 Crossways Blvd (E)	1434	359	310	2703	0.531	1437	1091	1.9	1.1	2.849	A
3 - Galleon Blvd (S)	44	11	1115	691	0.064	44	632	0.1	0.1	5.570	A
4 - A206 Crossways Blvd (W)	1086	271	254	2062	0.527	1088	905	1.8	1.1	3.709	A

Pref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	158.76	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	158.76	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Galleon Blvd (N)		ONE HOUR	✓	757	100.000
2 - A206 Crossways Blvd (E)		ONE HOUR	✓	1070	100.000
3 - Galleon Blvd (S)		ONE HOUR	✓	604	100.000
4 - A206 Crossways Blvd (W)		ONE HOUR	✓	1378	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	236	2	519
	2 - A206 Crossways Blvd (E)	267	0	149	654
	3 - Galleon Blvd (S)	1	603	0	0
	4 - A206 Crossways Blvd (W)	274	1104	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	4	9	2
	2 - A206 Crossways Blvd (E)	4	0	8	4
	3 - Galleon Blvd (S)	11	2	0	0
	4 - A206 Crossways Blvd (W)	4	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Galleon Blvd (N)	1.49	677.22	139.7	F	694	1042
2 - A206 Crossways Blvd (E)	0.45	2.45	0.8	A	982	1473
3 - Galleon Blvd (S)	1.02	113.04	20.9	F	554	831
4 - A206 Crossways Blvd (W)	0.90	19.39	7.7	C	1264	1897

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	570	142	1276	870	0.655	562	407	0.0	1.8	11.455	B
2 - A206 Crossways Blvd (E)	806	201	387	2653	0.304	804	1452	0.0	0.4	1.944	A
3 - Galleon Blvd (S)	455	114	1078	817	0.557	450	113	0.0	1.2	9.688	A
4 - A206 Crossways Blvd (W)	1037	259	650	1876	0.553	1033	877	0.0	1.2	4.241	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	680	170	1525	737	0.924	657	486	1.8	7.6	37.760	E
2 - A206 Crossways Blvd (E)	962	240	452	2604	0.369	961	1730	0.4	0.6	2.192	A
3 - Galleon Blvd (S)	543	136	1278	717	0.757	536	135	1.2	2.9	19.244	C
4 - A206 Crossways Blvd (W)	1239	310	776	1795	0.690	1235	1038	1.2	2.2	6.385	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	833	208	1817	580	1.438	577	593	7.6	71.6	263.816	F
2 - A206 Crossways Blvd (E)	1178	295	397	2646	0.445	1177	1997	0.6	0.8	2.450	A
3 - Galleon Blvd (S)	665	166	1409	651	1.021	618	165	2.9	14.7	67.631	F
4 - A206 Crossways Blvd (W)	1517	379	911	1707	0.889	1498	1115	2.2	6.9	15.974	C

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	833	208	1852	561	1.485	561	596	71.6	139.7	632.595	F
2 - A206 Crossways Blvd (E)	1178	295	386	2654	0.444	1178	2027	0.8	0.8	2.440	A
3 - Galleon Blvd (S)	665	166	1399	656	1.013	640	165	14.7	20.9	113.043	F
4 - A206 Crossways Blvd (W)	1517	379	934	1693	0.896	1514	1105	6.9	7.7	19.394	C

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	680	170	1620	686	0.992	681	492	139.7	139.7	677.223	F
2 - A206 Crossways Blvd (E)	962	240	468	2592	0.371	963	1832	0.8	0.6	2.210	A
3 - Galleon Blvd (S)	543	136	1295	709	0.766	612	136	20.9	3.7	50.889	F
4 - A206 Crossways Blvd (W)	1239	310	852	1746	0.709	1260	1055	7.7	2.5	7.699	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	570	142	1297	859	0.663	853	409	139.7	68.9	442.384	F
2 - A206 Crossways Blvd (E)	806	201	587	2502	0.322	806	1563	0.6	0.5	2.124	A
3 - Galleon Blvd (S)	455	114	1279	718	0.633	462	114	3.7	1.8	14.470	B
4 - A206 Crossways Blvd (W)	1037	259	664	1868	0.555	1042	1077	2.5	1.3	4.386	A

Appendix E
A206 / Galleon Boulevard
Mitigation Layout Modelling Output

Junctions 10

Junctions 10	
ARCADY 10 - Roundabout Module	
Version: 10.0.0.1499 © Copyright TRL Software Limited, 2021	
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com	
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution	

Filename: 1. A206 _ Galleon Blvd - Mitigation.j10
Path: J:\46416 - GH - Dartford Local Plan (SATURN)\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10
Report generation date: 06/12/2021 09:13:16

»Pref no LTC, AM
 »Pref no LTC, PM
 »Pref LTC, AM
 »Pref LTC, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Pref no LTC									
1 - Galleon Blvd (N)	D5	1.4	7.20	0.58	A	D6	12.6	58.27	0.96	F
2 - A206 Crossways Blvd (E)		4.8	8.12	0.83	A		0.8	2.62	0.45	A
3 - Galleon Blvd (S)		0.1	7.29	0.12	A		8.3	47.29	0.92	E
4 - A206 Crossways Blvd (W)		3.1	7.49	0.76	A		15.2	36.06	0.96	E
	Pref LTC									
1 - Galleon Blvd (N)	D7	1.5	7.83	0.60	A	D8	9.0	41.46	0.92	E
2 - A206 Crossways Blvd (E)		4.2	7.27	0.81	A		0.9	2.69	0.47	A
3 - Galleon Blvd (S)		0.1	6.83	0.11	A		8.6	49.66	0.92	E
4 - A206 Crossways Blvd (W)		3.9	8.97	0.80	A		8.2	20.69	0.90	C

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

File summary

File Description

Title	
Location	
Site number	
Date	22/09/2021
Version	
Status	(new file)
Identifier	
Client	

Jobnumber	
Enumerator	CORP\dansmith
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

Pref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.75	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.75	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Galleon Blvd (N)		
2	A206 Crossways Blvd (E)		

3	Galleon Blvd (S)		
4	A206 Crossways Blvd (W)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Galleon Blvd (N)	4.02	9.00	25.0	30.2	61.0	35.7		
2 - A206 Crossways Blvd (E)	9.16	10.89	26.9	26.8	61.0	45.1		
3 - Galleon Blvd (S)	3.15	7.50	15.0	31.3	61.0	42.1		
4 - A206 Crossways Blvd (W)	7.49	9.36	4.9	32.0	61.0	50.8		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Galleon Blvd (N)	0.625	2133
2 - A206 Crossways Blvd (E)	0.778	3082
3 - Galleon Blvd (S)	0.527	1598
4 - A206 Crossways Blvd (W)	0.655	2389

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Galleon Blvd (N)		ONE HOUR	✓	621	100.000
2 - A206 Crossways Blvd (E)		ONE HOUR	✓	1966	100.000
3 - Galleon Blvd (S)		ONE HOUR	✓	59	100.000
4 - A206 Crossways Blvd (W)		ONE HOUR	✓	1375	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	210	2	409
	2 - A206 Crossways Blvd (E)	269	0	823	874
	3 - Galleon Blvd (S)	2	57	0	0
	4 - A206 Crossways Blvd (W)	258	1117	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	5	9	7
	2 - A206 Crossways Blvd (E)	2	0	1	7
	3 - Galleon Blvd (S)	10	15	0	0
	4 - A206 Crossways Blvd (W)	5	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Galleon Blvd (N)	0.58	7.20	1.4	A	570	855
2 - A206 Crossways Blvd (E)	0.83	8.12	4.8	A	1804	2706
3 - Galleon Blvd (S)	0.12	7.29	0.1	A	54	81
4 - A206 Crossways Blvd (W)	0.76	7.49	3.1	A	1262	1893

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	467	117	880	1446	0.323	465	397	0.0	0.5	3.668	A
2 - A206 Crossways Blvd (E)	1480	370	308	2722	0.544	1475	1038	0.0	1.2	2.878	A
3 - Galleon Blvd (S)	44	11	1164	823	0.054	44	619	0.0	0.1	4.617	A
4 - A206 Crossways Blvd (W)	1035	259	246	2067	0.501	1031	963	0.0	1.0	3.463	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	558	140	1054	1335	0.418	557	475	0.5	0.7	4.621	A
2 - A206 Crossways Blvd (E)	1767	442	369	2673	0.661	1764	1242	1.2	1.9	3.950	A
3 - Galleon Blvd (S)	53	13	1393	712	0.074	53	740	0.1	0.1	5.460	A
4 - A206 Crossways Blvd (W)	1236	309	294	2036	0.607	1234	1151	1.0	1.5	4.474	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	684	171	1287	1186	0.576	681	580	0.7	1.3	7.091	A
2 - A206 Crossways Blvd (E)	2165	541	451	2607	0.830	2154	1518	1.9	4.7	7.756	A
3 - Galleon Blvd (S)	65	16	1701	562	0.115	65	904	0.1	0.1	7.231	A
4 - A206 Crossways Blvd (W)	1514	378	359	1995	0.759	1508	1406	1.5	3.0	7.297	A

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	684	171	1292	1183	0.578	683	582	1.3	1.4	7.203	A
2 - A206 Crossways Blvd (E)	2165	541	452	2606	0.831	2164	1524	4.7	4.8	8.124	A
3 - Galleon Blvd (S)	65	16	1708	558	0.116	65	908	0.1	0.1	7.293	A
4 - A206 Crossways Blvd (W)	1514	378	361	1994	0.759	1514	1412	3.0	3.1	7.485	A

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	558	140	1061	1331	0.419	561	478	1.4	0.7	4.689	A
2 - A206 Crossways Blvd (E)	1767	442	371	2671	0.662	1779	1250	4.8	2.0	4.082	A
3 - Galleon Blvd (S)	53	13	1403	707	0.075	53	746	0.1	0.1	5.506	A
4 - A206 Crossways Blvd (W)	1236	309	296	2035	0.607	1242	1160	3.1	1.6	4.576	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	467	117	886	1442	0.324	468	399	0.7	0.5	3.699	A
2 - A206 Crossways Blvd (E)	1480	370	310	2720	0.544	1483	1044	2.0	1.2	2.919	A
3 - Galleon Blvd (S)	44	11	1171	820	0.054	44	622	0.1	0.1	4.641	A
4 - A206 Crossways Blvd (W)	1035	259	247	2066	0.501	1037	968	1.6	1.0	3.508	A

Pref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	32.99	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	32.99	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Galleon Blvd (N)		ONE HOUR	✓	734	100.000
2 - A206 Crossways Blvd (E)		ONE HOUR	✓	1036	100.000
3 - Galleon Blvd (S)		ONE HOUR	✓	616	100.000
4 - A206 Crossways Blvd (W)		ONE HOUR	✓	1462	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	224	2	508
	2 - A206 Crossways Blvd (E)	227	0	153	656
	3 - Galleon Blvd (S)	1	615	0	0
	4 - A206 Crossways Blvd (W)	306	1156	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	6	19	3
	2 - A206 Crossways Blvd (E)	4	0	7	5
	3 - Galleon Blvd (S)	19	3	0	0
	4 - A206 Crossways Blvd (W)	5	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Galleon Blvd (N)	0.96	58.27	12.6	F	673	1010
2 - A206 Crossways Blvd (E)	0.45	2.62	0.8	A	951	1426
3 - Galleon Blvd (S)	0.92	47.29	8.3	E	565	848
4 - A206 Crossways Blvd (W)	0.96	36.06	15.2	E	1342	2012

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	552	138	1325	1221	0.452	549	400	0.0	0.8	5.334	A
2 - A206 Crossways Blvd (E)	780	195	381	2642	0.295	778	1493	0.0	0.4	1.930	A
3 - Galleon Blvd (S)	464	116	1044	994	0.466	460	116	0.0	0.9	6.697	A
4 - A206 Crossways Blvd (W)	1101	275	631	1868	0.589	1095	873	0.0	1.4	4.622	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	660	165	1585	1058	0.623	656	479	0.8	1.6	8.896	A
2 - A206 Crossways Blvd (E)	931	233	456	2585	0.360	931	1785	0.4	0.6	2.176	A
3 - Galleon Blvd (S)	554	138	1248	886	0.625	551	139	0.9	1.6	10.650	B
4 - A206 Crossways Blvd (W)	1314	329	755	1789	0.735	1309	1044	1.4	2.7	7.431	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	808	202	1899	861	0.938	779	580	1.6	8.8	35.734	E
2 - A206 Crossways Blvd (E)	1141	285	541	2520	0.453	1140	2137	0.6	0.8	2.607	A
3 - Galleon Blvd (S)	678	170	1511	745	0.910	657	170	1.6	6.9	34.715	D
4 - A206 Crossways Blvd (W)	1610	402	907	1691	0.952	1572	1261	2.7	12.2	24.864	C

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	808	202	1935	839	0.963	792	585	8.8	12.6	58.273	F
2 - A206 Crossways Blvd (E)	1141	285	551	2513	0.454	1141	2177	0.8	0.8	2.623	A
3 - Galleon Blvd (S)	678	170	1521	740	0.917	673	170	6.9	8.3	47.291	E
4 - A206 Crossways Blvd (W)	1610	402	923	1680	0.958	1597	1271	12.2	15.2	36.056	E

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	660	165	1657	1013	0.651	702	491	12.6	1.9	13.144	B
2 - A206 Crossways Blvd (E)	931	233	488	2560	0.364	932	1871	0.8	0.6	2.212	A
3 - Galleon Blvd (S)	554	138	1281	868	0.638	580	139	8.3	1.8	13.536	B
4 - A206 Crossways Blvd (W)	1314	329	784	1770	0.743	1363	1077	15.2	3.0	9.878	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	552	138	1342	1210	0.456	557	403	1.9	0.8	5.543	A
2 - A206 Crossways Blvd (E)	780	195	387	2638	0.296	781	1512	0.6	0.4	1.938	A
3 - Galleon Blvd (S)	464	116	1051	991	0.468	467	117	1.8	0.9	6.931	A
4 - A206 Crossways Blvd (W)	1101	275	639	1864	0.591	1107	880	3.0	1.5	4.794	A

Pref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.97	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.97	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Galleon Blvd (N)		ONE HOUR	✓	620	100.000
2 - A206 Crossways Blvd (E)		ONE HOUR	✓	1905	100.000
3 - Galleon Blvd (S)		ONE HOUR	✓	59	100.000
4 - A206 Crossways Blvd (W)		ONE HOUR	✓	1442	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	211	2	407
	2 - A206 Crossways Blvd (E)	278	0	836	791
	3 - Galleon Blvd (S)	2	57	0	0
	4 - A206 Crossways Blvd (W)	266	1176	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	5	9	7
	2 - A206 Crossways Blvd (E)	2	0	1	9
	3 - Galleon Blvd (S)	10	15	0	0
	4 - A206 Crossways Blvd (W)	5	8	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Galleon Blvd (N)	0.60	7.83	1.5	A	569	853
2 - A206 Crossways Blvd (E)	0.81	7.27	4.2	A	1748	2622
3 - Galleon Blvd (S)	0.11	6.83	0.1	A	54	81
4 - A206 Crossways Blvd (W)	0.80	8.97	3.9	A	1323	1985

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrival s (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	467	117	924	1418	0.329	465	409	0.0	0.5	3.769	A
2 - A206 Crossways Blvd (E)	1434	359	307	2706	0.530	1430	1083	0.0	1.1	2.813	A
3 - Galleon Blvd (S)	44	11	1107	846	0.052	44	629	0.0	0.1	4.487	A
4 - A206 Crossways Blvd (W)	1086	271	253	2063	0.526	1081	899	0.0	1.1	3.651	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrival s (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	557	139	1106	1302	0.428	556	490	0.5	0.7	4.821	A
2 - A206 Crossways Blvd (E)	1713	428	367	2657	0.644	1710	1296	1.1	1.8	3.788	A
3 - Galleon Blvd (S)	53	13	1325	739	0.072	53	752	0.1	0.1	5.244	A
4 - A206 Crossways Blvd (W)	1296	324	302	2031	0.638	1294	1075	1.1	1.7	4.865	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrival s (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	682	171	1351	1146	0.595	680	598	0.7	1.4	7.672	A
2 - A206 Crossways Blvd (E)	2097	524	448	2593	0.809	2088	1582	1.8	4.1	7.014	A
3 - Galleon Blvd (S)	65	16	1618	595	0.109	65	918	0.1	0.1	6.786	A
4 - A206 Crossways Blvd (W)	1588	397	369	1989	0.798	1579	1313	1.7	3.8	8.630	A

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrival s (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	682	171	1357	1142	0.598	682	601	1.4	1.5	7.830	A
2 - A206 Crossways Blvd (E)	2097	524	450	2591	0.809	2097	1590	4.1	4.2	7.273	A
3 - Galleon Blvd (S)	65	16	1625	592	0.109	65	922	0.1	0.1	6.831	A
4 - A206 Crossways Blvd (W)	1588	397	371	1988	0.799	1587	1319	3.8	3.9	8.970	A

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	557	139	1115	1296	0.430	560	494	1.5	0.8	4.909	A
2 - A206 Crossways Blvd (E)	1713	428	369	2655	0.645	1722	1306	4.2	1.8	3.894	A
3 - Galleon Blvd (S)	53	13	1334	735	0.072	53	757	0.1	0.1	5.281	A
4 - A206 Crossways Blvd (W)	1296	324	304	2030	0.639	1305	1083	3.9	1.8	5.018	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	467	117	931	1414	0.330	468	412	0.8	0.5	3.808	A
2 - A206 Crossways Blvd (E)	1434	359	308	2704	0.530	1437	1090	1.8	1.1	2.846	A
3 - Galleon Blvd (S)	44	11	1113	843	0.053	44	632	0.1	0.1	4.506	A
4 - A206 Crossways Blvd (W)	1086	271	254	2062	0.527	1088	904	1.8	1.1	3.709	A

Pref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	24.20	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	24.20	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Galleon Blvd (N)		ONE HOUR	✓	757	100.000
2 - A206 Crossways Blvd (E)		ONE HOUR	✓	1070	100.000
3 - Galleon Blvd (S)		ONE HOUR	✓	604	100.000
4 - A206 Crossways Blvd (W)		ONE HOUR	✓	1378	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	236	2	519
	2 - A206 Crossways Blvd (E)	267	0	149	654
	3 - Galleon Blvd (S)	1	603	0	0
	4 - A206 Crossways Blvd (W)	274	1104	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Galleon Blvd (N)	2 - A206 Crossways Blvd (E)	3 - Galleon Blvd (S)	4 - A206 Crossways Blvd (W)
From	1 - Galleon Blvd (N)	0	4	9	2
	2 - A206 Crossways Blvd (E)	4	0	8	4
	3 - Galleon Blvd (S)	11	2	0	0
	4 - A206 Crossways Blvd (W)	4	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Galleon Blvd (N)	0.92	41.46	9.0	E	694	1042
2 - A206 Crossways Blvd (E)	0.47	2.69	0.9	A	982	1473
3 - Galleon Blvd (S)	0.92	49.66	8.6	E	554	831
4 - A206 Crossways Blvd (W)	0.90	20.69	8.2	C	1264	1897

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	570	142	1278	1274	0.447	567	407	0.0	0.8	5.064	A

2 - A206 Crossways Blvd (E)	806	201	390	2651	0.304	804	1455	0.0	0.4	1.947	A
3 - Galleon Blvd (S)	455	114	1080	989	0.460	451	113	0.0	0.8	6.654	A
4 - A206 Crossways Blvd (W)	1037	259	652	1875	0.553	1033	880	0.0	1.2	4.246	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	680	170	1529	1117	0.609	677	486	0.8	1.5	8.141	A
2 - A206 Crossways Blvd (E)	962	240	466	2593	0.371	961	1740	0.4	0.6	2.206	A
3 - Galleon Blvd (S)	543	136	1292	876	0.620	540	136	0.8	1.6	10.619	B
4 - A206 Crossways Blvd (W)	1239	310	780	1793	0.691	1235	1052	1.2	2.2	6.409	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	833	208	1841	920	0.906	811	592	1.5	7.0	28.738	D
2 - A206 Crossways Blvd (E)	1178	295	558	2524	0.467	1177	2094	0.6	0.9	2.671	A
3 - Galleon Blvd (S)	665	166	1569	728	0.914	643	166	1.6	7.1	35.888	E
4 - A206 Crossways Blvd (W)	1517	379	937	1691	0.897	1497	1276	2.2	7.3	16.967	C

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	833	208	1871	901	0.924	825	596	7.0	9.0	41.457	E
2 - A206 Crossways Blvd (E)	1178	295	568	2516	0.468	1178	2128	0.9	0.9	2.690	A
3 - Galleon Blvd (S)	665	166	1580	722	0.921	659	166	7.1	8.6	49.661	E
4 - A206 Crossways Blvd (W)	1517	379	953	1681	0.903	1514	1286	7.3	8.2	20.688	C

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	680	170	1581	1084	0.628	709	492	9.0	1.7	10.326	B
2 - A206 Crossways Blvd (E)	962	240	488	2577	0.373	963	1802	0.9	0.6	2.232	A
3 - Galleon Blvd (S)	543	136	1315	864	0.629	570	136	8.6	1.8	13.339	B
4 - A206 Crossways Blvd (W)	1239	310	811	1773	0.699	1262	1075	8.2	2.4	7.356	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Galleon Blvd (N)	570	142	1292	1265	0.450	573	409	1.7	0.8	5.228	A
2 - A206 Crossways Blvd (E)	806	201	395	2648	0.304	806	1471	0.6	0.4	1.955	A
3 - Galleon Blvd (S)	455	114	1087	986	0.461	458	114	1.8	0.9	6.871	A
4 - A206 Crossways Blvd (W)	1037	259	659	1871	0.555	1042	886	2.4	1.3	4.366	A

Appendix F

A225 Lowfield Street / B2174 Princes Road

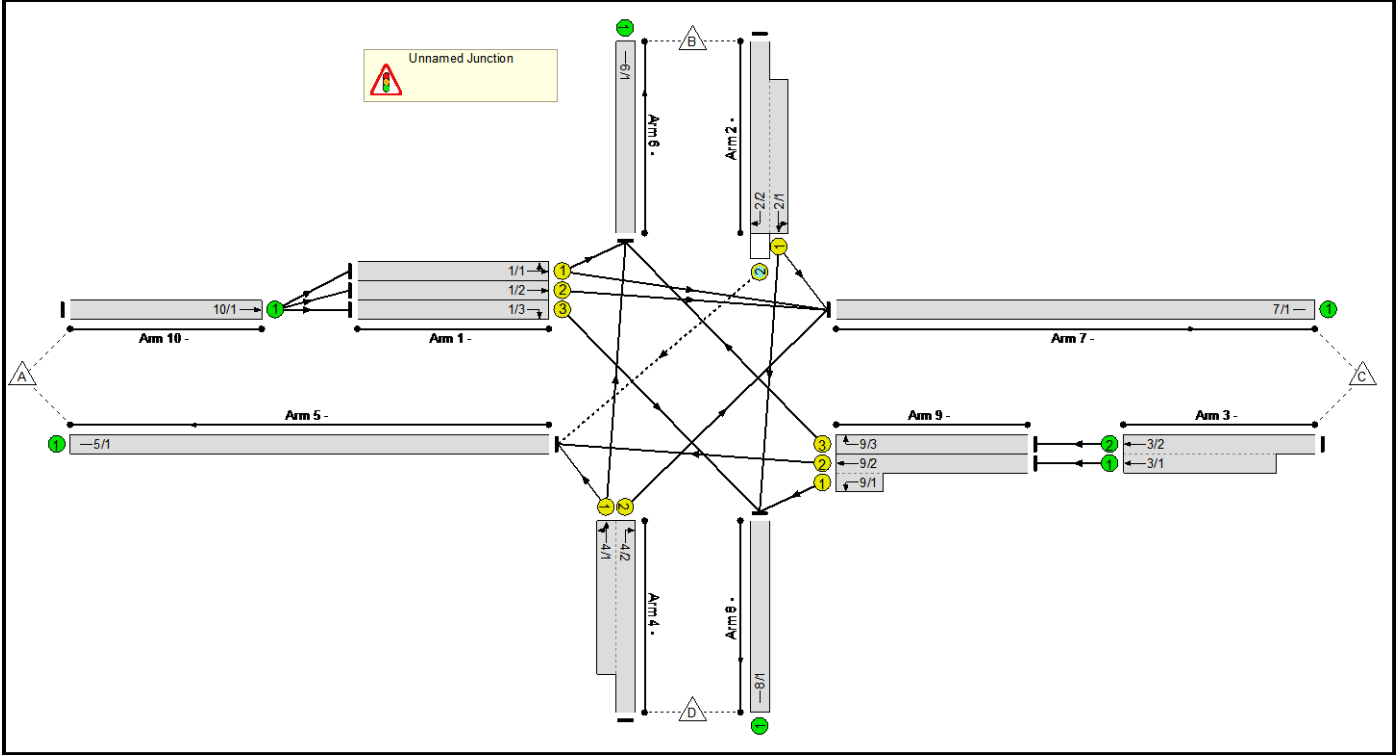
Existing Layout Modelling Output

Full Input Data And Results

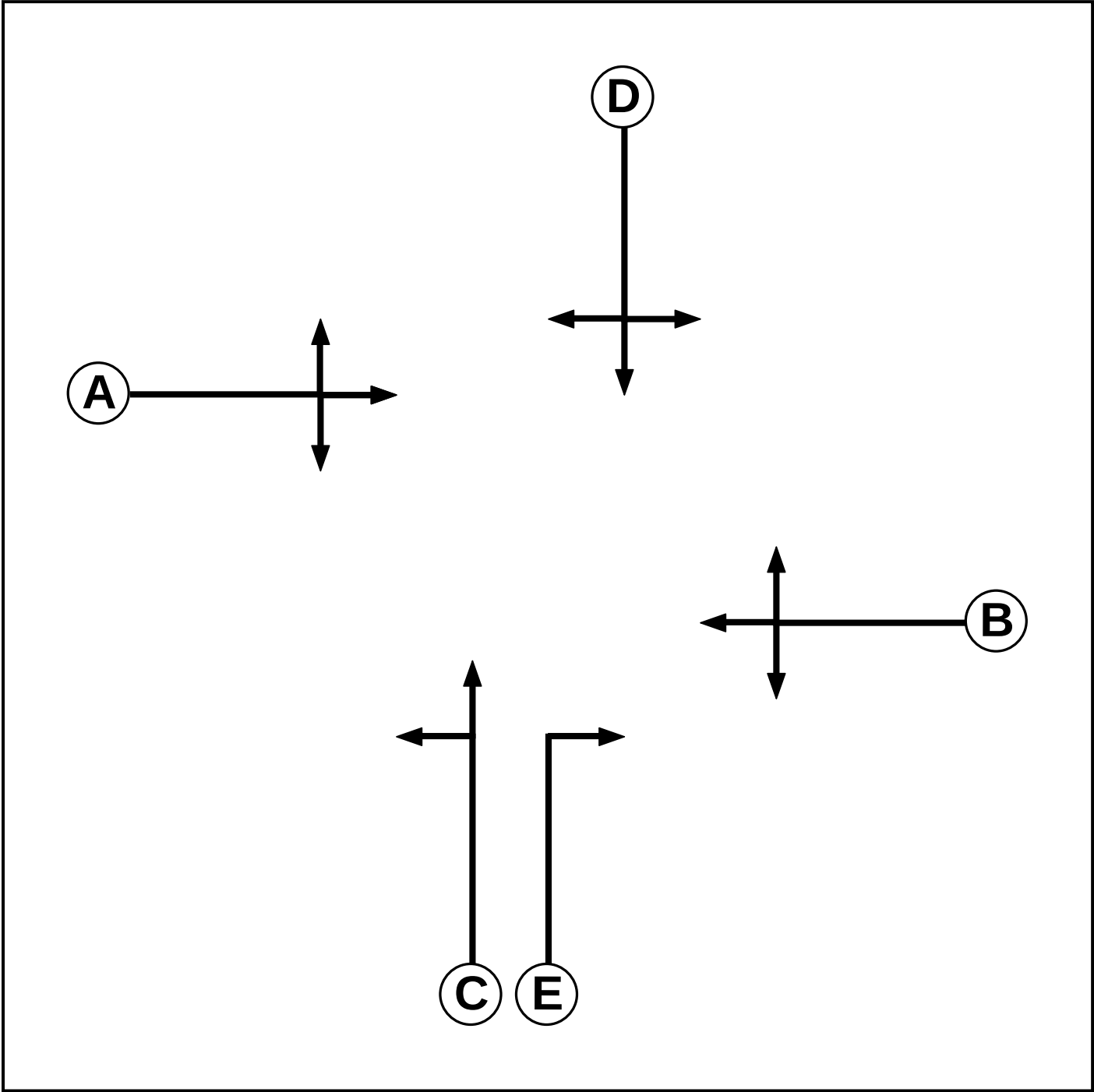
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	13. A225 Lowfield Street _ B2174 Princes Road.lsg3x
Author:	
Company:	
Address:	

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	Traffic		7	7

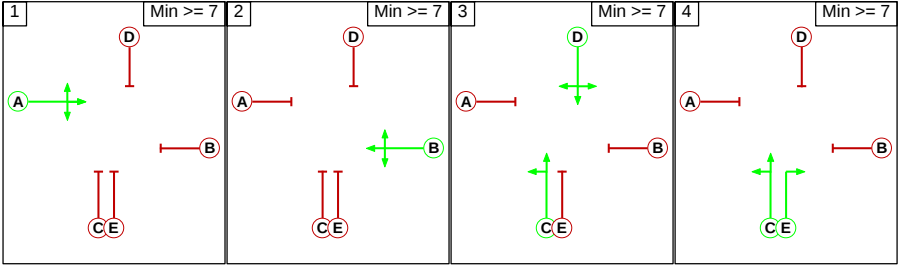
Phase Intergreens Matrix

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

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B
3	C D
4	C 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	2
	2	2		5	5
	3	6	2		5
	4	6	2	2	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
2/2	5/1 (Right)	1439	0	4/1	1.09	All	2.00	-	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1	U	A	2	3	8.7	Geom	-	3.21	0.00	Y	Arm 6 Left	13.00
											Arm 7 Ahead	Inf
1/2	U	A	2	3	8.7	Geom	-	3.07	0.00	N	Arm 7 Ahead	Inf
1/3	U	A	2	3	8.7	Geom	-	3.35	0.00	Y	Arm 8 Right	16.00
2/1	U	D	2	3	20.0	Geom	-	3.26	0.00	Y	Arm 7 Left	12.00
											Arm 8 Ahead	Inf
2/2	O	D	2	3	60.0	Geom	-	3.28	0.00	Y	Arm 5 Right	13.00
3/1	U		2	3	23.7	Geom	-	2.79	0.00	Y	Arm 9 Ahead	Inf
3/2	U		2	3	60.0	Geom	-	2.84	0.00	Y	Arm 9 Ahead	Inf
4/1	U	C	2	3	22.6	Geom	-	3.24	0.00	Y	Arm 5 Left	12.00
											Arm 6 Ahead	Inf
4/2	U	E	2	3	60.0	Geom	-	3.22	0.00	Y	Arm 7 Right	15.00
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	-	-	-	-	-	-
9/1	U	B	2	3	3.7	Geom	-	2.79	0.00	Y	Arm 8 Left	11.00
9/2	U	B	2	3	5.4	Geom	-	2.93	0.00	Y	Arm 5 Ahead	Inf
9/3	U	B	2	3	5.4	Geom	-	3.12	0.00	Y	Arm 6 Right	25.00
10/1	U		2	3	60.0	Geom	-	3.58	0.00	Y	Arm 1 Ahead	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Ref no LTC AM'	08:00	09:00	01:00	
2: 'Ref no LTC PM'	17:00	18:00	01:00	
3: 'Ref LTC AM'	08:00	09:00	01:00	
4: 'Ref LTC PM'	17:00	18:00	01:00	
5: 'Pref no LTC AM'	08:00	09:00	01:00	
6: 'Pref no LTC PM'	17:00	18:00	01:00	
7: 'Pref LTC AM'	08:00	09:00	01:00	
8: 'Pref LTC PM'	17:00	18:00	01:00	

Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	0	689	311	1000
	B	56	0	187	360	603
	C	372	316	0	395	1083
	D	213	416	297	0	926
	Tot.	641	732	1173	1066	3612

Traffic Lane Flows

Lane	Scenario 1: Ref no LTC AM
Junction: Unnamed Junction	
1/1	331
1/2	358
1/3	311
2/1 (short)	547
2/2 (with short)	603(In) 56(Out)
3/1 (short)	767
3/2 (with short)	1083(In) 316(Out)
4/1 (short)	629
4/2 (with short)	926(In) 297(Out)
5/1	641
6/1	732
7/1	1173
8/1	1066
9/1 (short)	395
9/2 (with short)	767(In) 372(Out)
9/3	316
10/1	1000

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.21	0.00	Y	Arm 6 Left	13.00	0.0 %	1936	1936
				Arm 7 Ahead	Inf	100.0 %		
1/2	3.07	0.00	N	Arm 7 Ahead	Inf	100.0 %	2062	2062
1/3	3.35	0.00	Y	Arm 8 Right	16.00	100.0 %	1783	1783
2/1	3.26	0.00	Y	Arm 7 Left	12.00	34.2 %	1861	1861
				Arm 8 Ahead	Inf	65.8 %		
2/2	3.28	0.00	Y	Arm 5 Right	13.00	100.0 %	1742	1742
3/1	2.79	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1894	1894
3/2	2.84	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1899	1899
4/1	3.24	0.00	Y	Arm 5 Left	12.00	33.9 %	1860	1860
				Arm 6 Ahead	Inf	66.1 %		
4/2	3.22	0.00	Y	Arm 7 Right	15.00	100.0 %	1761	1761
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
9/1	2.79	0.00	Y	Arm 8 Left	11.00	100.0 %	1667	1667
9/2	2.93	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1908	1908
9/3	3.12	0.00	Y	Arm 6 Right	25.00	100.0 %	1818	1818
10/1	3.58	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1973	1973

Scenario 2: 'Ref no LTC PM' (FG2: 'Ref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	908	293	1201
	B	65	0	413	0	478
	C	436	361	0	432	1229
	D	425	329	341	0	1095
	Tot.	926	690	1662	725	4003

Traffic Lane Flows

Lane	Scenario 2: Ref no LTC PM
Junction: Unnamed Junction	
1/1	439
1/2	469
1/3	293
2/1 (short)	413
2/2 (with short)	478(In) 65(Out)
3/1 (short)	868
3/2 (with short)	1229(In) 361(Out)
4/1 (short)	754
4/2 (with short)	1095(In) 341(Out)
5/1	926
6/1	690
7/1	1662
8/1	725
9/1 (short)	432
9/2 (with short)	868(In) 436(Out)
9/3	361
10/1	1201

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.21	0.00	Y	Arm 6 Left	13.00	0.0 %	1936	1936
				Arm 7 Ahead	Inf	100.0 %		
1/2	3.07	0.00	N	Arm 7 Ahead	Inf	100.0 %	2062	2062
1/3	3.35	0.00	Y	Arm 8 Right	16.00	100.0 %	1783	1783
2/1	3.26	0.00	Y	Arm 7 Left	12.00	100.0 %	1725	1725
				Arm 8 Ahead	Inf	0.0 %		
2/2	3.28	0.00	Y	Arm 5 Right	13.00	100.0 %	1742	1742
3/1	2.79	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1894	1894
3/2	2.84	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1899	1899
4/1	3.24	0.00	Y	Arm 5 Left	12.00	56.4 %	1811	1811
				Arm 6 Ahead	Inf	43.6 %		
4/2	3.22	0.00	Y	Arm 7 Right	15.00	100.0 %	1761	1761
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
9/1	2.79	0.00	Y	Arm 8 Left	11.00	100.0 %	1667	1667
9/2	2.93	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1908	1908
9/3	3.12	0.00	Y	Arm 6 Right	25.00	100.0 %	1818	1818
10/1	3.58	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1973	1973

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

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	698	300	998
	B	58	0	160	400	618
	C	438	344	0	408	1190
	D	239	389	298	0	926
	Tot.	735	733	1156	1108	3732

Traffic Lane Flows

Lane	Scenario 3: Ref LTC AM
Junction: Unnamed Junction	
1/1	336
1/2	362
1/3	300
2/1 (short)	560
2/2 (with short)	618(In) 58(Out)
3/1 (short)	846
3/2 (with short)	1190(In) 344(Out)
4/1 (short)	628
4/2 (with short)	926(In) 298(Out)
5/1	735
6/1	733
7/1	1156
8/1	1108
9/1 (short)	408
9/2 (with short)	846(In) 438(Out)
9/3	344
10/1	998

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.21	0.00	Y	Arm 6 Left	13.00	0.0 %	1936	1936
				Arm 7 Ahead	Inf	100.0 %		
1/2	3.07	0.00	N	Arm 7 Ahead	Inf	100.0 %	2062	2062
1/3	3.35	0.00	Y	Arm 8 Right	16.00	100.0 %	1783	1783
2/1	3.26	0.00	Y	Arm 7 Left	12.00	28.6 %	1874	1874
				Arm 8 Ahead	Inf	71.4 %		
2/2	3.28	0.00	Y	Arm 5 Right	13.00	100.0 %	1742	1742
3/1	2.79	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1894	1894
3/2	2.84	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1899	1899
4/1	3.24	0.00	Y	Arm 5 Left	12.00	38.1 %	1851	1851
				Arm 6 Ahead	Inf	61.9 %		
4/2	3.22	0.00	Y	Arm 7 Right	15.00	100.0 %	1761	1761
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
9/1	2.79	0.00	Y	Arm 8 Left	11.00	100.0 %	1667	1667
9/2	2.93	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1908	1908
9/3	3.12	0.00	Y	Arm 6 Right	25.00	100.0 %	1818	1818
10/1	3.58	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1973	1973

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

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	908	284	1192
	B	66	0	413	0	479
	C	441	369	0	430	1240
	D	428	326	340	0	1094
	Tot.	935	695	1661	714	4005

Traffic Lane Flows

Lane	Scenario 4: Ref LTC PM
Junction: Unnamed Junction	
1/1	439
1/2	469
1/3	284
2/1 (short)	413
2/2 (with short)	479(In) 66(Out)
3/1 (short)	871
3/2 (with short)	1240(In) 369(Out)
4/1 (short)	754
4/2 (with short)	1094(In) 340(Out)
5/1	935
6/1	695
7/1	1661
8/1	714
9/1 (short)	430
9/2 (with short)	871(In) 441(Out)
9/3	369
10/1	1192

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.21	0.00	Y	Arm 6 Left	13.00	0.0 %	1936	1936
				Arm 7 Ahead	Inf	100.0 %		
1/2	3.07	0.00	N	Arm 7 Ahead	Inf	100.0 %	2062	2062
1/3	3.35	0.00	Y	Arm 8 Right	16.00	100.0 %	1783	1783
2/1	3.26	0.00	Y	Arm 7 Left	12.00	100.0 %	1725	1725
				Arm 8 Ahead	Inf	0.0 %		
2/2	3.28	0.00	Y	Arm 5 Right	13.00	100.0 %	1742	1742
3/1	2.79	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1894	1894
3/2	2.84	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1899	1899
4/1	3.24	0.00	Y	Arm 5 Left	12.00	56.8 %	1811	1811
				Arm 6 Ahead	Inf	43.2 %		
4/2	3.22	0.00	Y	Arm 7 Right	15.00	100.0 %	1761	1761
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
9/1	2.79	0.00	Y	Arm 8 Left	11.00	100.0 %	1667	1667
9/2	2.93	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1908	1908
9/3	3.12	0.00	Y	Arm 6 Right	25.00	100.0 %	1818	1818
10/1	3.58	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1973	1973

Scenario 5: 'Pref no LTC AM' (FG5: 'Pref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	707	312	1019
	B	60	0	179	383	622
	C	362	317	0	398	1077
	D	221	418	298	0	937
	Tot.	643	735	1184	1093	3655

Traffic Lane Flows

Lane	Scenario 5: Pref no LTC AM
Junction: Unnamed Junction	
1/1	340
1/2	367
1/3	312
2/1 (short)	562
2/2 (with short)	622(In) 60(Out)
3/1 (short)	760
3/2 (with short)	1077(In) 317(Out)
4/1 (short)	639
4/2 (with short)	937(In) 298(Out)
5/1	643
6/1	735
7/1	1184
8/1	1093
9/1 (short)	398
9/2 (with short)	760(In) 362(Out)
9/3	317
10/1	1019

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.21	0.00	Y	Arm 6 Left	13.00	0.0 %	1936	1936
				Arm 7 Ahead	Inf	100.0 %		
1/2	3.07	0.00	N	Arm 7 Ahead	Inf	100.0 %	2062	2062
1/3	3.35	0.00	Y	Arm 8 Right	16.00	100.0 %	1783	1783
2/1	3.26	0.00	Y	Arm 7 Left	12.00	31.9 %	1867	1867
				Arm 8 Ahead	Inf	68.1 %		
2/2	3.28	0.00	Y	Arm 5 Right	13.00	100.0 %	1742	1742
3/1	2.79	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1894	1894
3/2	2.84	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1899	1899
4/1	3.24	0.00	Y	Arm 5 Left	12.00	34.6 %	1859	1859
				Arm 6 Ahead	Inf	65.4 %		
4/2	3.22	0.00	Y	Arm 7 Right	15.00	100.0 %	1761	1761
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
9/1	2.79	0.00	Y	Arm 8 Left	11.00	100.0 %	1667	1667
9/2	2.93	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1908	1908
9/3	3.12	0.00	Y	Arm 6 Right	25.00	100.0 %	1818	1818
10/1	3.58	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1973	1973

Scenario 6: 'Pref no LTC PM' (FG6: 'Pref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	902	333	1235
	B	66	0	405	11	482
	C	442	378	0	438	1258
	D	425	333	338	0	1096
	Tot.	933	711	1645	782	4071

Traffic Lane Flows

Lane	Scenario 6: Pref no LTC PM
Junction: Unnamed Junction	
1/1	436
1/2	466
1/3	333
2/1 (short)	416
2/2 (with short)	482(In) 66(Out)
3/1 (short)	880
3/2 (with short)	1258(In) 378(Out)
4/1 (short)	758
4/2 (with short)	1096(In) 338(Out)
5/1	933
6/1	711
7/1	1645
8/1	782
9/1 (short)	438
9/2 (with short)	880(In) 442(Out)
9/3	378
10/1	1235

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.21	0.00	Y	Arm 6 Left	13.00	0.0 %	1936	1936
				Arm 7 Ahead	Inf	100.0 %		
1/2	3.07	0.00	N	Arm 7 Ahead	Inf	100.0 %	2062	2062
1/3	3.35	0.00	Y	Arm 8 Right	16.00	100.0 %	1783	1783
2/1	3.26	0.00	Y	Arm 7 Left	12.00	97.4 %	1730	1730
				Arm 8 Ahead	Inf	2.6 %		
2/2	3.28	0.00	Y	Arm 5 Right	13.00	100.0 %	1742	1742
3/1	2.79	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1894	1894
3/2	2.84	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1899	1899
4/1	3.24	0.00	Y	Arm 5 Left	12.00	56.1 %	1812	1812
				Arm 6 Ahead	Inf	43.9 %		
4/2	3.22	0.00	Y	Arm 7 Right	15.00	100.0 %	1761	1761
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
9/1	2.79	0.00	Y	Arm 8 Left	11.00	100.0 %	1667	1667
9/2	2.93	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1908	1908
9/3	3.12	0.00	Y	Arm 6 Right	25.00	100.0 %	1818	1818
10/1	3.58	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1973	1973

Scenario 7: 'Pref LTC AM' (FG7: 'Pref LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	714	298	1012
	B	60	0	165	398	623
	C	420	341	0	409	1170
	D	239	379	298	0	916
	Tot.	719	720	1177	1105	3721

Traffic Lane Flows

Lane	Scenario 7: Pref LTC AM
Junction: Unnamed Junction	
1/1	344
1/2	370
1/3	298
2/1 (short)	563
2/2 (with short)	623(In) 60(Out)
3/1 (short)	829
3/2 (with short)	1170(In) 341(Out)
4/1 (short)	618
4/2 (with short)	916(In) 298(Out)
5/1	719
6/1	720
7/1	1177
8/1	1105
9/1 (short)	409
9/2 (with short)	829(In) 420(Out)
9/3	341
10/1	1012

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.21	0.00	Y	Arm 6 Left	13.00	0.0 %	1936	1936
				Arm 7 Ahead	Inf	100.0 %		
1/2	3.07	0.00	N	Arm 7 Ahead	Inf	100.0 %	2062	2062
1/3	3.35	0.00	Y	Arm 8 Right	16.00	100.0 %	1783	1783
2/1	3.26	0.00	Y	Arm 7 Left	12.00	29.3 %	1872	1872
				Arm 8 Ahead	Inf	70.7 %		
2/2	3.28	0.00	Y	Arm 5 Right	13.00	100.0 %	1742	1742
3/1	2.79	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1894	1894
3/2	2.84	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1899	1899
4/1	3.24	0.00	Y	Arm 5 Left	12.00	38.7 %	1850	1850
				Arm 6 Ahead	Inf	61.3 %		
4/2	3.22	0.00	Y	Arm 7 Right	15.00	100.0 %	1761	1761
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
9/1	2.79	0.00	Y	Arm 8 Left	11.00	100.0 %	1667	1667
9/2	2.93	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1908	1908
9/3	3.12	0.00	Y	Arm 6 Right	25.00	100.0 %	1818	1818
10/1	3.58	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1973	1973

Scenario 8: 'Pref LTC PM' (FG8: 'Pref LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	898	357	1255
	B	65	0	405	9	479
	C	448	389	0	436	1273
	D	432	307	335	0	1074
	Tot.	945	696	1638	802	4081

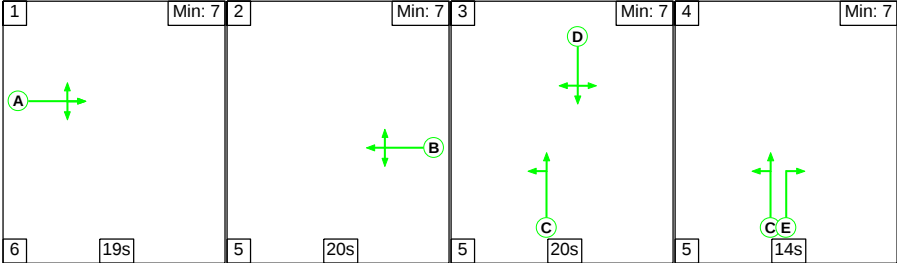
Traffic Lane Flows

Lane	Scenario 8: Pref LTC PM
Junction: Unnamed Junction	
1/1	434
1/2	464
1/3	357
2/1 (short)	414
2/2 (with short)	479(In) 65(Out)
3/1 (short)	884
3/2 (with short)	1273(In) 389(Out)
4/1 (short)	739
4/2 (with short)	1074(In) 335(Out)
5/1	945
6/1	696
7/1	1638
8/1	802
9/1 (short)	436
9/2 (with short)	884(In) 448(Out)
9/3	389
10/1	1255

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.21	0.00	Y	Arm 6 Left	13.00	0.0 %	1936	1936
				Arm 7 Ahead	Inf	100.0 %		
1/2	3.07	0.00	N	Arm 7 Ahead	Inf	100.0 %	2062	2062
1/3	3.35	0.00	Y	Arm 8 Right	16.00	100.0 %	1783	1783
2/1	3.26	0.00	Y	Arm 7 Left	12.00	97.8 %	1730	1730
				Arm 8 Ahead	Inf	2.2 %		
2/2	3.28	0.00	Y	Arm 5 Right	13.00	100.0 %	1742	1742
3/1	2.79	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1894	1894
3/2	2.84	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1899	1899
4/1	3.24	0.00	Y	Arm 5 Left	12.00	58.5 %	1807	1807
				Arm 6 Ahead	Inf	41.5 %		
4/2	3.22	0.00	Y	Arm 7 Right	15.00	100.0 %	1761	1761
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
9/1	2.79	0.00	Y	Arm 8 Left	11.00	100.0 %	1667	1667
9/2	2.93	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1908	1908
9/3	3.12	0.00	Y	Arm 6 Right	25.00	100.0 %	1818	1818
10/1	3.58	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1973	1973

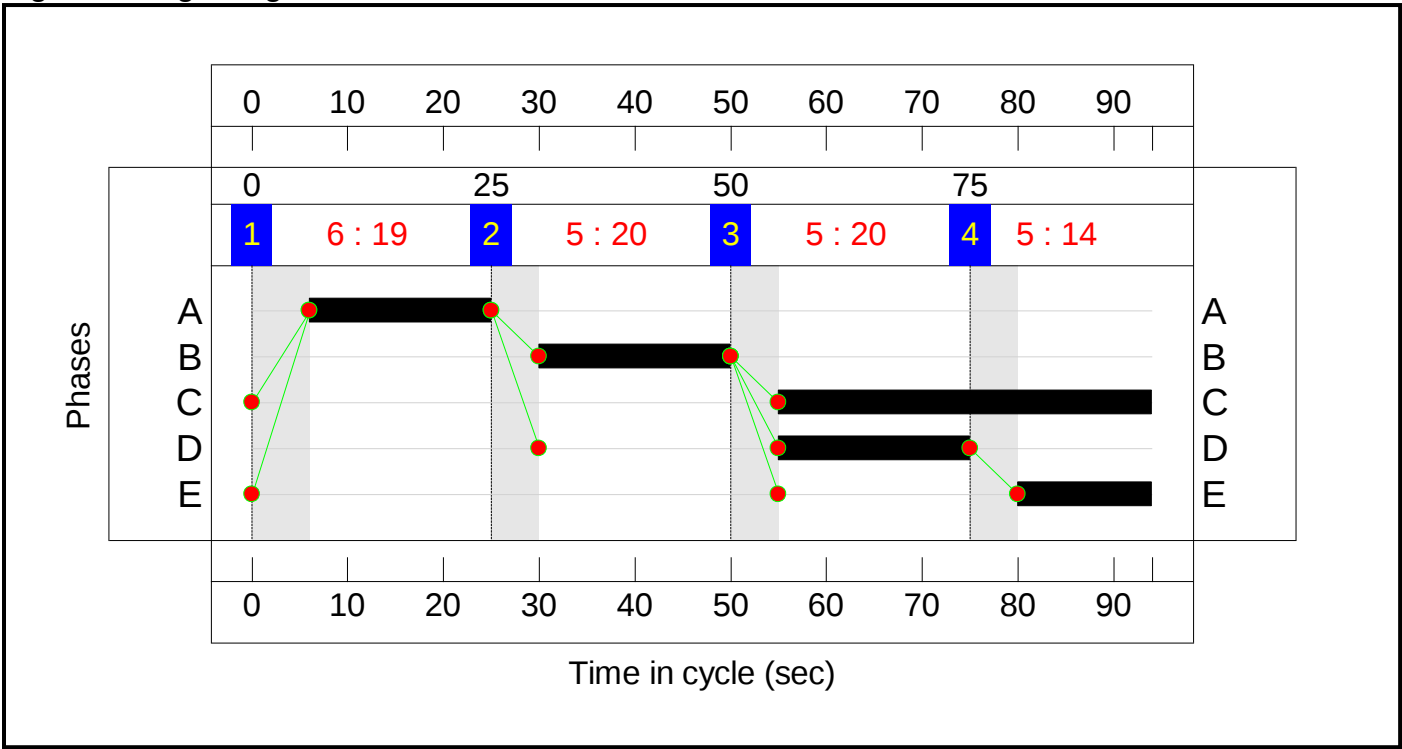
Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')
Stage Sequence Diagram



Stage Timings

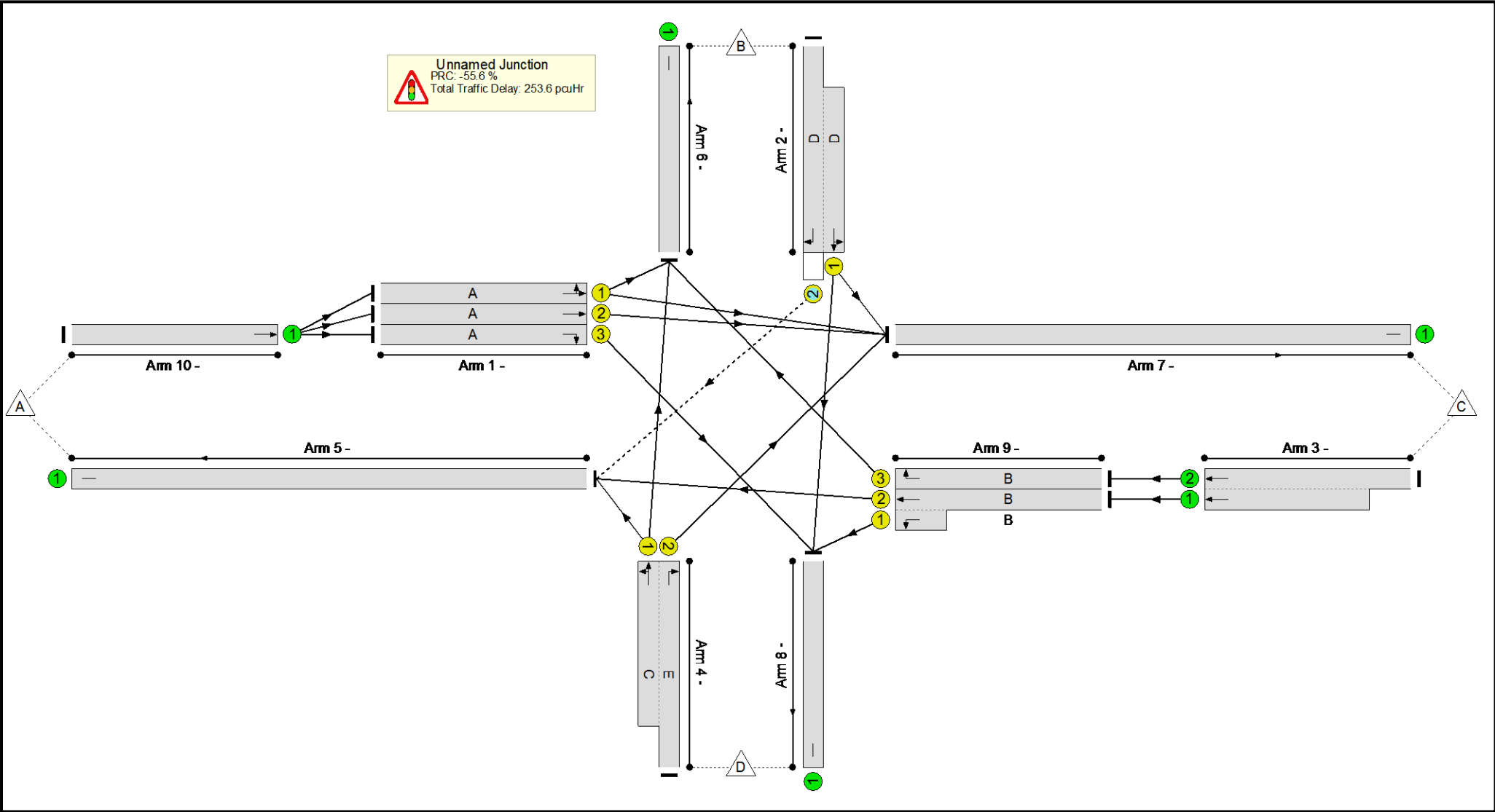
Stage	1	2	3	4
Duration	19	20	20	14
Change Point	0	25	50	75

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	-	-		-	-	-	-	-	-	140.0%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	140.0%
1/1	Left Ahead	U	N/A	N/A	A		1	19	-	331	1936	412	80.4%
1/2	Ahead	U	N/A	N/A	A		1	19	-	358	2062	439	81.6%
1/3	Right	U	N/A	N/A	A		1	19	-	311	1783	379	82.0%
2/2+2/1	Right Left Ahead	O+U	N/A	N/A	D		1	20	-	603	1742:1861	43+416	131.6 : 131.6%
3/2+3/1	Ahead	U	N/A	N/A	-		-	-	-	1083	1899:1894	553+1342	57.1 : 57.1%
4/2+4/1	Left Ahead Right	U	N/A	N/A	E C		1	14:39	-	926	1761:1860	281+791	105.7 : 79.5%
5/1		U	N/A	N/A	-		-	-	-	641	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	732	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1173	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	1066	Inf	Inf	0.0%
9/2+9/1	Ahead Left	U	N/A	N/A	B		1	20	-	767	1908:1667	266+282	140.0 : 140.0%
9/3	Right	U	N/A	N/A	B		1	20	-	316	1818	406	77.8%
10/1	Ahead	U	N/A	N/A	-		-	-	-	1000	1973	1973	50.7%

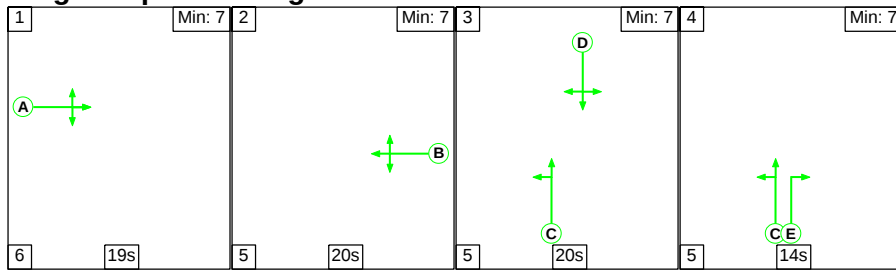
Full Input Data And Results

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Full Input Data And Results

Scenario 2: 'Ref no LTC PM' (FG2: 'Ref no LTC PM', Plan 1: 'Network Control Plan 1')

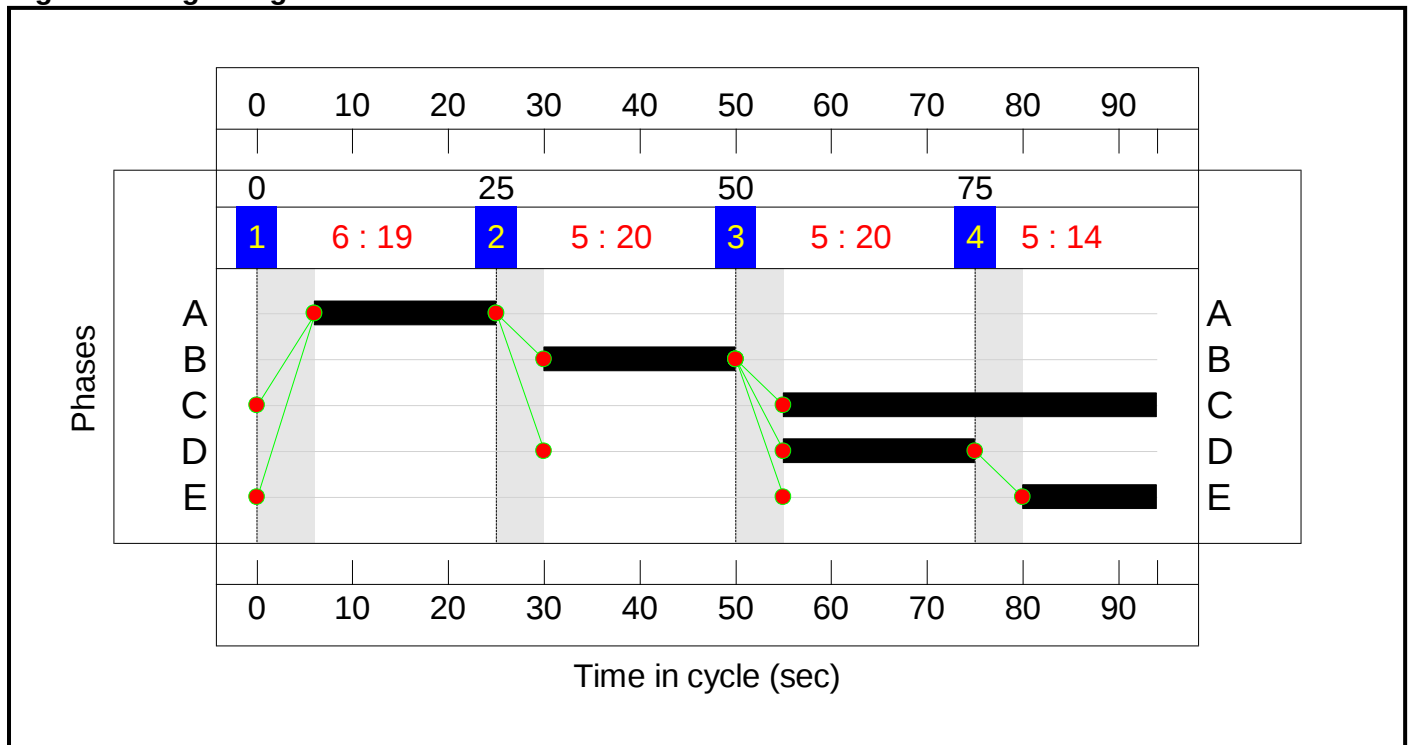
Stage Sequence Diagram



Stage Timings

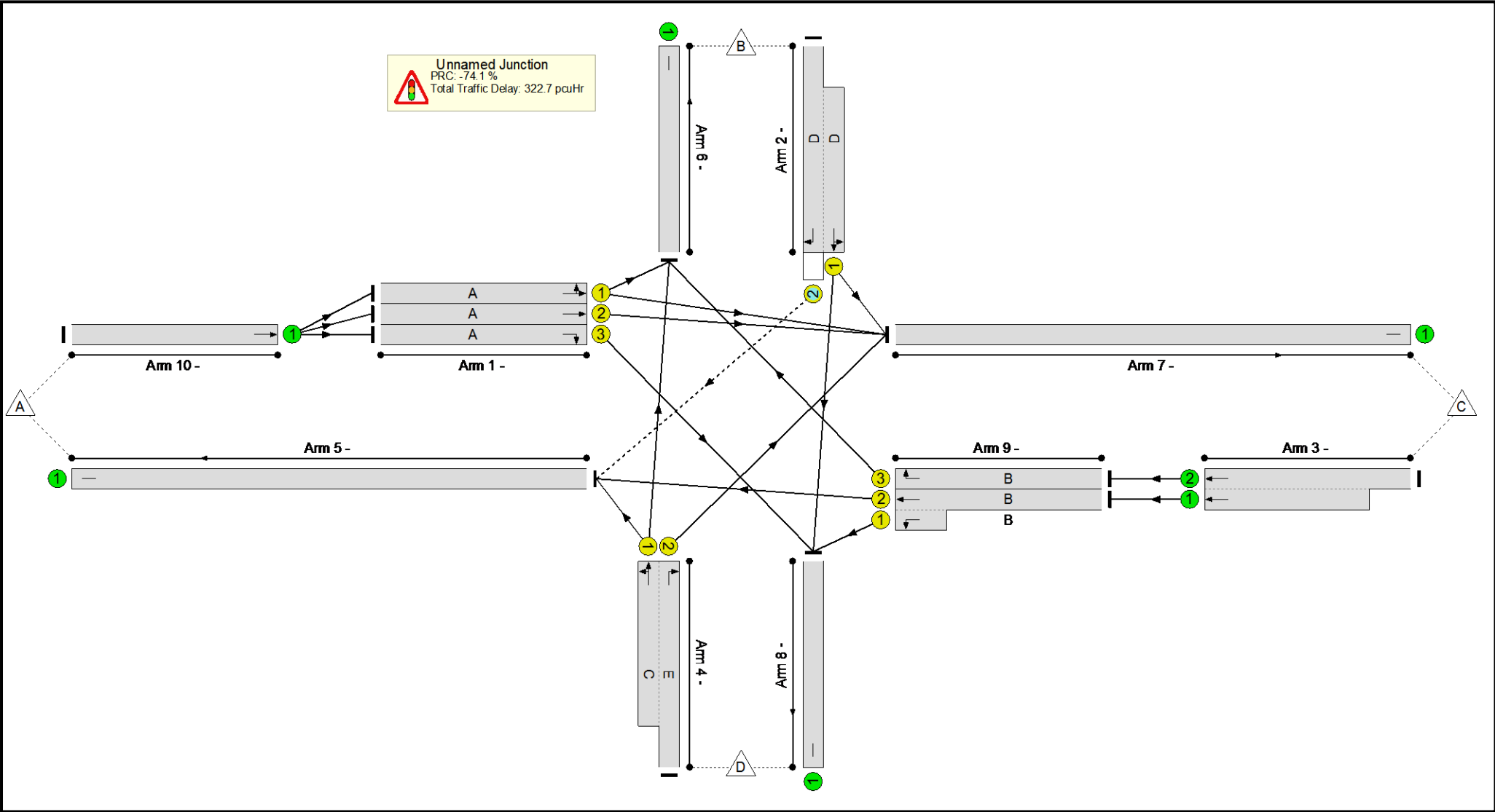
Stage	1	2	3	4
Duration	19	20	20	14
Change Point	0	25	50	75

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	-	-		-	-	-	-	-	-	156.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	156.7%
1/1	Left Ahead	U	N/A	N/A	A		1	19	-	439	1936	412	106.6%
1/2	Ahead	U	N/A	N/A	A		1	19	-	469	2062	439	106.9%
1/3	Right	U	N/A	N/A	A		1	19	-	293	1783	379	77.2%
2/2+2/1	Right Left Ahead	O+U	N/A	N/A	D		1	20	-	478	1742:1725	77+385	84.9 : 107.2%
3/2+3/1	Ahead	U	N/A	N/A	-		-	-	-	1229	1899:1894	557+1339	64.8 : 64.8%
4/2+4/1	Left Ahead Right	U	N/A	N/A	E C		1	14:39	-	1095	1761:1811	281+771	121.3 : 97.8%
5/1		U	N/A	N/A	-		-	-	-	926	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	690	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1662	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	725	Inf	Inf	0.0%
9/2+9/1	Ahead Left	U	N/A	N/A	B		1	20	-	868	1908:1667	278+276	156.7 : 156.7%
9/3	Right	U	N/A	N/A	B		1	20	-	361	1818	406	88.9%
10/1	Ahead	U	N/A	N/A	-		-	-	-	1201	1973	1973	60.9%

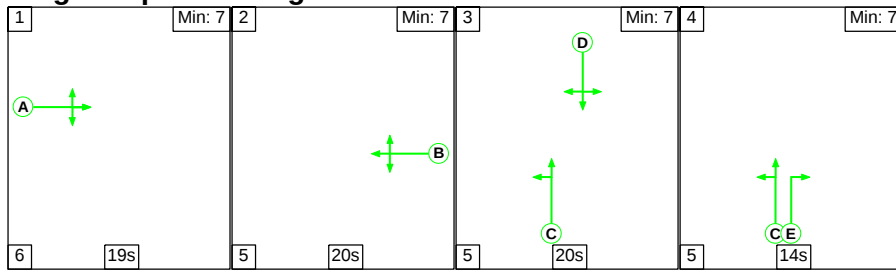
Full Input Data And Results

[illegible]

Full Input Data And Results

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

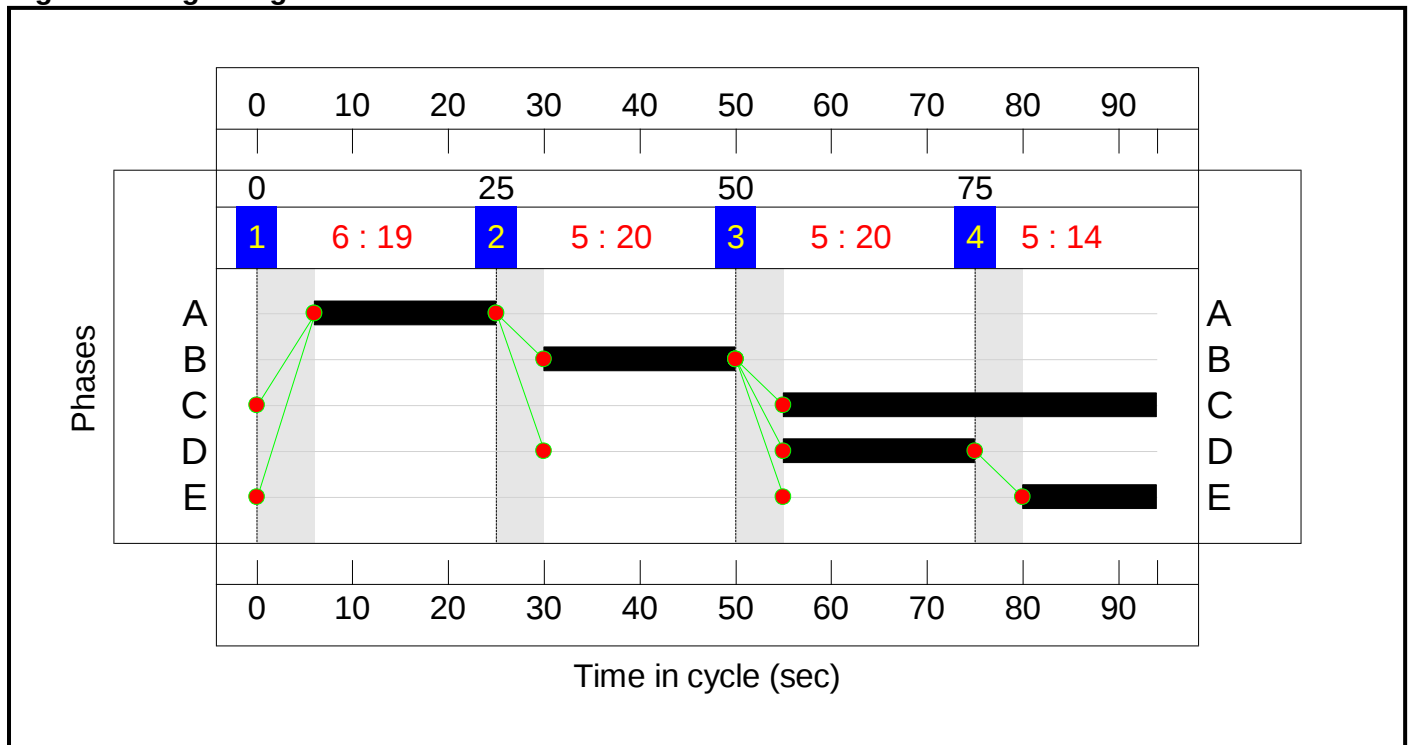
Stage Sequence Diagram



Stage Timings

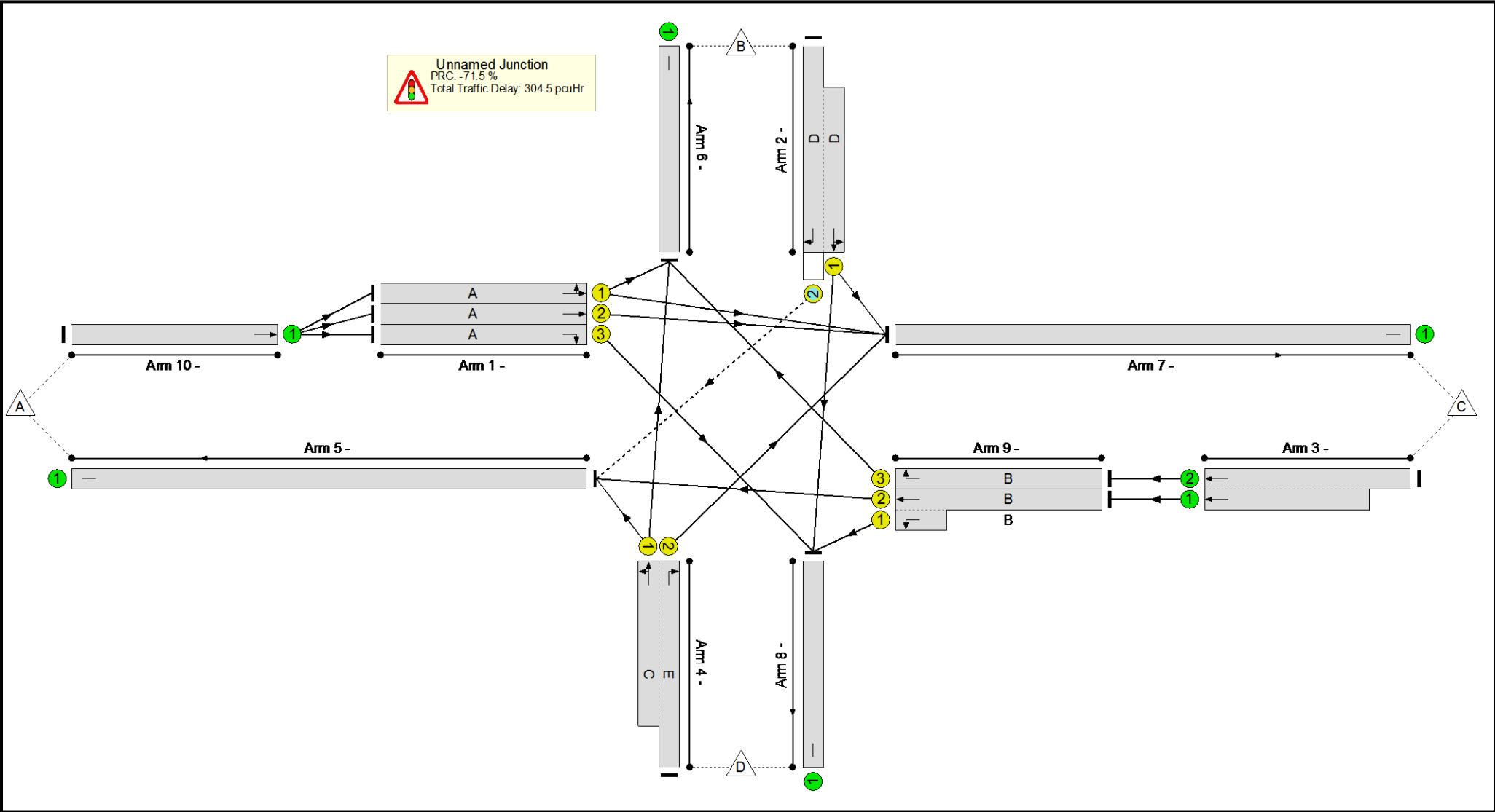
Stage	1	2	3	4
Duration	19	20	20	14
Change Point	0	25	50	75

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	-	-		-	-	-	-	-	-	154.3%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	154.3%
1/1	Left Ahead	U	N/A	N/A	A		1	19	-	336	1936	412	81.6%
1/2	Ahead	U	N/A	N/A	A		1	19	-	362	2062	439	82.5%
1/3	Right	U	N/A	N/A	A		1	19	-	300	1783	379	79.1%
2/2+2/1	Right Left Ahead	O+U	N/A	N/A	D		1	20	-	618	1742:1874	43+419	133.8 : 133.8%
3/2+3/1	Ahead	U	N/A	N/A	-		-	-	-	1190	1899:1894	548+1348	62.8 : 62.8%
4/2+4/1	Left Ahead Right	U	N/A	N/A	E C		1	14:39	-	926	1761:1851	281+788	106.0 : 79.7%
5/1		U	N/A	N/A	-		-	-	-	735	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	733	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1156	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	1108	Inf	Inf	0.0%
9/2+9/1	Ahead Left	U	N/A	N/A	B		1	20	-	846	1908:1667	284+264	154.3 : 154.3%
9/3	Right	U	N/A	N/A	B		1	20	-	344	1818	406	84.7%
10/1	Ahead	U	N/A	N/A	-		-	-	-	998	1973	1973	50.6%

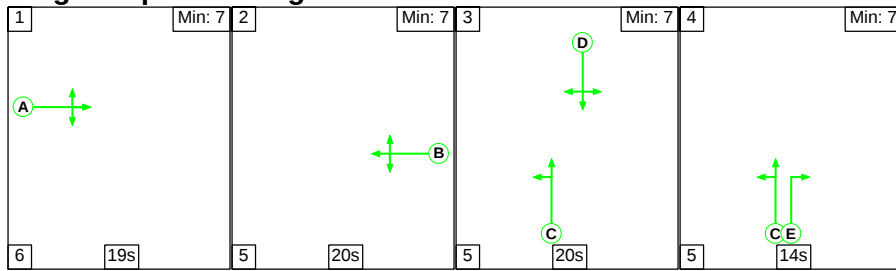
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	58	0	0	52.2	251.8	0.5	304.5	-	-	-	-
Unnamed Junction	-	-	58	0	0	52.2	251.8	0.5	304.5	-	-	-	-
1/1	336	336	-	-	-	3.3	2.1	-	5.4	57.7	8.3	2.1	10.4
1/2	362	362	-	-	-	3.6	2.2	-	5.8	57.5	8.9	2.2	11.2
1/3	300	300	-	-	-	2.9	1.8	-	4.7	56.7	7.3	1.8	9.1
2/2+2/1	618	477	58	0	0	10.9	79.9	0.5	91.3	531.7	20.5	79.9	100.4
3/2+3/1	1190	1190	-	-	-	0.0	0.8	-	0.8	2.5	0.0	0.8	0.8
4/2+4/1	926	909	-	-	-	7.8	11.6	-	19.4	75.6	14.1	11.6	25.7
5/1	581	581	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	733	733	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1099	1099	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	863	863	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	846	548	-	-	-	20.4	150.3	-	170.7	726.2	27.1	150.3	177.4
9/3	344	344	-	-	-	3.3	2.6	-	5.9	61.7	8.6	2.6	11.2
10/1	998	998	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
C1 PRC for Signalled Lanes (%): -71.5 Total Delay for Signalled Lanes (pcuHr): 303.17 Cycle Time (s): 94 PRC Over All Lanes (%): -71.5 Total Delay Over All Lanes(pcuHr): 304.52													

Full Input Data And Results

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

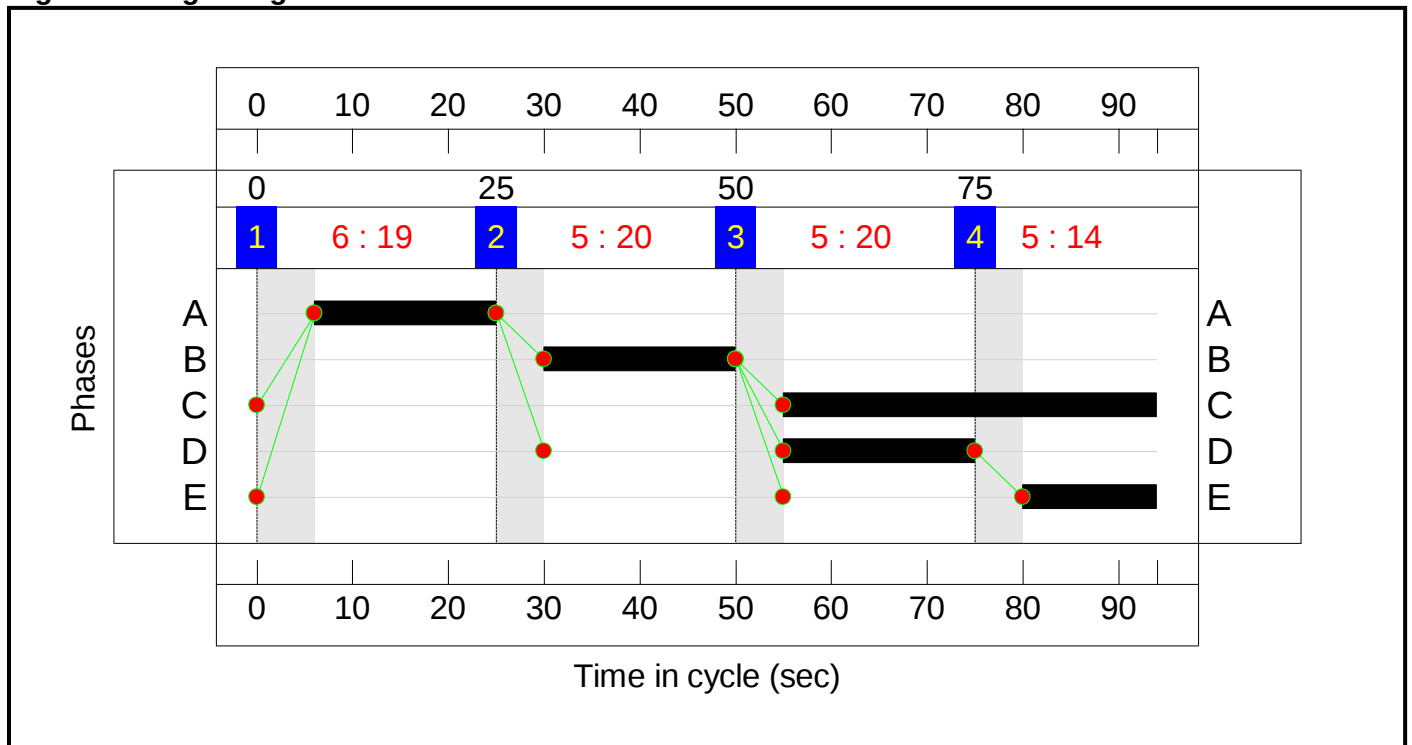
Stage Sequence Diagram



Stage Timings

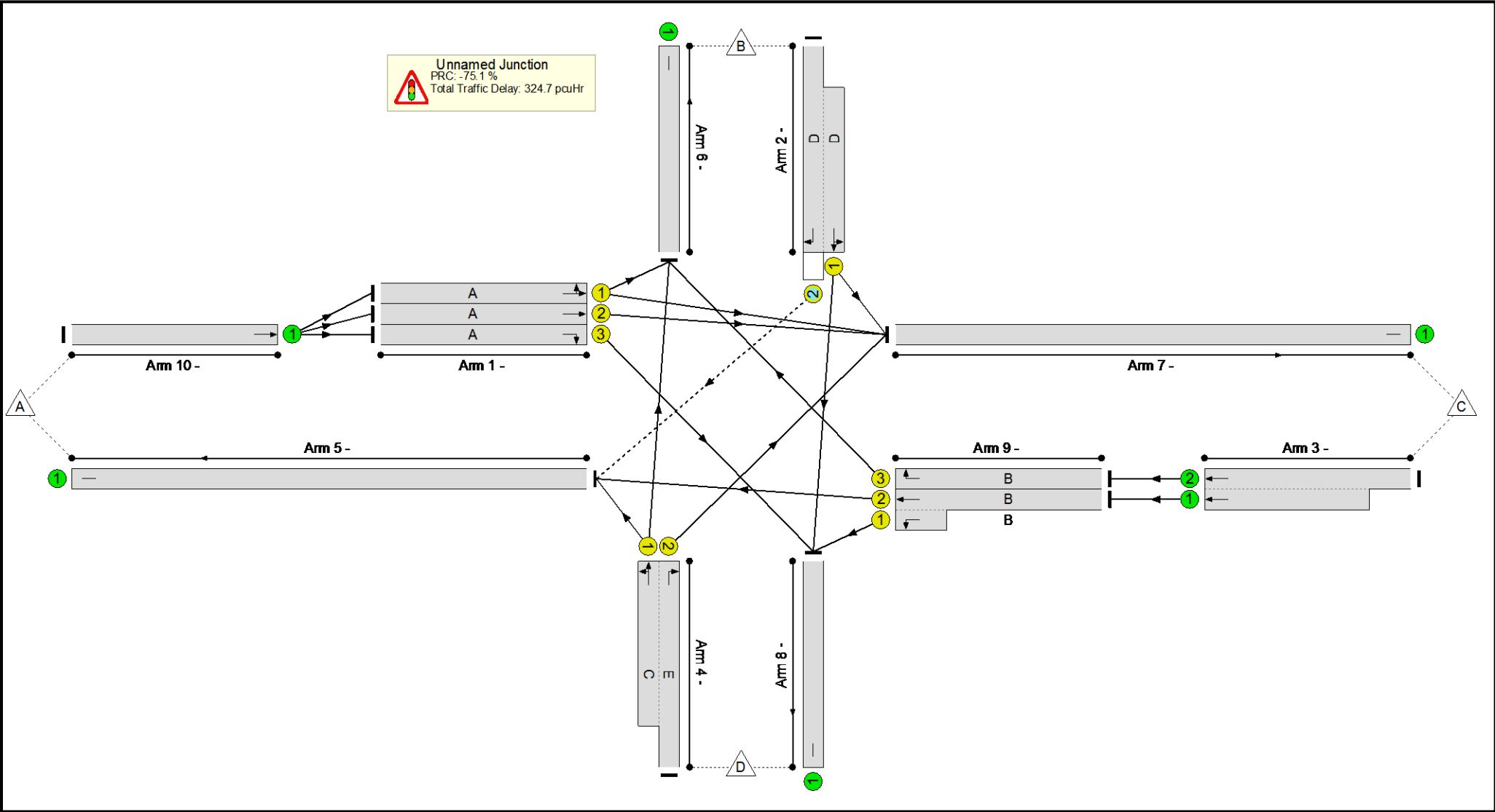
Stage	1	2	3	4
Duration	19	20	20	14
Change Point	0	25	50	75

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	-	-		-	-	-	-	-	-	157.6%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	157.6%
1/1	Left Ahead	U	N/A	N/A	A		1	19	-	439	1936	412	106.6%
1/2	Ahead	U	N/A	N/A	A		1	19	-	469	2062	439	106.9%
1/3	Right	U	N/A	N/A	A		1	19	-	284	1783	379	74.9%
2/2+2/1	Right Left Ahead	O+U	N/A	N/A	D		1	20	-	479	1742:1725	77+385	86.2 : 107.2%
3/2+3/1	Ahead	U	N/A	N/A	-		-	-	-	1240	1899:1894	564+1331	65.4 : 65.4%
4/2+4/1	Left Ahead Right	U	N/A	N/A	E C		1	14:39	-	1094	1761:1811	281+771	121.0 : 97.8%
5/1		U	N/A	N/A	-		-	-	-	935	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	695	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1661	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	714	Inf	Inf	0.0%
9/2+9/1	Ahead Left	U	N/A	N/A	B		1	20	-	871	1908:1667	280+273	157.6 : 157.6%
9/3	Right	U	N/A	N/A	B		1	20	-	369	1818	406	90.9%
10/1	Ahead	U	N/A	N/A	-		-	-	-	1192	1973	1973	60.4%

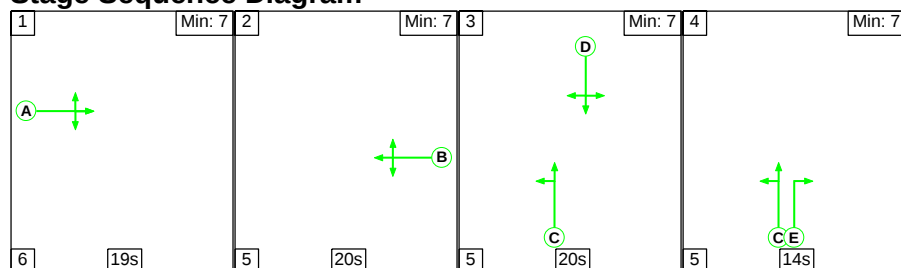
Full Input Data And Results

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	-	-	7	0	59	56.5	267.6	0.7	324.7	-	-	-	-
Unnamed Junction	-	-	7	0	59	56.5	267.6	0.7	324.7	-	-	-	-
1/1	439	412	-	-	-	5.8	19.2	-	25.0	205.3	12.2	19.2	31.4
1/2	469	439	-	-	-	6.3	20.8	-	27.0	207.5	13.0	20.8	33.8
1/3	284	284	-	-	-	2.7	1.4	-	4.2	53.0	6.9	1.4	8.4
2/2+2/1	479	451	7	0	59	5.7	21.3	0.7	27.6	207.8	11.5	21.3	32.8
3/2+3/1	1240	1240	-	-	-	0.0	0.9	-	0.9	2.7	0.0	0.9	0.9
4/2+4/1	1094	1035	-	-	-	10.9	38.5	-	49.5	162.8	19.3	38.5	57.8
5/1	774	774	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	695	695	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1517	1517	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	557	557	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	871	553	-	-	-	21.5	160.5	-	181.9	751.9	28.2	160.5	188.6
9/3	369	369	-	-	-	3.6	4.1	-	7.7	75.3	9.3	4.1	13.4
10/1	1192	1192	-	-	-	0.0	0.8	-	0.8	2.3	0.0	0.8	0.8
C1 PRC for Signalled Lanes (%): -75.1 Total Delay for Signalled Lanes (pcuHr): 323.01 Cycle Time (s): 94 PRC Over All Lanes (%): -75.1 Total Delay Over All Lanes(pcuHr): 324.71													

Full Input Data And Results

Scenario 5: 'Pref no LTC AM' (FG5: 'Pref no LTC AM', Plan 1: 'Network Control Plan 1')

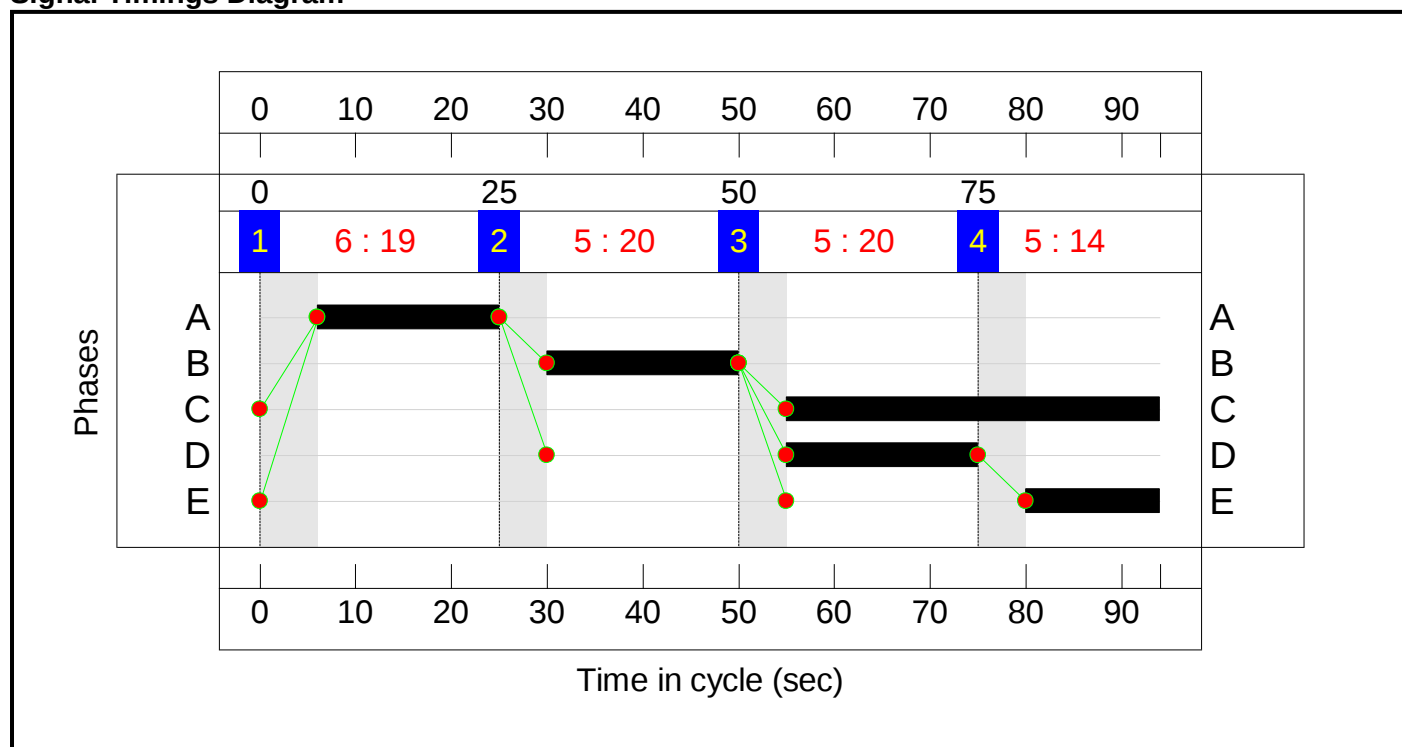
Stage Sequence Diagram



Stage Timings

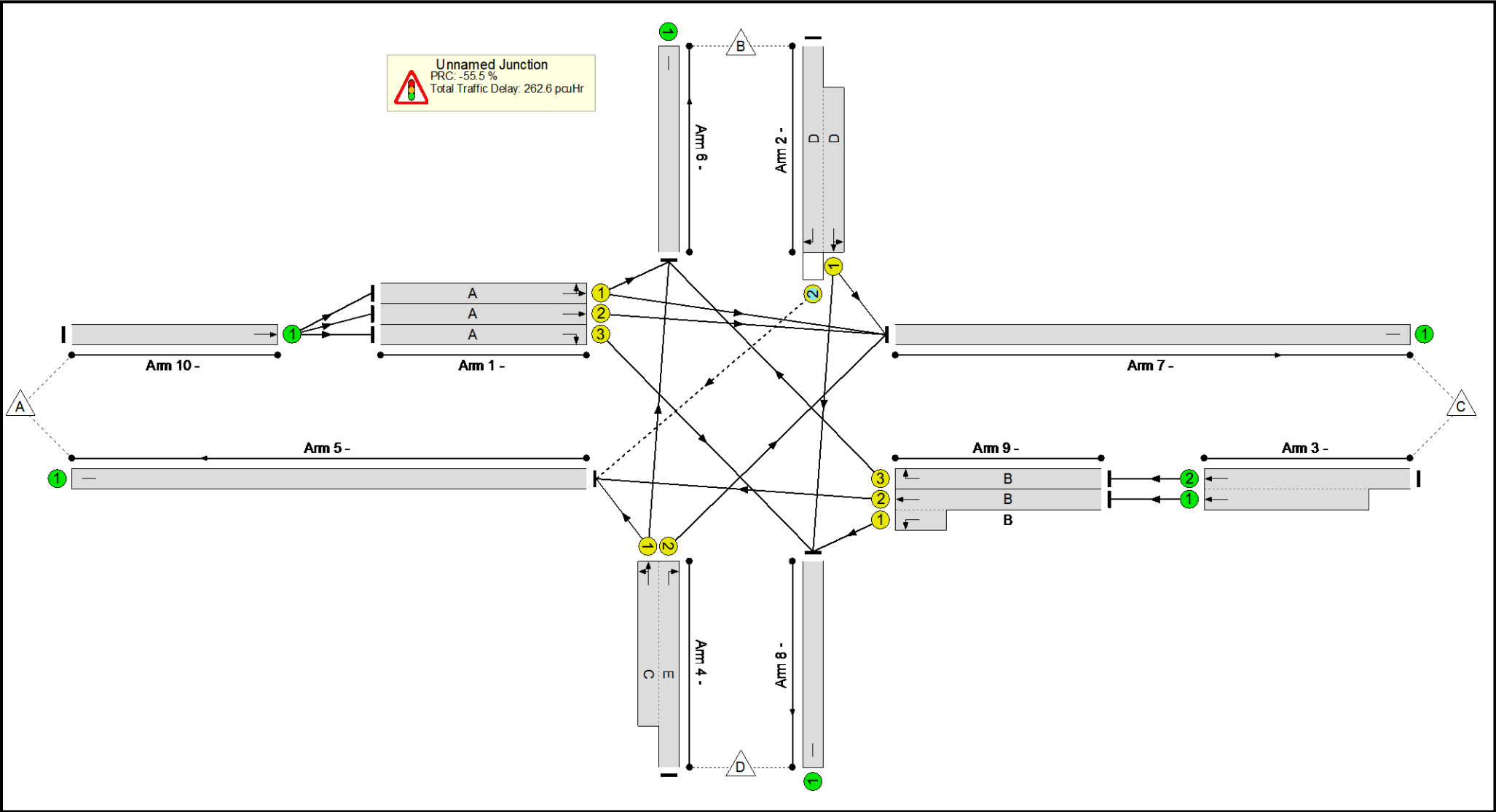
Stage	1	2	3	4
Duration	19	20	20	14
Change Point	0	25	50	75

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	-	-		-	-	-	-	-	-	140.0%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	140.0%
1/1	Left Ahead	U	N/A	N/A	A		1	19	-	340	1936	412	82.5%
1/2	Ahead	U	N/A	N/A	A		1	19	-	367	2062	439	83.7%
1/3	Right	U	N/A	N/A	A		1	19	-	312	1783	379	82.2%
2/2+2/1	Right Left Ahead	O+U	N/A	N/A	D		1	20	-	622	1742:1867	45+417	134.7 : 134.7%
3/2+3/1	Ahead	U	N/A	N/A	-		-	-	-	1077	1899:1894	558+1338	56.8 : 56.8%
4/2+4/1	Left Ahead Right	U	N/A	N/A	E C		1	14:39	-	937	1761:1859	281+791	106.0 : 80.8%
5/1		U	N/A	N/A	-		-	-	-	643	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	735	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1184	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	1093	Inf	Inf	0.0%
9/2+9/1	Ahead Left	U	N/A	N/A	B		1	20	-	760	1908:1667	259+284	140.0 : 140.0%
9/3	Right	U	N/A	N/A	B		1	20	-	317	1818	406	78.1%
10/1	Ahead	U	N/A	N/A	-		-	-	-	1019	1973	1973	51.6%

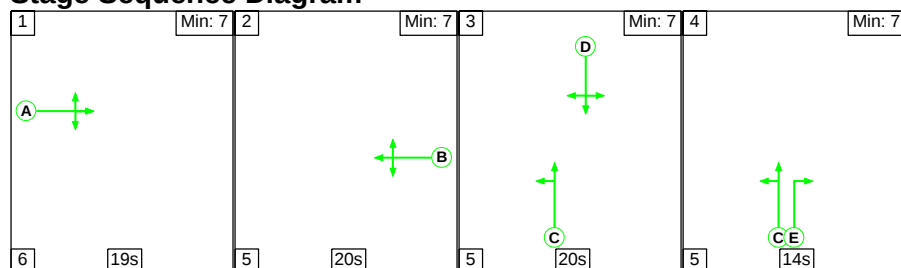
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 6: 'Pref no LTC PM' (FG6: 'Pref no LTC PM', Plan 1: 'Network Control Plan 1')

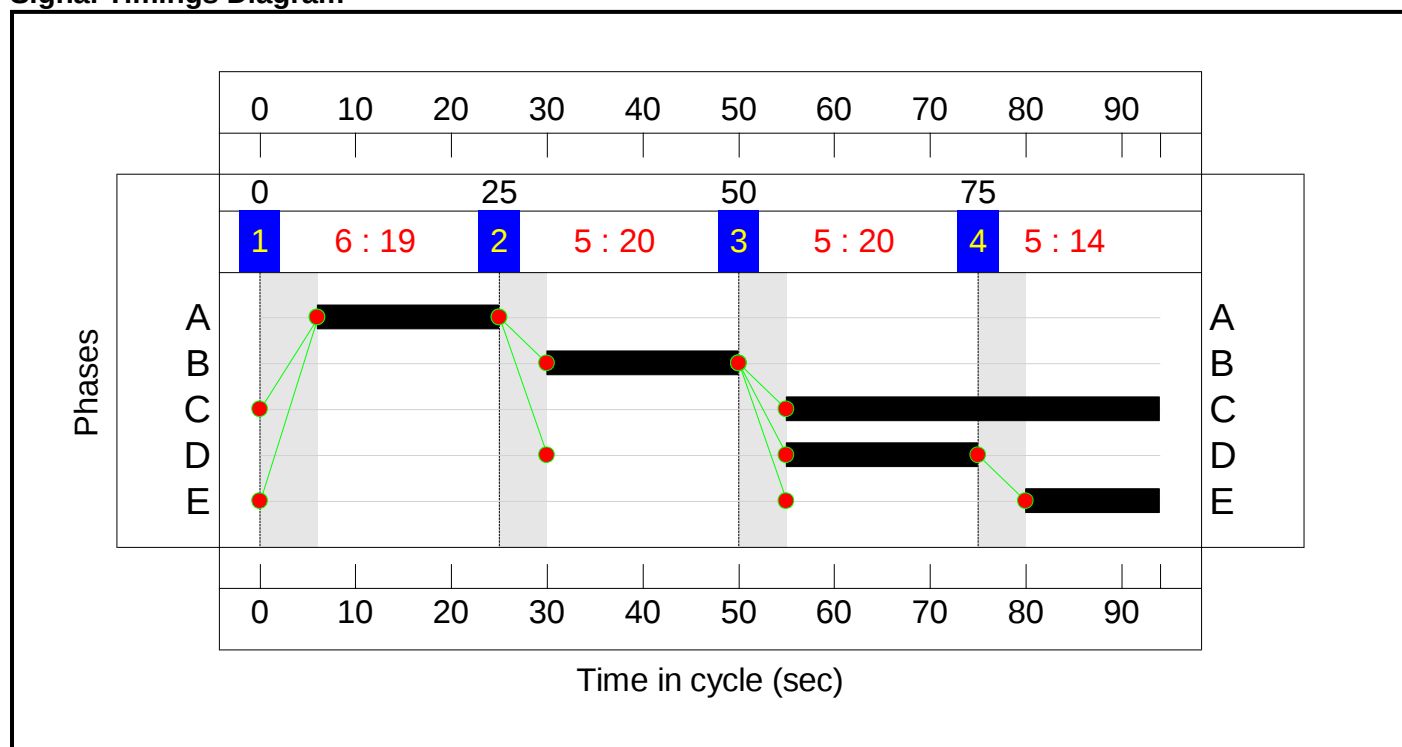
Stage Sequence Diagram



Stage Timings

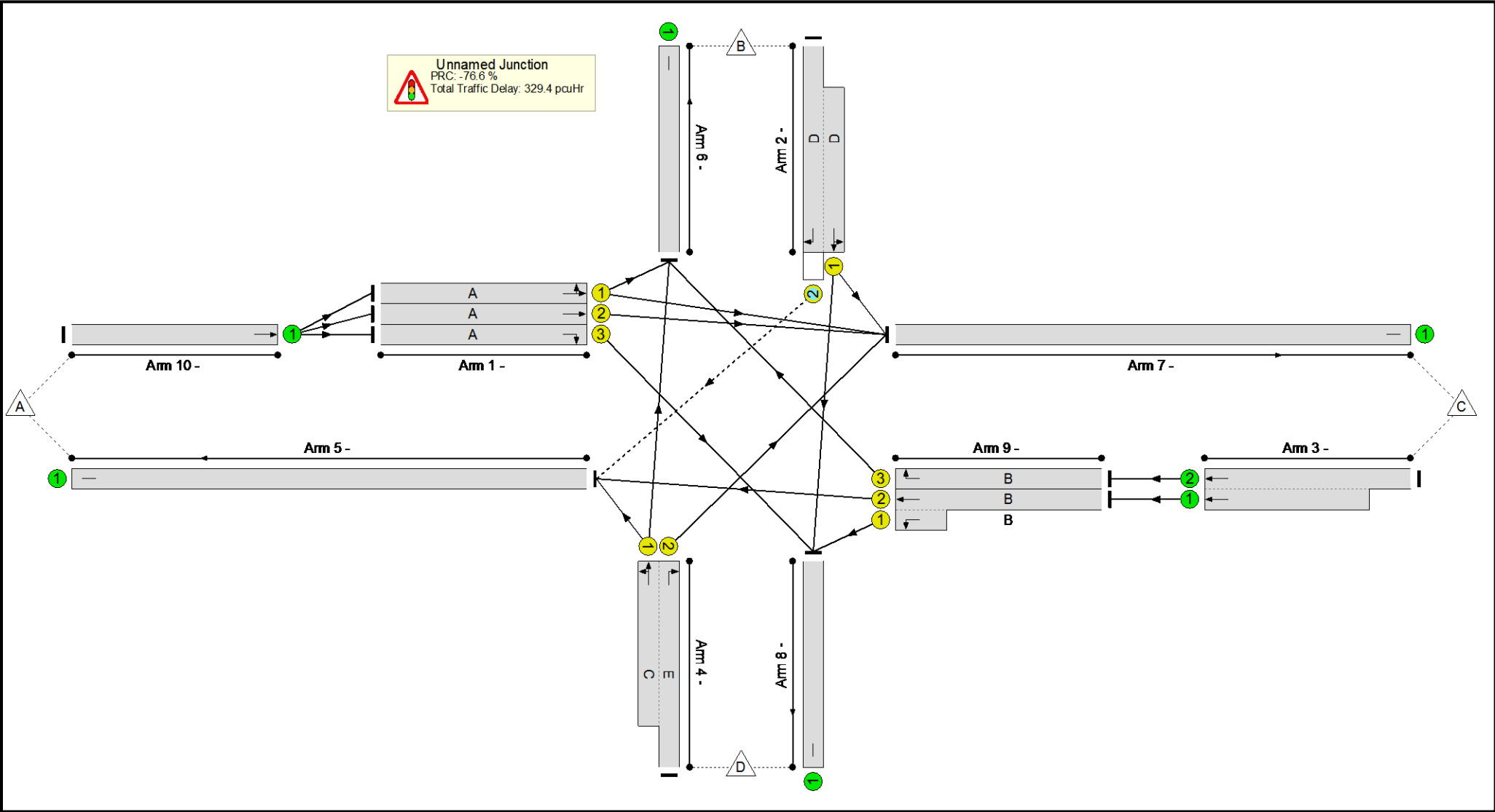
Stage	1	2	3	4
Duration	19	20	20	14
Change Point	0	25	50	75

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	-	-		-	-	-	-	-	-	158.9%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	158.9%
1/1	Left Ahead	U	N/A	N/A	A		1	19	-	436	1936	412	105.8%
1/2	Ahead	U	N/A	N/A	A		1	19	-	466	2062	439	106.2%
1/3	Right	U	N/A	N/A	A		1	19	-	333	1783	379	87.8%
2/2+2/1	Right Left Ahead	O+U	N/A	N/A	D		1	20	-	482	1742:1730	77+386	86.2 : 107.6%
3/2+3/1	Ahead	U	N/A	N/A	-		-	-	-	1258	1899:1894	570+1326	66.4 : 66.4%
4/2+4/1	Left Ahead Right	U	N/A	N/A	E C		1	14:39	-	1096	1761:1812	281+771	120.3 : 98.3%
5/1		U	N/A	N/A	-		-	-	-	933	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	711	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1645	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	782	Inf	Inf	0.0%
9/2+9/1	Ahead Left	U	N/A	N/A	B		1	20	-	880	1908:1667	278+276	158.9 : 158.9%
9/3	Right	U	N/A	N/A	B		1	20	-	378	1818	406	93.1%
10/1	Ahead	U	N/A	N/A	-		-	-	-	1235	1973	1973	62.6%

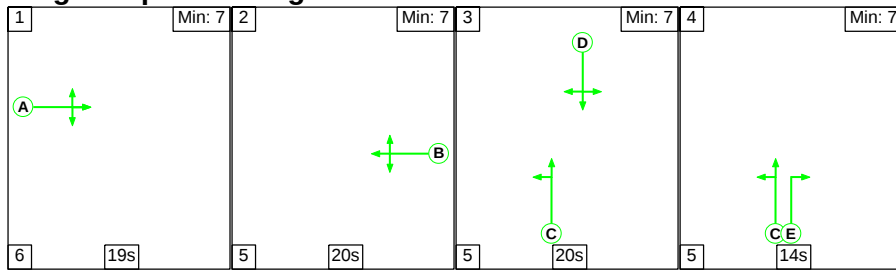
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	7	0	59	57.3	271.4	0.7	329.4	-	-	-	-
Unnamed Junction	-	-	7	0	59	57.3	271.4	0.7	329.4	-	-	-	-
1/1	436	412	-	-	-	5.6	18.1	-	23.7	195.6	12.0	18.1	30.1
1/2	466	439	-	-	-	6.1	19.6	-	25.7	198.3	12.9	19.6	32.5
1/3	333	333	-	-	-	3.3	3.2	-	6.5	70.0	8.3	3.2	11.5
2/2+2/1	482	452	7	0	59	5.8	22.0	0.7	28.4	212.3	11.6	22.0	33.6
3/2+3/1	1258	1258	-	-	-	0.0	1.0	-	1.0	2.8	0.0	1.0	1.0
4/2+4/1	1096	1039	-	-	-	10.9	37.4	-	48.3	158.5	19.4	37.4	56.7
5/1	769	769	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	711	711	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1508	1508	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	619	619	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2+9/1	880	554	-	-	-	21.9	164.4	-	186.3	762.2	28.6	164.4	193.0
9/3	378	378	-	-	-	3.8	5.0	-	8.7	83.1	9.7	5.0	14.6
10/1	1235	1235	-	-	-	0.0	0.8	-	0.8	2.4	0.0	0.8	0.8
C1 PRC for Signalled Lanes (%): -76.6 Total Delay for Signalled Lanes (pcuHr): 327.56 Cycle Time (s): 94 PRC Over All Lanes (%): -76.6 Total Delay Over All Lanes(pcuHr): 329.38													

Full Input Data And Results

Scenario 7: 'Pref LTC AM' (FG7: 'Pref LTC AM', Plan 1: 'Network Control Plan 1')

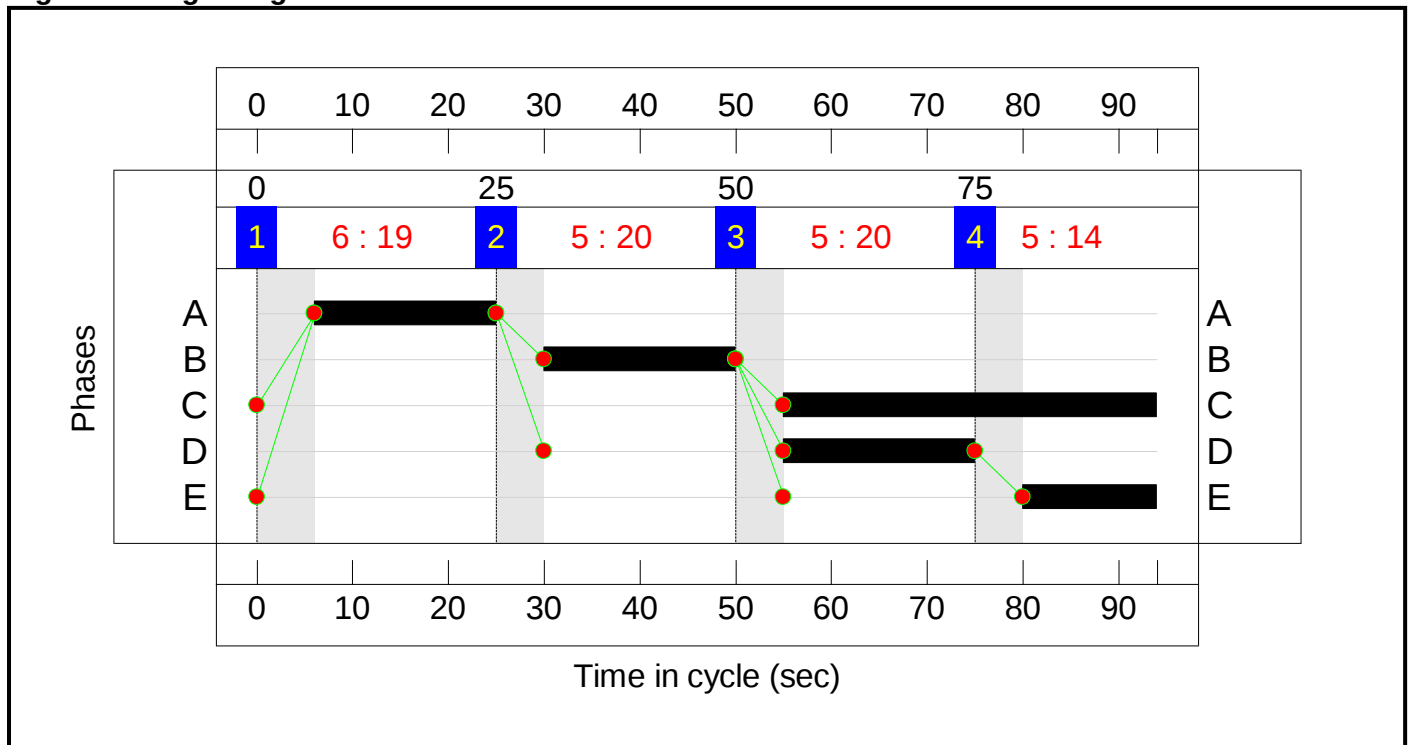
Stage Sequence Diagram



Stage Timings

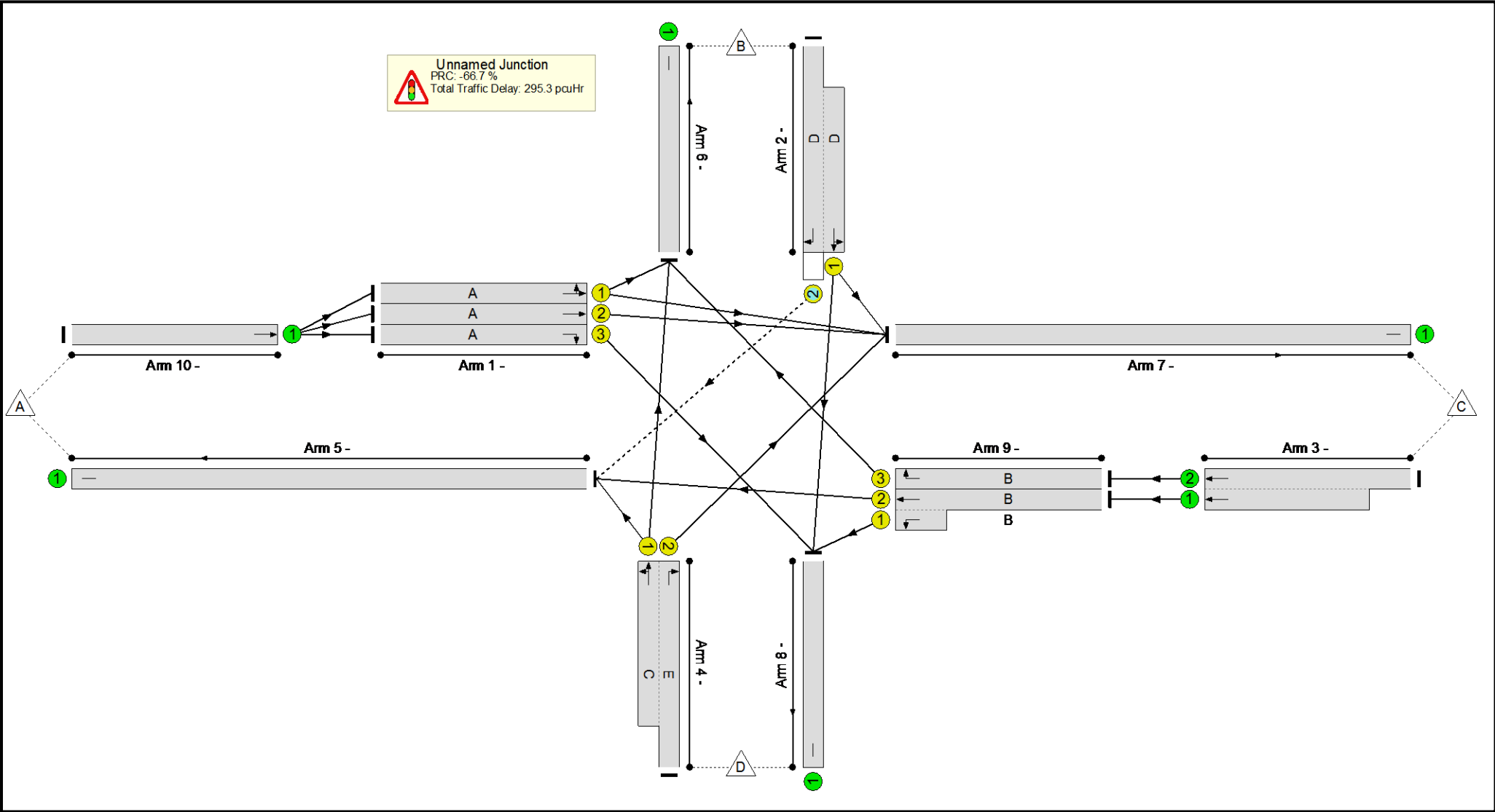
Stage	1	2	3	4
Duration	19	20	20	14
Change Point	0	25	50	75

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	-	-		-	-	-	-	-	-	150.0%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	150.0%
1/1	Left Ahead	U	N/A	N/A	A		1	19	-	344	1936	412	83.5%
1/2	Ahead	U	N/A	N/A	A		1	19	-	370	2062	439	84.3%
1/3	Right	U	N/A	N/A	A		1	19	-	298	1783	379	78.6%
2/2+2/1	Right Left Ahead	O+U	N/A	N/A	D		1	20	-	623	1742:1872	45+418	134.6 : 134.6%
3/2+3/1	Ahead	U	N/A	N/A	-		-	-	-	1170	1899:1894	552+1343	61.7 : 61.7%
4/2+4/1	Left Ahead Right	U	N/A	N/A	E C		1	14:39	-	916	1761:1850	281+787	106.0 : 78.5%
5/1		U	N/A	N/A	-		-	-	-	719	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	720	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1177	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	1105	Inf	Inf	0.0%
9/2+9/1	Ahead Left	U	N/A	N/A	B		1	20	-	829	1908:1667	280+273	150.0 : 150.0%
9/3	Right	U	N/A	N/A	B		1	20	-	341	1818	406	84.0%
10/1	Ahead	U	N/A	N/A	-		-	-	-	1012	1973	1973	51.3%

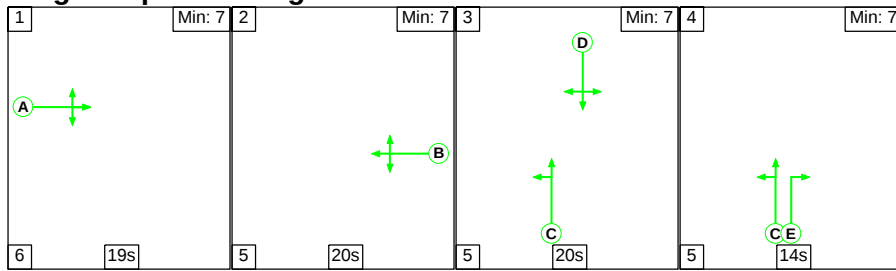
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 8: 'Pref LTC PM' (FG8: 'Pref LTC PM', Plan 1: 'Network Control Plan 1')

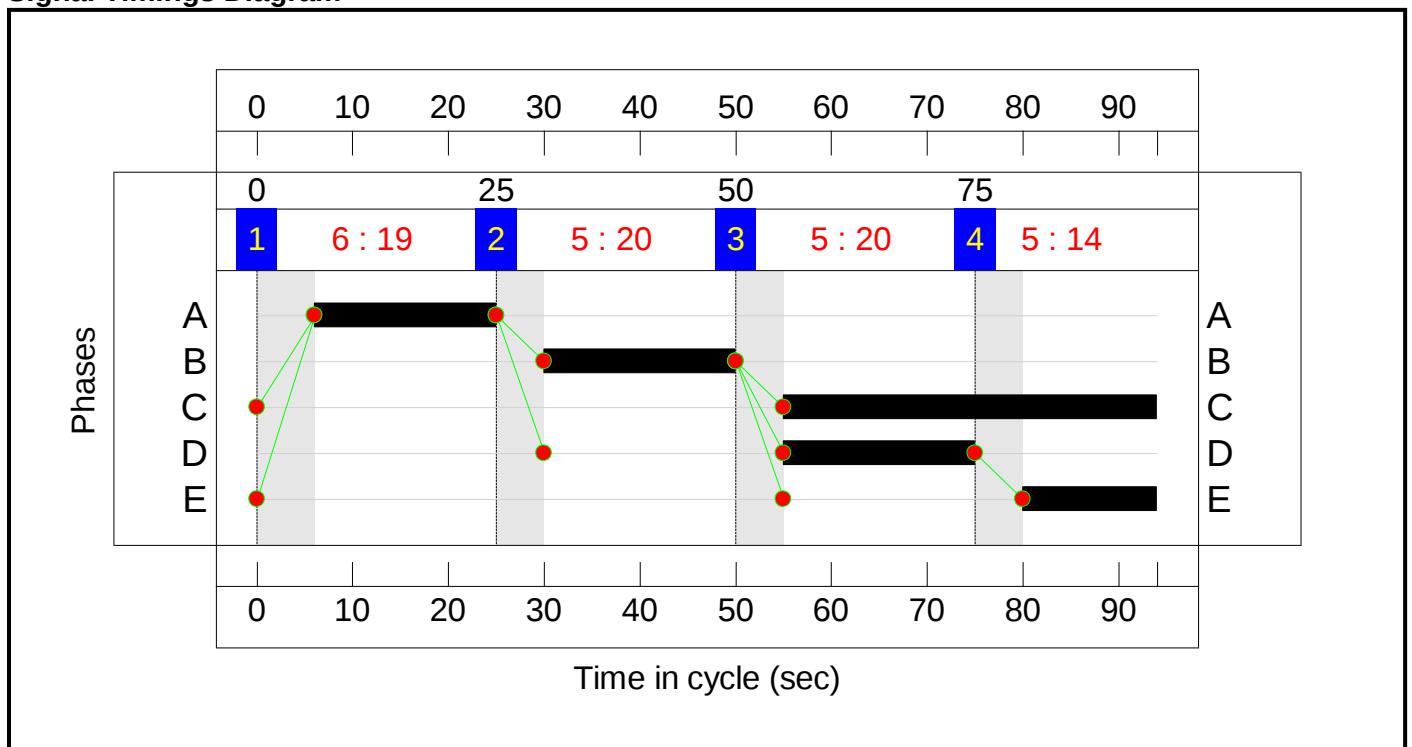
Stage Sequence Diagram



Stage Timings

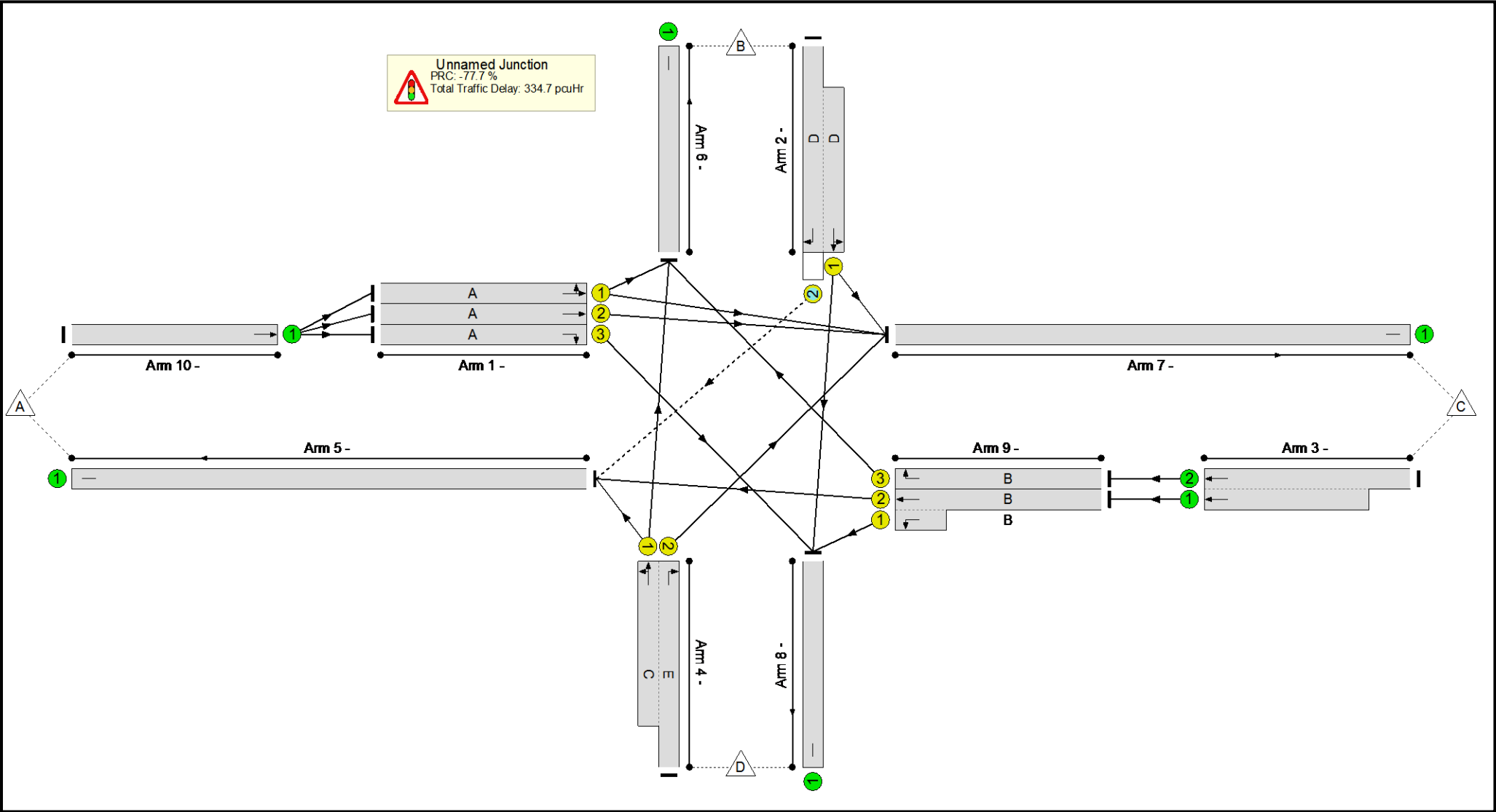
Stage	1	2	3	4
Duration	19	20	20	14
Change Point	0	25	50	75

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	-	-		-	-	-	-	-	-	160.0%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	160.0%
1/1	Left Ahead	U	N/A	N/A	A		1	19	-	434	1936	412	105.4%
1/2	Ahead	U	N/A	N/A	A		1	19	-	464	2062	439	105.8%
1/3	Right	U	N/A	N/A	A		1	19	-	357	1783	379	94.1%
2/2+2/1	Right Left Ahead	O+U	N/A	N/A	D		1	20	-	479	1742:1730	77+386	84.9 : 107.1%
3/2+3/1	Ahead	U	N/A	N/A	-		-	-	-	1273	1899:1894	579+1316	67.2 : 67.2%
4/2+4/1	Left Ahead Right	U	N/A	N/A	E C		1	14:39	-	1074	1761:1807	281+769	119.2 : 96.1%
5/1		U	N/A	N/A	-		-	-	-	945	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	696	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1638	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	802	Inf	Inf	0.0%
9/2+9/1	Ahead Left	U	N/A	N/A	B		1	20	-	884	1908:1667	280+273	160.0 : 160.0%
9/3	Right	U	N/A	N/A	B		1	20	-	389	1818	406	95.8%
10/1	Ahead	U	N/A	N/A	-		-	-	-	1255	1973	1973	63.6%

Full Input Data And Results

[illegible]

Appendix G

A225 Lowfield Street / B2174 Princes Road

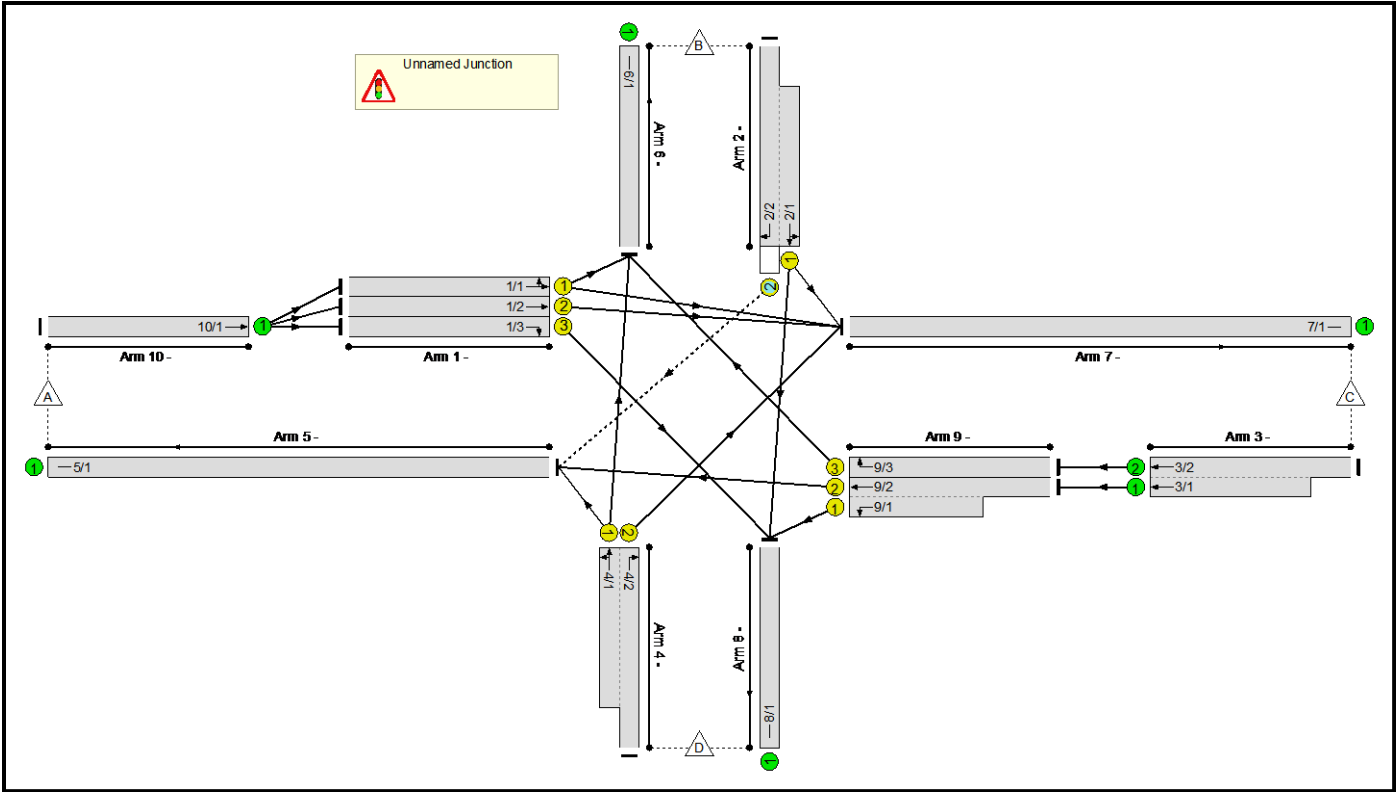
Mitigation Layout Modelling Output

Full Input Data And Results

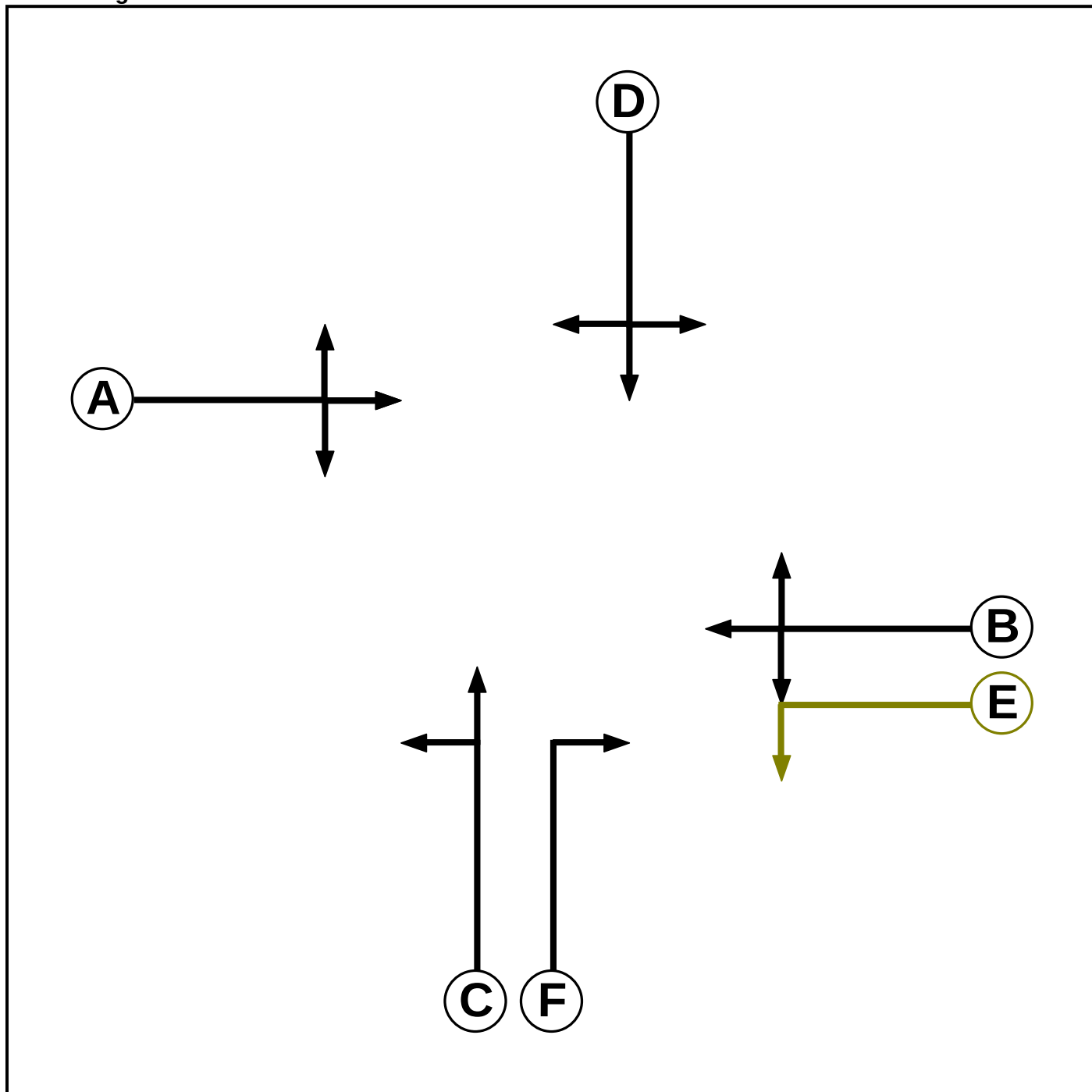
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	13. A225 Lowfield Street _ B2174 Princes Road - Mitigation v02.lsg3x
Author:	
Company:	
Address:	

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	Filter	B	4	0
F	Traffic		7	7

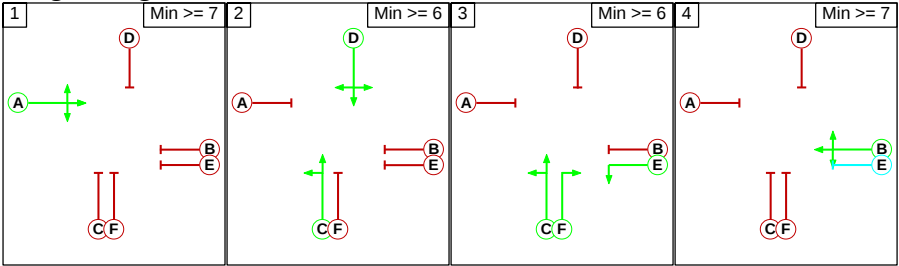
Phase Intergreens Matrix

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

Phases in Stage

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

Stage Diagram



Phase Delays

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

Prohibited Stage Change

From Stage	To Stage				
	1	2	3	4	
	1		6	6	6
	2	6		6	6
	3	X	X		5
4	6	5	6		

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
2/2	5/1 (Right)	1439	0	4/1	1.09	All	2.00	-	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1	U	A	2	3	8.7	Geom	-	3.21	0.00	Y	Arm 6 Left	13.00
											Arm 7 Ahead	Inf
1/2	U	A	2	3	8.7	Geom	-	3.07	0.00	N	Arm 7 Ahead	Inf
1/3	U	A	2	3	8.7	Geom	-	3.35	0.00	Y	Arm 8 Right	16.00
2/1	U	D	2	3	20.0	Geom	-	3.26	0.00	Y	Arm 7 Left	12.00
											Arm 8 Ahead	Inf
2/2	O	D	2	3	60.0	Geom	-	3.28	0.00	Y	Arm 5 Right	13.00
3/1	U		2	3	23.7	Geom	-	2.79	0.00	Y	Arm 9 Ahead	Inf
3/2	U		2	3	60.0	Geom	-	2.84	0.00	Y	Arm 9 Ahead	Inf
4/1	U	C	2	3	22.6	Geom	-	3.24	0.00	Y	Arm 5 Left	12.00
											Arm 6 Ahead	Inf
4/2	U	F	2	3	60.0	Geom	-	3.22	0.00	Y	Arm 7 Right	15.00
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	-	-	-	-	-	-
9/1	U	B E	2	3	10.0	Geom	-	2.79	0.00	Y	Arm 8 Left	11.00
9/2	U	B	2	3	5.4	Geom	-	2.93	0.00	Y	Arm 5 Ahead	Inf
9/3	U	B	2	3	5.4	Geom	-	3.12	0.00	Y	Arm 6 Right	25.00
10/1	U		2	3	60.0	Geom	-	3.58	0.00	Y	Arm 1 Ahead	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Ref no LTC AM'	08:00	09:00	01:00	
2: 'Ref no LTC PM'	17:00	18:00	01:00	
3: 'Ref LTC AM'	08:00	09:00	01:00	
4: 'Ref LTC PM'	17:00	18:00	01:00	
5: 'Pref no LTC AM'	08:00	09:00	01:00	
6: 'Pref no LTC PM'	17:00	18:00	01:00	
7: 'Pref LTC AM'	08:00	09:00	01:00	
8: 'Pref LTC PM'	17:00	18:00	01:00	

Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	0	689	311	1000
	B	56	0	187	360	603
	C	372	316	0	395	1083
	D	213	416	297	0	926
	Tot.	641	732	1173	1066	3612

Traffic Lane Flows

Lane	Scenario 1: Ref no LTC AM
Junction: Unnamed Junction	
1/1	333
1/2	356
1/3	311
2/1 (short)	547
2/2 (with short)	603(In) 56(Out)
3/1 (short)	767
3/2 (with short)	1083(In) 316(Out)
4/1 (short)	629
4/2 (with short)	926(In) 297(Out)
5/1	641
6/1	732
7/1	1173
8/1	1066
9/1 (short)	395
9/2 (with short)	767(In) 372(Out)
9/3	316
10/1	1000

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.21	0.00	Y	Arm 6 Left	13.00	0.0 %	1936	1936
				Arm 7 Ahead	Inf	100.0 %		
1/2	3.07	0.00	N	Arm 7 Ahead	Inf	100.0 %	2062	2062
1/3	3.35	0.00	Y	Arm 8 Right	16.00	100.0 %	1783	1783
2/1	3.26	0.00	Y	Arm 7 Left	12.00	34.2 %	1861	1861
				Arm 8 Ahead	Inf	65.8 %		
2/2	3.28	0.00	Y	Arm 5 Right	13.00	100.0 %	1742	1742
3/1	2.79	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1894	1894
3/2	2.84	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1899	1899
4/1	3.24	0.00	Y	Arm 5 Left	12.00	33.9 %	1860	1860
				Arm 6 Ahead	Inf	66.1 %		
4/2	3.22	0.00	Y	Arm 7 Right	15.00	100.0 %	1761	1761
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
9/1	2.79	0.00	Y	Arm 8 Left	11.00	100.0 %	1667	1667
9/2	2.93	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1908	1908
9/3	3.12	0.00	Y	Arm 6 Right	25.00	100.0 %	1818	1818
10/1	3.58	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1973	1973

Scenario 2: 'Ref no LTC PM' (FG2: 'Ref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	908	293	1201
	B	65	0	413	0	478
	C	436	361	0	432	1229
	D	425	329	341	0	1095
	Tot.	926	690	1662	725	4003

Traffic Lane Flows

Lane	Scenario 2: Ref no LTC PM
Junction: Unnamed Junction	
1/1	440
1/2	468
1/3	293
2/1 (short)	413
2/2 (with short)	478(In) 65(Out)
3/1 (short)	868
3/2 (with short)	1229(In) 361(Out)
4/1 (short)	754
4/2 (with short)	1095(In) 341(Out)
5/1	926
6/1	690
7/1	1662
8/1	725
9/1 (short)	432
9/2 (with short)	868(In) 436(Out)
9/3	361
10/1	1201

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.21	0.00	Y	Arm 6 Left	13.00	0.0 %	1936	1936
				Arm 7 Ahead	Inf	100.0 %		
1/2	3.07	0.00	N	Arm 7 Ahead	Inf	100.0 %	2062	2062
1/3	3.35	0.00	Y	Arm 8 Right	16.00	100.0 %	1783	1783
2/1	3.26	0.00	Y	Arm 7 Left	12.00	100.0 %	1725	1725
				Arm 8 Ahead	Inf	0.0 %		
2/2	3.28	0.00	Y	Arm 5 Right	13.00	100.0 %	1742	1742
3/1	2.79	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1894	1894
3/2	2.84	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1899	1899
4/1	3.24	0.00	Y	Arm 5 Left	12.00	56.4 %	1811	1811
				Arm 6 Ahead	Inf	43.6 %		
4/2	3.22	0.00	Y	Arm 7 Right	15.00	100.0 %	1761	1761
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
9/1	2.79	0.00	Y	Arm 8 Left	11.00	100.0 %	1667	1667
9/2	2.93	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1908	1908
9/3	3.12	0.00	Y	Arm 6 Right	25.00	100.0 %	1818	1818
10/1	3.58	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1973	1973

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

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	698	300	998
	B	58	0	160	400	618
	C	438	344	0	408	1190
	D	239	389	298	0	926
	Tot.	735	733	1156	1108	3732

Traffic Lane Flows

Lane	Scenario 3: Ref LTC AM
Junction: Unnamed Junction	
1/1	338
1/2	360
1/3	300
2/1 (short)	560
2/2 (with short)	618(In) 58(Out)
3/1 (short)	846
3/2 (with short)	1190(In) 344(Out)
4/1 (short)	628
4/2 (with short)	926(In) 298(Out)
5/1	735
6/1	733
7/1	1156
8/1	1108
9/1 (short)	408
9/2 (with short)	846(In) 438(Out)
9/3	344
10/1	998

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.21	0.00	Y	Arm 6 Left	13.00	0.0 %	1936	1936
				Arm 7 Ahead	Inf	100.0 %		
1/2	3.07	0.00	N	Arm 7 Ahead	Inf	100.0 %	2062	2062
1/3	3.35	0.00	Y	Arm 8 Right	16.00	100.0 %	1783	1783
2/1	3.26	0.00	Y	Arm 7 Left	12.00	28.6 %	1874	1874
				Arm 8 Ahead	Inf	71.4 %		
2/2	3.28	0.00	Y	Arm 5 Right	13.00	100.0 %	1742	1742
3/1	2.79	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1894	1894
3/2	2.84	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1899	1899
4/1	3.24	0.00	Y	Arm 5 Left	12.00	38.1 %	1851	1851
				Arm 6 Ahead	Inf	61.9 %		
4/2	3.22	0.00	Y	Arm 7 Right	15.00	100.0 %	1761	1761
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
9/1	2.79	0.00	Y	Arm 8 Left	11.00	100.0 %	1667	1667
9/2	2.93	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1908	1908
9/3	3.12	0.00	Y	Arm 6 Right	25.00	100.0 %	1818	1818
10/1	3.58	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1973	1973

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

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	908	284	1192
	B	66	0	413	0	479
	C	441	369	0	430	1240
	D	428	326	340	0	1094
	Tot.	935	695	1661	714	4005

Traffic Lane Flows

Lane	Scenario 4: Ref LTC PM
Junction: Unnamed Junction	
1/1	440
1/2	468
1/3	284
2/1 (short)	413
2/2 (with short)	479(In) 66(Out)
3/1 (short)	871
3/2 (with short)	1240(In) 369(Out)
4/1 (short)	754
4/2 (with short)	1094(In) 340(Out)
5/1	935
6/1	695
7/1	1661
8/1	714
9/1 (short)	430
9/2 (with short)	871(In) 441(Out)
9/3	369
10/1	1192

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.21	0.00	Y	Arm 6 Left	13.00	0.0 %	1936	1936
				Arm 7 Ahead	Inf	100.0 %		
1/2	3.07	0.00	N	Arm 7 Ahead	Inf	100.0 %	2062	2062
1/3	3.35	0.00	Y	Arm 8 Right	16.00	100.0 %	1783	1783
2/1	3.26	0.00	Y	Arm 7 Left	12.00	100.0 %	1725	1725
				Arm 8 Ahead	Inf	0.0 %		
2/2	3.28	0.00	Y	Arm 5 Right	13.00	100.0 %	1742	1742
3/1	2.79	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1894	1894
3/2	2.84	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1899	1899
4/1	3.24	0.00	Y	Arm 5 Left	12.00	56.8 %	1811	1811
				Arm 6 Ahead	Inf	43.2 %		
4/2	3.22	0.00	Y	Arm 7 Right	15.00	100.0 %	1761	1761
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
9/1	2.79	0.00	Y	Arm 8 Left	11.00	100.0 %	1667	1667
9/2	2.93	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1908	1908
9/3	3.12	0.00	Y	Arm 6 Right	25.00	100.0 %	1818	1818
10/1	3.58	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1973	1973

Scenario 5: 'Pref no LTC AM' (FG5: 'Pref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	707	312	1019
	B	60	0	179	383	622
	C	362	317	0	398	1077
	D	221	418	298	0	937
	Tot.	643	735	1184	1093	3655

Traffic Lane Flows

Lane	Scenario 5: Pref no LTC AM
Junction: Unnamed Junction	
1/1	342
1/2	365
1/3	312
2/1 (short)	562
2/2 (with short)	622(In) 60(Out)
3/1 (short)	760
3/2 (with short)	1077(In) 317(Out)
4/1 (short)	639
4/2 (with short)	937(In) 298(Out)
5/1	643
6/1	735
7/1	1184
8/1	1093
9/1 (short)	398
9/2 (with short)	760(In) 362(Out)
9/3	317
10/1	1019

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.21	0.00	Y	Arm 6 Left	13.00	0.0 %	1936	1936
				Arm 7 Ahead	Inf	100.0 %		
1/2	3.07	0.00	N	Arm 7 Ahead	Inf	100.0 %	2062	2062
1/3	3.35	0.00	Y	Arm 8 Right	16.00	100.0 %	1783	1783
2/1	3.26	0.00	Y	Arm 7 Left	12.00	31.9 %	1867	1867
				Arm 8 Ahead	Inf	68.1 %		
2/2	3.28	0.00	Y	Arm 5 Right	13.00	100.0 %	1742	1742
3/1	2.79	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1894	1894
3/2	2.84	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1899	1899
4/1	3.24	0.00	Y	Arm 5 Left	12.00	34.6 %	1859	1859
				Arm 6 Ahead	Inf	65.4 %		
4/2	3.22	0.00	Y	Arm 7 Right	15.00	100.0 %	1761	1761
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
9/1	2.79	0.00	Y	Arm 8 Left	11.00	100.0 %	1667	1667
9/2	2.93	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1908	1908
9/3	3.12	0.00	Y	Arm 6 Right	25.00	100.0 %	1818	1818
10/1	3.58	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1973	1973

Scenario 6: 'Pref no LTC PM' (FG6: 'Pref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	902	333	1235
	B	66	0	405	11	482
	C	442	378	0	438	1258
	D	425	333	338	0	1096
	Tot.	933	711	1645	782	4071

Traffic Lane Flows

Lane	Scenario 6: Pref no LTC PM
Junction: Unnamed Junction	
1/1	437
1/2	465
1/3	333
2/1 (short)	416
2/2 (with short)	482(In) 66(Out)
3/1 (short)	880
3/2 (with short)	1258(In) 378(Out)
4/1 (short)	758
4/2 (with short)	1096(In) 338(Out)
5/1	933
6/1	711
7/1	1645
8/1	782
9/1 (short)	438
9/2 (with short)	880(In) 442(Out)
9/3	378
10/1	1235

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.21	0.00	Y	Arm 6 Left	13.00	0.0 %	1936	1936
				Arm 7 Ahead	Inf	100.0 %		
1/2	3.07	0.00	N	Arm 7 Ahead	Inf	100.0 %	2062	2062
1/3	3.35	0.00	Y	Arm 8 Right	16.00	100.0 %	1783	1783
2/1	3.26	0.00	Y	Arm 7 Left	12.00	97.4 %	1730	1730
				Arm 8 Ahead	Inf	2.6 %		
2/2	3.28	0.00	Y	Arm 5 Right	13.00	100.0 %	1742	1742
3/1	2.79	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1894	1894
3/2	2.84	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1899	1899
4/1	3.24	0.00	Y	Arm 5 Left	12.00	56.1 %	1812	1812
				Arm 6 Ahead	Inf	43.9 %		
4/2	3.22	0.00	Y	Arm 7 Right	15.00	100.0 %	1761	1761
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
9/1	2.79	0.00	Y	Arm 8 Left	11.00	100.0 %	1667	1667
9/2	2.93	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1908	1908
9/3	3.12	0.00	Y	Arm 6 Right	25.00	100.0 %	1818	1818
10/1	3.58	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1973	1973

Scenario 7: 'Pref LTC AM' (FG7: 'Pref LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	714	298	1012
	B	60	0	165	398	623
	C	420	341	0	409	1170
	D	239	379	298	0	916
	Tot.	719	720	1177	1105	3721

Traffic Lane Flows

Lane	Scenario 7: Pref LTC AM
Junction: Unnamed Junction	
1/1	346
1/2	368
1/3	298
2/1 (short)	563
2/2 (with short)	623(In) 60(Out)
3/1 (short)	829
3/2 (with short)	1170(In) 341(Out)
4/1 (short)	618
4/2 (with short)	916(In) 298(Out)
5/1	719
6/1	720
7/1	1177
8/1	1105
9/1 (short)	409
9/2 (with short)	829(In) 420(Out)
9/3	341
10/1	1012

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.21	0.00	Y	Arm 6 Left	13.00	0.0 %	1936	1936
				Arm 7 Ahead	Inf	100.0 %		
1/2	3.07	0.00	N	Arm 7 Ahead	Inf	100.0 %	2062	2062
1/3	3.35	0.00	Y	Arm 8 Right	16.00	100.0 %	1783	1783
2/1	3.26	0.00	Y	Arm 7 Left	12.00	29.3 %	1872	1872
				Arm 8 Ahead	Inf	70.7 %		
2/2	3.28	0.00	Y	Arm 5 Right	13.00	100.0 %	1742	1742
3/1	2.79	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1894	1894
3/2	2.84	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1899	1899
4/1	3.24	0.00	Y	Arm 5 Left	12.00	38.7 %	1850	1850
				Arm 6 Ahead	Inf	61.3 %		
4/2	3.22	0.00	Y	Arm 7 Right	15.00	100.0 %	1761	1761
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
9/1	2.79	0.00	Y	Arm 8 Left	11.00	100.0 %	1667	1667
9/2	2.93	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1908	1908
9/3	3.12	0.00	Y	Arm 6 Right	25.00	100.0 %	1818	1818
10/1	3.58	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1973	1973

Scenario 8: 'Pref LTC PM' (FG8: 'Pref LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	898	357	1255
	B	65	0	405	9	479
	C	448	389	0	436	1273
	D	432	307	335	0	1074
	Tot.	945	696	1638	802	4081

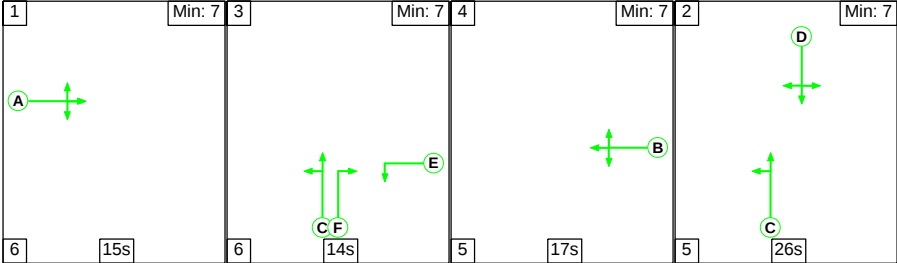
Traffic Lane Flows

Lane	Scenario 8: Pref LTC PM
Junction: Unnamed Junction	
1/1	435
1/2	463
1/3	357
2/1 (short)	414
2/2 (with short)	479(In) 65(Out)
3/1 (short)	884
3/2 (with short)	1273(In) 389(Out)
4/1 (short)	739
4/2 (with short)	1074(In) 335(Out)
5/1	945
6/1	696
7/1	1638
8/1	802
9/1 (short)	436
9/2 (with short)	884(In) 448(Out)
9/3	389
10/1	1255

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.21	0.00	Y	Arm 6 Left	13.00	0.0 %	1936	1936
				Arm 7 Ahead	Inf	100.0 %		
1/2	3.07	0.00	N	Arm 7 Ahead	Inf	100.0 %	2062	2062
1/3	3.35	0.00	Y	Arm 8 Right	16.00	100.0 %	1783	1783
2/1	3.26	0.00	Y	Arm 7 Left	12.00	97.8 %	1730	1730
				Arm 8 Ahead	Inf	2.2 %		
2/2	3.28	0.00	Y	Arm 5 Right	13.00	100.0 %	1742	1742
3/1	2.79	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1894	1894
3/2	2.84	0.00	Y	Arm 9 Ahead	Inf	100.0 %	1899	1899
4/1	3.24	0.00	Y	Arm 5 Left	12.00	58.5 %	1807	1807
				Arm 6 Ahead	Inf	41.5 %		
4/2	3.22	0.00	Y	Arm 7 Right	15.00	100.0 %	1761	1761
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
9/1	2.79	0.00	Y	Arm 8 Left	11.00	100.0 %	1667	1667
9/2	2.93	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1908	1908
9/3	3.12	0.00	Y	Arm 6 Right	25.00	100.0 %	1818	1818
10/1	3.58	0.00	Y	Arm 1 Ahead	Inf	100.0 %	1973	1973

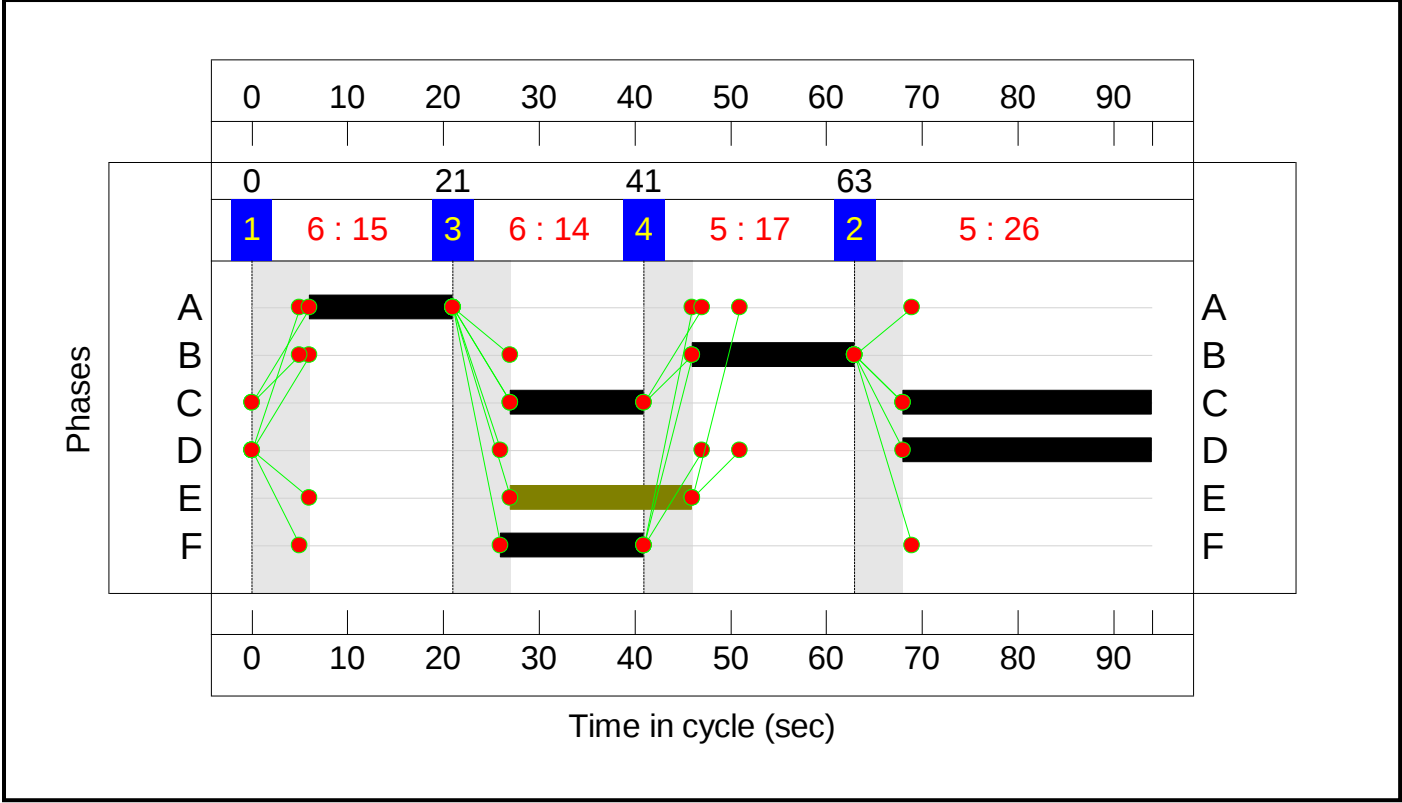
Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')
Stage Sequence Diagram



Stage Timings

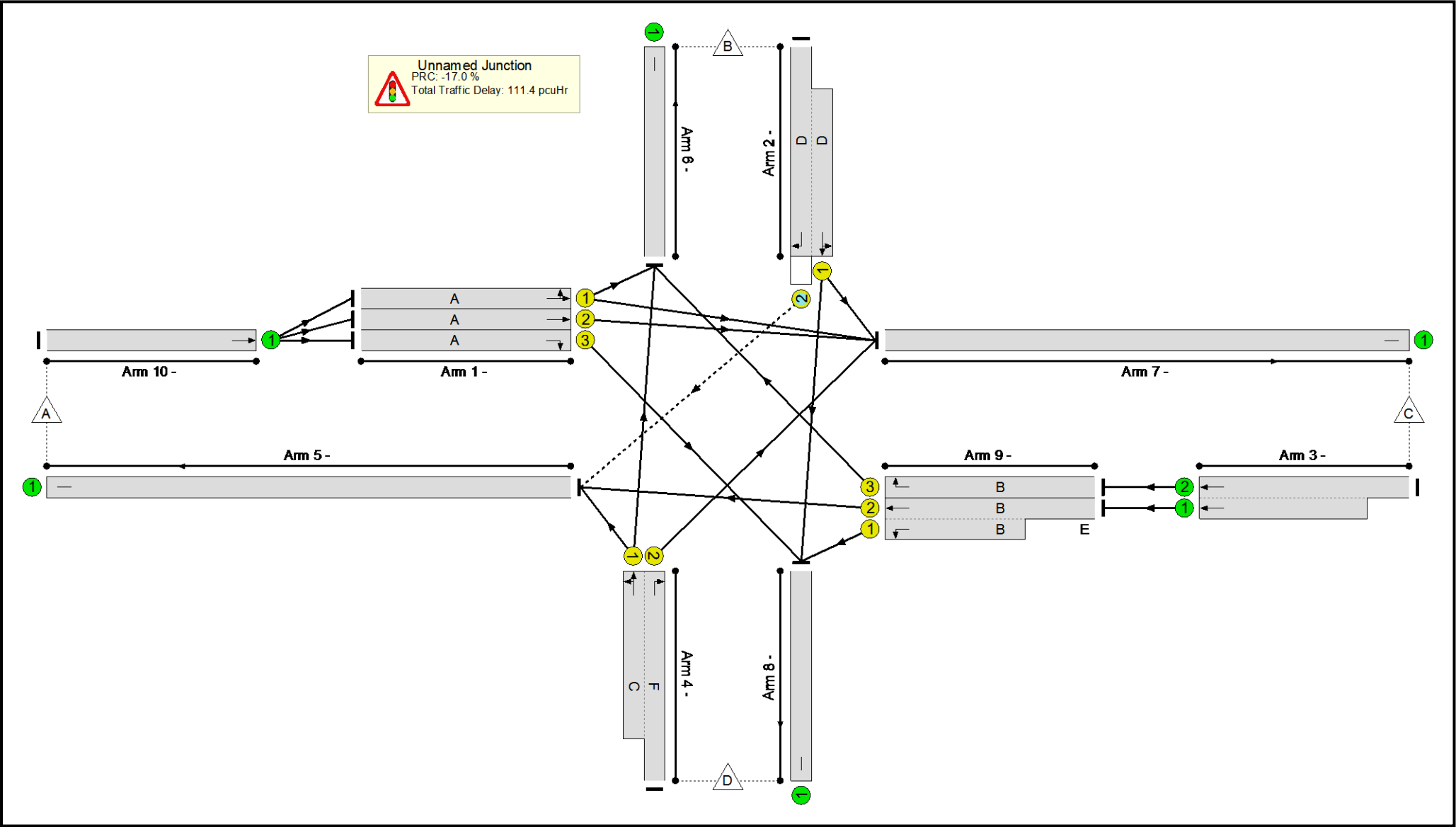
Stage	1	3	4	2
Duration	15	14	17	26
Change Point	0	21	41	63

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

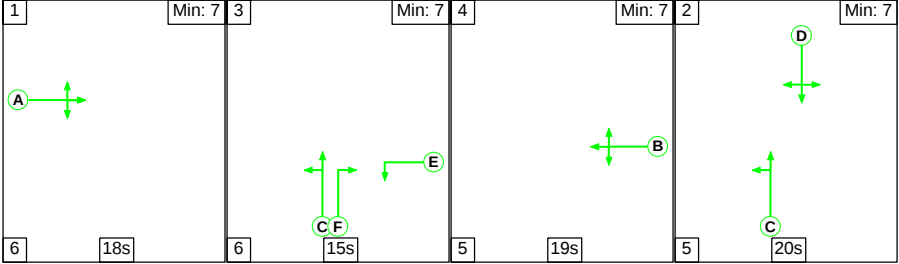
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	105.3%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	105.3%
1/1	Left Ahead	U	N/A	N/A	A		1	15	-	333	1936	330	101.1%
1/2	Ahead	U	N/A	N/A	A		1	15	-	356	2062	351	101.4%
1/3	Right	U	N/A	N/A	A		1	15	-	311	1783	303	102.5%
2/2+2/1	Right Left Ahead	O+U	N/A	N/A	D		1	26	-	603	1742:1861	54+519	104.0 : 105.3%
3/2+3/1	Ahead	U	N/A	N/A	-		-	-	-	1083	1899:1894	553+1342	57.1 : 57.1%
4/2+4/1	Left Ahead Right	U	N/A	N/A	F C		1:2	15:40	-	926	1761:1860	300+831	99.1 : 75.7%
5/1		U	N/A	N/A	-		-	-	-	641	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	732	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1173	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	1066	Inf	Inf	0.0%
9/2+9/1	Ahead Left	U	N/A	N/A	B	E	1	17:36	19	767	1908:1667	365+388	101.8 : 101.8%
9/3	Right	U	N/A	N/A	B		1	17	-	316	1818	348	90.8%
10/1	Ahead	U	N/A	N/A	-		-	-	-	1000	1973	1973	50.7%

Full Input Data And Results

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Full Input Data And Results
Scenario 2: 'Ref no LTC PM' (FG2: 'Ref no LTC PM', Plan 1: 'Network Control Plan 1')

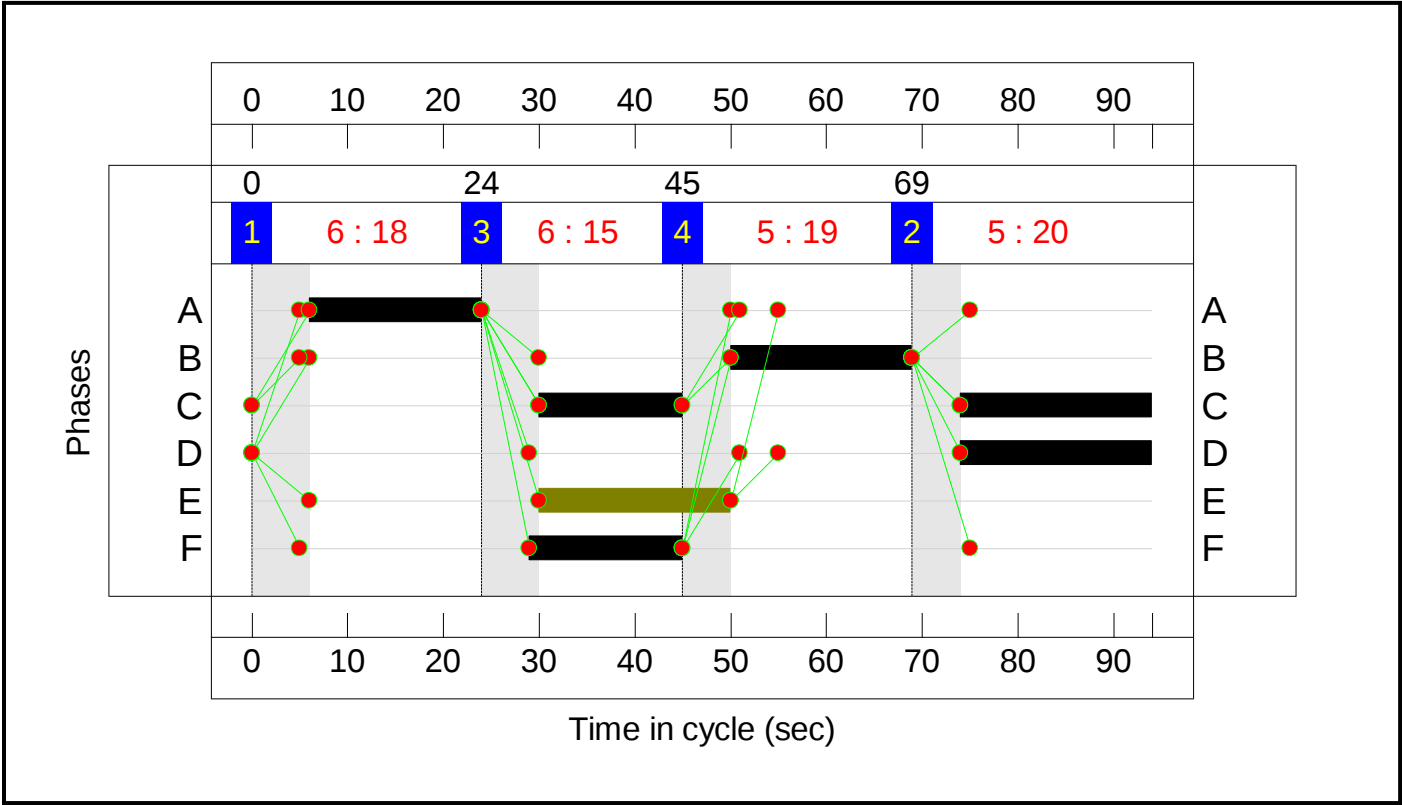
Stage Sequence Diagram



Stage Timings

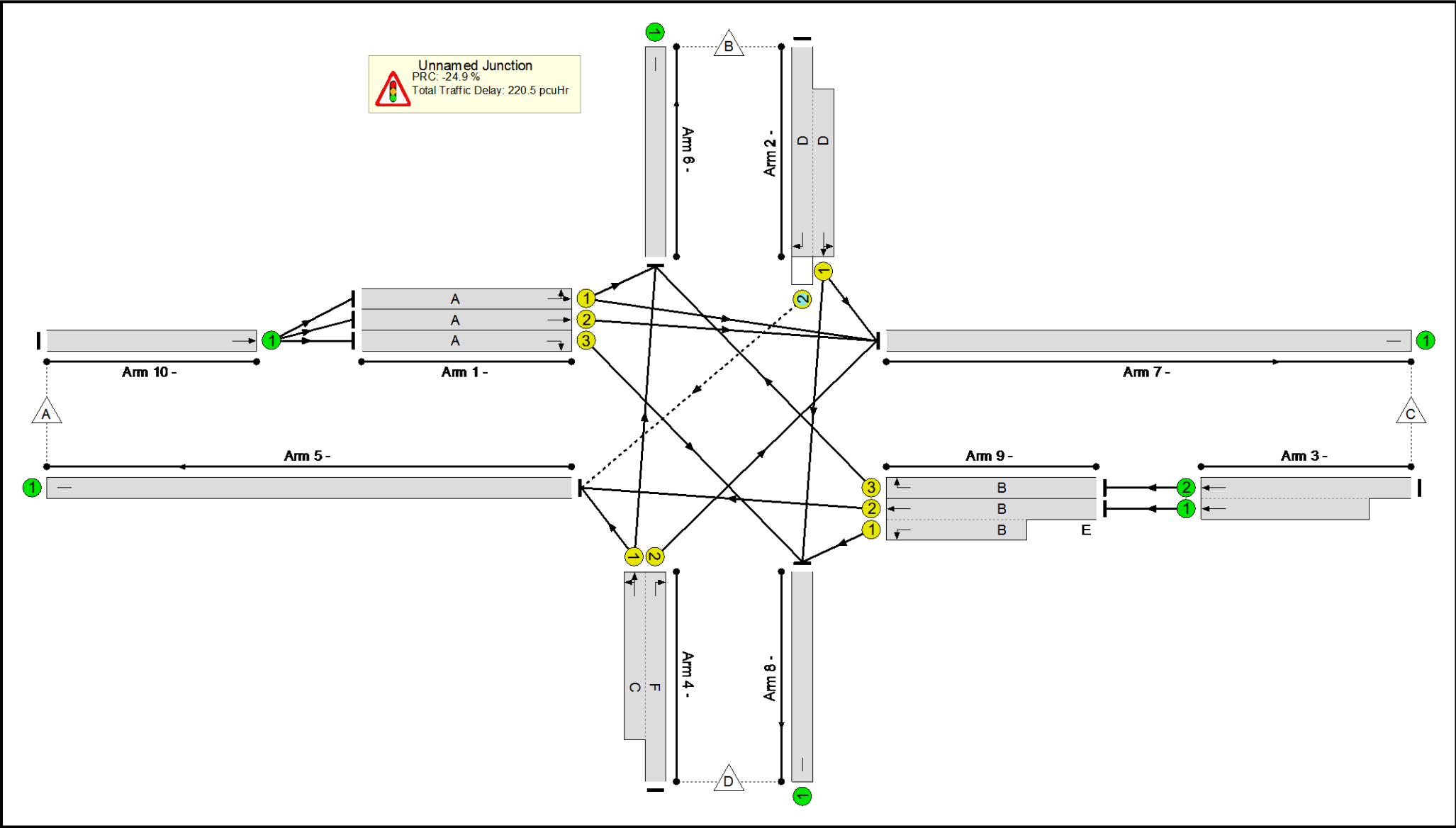
Stage	1	3	4	2
Duration	18	15	19	20
Change Point	0	24	45	69

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	-	-		-	-	-	-	-	-	112.4%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	112.4%
1/1	Left Ahead	U	N/A	N/A	A		1	18	-	440	1936	391	112.4%
1/2	Ahead	U	N/A	N/A	A		1	18	-	468	2062	417	112.3%
1/3	Right	U	N/A	N/A	A		1	18	-	293	1783	360	81.3%
2/2+2/1	Right Left Ahead	O+U	N/A	N/A	D		1	20	-	478	1742:1725	77+385	84.9 : 107.2%
3/2+3/1	Ahead	U	N/A	N/A	-		-	-	-	1229	1899:1894	557+1339	64.8 : 64.8%
4/2+4/1	Left Ahead Right	U	N/A	N/A	F C		1:2	16:35	-	1095	1761:1811	318+713	107.1 : 105.8%
5/1		U	N/A	N/A	-		-	-	-	926	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	690	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1662	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	725	Inf	Inf	0.0%
9/2+9/1	Ahead Left	U	N/A	N/A	B	E	1	19:39	20	868	1908:1667	392+389	111.1 : 111.1%
9/3	Right	U	N/A	N/A	B		1	19	-	361	1818	387	93.3%
10/1	Ahead	U	N/A	N/A	-		-	-	-	1201	1973	1973	60.9%

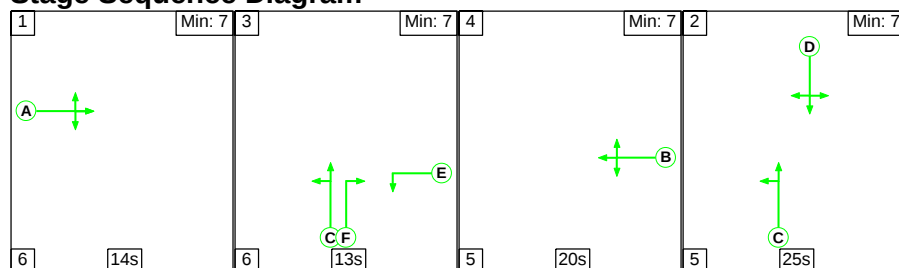
Full Input Data And Results

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Full Input Data And Results

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

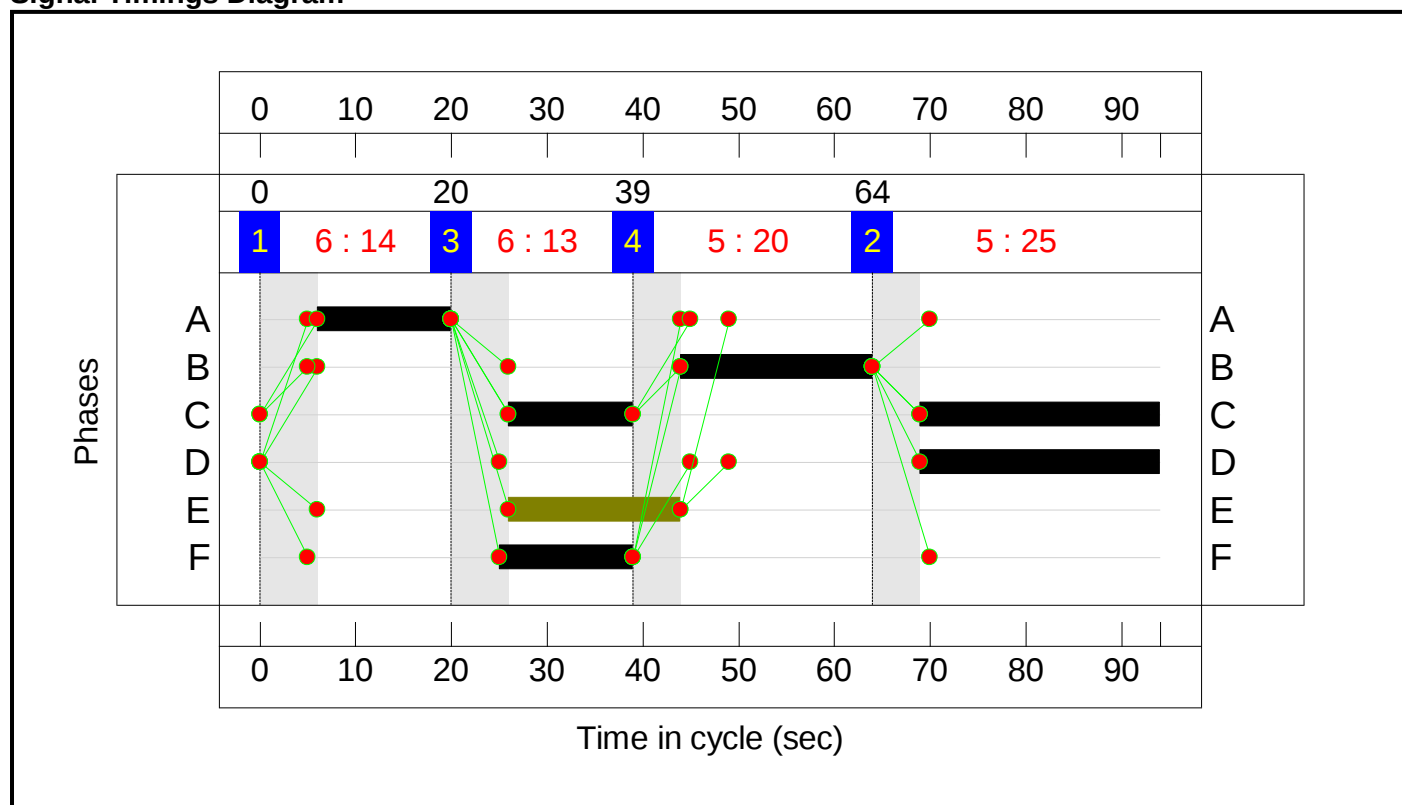
Stage Sequence Diagram



Stage Timings

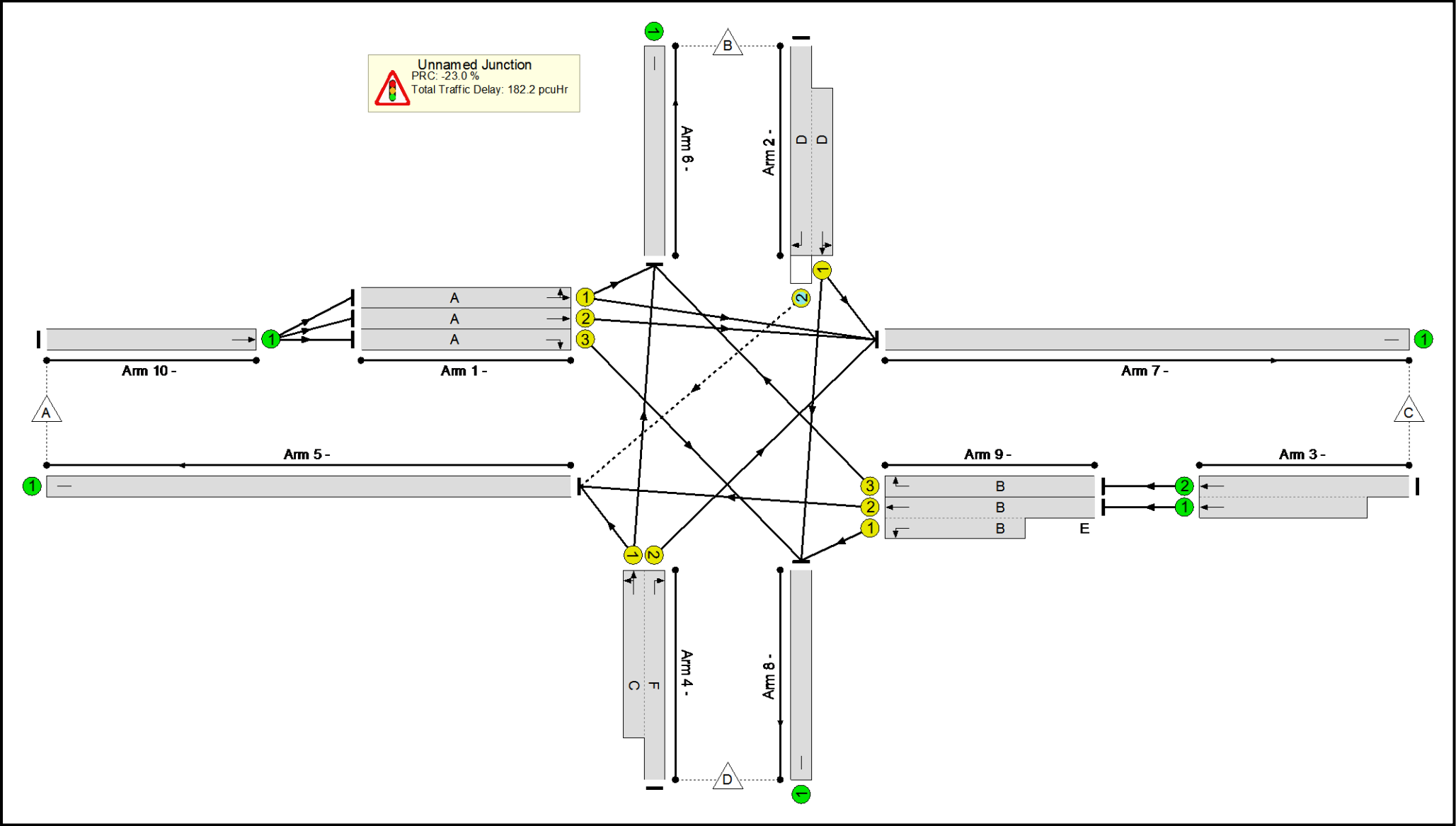
Stage	1	3	4	2
Duration	14	13	20	25
Change Point	0	20	39	64

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

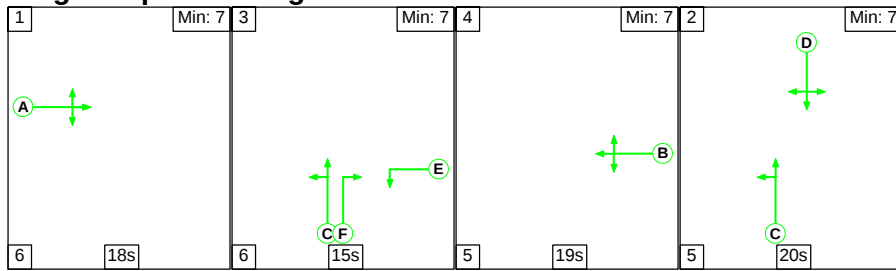
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	110.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	110.7%
1/1	Left Ahead	U	N/A	N/A	A		1	14	-	338	1936	309	109.4%
1/2	Ahead	U	N/A	N/A	A		1	14	-	360	2062	329	109.4%
1/3	Right	U	N/A	N/A	A		1	14	-	300	1783	285	105.4%
2/2+2/1	Right Left Ahead	O+U	N/A	N/A	D		1	25	-	618	1742:1874	53+506	109.9 : 110.7%
3/2+3/1	Ahead	U	N/A	N/A	-		-	-	-	1190	1899:1894	548+1348	62.8 : 62.8%
4/2+4/1	Left Ahead Right	U	N/A	N/A	F C		1:2	14:38	-	926	1761:1851	281+788	106.0 : 79.7%
5/1		U	N/A	N/A	-		-	-	-	735	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	733	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1156	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	1108	Inf	Inf	0.0%
9/2+9/1	Ahead Left	U	N/A	N/A	B	E	1	20:38	18	846	1908:1667	403+375	108.8 : 108.8%
9/3	Right	U	N/A	N/A	B		1	20	-	344	1818	406	84.7%
10/1	Ahead	U	N/A	N/A	-		-	-	-	998	1973	1973	50.6%

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Full Input Data And Results

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

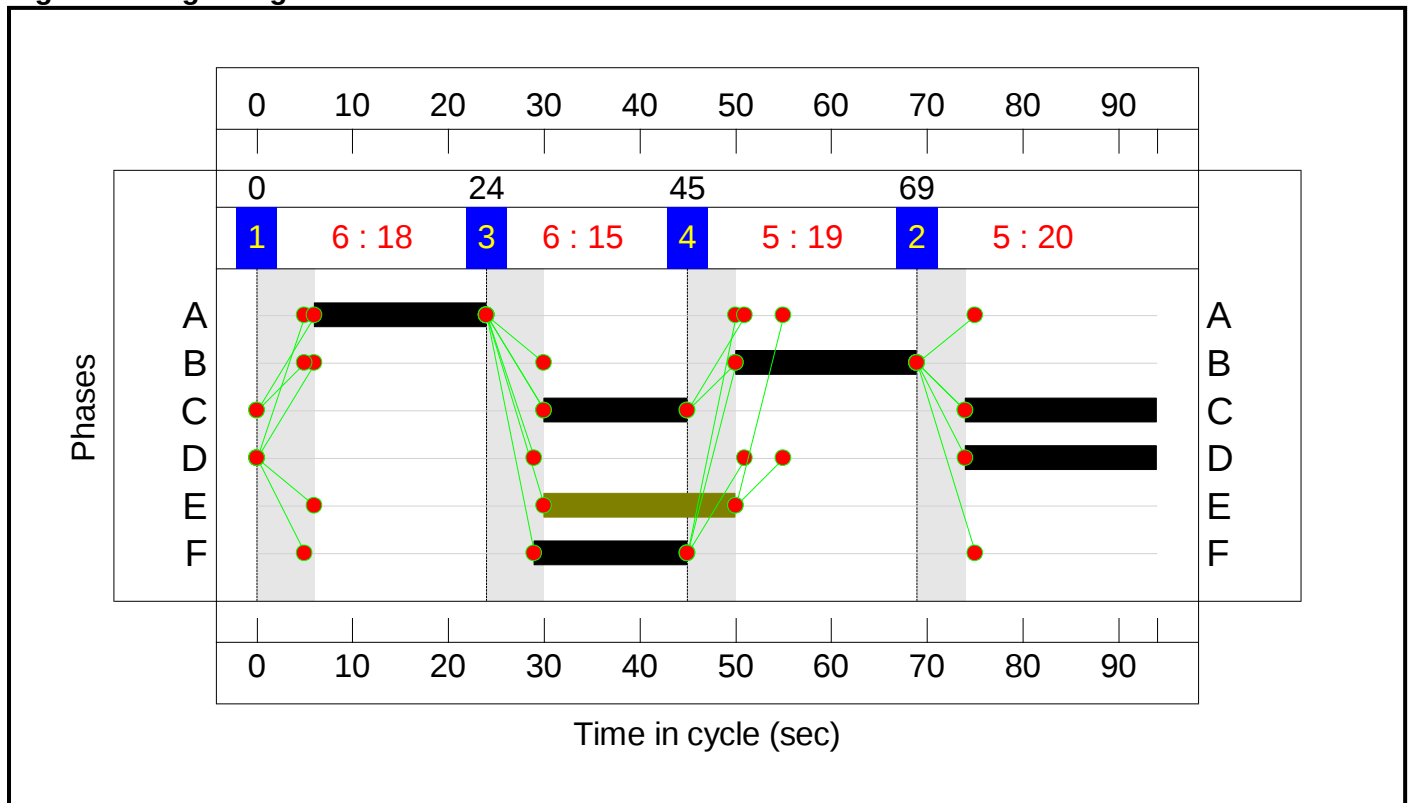
Stage Sequence Diagram



Stage Timings

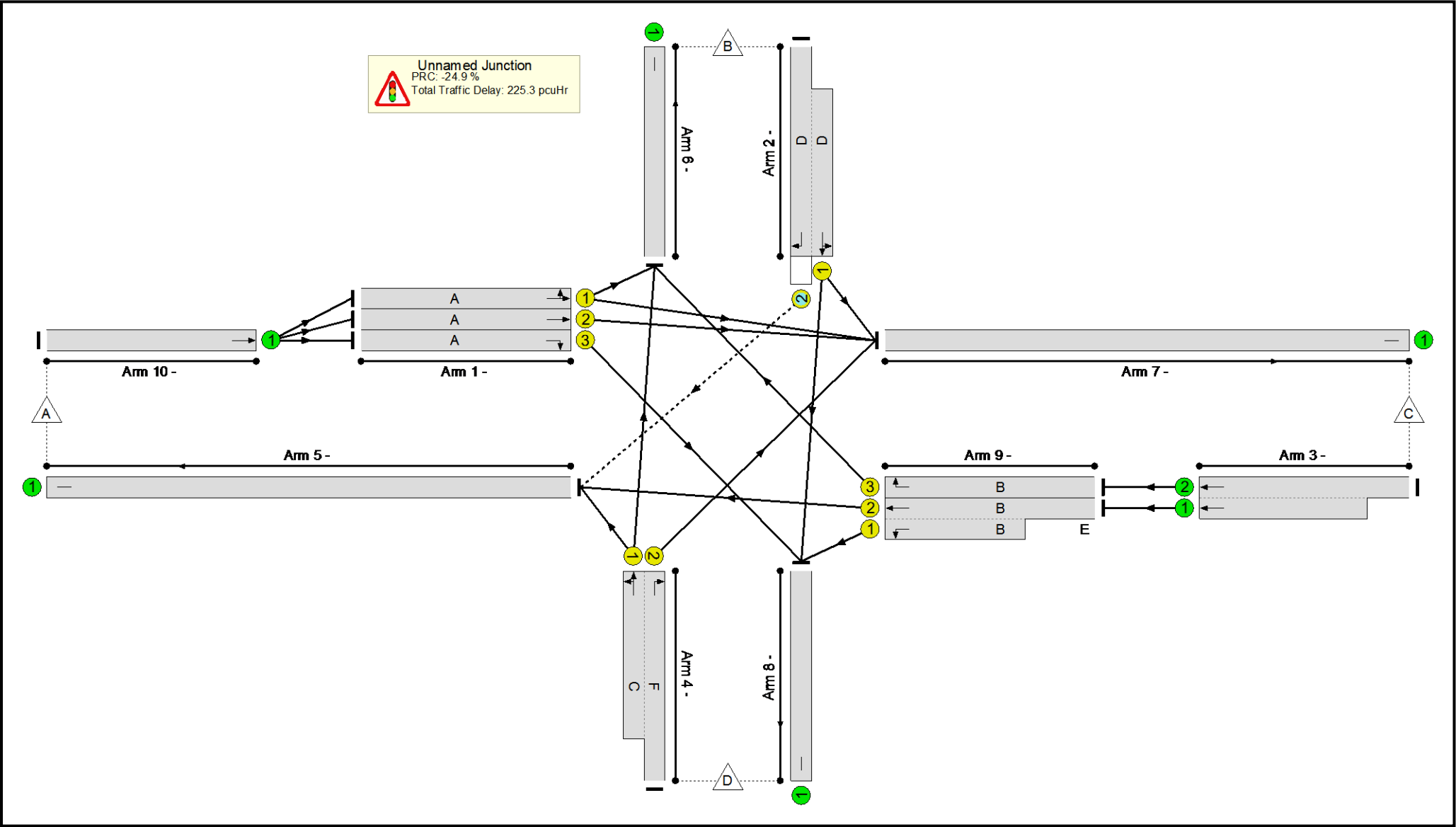
Stage	1	3	4	2
Duration	18	15	19	20
Change Point	0	24	45	69

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	-	-		-	-	-	-	-	-	112.4%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	112.4%
1/1	Left Ahead	U	N/A	N/A	A		1	18	-	440	1936	391	112.4%
1/2	Ahead	U	N/A	N/A	A		1	18	-	468	2062	417	112.3%
1/3	Right	U	N/A	N/A	A		1	18	-	284	1783	360	78.8%
2/2+2/1	Right Left Ahead	O+U	N/A	N/A	D		1	20	-	479	1742:1725	77+385	86.2 : 107.2%
3/2+3/1	Ahead	U	N/A	N/A	-		-	-	-	1240	1899:1894	564+1331	65.4 : 65.4%
4/2+4/1	Left Ahead Right	U	N/A	N/A	F C		1:2	16:35	-	1094	1761:1811	318+713	106.8 : 105.8%
5/1		U	N/A	N/A	-		-	-	-	935	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	695	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1661	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	714	Inf	Inf	0.0%
9/2+9/1	Ahead Left	U	N/A	N/A	B	E	1	19:39	20	871	1908:1667	393+383	112.3 : 112.3%
9/3	Right	U	N/A	N/A	B		1	19	-	369	1818	387	95.4%
10/1	Ahead	U	N/A	N/A	-		-	-	-	1192	1973	1973	60.4%

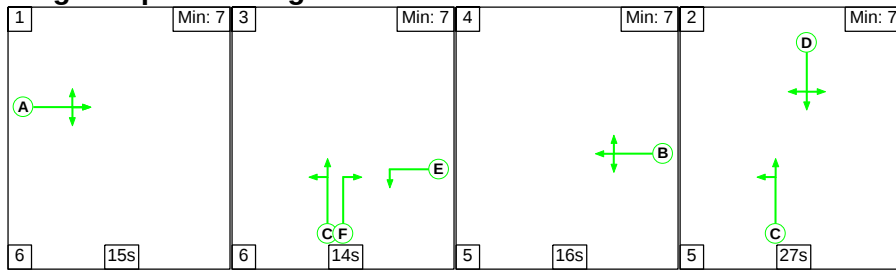
Full Input Data And Results

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Full Input Data And Results

Scenario 5: 'Pref no LTC AM' (FG5: 'Pref no LTC AM', Plan 1: 'Network Control Plan 1')

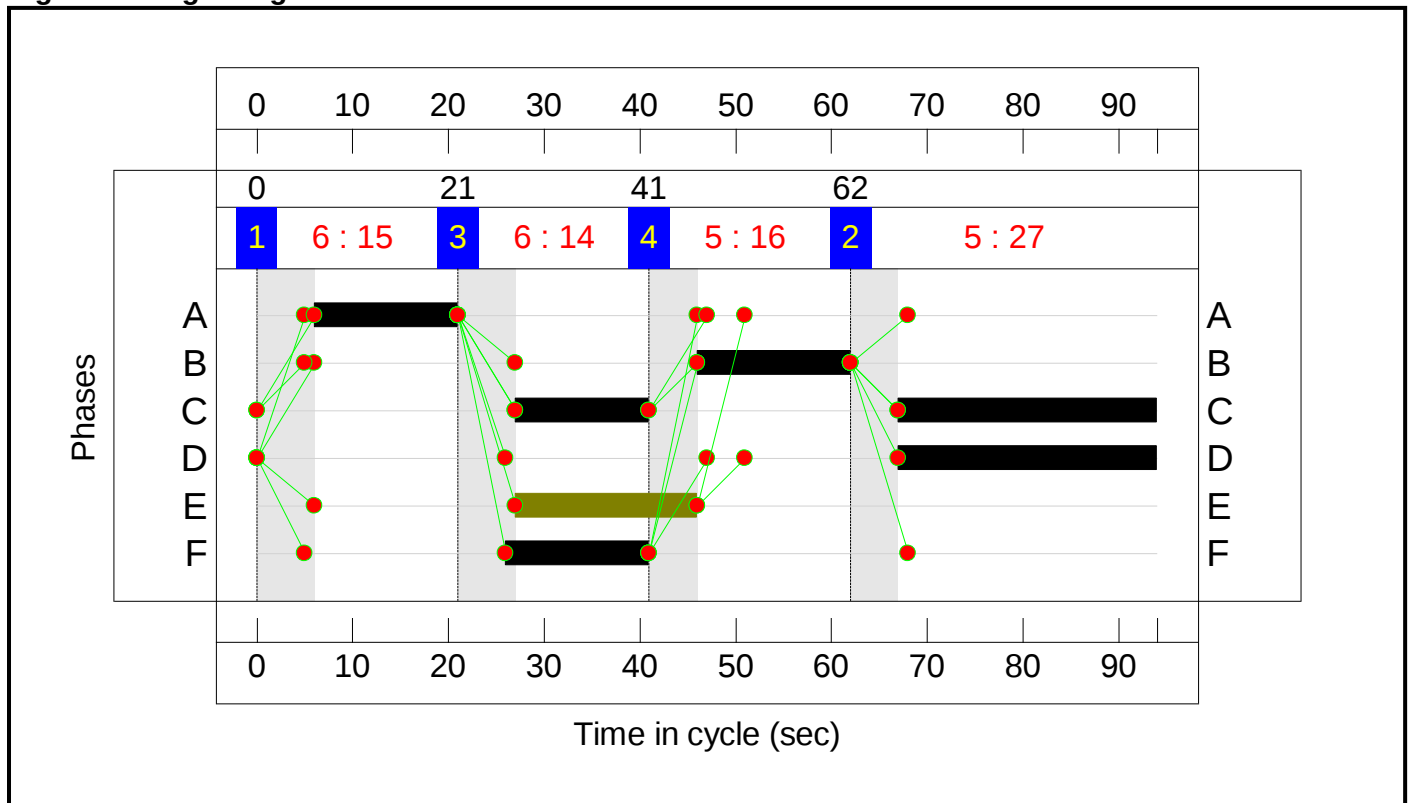
Stage Sequence Diagram



Stage Timings

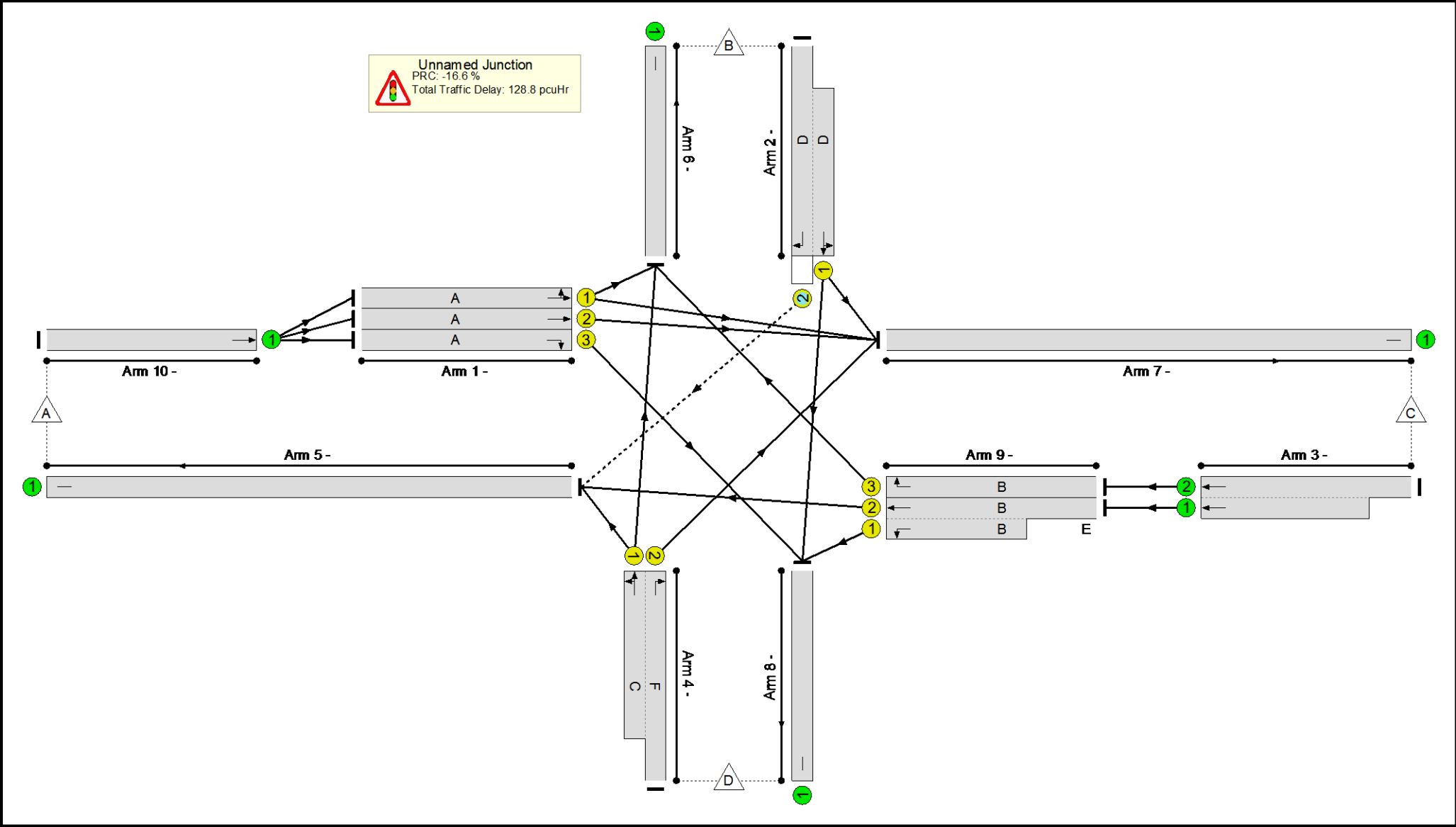
Stage	1	3	4	2
Duration	15	14	16	27
Change Point	0	21	41	62

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

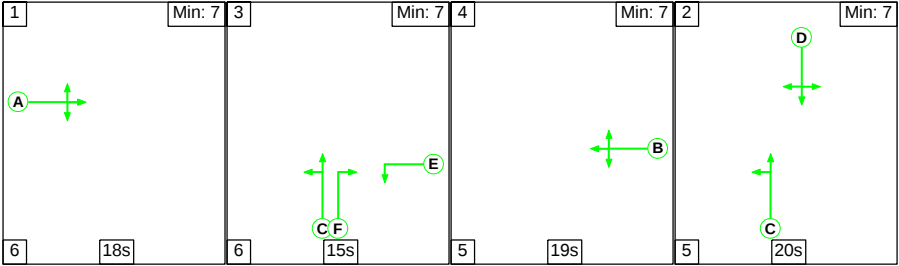
Network Results

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	-	-		-	-	-	-	-	-	104.9%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	104.9%
1/1	Left Ahead	U	N/A	N/A	A		1	15	-	342	1936	330	103.8%
1/2	Ahead	U	N/A	N/A	A		1	15	-	365	2062	351	104.0%
1/3	Right	U	N/A	N/A	A		1	15	-	312	1783	303	102.8%
2/2+2/1	Right Left Ahead	O+U	N/A	N/A	D		1	27	-	622	1742:1867	58+536	104.3 : 104.9%
3/2+3/1	Ahead	U	N/A	N/A	-		-	-	-	1077	1899:1894	558+1338	56.8 : 56.8%
4/2+4/1	Left Ahead Right	U	N/A	N/A	F C		1:2	15:41	-	937	1761:1859	300+850	99.4 : 75.1%
5/1		U	N/A	N/A	-		-	-	-	643	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	735	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1184	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	1093	Inf	Inf	0.0%
9/2+9/1	Ahead Left	U	N/A	N/A	B	E	1	16:35	19	760	1908:1667	345+379	104.9 : 104.9%
9/3	Right	U	N/A	N/A	B		1	16	-	317	1818	329	96.4%
10/1	Ahead	U	N/A	N/A	-		-	-	-	1019	1973	1973	51.6%

Full Input Data And Results

[illegible]

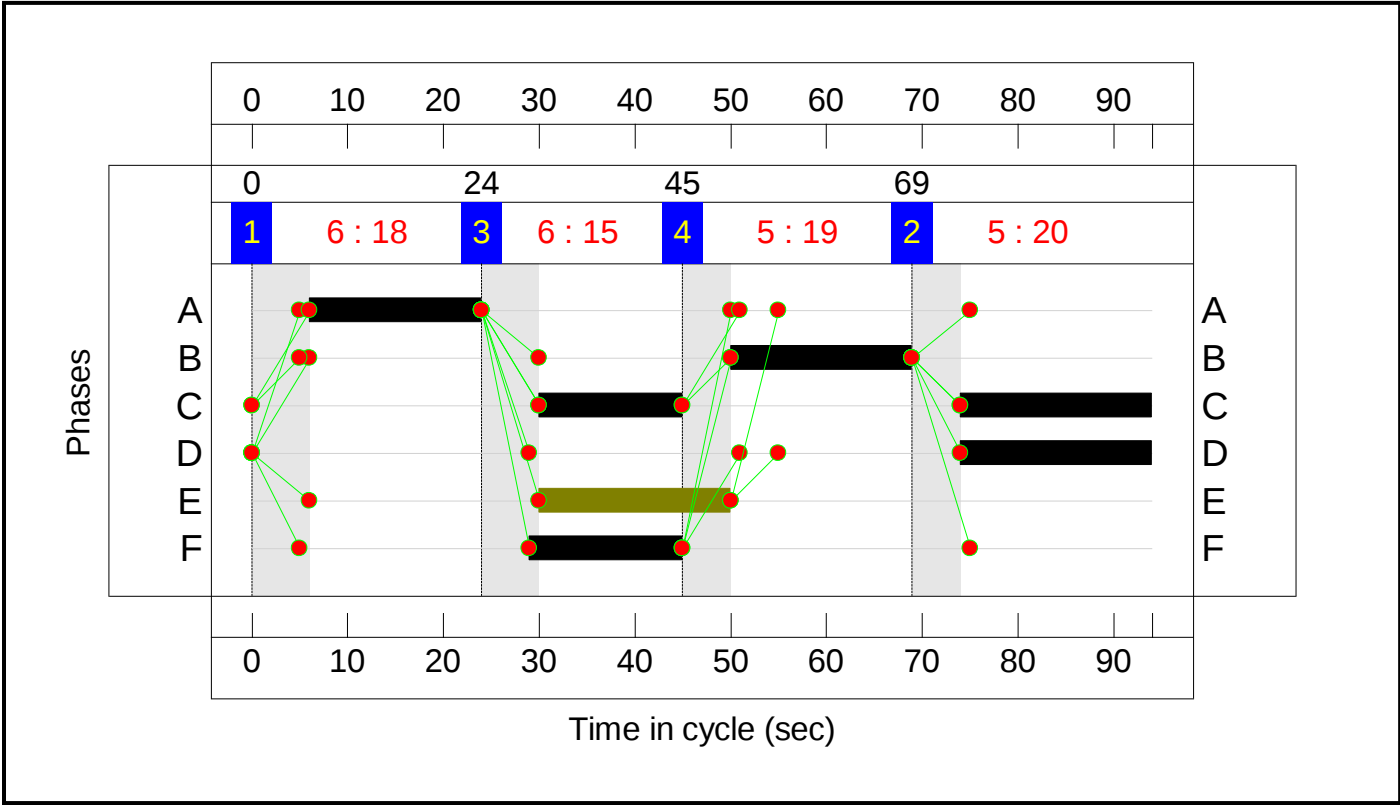
Stage Sequence Diagram



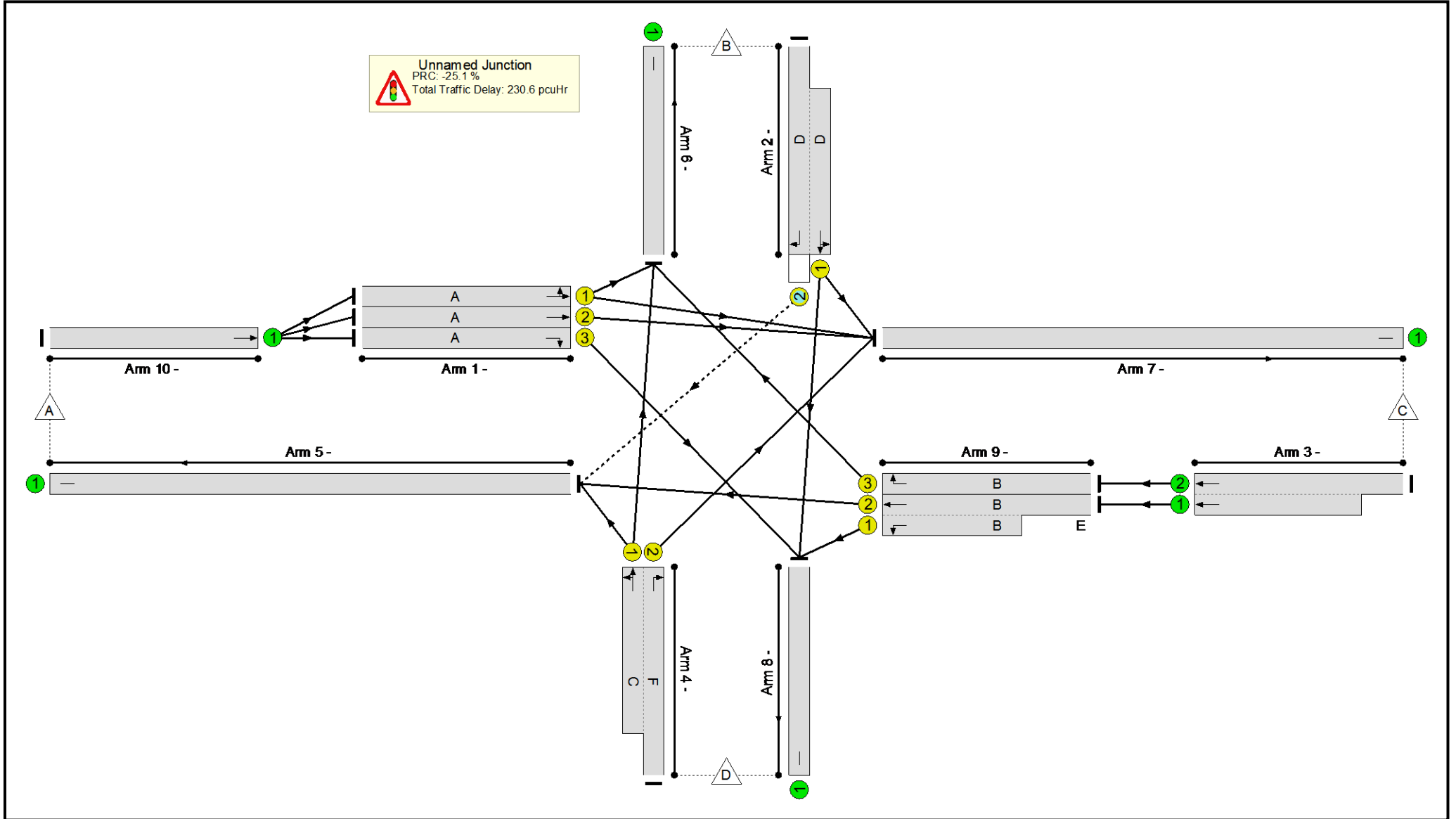
Stage Timings

Stage	1	3	4	2
Duration	18	15	19	20
Change Point	0	24	45	69

Signal Timings Diagram



Network Layout Diagram



Full Input Data And Results

Network Results

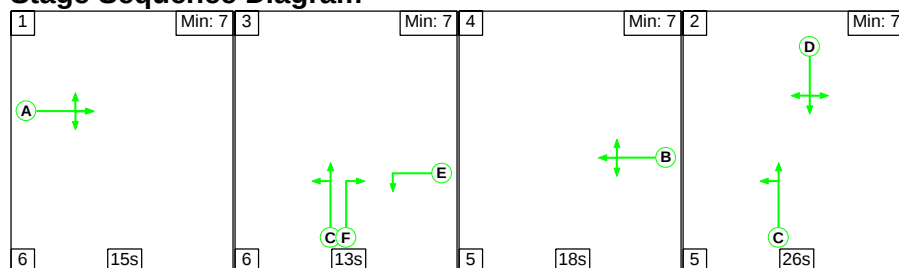
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	112.6%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	112.6%
1/1	Left Ahead	U	N/A	N/A	A		1	18	-	437	1936	391	111.7%
1/2	Ahead	U	N/A	N/A	A		1	18	-	465	2062	417	111.6%
1/3	Right	U	N/A	N/A	A		1	18	-	333	1783	360	92.4%
2/2+2/1	Right Left Ahead	O+U	N/A	N/A	D		1	20	-	482	1742:1730	77+386	86.2 : 107.6%
3/2+3/1	Ahead	U	N/A	N/A	-		-	-	-	1258	1899:1894	570+1326	66.4 : 66.4%
4/2+4/1	Left Ahead Right	U	N/A	N/A	F C		1:2	16:35	-	1096	1761:1812	318+713	106.1 : 106.3%
5/1		U	N/A	N/A	-		-	-	-	933	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	711	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1645	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	782	Inf	Inf	0.0%
9/2+9/1	Ahead Left	U	N/A	N/A	B	E	1	19:39	20	880	1908:1667	392+389	112.6 : 112.6%
9/3	Right	U	N/A	N/A	B		1	19	-	378	1818	387	97.7%
10/1	Ahead	U	N/A	N/A	-		-	-	-	1235	1973	1973	62.6%

[illegible][illegible]

Full Input Data And Results

Scenario 7: 'Pref LTC AM' (FG7: 'Pref LTC AM', Plan 1: 'Network Control Plan 1')

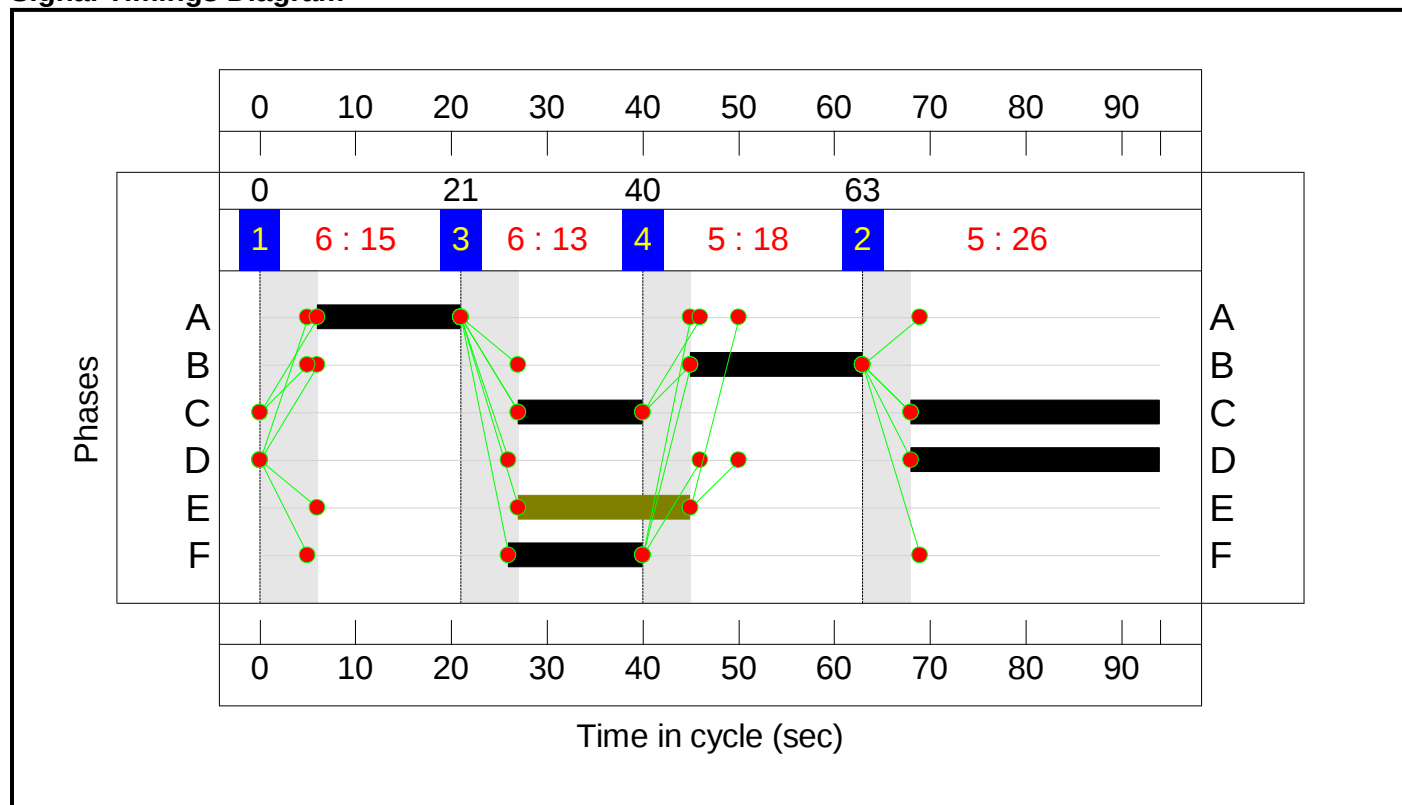
Stage Sequence Diagram



Stage Timings

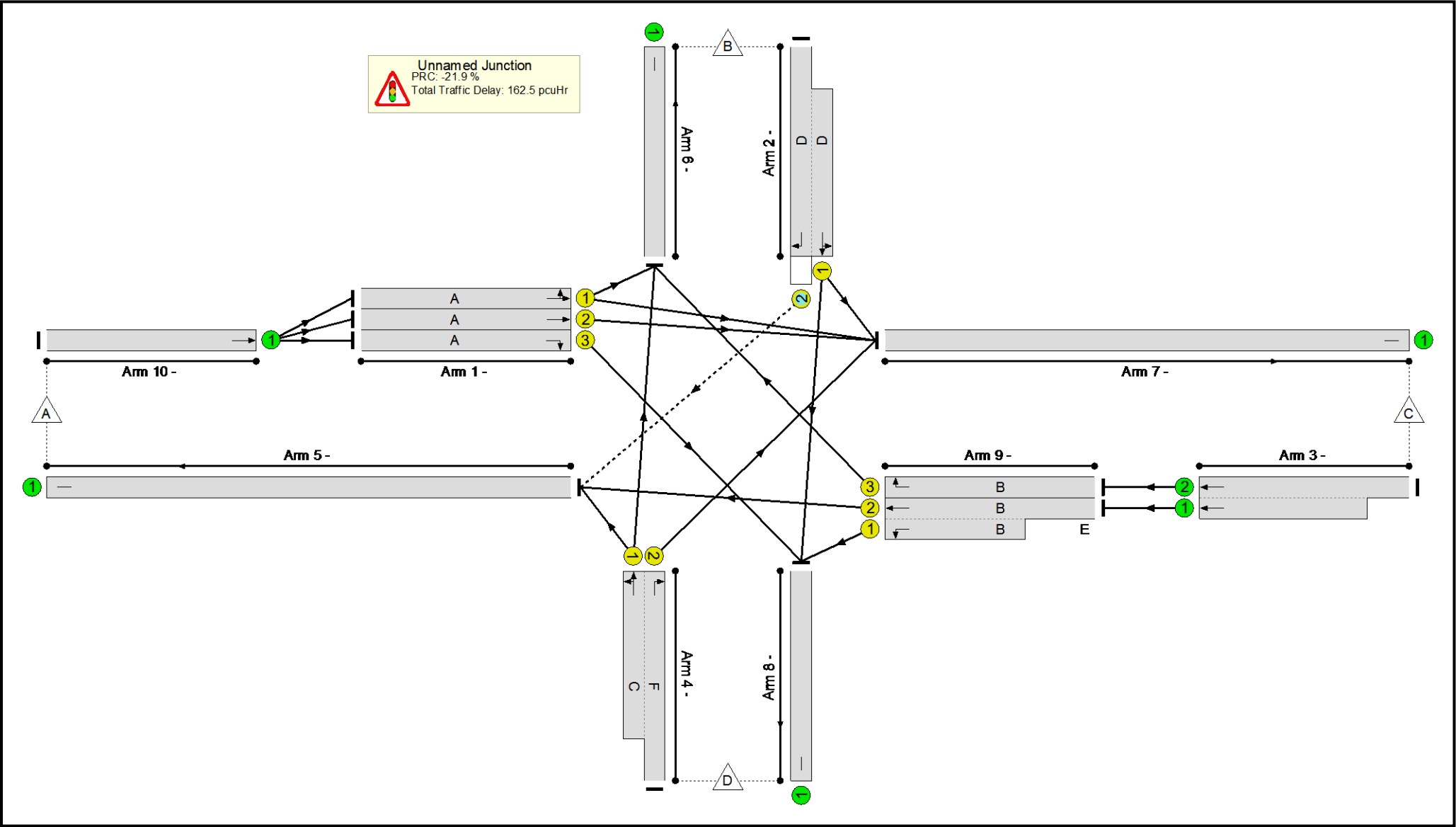
Stage	1	3	4	2
Duration	15	13	18	26
Change Point	0	21	40	63

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

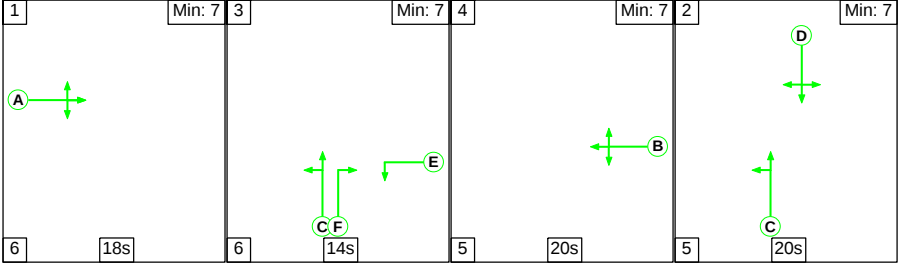
Network Results

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	-	-		-	-	-	-	-	-	109.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	109.7%
1/1	Left Ahead	U	N/A	N/A	A		1	15	-	346	1936	330	105.0%
1/2	Ahead	U	N/A	N/A	A		1	15	-	368	2062	351	104.8%
1/3	Right	U	N/A	N/A	A		1	15	-	298	1783	303	98.2%
2/2+2/1	Right Left Ahead	O+U	N/A	N/A	D		1	26	-	623	1742:1872	56+519	107.2 : 108.5%
3/2+3/1	Ahead	U	N/A	N/A	-		-	-	-	1170	1899:1894	552+1343	61.7 : 61.7%
4/2+4/1	Left Ahead Right	U	N/A	N/A	F C		1:2	14:39	-	916	1761:1850	281+807	106.0 : 76.6%
5/1		U	N/A	N/A	-		-	-	-	719	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	720	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1177	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	1105	Inf	Inf	0.0%
9/2+9/1	Ahead Left	U	N/A	N/A	B	E	1	18:36	18	829	1908:1667	383+373	109.7 : 109.7%
9/3	Right	U	N/A	N/A	B		1	18	-	341	1818	367	92.8%
10/1	Ahead	U	N/A	N/A	-		-	-	-	1012	1973	1973	51.3%

Full Input Data And Results

[illegible]

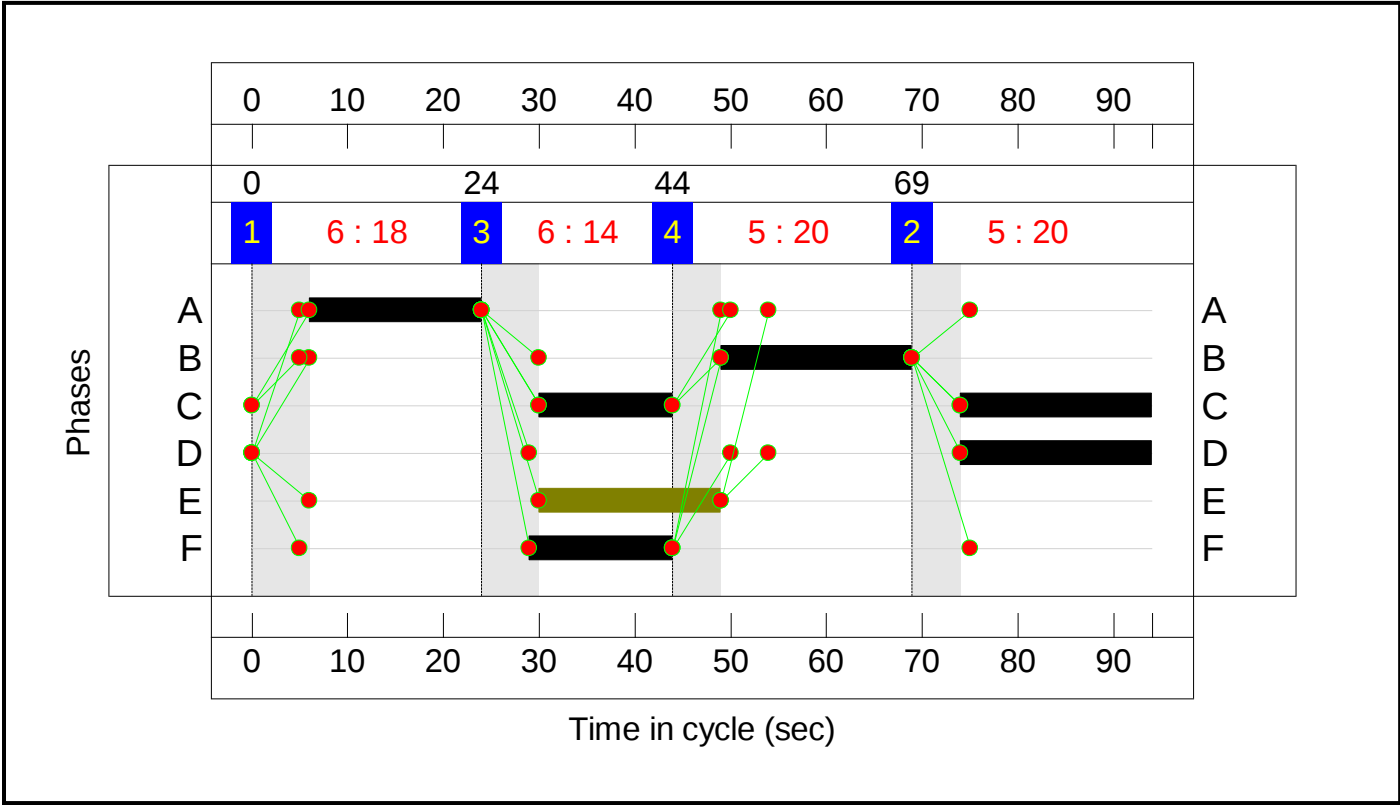
Stage Sequence Diagram



Stage Timings

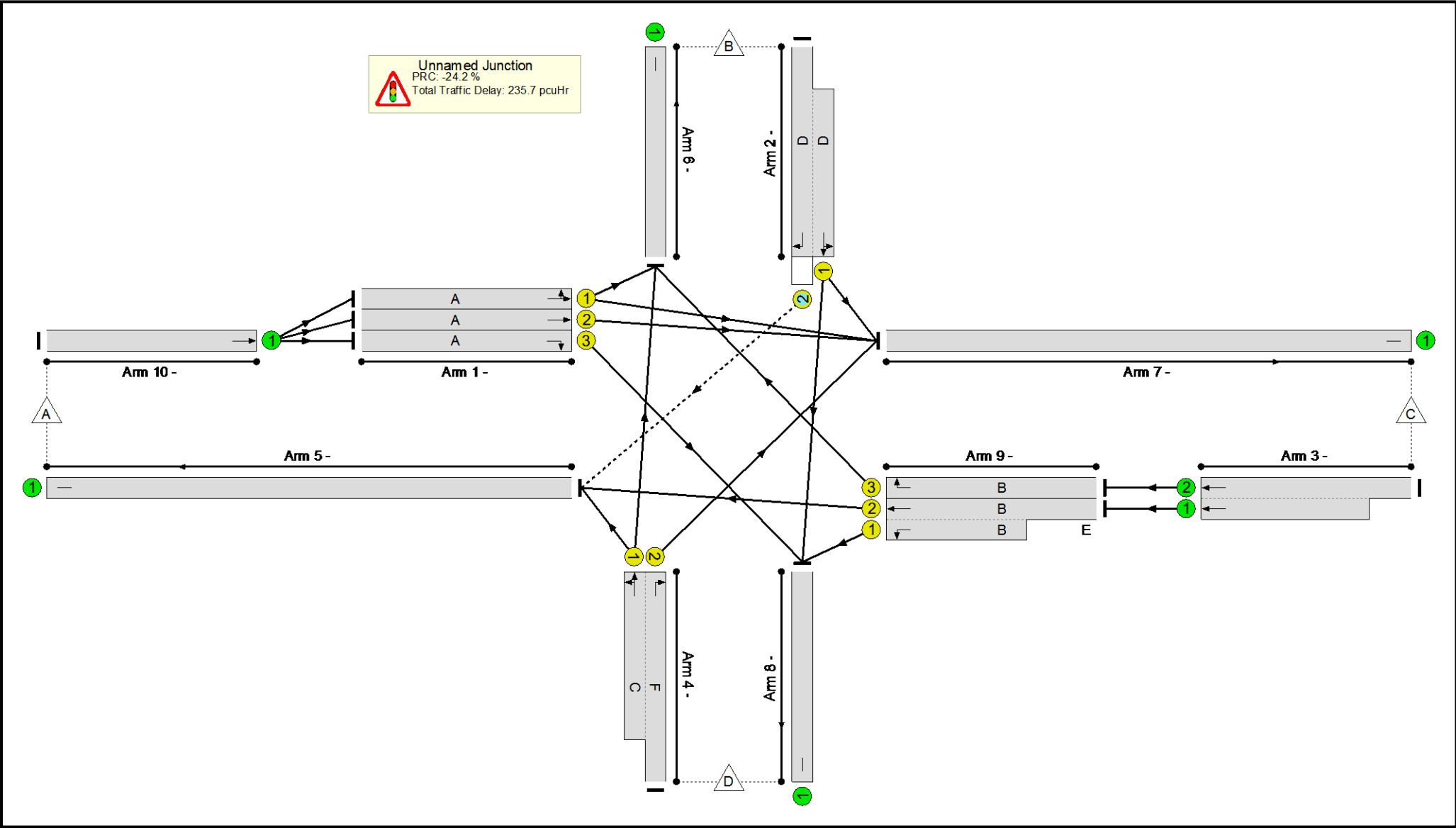
Stage	1	3	4	2
Duration	18	14	20	20
Change Point	0	24	44	69

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	-	-		-	-	-	-	-	-	111.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	111.8%
1/1	Left Ahead	U	N/A	N/A	A		1	18	-	435	1936	391	111.2%
1/2	Ahead	U	N/A	N/A	A		1	18	-	463	2062	417	111.1%
1/3	Right	U	N/A	N/A	A		1	18	-	357	1783	360	99.1%
2/2+2/1	Right Left Ahead	O+U	N/A	N/A	D		1	20	-	479	1742:1730	77+386	84.9 : 107.1%
3/2+3/1	Ahead	U	N/A	N/A	-		-	-	-	1273	1899:1894	579+1316	67.2 : 67.2%
4/2+4/1	Left Ahead Right	U	N/A	N/A	F C		1:2	15:34	-	1074	1761:1807	300+692	111.8 : 106.8%
5/1		U	N/A	N/A	-		-	-	-	945	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	696	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	1638	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	802	Inf	Inf	0.0%
9/2+9/1	Ahead Left	U	N/A	N/A	B	E	1	20:39	19	884	1908:1667	402+391	111.4 : 111.4%
9/3	Right	U	N/A	N/A	B		1	20	-	389	1818	406	95.8%
10/1	Ahead	U	N/A	N/A	-		-	-	-	1255	1973	1973	63.6%

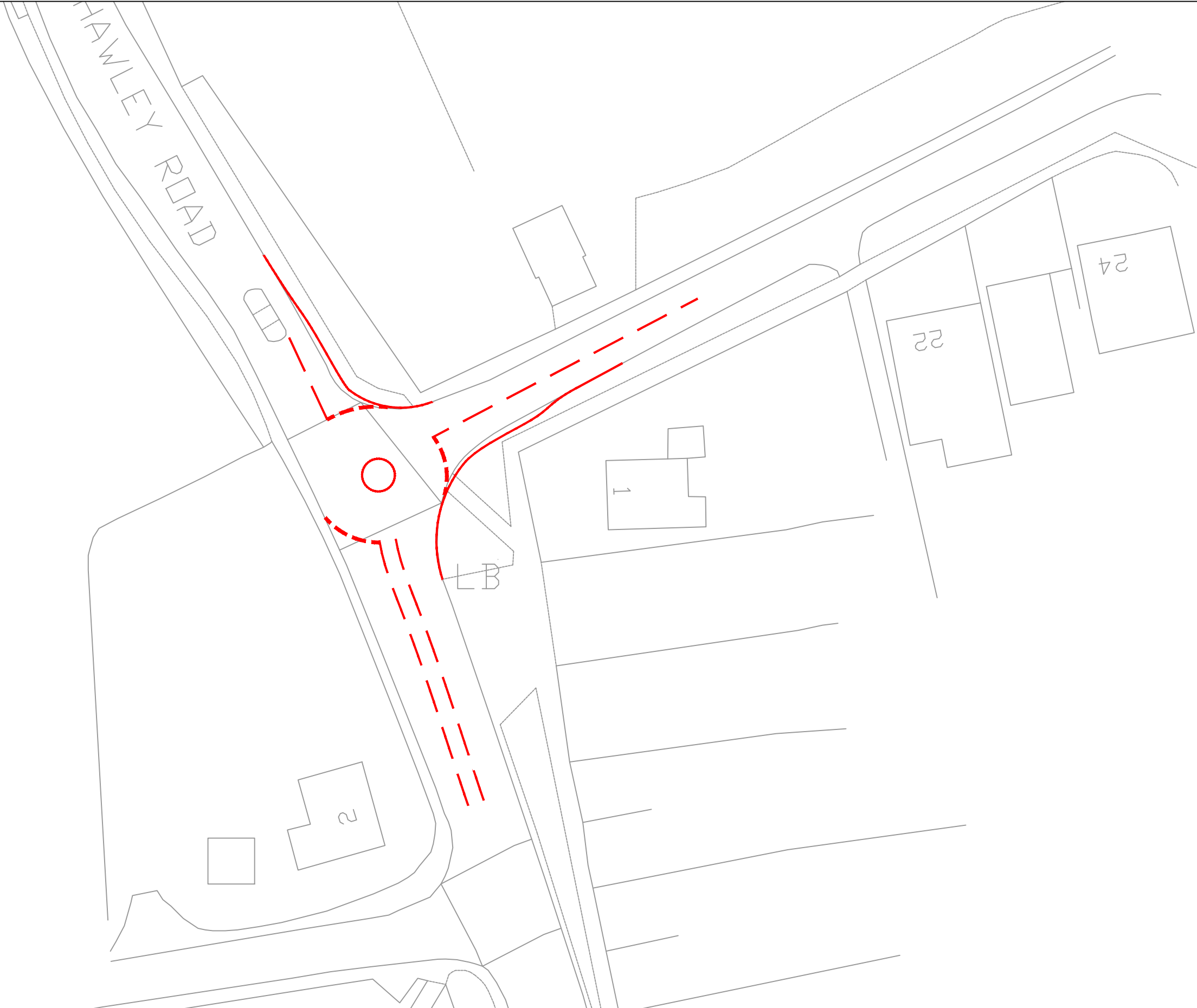
Full Input Data And Results

[illegible]

Appendix H
A225 / Parsonage Lane
Mitigation Scheme

J:\46416 - gh - dartford local plan (saturn)\3-autocad\drawings\5501\332410093_5501_001 - mitigation modelling

2021.11.04 4:07:59 PM



Stantec
Street Address
City, Province/State, Postal/Zip Code
Tel: +1.555.555.1234
www.stantec.com

Notes

Client/Project
DARTFORD DC

DARTFORD LP (SATURN)

Project No.
332410093

Title
INDICATIVE MITIGATION
SCHEME - A225 /
Parsonage Lane

Revision #	Date 2021.11.04
Reference Sheet 0-001	Figure No. 4

Appendix I

A225 / Parsonage Lane

Existing Layout Modelling Output

Junctions 10

Junctions 10				
ARCADY 10 - Roundabout Module				
Version: 10.0.0.1499				
© Copyright TRL Software Limited, 2021				
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com				
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution				

Filename: 2. A225 _ Parsonage Ln.j10

Path: J:\46416 - GH - Dartford Local Plan (SATURN)\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10

Report generation date: 06/12/2021 09:14:19

»Ref no LTC, AM
 »Ref no LTC, PM
 »Ref LTC, AM
 »Ref LTC, PM
 »Pref no LTC, AM
 »Pref no LTC, PM
 »Pref LTC, AM
 »Pref LTC, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Ref no LTC									
1 - A225 (N)	D1	144.9	653.45	1.31	F	D2	19.8	96.59	1.00	F
2 - Parsonage Ln		292.9	1723.16	1.57	F		701.4	3674.87	2.13	F
3 - A225 (S)		2.9	18.15	0.75	C		6.9	40.32	0.89	E
	Ref LTC									
1 - A225 (N)	D3	155.8	706.58	1.34	F	D4	10.4	54.21	0.94	F
2 - Parsonage Ln		242.5	1406.50	1.49	F		665.0	3330.27	2.06	F
3 - A225 (S)		3.4	20.72	0.78	C		5.9	33.91	0.87	D
	Pref no LTC									
1 - A225 (N)	D5	147.1	663.17	1.32	F	D6	21.4	102.96	1.01	F
2 - Parsonage Ln		298.3	1756.27	1.58	F		709.8	3723.64	2.14	F
3 - A225 (S)		3.3	19.77	0.77	C		7.4	42.93	0.90	E
	Pref LTC									
1 - A225 (N)	D7	161.9	731.67	1.35	F	D8	12.8	64.62	0.96	F
2 - Parsonage Ln		240.0	1384.67	1.49	F		678.1	3408.50	2.08	F
3 - A225 (S)		3.8	22.85	0.80	C		6.5	37.50	0.89	E

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

File summary

File Description

Title	
Location	
Site number	
Date	22/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\dansmith
Description	

Units

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

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
JUNCTION S 9	5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D2	Ref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D3	Ref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D4	Ref LTC	PM	ONE HOUR	00:00	01:30	15	✓
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

Ref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	911.73	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		911.73	F

Arms

Arms

Arm	Name	Description
1	A225 (N)	
2	Parsonage Ln	
3	A225 (S)	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - A225 (N)	2.85	2.59	4.04	2.8	10.80	7.57	0.0	✓
2 - Parsonage Ln	2.67	2.67	4.65	2.8	8.85	6.86	0.0	
3 - A225 (S)	3.06	2.96	4.61	7.8	16.16	16.01	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A225 (N)	0.485	933
2 - Parsonage Ln	0.601	805
3 - A225 (S)	0.667	1101

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A225 (N)		ONE HOUR	✓	899	100.000
2 - Parsonage Ln		ONE HOUR	✓	870	100.000
3 - A225 (S)		ONE HOUR	✓	541	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
From	1 - A225 (N)	0	573	326
	2 - Parsonage Ln	561	0	309
	3 - A225 (S)	278	263	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
From	1 - A225 (N)	0	6	0
	2 - Parsonage Ln	6	0	4
	3 - A225 (S)	0	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A225 (N)	1.31	653.45	144.9	F	825	1237
2 - Parsonage Ln	1.57	1723.16	292.9	F	798	1197
3 - A225 (S)	0.75	18.15	2.9	C	496	745

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	677	169	196	800	0.846	658	588	0.0	4.6	23.027	C
2 - Parsonage Ln	655	164	239	628	1.043	591	616	0.0	16.0	64.916	F
3 - A225 (S)	407	102	381	800	0.509	403	449	0.0	1.0	8.980	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	808	202	235	780	1.036	752	640	4.6	18.7	71.380	F
2 - Parsonage Ln	782	196	273	609	1.285	607	715	16.0	59.8	239.548	F

3 - A225 (S)	486	122	391	793	0.61 3	484	488	1.0	1.5	11.563	B
--------------	-----	-----	-----	-----	-----------	-----	-----	-----	-----	--------	---

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	990	247	287	754	1.31 2	753	696	18.7	78.0	243.58 0	F
2 - Parsonage Ln	958	239	273	609	1.57 4	608	767	59.8	147.2	622.27 6	F
3 - A225 (S)	596	149	392	793	0.75 1	591	489	1.5	2.8	17.367	C

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	990	247	289	753	1.31 4	753	698	78.0	137.3	517.215	F
2 - Parsonage Ln	958	239	273	609	1.57 4	609	769	147.2	234.5	1143.51 6	F
3 - A225 (S)	596	149	392	793	0.75 2	595	489	2.8	2.9	18.149	C

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	808	202	239	779	1.03 8	778	642	137.3	144.9	653.454	F
2 - Parsonage Ln	782	196	282	603	1.29 6	603	735	234.5	279.2	1543.49 9	F
3 - A225 (S)	486	122	389	795	0.61 2	491	496	2.9	1.6	12.061	B

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	677	169	199	799	0.84 7	793	597	144.9	115.8	592.255	F
2 - Parsonage Ln	655	164	288	600	1.09 1	600	705	279.2	292.9	1723.16 3	F
3 - A225 (S)	407	102	387	796	0.51 2	410	501	1.6	1.1	9.363	A

Ref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	1840.18	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		1840.18	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Ref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A225 (N)		ONE HOUR	✓	674	100.000
2 - Parsonage Ln		ONE HOUR	✓	1205	100.000
3 - A225 (S)		ONE HOUR	✓	594	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
	1 - A225 (N)	0	463	211
	2 - Parsonage Ln	912	0	293
	3 - A225 (S)	347	247	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
	1 - A225 (N)	0	10	2
	2 - Parsonage Ln	8	0	5
	3 - A225 (S)	2	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A225 (N)	1.00	96.59	19.8	F	618	928

2 - Parsonage Ln	2.13	3674.87	701.4	F	1106	1659
3 - A225 (S)	0.89	40.32	6.9	E	545	818

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	507	127	183	781	0.650	500	750	0.0	1.8	12.541	B
2 - Parsonage Ln	907	227	157	661	1.373	651	527	0.0	64.1	187.783	F
3 - A225 (S)	447	112	492	720	0.621	441	315	0.0	1.6	12.642	B

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	606	151	220	763	0.794	599	796	1.8	3.5	21.098	C
2 - Parsonage Ln	1083	271	188	643	1.684	643	632	64.1	174.2	685.657	F
3 - A225 (S)	534	133	487	724	0.738	530	344	1.6	2.6	18.151	C

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	742	186	266	741	1.001	701	847	3.5	13.8	59.234	F
2 - Parsonage Ln	1327	332	219	625	2.123	625	747	174.2	349.7	1515.947	F
3 - A225 (S)	654	164	473	733	0.892	640	371	2.6	6.2	34.044	D

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	742	186	271	739	1.004	718	851	13.8	19.8	96.589	F
2 - Parsonage Ln	1327	332	225	622	2.134	622	764	349.7	525.9	2488.477	F
3 - A225 (S)	654	164	471	735	0.890	651	376	6.2	6.9	40.320	E

01:00 - 01:15

Arm	Total Demand	Junction	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue	End queue	Delay (s)	Unsignalised level of service
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	(Veh/hr)	Arrivals (Veh)						e (Veh)	e (Veh)		
1 - A225 (N)	606	151	229	759	0.798	667	799	19.8	4.6	50.217	F
2 - Parsonage Ln	1083	271	209	631	1.717	631	687	525.9	639.0	3231.098	F
3 - A225 (S)	534	133	478	730	0.731	550	362	6.9	2.9	21.424	C

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	507	127	188	779	0.652	518	762	4.6	1.9	14.334	B
2 - Parsonage Ln	907	227	162	658	1.380	658	544	639.0	701.4	3674.873	F
3 - A225 (S)	447	112	498	716	0.625	452	322	2.9	1.7	13.865	B

Ref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	801.68	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		801.68	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Ref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A225 (N)		ONE HOUR	✓	899	100.000
2 - Parsonage Ln		ONE HOUR	✓	848	100.000
3 - A225 (S)		ONE HOUR	✓	555	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
1 - A225 (N)		0	603	296
2 - Parsonage Ln		551	0	297
3 - A225 (S)		281	274	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
1 - A225 (N)		0	7	0
2 - Parsonage Ln		6	0	4
3 - A225 (S)		0	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A225 (N)	1.34	706.58	155.8	F	825	1237
2 - Parsonage Ln	1.49	1406.50	242.5	F	778	1167
3 - A225 (S)	0.78	20.72	3.4	C	509	764

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	677	169	204	789	0.857	657	593	0.0	5.0	24.407	C
2 - Parsonage Ln	638	160	216	641	0.996	591	645	0.0	11.9	52.330	F
3 - A225 (S)	418	104	384	798	0.524	414	423	0.0	1.1	9.267	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	808	202	245	769	1.051	745	655	5.0	20.8	78.089	F

2 - Parsonage Ln	762	191	245	624	1.22 1	621	745	11.9	47.3	187.33 9	F
3 - A225 (S)	499	125	403	785	0.63 6	496	463	1.1	1.7	12.378	B

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	990	247	299	742	1.33 4	741	712	20.8	83.0	264.23 4	F
2 - Parsonage Ln	934	233	244	625	1.49 4	625	796	47.3	124.5	505.44 5	F
3 - A225 (S)	611	153	406	783	0.78 1	605	463	1.7	3.3	19.531	C

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	990	247	301	741	1.33 6	741	715	83.0	145.3	556.28 7	F
2 - Parsonage Ln	934	233	244	625	1.49 3	625	798	124.5	201.7	951.72 7	F
3 - A225 (S)	611	153	406	783	0.78 1	611	463	3.3	3.4	20.722	C

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	808	202	249	767	1.05 4	766	659	145.3	155.8	706.581	F
2 - Parsonage Ln	762	191	252	620	1.22 9	620	763	201.7	237.2	1283.10 7	F
3 - A225 (S)	499	125	403	785	0.63 6	505	470	3.4	1.8	13.150	B

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	677	169	208	788	0.85 9	783	614	155.8	129.3	656.299	F
2 - Parsonage Ln	638	160	258	617	1.03 4	617	733	237.2	242.5	1406.49 8	F
3 - A225 (S)	418	104	401	786	0.53 1	420	474	1.8	1.2	9.906	A

Ref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	1656.81	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		1656.81	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Ref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A225 (N)		ONE HOUR	✓	671	100.000
2 - Parsonage Ln		ONE HOUR	✓	1212	100.000
3 - A225 (S)		ONE HOUR	✓	600	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
From	1 - A225 (N)	0	458	213
	2 - Parsonage Ln	908	0	304
	3 - A225 (S)	360	240	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
From	1 - A225 (N)	0	3	0
	2 - Parsonage Ln	3	0	1
	3 - A225 (S)	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A225 (N)	0.94	54.21	10.4	F	616	924
2 - Parsonage Ln	2.06	3330.27	665.0	F	1112	1668
3 - A225 (S)	0.87	33.91	5.9	D	551	826

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	505	126	178	828	0.610	499	777	0.0	1.5	10.747	B
2 - Parsonage Ln	912	228	158	692	1.318	681	519	0.0	58.0	163.737	F
3 - A225 (S)	452	113	510	745	0.607	446	329	0.0	1.5	11.824	B

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	603	151	214	811	0.744	598	826	1.5	2.7	16.560	C
2 - Parsonage Ln	1090	272	190	674	1.617	674	623	58.0	161.9	605.449	F
3 - A225 (S)	539	135	505	748	0.721	536	359	1.5	2.4	16.630	C

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	739	185	259	789	0.936	715	878	2.7	8.6	39.859	E
2 - Parsonage Ln	1334	334	227	652	2.046	652	748	161.9	332.5	1369.776	F
3 - A225 (S)	661	165	489	759	0.870	649	391	2.4	5.4	29.703	D

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	739	185	264	787	0.939	731	882	8.6	10.4	54.210	F
2 - Parsonage Ln	1334	334	232	649	2.056	649	763	332.5	503.9	2270.857	F
3 - A225 (S)	661	165	486	761	0.868	659	395	5.4	5.9	33.906	D

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	603	151	221	808	0.747	632	831	10.4	3.2	23.239	C
2 - Parsonage Ln	1090	272	201	668	1.632	668	652	503.9	609.4	2939.393	F
3 - A225 (S)	539	135	500	751	0.718	552	368	5.9	2.7	19.064	C

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	505	126	182	826	0.611	511	791	3.2	1.6	11.647	B
2 - Parsonage Ln	912	228	162	690	1.322	690	531	609.4	665.0	3330.266	F
3 - A225 (S)	452	113	517	740	0.611	456	335	2.7	1.6	12.874	B

Pref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	923.35	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		923.35	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A225 (N)		ONE HOUR	✓	900	100.000
2 - Parsonage Ln		ONE HOUR	✓	873	100.000

3 - A225 (S)		ONE HOUR	✓	557	100.000
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Origin-Destination Data

Demand (Veh/hr)

From	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
1 - A225 (N)		0	571	329
2 - Parsonage Ln		563	0	310
3 - A225 (S)		291	266	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
1 - A225 (N)		0	6	0
2 - Parsonage Ln		6	0	4
3 - A225 (S)		0	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A225 (N)	1.32	663.17	147.1	F	826	1239
2 - Parsonage Ln	1.58	1756.27	298.3	F	801	1202
3 - A225 (S)	0.77	19.77	3.3	C	511	767

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	678	169	198	799	0.848	659	598	0.0	4.7	23.234	C
2 - Parsonage Ln	657	164	241	627	1.048	591	616	0.0	16.5	66.562	F
3 - A225 (S)	419	105	381	801	0.524	415	451	0.0	1.1	9.236	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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1 - A225 (N)	809	202	238	779	1.038	751	651	4.7	19.1	72.499	F
2 - Parsonage Ln	785	196	275	608	1.292	606	715	16.5	61.3	245.875	F
3 - A225 (S)	501	125	391	794	0.630	498	490	1.1	1.6	12.068	B

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	991	248	290	753	1.316	751	709	19.1	79.0	247.172	F
2 - Parsonage Ln	961	240	275	608	1.582	607	767	61.3	149.7	635.197	F
3 - A225 (S)	613	153	392	794	0.773	607	490	1.6	3.1	18.738	C

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	991	248	293	752	1.318	751	712	79.0	138.9	524.265	F
2 - Parsonage Ln	961	240	275	608	1.582	608	769	149.7	238.1	1163.900	F
3 - A225 (S)	613	153	392	794	0.773	613	490	3.1	3.3	19.775	C

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	809	202	242	777	1.041	776	653	138.9	147.1	663.167	F
2 - Parsonage Ln	785	196	284	602	1.303	602	735	238.1	283.8	1570.776	F
3 - A225 (S)	501	125	388	796	0.629	507	498	3.3	1.8	12.697	B

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	678	169	201	798	0.850	792	607	147.1	118.4	603.876	F
2 - Parsonage Ln	657	164	290	599	1.097	599	704	283.8	298.3	1756.267	F
3 - A225 (S)	419	105	386	797	0.526	422	502	1.8	1.1	9.653	A

Pref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	1862.48	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		1862.48	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A225 (N)		ONE HOUR	✓	679	100.000
2 - Parsonage Ln		ONE HOUR	✓	1210	100.000
3 - A225 (S)		ONE HOUR	✓	600	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
	1 - A225 (N)	0	466	213
	2 - Parsonage Ln	917	0	293
	3 - A225 (S)	352	248	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
	1 - A225 (N)	0	10	2
	2 - Parsonage Ln	8	0	5
	3 - A225 (S)	2	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A225 (N)	1.01	102.96	21.4	F	623	935
2 - Parsonage Ln	2.14	3723.64	709.8	F	1110	1665
3 - A225 (S)	0.90	42.93	7.4	E	551	826

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	511	128	184	780	0.655	504	754	0.0	1.8	12.709	B
2 - Parsonage Ln	911	228	158	660	1.380	650	530	0.0	65.2	191.004	F
3 - A225 (S)	452	113	493	720	0.628	445	315	0.0	1.6	12.833	B

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	610	153	221	763	0.800	603	800	1.8	3.6	21.639	C
2 - Parsonage Ln	1088	272	189	642	1.694	642	635	65.2	176.7	696.810	F
3 - A225 (S)	539	135	487	724	0.745	535	345	1.6	2.7	18.607	C

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	748	187	267	741	1.009	703	852	3.6	14.7	61.803	F
2 - Parsonage Ln	1332	333	221	624	2.134	624	749	176.7	353.7	1536.335	F
3 - A225 (S)	661	165	473	733	0.901	645	372	2.7	6.6	35.636	E

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	748	187	272	738	1.012	720	856	14.7	21.4	102.959	F
2 - Parsonage Ln	1332	333	226	621	2.145	621	766	353.7	531.5	2519.696	F
3 - A225 (S)	661	165	471	735	0.899	657	376	6.6	7.4	42.933	E

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	610	153	230	758	0.805	677	803	21.4	4.9	56.527	F
2 - Parsonage Ln	1088	272	212	629	1.729	629	695	531.5	646.2	3272.747	F
3 - A225 (S)	539	135	477	731	0.738	557	365	7.4	3.0	22.376	C

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	511	128	189	778	0.657	523	766	4.9	2.0	14.670	B
2 - Parsonage Ln	911	228	164	657	1.387	657	548	646.2	709.8	3723.640	F
3 - A225 (S)	452	113	498	716	0.631	457	323	3.0	1.8	14.128	B

Pref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	799.05	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		799.05	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A225 (N)		ONE HOUR	✓	905	100.000
2 - Parsonage Ln		ONE HOUR	✓	850	100.000

3 - A225 (S)		ONE HOUR	✓	571	100.000
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Origin-Destination Data

Demand (Veh/hr)

From	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
1 - A225 (N)		0	615	290
2 - Parsonage Ln		549	0	301
3 - A225 (S)		297	274	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
1 - A225 (N)		0	7	0
2 - Parsonage Ln		6	0	4
3 - A225 (S)		0	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A225 (N)	1.35	731.67	161.9	F	830	1246
2 - Parsonage Ln	1.49	1384.67	240.0	F	780	1170
3 - A225 (S)	0.80	22.85	3.8	C	524	786

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	681	170	204	789	0.863	661	604	0.0	5.1	25.059	D
2 - Parsonage Ln	640	160	212	644	0.994	593	653	0.0	11.7	51.792	F
3 - A225 (S)	430	107	383	799	0.538	425	422	0.0	1.1	9.514	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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1 - A225 (N)	814	203	245	769	1.059	746	669	5.1	22.0	81.360	F
2 - Parsonage Ln	764	191	239	628	1.217	624	752	11.7	46.8	184.555	F
3 - A225 (S)	513	128	403	786	0.653	511	460	1.1	1.8	12.951	B

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	996	249	298	742	1.343	741	729	22.0	85.9	273.900	F
2 - Parsonage Ln	936	234	237	629	1.488	629	802	46.8	123.6	498.342	F
3 - A225 (S)	629	157	406	784	0.802	621	460	1.8	3.6	21.236	C

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	996	249	301	740	1.346	740	733	85.9	149.9	574.262	F
2 - Parsonage Ln	936	234	237	629	1.488	629	804	123.6	200.3	939.308	F
3 - A225 (S)	629	157	406	784	0.802	628	460	3.6	3.8	22.851	C

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	814	203	250	766	1.062	766	674	149.9	161.9	731.668	F
2 - Parsonage Ln	764	191	245	624	1.224	624	770	200.3	235.3	1265.562	F
3 - A225 (S)	513	128	403	786	0.653	521	466	3.8	2.0	13.953	B

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	681	170	208	787	0.865	782	626	161.9	136.6	687.355	F
2 - Parsonage Ln	640	160	251	621	1.030	621	739	235.3	240.0	1384.667	F
3 - A225 (S)	430	107	401	787	0.546	433	471	2.0	1.2	10.243	B

Pref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	1686.42	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		1686.42	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A225 (N)		ONE HOUR	✓	683	100.000
2 - Parsonage Ln		ONE HOUR	✓	1218	100.000
3 - A225 (S)		ONE HOUR	✓	609	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
From	1 - A225 (N)	0	466	217
	2 - Parsonage Ln	914	0	304
	3 - A225 (S)	369	240	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
From	1 - A225 (N)	0	3	1
	2 - Parsonage Ln	3	0	1
	3 - A225 (S)	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A225 (N)	0.96	64.62	12.8	F	627	940
2 - Parsonage Ln	2.08	3408.50	678.1	F	1118	1676
3 - A225 (S)	0.89	37.50	6.5	E	559	838

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	514	129	178	825	0.623	508	783	0.0	1.6	11.140	B
2 - Parsonage Ln	917	229	161	690	1.330	678	525	0.0	59.7	168.726	F
3 - A225 (S)	458	115	509	742	0.618	452	331	0.0	1.6	12.164	B

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	614	154	214	807	0.760	609	832	1.6	2.9	17.626	C
2 - Parsonage Ln	1095	274	193	671	1.633	671	629	59.7	165.8	623.403	F
3 - A225 (S)	547	137	503	746	0.734	543	361	1.6	2.6	17.374	C

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	752	188	259	786	0.957	724	885	2.9	10.0	44.836	E
2 - Parsonage Ln	1341	335	230	649	2.066	649	753	165.8	338.8	1406.534	F
3 - A225 (S)	671	168	487	757	0.885	657	392	2.6	6.0	32.100	D

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	752	188	263	783	0.960	741	889	10.0	12.8	64.622	F
2 - Parsonage Ln	1341	335	235	646	2.077	646	769	338.8	512.6	2322.704	F
3 - A225 (S)	671	168	485	759	0.883	668	397	6.0	6.5	37.504	E

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	614	154	222	804	0.764	651	838	12.8	3.5	27.856	D
2 - Parsonage Ln	1095	274	207	663	1.652	663	666	512.6	620.7	3006.843	F
3 - A225 (S)	547	137	497	750	0.730	562	372	6.5	2.9	20.400	C

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	514	129	183	823	0.625	521	796	3.5	1.7	12.217	B
2 - Parsonage Ln	917	229	166	687	1.335	687	538	620.7	678.1	3408.496	F
3 - A225 (S)	458	115	516	738	0.621	463	337	2.9	1.7	13.324	B

Appendix J
A225 / Parsonage Lane
Mitigation Layout Modelling Output

Junctions 10

Junctions 10	
ARCADY 10 - Roundabout Module	
Version: 10.0.0.1499 © Copyright TRL Software Limited, 2021	
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com	
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution	

Filename: 2. A225 _ Parsonage Ln - Mitigation.j10
Path: J:\46416 - GH - Dartford Local Plan (SATURN)\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10
Report generation date: 06/12/2021 09:15:39

»Pref no LTC, AM
 »Pref no LTC, PM
 »Pref LTC, AM
 »Pref LTC, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Pref no LTC									
1 - A225 (N)	D5	104.6	445.34	1.23	F	D6	11.0	56.53	0.94	F
2 - Parsonage Ln		233.0	1298.71	1.47	F		624.8	3027.33	1.97	F
3 - A225 (S)		2.9	17.66	0.75	C		6.5	37.85	0.88	E
	Pref LTC									
1 - A225 (N)	D7	114.7	503.21	1.25	F	D8	7.2	37.03	0.90	E
2 - Parsonage Ln		183.0	972.67	1.38	F		589.4	2740.64	1.91	F
3 - A225 (S)		3.4	20.22	0.78	C		5.9	33.48	0.87	D

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

File summary

File Description

Title	
Location	
Site number	
Date	22/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\dansmith

Description	
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Units

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

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
JUNCTION S 9	5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

Pref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	666.21	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		666.21	F

Arms

Arms

Arm	Name	Description
1	A225 (N)	
2	Parsonage Ln	

3	A225 (S)	
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Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - A225 (N)	2.85	2.59	4.50	5.0	10.80	7.57	0.0	✓
2 - Parsonage Ln	2.67	2.67	5.00	5.0	8.85	6.86	0.0	
3 - A225 (S)	3.06	2.96	5.00	10.0	16.16	16.01	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A225 (N)	0.497	994
2 - Parsonage Ln	0.614	869
3 - A225 (S)	0.677	1149

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A225 (N)		ONE HOUR	✓	900	100.000
2 - Parsonage Ln		ONE HOUR	✓	873	100.000
3 - A225 (S)		ONE HOUR	✓	557	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
	1 - A225 (N)	0	571	329
	2 - Parsonage Ln	563	0	310
	3 - A225 (S)	291	266	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
	1 - A225 (N)	0	6	0
	2 - Parsonage Ln	6	0	4
	3 - A225 (S)	0	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A225 (N)	1.23	445.34	104.6	F	826	1239
2 - Parsonage Ln	1.47	1298.71	233.0	F	801	1202
3 - A225 (S)	0.75	17.66	2.9	C	511	767

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	678	169	198	855	0.792	664	616	0.0	3.5	17.717	C
2 - Parsonage Ln	657	164	243	684	0.961	619	619	0.0	9.6	42.939	E
3 - A225 (S)	419	105	399	831	0.505	415	462	0.0	1.0	8.581	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	809	202	238	835	0.969	777	682	3.5	11.4	46.914	E
2 - Parsonage Ln	785	196	284	660	1.190	654	731	9.6	42.3	158.739	F
3 - A225 (S)	501	125	422	815	0.614	499	516	1.0	1.5	11.278	B

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	991	248	290	808	1.227	803	739	11.4	58.3	169.312	F
2 - Parsonage Ln	961	240	294	654	1.470	654	800	42.3	119.1	454.951	F

3 - A225 (S)	613	153	422	816	0.75 2	608	526	1.5	2.8	16.927	C
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00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	991	248	293	806	1.22 9	806	742	58.3	104.6	369.81 1	F
2 - Parsonage Ln	961	240	295	654	1.47 1	653	804	119.1	196.1	879.19 8	F
3 - A225 (S)	613	153	421	816	0.75 2	613	527	2.8	2.9	17.661	C

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	809	202	242	833	0.97 2	825	683	104.6	100.6	445.344	F
2 - Parsonage Ln	785	196	302	650	1.20 8	649	765	196.1	229.9	1189.96 3	F
3 - A225 (S)	501	125	419	818	0.61 3	506	532	2.9	1.6	11.735	B

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	678	169	201	854	0.79 4	845	636	100.6	58.7	341.446	F
2 - Parsonage Ln	657	164	309	645	1.01 9	645	738	229.9	233.0	1298.71 3	F
3 - A225 (S)	419	105	416	820	0.51 2	422	538	1.6	1.1	9.096	A

Pref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	1507.40	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		1507.40	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A225 (N)		ONE HOUR	✓	679	100.000
2 - Parsonage Ln		ONE HOUR	✓	1210	100.000
3 - A225 (S)		ONE HOUR	✓	600	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
From	1 - A225 (N)	0	466	213
	2 - Parsonage Ln	917	0	293
	3 - A225 (S)	352	248	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
From	1 - A225 (N)	0	10	2
	2 - Parsonage Ln	8	0	5
	3 - A225 (S)	2	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A225 (N)	0.94	56.53	11.0	F	623	935
2 - Parsonage Ln	1.97	3027.33	624.8	F	1110	1665
3 - A225 (S)	0.88	37.85	6.5	E	551	826

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	511	128	184	835	0.613	505	795	0.0	1.5	10.737	B
2 - Parsonage Ln	911	228	158	718	1.270	704	531	0.0	51.8	142.992	F
3 - A225 (S)	452	113	533	733	0.617	446	329	0.0	1.6	12.291	B

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	610	153	221	816	0.748	605	844	1.5	2.8	16.668	C
2 - Parsonage Ln	1088	272	190	699	1.556	699	637	51.8	149.0	532.991	F
3 - A225 (S)	539	135	530	735	0.734	535	359	1.6	2.6	17.628	C

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	748	187	268	794	0.942	723	893	2.8	9.0	40.874	E
2 - Parsonage Ln	1332	333	227	678	1.966	678	764	149.0	312.6	1232.438	F
3 - A225 (S)	661	165	514	747	0.885	647	391	2.6	5.9	32.400	D

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	748	187	272	792	0.945	739	897	9.0	11.0	56.533	F
2 - Parsonage Ln	1332	333	232	675	1.975	675	780	312.6	477.0	2113.292	F
3 - A225 (S)	661	165	511	748	0.883	658	395	5.9	6.5	37.846	E

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	610	153	229	813	0.751	641	850	11.0	3.3	24.071	C
2 - Parsonage Ln	1088	272	201	693	1.571	693	669	477.0	575.8	2684.106	F
3 - A225 (S)	539	135	525	739	0.730	554	369	6.5	2.9	20.778	C

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	511	128	189	832	0.614	518	810	3.3	1.6	11.665	B
2 - Parsonage Ln	911	228	162	715	1.274	715	544	575.8	624.8	3027.332	F
3 - A225 (S)	452	113	542	727	0.622	456	336	2.9	1.7	13.556	B

Pref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	558.13	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		558.13	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A225 (N)		ONE HOUR	✓	905	100.000
2 - Parsonage Ln		ONE HOUR	✓	850	100.000
3 - A225 (S)		ONE HOUR	✓	571	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
	1 - A225 (N)	0	615	290
	2 - Parsonage Ln	549	0	301
	3 - A225 (S)	297	274	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
	1 - A225 (N)	0	7	0
	2 - Parsonage Ln	6	0	4
	3 - A225 (S)	0	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A225 (N)	1.25	503.21	114.7	F	830	1246
2 - Parsonage Ln	1.38	972.67	183.0	F	780	1170
3 - A225 (S)	0.78	20.22	3.4	C	524	786

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	681	170	204	844	0.807	666	617	0.0	3.7	18.905	C
2 - Parsonage Ln	640	160	214	701	0.913	612	657	0.0	6.9	34.019	D
3 - A225 (S)	430	107	395	834	0.516	426	430	0.0	1.0	8.742	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	814	203	245	823	0.988	776	698	3.7	13.2	52.780	F
2 - Parsonage Ln	764	191	249	680	1.123	669	772	6.9	30.6	117.652	F
3 - A225 (S)	513	128	432	808	0.635	511	486	1.0	1.7	12.003	B

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	996	249	299	796	1.252	793	761	13.2	64.1	188.308	F
2 - Parsonage Ln	936	234	254	677	1.382	676	837	30.6	95.5	346.967	F

3 - A225 (S)	629	157	437	805	0.78 1	622	494	1.7	3.3	19.063	C
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00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	996	249	301	795	1.25 4	794	764	64.1	114.7	410.14 7	F
2 - Parsonage Ln	936	234	254	677	1.38 3	677	841	95.5	160.3	690.31 9	F
3 - A225 (S)	629	157	437	805	0.78 1	628	494	3.3	3.4	20.217	C

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	814	203	249	821	0.99 1	814	705	114.7	114.7	503.20 5	F
2 - Parsonage Ln	764	191	261	673	1.13 5	673	802	160.3	183.0	928.43 0	F
3 - A225 (S)	513	128	435	806	0.63 7	520	499	3.4	1.8	12.819	B

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	681	170	208	843	0.80 9	835	655	114.7	76.2	412.67 4	F
2 - Parsonage Ln	640	160	268	669	0.95 6	666	775	183.0	176.6	972.67 1	F
3 - A225 (S)	430	107	430	810	0.53 1	433	503	1.8	1.2	9.608	A

Pref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	1352.72	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		1352.72	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A225 (N)		ONE HOUR	✓	683	100.000
2 - Parsonage Ln		ONE HOUR	✓	1218	100.000
3 - A225 (S)		ONE HOUR	✓	609	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
From	1 - A225 (N)	0	466	217
	2 - Parsonage Ln	914	0	304
	3 - A225 (S)	369	240	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - A225 (N)	2 - Parsonage Ln	3 - A225 (S)
From	1 - A225 (N)	0	3	1
	2 - Parsonage Ln	3	0	1
	3 - A225 (S)	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A225 (N)	0.90	37.03	7.2	E	627	940
2 - Parsonage Ln	1.91	2740.64	589.4	F	1118	1676
3 - A225 (S)	0.87	33.48	5.9	D	559	838

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	514	129	178	882	0.583	509	825	0.0	1.4	9.498	A
2 - Parsonage Ln	917	229	162	750	1.223	734	525	0.0	45.8	123.236	F
3 - A225 (S)	458	115	551	756	0.606	453	345	0.0	1.5	11.633	B

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	614	154	214	864	0.711	610	877	1.4	2.3	13.960	B
2 - Parsonage Ln	1095	274	194	730	1.499	730	631	45.8	137.0	465.749	F
3 - A225 (S)	547	137	548	758	0.722	544	376	1.5	2.4	16.463	C

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	752	188	260	841	0.894	736	929	2.3	6.4	30.214	D
2 - Parsonage Ln	1341	335	234	706	1.899	706	762	137.0	295.7	1108.518	F
3 - A225 (S)	671	168	530	771	0.870	659	410	2.4	5.4	29.323	D

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	752	188	264	839	0.896	749	933	6.4	7.2	37.035	E
2 - Parsonage Ln	1341	335	238	704	1.905	704	774	295.7	454.9	1925.844	F
3 - A225 (S)	671	168	528	772	0.869	669	414	5.4	5.9	33.479	D

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	614	154	221	861	0.713	632	884	7.2	2.6	16.886	C
2 - Parsonage Ln	1095	274	201	726	1.508	726	652	454.9	547.1	2443.436	F
3 - A225 (S)	547	137	545	760	0.720	560	382	5.9	2.7	18.952	C

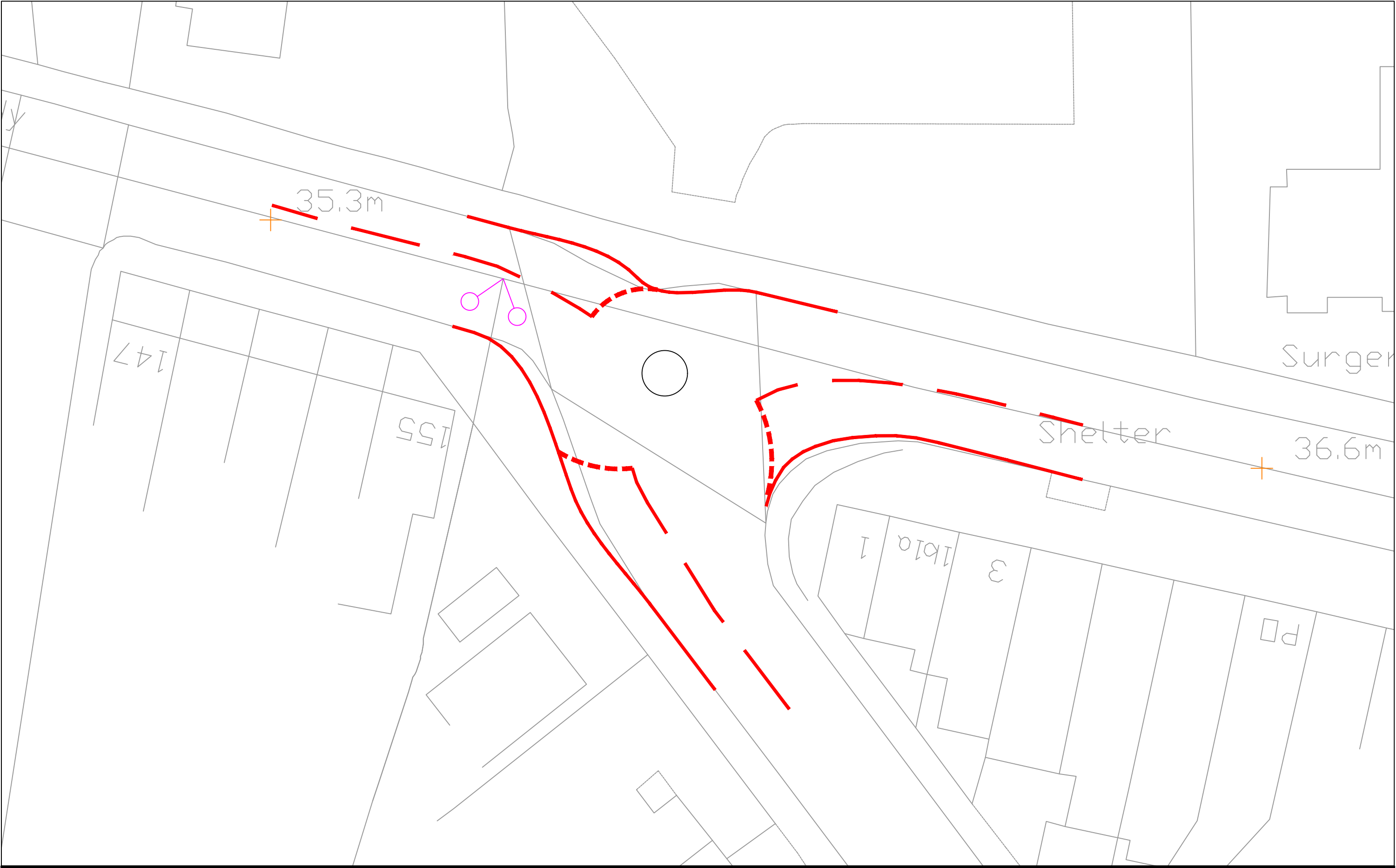
01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A225 (N)	514	129	182	880	0.584	519	842	2.6	1.4	10.098	B
2 - Parsonage Ln	917	229	165	748	1.226	748	536	547.1	589.4	2740.644	F
3 - A225 (S)	458	115	561	749	0.612	463	352	2.7	1.6	12.766	B

Appendix K
A226 / Park Road
Mitigation Scheme

J:\46416 - gh - dartford local plan (saturn)\3-autocad\drawings\5501\332410093_5501_001 - mitigation modelling

2021.11.04 4:07:59 PM



Stantec
Street Address
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Notes

Client/Project

DARTFORD DC

DARTFORD LP (SATURN)

Project No.

332410093

Title

INDICATIVE MITIGATION
SCHEME - A226 East Hill /
A296 Park Road

Revision

#

Reference Sheet

0-001

Date

2021.11.04

Figure No.

2

Appendix L
A226 / Park Road
Existing Layout Modelling Output

Junctions 10

Junctions 10				
ARCADY 10 - Roundabout Module				
Version: 10.0.0.1499				
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Filename: 3. A226 _ Park Rd.j10

Path: J:\46416 - GH - Dartford Local Plan (SATURN)\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10

Report generation date: 06/12/2021 09:16:48

»Ref no LTC, AM
 »Ref no LTC, PM
 »Ref LTC, AM
 »Ref LTC, PM
 »Pref no LTC, AM
 »Pref no LTC, PM
 »Pref LTC, AM
 »Pref LTC, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Ref no LTC									
1 - The Brent	D1	344.5	1885.42	1.70	F	D2	165.4	951.31	1.38	F
2 - Park Road		1.2	11.66	0.55	B		6.0	42.39	0.88	E
3 - East Hill		36.7	131.14	1.05	F		199.9	753.05	1.34	F
	Ref LTC									
1 - The Brent	D3	341.0	1849.48	1.70	F	D4	124.8	700.51	1.30	F
2 - Park Road		1.0	10.76	0.49	B		3.3	25.17	0.78	D
3 - East Hill		27.0	98.57	1.02	F		200.1	721.88	1.32	F
	Pref no LTC									
1 - The Brent	D5	378.5	2176.62	1.73	F	D6	177.0	1037.04	1.40	F
2 - Park Road		1.9	15.04	0.66	C		14.6	86.80	0.98	F
3 - East Hill		62.0	218.37	1.12	F		216.1	831.56	1.37	F
	Pref LTC									
1 - The Brent	D7	367.5	2048.01	1.71	F	D8	161.6	949.50	1.38	F
2 - Park Road		1.3	12.66	0.58	B		9.1	56.98	0.93	F
3 - East Hill		55.1	179.98	1.09	F		221.9	813.99	1.36	F

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

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

File summary

File Description

Title	
Location	
Site number	
Date	22/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\dansmith
Description	

Units

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

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
JUNCTION S 9	5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D2	Ref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D3	Ref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D4	Ref LTC	PM	ONE HOUR	00:00	01:30	15	✓
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

Ref no LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 84% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	856.73	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		856.73	F

Arms

Arms

Arm	Name	Description
1	The Brent	
2	Park Road	
3	East Hill	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - The Brent	3.55	2.46	4.89	1.6	7.22	3.36	0.0	✓
2 - Park Road	3.77	3.54	3.84	0.4	9.56	8.30	0.0	
3 - East Hill	3.46	3.16	3.71	4.5	10.62	10.12	0.0	✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - The Brent	0.474	822
2 - Park Road	0.615	933
3 - East Hill	0.502	1017

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - The Brent		ONE HOUR	✓	922	100.000
2 - Park Road		ONE HOUR	✓	338	100.000
3 - East Hill		ONE HOUR	✓	867	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
From	1 - The Brent	0	338	584
	2 - Park Road	73	0	265
	3 - East Hill	484	383	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
From	1 - The Brent	0	0	3
	2 - Park Road	1	0	2
	3 - East Hill	3	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - The Brent	1.70	1885.42	344.5	F	846	1269
2 - Park Road	0.55	11.66	1.2	B	310	465
3 - East Hill	1.05	131.14	36.7	F	796	1193

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	694	174	284	657	1.056	623	414	0.0	17.9	67.501	F
2 - Park Road	254	64	394	671	0.379	252	512	0.0	0.6	8.548	A
3 - East Hill	653	163	54	921	0.709	643	592	0.0	2.3	12.588	B

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	829	207	340	628	1.319	627	495	17.9	68.4	264.772	F
2 - Park Road	304	76	397	669	0.454	303	569	0.6	0.8	9.804	A

3 - East Hill	779	195	65	916	0.85 1	769	634	2.3	4.9	22.987	C
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00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	1015	254	390	602	1.68 6	602	573	68.4	171.8	730.32 6	F
2 - Park Road	372	93	381	679	0.54 8	371	610	0.8	1.2	11.616	B
3 - East Hill	955	239	80	909	1.05 0	882	672	4.9	23.0	71.124	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	1015	254	397	598	1.69 8	598	583	171.8	276.1	1356.37 5	F
2 - Park Road	372	93	379	681	0.54 7	372	617	1.2	1.2	11.663	B
3 - East Hill	955	239	80	909	1.05 0	900	670	23.0	36.7	131.145	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	829	207	394	600	1.38 2	600	563	276.1	333.3	1764.68 1	F
2 - Park Road	304	76	380	680	0.44 7	305	614	1.2	0.8	9.652	A
3 - East Hill	779	195	66	916	0.85 1	891	619	36.7	8.7	99.092	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	694	174	299	650	1.06 9	649	433	333.3	344.5	1885.42 4	F
2 - Park Road	254	64	411	660	0.38 5	255	537	0.8	0.6	8.905	A
3 - East Hill	653	163	55	921	0.70 9	677	611	8.7	2.6	16.144	C

Ref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
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1	untitled	Mini-roundabout		1, 2, 3	669.77	F
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Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		669.77	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Ref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - The Brent		ONE HOUR	✓	775	100.000
2 - Park Road		ONE HOUR	✓	497	100.000
3 - East Hill		ONE HOUR	✓	1098	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
From	1 - The Brent	0	216	559
	2 - Park Road	144	0	353
	3 - East Hill	662	436	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
From	1 - The Brent	0	1	5
	2 - Park Road	1	0	4
	3 - East Hill	3	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - The Brent	1.38	951.31	165.4	F	711	1067
2 - Park Road	0.88	42.39	6.0	E	456	684
3 - East Hill	1.34	753.05	199.9	F	1008	1511

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	583	146	318	639	0.913	556	590	0.0	6.7	36.329	E
2 - Park Road	374	94	401	653	0.573	369	473	0.0	1.3	12.461	B
3 - East Hill	827	207	107	927	0.891	801	663	0.0	6.3	24.952	C

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	697	174	357	621	1.123	610	670	6.7	28.5	121.674	F
2 - Park Road	447	112	440	629	0.710	443	527	1.3	2.3	18.923	C
3 - East Hill	987	247	128	917	1.076	898	754	6.3	28.6	84.312	F

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	853	213	359	620	1.377	619	699	28.5	87.1	348.600	F
2 - Park Road	547	137	446	625	0.876	535	531	2.3	5.4	35.696	E
3 - East Hill	1209	302	155	904	1.337	903	826	28.6	105.0	276.120	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	853	213	358	620	1.377	620	702	87.1	145.5	686.358	F
2 - Park Road	547	137	447	625	0.876	545	531	5.4	6.0	42.386	E
3 - East Hill	1209	302	158	903	1.339	902	834	105.0	181.7	575.892	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	697	174	363	617	1.128	617	685	145.5	165.4	916.076	F
2 - Park Road	447	112	445	626	0.714	460	535	6.0	2.7	23.239	C

3 - East Hill	987	247	133	915	1.079	914	772	181.7	199.9	753.049	F
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01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	583	146	366	616	0.947	612	665	165.4	158.2	951.308	F
2 - Park Road	374	94	442	628	0.596	379	537	2.7	1.5	14.711	B
3 - East Hill	827	207	110	926	0.893	921	711	199.9	176.2	734.909	F

Ref LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 85% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	849.11	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		849.11	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Ref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - The Brent		ONE HOUR	✓	924	100.000
2 - Park Road		ONE HOUR	✓	296	100.000
3 - East Hill		ONE HOUR	✓	880	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
From	1 - The Brent	0	307	617
	2 - Park Road	67	0	229
	3 - East Hill	462	418	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
From	1 - The Brent	0	0	2
	2 - Park Road	1	0	4
	3 - East Hill	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - The Brent	1.70	1849.48	341.0	F	848	1272
2 - Park Road	0.49	10.76	1.0	B	272	407
3 - East Hill	1.02	98.57	27.0	F	808	1211

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	696	174	311	662	1.051	626	393	0.0	17.5	66.018	F
2 - Park Road	223	56	418	649	0.343	221	519	0.0	0.5	8.368	A
3 - East Hill	663	166	50	963	0.688	654	589	0.0	2.1	11.374	B

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	831	208	372	632	1.314	630	471	17.5	67.5	259.658	F
2 - Park Road	266	67	421	647	0.411	265	581	0.5	0.7	9.416	A
3 - East Hill	791	198	60	958	0.826	783	626	2.1	4.2	19.628	C

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	1017	254	434	602	1.689	602	553	67.5	171.3	725.727	F
2 - Park Road	326	81	402	658	0.495	325	634	0.7	1.0	10.751	B
3 - East Hill	969	242	74	951	1.019	913	653	4.2	18.2	57.769	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	1017	254	444	598	1.702	598	564	171.3	276.2	1355.798	F
2 - Park Road	326	81	399	660	0.494	326	642	1.0	1.0	10.759	B
3 - East Hill	969	242	74	951	1.019	934	651	18.2	27.0	98.565	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	831	208	416	611	1.360	611	521	276.2	331.2	1734.890	F
2 - Park Road	266	67	408	655	0.406	267	619	1.0	0.7	9.308	A
3 - East Hill	791	198	60	958	0.826	876	615	27.0	5.7	56.887	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	696	174	321	657	1.059	656	406	331.2	341.0	1849.481	F
2 - Park Road	223	56	438	637	0.350	223	539	0.7	0.5	8.727	A
3 - East Hill	663	166	51	962	0.688	676	611	5.7	2.3	13.119	B

Ref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	580.19	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		580.19	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Ref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - The Brent		ONE HOUR	✓	739	100.000
2 - Park Road		ONE HOUR	✓	454	100.000
3 - East Hill		ONE HOUR	✓	1144	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
	1 - The Brent	0	192	547
	2 - Park Road	95	0	359
	3 - East Hill	664	480	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
	1 - The Brent	0	0	1
	2 - Park Road	0	0	1
	3 - East Hill	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - The Brent	1.30	700.51	124.8	F	678	1017
2 - Park Road	0.78	25.17	3.3	D	417	625
3 - East Hill	1.32	721.88	200.1	F	1050	1575

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	556	139	351	648	0.859	537	556	0.0	4.8	28.821	D
2 - Park Road	342	85	397	680	0.502	338	490	0.0	1.0	10.395	B
3 - East Hill	861	215	71	968	0.890	836	665	0.0	6.3	23.999	C

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	664	166	395	627	1.060	606	631	4.8	19.4	89.503	F
2 - Park Road	408	102	449	649	0.629	406	552	1.0	1.6	14.641	B
3 - East Hill	1028	257	85	961	1.071	940	769	6.3	28.3	80.347	F

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	814	203	399	625	1.302	623	655	19.4	67.0	263.388	F
2 - Park Road	500	125	461	641	0.780	494	561	1.6	3.2	23.438	C
3 - East Hill	1260	315	103	952	1.324	950	852	28.3	105.6	263.213	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	814	203	399	625	1.303	624	656	67.0	114.3	533.541	F
2 - Park Road	500	125	462	641	0.780	499	561	3.2	3.3	25.170	D
3 - East Hill	1260	315	104	951	1.325	951	857	105.6	182.8	550.923	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	664	166	403	623	1.067	622	644	114.3	124.8	700.513	F
2 - Park Road	408	102	461	641	0.636	414	564	3.3	1.8	16.240	C
3 - East Hill	1028	257	87	960	1.072	959	788	182.8	200.1	721.880	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	556	139	404	622	0.894	617	631	124.8	109.6	684.020	F
2 - Park Road	342	85	457	644	0.531	344	564	1.8	1.2	12.137	B
3 - East Hill	861	215	72	967	0.891	962	729	200.1	174.9	701.834	F

Pref no LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	980.19	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		980.19	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - The Brent		ONE HOUR	✓	936	100.000
2 - Park Road		ONE HOUR	✓	415	100.000
3 - East Hill		ONE HOUR	✓	891	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
From	1 - The Brent	0	374	562
	2 - Park Road	122	0	293
	3 - East Hill	484	407	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
From	1 - The Brent	0	0	3
	2 - Park Road	0	0	2
	3 - East Hill	4	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - The Brent	1.73	2176.62	378.5	F	859	1288
2 - Park Road	0.66	15.04	1.9	C	381	571
3 - East Hill	1.12	218.37	62.0	F	818	1226

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	705	176	301	649	1.086	620	449	0.0	21.2	77.030	F
2 - Park Road	312	78	372	687	0.455	309	549	0.0	0.8	9.444	A
3 - East Hill	671	168	91	898	0.747	660	590	0.0	2.8	14.487	B

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	841	210	359	619	1.359	618	536	21.2	77.1	302.482	F
2 - Park Road	373	93	371	688	0.542	372	605	0.8	1.2	11.334	B
3 - East Hill	801	200	109	890	0.900	785	633	2.8	6.8	30.328	D

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	1031	258	395	600	1.719	599	604	77.1	184.9	797.636	F
2 - Park Road	457	114	360	695	0.658	454	635	1.2	1.8	14.784	B
3 - East Hill	981	245	134	879	1.117	866	681	6.8	35.6	102.418	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	1031	258	400	597	1.726	597	610	184.9	293.3	1449.179	F
2 - Park Road	457	114	359	696	0.657	457	639	1.8	1.9	15.044	C
3 - East Hill	981	245	134	878	1.117	876	681	35.6	62.0	211.000	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	841	210	400	597	1.409	597	586	293.3	354.3	1940.330	F
2 - Park Road	373	93	359	696	0.536	376	638	1.9	1.2	11.350	B
3 - East Hill	801	200	110	889	0.901	875	624	62.0	43.4	218.372	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	705	176	379	608	1.159	608	543	354.3	378.5	2176.618	F
2 - Park Road	312	78	365	692	0.452	314	622	1.2	0.8	9.565	A
3 - East Hill	671	168	92	898	0.747	831	587	43.4	3.5	85.484	F

Pref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	725.49	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		725.49	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - The Brent		ONE HOUR	✓	781	100.000
2 - Park Road		ONE HOUR	✓	571	100.000
3 - East Hill		ONE HOUR	✓	1086	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
	1 - The Brent	0	239	542
	2 - Park Road	185	0	386
	3 - East Hill	630	456	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
	1 - The Brent	0	1	5
	2 - Park Road	1	0	3
	3 - East Hill	4	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - The Brent	1.40	1037.04	177.0	F	717	1075
2 - Park Road	0.98	86.80	14.6	F	524	786
3 - East Hill	1.37	831.56	216.1	F	997	1495

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	588	147	332	632	0.931	558	595	0.0	7.5	39.504	E
2 - Park Road	430	107	387	667	0.645	423	502	0.0	1.7	14.375	B
3 - East Hill	818	204	137	904	0.905	790	673	0.0	6.9	27.152	D

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	702	176	368	614	1.143	605	672	7.5	31.7	134.151	F
2 - Park Road	513	128	420	646	0.794	507	553	1.7	3.4	24.611	C
3 - East Hill	976	244	164	891	1.096	876	763	6.9	32.1	94.808	F

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	860	215	368	614	1.400	614	702	31.7	93.3	378.499	F
2 - Park Road	629	157	426	643	0.978	598	555	3.4	11.0	58.356	F
3 - East Hill	1196	299	194	876	1.365	875	830	32.1	112.2	306.485	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	860	215	367	615	1.399	615	706	93.3	154.6	736.309	F
2 - Park Road	629	157	426	642	0.979	614	555	11.0	14.6	86.795	F
3 - East Hill	1196	299	199	874	1.369	873	842	112.2	192.8	632.467	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	702	176	371	613	1.146	613	691	154.6	177.0	983.030	F
2 - Park Road	513	128	425	643	0.798	553	558	14.6	4.6	48.399	E
3 - East Hill	976	244	179	883	1.105	883	799	192.8	216.1	831.563	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	588	147	377	610	0.964	606	663	177.0	172.4	1037.044	F
2 - Park Road	430	107	421	646	0.666	440	562	4.6	2.1	18.250	C
3 - East Hill	818	204	143	901	0.907	897	718	216.1	196.3	827.843	F

Pref LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 84% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	940.66	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		940.66	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - The Brent		ONE HOUR	✓	941	100.000
2 - Park Road		ONE HOUR	✓	348	100.000
3 - East Hill		ONE HOUR	✓	926	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
From	1 - The Brent	0	343	598
	2 - Park Road	95	0	253
	3 - East Hill	513	413	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
From	1 - The Brent	0	0	3
	2 - Park Road	1	0	4
	3 - East Hill	3	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - The Brent	1.71	2048.01	367.5	F	863	1295
2 - Park Road	0.58	12.66	1.3	B	319	479
3 - East Hill	1.09	179.98	55.1	F	850	1275

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	708	177	306	659	1.076	628	451	0.0	20.2	73.431	F
2 - Park Road	262	65	399	659	0.398	259	535	0.0	0.6	8.951	A
3 - East Hill	697	174	71	948	0.735	687	587	0.0	2.6	13.276	B

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	846	211	365	630	1.342	629	539	20.2	74.5	287.005	F
2 - Park Road	313	78	400	659	0.475	312	594	0.6	0.9	10.356	B
3 - East Hill	832	208	85	941	0.884	818	626	2.6	6.1	26.582	D

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	1036	259	408	609	1.701	609	611	74.5	181.2	766.365	F
2 - Park Road	383	96	387	666	0.575	381	630	0.9	1.3	12.562	B
3 - East Hill	1020	255	104	932	1.094	915	664	6.1	32.2	89.335	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	1036	259	414	607	1.708	607	619	181.2	288.6	1401.903	F
2 - Park Road	383	96	385	667	0.574	383	635	1.3	1.3	12.661	B
3 - East Hill	1020	255	105	932	1.094	928	664	32.2	55.1	179.983	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	846	211	412	607	1.393	607	598	288.6	348.2	1856.994	F
2 - Park Road	313	78	386	667	0.469	315	634	1.3	0.9	10.265	B
3 - East Hill	832	208	86	941	0.885	924	615	55.1	32.2	172.634	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	708	177	363	631	1.122	631	523	348.2	367.5	2048.006	F
2 - Park Road	262	65	401	658	0.398	263	593	0.9	0.7	9.143	A
3 - East Hill	697	174	72	948	0.736	814	592	32.2	3.1	44.968	E

Pref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	684.80	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		684.80	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - The Brent		ONE HOUR	✓	759	100.000
2 - Park Road		ONE HOUR	✓	558	100.000
3 - East Hill		ONE HOUR	✓	1138	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
	1 - The Brent	0	231	528
	2 - Park Road	152	0	406
	3 - East Hill	611	527	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
	1 - The Brent	0	0	2
	2 - Park Road	0	0	1
	3 - East Hill	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - The Brent	1.38	949.50	161.6	F	696	1045
2 - Park Road	0.93	56.98	9.1	F	512	768
3 - East Hill	1.36	813.99	221.9	F	1044	1566

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	571	143	384	628	0.910	545	558	0.0	6.6	36.313	E
2 - Park Road	420	105	379	690	0.609	414	550	0.0	1.5	12.799	B
3 - East Hill	857	214	113	946	0.905	829	680	0.0	7.0	26.288	D

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	682	171	426	608	1.123	597	629	6.6	28.0	122.007	F
2 - Park Road	502	125	415	667	0.752	496	608	1.5	2.8	20.452	C
3 - East Hill	1023	256	135	935	1.094	920	776	7.0	32.8	92.112	F

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	836	209	427	607	1.376	607	657	28.0	85.2	348.323	F
2 - Park Road	614	154	422	663	0.927	595	611	2.8	7.6	43.569	E
3 - East Hill	1253	313	162	922	1.359	921	855	32.8	115.8	299.642	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	836	209	426	608	1.375	608	660	85.2	142.3	684.670	F
2 - Park Road	614	154	423	663	0.927	609	611	7.6	9.1	56.984	F
3 - East Hill	1253	313	166	920	1.362	920	865	115.8	199.0	619.342	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	682	171	431	605	1.127	605	643	142.3	161.6	913.954	F
2 - Park Road	502	125	421	664	0.756	524	615	9.1	3.4	28.955	D
3 - East Hill	1023	256	143	932	1.098	931	802	199.0	221.9	813.989	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	571	143	436	603	0.947	599	621	161.6	154.6	949.496	F
2 - Park Road	420	105	417	666	0.631	427	618	3.4	1.8	15.398	C
3 - East Hill	857	214	116	945	0.907	940	727	221.9	201.0	809.717	F

Appendix M
A226 / Park Road
Mitigation Layout Modelling Output

Junctions 10

Junctions 10	
ARCADY 10 - Roundabout Module	
Version: 10.0.0.1499 © Copyright TRL Software Limited, 2021	
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com	
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution	

Filename: 3. A226 _ Park Rd - Mitigation.j10

Path: J:\46416 - GH - Dartford Local Plan (SATURN)\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10

Report generation date: 06/12/2021 09:17:47

»Pref no LTC, AM

»Pref no LTC, PM

»Pref LTC, AM

»Pref LTC, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Pref no LTC									
1 - The Brent	D5	302.9	1564.11	1.62	F	D6	136.9	731.22	1.31	F
2 - Park Road		1.4	11.46	0.59	B		6.4	39.22	0.88	E
3 - East Hill		32.1	113.09	1.03	F		149.3	555.28	1.27	F
	Pref LTC									
1 - The Brent	D7	292.2	1488.09	1.60	F	D8	123.6	673.50	1.29	F
2 - Park Road		1.1	10.12	0.52	B		4.6	28.70	0.84	D
3 - East Hill		26.4	92.08	1.01	F		152.5	541.09	1.26	F

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

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

File summary

File Description

Title	
Location	
Site number	
Date	22/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	

Enumerator	CORP\dansmith
Description	

Units

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

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
JUNCTION S 9	5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

Pref no LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	686.41	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		686.41	F

Arms

Arms

Arm	Name	Description
1	The Brent	
2	Park Road	
3	East Hill	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - The Brent	3.55	2.46	4.89	3.3	7.22	3.36	0.0	✓
2 - Park Road	3.77	3.54	4.60	4.5	9.56	8.30	0.0	
3 - East Hill	3.46	3.16	4.80	5.0	10.62	10.12	0.0	✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - The Brent	0.486	883
2 - Park Road	0.634	1031
3 - East Hill	0.518	1095

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - The Brent		ONE HOUR	✓	936	100.000
2 - Park Road		ONE HOUR	✓	415	100.000
3 - East Hill		ONE HOUR	✓	891	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
From	1 - The Brent	0	374	562
	2 - Park Road	122	0	293
	3 - East Hill	484	407	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
	1 - The Brent	0	0	3
	2 - Park Road	0	0	2
From	3 - East Hill	4	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - The Brent	1.62	1564.11	302.9	F	859	1288
2 - Park Road	0.59	11.46	1.4	B	381	571
3 - East Hill	1.03	113.09	32.1	F	818	1226

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	705	176	302	704	1.001	653	451	0.0	12.9	50.943	F
2 - Park Road	312	78	392	764	0.409	310	563	0.0	0.7	7.872	A
3 - East Hill	671	168	91	969	0.692	662	611	0.0	2.2	11.441	B

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	841	210	362	672	1.252	669	539	12.9	56.0	201.831	F
2 - Park Road	373	93	402	758	0.492	372	629	0.7	1.0	9.292	A
3 - East Hill	801	200	109	960	0.834	792	664	2.2	4.5	20.323	C

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	1031	258	418	641	1.607	641	631	56.0	153.3	599.066	F
2 - Park Road	457	114	385	769	0.594	455	675	1.0	1.4	11.395	B
3 - East Hill	981	245	134	948	1.034	916	706	4.5	20.7	63.231	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	1031	258	427	637	1.619	637	643	153.3	251.8	1137.715	F
2 - Park Road	457	114	382	771	0.593	457	682	1.4	1.4	11.459	B
3 - East Hill	981	245	134	948	1.035	936	705	20.7	32.1	113.091	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	841	210	413	644	1.306	644	601	251.8	301.1	1501.576	F
2 - Park Road	373	93	387	768	0.486	375	670	1.4	1.0	9.209	A
3 - East Hill	801	200	110	960	0.835	904	652	32.1	6.4	72.839	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	705	176	314	698	1.010	697	465	301.1	302.9	1564.114	F
2 - Park Road	312	78	419	747	0.418	313	592	1.0	0.7	8.316	A
3 - East Hill	671	168	92	968	0.693	687	640	6.4	2.4	13.469	B

Pref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	492.52	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		492.52	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - The Brent		ONE HOUR	✓	781	100.000
2 - Park Road		ONE HOUR	✓	571	100.000
3 - East Hill		ONE HOUR	✓	1086	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
From	1 - The Brent	0	239	542
	2 - Park Road	185	0	386
	3 - East Hill	630	456	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
From	1 - The Brent	0	1	5
	2 - Park Road	1	0	3
	3 - East Hill	4	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - The Brent	1.31	731.22	136.9	F	717	1075
2 - Park Road	0.88	39.22	6.4	E	524	786
3 - East Hill	1.27	555.28	149.3	F	997	1495

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	588	147	336	684	0.860	568	601	0.0	4.9	27.669	D

2 - Park Road	430	107	394	751	0.572	425	510	0.0	1.3	10.866	B
3 - East Hill	818	204	138	975	0.838	799	681	0.0	4.5	18.878	C

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	702	176	387	658	1.067	638	700	4.9	20.8	89.748	F
2 - Park Road	513	128	443	719	0.714	509	583	1.3	2.3	16.783	C
3 - East Hill	976	244	165	962	1.015	923	787	4.5	17.9	57.130	F

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	860	215	396	654	1.314	653	746	20.8	72.6	270.705	F
2 - Park Road	629	157	453	713	0.882	615	595	2.3	5.7	32.871	D
3 - East Hill	1196	299	199	945	1.266	942	869	17.9	81.3	200.387	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	860	215	396	654	1.314	654	750	72.6	124.1	551.938	F
2 - Park Road	629	157	454	712	0.883	626	596	5.7	6.4	39.215	E
3 - East Hill	1196	299	203	943	1.268	942	877	81.3	144.6	436.510	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	702	176	402	651	1.078	651	726	124.1	136.9	731.221	F
2 - Park Road	513	128	452	714	0.719	528	601	6.4	2.7	20.679	C
3 - East Hill	976	244	171	959	1.018	957	809	144.6	149.3	555.279	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	588	147	406	649	0.906	644	702	136.9	122.9	726.236	F
2 - Park Road	430	107	447	717	0.600	435	603	2.7	1.5	12.967	B
3 - East Hill	818	204	141	974	0.840	967	741	149.3	111.9	487.033	F

Pref LTC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 3 have 84% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	667.35	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		667.35	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - The Brent		ONE HOUR	✓	941	100.000
2 - Park Road		ONE HOUR	✓	348	100.000
3 - East Hill		ONE HOUR	✓	926	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
From	1 - The Brent	0	343	598
	2 - Park Road	95	0	253
	3 - East Hill	513	413	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
	1 - The Brent	0	0	3
	2 - Park Road	1	0	4
From	3 - East Hill	3	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - The Brent	1.60	1488.09	292.2	F	863	1295
2 - Park Road	0.52	10.12	1.1	B	319	479
3 - East Hill	1.01	92.08	26.4	F	850	1275

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	708	177	307	714	0.992	660	453	0.0	12.2	48.451	E
2 - Park Road	262	65	419	734	0.357	260	548	0.0	0.5	7.555	A
3 - East Hill	697	174	71	1022	0.682	689	608	0.0	2.1	10.556	B

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	846	211	368	684	1.237	680	542	12.2	53.6	190.377	F
2 - Park Road	313	78	432	726	0.431	312	616	0.5	0.7	8.680	A
3 - East Hill	832	208	85	1015	0.820	824	659	2.1	4.1	18.103	C

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	1036	259	430	653	1.586	653	638	53.6	149.4	570.947	F
2 - Park Road	383	96	415	737	0.520	382	668	0.7	1.1	10.102	B
3 - East Hill	1020	255	104	1005	1.014	964	693	4.1	18.0	54.339	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	1036	259	440	648	1.598	648	651	149.4	246.4	1087.097	F
2 - Park Road	383	96	412	739	0.519	383	676	1.1	1.1	10.120	B
3 - East Hill	1020	255	105	1005	1.014	986	690	18.0	26.4	92.077	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	846	211	409	663	1.275	663	594	246.4	292.0	1431.057	F
2 - Park Road	313	78	422	733	0.427	314	651	1.1	0.8	8.627	A
3 - East Hill	832	208	86	1015	0.820	917	650	26.4	5.3	49.074	E

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	708	177	316	709	0.999	708	465	292.0	292.2	1488.091	F
2 - Park Road	262	65	450	715	0.367	263	574	0.8	0.6	7.976	A
3 - East Hill	697	174	72	1022	0.682	710	641	5.3	2.2	11.952	B

Pref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	466.24	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		466.24	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - The Brent		ONE HOUR	✓	759	100.000
2 - Park Road		ONE HOUR	✓	558	100.000
3 - East Hill		ONE HOUR	✓	1138	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
From	1 - The Brent	0	231	528
	2 - Park Road	152	0	406
	3 - East Hill	611	527	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - The Brent	2 - Park Road	3 - East Hill
From	1 - The Brent	0	0	2
	2 - Park Road	0	0	1
	3 - East Hill	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - The Brent	1.29	673.50	123.6	F	696	1045
2 - Park Road	0.84	28.70	4.6	D	512	768
3 - East Hill	1.26	541.09	152.5	F	1044	1566

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	571	143	388	681	0.839	554	563	0.0	4.4	25.665	D

2 - Park Road	420	105	385	776	0.54 1	415	557	0.0	1.2	9.853	A
3 - East Hill	857	214	113	1021	0.83 9	838	688	0.0	4.6	18.22 0	C

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	682	171	449	651	1.04 8	627	656	4.4	18.1	81.63 1	F
2 - Park Road	502	125	436	744	0.67 5	498	640	1.2	2.0	14.47 2	B
3 - East Hill	1023	256	136	1009	1.01 3	969	799	4.6	18.1	55.14 4	F

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	836	209	460	646	1.29 4	644	698	18.1	66.0	248.82 7	F
2 - Park Road	614	154	448	736	0.83 5	605	656	2.0	4.3	25.719	D
3 - East Hill	1253	313	165	995	1.26 0	992	888	18.1	83.3	194.55 6	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	836	209	460	646	1.29 4	645	700	66.0	113.6	511.51 8	F
2 - Park Road	614	154	449	736	0.83 5	613	656	4.3	4.6	28.702	D
3 - East Hill	1253	313	167	994	1.26 1	993	895	83.3	148.3	425.00 7	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	682	171	466	643	1.06 1	642	679	113.6	123.6	673.50 3	F
2 - Park Road	502	125	447	737	0.68 1	511	661	4.6	2.2	16.565	C
3 - East Hill	1023	256	139	1008	1.01 5	1006	819	148.3	152.5	541.08 6	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - The Brent	571	143	469	641	0.89 1	636	659	123.6	107.4	654.19 3	F
2 - Park Road	420	105	443	740	0.56 8	424	663	2.2	1.4	11.513	B
3 - East Hill	857	214	115	1020	0.84 0	1013	751	152.5	113.4	473.19 4	F

Appendix N
A226 / Great Queen Street
Existing Layout Modelling Output

Junctions 10

Junctions 10	
PICADY 10 - Priority Intersection Module	
Version: 10.0.0.1499 © Copyright TRL Software Limited, 2021	
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com	
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution	

Filename: 4. A226 _ Greet Queen St.j10

Path: J:\46416 - GH - Dartford Local Plan (SATURN)\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10

Report generation date: 06/12/2021 09:19:34

»Ref no LTC, AM
 »Ref no LTC, PM
 »Ref LTC, AM
 »Ref LTC, PM
 »Pref no LTC, AM
 »Pref no LTC, PM
 »Pref LTC, AM
 »Pref LTC, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Ref no LTC									
Stream B-AC	D1	0.0	0.00	0.00	A	D2	0.0	0.00	0.00	A
Stream C-AB		117.6	530.00	1.29	F		163.3	827.90	1.45	F
	Ref LTC									
Stream B-AC	D3	0.0	0.00	0.00	A	D4	0.0	0.00	0.00	A
Stream C-AB		66.3	240.41	1.13	F		144.7	736.02	1.41	F
	Pref no LTC									
Stream B-AC	D5	0.0	0.00	0.00	A	D6	60.2	59999940.00	999999999.00	F
Stream C-AB		153.3	724.03	1.38	F		195.0	1145.41	1.58	F
	Pref LTC									
Stream B-AC	D7	0.0	0.00	0.00	A	D8	95.7	59999940.00	999999999.00	F
Stream C-AB		92.3	369.58	1.21	F		176.7	1073.05	1.56	F

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

File summary

File Description

Title	
Location	

Site number	
Date	22/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\dansmith
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D2	Ref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D3	Ref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D4	Ref LTC	PM	ONE HOUR	00:00	01:30	15	✓
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

Ref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		248.10	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	248.10	F

Arms

Arms

Arm	Name	Description	Arm type
A	A226 (W)		Major
B	Great Queen Street		Minor
C	A226 (E)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A226 (E)	6.41			100.9	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Great Queen Street	One lane	2.20	18	13

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	451	0.082	0.207	0.131	0.296
B-C	582	0.085	0.216	-	-
C-B	632	0.240	0.240	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A226 (W)		ONE HOUR	✓	867	100.000
B - Great Queen Street		ONE HOUR	✓	0	100.000
C - A226 (E)		ONE HOUR	✓	837	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
From	A - A226 (W)	0	0	867
	B - Great Queen Street	0	0	0
	C - A226 (E)	503	334	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
From	A - A226 (W)	0	0	7
	B - Great Queen Street	0	0	0
	C - A226 (E)	3	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	1.29	530.00	117.6	F	748	1122
C-A					20	30
A-B					0	0
A-C					796	1193

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	253	0.000	0	0.0	0.0	0.000	A
C-AB	518	130	736	0.704	505	0.0	3.3	15.351	C
C-A	112	28			112				
A-B	0	0			0				
A-C	653	163			653				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	189	0.000	0	0.0	0.0	0.000	A
C-AB	744	186	771	0.964	703	3.3	13.6	47.803	E
C-A	8	2			8				
A-B	0	0			0				

A-C	779	195			779				
-----	-----	-----	--	--	-----	--	--	--	--

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	75	0.000	0	0.0	0.0	0.000	A
C-AB	922	230	717	1.286	711	13.6	66.2	212.717	F
C-A	0	0			0				
A-B	0	0			0				
A-C	955	239			955				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	922	230	717	1.285	716	66.2	117.6	458.732	F
C-A	0	0			0				
A-B	0	0			0				
A-C	955	239			955				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	58	0.000	0	0.0	0.0	0.000	A
C-AB	752	188	778	0.967	768	117.6	113.7	530.003	F
C-A	0	0			0				
A-B	0	0			0				
A-C	779	195			779				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	145	0.000	0	0.0	0.0	0.000	A
C-AB	630	158	820	0.768	809	113.7	69.0	404.383	F
C-A	0	0			0				
A-B	0	0			0				
A-C	653	163			653				

Ref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		336.72	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	336.72	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Ref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A226 (W)		ONE HOUR	✓	1105	100.000
B - Great Queen Street		ONE HOUR	✓	0	100.000
C - A226 (E)		ONE HOUR	✓	784	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
	From			
	A - A226 (W)	0	0	1105
	B - Great Queen Street	0	0	0
	C - A226 (E)	443	341	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
	From			
	A - A226 (W)	0	0	4
	B - Great Queen Street	0	0	0
	C - A226 (E)	5	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	1.45	827.90	163.3	F	706	1060
C-A					13	20
A-B					0	0
A-C					1014	1521

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	215	0.000	0	0.0	0.0	0.000	A
C-AB	512	128	669	0.765	495	0.0	4.2	20.124	C
C-A	78	20			78				
A-B	0	0			0				
A-C	832	208			832				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	138	0.000	0	0.0	0.0	0.000	A
C-AB	705	176	673	1.048	638	4.2	20.9	80.173	F
C-A	0	0			0				
A-B	0	0			0				
A-C	993	248			993				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	863	216	596	1.449	594	20.9	88.3	342.700	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1217	304			1217				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	863	216	596	1.449	595	88.3	155.3	705.786	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1217	304			1217				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	705	176	674	1.046	673	155.3	163.2	827.903	F
C-A	0	0			0				
A-B	0	0			0				
A-C	993	248			993				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	22	0.000	0	0.0	0.0	0.000	A
C-AB	590	148	728	0.811	721	163.2	130.4	730.288	F
C-A	0	0			0				
A-B	0	0			0				
A-C	832	208			832				

Ref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		108.06	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	108.06	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Ref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A226 (W)		ONE HOUR	✓	876	100.000
B - Great Queen Street		ONE HOUR	✓	0	100.000
C - A226 (E)		ONE HOUR	✓	830	100.000

Origin-Destination Data

Demand (Veh/hr)				
From	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
	A - A226 (W)	0	0	876
	B - Great Queen Street	0	0	0
	C - A226 (E)	556	274	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
A - A226 (W)		0	0	3
B - Great Queen Street		0	0	0
C - A226 (E)		3	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	1.13	240.41	66.3	F	705	1057
C-A					57	85
A-B					0	0
A-C					804	1206

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	265	0.000	0	0.0	0.0	0.000	A
C-AB	453	113	769	0.589	444	0.0	2.2	11.028	B
C-A	172	43			172				
A-B	0	0			0				
A-C	659	165			659				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	207	0.000	0	0.0	0.0	0.000	A
C-AB	656	164	810	0.810	641	2.2	6.0	21.540	C
C-A	90	22			90				
A-B	0	0			0				
A-C	788	197			788				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	112	0.000	0	0.0	0.0	0.000	A
C-AB	914	228	806	1.133	784	6.0	38.5	109.518	F
C-A	0	0			0				
A-B	0	0			0				
A-C	964	241			964				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	75	0.000	0	0.0	0.0	0.000	A
C-AB	914	228	808	1.131	803	38.5	66.3	240.407	F
C-A	0	0			0				
A-B	0	0			0				
A-C	964	241			964				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	148	0.000	0	0.0	0.0	0.000	A
C-AB	746	187	868	0.860	846	66.3	41.4	225.007	F
C-A	0	0			0				
A-B	0	0			0				
A-C	788	197			788				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	234	0.000	0	0.0	0.0	0.000	A
C-AB	547	137	850	0.643	700	41.4	3.1	54.136	F
C-A	78	20			78				
A-B	0	0			0				
A-C	659	165			659				

Ref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		289.41	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	289.41	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Ref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A226 (W)		ONE HOUR	✓	1151	100.000
B - Great Queen Street		ONE HOUR	✓	0	100.000
C - A226 (E)		ONE HOUR	✓	772	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
	A - A226 (W)	0	0	1151
	B - Great Queen Street	0	0	0
	C - A226 (E)	439	333	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
	A - A226 (W)	0	0	1
	B - Great Queen Street	0	0	0
	C - A226 (E)	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	1.41	736.02	144.7	F	694	1041
C-A					15	22
A-B					0	0
A-C					1056	1584

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	218	0.000	0	0.0	0.0	0.000	A
C-AB	494	123	671	0.736	479	0.0	3.7	18.318	C
C-A	87	22			87				

A-B	0	0			0				
A-C	867	217			867				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	142	0.000	0	0.0	0.0	0.000	A
C-AB	694	174	683	1.016	639	3.7	17.5	67.666	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1035	259			1035				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	850	212	603	1.410	600	17.5	79.9	303.818	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1267	317			1267				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	850	212	603	1.410	603	79.9	141.8	637.325	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1267	317			1267				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	694	174	685	1.014	683	141.8	144.7	736.023	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1035	259			1035				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	60	0.000	0	0.0	0.0	0.000	A
C-AB	581	145	740	0.785	733	144.7	106.7	615.048	F
C-A	0	0			0				
A-B	0	0			0				
A-C	867	217			867				

Pref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		337.14	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	337.14	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A226 (W)		ONE HOUR	✓	888	100.000
B - Great Queen Street		ONE HOUR	✓	0	100.000
C - A226 (E)		ONE HOUR	✓	844	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
From	A - A226 (W)	0	0	888
	B - Great Queen Street	0	0	0
	C - A226 (E)	482	362	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
From	A - A226 (W)	0	0	8
	B - Great Queen Street	0	0	0
	C - A226 (E)	3	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	1.38	724.03	153.3	F	760	1140
C-A					14	21
A-B					0	0
A-C					815	1222

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	243	0.000	0	0.0	0.0	0.000	A
C-AB	550	137	720	0.764	533	0.0	4.2	18.774	C
C-A	86	21			86				
A-B	0	0			0				
A-C	669	167			669				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	174	0.000	0	0.0	0.0	0.000	A
C-AB	759	190	737	1.030	696	4.2	19.9	70.583	F
C-A	0	0			0				
A-B	0	0			0				
A-C	798	200			798				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	44	0.000	0	0.0	0.0	0.000	A
C-AB	929	232	675	1.376	673	19.9	84.1	289.235	F
C-A	0	0			0				
A-B	0	0			0				
A-C	978	244			978				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	929	232	675	1.376	675	84.1	147.7	605.193	F
C-A	0	0			0				
A-B	0	0			0				
A-C	978	244			978				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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B-AC	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	759	190	738	1.028	737	147.7	153.3	724.027	F
C-A	0	0			0				
A-B	0	0			0				
A-C	798	200			798				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	78	0.000	0	0.0	0.0	0.000	A
C-AB	635	159	781	0.813	774	153.3	118.6	629.859	F
C-A	0	0			0				
A-B	0	0			0				
A-C	669	167			669				

Pref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		1876706.58	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1876706.58	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A226 (W)		ONE HOUR	✓	1080	100.000
B - Great Queen Street		ONE HOUR	✓	61	100.000
C - A226 (E)		ONE HOUR	✓	726	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
From	A - A226 (W)	0	0	1080
	B - Great Queen Street	61	0	0
	C - A226 (E)	331	395	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
From	A - A226 (W)	0	0	5
	B - Great Queen Street	0	0	0
	C - A226 (E)	3	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	999999999.00	59999940.00	60.2	F	56	84
C-AB	1.58	1145.41	195.0	F	660	990
C-A					6	9
A-B					0	0
A-C					991	1487

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	46	11	147	0.311	44	0.0	0.4	59999940.000	F
C-AB	510	127	598	0.852	487	0.0	5.8	29.897	D
C-A	37	9			37				
A-B	0	0			0				
A-C	813	203			813				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	55	14	83	0.659	51	0.4	1.5	59999940.000	F
C-AB	653	163	576	1.134	560	5.8	28.9	127.496	F
C-A	0	0			0				
A-B	0	0			0				

A-C	971	243			971				
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00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	67	17	0	999999999.000	0	1.5	18.2	59999940.000	F
C-AB	799	200	506	1.581	505	28.9	102.5	480.862	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1189	297			1189				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	67	17	0	999999999.000	0	18.2	35.0	59999940.000	F
C-AB	799	200	506	1.581	506	102.5	176.0	931.196	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1189	297			1189				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	55	14	0	999999999.000	0	35.0	48.7	59999940.000	F
C-AB	653	163	577	1.132	576	176.0	195.0	1145.414	F
C-A	0	0			0				
A-B	0	0			0				
A-C	971	243			971				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	46	11	0	999999999.000	0	48.7	60.2	59999940.000	F
C-AB	547	137	626	0.873	622	195.0	176.1	1072.208	F
C-A	0	0			0				
A-B	0	0			0				
A-C	813	203			813				

Pref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		168.26	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	168.26	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A226 (W)		ONE HOUR	✓	919	100.000
B - Great Queen Street		ONE HOUR	✓	0	100.000
C - A226 (E)		ONE HOUR	✓	836	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
	From			
	A - A226 (W)	0	0	919
	B - Great Queen Street	0	0	0
	C - A226 (E)	540	296	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
	From			
	A - A226 (W)	0	0	3
	B - Great Queen Street	0	0	0
	C - A226 (E)	3	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	1.21	369.58	92.3	F	735	1102
C-A					33	49
A-B					0	0
A-C					843	1265

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	254	0.000	0	0.0	0.0	0.000	A
C-AB	484	121	754	0.642	473	0.0	2.7	12.715	B
C-A	146	36			146				
A-B	0	0			0				
A-C	692	173			692				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	192	0.000	0	0.0	0.0	0.000	A
C-AB	702	175	793	0.885	677	2.7	8.8	30.900	D
C-A	50	12			50				
A-B	0	0			0				
A-C	826	207			826				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	86	0.000	0	0.0	0.0	0.000	A
C-AB	920	230	760	1.212	748	8.8	51.9	155.216	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1012	253			1012				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	30	0.000	0	0.0	0.0	0.000	A
C-AB	920	230	761	1.210	759	51.9	92.3	343.781	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1012	253			1012				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	99	0.000	0	0.0	0.0	0.000	A
C-AB	752	188	824	0.912	810	92.3	77.7	369.582	F
C-A	0	0			0				
A-B	0	0			0				
A-C	826	207			826				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	188	0.000	0	0.0	0.0	0.000	A
C-AB	629	157	868	0.725	850	77.7	22.6	211.544	F
C-A	0	0			0				
A-B	0	0			0				
A-C	692	173			692				

Pref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		2909032.23	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2909032.23	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A226 (W)		ONE HOUR	✓	1137	100.000
B - Great Queen Street		ONE HOUR	✓	95	100.000
C - A226 (E)		ONE HOUR	✓	694	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
	A - A226 (W)	0	0	1137
	B - Great Queen Street	95	0	0
	C - A226 (E)	295	399	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
	A - A226 (W)	0	0	2
	B - Great Queen Street	0	0	0
	C - A226 (E)	1	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	999999999.00	59999940.00	95.7	F	87	131
C-AB	1.56	1073.05	176.7	F	630	946
C-A					6	10
A-B					0	0
A-C					1043	1565

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	72	18	149	0.479	68	0.0	0.8	59999940.000	F
C-AB	484	121	585	0.828	464	0.0	5.0	27.892	D
C-A	38	10			38				
A-B	0	0			0				
A-C	856	214			856				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	85	21	86	0.990	72	0.8	4.2	59999940.000	F
C-AB	624	156	563	1.108	545	5.0	24.8	114.339	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1022	256			1022				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	105	26	0	999999999.000	0	4.2	30.4	59999940.000	F
C-AB	764	191	491	1.557	490	24.8	93.3	447.135	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1252	313			1252				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	105	26	0	999999999.000	0	30.4	56.5	59999940.000	F
C-AB	764	191	491	1.557	491	93.3	161.7	879.116	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1252	313			1252				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	85	21	0	999999999.000	0	56.5	77.9	59999940.000	F
C-AB	624	156	564	1.106	564	161.7	176.7	1073.048	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1022	256			1022				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	72	18	0	999999999.000	0	77.9	95.7	59999940.000	F
C-AB	522	131	615	0.849	611	176.7	154.6	974.669	F
C-A	0	0			0				
A-B	0	0			0				
A-C	856	214			856				

Appendix O
A226 / Great Queen Street
Mitigation Layout Modelling Output

Junctions 10

Junctions 10	
PICADY 10 - Priority Intersection Module	
Version: 10.0.0.1499 © Copyright TRL Software Limited, 2021	
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com	
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution	

Filename: 4. A226 _ Greet Queen St - Mitigation.j10
Path: J:\46416 - GH - Dartford Local Plan (SATURN)\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10
Report generation date: 06/12/2021 09:22:14

»Pref no LTC, AM
 »Pref no LTC, PM
 »Pref LTC, AM
 »Pref LTC, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Pref no LTC									
Stream B-AC	D5	0.0	0.00	0.00	A	D6	60.2	59999940.00	999999999.00	F
Stream C-AB		153.3	724.03	1.38	F		195.0	1145.41	1.58	F
	Pref LTC									
Stream B-AC	D7	0.0	0.00	0.00	A	D8	95.7	59999940.00	999999999.00	F
Stream C-AB		92.3	369.58	1.21	F		176.7	1073.05	1.56	F

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

File summary

File Description

Title	
Location	
Site number	
Date	22/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\dansmith
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

Pref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		337.14	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	337.14	F

Arms

Arms

Arm	Name	Description	Arm type
A	A226 (W)		Major
B	Great Queen Street		Minor
C	A226 (E)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
-----	--------------------------	----------------------------	------------------------	-------------------------------	---------	----------------------

C - A226 (E)	6.41			100.9	✓	0.00
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Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Great Queen Street	One lane	2.20	18	13

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	451	0.082	0.207	0.131	0.296
B-C	582	0.085	0.216	-	-
C-B	632	0.240	0.240	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A226 (W)		ONE HOUR	✓	888	100.000
B - Great Queen Street		ONE HOUR	✓	0	100.000
C - A226 (E)		ONE HOUR	✓	844	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
From	A - A226 (W)	0	0	888
	B - Great Queen Street	0	0	0
	C - A226 (E)	482	362	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
	A - A226 (W)	0	0	8
	B - Great Queen Street	0	0	0
From	C - A226 (E)	3	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	1.38	724.03	153.3	F	760	1140
C-A					14	21
A-B					0	0
A-C					815	1222

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	243	0.000	0	0.0	0.0	0.000	A
C-AB	550	137	720	0.764	533	0.0	4.2	18.774	C
C-A	86	21			86				
A-B	0	0			0				
A-C	669	167			669				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	174	0.000	0	0.0	0.0	0.000	A
C-AB	759	190	737	1.030	696	4.2	19.9	70.583	F
C-A	0	0			0				
A-B	0	0			0				
A-C	798	200			798				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	44	0.000	0	0.0	0.0	0.000	A
C-AB	929	232	675	1.376	673	19.9	84.1	289.235	F
C-A	0	0			0				
A-B	0	0			0				
A-C	978	244			978				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	929	232	675	1.376	675	84.1	147.7	605.193	F
C-A	0	0			0				
A-B	0	0			0				
A-C	978	244			978				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0	0.000	0	0.0	0.0	0.000	A
C-AB	759	190	738	1.028	737	147.7	153.3	724.027	F
C-A	0	0			0				
A-B	0	0			0				
A-C	798	200			798				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	78	0.000	0	0.0	0.0	0.000	A
C-AB	635	159	781	0.813	774	153.3	118.6	629.859	F
C-A	0	0			0				
A-B	0	0			0				
A-C	669	167			669				

Pref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		1876706.58	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1876706.58	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
------------------------------	-------------------------------	--------------------	---------------------------

✓	✓	HV Percentages	2.00
---	---	----------------	------

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A226 (W)		ONE HOUR	✓	1080	100.000
B - Great Queen Street		ONE HOUR	✓	61	100.000
C - A226 (E)		ONE HOUR	✓	726	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
	A - A226 (W)	0	0	1080
	B - Great Queen Street	61	0	0
	C - A226 (E)	331	395	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
	A - A226 (W)	0	0	5
	B - Great Queen Street	0	0	0
	C - A226 (E)	3	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	999999999.00	59999940.00	60.2	F	56	84
C-AB	1.58	1145.41	195.0	F	660	990
C-A					6	9
A-B					0	0
A-C					991	1487

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	46	11	147	0.311	44	0.0	0.4	59999940.000	F
C-AB	510	127	598	0.852	487	0.0	5.8	29.897	D
C-A	37	9			37				

A-B	0	0			0				
A-C	813	203			813				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	55	14	83	0.659	51	0.4	1.5	59999940.000	F
C-AB	653	163	576	1.134	560	5.8	28.9	127.496	F
C-A	0	0			0				
A-B	0	0			0				
A-C	971	243			971				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	67	17	0	999999999.000	0	1.5	18.2	59999940.000	F
C-AB	799	200	506	1.581	505	28.9	102.5	480.862	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1189	297			1189				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	67	17	0	999999999.000	0	18.2	35.0	59999940.000	F
C-AB	799	200	506	1.581	506	102.5	176.0	931.196	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1189	297			1189				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	55	14	0	999999999.000	0	35.0	48.7	59999940.000	F
C-AB	653	163	577	1.132	576	176.0	195.0	1145.414	F
C-A	0	0			0				
A-B	0	0			0				
A-C	971	243			971				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	46	11	0	999999999.000	0	48.7	60.2	59999940.000	F
C-AB	547	137	626	0.873	622	195.0	176.1	1072.208	F
C-A	0	0			0				
A-B	0	0			0				
A-C	813	203			813				

Pref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		168.26	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	168.26	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A226 (W)		ONE HOUR	✓	919	100.000
B - Great Queen Street		ONE HOUR	✓	0	100.000
C - A226 (E)		ONE HOUR	✓	836	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
From	A - A226 (W)	0	0	919
	B - Great Queen Street	0	0	0
	C - A226 (E)	540	296	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
From	A - A226 (W)	0	0	3
	B - Great Queen Street	0	0	0
	C - A226 (E)	3	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	1.21	369.58	92.3	F	735	1102
C-A					33	49
A-B					0	0
A-C					843	1265

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	254	0.000	0	0.0	0.0	0.000	A
C-AB	484	121	754	0.642	473	0.0	2.7	12.715	B
C-A	146	36			146				
A-B	0	0			0				
A-C	692	173			692				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	192	0.000	0	0.0	0.0	0.000	A
C-AB	702	175	793	0.885	677	2.7	8.8	30.900	D
C-A	50	12			50				
A-B	0	0			0				
A-C	826	207			826				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	86	0.000	0	0.0	0.0	0.000	A
C-AB	920	230	760	1.212	748	8.8	51.9	155.216	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1012	253			1012				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	30	0.000	0	0.0	0.0	0.000	A
C-AB	920	230	761	1.210	759	51.9	92.3	343.781	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1012	253			1012				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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B-AC	0	0	99	0.000	0	0.0	0.0	0.000	A
C-AB	752	188	824	0.912	810	92.3	77.7	369.582	F
C-A	0	0			0				
A-B	0	0			0				
A-C	826	207			826				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	188	0.000	0	0.0	0.0	0.000	A
C-AB	629	157	868	0.725	850	77.7	22.6	211.544	F
C-A	0	0			0				
A-B	0	0			0				
A-C	692	173			692				

Pref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		2909032.23	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2909032.23	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A226 (W)		ONE HOUR	✓	1137	100.000
B - Great Queen Street		ONE HOUR	✓	95	100.000
C - A226 (E)		ONE HOUR	✓	694	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
From	A - A226 (W)	0	0	1137
	B - Great Queen Street	95	0	0
	C - A226 (E)	295	399	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A226 (W)	B - Great Queen Street	C - A226 (E)
From	A - A226 (W)	0	0	2
	B - Great Queen Street	0	0	0
	C - A226 (E)	1	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	999999999.00	59999940.00	95.7	F	87	131
C-AB	1.56	1073.05	176.7	F	630	946
C-A					6	10
A-B					0	0
A-C					1043	1565

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	72	18	149	0.479	68	0.0	0.8	59999940.000	F
C-AB	484	121	585	0.828	464	0.0	5.0	27.892	D
C-A	38	10			38				
A-B	0	0			0				
A-C	856	214			856				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	85	21	86	0.990	72	0.8	4.2	59999940.000	F
C-AB	624	156	563	1.108	545	5.0	24.8	114.339	F
C-A	0	0			0				
A-B	0	0			0				

A-C	1022	256			1022				
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00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	105	26	0	999999999.000	0	4.2	30.4	59999940.000	F
C-AB	764	191	491	1.557	490	24.8	93.3	447.135	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1252	313			1252				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	105	26	0	999999999.000	0	30.4	56.5	59999940.000	F
C-AB	764	191	491	1.557	491	93.3	161.7	879.116	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1252	313			1252				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	85	21	0	999999999.000	0	56.5	77.9	59999940.000	F
C-AB	624	156	564	1.106	564	161.7	176.7	1073.048	F
C-A	0	0			0				
A-B	0	0			0				
A-C	1022	256			1022				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	72	18	0	999999999.000	0	77.9	95.7	59999940.000	F
C-AB	522	131	615	0.849	611	176.7	154.6	974.669	F
C-A	0	0			0				
A-B	0	0			0				
A-C	856	214			856				

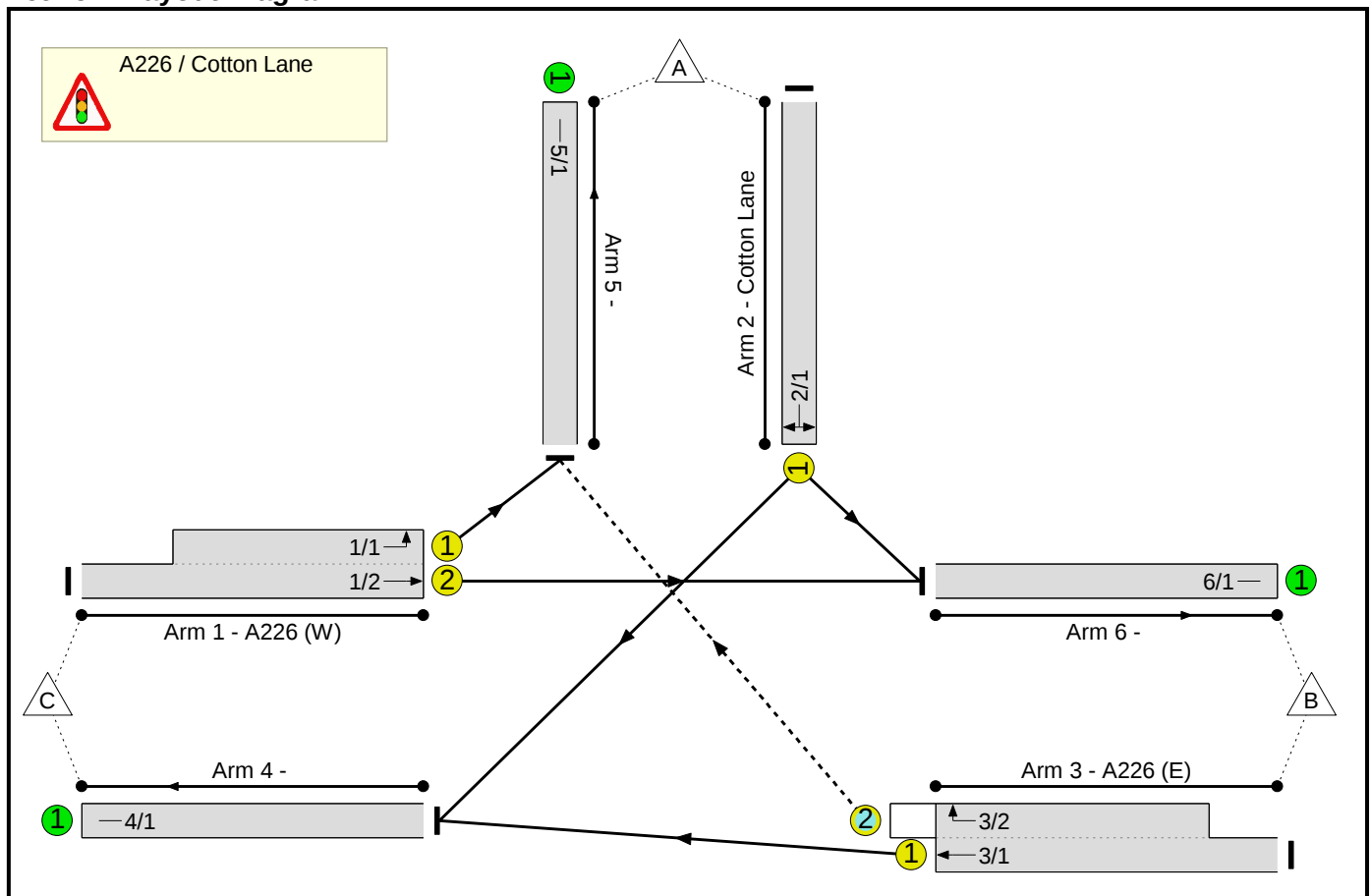
Appendix P
A226 / Cotton Lane
Existing Layout Modelling Output

Full Input Data And Results

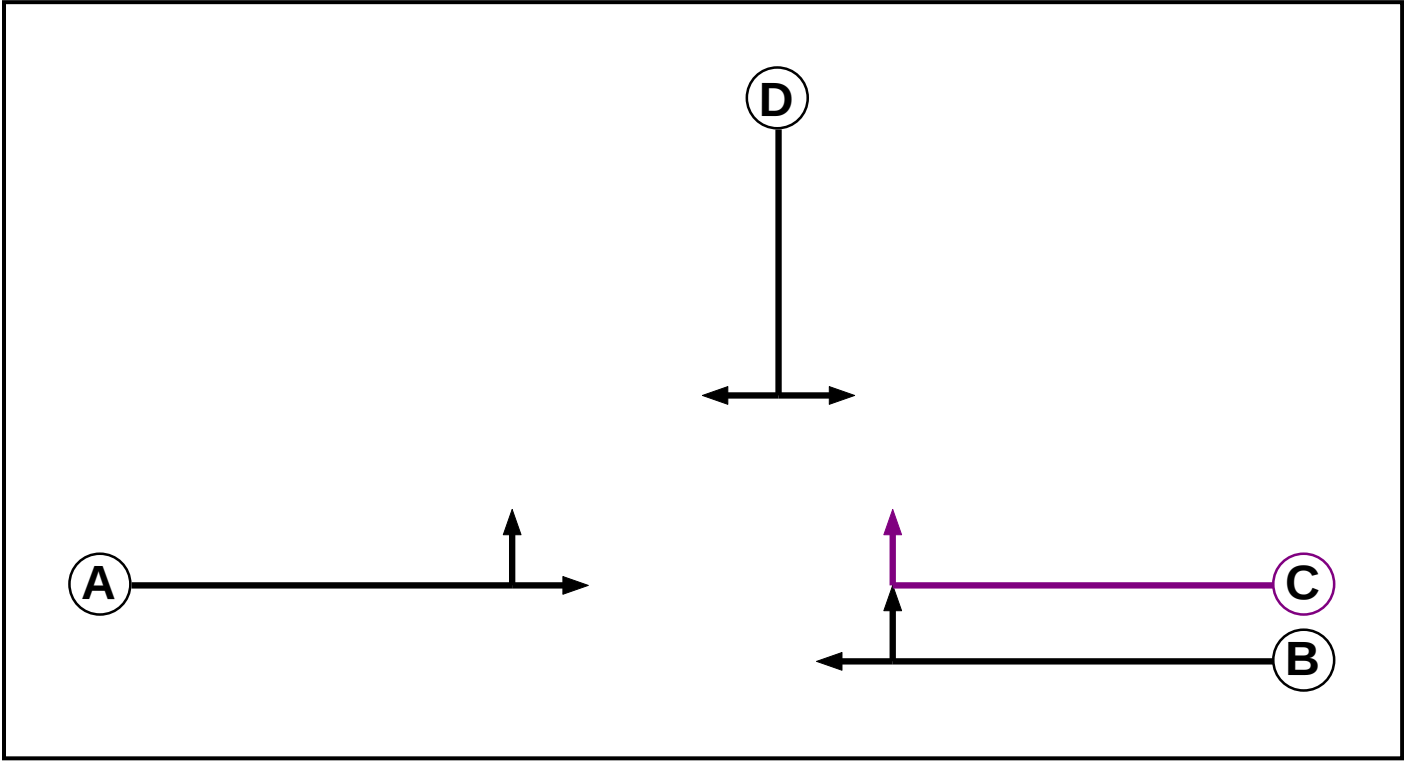
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	5. A226 _ Cotton Ln.lsg3x
Author:	
Company:	
Address:	

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	Ind. Arrow	B	4	4
D	Traffic		7	7

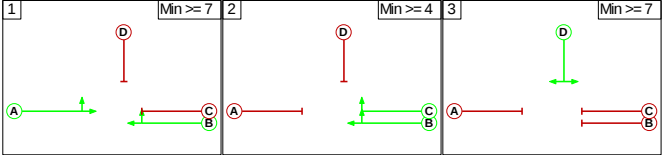
Phase Intergreens Matrix

Terminating Phase	Starting Phase				
	A	B	C	D	
	A	-	6	6	
	B	-	-	19	
	C	-	-	19	
	D	6	6	6	

Phases in Stage

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

Stage Diagram



Phase Delays

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

Prohibited Stage Change

	To Stage			
From Stage		1	2	3
	1		6	19
	2	2		19
	3	6	6	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A226 / Cotton Lane											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
3/2 (A226 (E))	5/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00
				1/2	1.09	All					

Lane Input Data

Junction: A226 / Cotton Lane												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A226 (W))	U	A	2	3	11.0	Geom	-	3.38	0.00	Y	Arm 5 Left	11.00
1/2 (A226 (W))	U	A	2	3	60.0	Geom	-	3.62	0.00	Y	Arm 6 Ahead	Inf
2/1 (Cotton Lane)	U	D	2	3	60.0	Geom	-	3.83	0.00	Y	Arm 4 Right	19.00
											Arm 6 Left	13.00
3/1 (A226 (E))	U	B	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Ahead	Inf
3/2 (A226 (E))	O	B C	2	3	12.2	Geom	-	2.96	0.00	Y	Arm 5 Right	12.00
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: 'Ref no LTC AM'	08:00	09:00	01:00	
2: 'Ref no LTC PM'	17:00	18:00	01:00	
3: 'Ref LTC AM'	08:00	09:00	01:00	
4: 'Ref LTC PM'	17:00	18:00	01:00	
5: 'Pref no LTC AM'	08:00	09:00	01:00	
6: 'Pref no LTC PM'	17:00	18:00	01:00	
7: 'Pref LTC AM'	08:00	09:00	01:00	
8: 'Pref LTC PM'	17:00	18:00	01:00	

Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	190	227	417
	B	123	0	667	790
	C	291	202	0	493
	Tot.	414	392	894	1700

Traffic Lane Flows

Lane	Scenario 1: Ref no LTC AM
Junction: A226 / Cotton Lane	
1/1 (short)	291
1/2 (with short)	493(In) 202(Out)
2/1	417
3/1 (with short)	790(In) 667(Out)
3/2 (short)	123
4/1	894
5/1	414
6/1	392

Lane Saturation Flows

Junction: A226 / Cotton Lane								
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 (A226 (W))	3.38	0.00	Y	Arm 5 Left	11.00	100.0 %	1719	1719
1/2 (A226 (W))	3.62	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1977	1977
2/1 (Cotton Lane)	3.83	0.00	Y	Arm 4 Right	19.00	54.4 %	1824	1824
				Arm 6 Left	13.00	45.6 %		
3/1 (A226 (E))	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
3/2 (A226 (E))	2.96	0.00	Y	Arm 5 Right	12.00	100.0 %	1699	1699
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Ref no LTC PM' (FG2: 'Ref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	182	276	458
	B	79	0	531	610
	C	189	383	0	572
	Tot.	268	565	807	1640

Traffic Lane Flows

Lane	Scenario 2: Ref no LTC PM
Junction: A226 / Cotton Lane	
1/1 (short)	189
1/2 (with short)	572(In) 383(Out)
2/1	458
3/1 (with short)	610(In) 531(Out)
3/2 (short)	79
4/1	807
5/1	268
6/1	565

Lane Saturation Flows

Junction: A226 / Cotton Lane								
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 (A226 (W))	3.38	0.00	Y	Arm 5 Left	11.00	100.0 %	1719	1719
1/2 (A226 (W))	3.62	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1977	1977
2/1 (Cotton Lane)	3.83	0.00	Y	Arm 4 Right	19.00	60.3 %	1827	1827
				Arm 6 Left	13.00	39.7 %		
3/1 (A226 (E))	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
3/2 (A226 (E))	2.96	0.00	Y	Arm 5 Right	12.00	100.0 %	1699	1699
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	180	226	406
	B	124	0	642	766
	C	322	207	0	529
	Tot.	446	387	868	1701

Traffic Lane Flows

Lane	Scenario 3: Ref LTC AM
Junction: A226 / Cotton Lane	
1/1 (short)	322
1/2 (with short)	529(In) 207(Out)
2/1	406
3/1 (with short)	766(In) 642(Out)
3/2 (short)	124
4/1	868
5/1	446
6/1	387

Lane Saturation Flows

Junction: A226 / Cotton Lane								
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 (A226 (W))	3.38	0.00	Y	Arm 5 Left	11.00	100.0 %	1719	1719
1/2 (A226 (W))	3.62	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1977	1977
2/1 (Cotton Lane)	3.83	0.00	Y	Arm 4 Right	19.00	55.7 %	1824	1824
				Arm 6 Left	13.00	44.3 %		
3/1 (A226 (E))	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
3/2 (A226 (E))	2.96	0.00	Y	Arm 5 Right	12.00	100.0 %	1699	1699
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	179	228	407
	B	93	0	490	583
	C	206	399	0	605
	Tot.	299	578	718	1595

Traffic Lane Flows

Lane	Scenario 4: Ref LTC PM
Junction: A226 / Cotton Lane	
1/1 (short)	206
1/2 (with short)	605(In) 399(Out)
2/1	407
3/1 (with short)	583(In) 490(Out)
3/2 (short)	93
4/1	718
5/1	299
6/1	578

Lane Saturation Flows

Junction: A226 / Cotton Lane								
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 (A226 (W))	3.38	0.00	Y	Arm 5 Left	11.00	100.0 %	1719	1719
1/2 (A226 (W))	3.62	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1977	1977
2/1 (Cotton Lane)	3.83	0.00	Y	Arm 4 Right	19.00	56.0 %	1825	1825
				Arm 6 Left	13.00	44.0 %		
3/1 (A226 (E))	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
3/2 (A226 (E))	2.96	0.00	Y	Arm 5 Right	12.00	100.0 %	1699	1699
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'Pref no LTC AM' (FG5: 'Pref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	179	245	424
	B	124	0	721	845
	C	247	235	0	482
	Tot.	371	414	966	1751

Traffic Lane Flows

Lane	Scenario 5: Pref no LTC AM
Junction: A226 / Cotton Lane	
1/1 (short)	247
1/2 (with short)	482(In) 235(Out)
2/1	424
3/1 (with short)	845(In) 721(Out)
3/2 (short)	124
4/1	966
5/1	371
6/1	414

Lane Saturation Flows

Junction: A226 / Cotton Lane								
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 (A226 (W))	3.38	0.00	Y	Arm 5 Left	11.00	100.0 %	1719	1719
1/2 (A226 (W))	3.62	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1977	1977
2/1 (Cotton Lane)	3.83	0.00	Y	Arm 4 Right	19.00	57.8 %	1826	1826
				Arm 6 Left	13.00	42.2 %		
3/1 (A226 (E))	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
3/2 (A226 (E))	2.96	0.00	Y	Arm 5 Right	12.00	100.0 %	1699	1699
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Pref no LTC PM' (FG6: 'Pref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin	A	B	C	Tot.	
	A	0	160	297	457
	B	78	0	569	647
	C	196	369	0	565
	Tot.	274	529	866	1669

Traffic Lane Flows

Lane	Scenario 6: Pref no LTC PM
Junction: A226 / Cotton Lane	
1/1 (short)	196
1/2 (with short)	565(In) 369(Out)
2/1	457
3/1 (with short)	647(In) 569(Out)
3/2 (short)	78
4/1	866
5/1	274
6/1	529

Lane Saturation Flows

Junction: A226 / Cotton Lane								
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 (A226 (W))	3.38	0.00	Y	Arm 5 Left	11.00	100.0 %	1719	1719
1/2 (A226 (W))	3.62	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1977	1977
2/1 (Cotton Lane)	3.83	0.00	Y	Arm 4 Right	19.00	65.0 %	1830	1830
				Arm 6 Left	13.00	35.0 %		
3/1 (A226 (E))	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
3/2 (A226 (E))	2.96	0.00	Y	Arm 5 Right	12.00	100.0 %	1699	1699
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 7: 'Pref LTC AM' (FG7: 'Pref LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	167	253	420
	B	128	0	672	800
	C	313	240	0	553
	Tot.	441	407	925	1773

Traffic Lane Flows

Lane	Scenario 7: Pref LTC AM
Junction: A226 / Cotton Lane	
1/1 (short)	313
1/2 (with short)	553(In) 240(Out)
2/1	420
3/1 (with short)	800(In) 672(Out)
3/2 (short)	128
4/1	925
5/1	441
6/1	407

Lane Saturation Flows

Junction: A226 / Cotton Lane								
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 (A226 (W))	3.38	0.00	Y	Arm 5 Left	11.00	100.0 %	1719	1719
1/2 (A226 (W))	3.62	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1977	1977
2/1 (Cotton Lane)	3.83	0.00	Y	Arm 4 Right	19.00	60.2 %	1827	1827
				Arm 6 Left	13.00	39.8 %		
3/1 (A226 (E))	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
3/2 (A226 (E))	2.96	0.00	Y	Arm 5 Right	12.00	100.0 %	1699	1699
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Pref LTC PM' (FG8: 'Pref LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	160	239	399
	B	88	0	522	610
	C	200	379	0	579
	Tot.	288	539	761	1588

Traffic Lane Flows

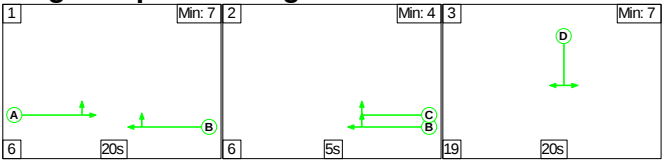
Lane	Scenario 8: Pref LTC PM
Junction: A226 / Cotton Lane	
1/1 (short)	200
1/2 (with short)	579(In) 379(Out)
2/1	399
3/1 (with short)	610(In) 522(Out)
3/2 (short)	88
4/1	761
5/1	288
6/1	539

Lane Saturation Flows

Junction: A226 / Cotton Lane								
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 (A226 (W))	3.38	0.00	Y	Arm 5 Left	11.00	100.0 %	1719	1719
1/2 (A226 (W))	3.62	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1977	1977
2/1 (Cotton Lane)	3.83	0.00	Y	Arm 4 Right	19.00	59.9 %	1827	1827
				Arm 6 Left	13.00	40.1 %		
3/1 (A226 (E))	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
3/2 (A226 (E))	2.96	0.00	Y	Arm 5 Right	12.00	100.0 %	1699	1699
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')

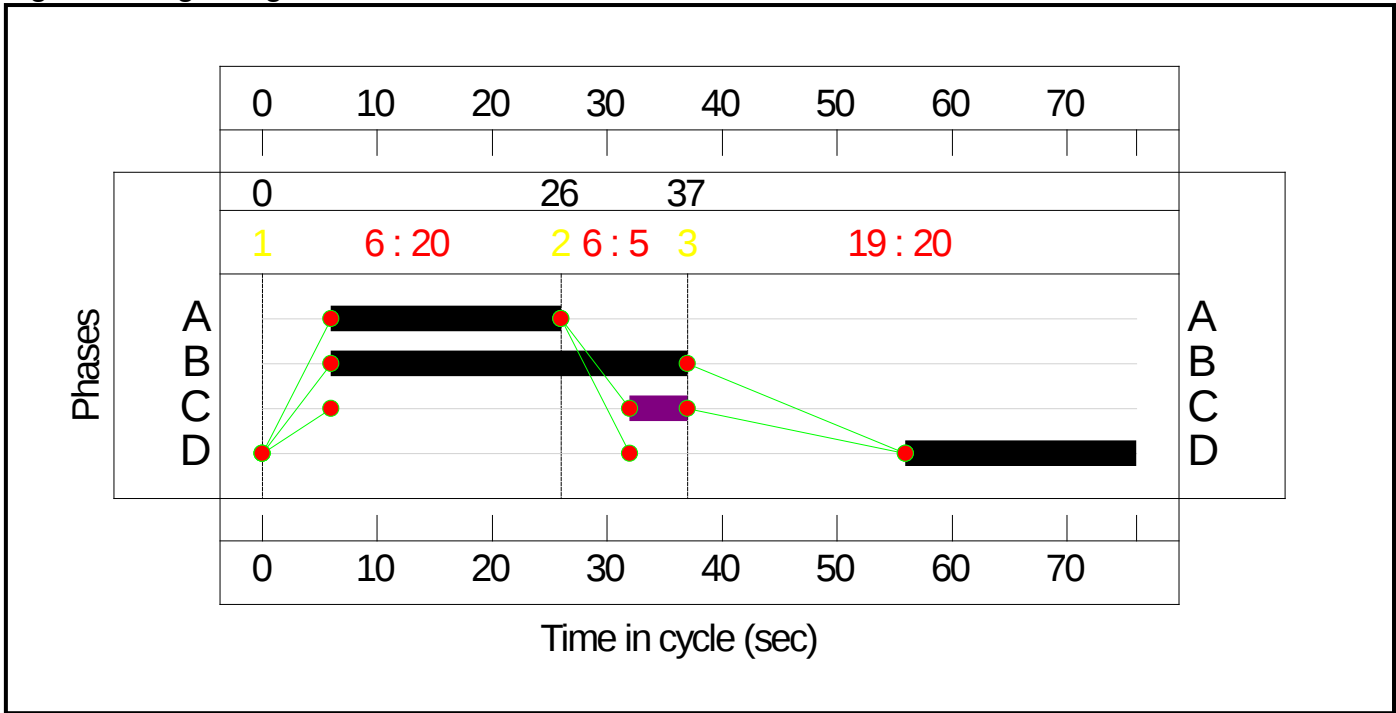
Stage Sequence Diagram



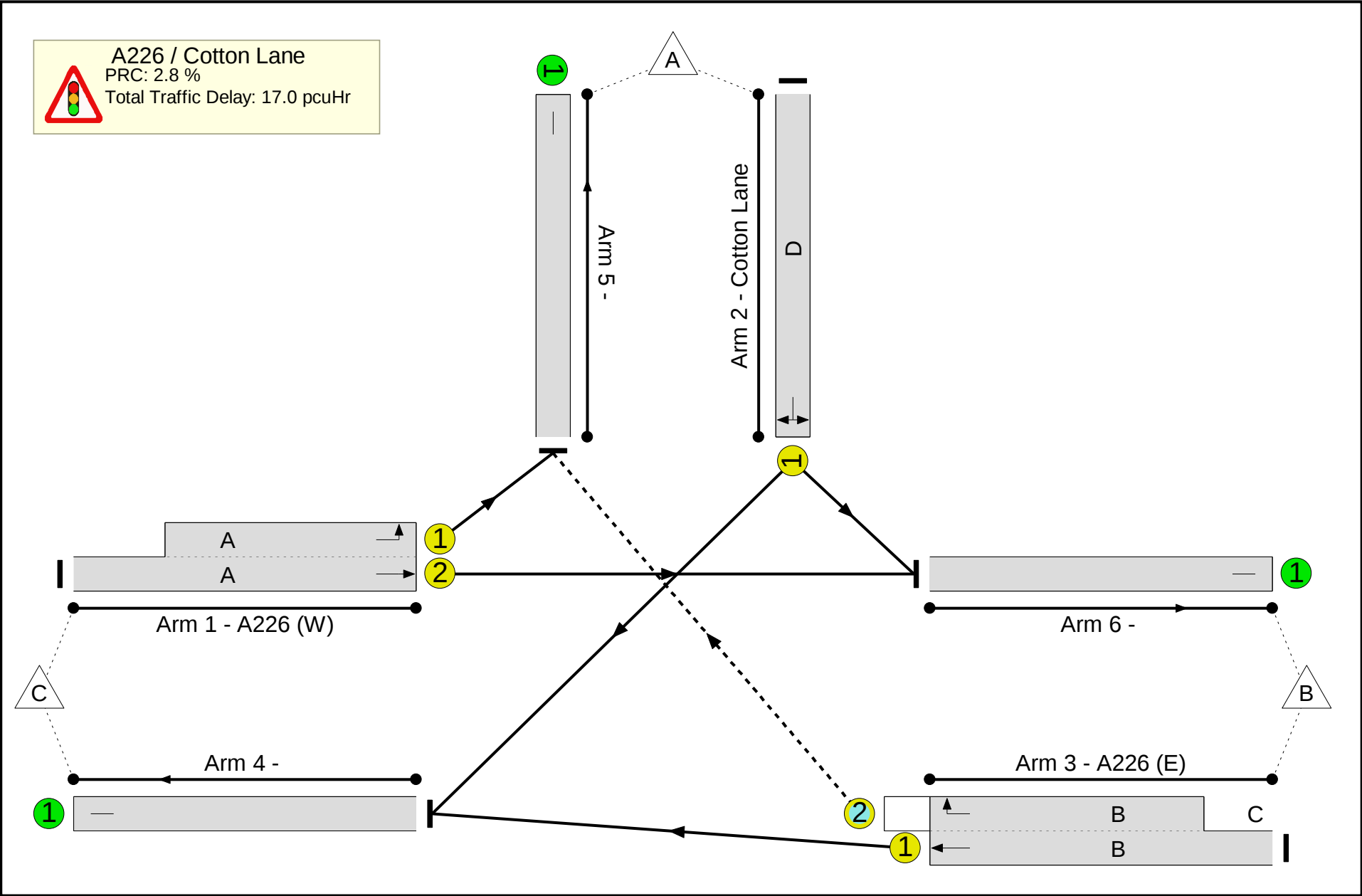
Stage Timings

Stage	1	2	3
Duration	20	5	20
Change Point	0	26	37

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

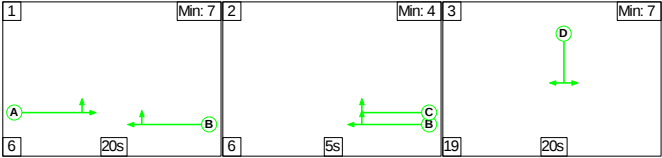


Network Results

Network Results

Full Input Data And Results
Scenario 2: 'Ref no LTC PM' (FG2: 'Ref no LTC PM', Plan 1: 'Network Control Plan 1')

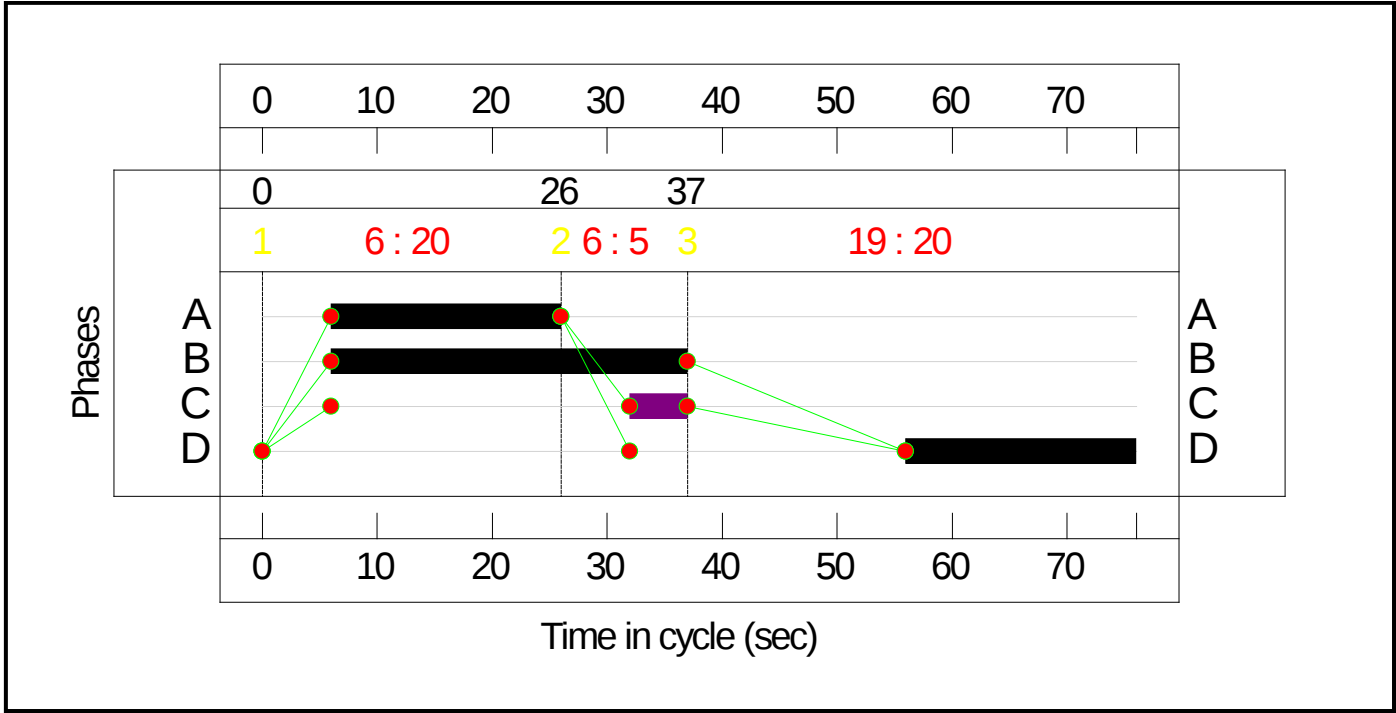
Stage Sequence Diagram

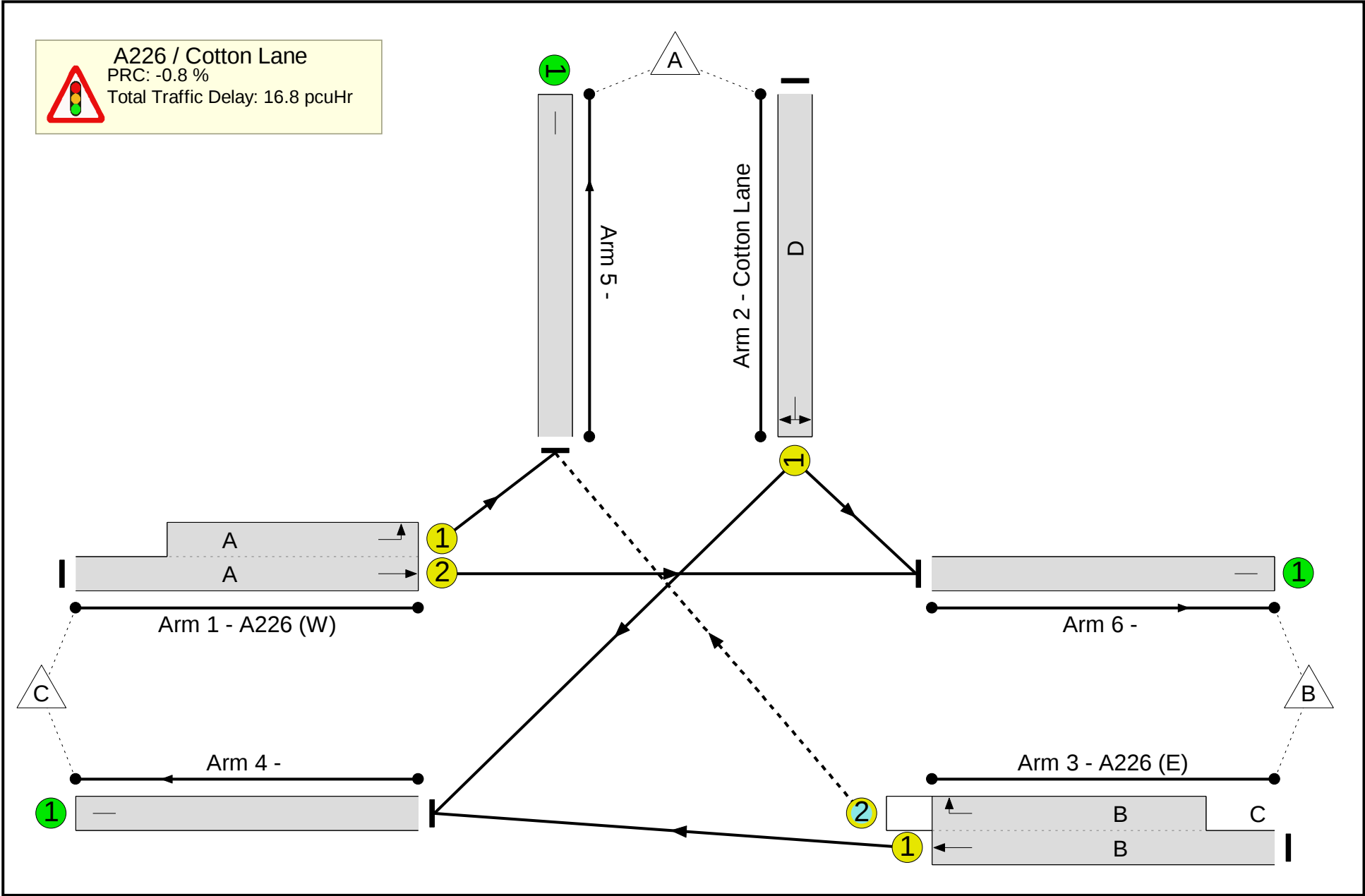


Stage Timings

Stage	1	2	3
Duration	20	5	20
Change Point	0	26	37

Signal Timings Diagram

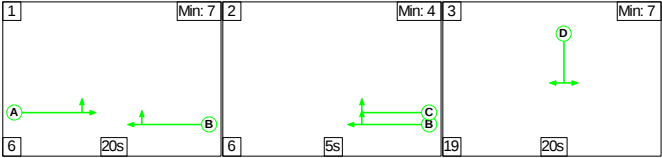




Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	90.7%
A226 / Cotton Lane	-	-	N/A	-	-		-	-	-	-	-	-	90.7%
1/2+1/1	A226 (W) Left Ahead	U	N/A	N/A	A		1	20	-	572	1977:1719	538+265	71.2 : 71.2%
2/1	Cotton Lane Right Left	U	N/A	N/A	D		1	20	-	458	1827	505	90.7%
3/1+3/2	A226 (E) Ahead Right	U+O	N/A	N/A	B	C	1	31	5	610	1915:1699	768+114	69.1 : 69.1%
4/1		U	N/A	N/A	-		-	-	-	807	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	268	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	565	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	-	-	68	9	2	10.1	6.5	0.2	16.8	-	-	-	-
A226 / Cotton Lane	-	-	68	9	2	10.1	6.5	0.2	16.8	-	-	-	-
1/2+1/1	572	572	-	-	-	3.8	1.2	-	5.0	31.6	7.2	1.2	8.5
2/1	458	458	-	-	-	3.4	4.2	-	7.5	59.2	9.3	4.2	13.4
3/1+3/2	610	610	68	9	2	2.9	1.1	0.2	4.2	25.0	8.8	1.1	10.0
4/1	807	807	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	268	268	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	565	565	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -0.8 Total Delay for Signalled Lanes (pcuHr): 16.80 Cycle Time (s): 76 PRC Over All Lanes (%): -0.8 Total Delay Over All Lanes(pcuHr): 16.80													

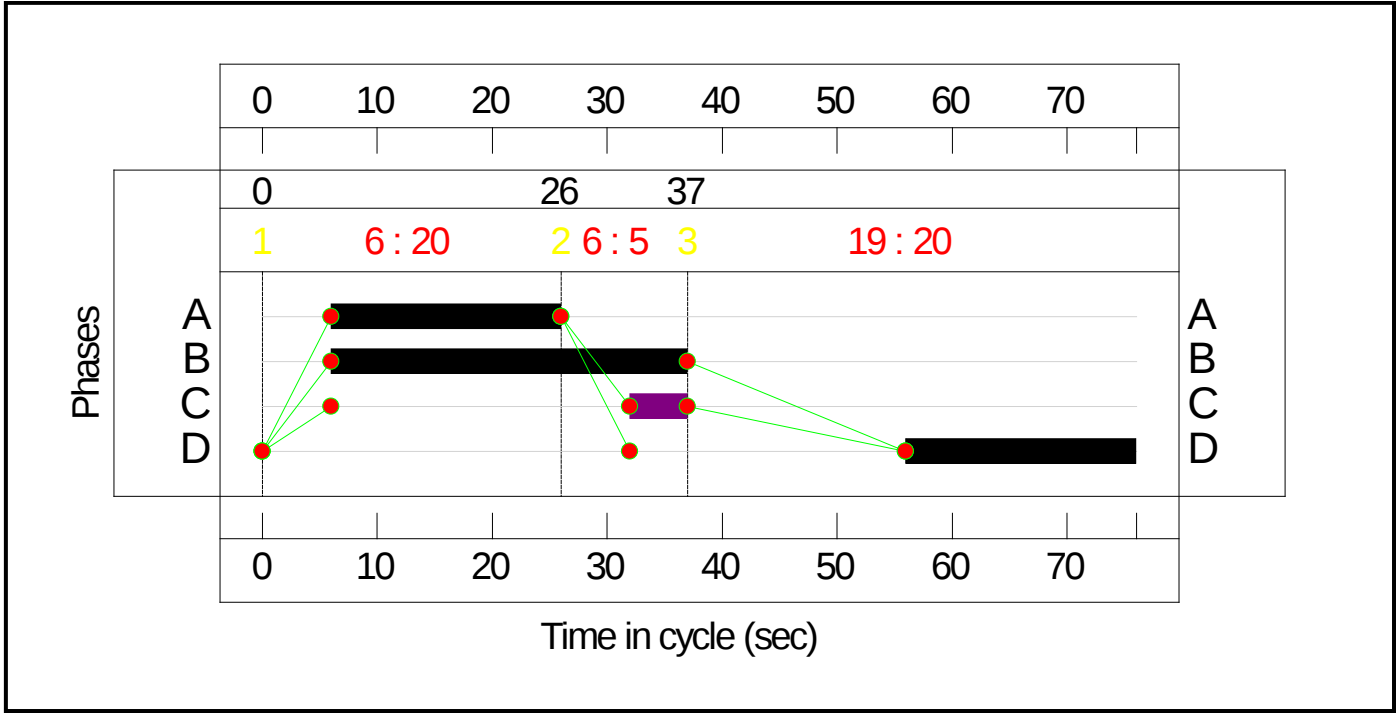
Stage Sequence Diagram



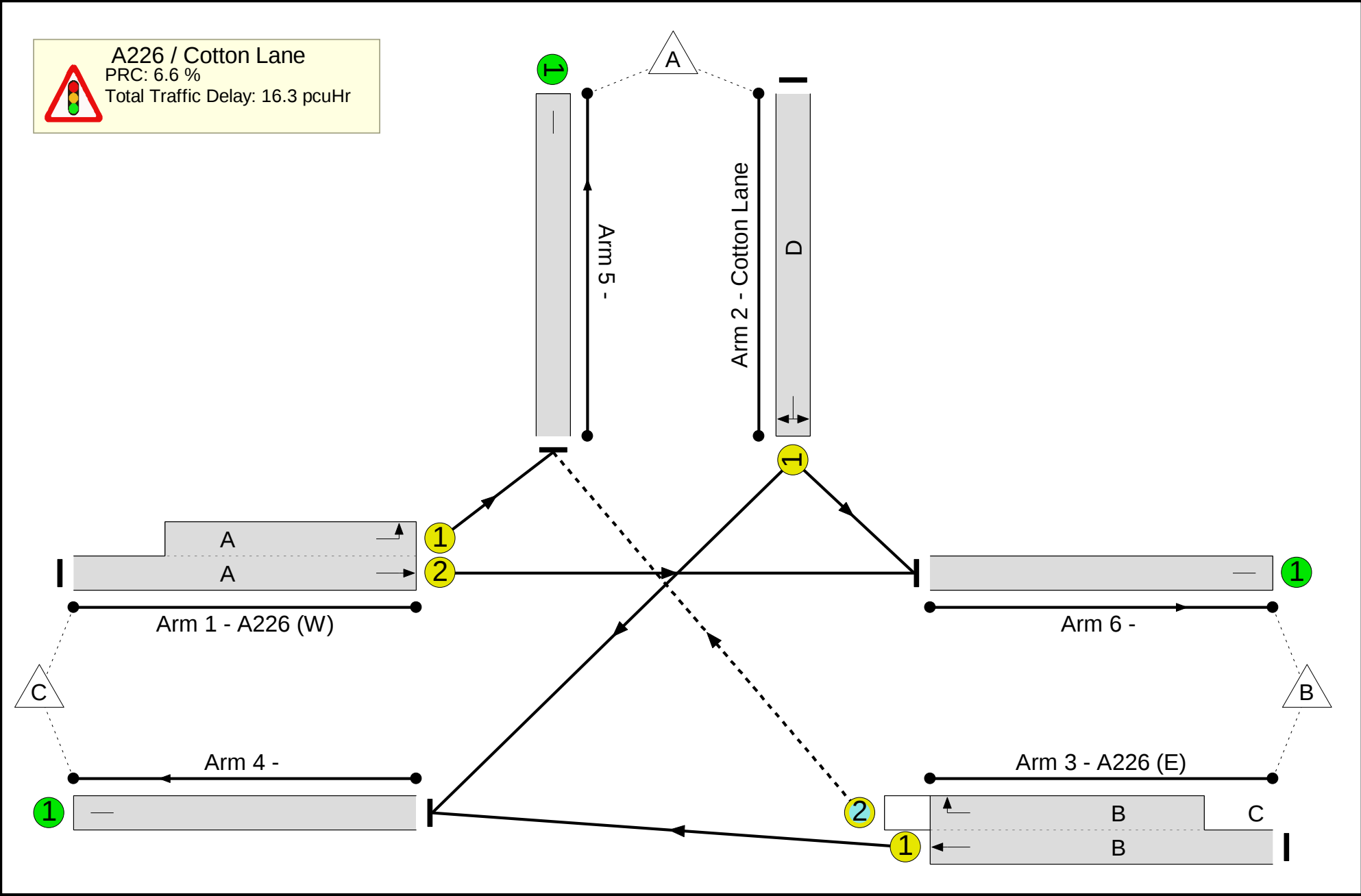
Stage Timings

Stage	1	2	3
Duration	20	5	20
Change Point	0	26	37

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



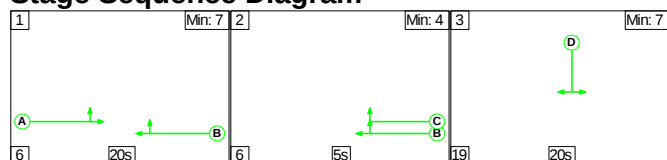
Network Results

Network Results

Full Input Data And Results

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

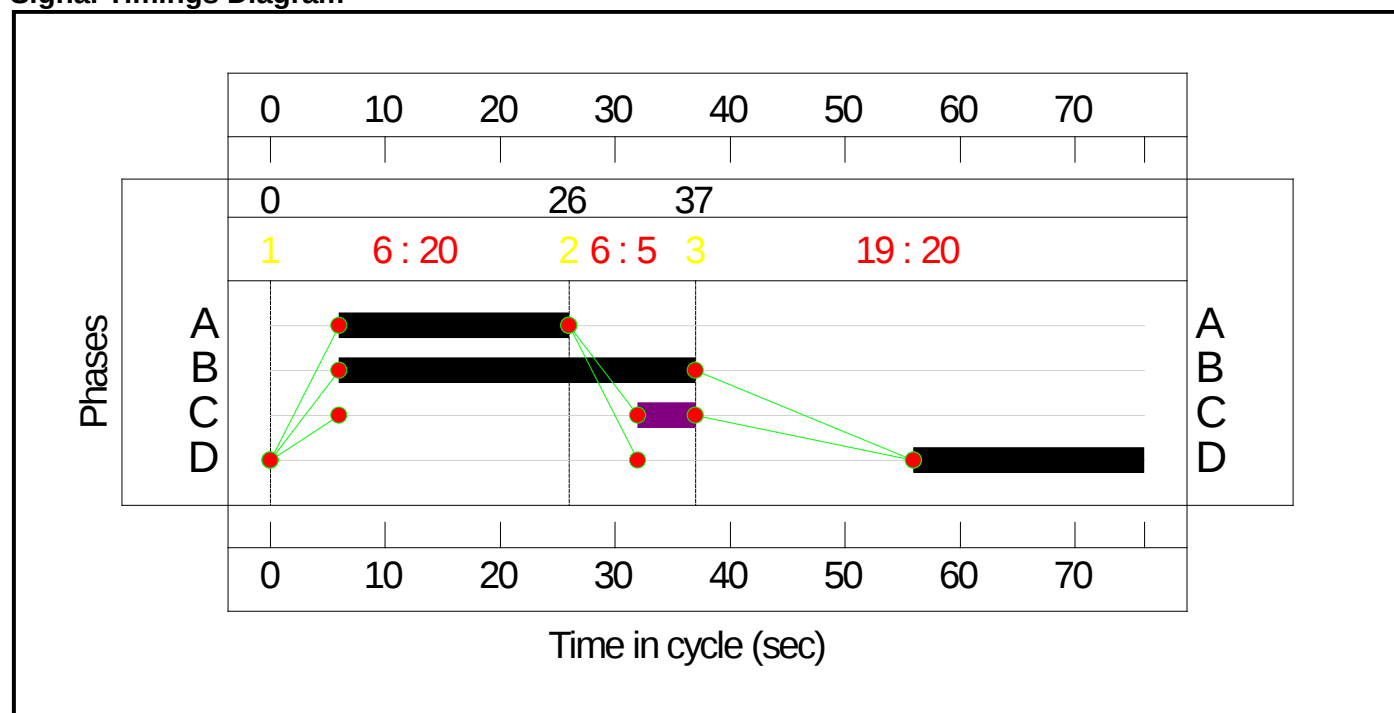
Stage Sequence Diagram



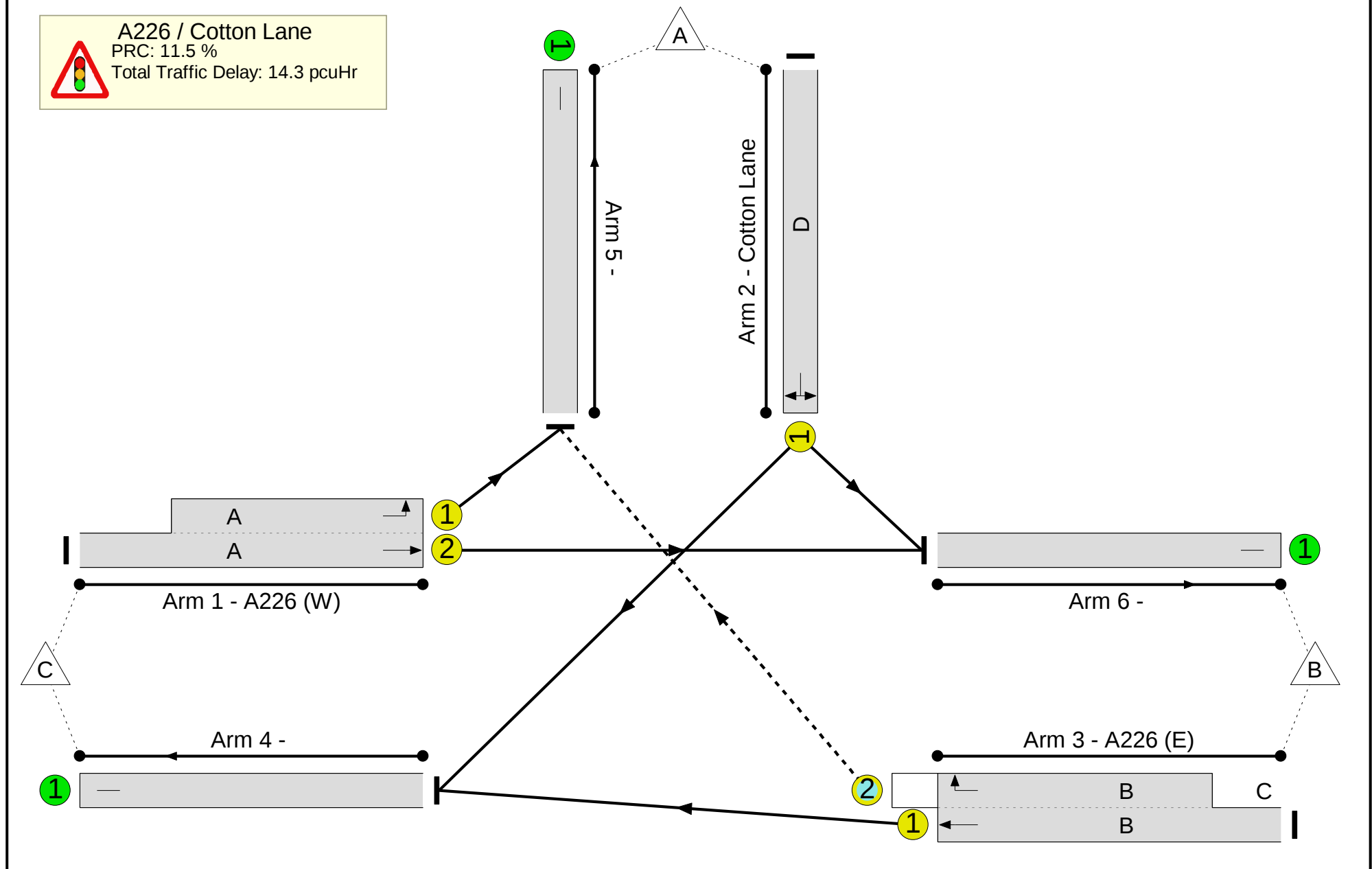
Stage Timings

Stage	1	2	3
Duration	20	5	20
Change Point	0	26	37

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

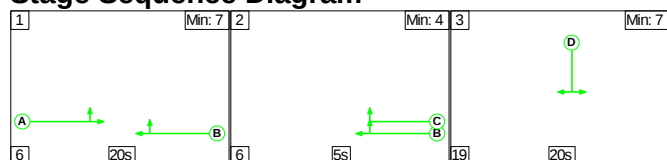
Network Results

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	-	-		-	-	-	-	-	-	80.7%
A226 / Cotton Lane	-	-	N/A	-	-		-	-	-	-	-	-	80.7%
1/2+1/1	A226 (W) Left Ahead	U	N/A	N/A	A		1	20	-	605	1977:1719	537+277	74.2 : 74.2%
2/1	Cotton Lane Right Left	U	N/A	N/A	D		1	20	-	407	1825	504	80.7%
3/1+3/2	A226 (E) Ahead Right	U+O	N/A	N/A	B	C	1	31	5	583	1915:1699	761+144	64.4 : 64.4%
4/1		U	N/A	N/A	-		-	-	-	718	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	299	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	578	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	-	-	72	19	2	9.6	4.3	0.3	14.3	-	-	-	-
A226 / Cotton Lane	-	-	72	19	2	9.6	4.3	0.3	14.3	-	-	-	-
1/2+1/1	605	605	-	-	-	4.1	1.4	-	5.5	32.6	7.5	1.4	9.0
2/1	407	407	-	-	-	2.9	2.0	-	4.9	43.4	7.9	2.0	9.9
3/1+3/2	583	583	72	19	2	2.7	0.9	0.3	3.9	23.9	8.0	0.9	8.9
4/1	718	718	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	299	299	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	578	578	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 11.5 Total Delay for Signalled Lanes (pcuHr): 14.26 Cycle Time (s): 76 PRC Over All Lanes (%): 11.5 Total Delay Over All Lanes(pcuHr): 14.26													

Full Input Data And Results

Scenario 5: 'Pref no LTC AM' (FG5: 'Pref no LTC AM', Plan 1: 'Network Control Plan 1')

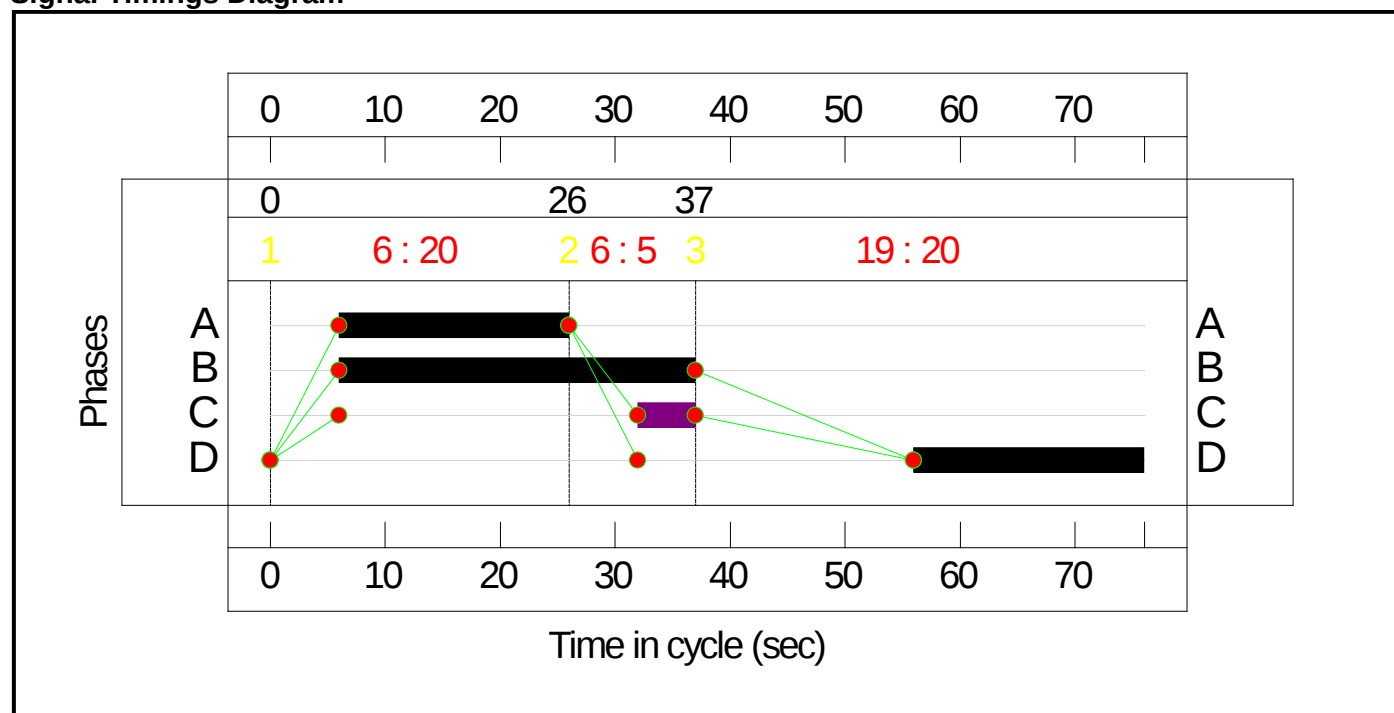
Stage Sequence Diagram



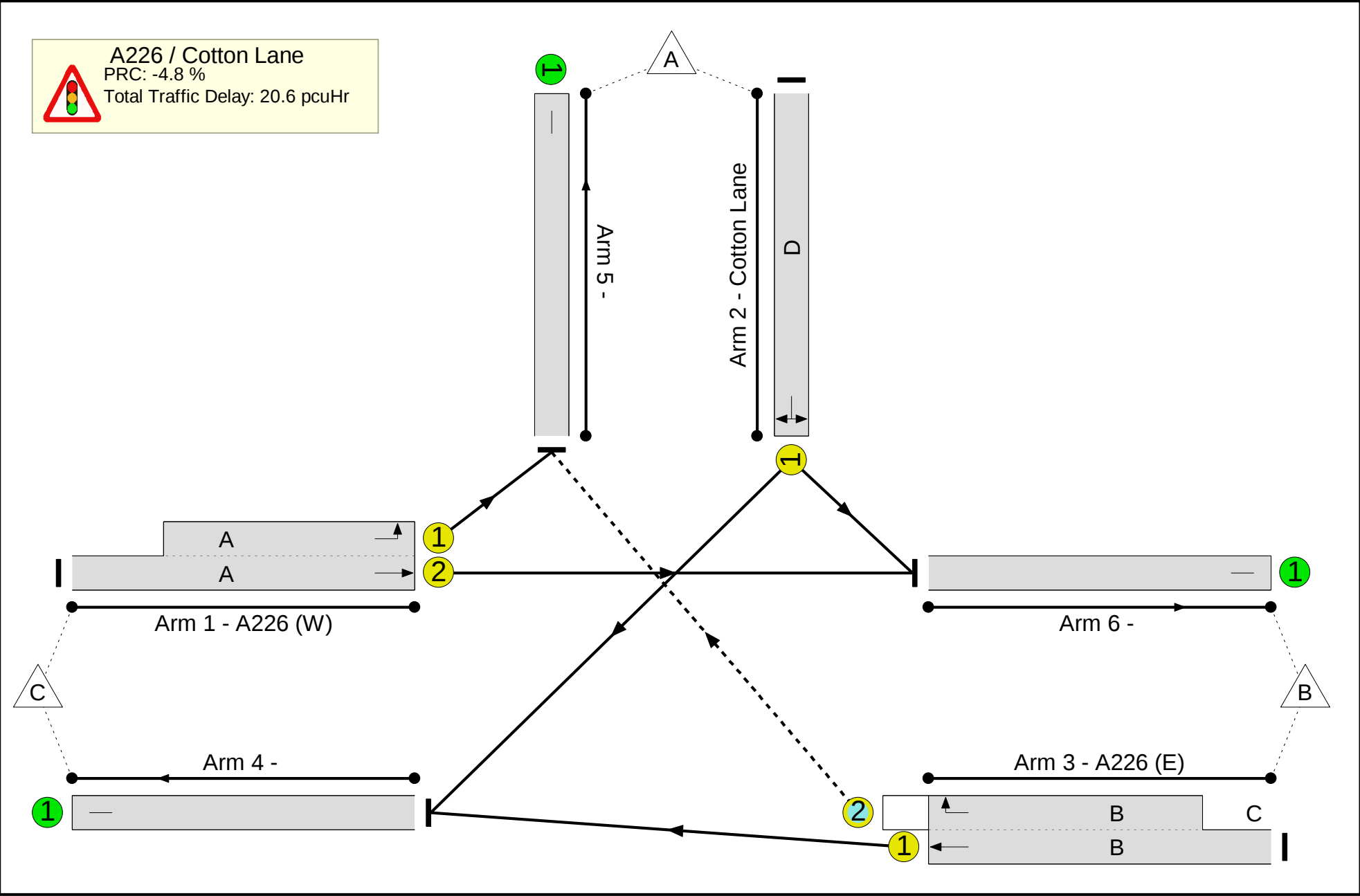
Stage Timings

Stage	1	2	3
Duration	20	5	20
Change Point	0	26	37

Signal Timings Diagram



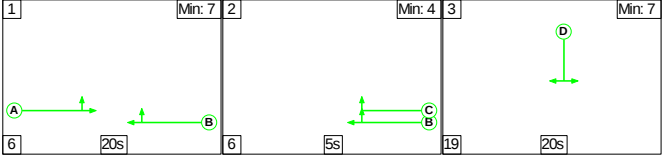
Full Input Data And Results
Network Layout Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	94.3%
A226 / Cotton Lane	-	-	N/A	-	-		-	-	-	-	-	-	94.3%
1/2+1/1	A226 (W) Left Ahead	U	N/A	N/A	A		1	20	-	482	1977:1719	452+475	52.0 : 52.0%
2/1	Cotton Lane Right Left	U	N/A	N/A	D		1	20	-	424	1826	505	84.0%
3/1+3/2	A226 (E) Ahead Right	U+O	N/A	N/A	B	C	1	31	5	845	1915:1699	764+131	94.3 : 94.3%
4/1		U	N/A	N/A	-		-	-	-	966	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	371	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	414	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	-	-	103	18	4	10.7	9.6	0.3	20.6	-	-	-	-
A226 / Cotton Lane	-	-	103	18	4	10.7	9.6	0.3	20.6	-	-	-	-
1/2+1/1	482	482	-	-	-	3.1	0.5	-	3.6	27.0	4.4	0.5	4.9
2/1	424	424	-	-	-	3.1	2.5	-	5.5	47.0	8.4	2.5	10.8
3/1+3/2	845	845	103	18	4	4.6	6.6	0.3	11.5	48.9	15.0	6.6	21.6
4/1	966	966	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	371	371	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	414	414	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -4.8 Total Delay for Signalled Lanes (pcuHr): 20.63 Cycle Time (s): 76 PRC Over All Lanes (%): -4.8 Total Delay Over All Lanes(pcuHr): 20.63													

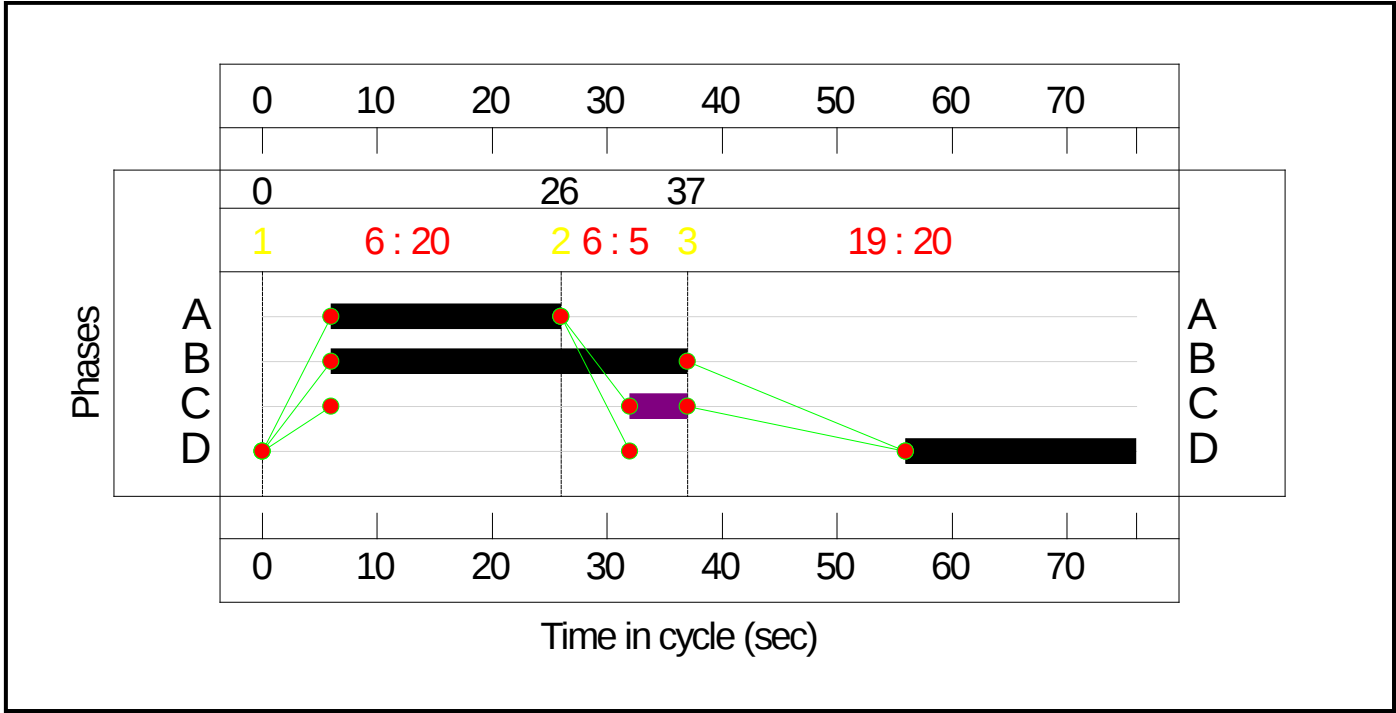
Stage Sequence Diagram



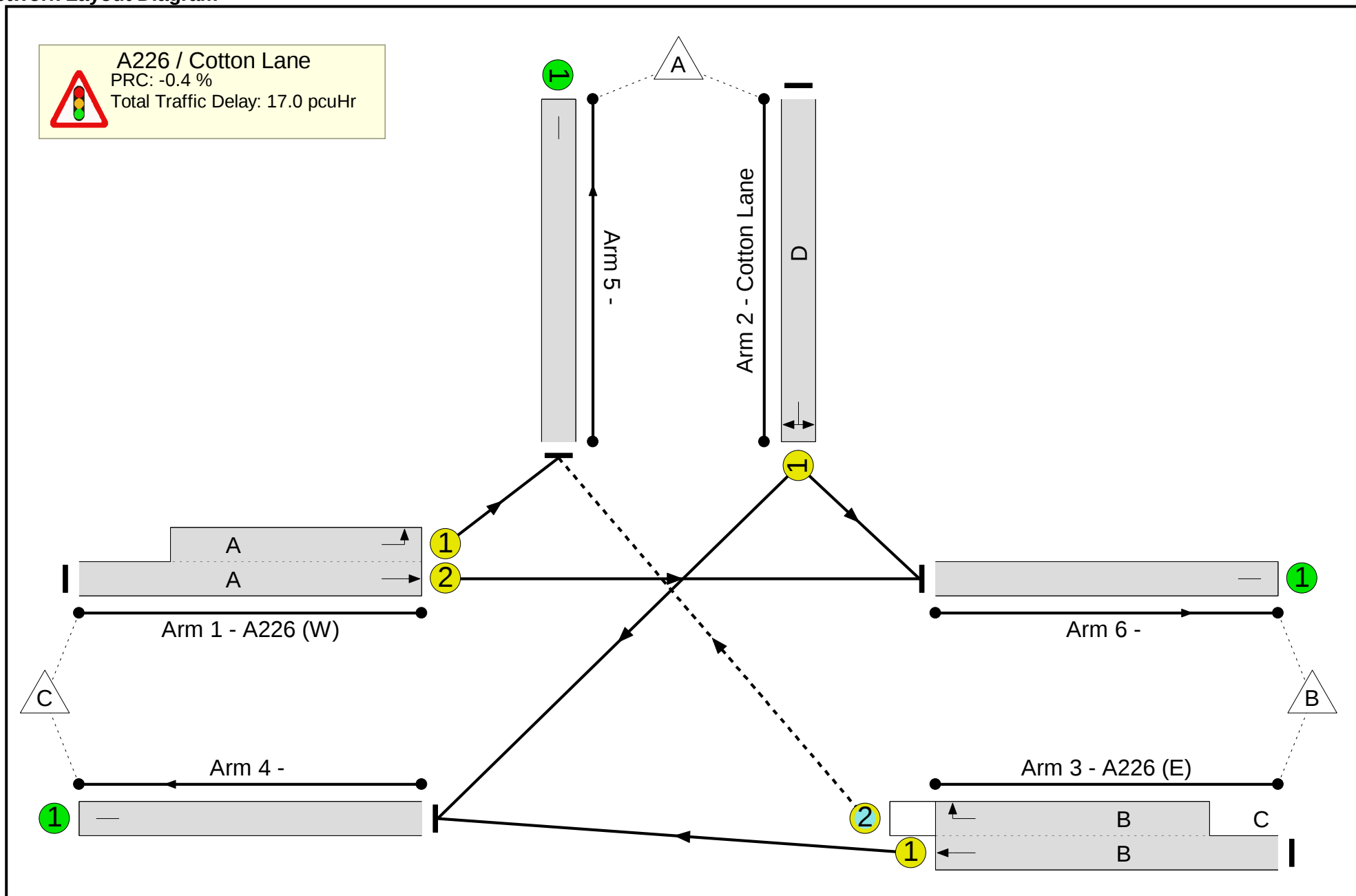
Stage Timings

Stage	1	2	3
Duration	20	5	20
Change Point	0	26	37

Signal Timings Diagram



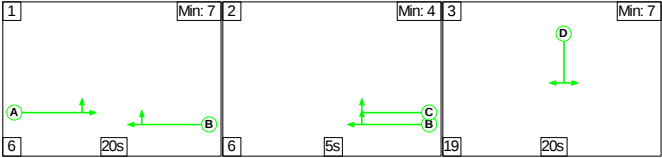
Full Input Data And Results
Network Layout Diagram



Network Results

Network Results

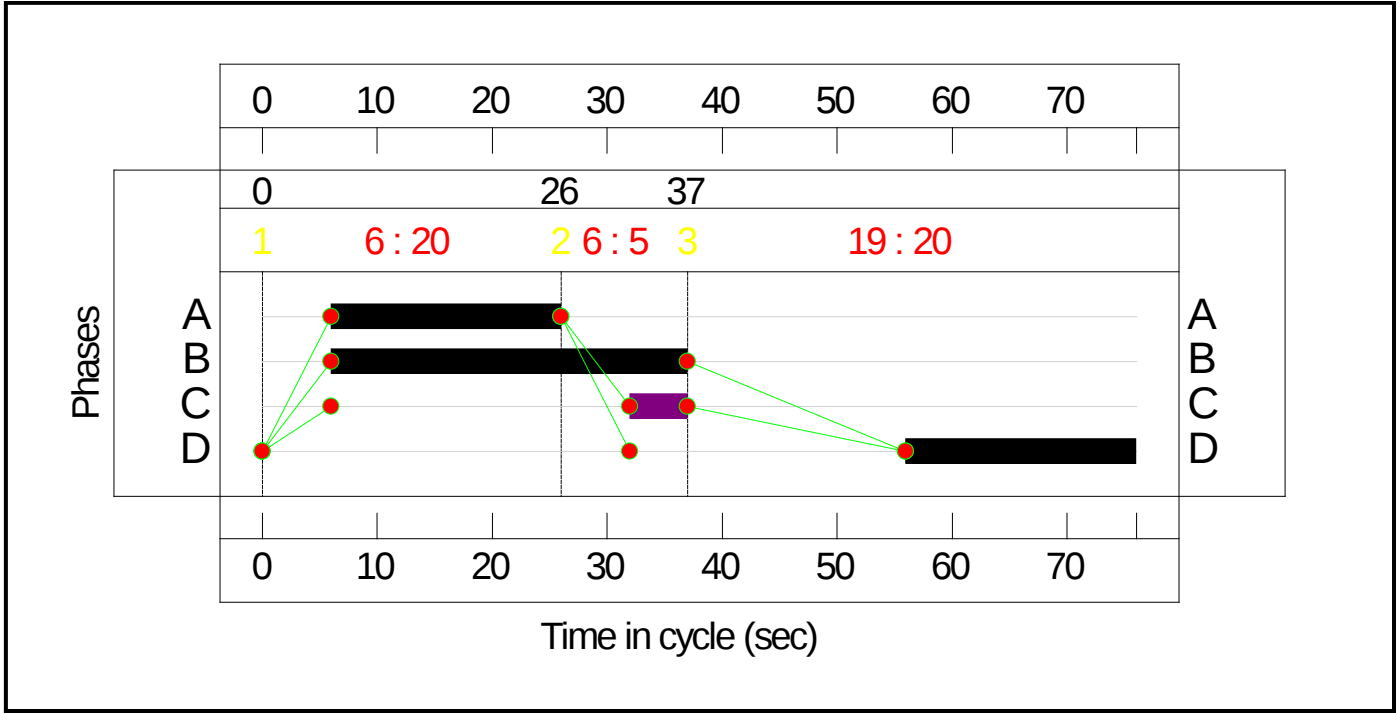
Stage Sequence Diagram

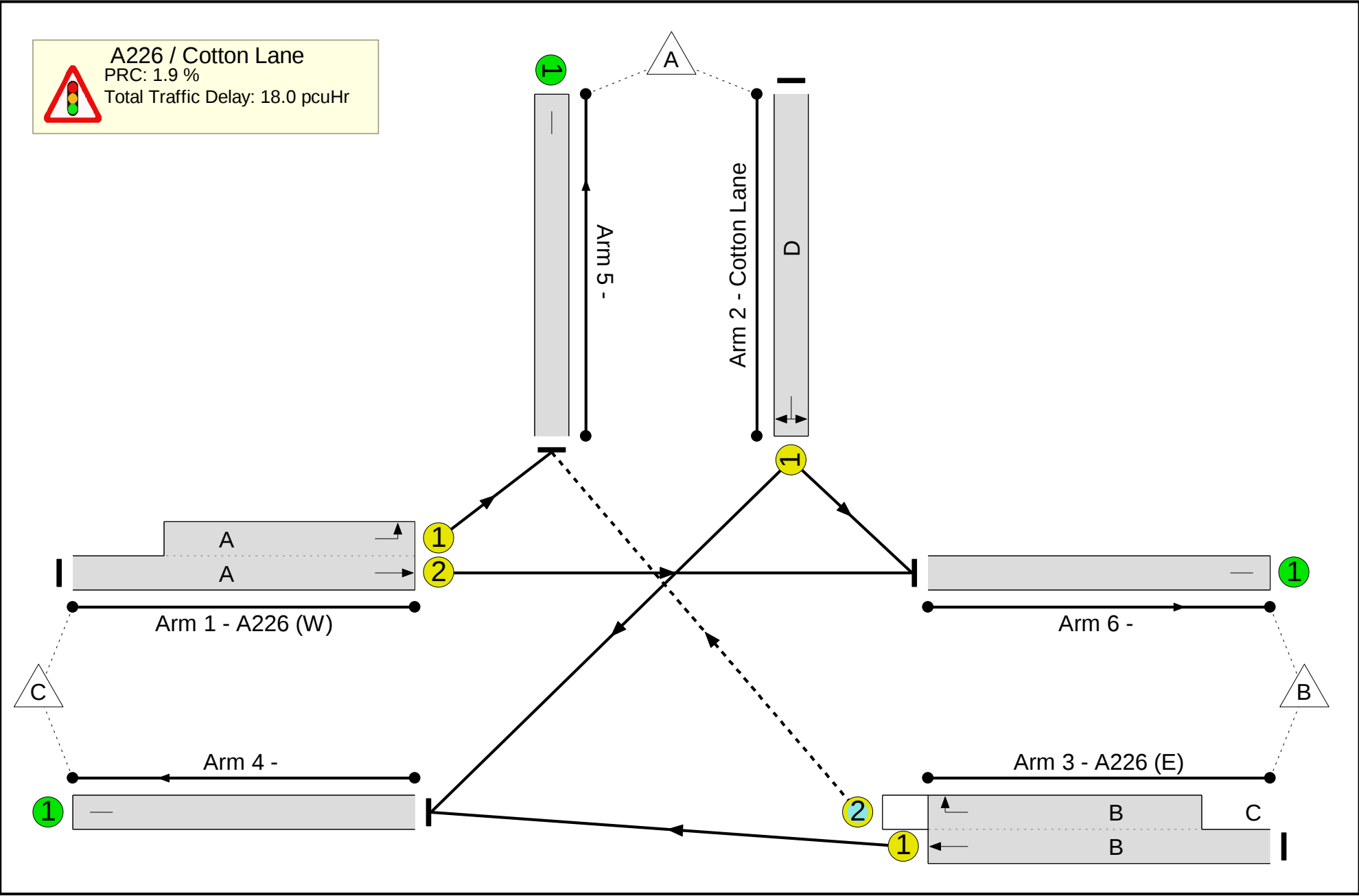


Stage Timings

Stage	1	2	3
Duration	20	5	20
Change Point	0	26	37

Signal Timings Diagram

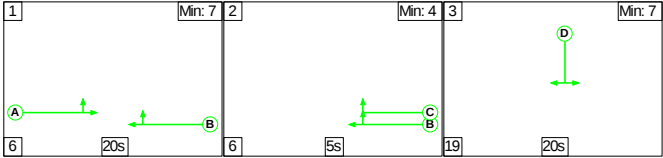




Network Results

Network Results

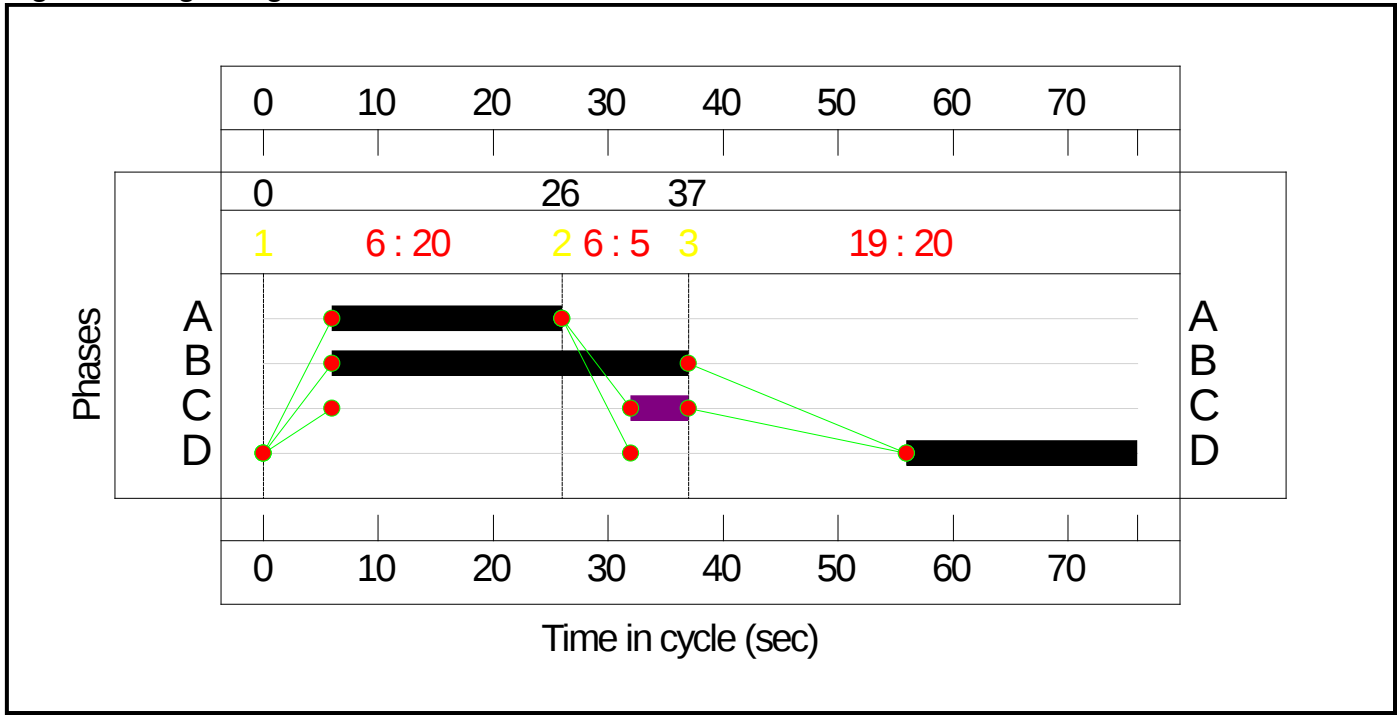
Stage Sequence Diagram

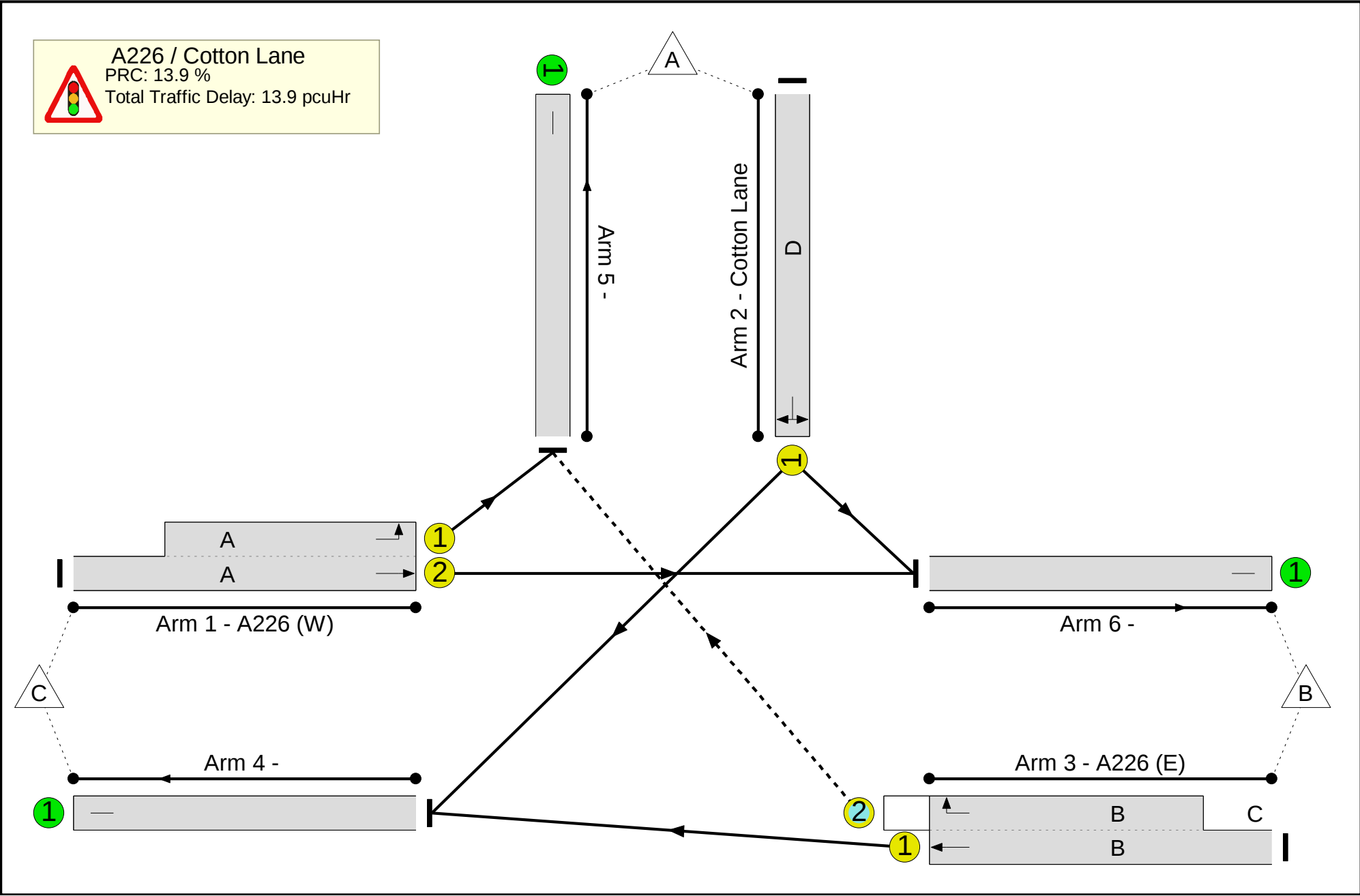


Stage Timings

Stage	1	2	3
Duration	20	5	20
Change Point	0	26	37

Signal Timings Diagram





Network Results

Network Results

Appendix Q

A226 / Cotton Lane

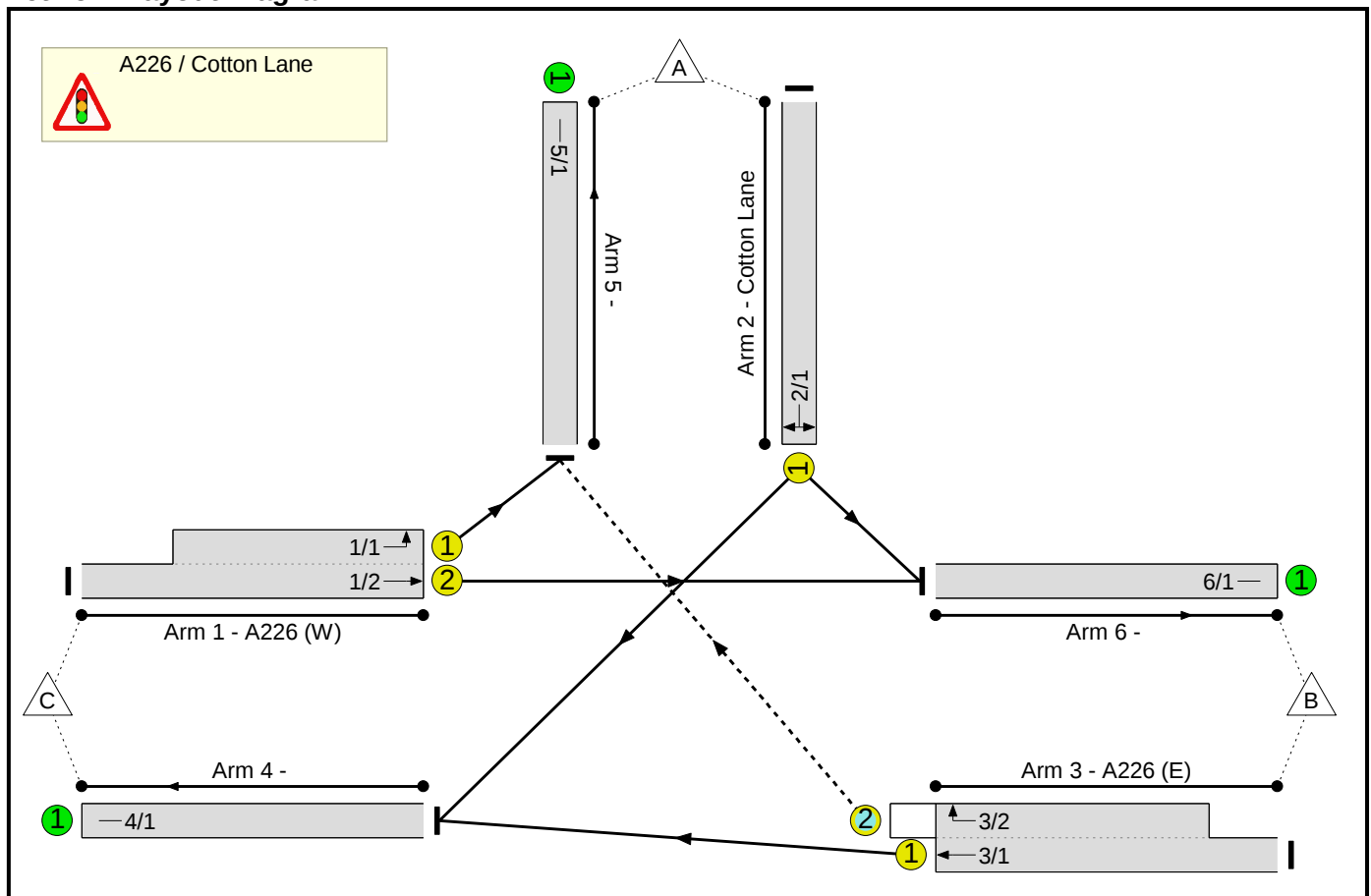
Mitigation Layout Modelling Output

Full Input Data And Results

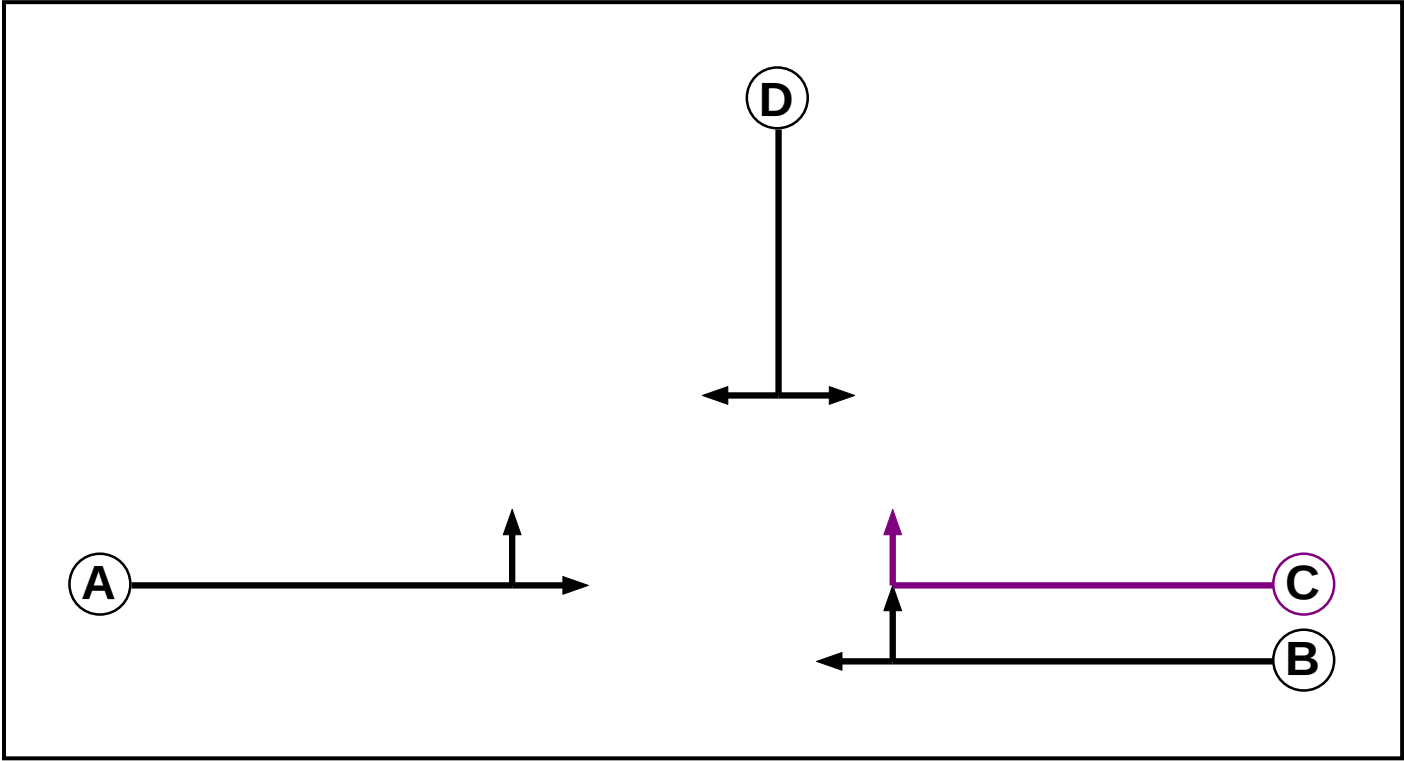
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	5. A226 _ Cotton Ln - Mitigation.lsg3x
Author:	
Company:	
Address:	

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	Ind. Arrow	B	4	4
D	Traffic		7	7

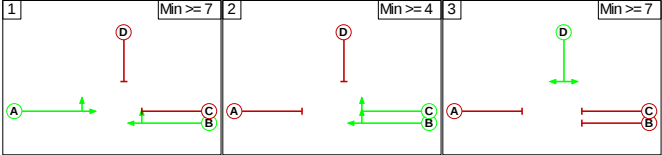
Phase Intergreens Matrix

Terminating Phase	Starting Phase				
		A	B	C	D
	A		-	6	6
	B	-		-	19
	C	-	-		19
	D	6	6	6	

Phases in Stage

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

Stage Diagram



Phase Delays

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

Prohibited Stage Change

	To Stage			
From Stage		1	2	3
	1		6	19
	2	2		19
	3	6	6	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A226 / Cotton Lane											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
3/2 (A226 (E))	5/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00
				1/2	1.09	All					

Lane Input Data

Junction: A226 / Cotton Lane												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A226 (W))	U	A	2	3	11.0	Geom	-	3.38	0.00	Y	Arm 5 Left	11.00
1/2 (A226 (W))	U	A	2	3	60.0	Geom	-	3.62	0.00	Y	Arm 6 Ahead	Inf
2/1 (Cotton Lane)	U	D	2	3	60.0	Geom	-	3.83	0.00	Y	Arm 4 Right	19.00
											Arm 6 Left	13.00
3/1 (A226 (E))	U	B	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Ahead	Inf
3/2 (A226 (E))	O	B C	2	3	12.2	Geom	-	2.96	0.00	Y	Arm 5 Right	12.00
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: 'Ref no LTC AM'	08:00	09:00	01:00	
2: 'Ref no LTC PM'	17:00	18:00	01:00	
3: 'Ref LTC AM'	08:00	09:00	01:00	
4: 'Ref LTC PM'	17:00	18:00	01:00	
5: 'Pref no LTC AM'	08:00	09:00	01:00	
6: 'Pref no LTC PM'	17:00	18:00	01:00	
7: 'Pref LTC AM'	08:00	09:00	01:00	
8: 'Pref LTC PM'	17:00	18:00	01:00	

Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	190	227	417
	B	123	0	667	790
	C	291	202	0	493
	Tot.	414	392	894	1700

Traffic Lane Flows

Lane	Scenario 1: Ref no LTC AM
Junction: A226 / Cotton Lane	
1/1 (short)	291
1/2 (with short)	493(In) 202(Out)
2/1	417
3/1 (with short)	790(In) 667(Out)
3/2 (short)	123
4/1	894
5/1	414
6/1	392

Lane Saturation Flows

Junction: A226 / Cotton Lane								
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 (A226 (W))	3.38	0.00	Y	Arm 5 Left	11.00	100.0 %	1719	1719
1/2 (A226 (W))	3.62	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1977	1977
2/1 (Cotton Lane)	3.83	0.00	Y	Arm 4 Right	19.00	54.4 %	1824	1824
				Arm 6 Left	13.00	45.6 %		
3/1 (A226 (E))	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
3/2 (A226 (E))	2.96	0.00	Y	Arm 5 Right	12.00	100.0 %	1699	1699
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Ref no LTC PM' (FG2: 'Ref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	182	276	458
	B	79	0	531	610
	C	189	383	0	572
	Tot.	268	565	807	1640

Traffic Lane Flows

Lane	Scenario 2: Ref no LTC PM
Junction: A226 / Cotton Lane	
1/1 (short)	189
1/2 (with short)	572(In) 383(Out)
2/1	458
3/1 (with short)	610(In) 531(Out)
3/2 (short)	79
4/1	807
5/1	268
6/1	565

Lane Saturation Flows

Junction: A226 / Cotton Lane								
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 (A226 (W))	3.38	0.00	Y	Arm 5 Left	11.00	100.0 %	1719	1719
1/2 (A226 (W))	3.62	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1977	1977
2/1 (Cotton Lane)	3.83	0.00	Y	Arm 4 Right	19.00	60.3 %	1827	1827
				Arm 6 Left	13.00	39.7 %		
3/1 (A226 (E))	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
3/2 (A226 (E))	2.96	0.00	Y	Arm 5 Right	12.00	100.0 %	1699	1699
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	180	226	406
	B	124	0	642	766
	C	322	207	0	529
	Tot.	446	387	868	1701

Traffic Lane Flows

Lane	Scenario 3: Ref LTC AM
Junction: A226 / Cotton Lane	
1/1 (short)	322
1/2 (with short)	529(In) 207(Out)
2/1	406
3/1 (with short)	766(In) 642(Out)
3/2 (short)	124
4/1	868
5/1	446
6/1	387

Lane Saturation Flows

Junction: A226 / Cotton Lane								
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 (A226 (W))	3.38	0.00	Y	Arm 5 Left	11.00	100.0 %	1719	1719
1/2 (A226 (W))	3.62	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1977	1977
2/1 (Cotton Lane)	3.83	0.00	Y	Arm 4 Right	19.00	55.7 %	1824	1824
				Arm 6 Left	13.00	44.3 %		
3/1 (A226 (E))	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
3/2 (A226 (E))	2.96	0.00	Y	Arm 5 Right	12.00	100.0 %	1699	1699
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	179	228	407
	B	93	0	490	583
	C	206	399	0	605
	Tot.	299	578	718	1595

Traffic Lane Flows

Lane	Scenario 4: Ref LTC PM
Junction: A226 / Cotton Lane	
1/1 (short)	206
1/2 (with short)	605(In) 399(Out)
2/1	407
3/1 (with short)	583(In) 490(Out)
3/2 (short)	93
4/1	718
5/1	299
6/1	578

Lane Saturation Flows

Junction: A226 / Cotton Lane								
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 (A226 (W))	3.38	0.00	Y	Arm 5 Left	11.00	100.0 %	1719	1719
1/2 (A226 (W))	3.62	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1977	1977
2/1 (Cotton Lane)	3.83	0.00	Y	Arm 4 Right	19.00	56.0 %	1825	1825
				Arm 6 Left	13.00	44.0 %		
3/1 (A226 (E))	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
3/2 (A226 (E))	2.96	0.00	Y	Arm 5 Right	12.00	100.0 %	1699	1699
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'Pref no LTC AM' (FG5: 'Pref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin	A	B	C	Tot.	
	A	0	179	245	424
	B	124	0	721	845
	C	247	235	0	482
	Tot.	371	414	966	1751

Traffic Lane Flows

Lane	Scenario 5: Pref no LTC AM
Junction: A226 / Cotton Lane	
1/1 (short)	247
1/2 (with short)	482(In) 235(Out)
2/1	424
3/1 (with short)	845(In) 721(Out)
3/2 (short)	124
4/1	966
5/1	371
6/1	414

Lane Saturation Flows

Junction: A226 / Cotton Lane								
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 (A226 (W))	3.38	0.00	Y	Arm 5 Left	11.00	100.0 %	1719	1719
1/2 (A226 (W))	3.62	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1977	1977
2/1 (Cotton Lane)	3.83	0.00	Y	Arm 4 Right	19.00	57.8 %	1826	1826
				Arm 6 Left	13.00	42.2 %		
3/1 (A226 (E))	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
3/2 (A226 (E))	2.96	0.00	Y	Arm 5 Right	12.00	100.0 %	1699	1699
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Pref no LTC PM' (FG6: 'Pref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	160	297	457
	B	78	0	569	647
	C	196	369	0	565
	Tot.	274	529	866	1669

Traffic Lane Flows

Lane	Scenario 6: Pref no LTC PM
Junction: A226 / Cotton Lane	
1/1 (short)	196
1/2 (with short)	565(In) 369(Out)
2/1	457
3/1 (with short)	647(In) 569(Out)
3/2 (short)	78
4/1	866
5/1	274
6/1	529

Lane Saturation Flows

Junction: A226 / Cotton Lane								
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 (A226 (W))	3.38	0.00	Y	Arm 5 Left	11.00	100.0 %	1719	1719
1/2 (A226 (W))	3.62	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1977	1977
2/1 (Cotton Lane)	3.83	0.00	Y	Arm 4 Right	19.00	65.0 %	1830	1830
				Arm 6 Left	13.00	35.0 %		
3/1 (A226 (E))	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
3/2 (A226 (E))	2.96	0.00	Y	Arm 5 Right	12.00	100.0 %	1699	1699
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 7: 'Pref LTC AM' (FG7: 'Pref LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	167	253	420
	B	128	0	672	800
	C	313	240	0	553
	Tot.	441	407	925	1773

Traffic Lane Flows

Lane	Scenario 7: Pref LTC AM
Junction: A226 / Cotton Lane	
1/1 (short)	313
1/2 (with short)	553(In) 240(Out)
2/1	420
3/1 (with short)	800(In) 672(Out)
3/2 (short)	128
4/1	925
5/1	441
6/1	407

Lane Saturation Flows

Junction: A226 / Cotton Lane								
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 (A226 (W))	3.38	0.00	Y	Arm 5 Left	11.00	100.0 %	1719	1719
1/2 (A226 (W))	3.62	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1977	1977
2/1 (Cotton Lane)	3.83	0.00	Y	Arm 4 Right	19.00	60.2 %	1827	1827
				Arm 6 Left	13.00	39.8 %		
3/1 (A226 (E))	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
3/2 (A226 (E))	2.96	0.00	Y	Arm 5 Right	12.00	100.0 %	1699	1699
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Pref LTC PM' (FG8: 'Pref LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	160	239	399
	B	88	0	522	610
	C	200	379	0	579
	Tot.	288	539	761	1588

Traffic Lane Flows

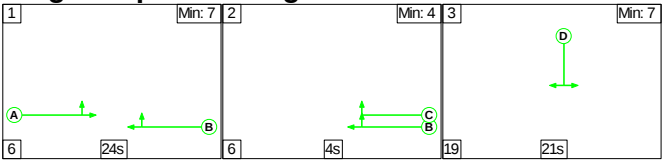
Lane	Scenario 8: Pref LTC PM
Junction: A226 / Cotton Lane	
1/1 (short)	200
1/2 (with short)	579(In) 379(Out)
2/1	399
3/1 (with short)	610(In) 522(Out)
3/2 (short)	88
4/1	761
5/1	288
6/1	539

Lane Saturation Flows

Junction: A226 / Cotton Lane								
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 (A226 (W))	3.38	0.00	Y	Arm 5 Left	11.00	100.0 %	1719	1719
1/2 (A226 (W))	3.62	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1977	1977
2/1 (Cotton Lane)	3.83	0.00	Y	Arm 4 Right	19.00	59.9 %	1827	1827
				Arm 6 Left	13.00	40.1 %		
3/1 (A226 (E))	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
3/2 (A226 (E))	2.96	0.00	Y	Arm 5 Right	12.00	100.0 %	1699	1699
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')

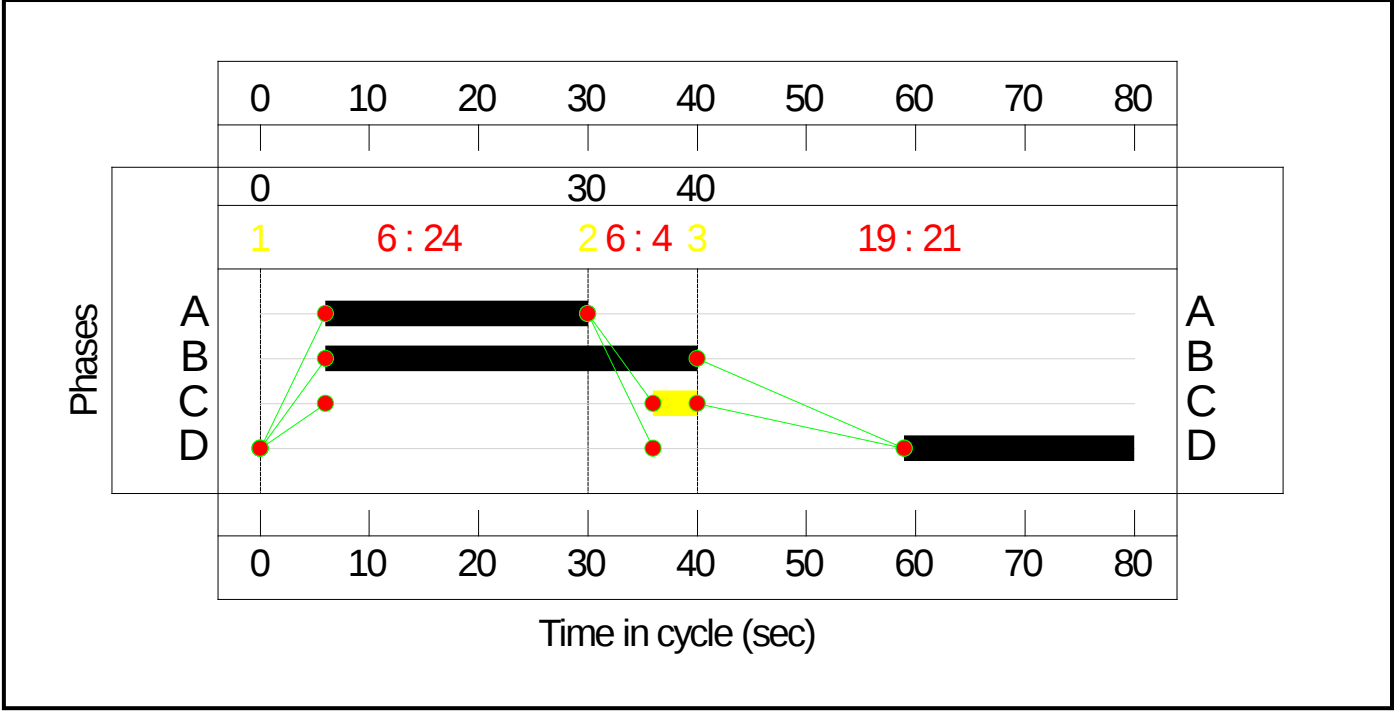
Stage Sequence Diagram



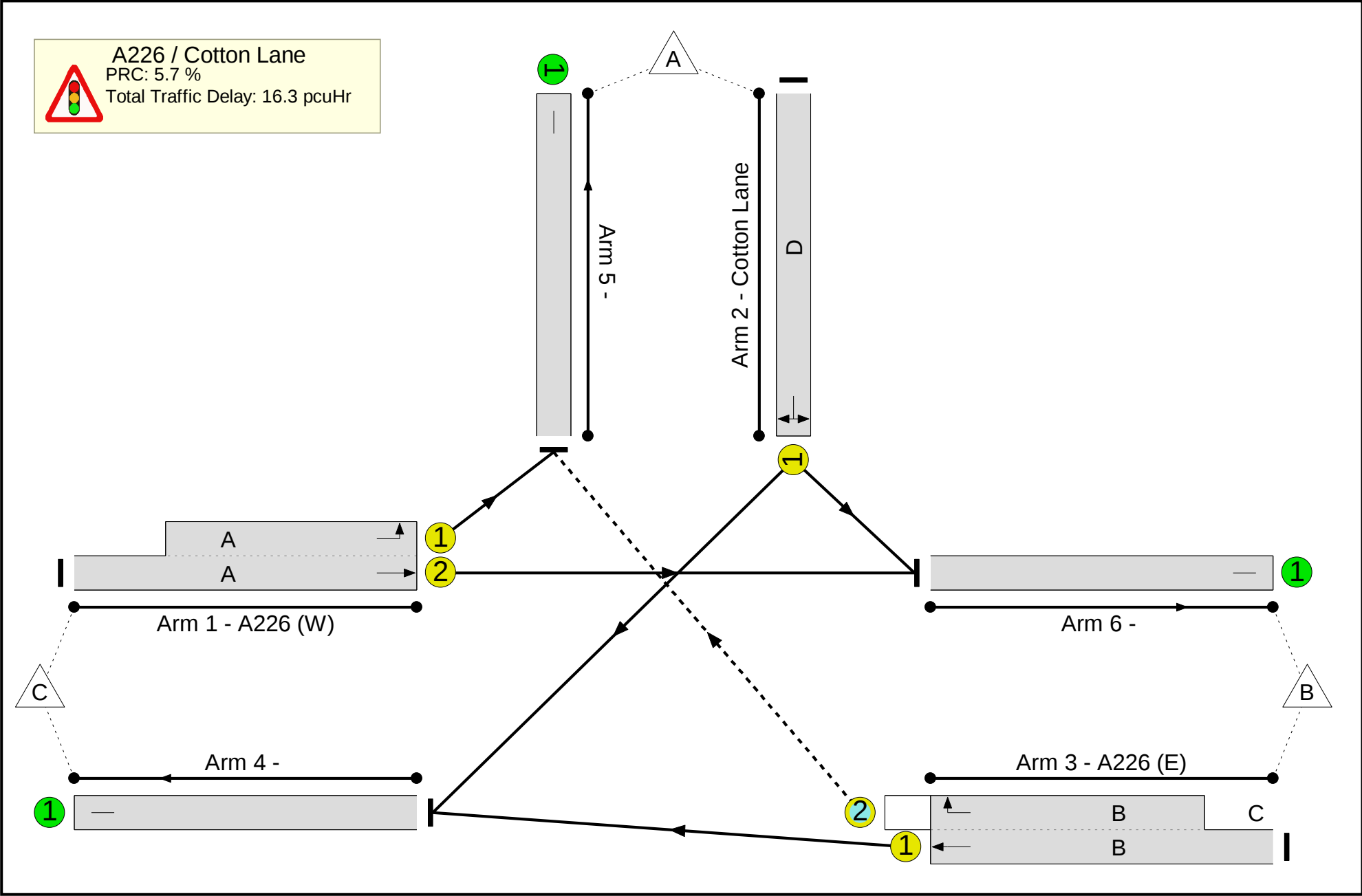
Stage Timings

Stage	1	2	3
Duration	24	4	21
Change Point	0	30	40

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



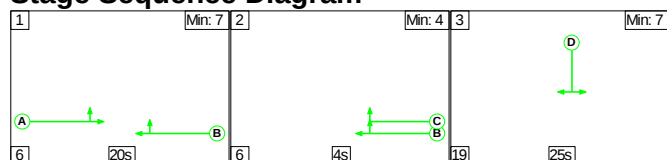
Network Results

Network Results

Full Input Data And Results

Scenario 2: 'Ref no LTC PM' (FG2: 'Ref no LTC PM', Plan 1: 'Network Control Plan 1')

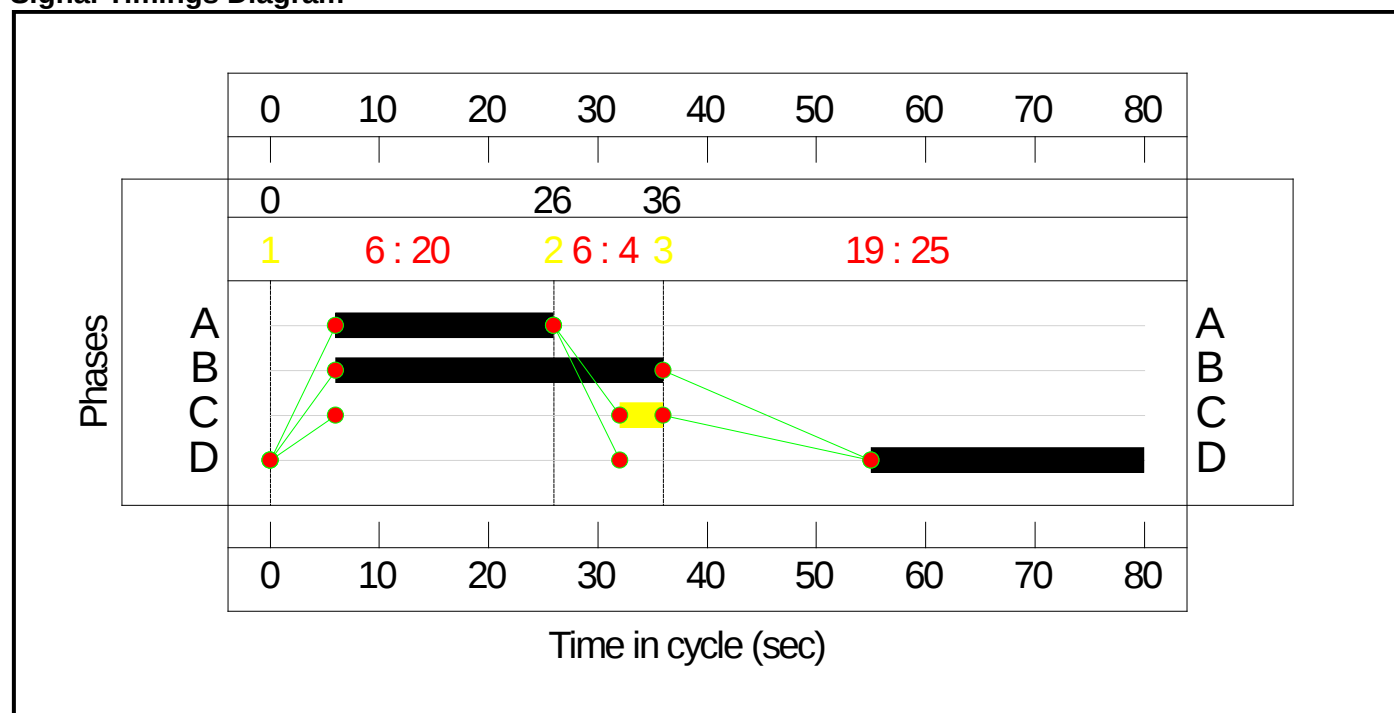
Stage Sequence Diagram

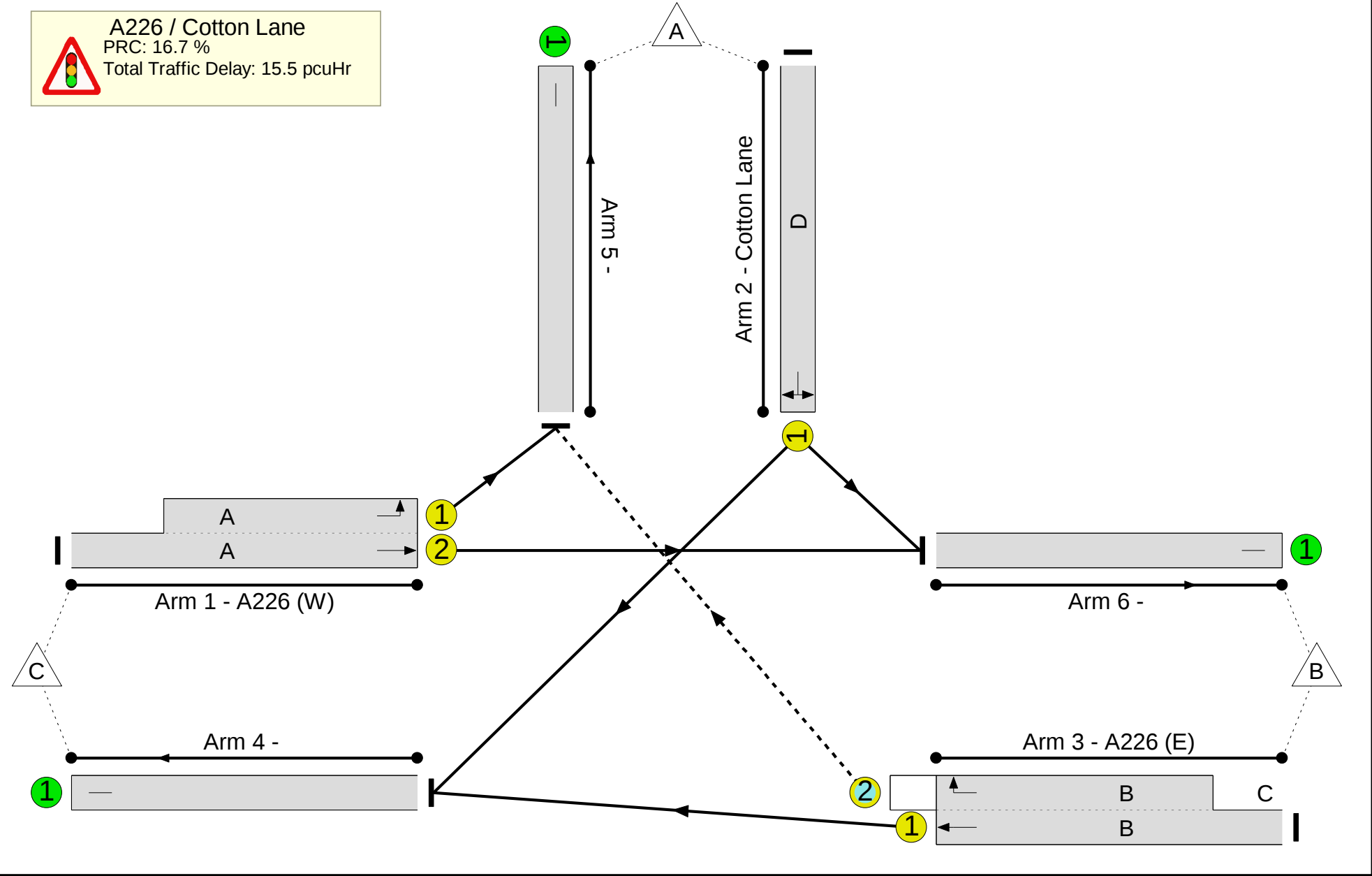


Stage Timings

Stage	1	2	3
Duration	20	4	25
Change Point	0	26	36

Signal Timings Diagram

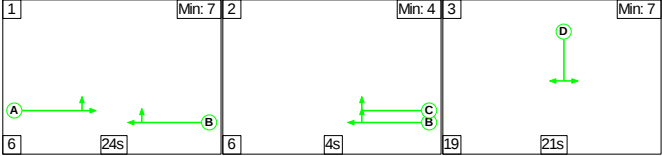




Network Results

Network Results

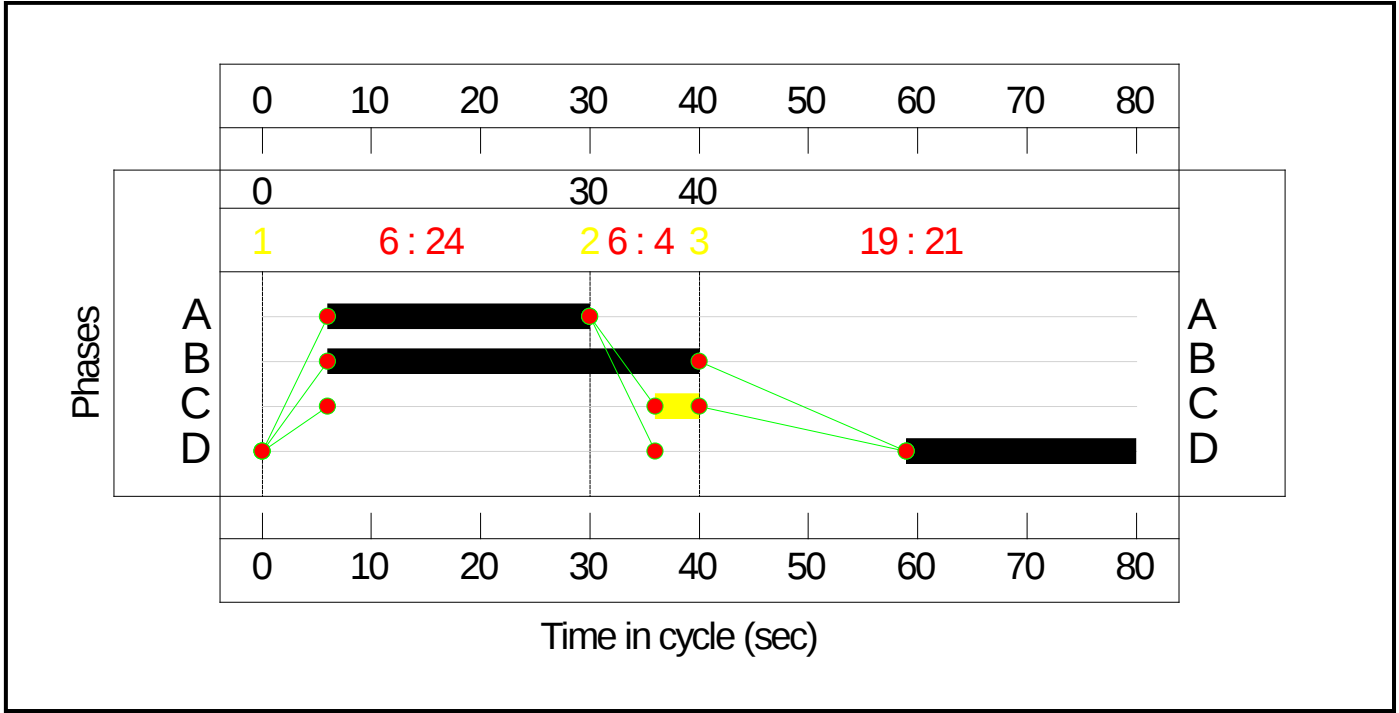
Stage Sequence Diagram



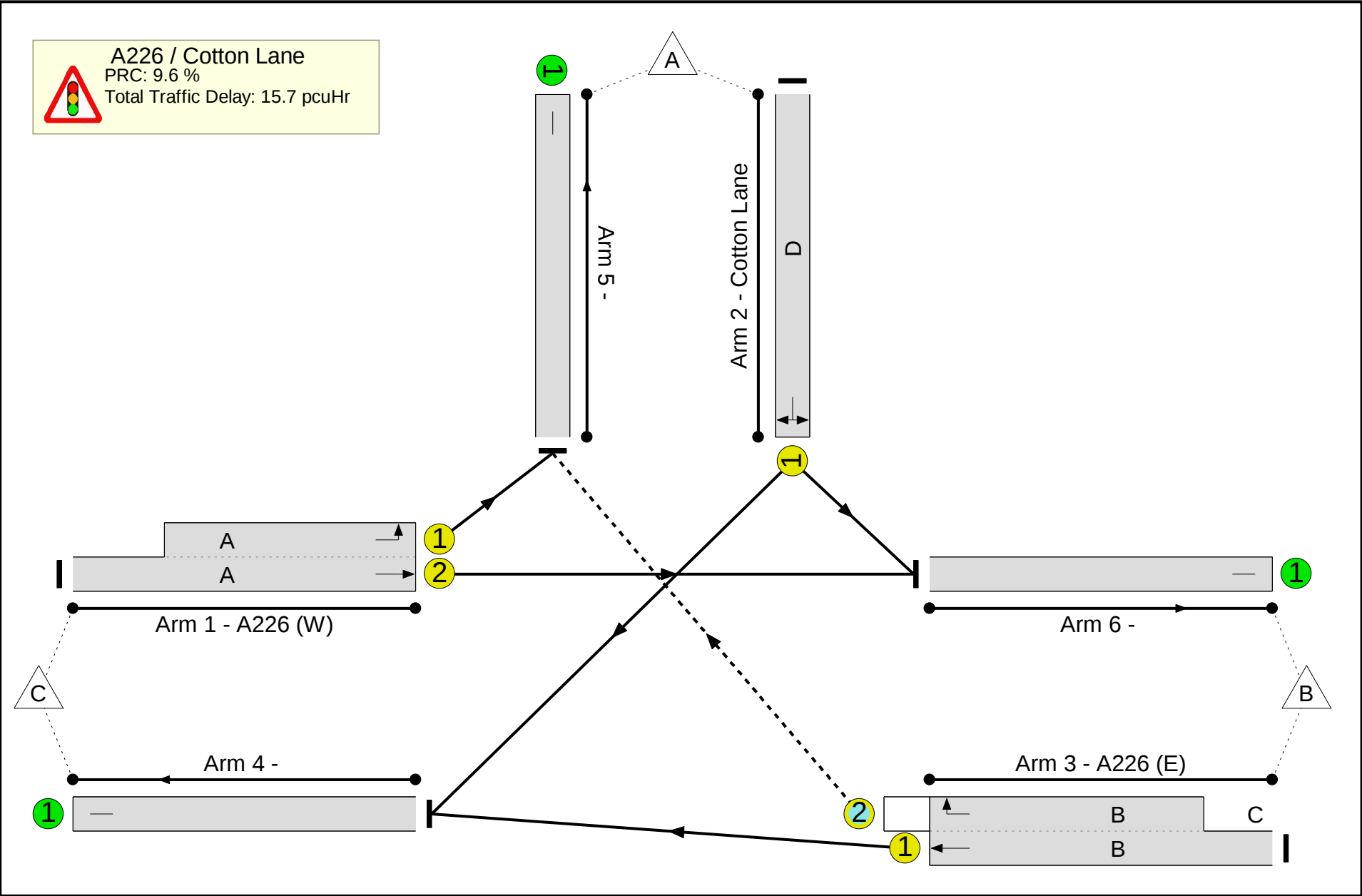
Stage Timings

Stage	1	2	3
Duration	24	4	21
Change Point	0	30	40

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



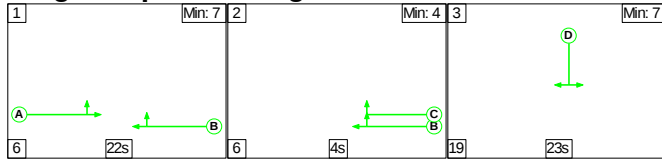
Network Results

Network Results

Full Input Data And Results

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

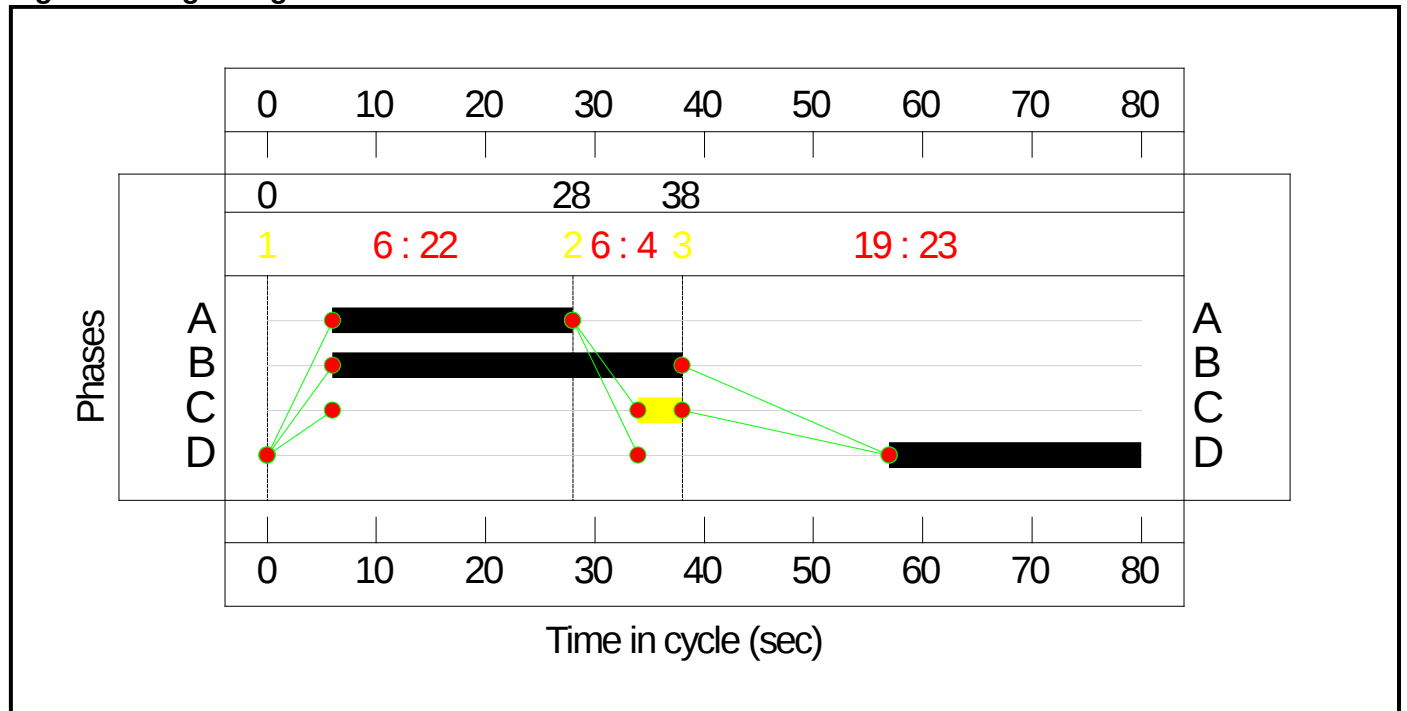
Stage Sequence Diagram

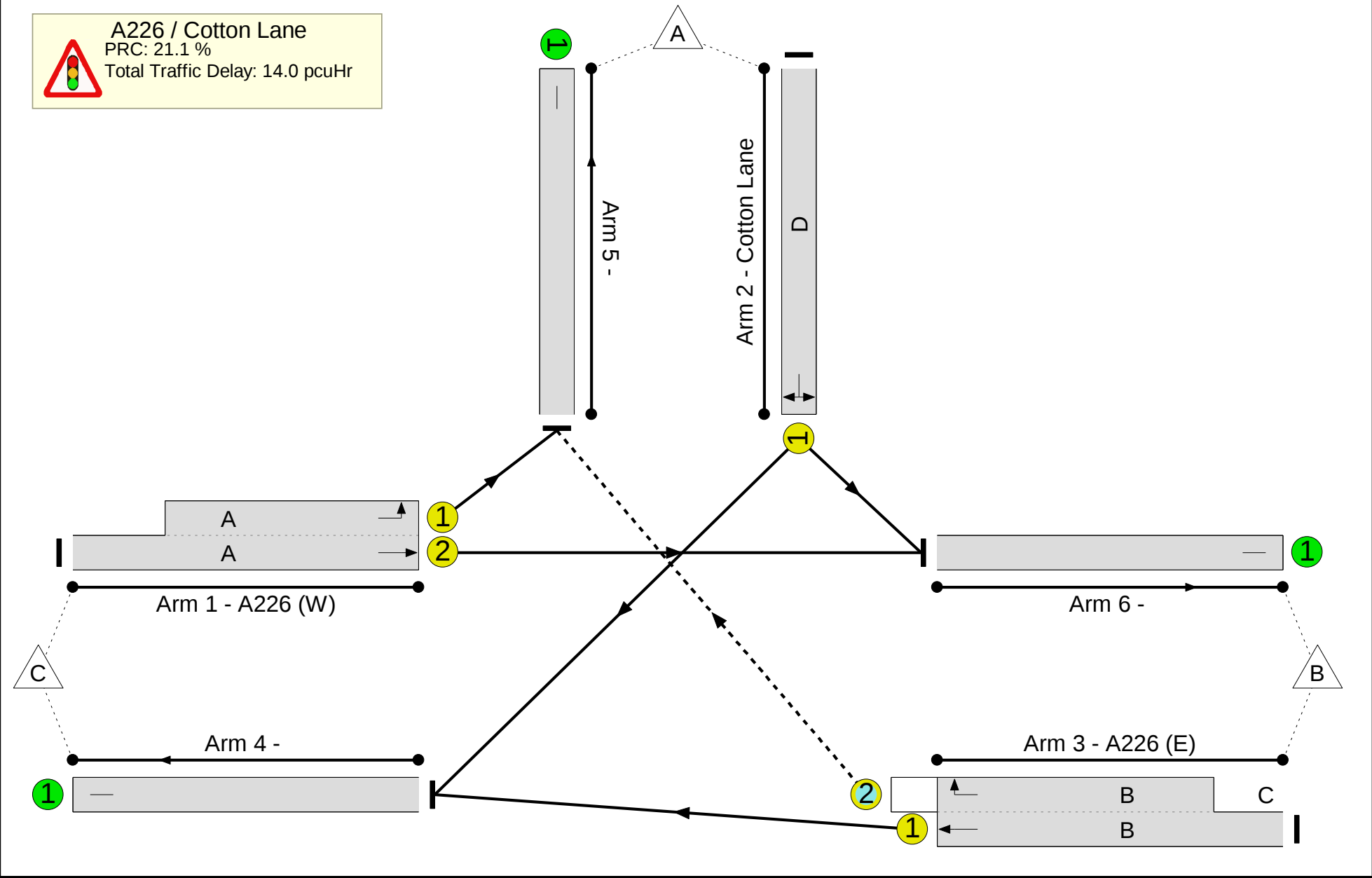


Stage Timings

Stage	1	2	3
Duration	22	4	23
Change Point	0	28	38

Signal Timings Diagram





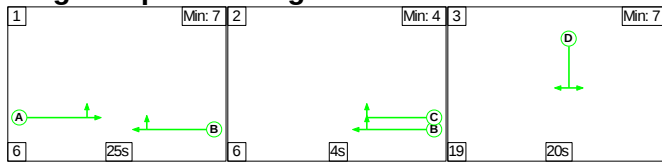
Network Results

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	-	-		-	-	-	-	-	-	74.3%
A226 / Cotton Lane	-	-	N/A	-	-		-	-	-	-	-	-	74.3%
1/2+1/1	A226 (W) Left Ahead	U	N/A	N/A	A		1	22	-	605	1977:1719	542+280	73.7 : 73.7%
2/1	Cotton Lane Right Left	U	N/A	N/A	D		1	23	-	407	1825	547	74.3%
3/1+3/2	A226 (E) Ahead Right	U+O	N/A	N/A	B	C	1	32	4	583	1915:1699	743+141	66.0 : 66.0%
4/1		U	N/A	N/A	-		-	-	-	718	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	299	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	578	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	-	-	79	12	2	9.9	3.8	0.3	14.0	-	-	-	-
A226 / Cotton Lane	-	-	79	12	2	9.9	3.8	0.3	14.0	-	-	-	-
1/2+1/1	605	605	-	-	-	4.1	1.4	-	5.5	32.9	7.9	1.4	9.3
2/1	407	407	-	-	-	2.9	1.4	-	4.3	37.8	8.1	1.4	9.6
3/1+3/2	583	583	79	12	2	2.9	1.0	0.3	4.2	25.9	8.6	1.0	9.5
4/1	718	718	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	299	299	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	578	578	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 21.1 Total Delay for Signalled Lanes (pcuHr): 13.99 Cycle Time (s): 80 PRC Over All Lanes (%): 21.1 Total Delay Over All Lanes(pcuHr): 13.99													

Full Input Data And Results

Scenario 5: 'Pref no LTC AM' (FG5: 'Pref no LTC AM', Plan 1: 'Network Control Plan 1')

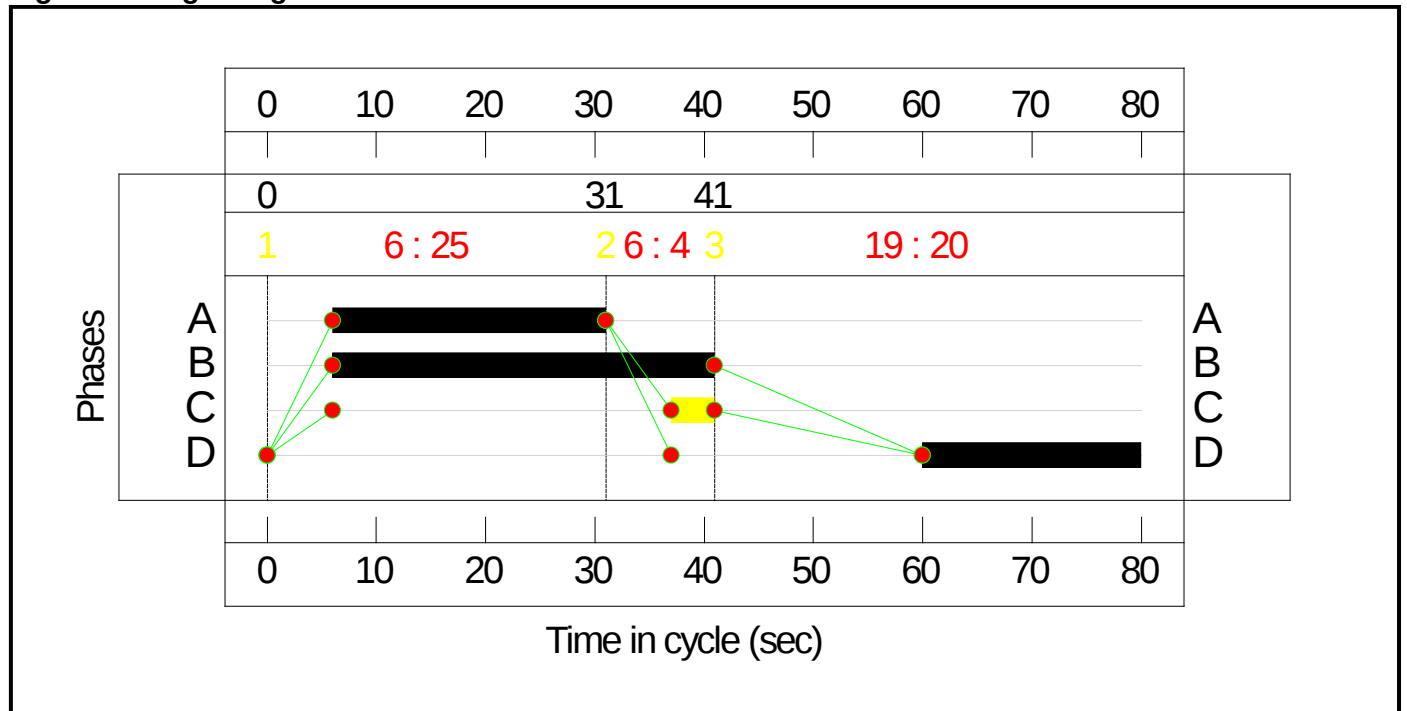
Stage Sequence Diagram



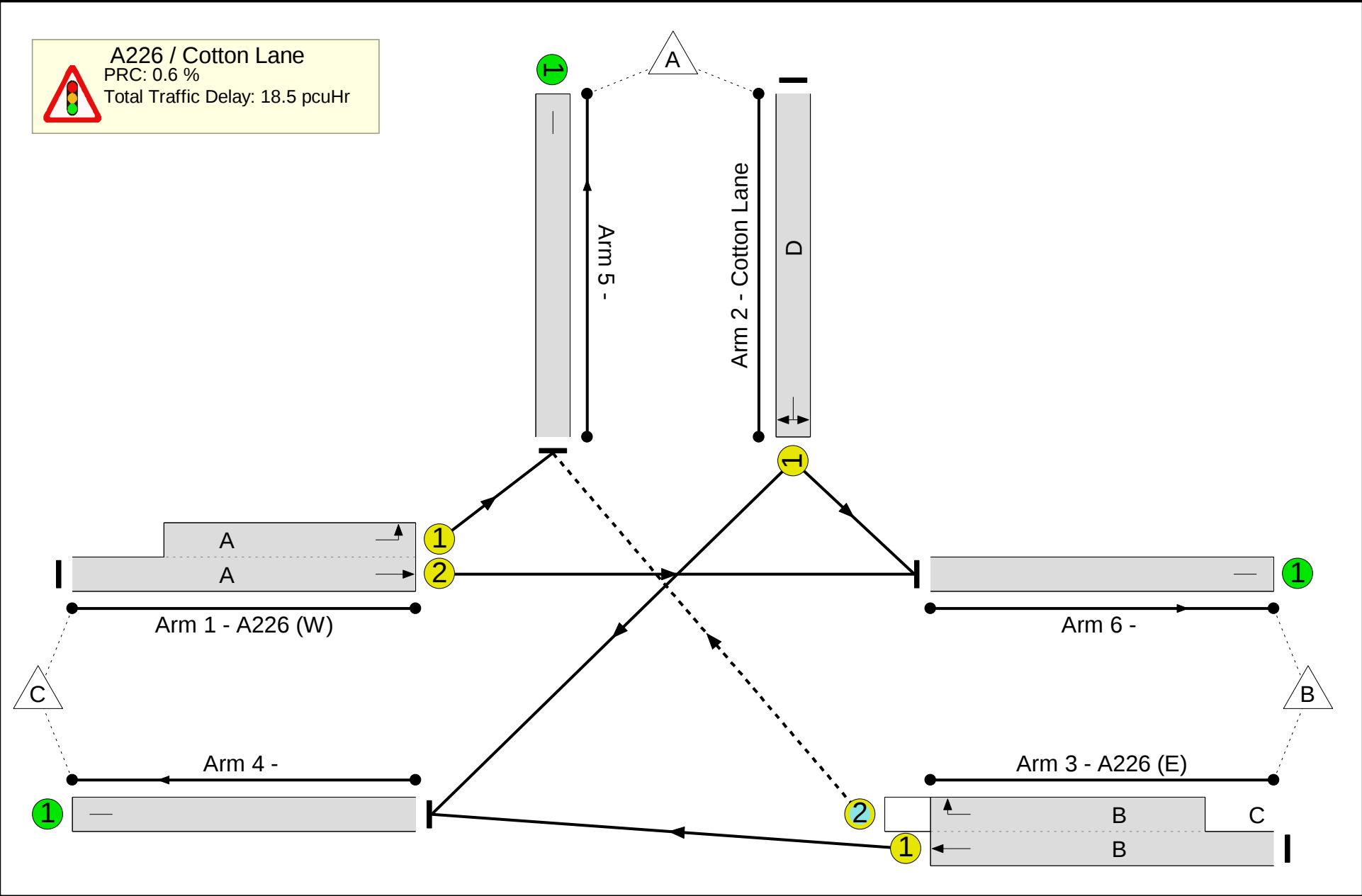
Stage Timings

Stage	1	2	3
Duration	25	4	20
Change Point	0	31	41

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



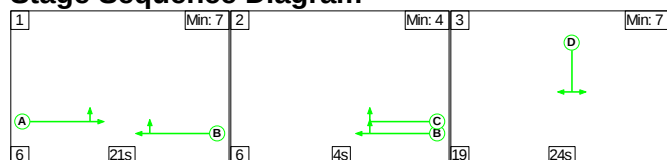
Network Results

Network Results

Full Input Data And Results

Scenario 6: 'Pref no LTC PM' (FG6: 'Pref no LTC PM', Plan 1: 'Network Control Plan 1')

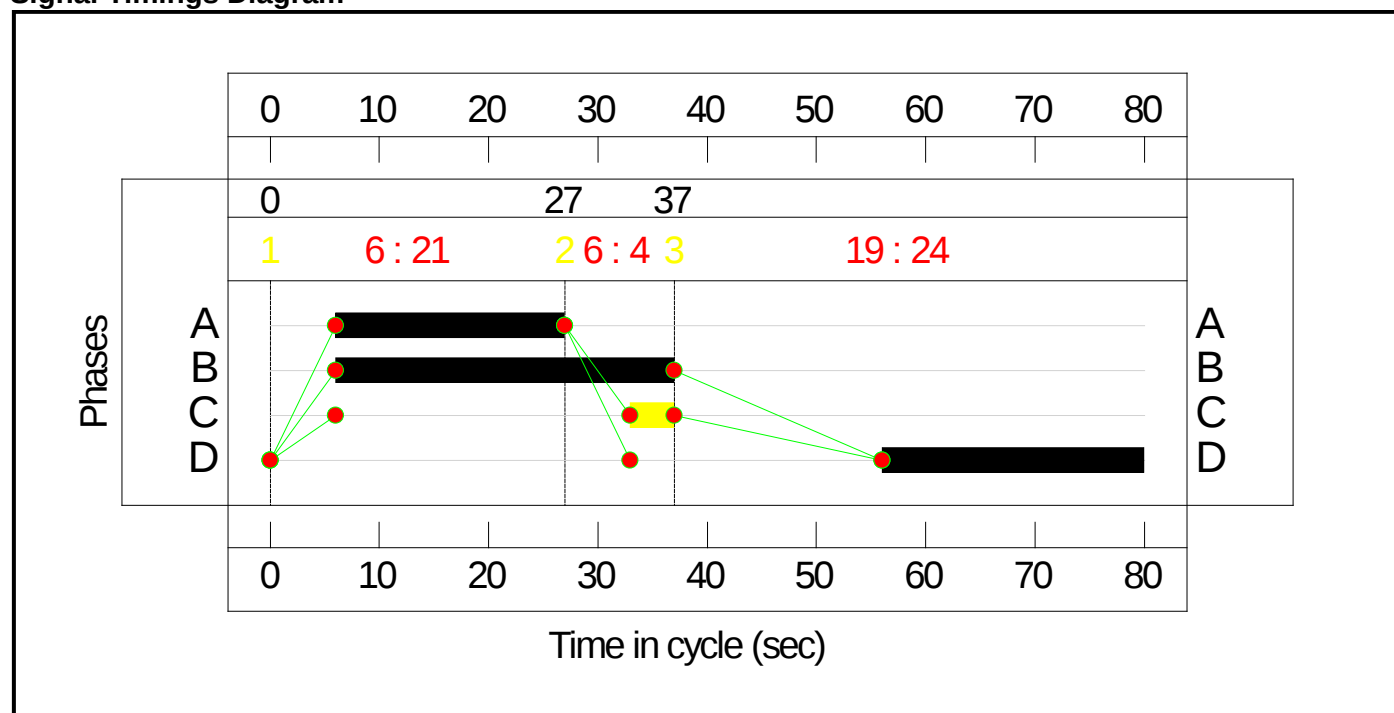
Stage Sequence Diagram



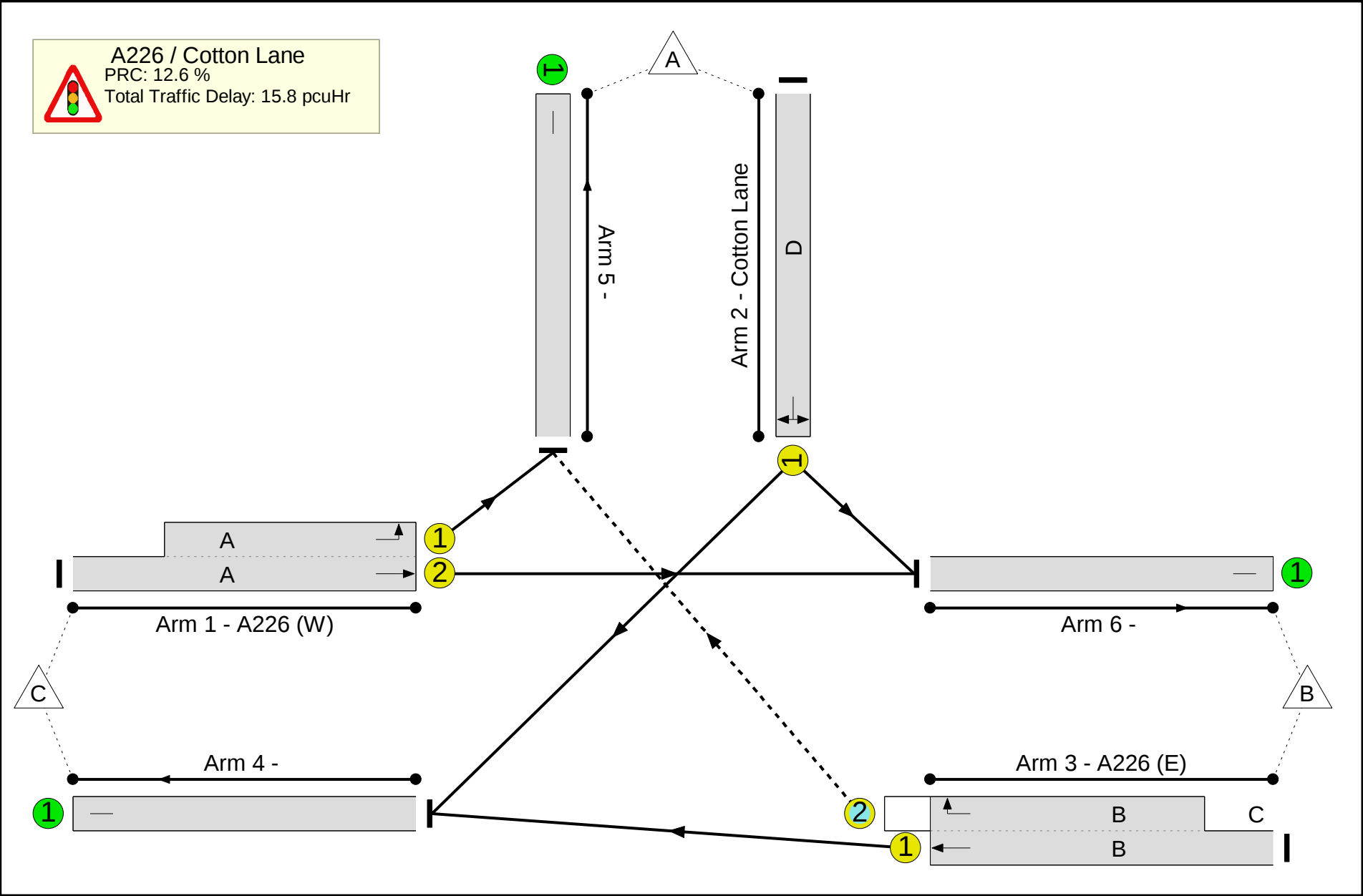
Stage Timings

Stage	1	2	3
Duration	21	4	24
Change Point	0	27	37

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

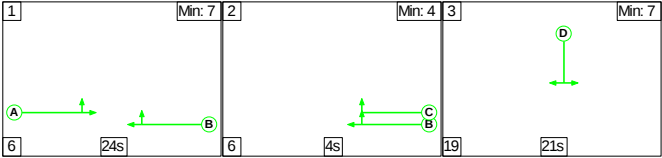


Full Input Data And Results

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	-	-		-	-	-	-	-	-	79.9%
A226 / Cotton Lane	-	-	N/A	-	-		-	-	-	-	-	-	79.9%
1/2+1/1	A226 (W) Left Ahead	U	N/A	N/A	A		1	21	-	565	1977:1719	526+279	70.2 : 70.2%
2/1	Cotton Lane Right Left	U	N/A	N/A	D		1	24	-	457	1830	572	79.9%
3/1+3/2	A226 (E) Ahead Right	U+O	N/A	N/A	B	C	1	31	4	647	1915:1699	732+100	77.7 : 77.7%
4/1		U	N/A	N/A	-		-	-	-	866	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	274	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	529	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	-	-	68	8	2	10.7	4.8	0.2	15.8	-	-	-	-
A226 / Cotton Lane	-	-	68	8	2	10.7	4.8	0.2	15.8	-	-	-	-
1/2+1/1	565	565	-	-	-	3.9	1.2	-	5.1	32.6	7.3	1.2	8.4
2/1	457	457	-	-	-	3.2	1.9	-	5.1	40.4	9.3	1.9	11.2
3/1+3/2	647	647	68	8	2	3.6	1.7	0.2	5.5	30.7	10.7	1.7	12.5
4/1	866	866	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	274	274	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	529	529	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 12.6 Total Delay for Signalled Lanes (pcuHr): 15.75 Cycle Time (s): 80 PRC Over All Lanes (%): 12.6 Total Delay Over All Lanes(pcuHr): 15.75													

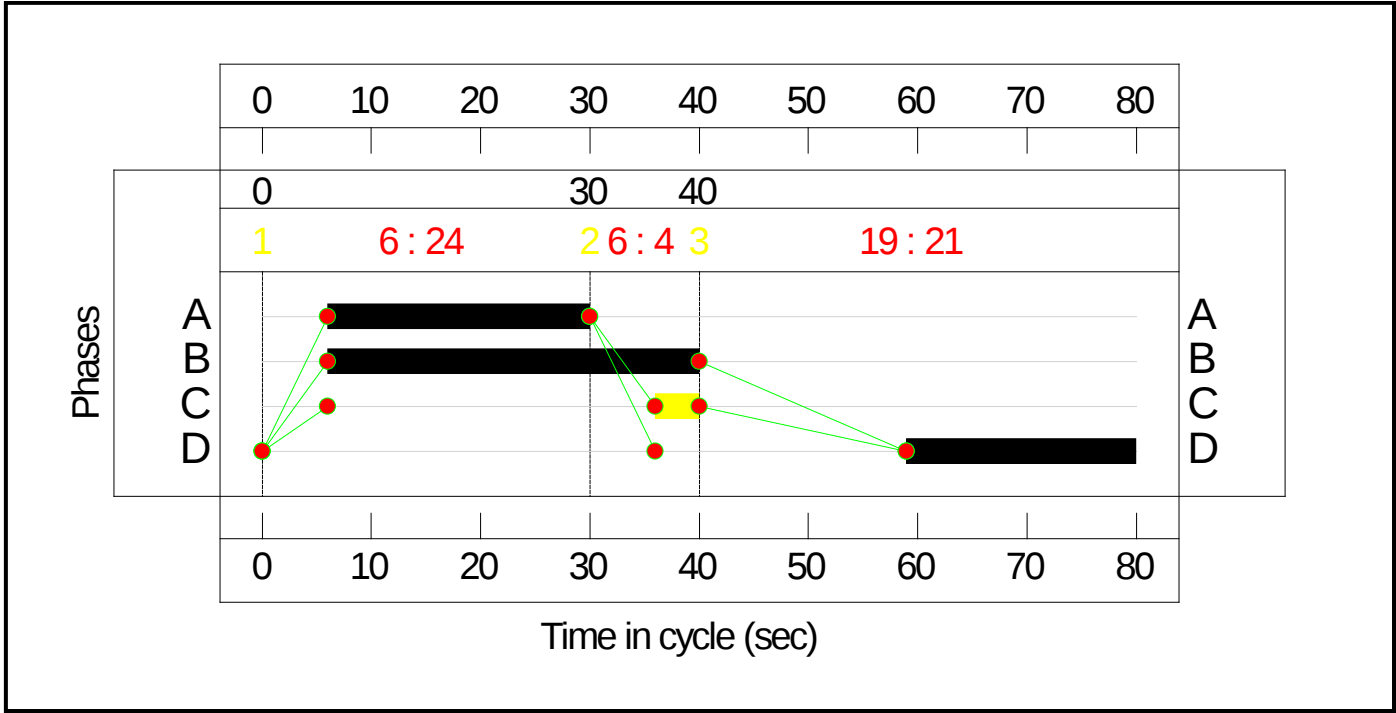
Stage Sequence Diagram



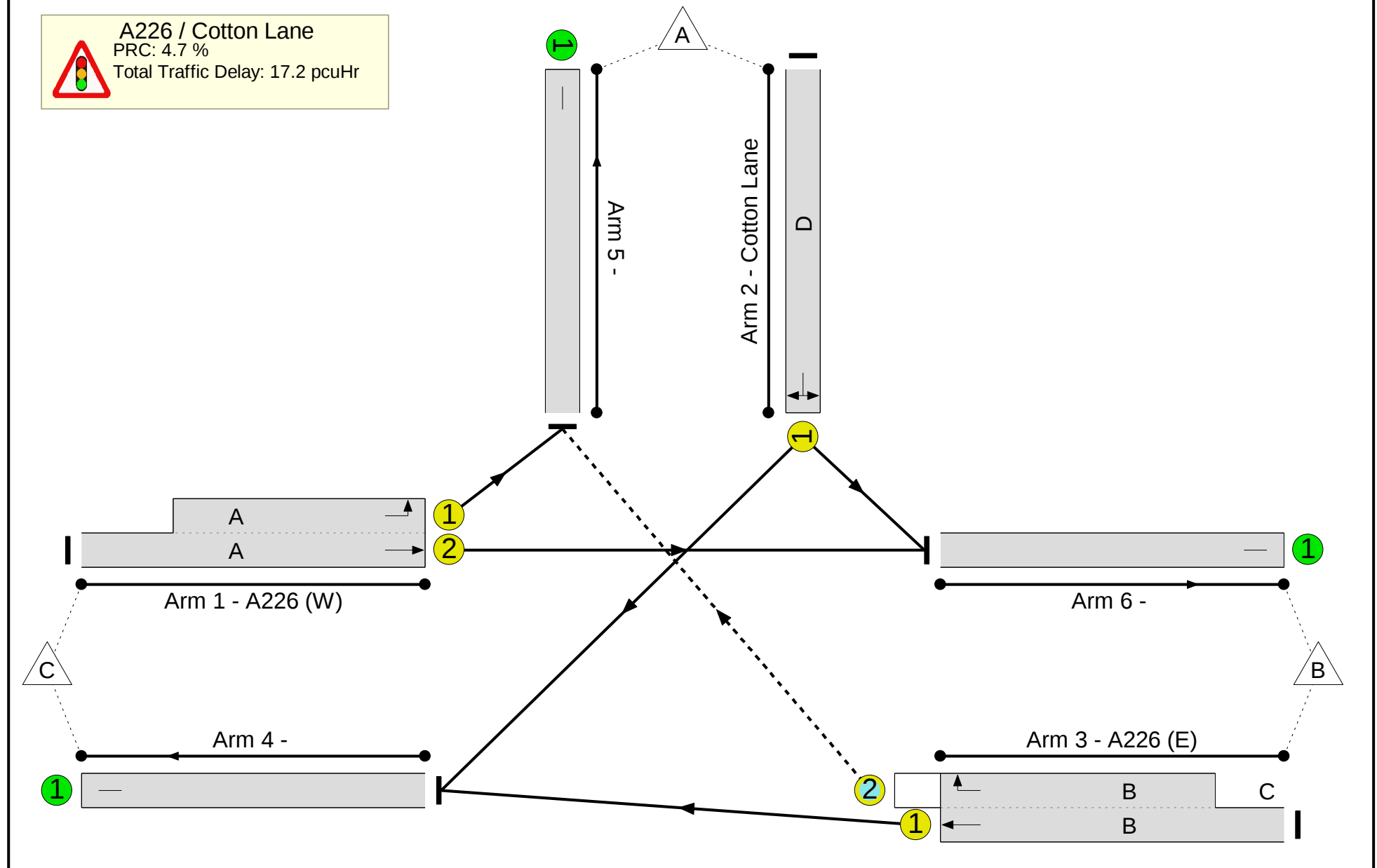
Stage Timings

Stage	1	2	3
Duration	24	4	21
Change Point	0	30	40

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



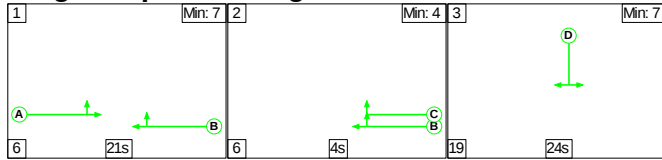
Network Results

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	-	-		-	-	-	-	-	-	85.9%
A226 / Cotton Lane	-	-	N/A	-	-		-	-	-	-	-	-	85.9%
1/2+1/1	A226 (W) Left Ahead	U	N/A	N/A	A		1	24	-	553	1977:1719	399+521	60.1 : 60.1%
2/1	Cotton Lane Right Left	U	N/A	N/A	D		1	21	-	420	1827	502	83.6%
3/1+3/2	A226 (E) Ahead Right	U+O	N/A	N/A	B	C	1	34	4	800	1915:1699	782+149	85.9 : 85.9%
4/1		U	N/A	N/A	-		-	-	-	925	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	441	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	407	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	17	3	10.8	6.1	0.4	17.2	-	-	-	-
A226 / Cotton Lane	-	-	108	17	3	10.8	6.1	0.4	17.2	-	-	-	-
1/2+1/1	553	553	-	-	-	3.4	0.8	-	4.2	27.3	5.8	0.8	6.6
2/1	420	420	-	-	-	3.2	2.4	-	5.6	47.9	8.8	2.4	11.2
3/1+3/2	800	800	108	17	3	4.1	2.9	0.4	7.4	33.5	13.3	2.9	16.2
4/1	925	925	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	441	441	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	407	407	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 4.7 Total Delay for Signalled Lanes (pcuHr): 17.22 Cycle Time (s): 80 PRC Over All Lanes (%): 4.7 Total Delay Over All Lanes(pcuHr): 17.22													

Full Input Data And Results

Scenario 8: 'Pref LTC PM' (FG8: 'Pref LTC PM', Plan 1: 'Network Control Plan 1')

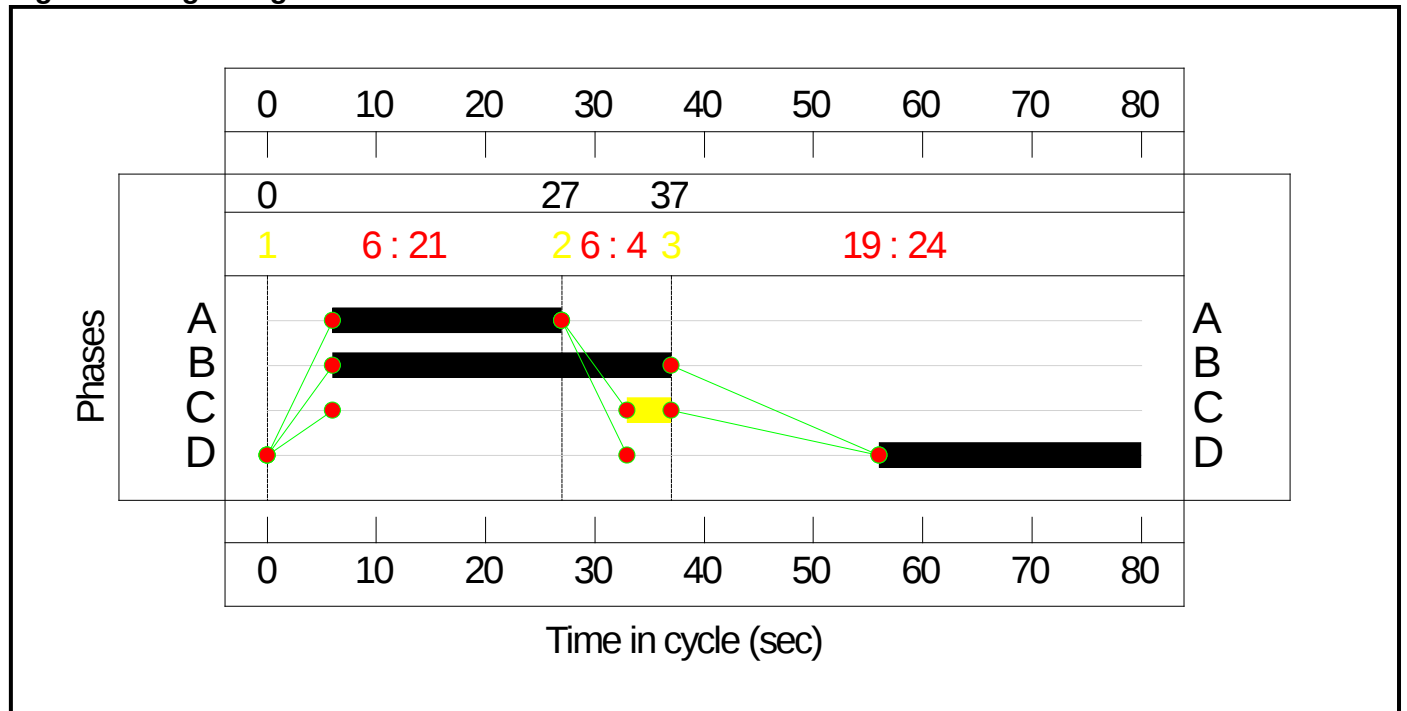
Stage Sequence Diagram

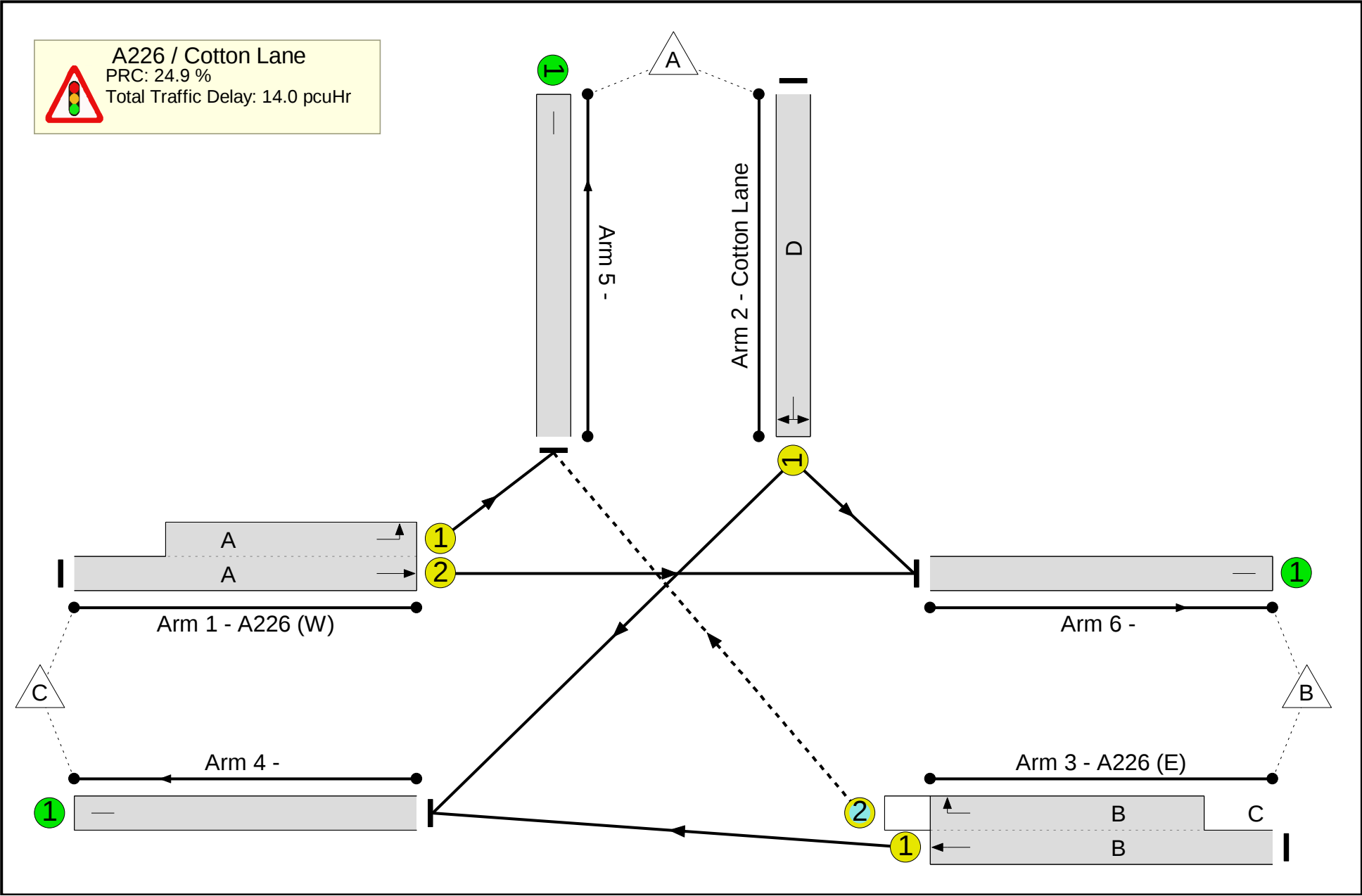


Stage Timings

Stage	1	2	3
Duration	21	4	24
Change Point	0	27	37

Signal Timings Diagram





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	-	-		-	-	-	-	-	-	72.1%
A226 / Cotton Lane	-	-	N/A	-	-		-	-	-	-	-	-	72.1%
1/2+1/1	A226 (W) Left Ahead	U	N/A	N/A	A		1	21	-	579	1977:1719	526+277	72.1 : 72.1%
2/1	Cotton Lane Right Left	U	N/A	N/A	D		1	24	-	399	1827	571	69.9%
3/1+3/2	A226 (E) Ahead Right	U+O	N/A	N/A	B	C	1	31	4	610	1915:1699	727+122	71.8 : 71.8%
4/1		U	N/A	N/A	-		-	-	-	761	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	288	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	539	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	-	-	77	9	2	10.0	3.7	0.3	14.0	-	-	-	-
A226 / Cotton Lane	-	-	77	9	2	10.0	3.7	0.3	14.0	-	-	-	-
1/2+1/1	579	579	-	-	-	4.1	1.3	-	5.3	33.2	7.5	1.3	8.8
2/1	399	399	-	-	-	2.7	1.1	-	3.8	34.5	7.8	1.1	8.9
3/1+3/2	610	610	77	9	2	3.2	1.3	0.3	4.8	28.3	9.4	1.3	10.7
4/1	761	761	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	288	288	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	539	539	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 24.9 Total Delay for Signalled Lanes (pcuHr): 13.96 Cycle Time (s): 80 PRC Over All Lanes (%): 24.9 Total Delay Over All Lanes(pcuHr): 13.96													

Appendix R
A226 / Hillhouse Road
Existing Layout Modelling Output

Junctions 10

Junctions 10				
PICADY 10 - Priority Intersection Module				
Version: 10.0.0.1499				
© Copyright TRL Software Limited, 2021				
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution				

Filename: 6. A226 _ Hillhouse Rd.j10

Path: J:\46416 - GH - Dartford Local Plan (SATURN)\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10

Report generation date: 06/12/2021 09:24:30

»Ref no LTC, AM
 »Ref no LTC, PM
 »Ref LTC, AM
 »Ref LTC, PM
 »Pref no LTC, AM
 »Pref no LTC, PM
 »Pref LTC, AM
 »Pref LTC, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Ref no LTC									
Stream B-AC	D1	64.6	563.42	1.29	F	D2	11.8	140.24	0.99	F
Stream C-AB		0.4	10.66	0.28	B		0.4	10.53	0.27	B
	Ref LTC									
Stream B-AC	D3	107.0	1080.67	1.52	F	D4	6.6	87.91	0.91	F
Stream C-AB		0.5	11.12	0.30	B		0.6	11.14	0.35	B
	Pref no LTC									
Stream B-AC	D5	69.3	619.30	1.32	F	D6	8.8	110.12	0.95	F
Stream C-AB		0.5	11.07	0.30	B		0.3	10.56	0.23	B
	Pref LTC									
Stream B-AC	D7	109.5	1109.66	1.53	F	D8	4.7	63.06	0.85	F
Stream C-AB		0.5	11.28	0.32	B		0.3	9.55	0.21	A

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

File summary

File Description

Title	
Location	

Site number	
Date	22/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\dansmith
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D2	Ref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D3	Ref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D4	Ref LTC	PM	ONE HOUR	00:00	01:30	15	✓
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

Ref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		186.11	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	186.11	F

Arms

Arms

Arm	Name	Description	Arm type
A	A226 (E)		Major
B	Hillhouse Rd		Minor
C	A226 (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.60		✓	2.47	108.0	✓	2.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.88	21	16

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	486	0.089	0.224	0.141	0.320
B-C	626	0.105	0.265	-	-
C-B	655	0.265	0.265	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	577	100.000
B		ONE HOUR	✓	441	100.000
C		ONE HOUR	✓	338	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	146	431
	B	139	0	302
From	C	223	115	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	1	2
	B	2	0	7
From	C	7	8	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.29	563.42	64.6	F	405	607
C-AB	0.28	10.66	0.4	B	109	163
C-A					201	302
A-B					134	201
A-C					395	593

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	332	83	431	0.770	320	0.0	2.9	29.968	D
C-AB	88	22	504	0.174	87	0.0	0.2	8.606	A
C-A	167	42			167				
A-B	110	27			110				
A-C	324	81			324				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	396	99	408	0.971	374	2.9	8.6	74.917	F
C-AB	106	26	489	0.217	106	0.2	0.3	9.398	A
C-A	198	49			198				
A-B	131	33			131				

A-C	387	97			387				
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00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	486	121	375	1.293	372	8.6	36.9	242.010	F
C-AB	133	33	471	0.283	133	0.3	0.4	10.626	B
C-A	239	60			239				
A-B	161	40			161				
A-C	475	119			475				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	486	121	375	1.293	375	36.9	64.6	490.493	F
C-AB	133	33	471	0.283	133	0.4	0.4	10.656	B
C-A	239	60			239				
A-B	161	40			161				
A-C	475	119			475				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	396	99	408	0.972	417	64.6	59.5	563.423	F
C-AB	106	26	488	0.217	106	0.4	0.3	9.437	A
C-A	198	49			198				
A-B	131	33			131				
A-C	387	97			387				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	332	83	431	0.770	424	59.5	36.5	410.580	F
C-AB	88	22	504	0.174	88	0.3	0.2	8.654	A
C-A	167	42			167				
A-B	110	27			110				
A-C	324	81			324				

Ref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		28.52	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	28.52	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Ref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	662	100.000
B		ONE HOUR	✓	285	100.000
C		ONE HOUR	✓	499	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	245	417
	B	140	0	145
	C	394	105	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	1	3
	B	4	0	5
	C	7	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.99	140.24	11.8	F	262	392
C-AB	0.27	10.53	0.4	B	101	152
C-A					357	535
A-B					225	337
A-C					383	574

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	215	54	385	0.557	210	0.0	1.2	19.996	C
C-AB	81	20	500	0.161	80	0.0	0.2	8.558	A
C-A	295	74			295				
A-B	184	46			184				
A-C	314	78			314				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	256	64	357	0.718	252	1.2	2.3	32.992	D
C-AB	98	24	483	0.203	98	0.2	0.3	9.340	A
C-A	351	88			351				
A-B	220	55			220				
A-C	375	94			375				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	314	78	316	0.993	289	2.3	8.5	90.720	F
C-AB	125	31	467	0.268	125	0.3	0.4	10.498	B
C-A	424	106			424				
A-B	270	67			270				
A-C	459	115			459				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	314	78	316	0.994	301	8.5	11.8	140.236	F
C-AB	125	31	467	0.268	125	0.4	0.4	10.530	B
C-A	424	106			424				
A-B	270	67			270				
A-C	459	115			459				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	256	64	357	0.719	292	11.8	3.0	68.820	F
C-AB	98	24	483	0.203	98	0.4	0.3	9.377	A
C-A	351	88			351				
A-B	220	55			220				
A-C	375	94			375				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	215	54	385	0.557	221	3.0	1.3	22.740	C
C-AB	81	20	500	0.161	81	0.3	0.2	8.601	A
C-A	295	74			295				
A-B	184	46			184				
A-C	314	78			314				

Ref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		356.89	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	356.89	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Ref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	617	100.000
B		ONE HOUR	✓	423	100.000
C		ONE HOUR	✓	333	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	146	471
	B	223	0	200
	C	211	122	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A	B	C
	A	0	1	2
	B	1	0	29
	C	7	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.52	1080.67	107.0	F	388	582
C-AB	0.30	11.12	0.5	B	116	174
C-A					190	285
A-B					134	201
A-C					432	648

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	318	80	365	0.873	300	0.0	4.6	47.152	E
C-AB	93	23	502	0.186	92	0.0	0.2	8.774	A
C-A	158	39			158				
A-B	110	27			110				
A-C	355	89			355				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	380	95	341	1.117	330	4.6	17.3	147.072	F
C-AB	113	28	484	0.232	112	0.2	0.3	9.673	A
C-A	187	47			187				
A-B	131	33			131				
A-C	423	106			423				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	466	116	307	1.518	306	17.3	57.2	459.059	F
C-AB	142	36	466	0.305	141	0.3	0.5	11.083	B
C-A	225	56			225				
A-B	161	40			161				
A-C	519	130			519				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	466	116	307	1.518	307	57.2	97.0	873.318	F
C-AB	142	36	466	0.305	142	0.5	0.5	11.122	B
C-A	225	56			225				
A-B	161	40			161				
A-C	519	130			519				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	380	95	340	1.117	340	97.0	107.0	1080.667	F
C-AB	113	28	484	0.232	113	0.5	0.3	9.713	A
C-A	187	47			187				
A-B	131	33			131				
A-C	423	106			423				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	318	80	364	0.874	361	107.0	96.4	1014.983	F
C-AB	93	23	502	0.186	93	0.3	0.2	8.826	A
C-A	158	39			158				
A-B	110	27			110				
A-C	355	89			355				

Ref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		17.57	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.57	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Ref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	644	100.000
B		ONE HOUR	✓	267	100.000
C		ONE HOUR	✓	526	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A	B	C
	A	0	238	406
	B	127	0	140
	C	387	139	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A	B	C
	A	0	1	1
	B	2	0	3
	C	3	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.91	87.91	6.6	F	245	368
C-AB	0.35	11.14	0.6	B	138	207
C-A					345	517
A-B					218	328
A-C					373	559

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	201	50	395	0.508	197	0.0	1.0	17.820	C
C-AB	108	27	511	0.211	107	0.0	0.3	8.891	A
C-A	288	72			288				

A-B	179	45			179				
A-C	306	76			306				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	240	60	366	0.656	237	1.0	1.8	27.276	D
C-AB	132	33	500	0.265	132	0.3	0.4	9.782	A
C-A	340	85			340				
A-B	214	53			214				
A-C	365	91			365				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	294	73	324	0.908	279	1.8	5.5	65.628	F
C-AB	173	43	497	0.349	173	0.4	0.6	11.085	B
C-A	406	101			406				
A-B	262	66			262				
A-C	447	112			447				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	294	73	324	0.909	289	5.5	6.6	87.909	F
C-AB	173	43	497	0.349	173	0.6	0.6	11.141	B
C-A	406	101			406				
A-B	262	66			262				
A-C	447	112			447				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	240	60	365	0.657	258	6.6	2.1	37.853	E
C-AB	132	33	499	0.265	133	0.6	0.4	9.849	A
C-A	340	85			340				
A-B	214	53			214				
A-C	365	91			365				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	201	50	395	0.509	205	2.1	1.1	19.332	C
C-AB	108	27	511	0.211	108	0.4	0.3	8.959	A
C-A	288	72			288				
A-B	179	45			179				
A-C	306	76			306				

Pref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		196.66	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	196.66	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	616	100.000
B		ONE HOUR	✓	440	100.000
C		ONE HOUR	✓	356	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A	B	C
	A	0	146	470
	B	124	0	316
	C	237	119	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A	B	C
	A	0	1	2
	B	4	0	7
	C	8	8	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.32	619.30	69.3	F	404	606
C-AB	0.30	11.07	0.5	B	114	170
C-A					213	320
A-B					134	201
A-C					431	647

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	331	83	425	0.779	319	0.0	3.0	31.124	D
C-AB	91	23	498	0.183	90	0.0	0.2	8.806	A
C-A	177	44			177				
A-B	110	27			110				
A-C	354	88			354				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	396	99	401	0.987	370	3.0	9.4	80.731	F
C-AB	110	28	482	0.229	110	0.2	0.3	9.673	A
C-A	210	52			210				
A-B	131	33			131				
A-C	423	106			423				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	484	121	366	1.323	364	9.4	39.6	264.079	F
C-AB	139	35	465	0.300	139	0.3	0.4	11.030	B
C-A	253	63			253				
A-B	161	40			161				
A-C	517	129			517				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	484	121	366	1.323	366	39.6	69.3	534.992	F
C-AB	139	35	465	0.300	139	0.4	0.5	11.067	B
C-A	253	63			253				
A-B	161	40			161				
A-C	517	129			517				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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B-AC	396	99	401	0.987	396	69.3	69.3	619.300	F
C-AB	110	28	482	0.229	111	0.5	0.3	9.720	A
C-A	210	52			210				
A-B	131	33			131				
A-C	423	106			423				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	331	83	425	0.779	419	69.3	47.3	503.166	F
C-AB	91	23	498	0.183	91	0.3	0.2	8.859	A
C-A	177	44			177				
A-B	110	27			110				
A-C	354	88			354				

Pref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		21.89	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	21.89	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	691	100.000
B		ONE HOUR	✓	276	100.000
C		ONE HOUR	✓	461	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	239	452
	B	131	0	145
From	C	375	86	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	1	3
	B	2	0	6
From	C	8	8	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.95	110.12	8.8	F	253	380
C-AB	0.23	10.56	0.3	B	82	123
C-A					341	512
A-B					219	329
A-C					415	622

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	208	52	390	0.533	203	0.0	1.1	18.939	C
C-AB	66	16	483	0.136	65	0.0	0.2	8.609	A
C-A	281	70			281				
A-B	180	45			180				
A-C	340	85			340				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	248	62	361	0.688	244	1.1	2.0	30.018	D
C-AB	80	20	463	0.172	79	0.2	0.2	9.375	A
C-A	335	84			335				
A-B	215	54			215				

A-C	406	102			406				
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00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	304	76	320	0.950	285	2.0	6.8	76.953	F
C-AB	101	25	442	0.228	100	0.2	0.3	10.536	B
C-A	407	102			407				
A-B	263	66			263				
A-C	498	124			498				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	304	76	320	0.950	296	6.8	8.8	110.116	F
C-AB	101	25	442	0.228	101	0.3	0.3	10.558	B
C-A	407	102			407				
A-B	263	66			263				
A-C	498	124			498				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	248	62	361	0.688	273	8.8	2.5	48.899	E
C-AB	80	20	463	0.172	80	0.3	0.2	9.406	A
C-A	335	84			335				
A-B	215	54			215				
A-C	406	102			406				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	208	52	389	0.534	213	2.5	1.2	20.943	C
C-AB	66	16	483	0.136	66	0.2	0.2	8.643	A
C-A	281	70			281				
A-B	180	45			180				
A-C	340	85			340				

Pref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		364.77	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	364.77	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	623	100.000
B		ONE HOUR	✓	423	100.000
C		ONE HOUR	✓	345	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	145	478
	B	206	0	217
	C	219	126	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	1	2
	B	1	0	31
	C	10	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.53	1109.66	109.5	F	388	582
C-AB	0.32	11.28	0.5	B	120	180
C-A					196	295
A-B					133	200
A-C					439	658

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	318	80	362	0.880	299	0.0	4.8	48.373	E
C-AB	96	24	501	0.192	95	0.0	0.2	8.850	A
C-A	163	41			163				
A-B	109	27			109				
A-C	360	90			360				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	380	95	338	1.125	328	4.8	17.9	152.159	F
C-AB	117	29	484	0.241	116	0.2	0.3	9.771	A
C-A	194	48			194				
A-B	130	33			130				
A-C	430	107			430				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	466	116	304	1.530	304	17.9	58.4	473.335	F
C-AB	148	37	467	0.316	147	0.3	0.5	11.235	B
C-A	232	58			232				
A-B	160	40			160				
A-C	526	132			526				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	466	116	304	1.531	304	58.4	98.8	896.088	F
C-AB	148	37	467	0.316	148	0.5	0.5	11.280	B
C-A	232	58			232				
A-B	160	40			160				
A-C	526	132			526				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	380	95	338	1.126	338	98.8	109.5	1109.660	F
C-AB	117	29	485	0.241	117	0.5	0.3	9.821	A
C-A	194	48			194				
A-B	130	33			130				
A-C	430	107			430				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	318	80	362	0.880	358	109.5	99.5	1050.054	F
C-AB	96	24	501	0.192	97	0.3	0.2	8.906	A
C-A	163	41			163				
A-B	109	27			109				
A-C	360	90			360				

Pref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		12.36	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.36	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	666	100.000
B		ONE HOUR	✓	262	100.000
C		ONE HOUR	✓	487	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	240	426
	B	117	0	145
	C	399	88	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A	B	C
	A	0	1	1
	B	2	0	3
	C	3	0	9

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.85	63.06	4.7	F	240	361
C-AB	0.21	9.55	0.3	A	83	124
C-A					364	546
A-B					220	330
A-C					391	586

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	197	49	406	0.486	194	0.0	0.9	16.686	C
C-AB	67	17	525	0.127	66	0.0	0.1	7.833	A
C-A	300	75			300				
A-B	181	45			181				
A-C	321	80			321				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	236	59	378	0.623	233	0.9	1.5	24.334	C
C-AB	81	20	504	0.160	80	0.1	0.2	8.503	A
C-A	357	89			357				
A-B	216	54			216				
A-C	383	96			383				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	288	72	339	0.851	278	1.5	4.1	51.856	F
C-AB	101	25	478	0.211	101	0.2	0.3	9.529	A
C-A	435	109			435				
A-B	264	66			264				
A-C	469	117			469				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	288	72	339	0.851	286	4.1	4.7	63.059	F
C-AB	101	25	478	0.211	101	0.3	0.3	9.553	A
C-A	435	109			435				
A-B	264	66			264				
A-C	469	117			469				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	236	59	378	0.623	247	4.7	1.8	29.506	D
C-AB	81	20	504	0.160	81	0.3	0.2	8.523	A
C-A	357	89			357				
A-B	216	54			216				
A-C	383	96			383				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	197	49	406	0.486	200	1.8	1.0	17.783	C
C-AB	67	17	525	0.127	67	0.2	0.1	7.859	A
C-A	300	75			300				
A-B	181	45			181				
A-C	321	80			321				

Appendix S

A226 / Hillhouse Road

Mitigation Layout Modelling Output

Junctions 10

Junctions 10				
PICADY 10 - Priority Intersection Module				
Version: 10.0.0.1499 © Copyright TRL Software Limited, 2021				
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com				
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution				

Filename: 6. A226 _ Hillhouse Rd - Mitigation.j10
Path: J:\46416 - GH - Dartford Local Plan (SATURN)\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10
Report generation date: 06/12/2021 09:27:21

»Pref no LTC, AM
 »Pref no LTC, PM
 »Pref LTC, AM
 »Pref LTC, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Pref no LTC									
Stream B-AC	D5	63.3	542.86	1.29	F	D6	7.0	89.80	0.92	F
Stream C-AB		0.5	11.07	0.30	B		0.3	10.56	0.23	B
	Pref LTC									
Stream B-AC	D7	98.9	987.15	1.48	F	D8	4.0	53.26	0.82	F
Stream C-AB		0.5	11.28	0.32	B		0.3	9.55	0.21	A

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

File summary

File Description

Title	
Location	
Site number	
Date	22/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\dansmith
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

Pref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		172.51	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	172.51	F

Arms

Arms

Arm	Name	Description	Arm type
A	A226 (E)		Major
B	Hillhouse Rd		Minor
C	A226 (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
-----	--------------------------	----------------------------	------------------------	----------------------------------	-------------------------------	---------	----------------------

C	7.60		✓	2.47	108.0	✓	2.00
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Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.88	90	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	513	0.093	0.236	0.149	0.337
B-C	632	0.106	0.267	-	-
C-B	655	0.265	0.265	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	616	100.000
B		ONE HOUR	✓	440	100.000
C		ONE HOUR	✓	356	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A	B	C
	A	0	146	470
	B	124	0	316
	C	237	119	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	1	2
	B	4	0	7
From	C	8	8	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.29	542.86	63.3	F	404	606
C-AB	0.30	11.07	0.5	B	114	170
C-A					213	320
A-B					134	201
A-C					431	647

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	331	83	437	0.759	320	0.0	2.8	28.756	D
C-AB	91	23	498	0.183	90	0.0	0.2	8.806	A
C-A	177	44			177				
A-B	110	27			110				
A-C	354	88			354				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	396	99	412	0.961	374	2.8	8.1	70.890	F
C-AB	110	28	482	0.229	110	0.2	0.3	9.673	A
C-A	210	52			210				
A-B	131	33			131				
A-C	423	106			423				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	484	121	376	1.288	373	8.1	36.0	235.154	F
C-AB	139	35	465	0.300	139	0.3	0.4	11.030	B
C-A	253	63			253				
A-B	161	40			161				
A-C	517	129			517				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	484	121	376	1.288	375	36.0	63.3	478.611	F
C-AB	139	35	465	0.300	139	0.4	0.5	11.067	B
C-A	253	63			253				
A-B	161	40			161				
A-C	517	129			517				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	396	99	411	0.962	405	63.3	60.9	542.857	F
C-AB	110	28	482	0.229	111	0.5	0.3	9.720	A
C-A	210	52			210				
A-B	131	33			131				
A-C	423	106			423				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	331	83	436	0.759	429	60.9	36.4	411.487	F
C-AB	91	23	498	0.183	91	0.3	0.2	8.859	A
C-A	177	44			177				
A-B	110	27			110				
A-C	354	88			354				

Pref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		17.97	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.97	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
------------------------------	-------------------------------	--------------------	---------------------------

✓	✓	HV Percentages	2.00
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Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	691	100.000
B		ONE HOUR	✓	276	100.000
C		ONE HOUR	✓	461	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A	B	C
	A	0	239	452
	B	131	0	145
	C	375	86	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A	B	C
	A	0	1	3
	B	2	0	6
	C	8	8	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.92	89.80	7.0	F	253	380
C-AB	0.23	10.56	0.3	B	82	123
C-A					341	512
A-B					219	329
A-C					415	622

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	208	52	403	0.515	204	0.0	1.0	17.705	C
C-AB	66	16	483	0.136	65	0.0	0.2	8.609	A
C-A	281	70			281				

A-B	180	45			180				
A-C	340	85			340				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	248	62	374	0.664	245	1.0	1.8	27.258	D
C-AB	80	20	463	0.172	79	0.2	0.2	9.375	A
C-A	335	84			335				
A-B	215	54			215				
A-C	406	102			406				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	304	76	332	0.916	288	1.8	5.7	66.324	F
C-AB	101	25	442	0.228	100	0.2	0.3	10.536	B
C-A	407	102			407				
A-B	263	66			263				
A-C	498	124			498				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	304	76	332	0.916	299	5.7	7.0	89.800	F
C-AB	101	25	442	0.228	101	0.3	0.3	10.560	B
C-A	407	102			407				
A-B	263	66			263				
A-C	498	124			498				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	248	62	374	0.664	268	7.0	2.2	38.575	E
C-AB	80	20	463	0.172	80	0.3	0.2	9.404	A
C-A	335	84			335				
A-B	215	54			215				
A-C	406	102			406				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	208	52	403	0.515	212	2.2	1.1	19.230	C
C-AB	66	16	483	0.136	66	0.2	0.2	8.645	A
C-A	281	70			281				
A-B	180	45			180				
A-C	340	85			340				

Pref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		324.61	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	324.61	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	623	100.000
B		ONE HOUR	✓	423	100.000
C		ONE HOUR	✓	345	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
From	A	0	145	478
	B	206	0	217
	C	219	126	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
From	A	0	1	2
	B	1	0	31
	C	10	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.48	987.15	98.9	F	388	582
C-AB	0.32	11.28	0.5	B	120	180
C-A					196	295
A-B					133	200
A-C					439	658

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	318	80	374	0.852	302	0.0	4.2	43.168	E
C-AB	96	24	501	0.192	95	0.0	0.2	8.850	A
C-A	163	41			163				
A-B	109	27			109				
A-C	360	90			360				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	380	95	349	1.088	336	4.2	15.3	130.681	F
C-AB	117	29	484	0.241	116	0.2	0.3	9.771	A
C-A	194	48			194				
A-B	130	33			130				
A-C	430	107			430				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	466	116	315	1.479	314	15.3	53.2	414.281	F
C-AB	148	37	467	0.316	147	0.3	0.5	11.235	B
C-A	232	58			232				
A-B	160	40			160				
A-C	526	132			526				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	466	116	315	1.480	315	53.2	91.0	800.848	F
C-AB	148	37	467	0.316	148	0.5	0.5	11.280	B
C-A	232	58			232				
A-B	160	40			160				
A-C	526	132			526				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
--------	-----------------------	-------------------------	-------------------	-----	---------------------	-------------------	-----------------	-----------	-------------------------------

B-AC	380	95	349	1.089	349	91.0	98.9	987.148	F
C-AB	117	29	485	0.241	117	0.5	0.3	9.821	A
C-A	194	48			194				
A-B	130	33			130				
A-C	430	107			430				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	318	80	374	0.852	370	98.9	86.0	900.353	F
C-AB	96	24	501	0.192	97	0.3	0.2	8.906	A
C-A	163	41			163				
A-B	109	27			109				
A-C	360	90			360				

Pref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		10.53	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.53	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	666	100.000
B		ONE HOUR	✓	262	100.000
C		ONE HOUR	✓	487	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	240	426
	B	117	0	145
From	C	399	88	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	1	1
	B	2	0	3
From	C	3	0	9

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.82	53.26	4.0	F	240	361
C-AB	0.21	9.55	0.3	A	83	124
C-A					364	546
A-B					220	330
A-C					391	586

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	197	49	420	0.470	194	0.0	0.9	15.700	C
C-AB	67	17	525	0.127	66	0.0	0.1	7.833	A
C-A	300	75			300				
A-B	181	45			181				
A-C	321	80			321				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	236	59	392	0.602	233	0.9	1.4	22.409	C
C-AB	81	20	504	0.160	80	0.1	0.2	8.503	A
C-A	357	89			357				
A-B	216	54			216				

A-C	383	96			383				
-----	-----	----	--	--	-----	--	--	--	--

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	288	72	351	0.821	280	1.4	3.6	45.540	E
C-AB	101	25	478	0.211	101	0.2	0.3	9.529	A
C-A	435	109			435				
A-B	264	66			264				
A-C	469	117			469				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	288	72	351	0.821	287	3.6	4.0	53.258	F
C-AB	101	25	478	0.211	101	0.3	0.3	9.553	A
C-A	435	109			435				
A-B	264	66			264				
A-C	469	117			469				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	236	59	391	0.602	245	4.0	1.6	25.965	D
C-AB	81	20	504	0.160	81	0.3	0.2	8.523	A
C-A	357	89			357				
A-B	216	54			216				
A-C	383	96			383				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	197	49	420	0.470	200	1.6	0.9	16.580	C
C-AB	67	17	525	0.127	67	0.2	0.1	7.859	A
C-A	300	75			300				
A-B	181	45			181				
A-C	321	80			321				

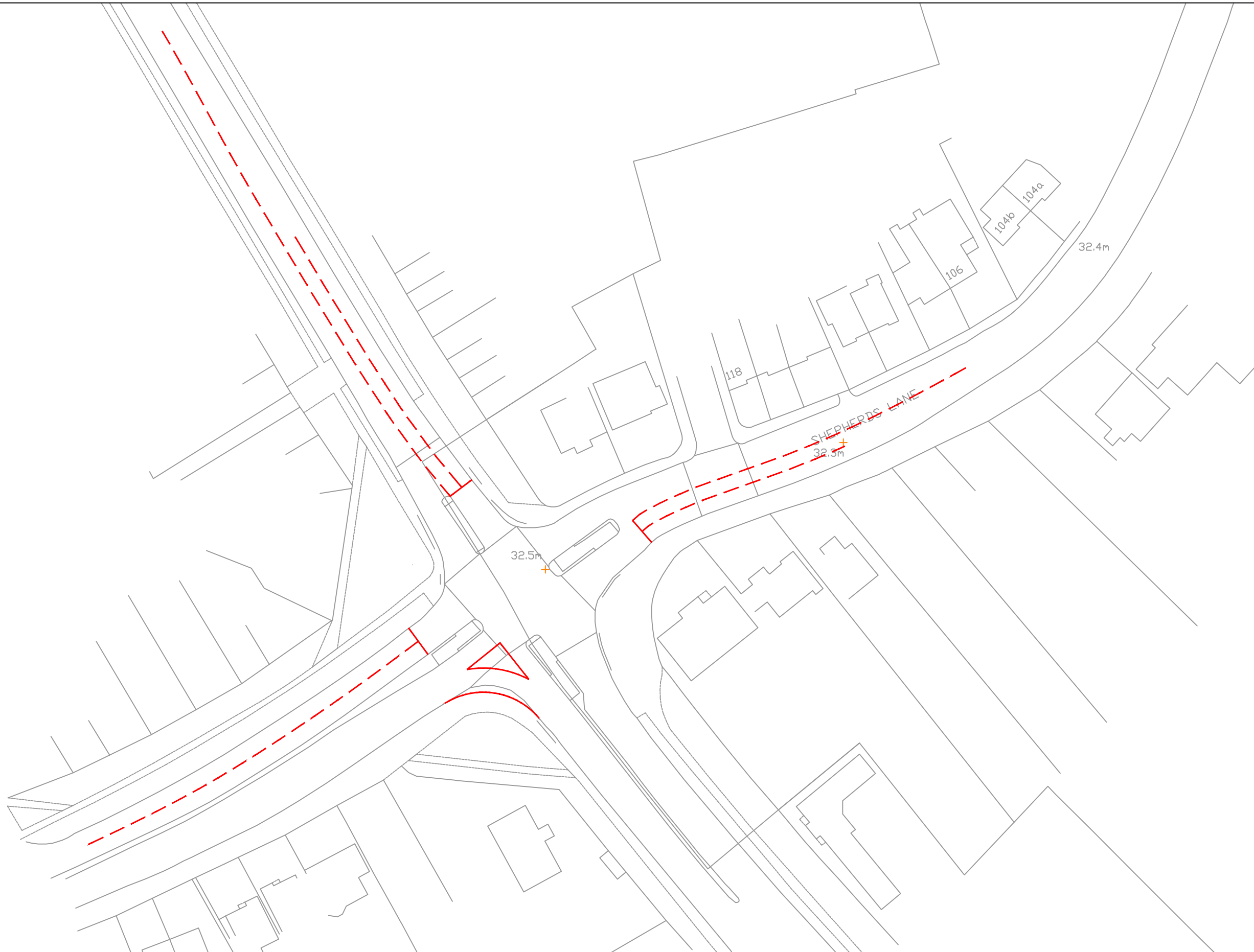
Appendix T

A2018 Shepherds Lane / B2174 Princes Road

Mitigation Scheme

J:\46416 - gh - dartford local plan (saturn)\3-autocad\drawings\5501\332410093_5501_001 - mitigation modelling

2021.11.04 4:07:59 PM



Stantec
Street Address
City, Province/State, Postal/Zip Code
Tel: +1.555.555.1234
www.stantec.com

Notes

Client/Project

DARTFORD DC

DARTFORD LP (SATURN)

Project No.

332410093

Title

INDICATIVE MITIGATION
SCHEME - A2018 / B2174
SIGNALISED JUNCTION

Revision

#

Reference Sheet

0-001

Date

2021.11.04

Figure No.

3

Appendix U

A2018 Shepherds Lane / B2174 Princes Road

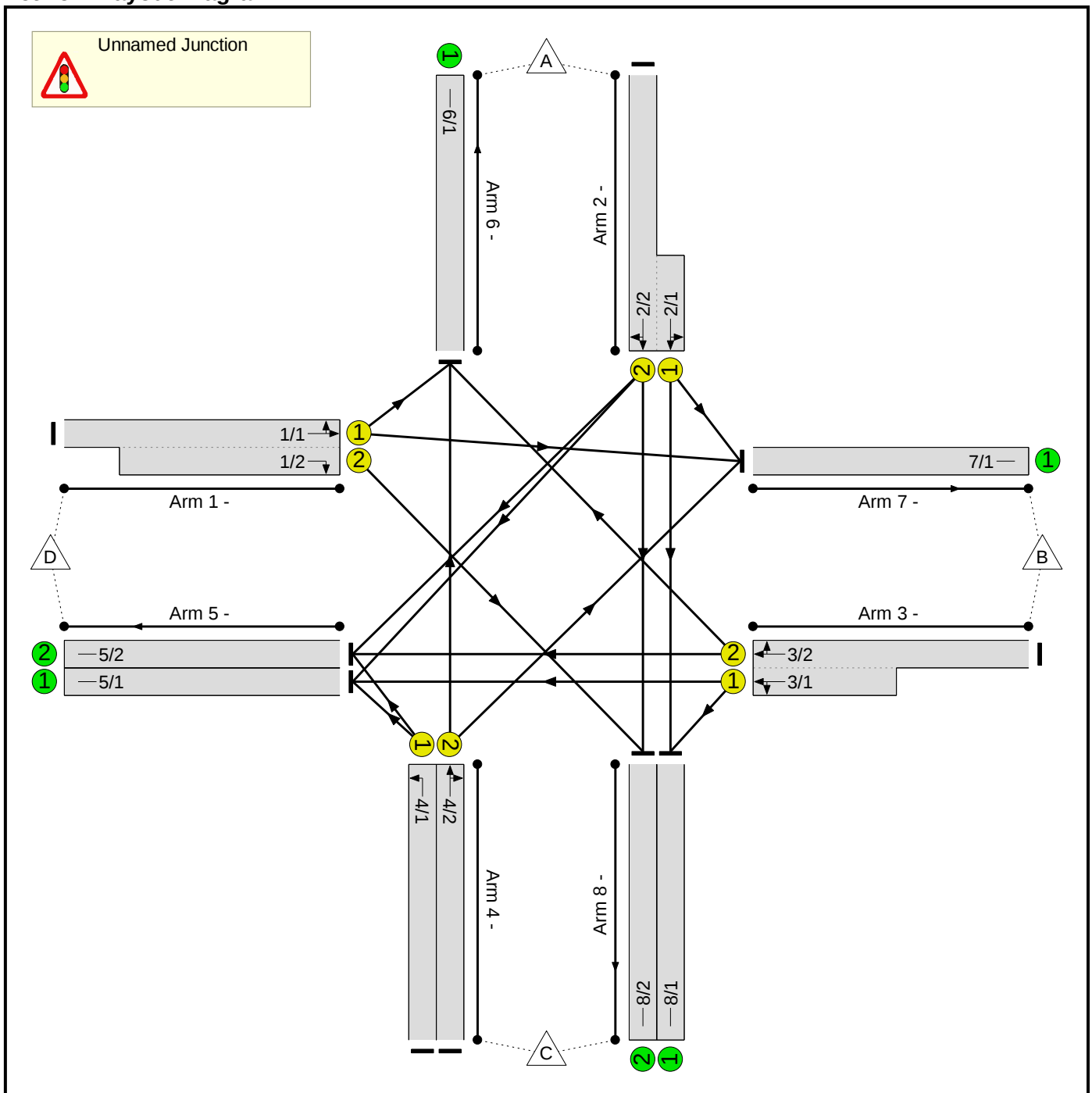
Existing Layout Modelling Output

Full Input Data And Results

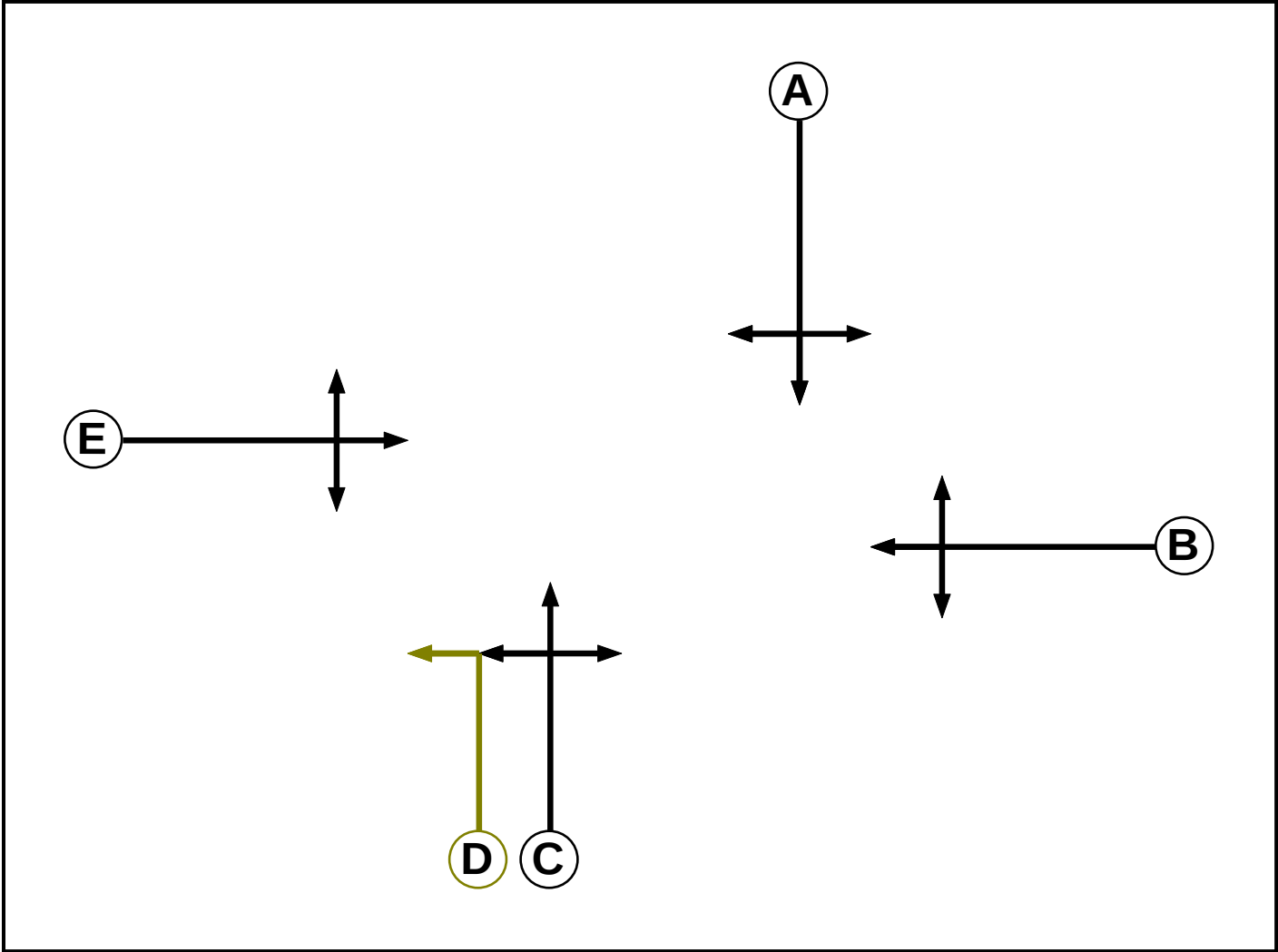
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	7. A2018 _ B2174.lsg3x
Author:	
Company:	
Address:	

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	Filter	C	4	0
E	Traffic		7	7

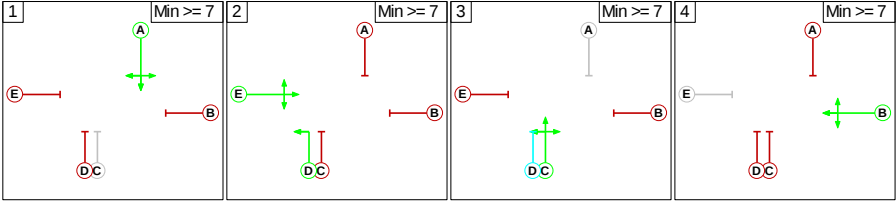
Phase Intergreens Matrix

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

Phases in Stage

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

Stage Diagram



Phase Delays

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

Prohibited Stage Change

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

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1	U	E	2	3	60.0	Geom	-	3.37	0.00	Y	Arm 6 Left	15.00
											Arm 7 Ahead	Inf
1/2	U	E	2	3	25.2	Geom	-	2.83	0.00	Y	Arm 8 Right	15.00
2/1	U	A	2	3	5.2	Geom	-	2.79	0.00	Y	Arm 7 Left	10.00
											Arm 8 Ahead	Inf
2/2	U	A	2	3	60.0	Geom	-	2.92	0.00	Y	Arm 5 Right	15.00
											Arm 8 Ahead	Inf
3/1	U	B	2	3	7.8	Geom	-	2.95	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	15.00
3/2	U	B	2	3	60.0	Geom	-	3.02	0.00	Y	Arm 5 Ahead	Inf
											Arm 6 Right	15.00
4/1	U	C D	2	3	60.0	Geom	-	3.69	0.00	Y	Arm 5 Left	12.00
4/2	U	C	2	3	60.0	Geom	-	3.41	0.00	Y	Arm 6 Ahead	Inf
											Arm 7 Right	16.00
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	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	-	-	-	-	-	-
8/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Ref no LTC AM'	08:00	09:00	01:00	
2: 'Ref no LTC PM'	17:00	18:00	01:00	
3: 'Ref LTC AM'	08:00	09:00	01:00	
4: 'Ref LTC PM'	17:00	18:00	01:00	
5: 'Pref no LTC AM'	08:00	09:00	01:00	
6: 'Pref no LTC PM'	17:00	18:00	01:00	
7: 'Pref LTC AM'	08:00	09:00	01:00	
8: 'Pref LTC PM'	17:00	18:00	01:00	

Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	4	438	181	623
	B	4	0	153	164	321
	C	335	10	0	523	868
	D	314	351	352	0	1017
	Tot.	653	365	943	868	2829

Traffic Lane Flows

Lane	Scenario 1: Ref no LTC AM
Junction: Unnamed Junction	
1/1 (with short)	1017(In) 665(Out)
1/2 (short)	352
2/1 (short)	271
2/2 (with short)	623(In) 352(Out)
3/1 (short)	157
3/2 (with short)	321(In) 164(Out)
4/1	523
4/2	345
5/1	357
5/2	511
6/1	653
7/1	365
8/1	420
8/2	523

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.37	0.00	Y	Arm 6 Left	15.00	47.2 %	1864	1864
				Arm 7 Ahead	Inf	52.8 %		
1/2	2.83	0.00	Y	Arm 8 Right	15.00	100.0 %	1725	1725
2/1	2.79	0.00	Y	Arm 7 Left	10.00	1.5 %	1890	1890
				Arm 8 Ahead	Inf	98.5 %		
2/2	2.92	0.00	Y	Arm 5 Right	15.00	51.4 %	1814	1814
				Arm 8 Ahead	Inf	48.6 %		
3/1	2.95	0.00	Y	Arm 5 Ahead	Inf	2.5 %	1740	1740
				Arm 8 Left	15.00	97.5 %		
3/2	3.02	0.00	Y	Arm 5 Ahead	Inf	97.6 %	1912	1912
				Arm 6 Right	15.00	2.4 %		
4/1	3.69	0.00	Y	Arm 5 Left	12.00	100.0 %	1764	1764
4/2	3.41	0.00	Y	Arm 6 Ahead	Inf	97.1 %	1951	1951
				Arm 7 Right	16.00	2.9 %		
5/1	Infinite Saturation Flow						Inf	Inf
5/2	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
8/2	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Ref no LTC PM' (FG2: 'Ref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	4	388	236	628
	B	4	0	117	219	340
	C	341	75	0	517	933
	D	444	333	369	0	1146
	Tot.	789	412	874	972	3047

Traffic Lane Flows

Lane	Scenario 2: Ref no LTC PM
Junction: Unnamed Junction	
1/1 (with short)	1146(In) 777(Out)
1/2 (short)	369
2/1 (short)	260
2/2 (with short)	628(In) 368(Out)
3/1 (short)	164
3/2 (with short)	340(In) 176(Out)
4/1	517
4/2	416
5/1	424
5/2	548
6/1	789
7/1	412
8/1	373
8/2	501

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.37	0.00	Y	Arm 6 Left	15.00	57.1 %	1846	1846
				Arm 7 Ahead	Inf	42.9 %		
1/2	2.83	0.00	Y	Arm 8 Right	15.00	100.0 %	1725	1725
2/1	2.79	0.00	Y	Arm 7 Left	10.00	1.5 %	1890	1890
				Arm 8 Ahead	Inf	98.5 %		
2/2	2.92	0.00	Y	Arm 5 Right	15.00	64.1 %	1792	1792
				Arm 8 Ahead	Inf	35.9 %		
3/1	2.95	0.00	Y	Arm 5 Ahead	Inf	28.7 %	1783	1783
				Arm 8 Left	15.00	71.3 %		
3/2	3.02	0.00	Y	Arm 5 Ahead	Inf	97.7 %	1913	1913
				Arm 6 Right	15.00	2.3 %		
4/1	3.69	0.00	Y	Arm 5 Left	12.00	100.0 %	1764	1764
4/2	3.41	0.00	Y	Arm 6 Ahead	Inf	82.0 %	1923	1923
				Arm 7 Right	16.00	18.0 %		
5/1	Infinite Saturation Flow						Inf	Inf
5/2	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
8/2	Infinite Saturation Flow						Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	4	421	185	610
	B	4	0	162	143	309
	C	358	43	0	578	979
	D	313	332	372	0	1017
	Tot.	675	379	955	906	2915

Traffic Lane Flows

Lane	Scenario 3: Ref LTC AM
Junction: Unnamed Junction	
1/1 (with short)	1017(In) 645(Out)
1/2 (short)	372
2/1 (short)	264
2/2 (with short)	610(In) 346(Out)
3/1 (short)	162
3/2 (with short)	309(In) 147(Out)
4/1	578
4/2	401
5/1	382
5/2	524
6/1	675
7/1	379
8/1	422
8/2	533

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.37	0.00	Y	Arm 6 Left	15.00	48.5 %	1862	1862
				Arm 7 Ahead	Inf	51.5 %		
1/2	2.83	0.00	Y	Arm 8 Right	15.00	100.0 %	1725	1725
2/1	2.79	0.00	Y	Arm 7 Left	10.00	1.5 %	1890	1890
				Arm 8 Ahead	Inf	98.5 %		
2/2	2.92	0.00	Y	Arm 5 Right	15.00	53.5 %	1810	1810
				Arm 8 Ahead	Inf	46.5 %		
3/1	2.95	0.00	Y	Arm 5 Ahead	Inf	0.0 %	1736	1736
				Arm 8 Left	15.00	100.0 %		
3/2	3.02	0.00	Y	Arm 5 Ahead	Inf	97.3 %	1912	1912
				Arm 6 Right	15.00	2.7 %		
4/1	3.69	0.00	Y	Arm 5 Left	12.00	100.0 %	1764	1764
4/2	3.41	0.00	Y	Arm 6 Ahead	Inf	89.3 %	1937	1937
				Arm 7 Right	16.00	10.7 %		
5/1	Infinite Saturation Flow						Inf	Inf
5/2	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
8/2	Infinite Saturation Flow						Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	4	375	246	625
	B	4	0	114	217	335
	C	345	77	0	518	940
	D	440	303	399	0	1142
	Tot.	789	384	888	981	3042

Traffic Lane Flows

Lane	Scenario 4: Ref LTC PM
Junction: Unnamed Junction	
1/1 (with short)	1142(In) 743(Out)
1/2 (short)	399
2/1 (short)	247
2/2 (with short)	625(In) 378(Out)
3/1 (short)	162
3/2 (with short)	335(In) 173(Out)
4/1	518
4/2	422
5/1	430
5/2	551
6/1	789
7/1	384
8/1	357
8/2	531

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.37	0.00	Y	Arm 6 Left	15.00	59.2 %	1843	1843
				Arm 7 Ahead	Inf	40.8 %		
1/2	2.83	0.00	Y	Arm 8 Right	15.00	100.0 %	1725	1725
2/1	2.79	0.00	Y	Arm 7 Left	10.00	1.6 %	1889	1889
				Arm 8 Ahead	Inf	98.4 %		
2/2	2.92	0.00	Y	Arm 5 Right	15.00	65.1 %	1790	1790
				Arm 8 Ahead	Inf	34.9 %		
3/1	2.95	0.00	Y	Arm 5 Ahead	Inf	29.6 %	1784	1784
				Arm 8 Left	15.00	70.4 %		
3/2	3.02	0.00	Y	Arm 5 Ahead	Inf	97.7 %	1913	1913
				Arm 6 Right	15.00	2.3 %		
4/1	3.69	0.00	Y	Arm 5 Left	12.00	100.0 %	1764	1764
4/2	3.41	0.00	Y	Arm 6 Ahead	Inf	81.8 %	1923	1923
				Arm 7 Right	16.00	18.2 %		
5/1	Infinite Saturation Flow						Inf	Inf
5/2	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
8/2	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'Pref no LTC AM' (FG5: 'Pref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	4	451	184	639
	B	4	0	140	194	338
	C	332	9	0	579	920
	D	318	359	349	0	1026
	Tot.	654	372	940	957	2923

Traffic Lane Flows

Lane	Scenario 5: Pref no LTC AM
Junction: Unnamed Junction	
1/1 (with short)	1026(In) 677(Out)
1/2 (short)	349
2/1 (short)	276
2/2 (with short)	639(In) 363(Out)
3/1 (short)	162
3/2 (with short)	338(In) 176(Out)
4/1	579
4/2	341
5/1	404
5/2	553
6/1	654
7/1	372
8/1	412
8/2	528

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.37	0.00	Y	Arm 6 Left	15.00	47.0 %	1864	1864
				Arm 7 Ahead	Inf	53.0 %		
1/2	2.83	0.00	Y	Arm 8 Right	15.00	100.0 %	1725	1725
2/1	2.79	0.00	Y	Arm 7 Left	10.00	1.4 %	1890	1890
				Arm 8 Ahead	Inf	98.6 %		
2/2	2.92	0.00	Y	Arm 5 Right	15.00	50.7 %	1815	1815
				Arm 8 Ahead	Inf	49.3 %		
3/1	2.95	0.00	Y	Arm 5 Ahead	Inf	13.6 %	1758	1758
				Arm 8 Left	15.00	86.4 %		
3/2	3.02	0.00	Y	Arm 5 Ahead	Inf	97.7 %	1913	1913
				Arm 6 Right	15.00	2.3 %		
4/1	3.69	0.00	Y	Arm 5 Left	12.00	100.0 %	1764	1764
4/2	3.41	0.00	Y	Arm 6 Ahead	Inf	97.4 %	1951	1951
				Arm 7 Right	16.00	2.6 %		
5/1	Infinite Saturation Flow					Inf	Inf	
5/2	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	
8/2	Infinite Saturation Flow					Inf	Inf	

Scenario 6: 'Pref no LTC PM' (FG6: 'Pref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	4	407	219	630
	B	4	0	139	193	336
	C	341	75	0	563	979
	D	444	372	316	0	1132
	Tot.	789	451	862	975	3077

Traffic Lane Flows

Lane	Scenario 6: Pref no LTC PM
Junction: Unnamed Junction	
1/1 (with short)	1132(In) 816(Out)
1/2 (short)	316
2/1 (short)	264
2/2 (with short)	630(In) 366(Out)
3/1 (short)	161
3/2 (with short)	336(In) 175(Out)
4/1	563
4/2	416
5/1	414
5/2	561
6/1	789
7/1	451
8/1	399
8/2	463

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.37	0.00	Y	Arm 6 Left	15.00	54.4 %	1851	1851
				Arm 7 Ahead	Inf	45.6 %		
1/2	2.83	0.00	Y	Arm 8 Right	15.00	100.0 %	1725	1725
2/1	2.79	0.00	Y	Arm 7 Left	10.00	1.5 %	1890	1890
				Arm 8 Ahead	Inf	98.5 %		
2/2	2.92	0.00	Y	Arm 5 Right	15.00	59.8 %	1799	1799
				Arm 8 Ahead	Inf	40.2 %		
3/1	2.95	0.00	Y	Arm 5 Ahead	Inf	13.7 %	1758	1758
				Arm 8 Left	15.00	86.3 %		
3/2	3.02	0.00	Y	Arm 5 Ahead	Inf	97.7 %	1913	1913
				Arm 6 Right	15.00	2.3 %		
4/1	3.69	0.00	Y	Arm 5 Left	12.00	100.0 %	1764	1764
4/2	3.41	0.00	Y	Arm 6 Ahead	Inf	82.0 %	1923	1923
				Arm 7 Right	16.00	18.0 %		
5/1	Infinite Saturation Flow						Inf	Inf
5/2	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
8/2	Infinite Saturation Flow						Inf	Inf

Scenario 7: 'Pref LTC AM' (FG7: 'Pref LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	4	442	187	633
	B	4	0	148	185	337
	C	358	48	0	596	1002
	D	314	342	359	0	1015
	Tot.	676	394	949	968	2987

Traffic Lane Flows

Lane	Scenario 7: Pref LTC AM
Junction: Unnamed Junction	
1/1 (with short)	1015(In) 656(Out)
1/2 (short)	359
2/1 (short)	272
2/2 (with short)	633(In) 361(Out)
3/1 (short)	161
3/2 (with short)	337(In) 176(Out)
4/1	596
4/2	406
5/1	405
5/2	563
6/1	676
7/1	394
8/1	416
8/2	533

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.37	0.00	Y	Arm 6 Left	15.00	47.9 %	1863	1863
				Arm 7 Ahead	Inf	52.1 %		
1/2	2.83	0.00	Y	Arm 8 Right	15.00	100.0 %	1725	1725
2/1	2.79	0.00	Y	Arm 7 Left	10.00	1.5 %	1890	1890
				Arm 8 Ahead	Inf	98.5 %		
2/2	2.92	0.00	Y	Arm 5 Right	15.00	51.8 %	1813	1813
				Arm 8 Ahead	Inf	48.2 %		
3/1	2.95	0.00	Y	Arm 5 Ahead	Inf	8.1 %	1749	1749
				Arm 8 Left	15.00	91.9 %		
3/2	3.02	0.00	Y	Arm 5 Ahead	Inf	97.7 %	1913	1913
				Arm 6 Right	15.00	2.3 %		
4/1	3.69	0.00	Y	Arm 5 Left	12.00	100.0 %	1764	1764
4/2	3.41	0.00	Y	Arm 6 Ahead	Inf	88.2 %	1935	1935
				Arm 7 Right	16.00	11.8 %		
5/1	Infinite Saturation Flow						Inf	Inf
5/2	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
8/2	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Pref LTC PM' (FG8: 'Pref LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	4	408	214	626
	B	4	0	153	175	332
	C	345	77	0	570	992
	D	441	338	368	0	1147
	Tot.	790	419	929	959	3097

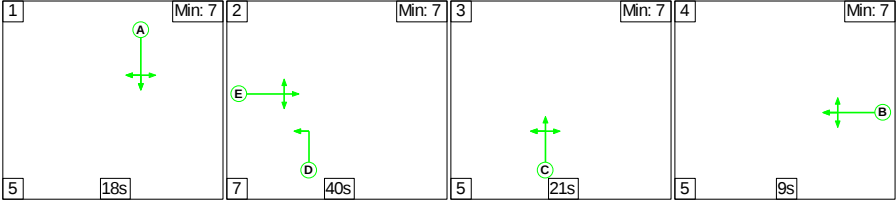
Traffic Lane Flows

Lane	Scenario 8: Pref LTC PM
Junction: Unnamed Junction	
1/1 (with short)	1147(In) 779(Out)
1/2 (short)	368
2/1 (short)	265
2/2 (with short)	626(In) 361(Out)
3/1 (short)	158
3/2 (with short)	332(In) 174(Out)
4/1	570
4/2	422
5/1	397
5/2	562
6/1	790
7/1	419
8/1	414
8/2	515

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.37	0.00	Y	Arm 6 Left	15.00	56.6 %	1847	1847
				Arm 7 Ahead	Inf	43.4 %		
1/2	2.83	0.00	Y	Arm 8 Right	15.00	100.0 %	1725	1725
2/1	2.79	0.00	Y	Arm 7 Left	10.00	1.5 %	1890	1890
				Arm 8 Ahead	Inf	98.5 %		
2/2	2.92	0.00	Y	Arm 5 Right	15.00	59.3 %	1800	1800
				Arm 8 Ahead	Inf	40.7 %		
3/1	2.95	0.00	Y	Arm 5 Ahead	Inf	3.2 %	1741	1741
				Arm 8 Left	15.00	96.8 %		
3/2	3.02	0.00	Y	Arm 5 Ahead	Inf	97.7 %	1913	1913
				Arm 6 Right	15.00	2.3 %		
4/1	3.69	0.00	Y	Arm 5 Left	12.00	100.0 %	1764	1764
4/2	3.41	0.00	Y	Arm 6 Ahead	Inf	81.8 %	1923	1923
				Arm 7 Right	16.00	18.2 %		
5/1	Infinite Saturation Flow						Inf	Inf
5/2	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
8/2	Infinite Saturation Flow						Inf	Inf

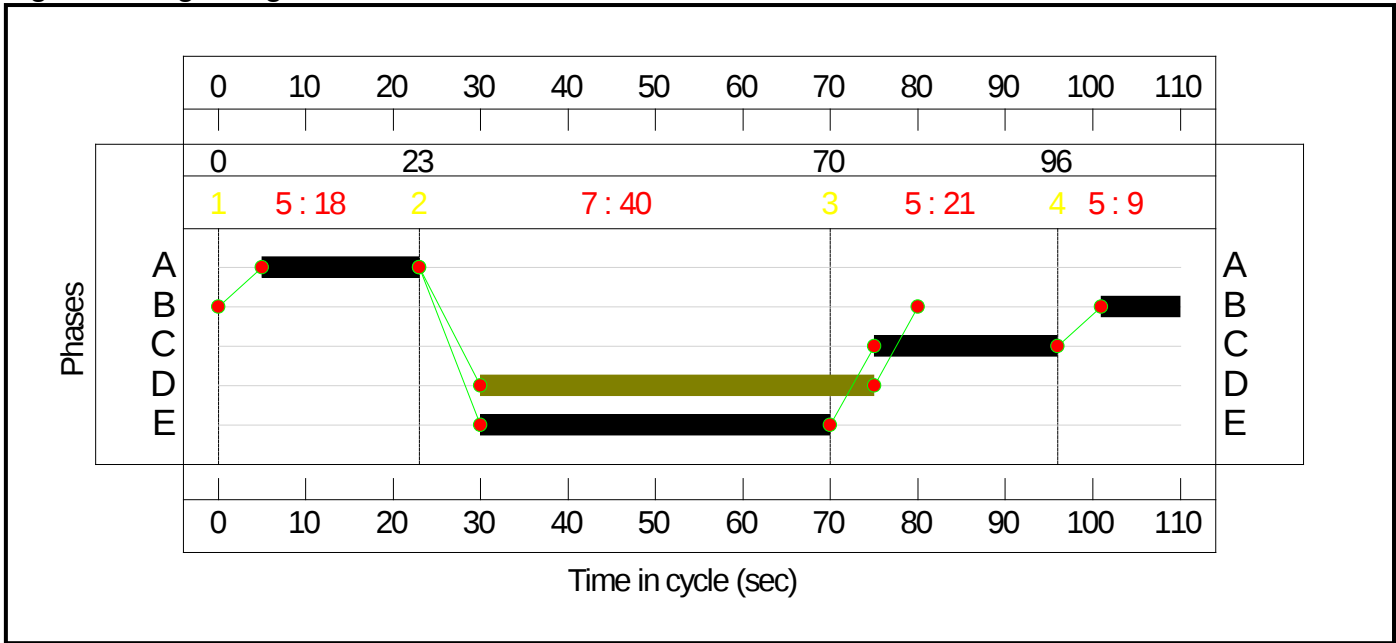
Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')
Stage Sequence Diagram



Stage Timings

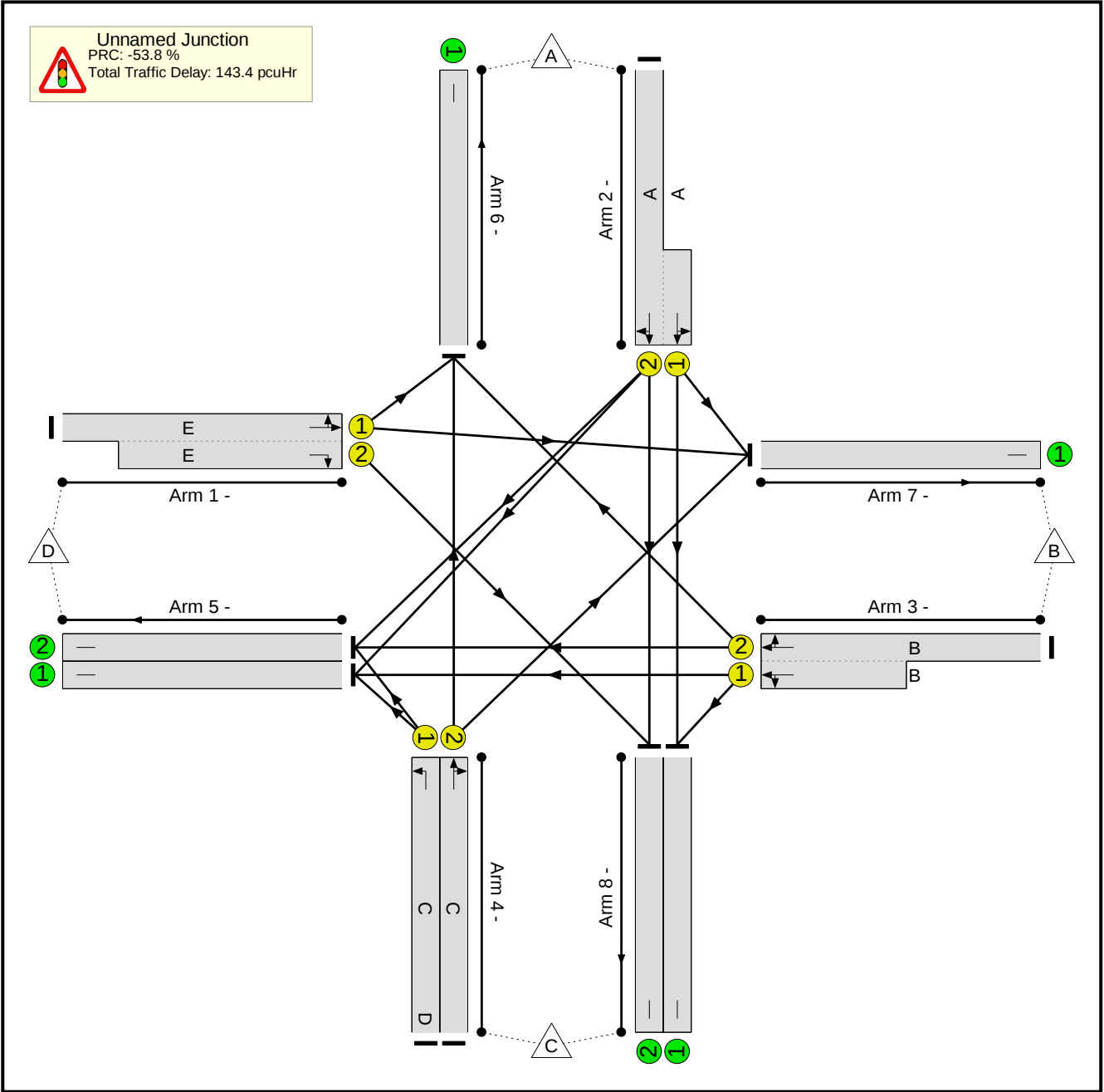
Stage	1	2	3	4
Duration	18	40	21	9
Change Point	0	23	70	96

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

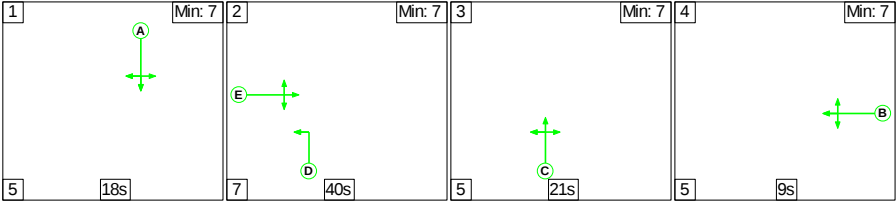
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	138.4%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	138.4%
1/1+1/2	Left Ahead Right	U	N/A	N/A	E		1	40	-	1017	1864:1725	695+368	95.7 : 95.7%
2/2+2/1	Right Left Ahead	U	N/A	N/A	A		1	18	-	623	1814:1890	254+196	138.4 : 138.4%
3/2+3/1	Ahead Right Left	U	N/A	N/A	B		1	9	-	321	1912:1740	174+158	94.4 : 99.3%
4/1	Left	U	N/A	N/A	C	D	1	66	45	523	1764	1074	48.7%
4/2	Ahead Right	U	N/A	N/A	C		1	21	-	345	1951	390	88.4%
5/1		U	N/A	N/A	-		-	-	-	357	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	511	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	653	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	365	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	420	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	523	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	36.6	106.8	0.0	143.4	-	-	-	-
Unnamed Junction	-	-	0	0	0	36.6	106.8	0.0	143.4	-	-	-	-
1/1+1/2	1017	1017	-	-	-	8.9	8.2	-	17.1	60.5	19.8	8.2	28.0
2/2+2/1	623	450	-	-	-	17.5	88.2	-	105.7	610.5	21.2	88.2	109.4
3/2+3/1	321	321	-	-	-	4.4	6.6	-	11.1	124.1	5.0	6.6	11.6
4/1	523	523	-	-	-	1.7	0.5	-	2.2	15.2	8.9	0.5	9.3
4/2	345	345	-	-	-	4.1	3.3	-	7.4	77.5	10.2	3.3	13.5
5/1	332	332	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	486	486	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	653	653	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	364	364	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	346	346	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	476	476	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -53.8 Total Delay for Signalled Lanes (pcuHr): 143.44 Cycle Time (s): 110 PRC Over All Lanes (%): -53.8 Total Delay Over All Lanes(pcuHr): 143.44													

Full Input Data And Results
Scenario 2: 'Ref no LTC PM' (FG2: 'Ref no LTC PM', Plan 1: 'Network Control Plan 1')

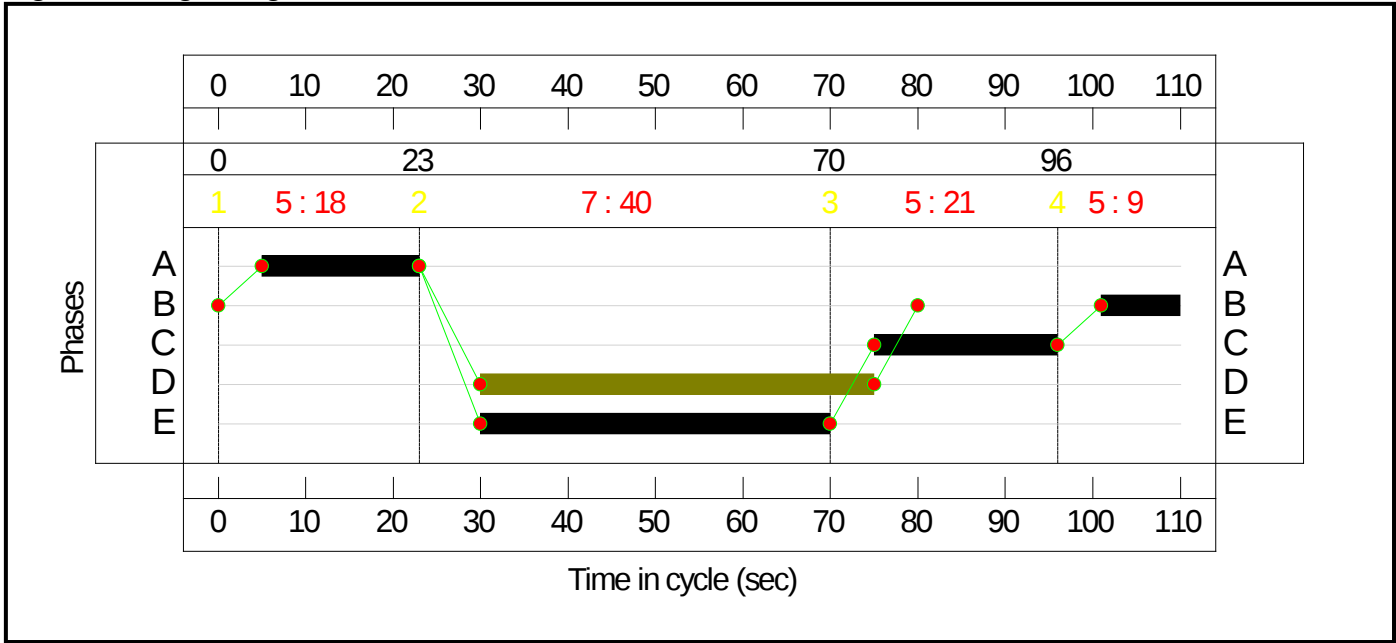
Stage Sequence Diagram



Stage Timings

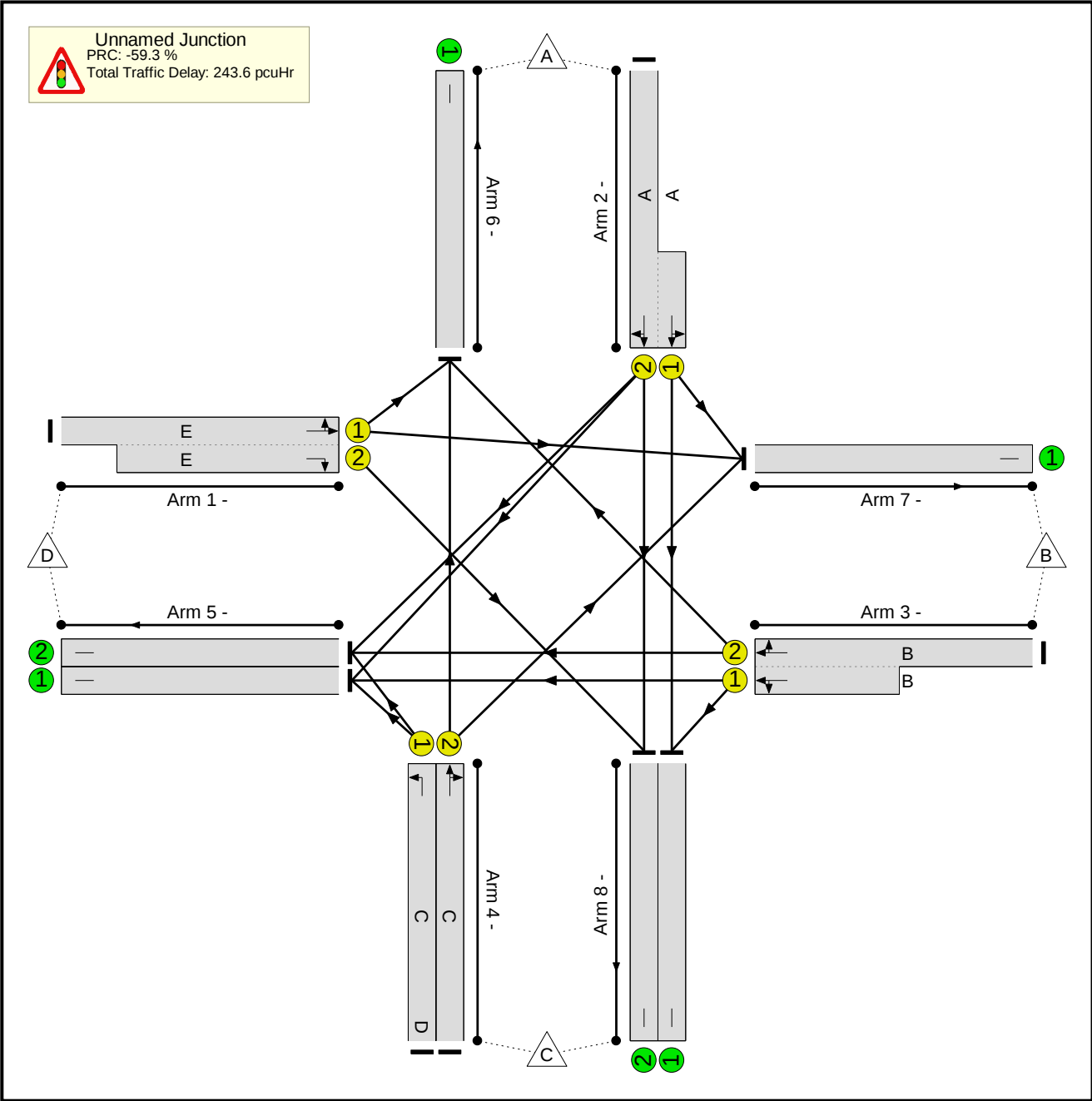
Stage	1	2	3	4
Duration	18	40	21	9
Change Point	0	23	70	96

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

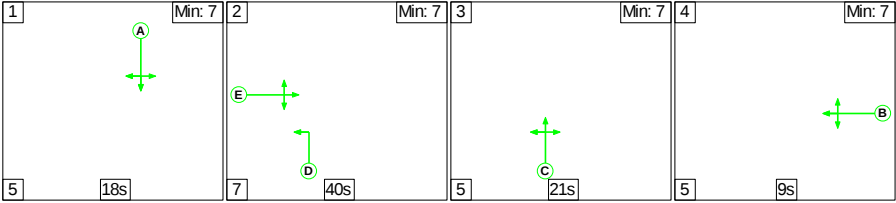
Network Results

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	-	-		-	-	-	-	-	-	143.4%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	143.4%
1/1+1/2	Left Ahead Right	U	N/A	N/A	E		1	40	-	1146	1846:1725	688+327	112.9 : 112.9%
2/2+2/1	Right Left Ahead	U	N/A	N/A	A		1	18	-	628	1792:1890	257+181	143.4 : 143.4%
3/2+3/1	Ahead Right Left	U	N/A	N/A	B		1	9	-	340	1913:1783	174+162	101.2 : 101.2%
4/1	Left	U	N/A	N/A	C	D	1	66	45	517	1764	1074	48.1%
4/2	Ahead Right	U	N/A	N/A	C		1	21	-	416	1923	385	108.2%
5/1		U	N/A	N/A	-		-	-	-	424	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	548	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	789	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	412	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	501	Inf	Inf	0.0%

Full Input Data And Results

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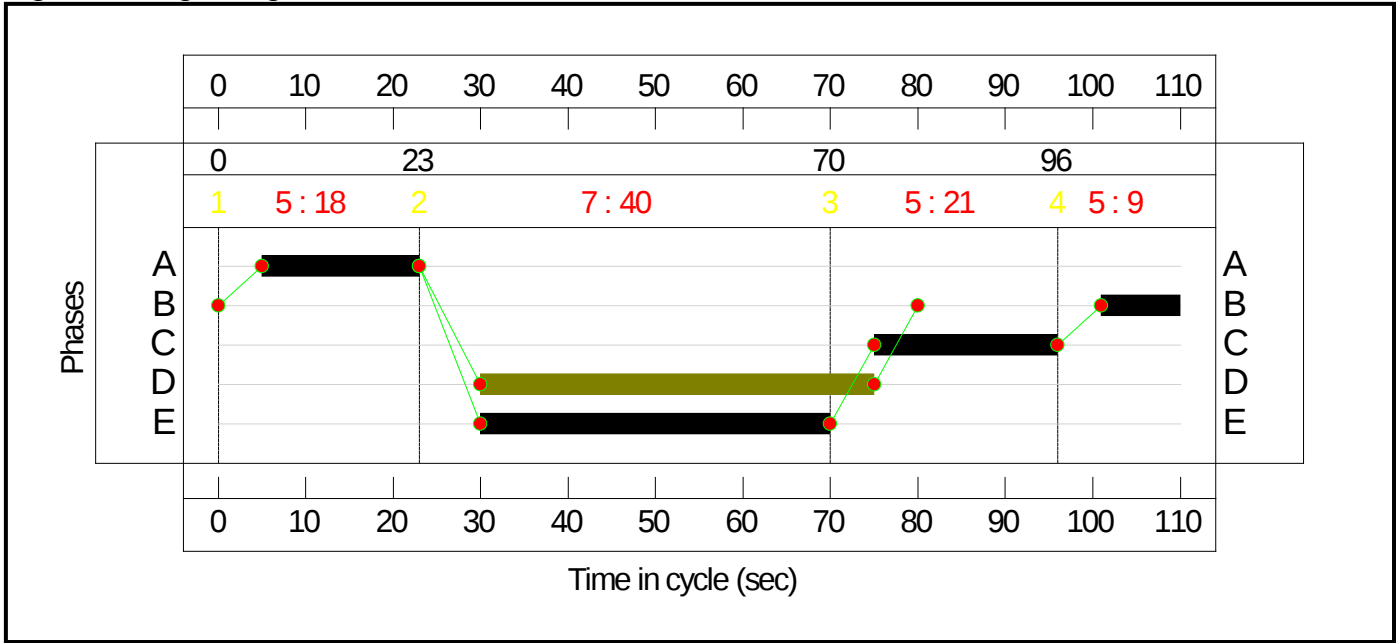
Stage Sequence Diagram



Stage Timings

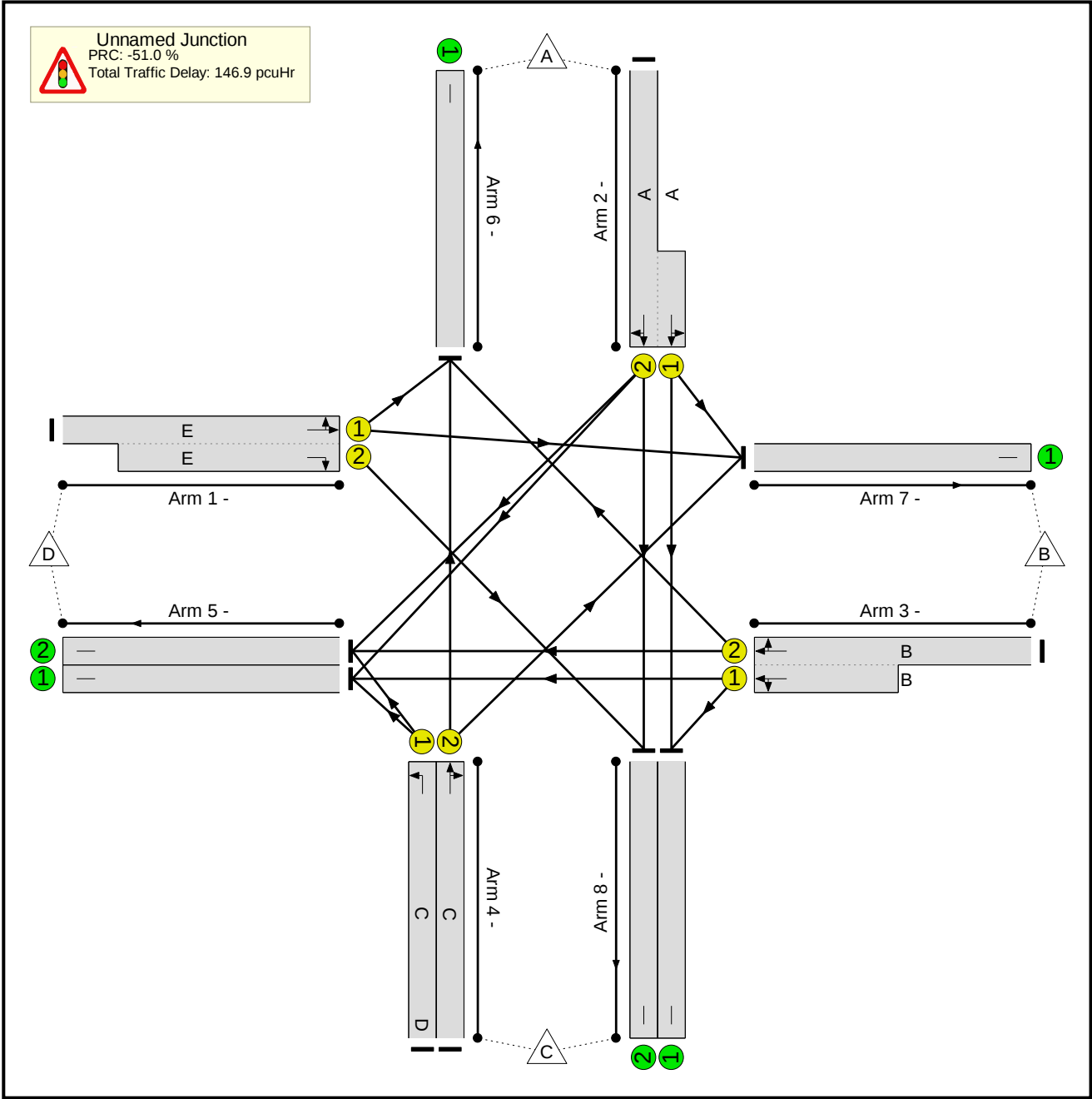
Stage	1	2	3	4
Duration	18	40	21	9
Change Point	0	23	70	96

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

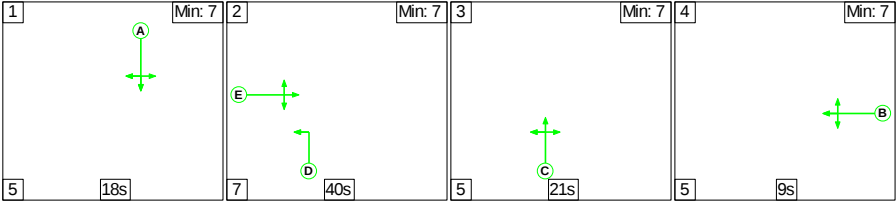
Network Results

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	-	-		-	-	-	-	-	-	135.9%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	135.9%
1/1+1/2	Left Ahead Right	U	N/A	N/A	E		1	40	-	1017	1862:1725	694+400	92.9 : 92.9%
2/2+2/1	Right Left Ahead	U	N/A	N/A	A		1	18	-	610	1810:1890	255+194	135.9 : 135.9%
3/2+3/1	Ahead Right Left	U	N/A	N/A	B		1	9	-	309	1912:1736	174+158	84.6 : 102.6%
4/1	Left	U	N/A	N/A	C	D	1	66	45	578	1764	1074	53.8%
4/2	Ahead Right	U	N/A	N/A	C		1	21	-	401	1937	387	103.5%
5/1		U	N/A	N/A	-		-	-	-	382	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	524	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	675	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	379	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	422	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	533	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	37.2	109.6	0.0	146.9	-	-	-	-
Unnamed Junction	-	-	0	0	0	37.2	109.6	0.0	146.9	-	-	-	-
1/1+1/2	1017	1017	-	-	-	8.8	5.7	-	14.5	51.4	18.8	5.7	24.5
2/2+2/1	610	449	-	-	-	16.6	82.5	-	99.1	584.9	20.4	82.5	102.9
3/2+3/1	309	305	-	-	-	4.4	6.9	-	11.3	131.4	5.0	6.9	11.8
4/1	578	578	-	-	-	2.0	0.6	-	2.6	16.1	10.1	0.6	10.7
4/2	401	387	-	-	-	5.4	14.0	-	19.4	173.9	12.7	14.0	26.6
5/1	357	357	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	500	500	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	663	663	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	376	376	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	349	349	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	490	490	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -51.0 Total Delay for Signalled Lanes (pcuHr): 146.86 Cycle Time (s): 110 PRC Over All Lanes (%): -51.0 Total Delay Over All Lanes(pcuHr): 146.86													

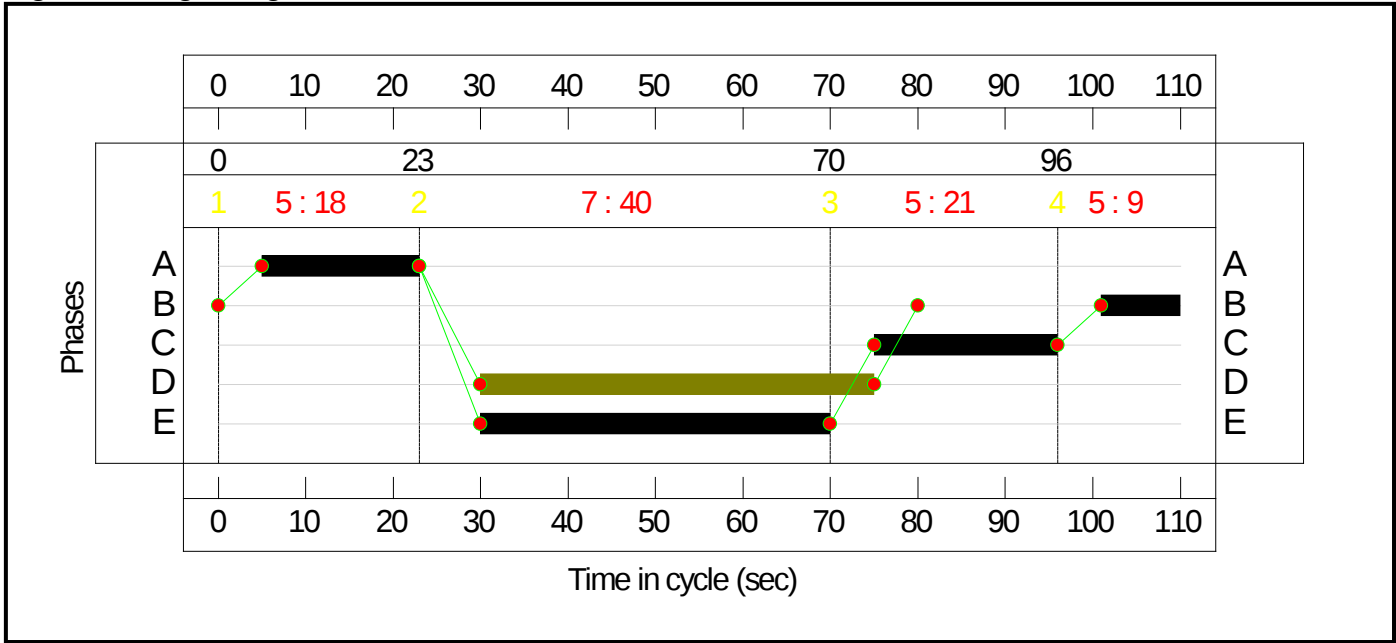
Stage Sequence Diagram



Stage Timings

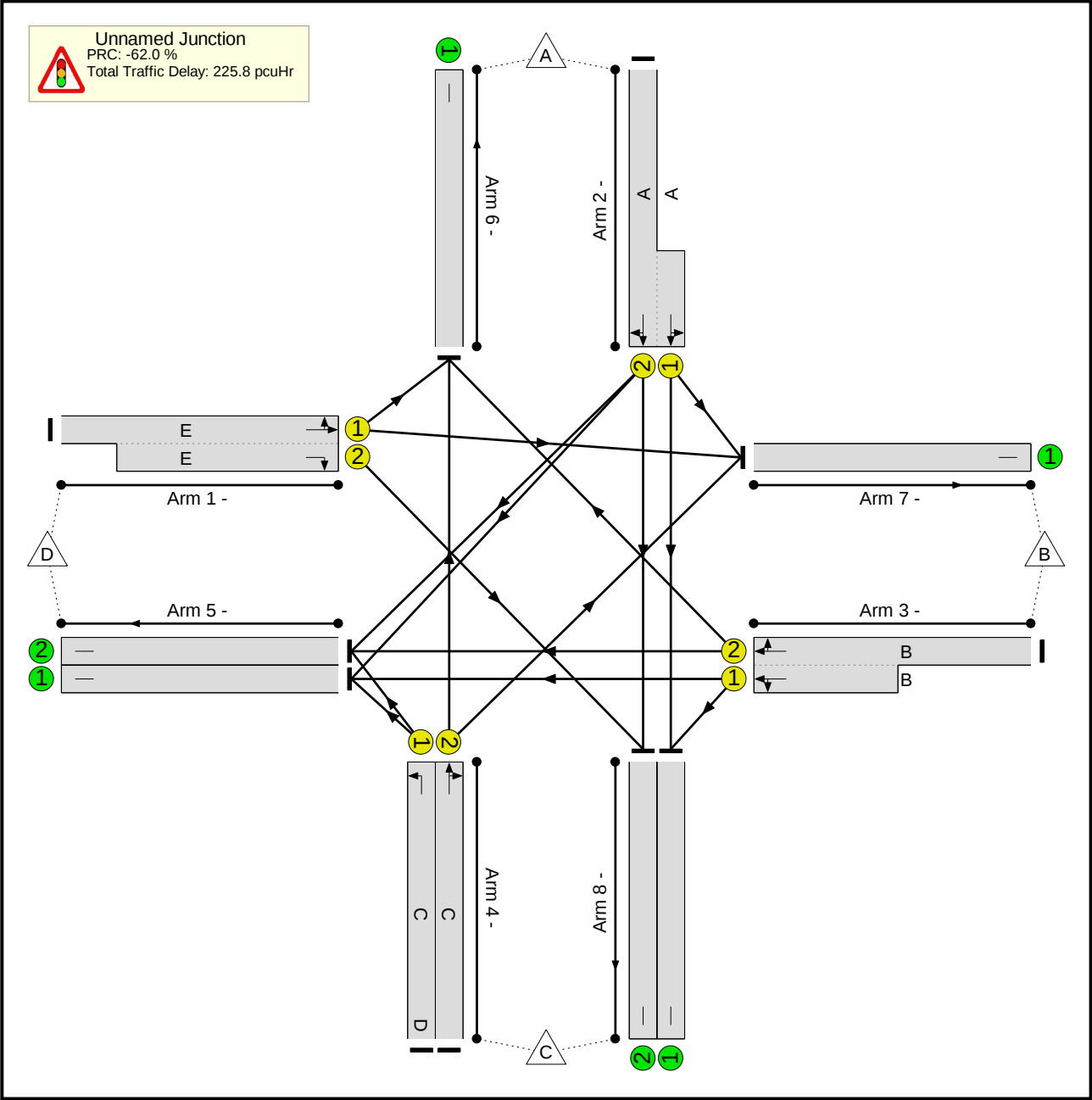
Stage	1	2	3	4
Duration	18	40	21	9
Change Point	0	23	70	96

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

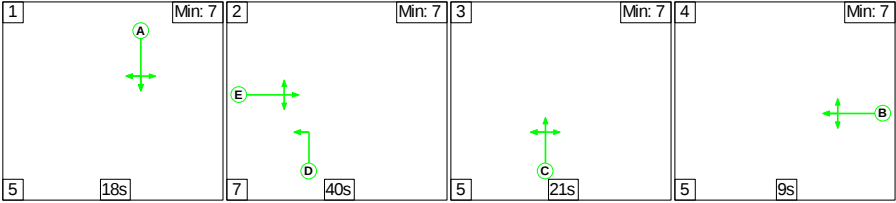
Network Results

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	-	-		-	-	-	-	-	-	145.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	145.8%
1/1+1/2	Left Ahead Right	U	N/A	N/A	E		1	40	-	1142	1843:1725	687+369	108.2 : 108.2%
2/2+2/1	Right Left Ahead	U	N/A	N/A	A		1	18	-	625	1790:1889	259+169	145.8 : 145.8%
3/2+3/1	Ahead Right Left	U	N/A	N/A	B		1	9	-	335	1913:1784	174+162	99.5 : 99.9%
4/1	Left	U	N/A	N/A	C	D	1	66	45	518	1764	1074	48.2%
4/2	Ahead Right	U	N/A	N/A	C		1	21	-	422	1923	385	109.7%
5/1		U	N/A	N/A	-		-	-	-	430	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	551	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	789	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	384	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	357	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	531	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	44.6	181.2	0.0	225.8	-	-	-	-
Unnamed Junction	-	-	0	0	0	44.6	181.2	0.0	225.8	-	-	-	-
1/1+1/2	1142	1086	-	-	-	12.9	48.9	-	61.8	194.7	29.0	48.9	77.9
2/2+2/1	625	429	-	-	-	18.8	99.7	-	118.5	682.8	23.2	99.7	122.9
3/2+3/1	335	335	-	-	-	4.7	8.9	-	13.5	145.4	5.2	8.9	14.1
4/1	518	518	-	-	-	1.7	0.5	-	2.2	15.1	8.6	0.5	9.1
4/2	422	385	-	-	-	6.5	23.2	-	29.8	254.0	14.0	23.2	37.3
5/1	391	391	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	512	512	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	725	725	-	-	-	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
8/1	281	281	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	490	490	-	-	-	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): 225.81 Cycle Time (s): 110 PRC Over All Lanes (%): -62.0 Total Delay Over All Lanes(pcuHr): 225.81													

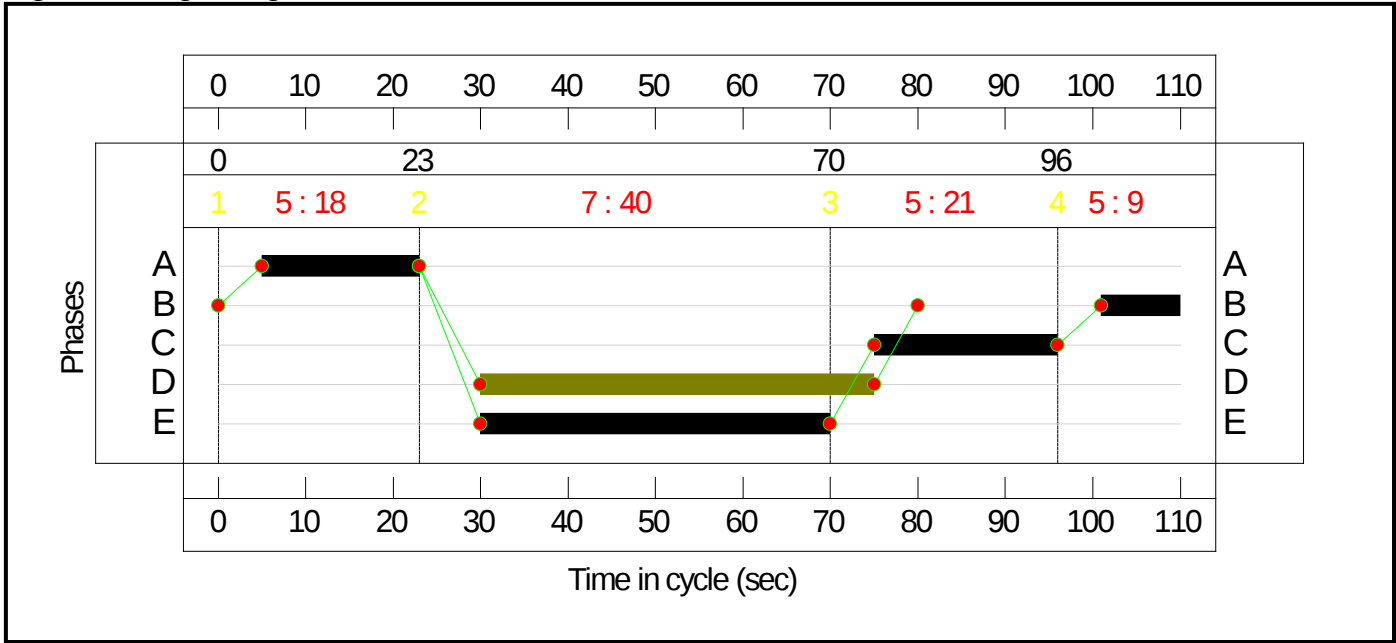
Stage Sequence Diagram



Stage Timings

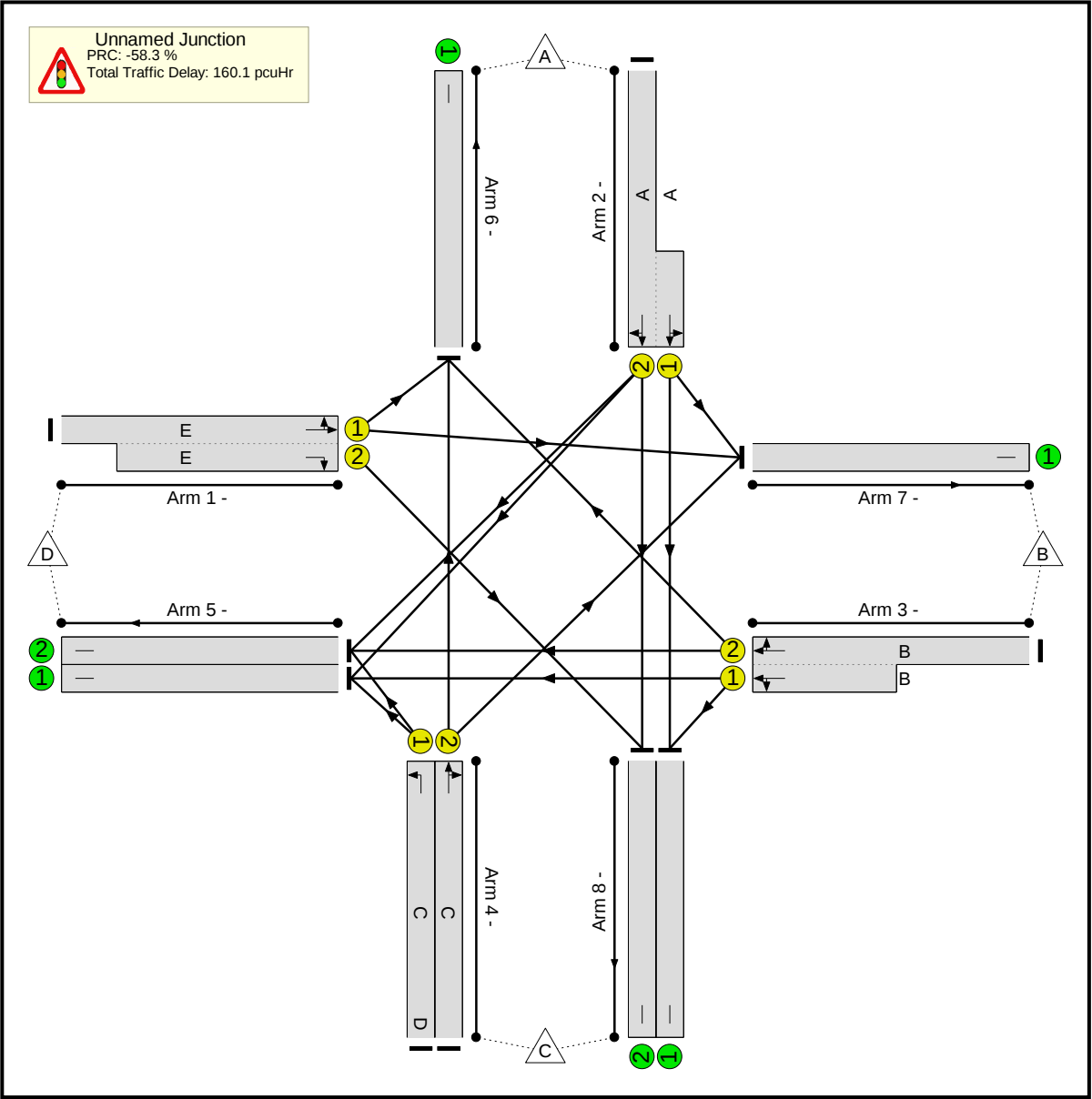
Stage	1	2	3	4
Duration	18	40	21	9
Change Point	0	23	70	96

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

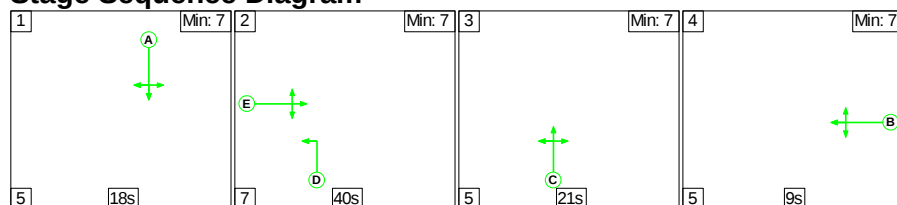
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	142.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	142.5%
1/1+1/2	Left Ahead Right	U	N/A	N/A	E		1	40	-	1026	1864:1725	695+358	97.4 : 97.4%
2/2+2/1	Right Left Ahead	U	N/A	N/A	A		1	18	-	639	1815:1890	255+194	142.5 : 142.5%
3/2+3/1	Ahead Right Left	U	N/A	N/A	B		1	9	-	338	1913:1758	174+160	101.2 : 101.4%
4/1	Left	U	N/A	N/A	C	D	1	66	45	579	1764	1074	53.9%
4/2	Ahead Right	U	N/A	N/A	C		1	21	-	341	1951	390	87.4%
5/1		U	N/A	N/A	-		-	-	-	404	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	553	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	654	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	372	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	412	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	528	Inf	Inf	0.0%

[illegible][illegible]

Full Input Data And Results

Scenario 6: 'Pref no LTC PM' (FG6: 'Pref no LTC PM', Plan 1: 'Network Control Plan 1')

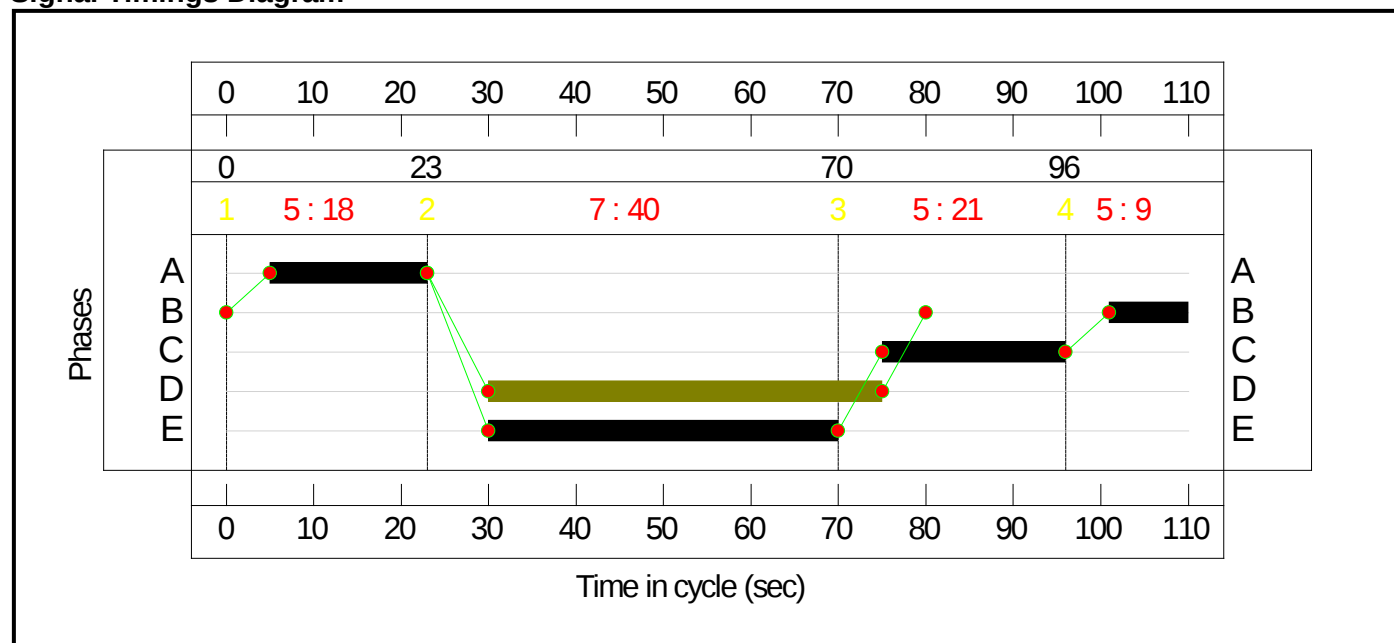
Stage Sequence Diagram



Stage Timings

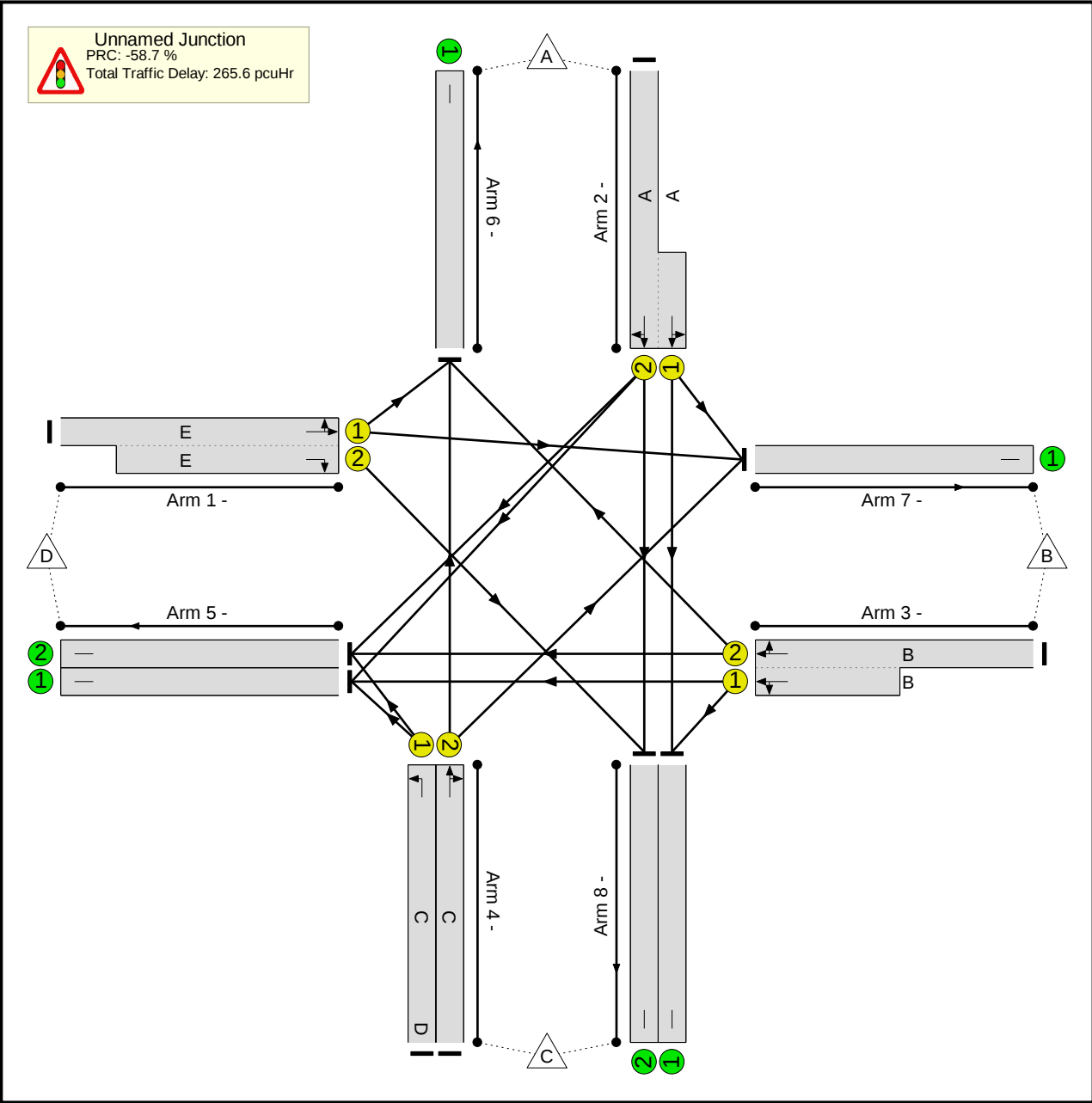
Stage	1	2	3	4
Duration	18	40	21	9
Change Point	0	23	70	96

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	-	-		-	-	-	-	-	-	142.9%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	142.9%
1/1+1/2	Left Ahead Right	U	N/A	N/A	E		1	40	-	1132	1851:1725	690+267	118.3 : 118.3%
2/2+2/1	Right Left Ahead	U	N/A	N/A	A		1	18	-	630	1799:1890	256+185	142.9 : 142.9%
3/2+3/1	Ahead Right Left	U	N/A	N/A	B		1	9	-	336	1913:1758	174+160	100.6 : 100.7%
4/1	Left	U	N/A	N/A	C	D	1	66	45	563	1764	1074	52.4%
4/2	Ahead Right	U	N/A	N/A	C		1	21	-	416	1923	385	108.2%
5/1		U	N/A	N/A	-		-	-	-	414	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	561	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	789	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	451	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	399	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	463	Inf	Inf	0.0%

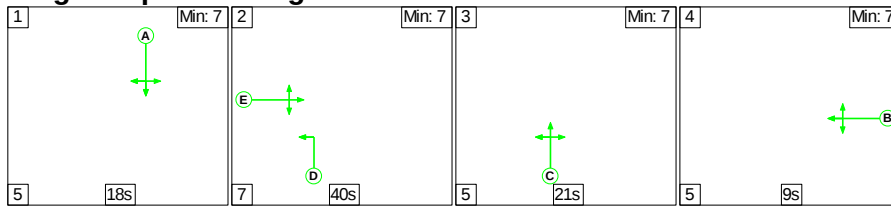
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 7: 'Pref LTC AM' (FG7: 'Pref LTC AM', Plan 1: 'Network Control Plan 1')

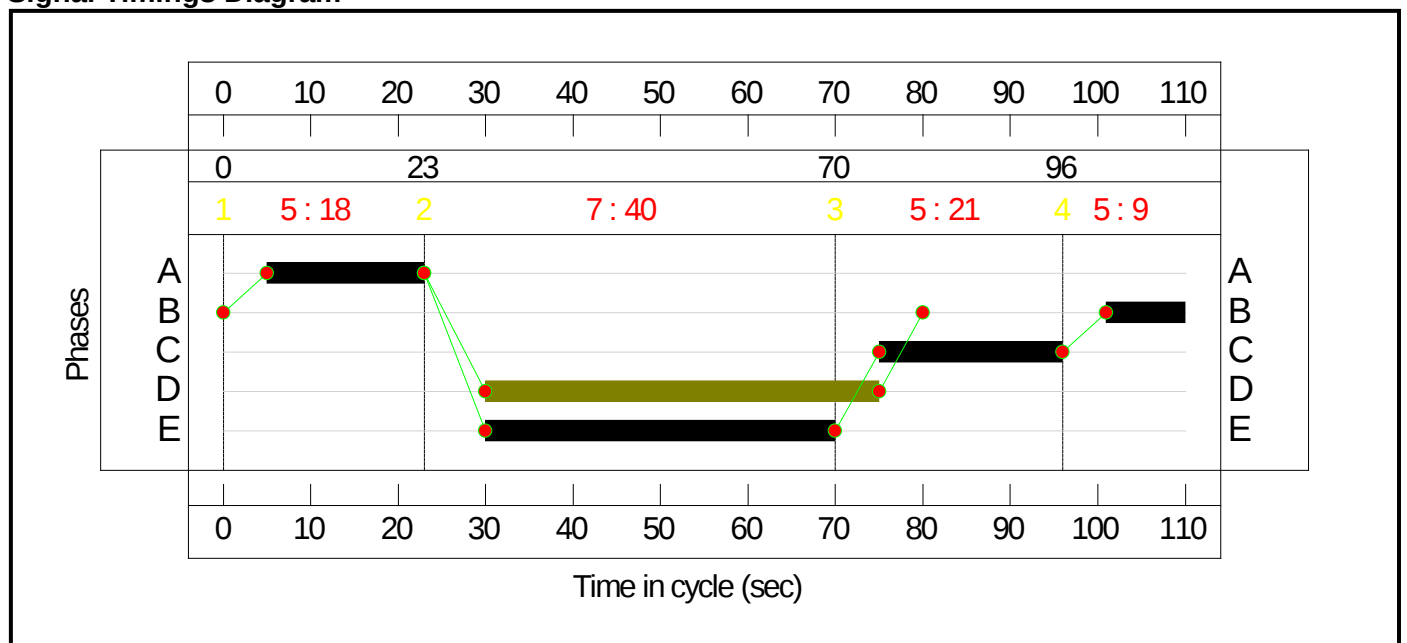
Stage Sequence Diagram



Stage Timings

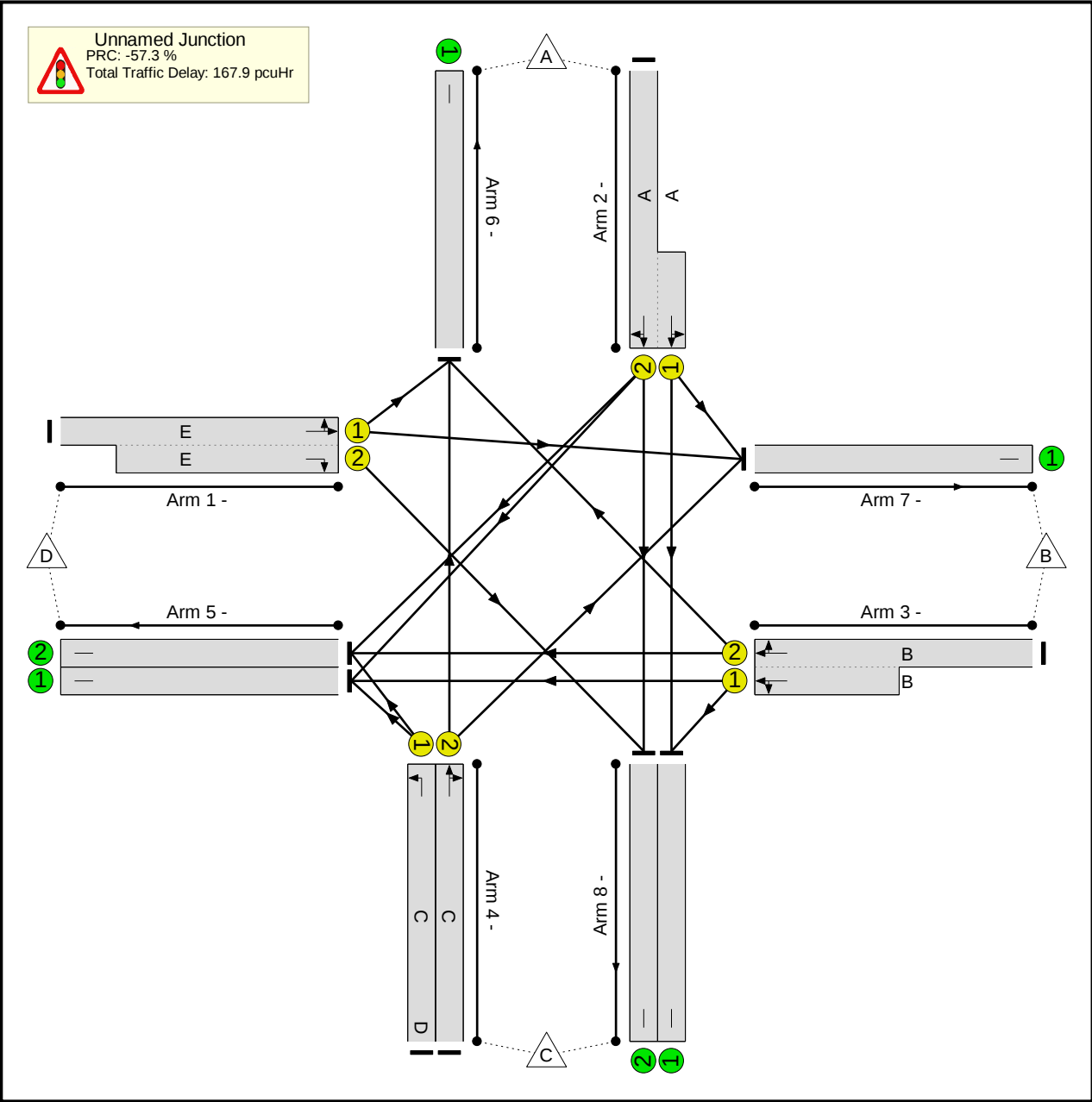
Stage	1	2	3	4
Duration	18	40	21	9
Change Point	0	23	70	96

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

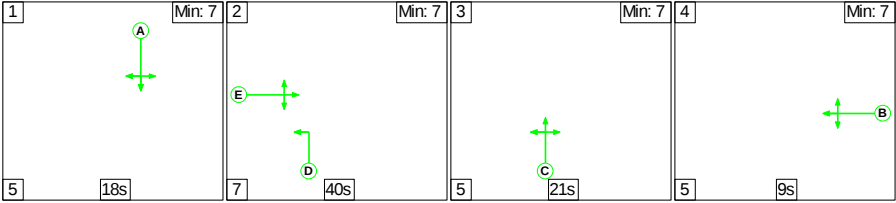
Network Results

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	-	-		-	-	-	-	-	-	141.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	141.5%
1/1+1/2	Left Ahead Right	U	N/A	N/A	E		1	40	-	1015	1863:1725	694+380	94.5 : 94.5%
2/2+2/1	Right Left Ahead	U	N/A	N/A	A		1	18	-	633	1813:1890	255+192	141.5 : 141.5%
3/2+3/1	Ahead Right Left	U	N/A	N/A	B		1	9	-	337	1913:1749	174+159	101.2 : 101.3%
4/1	Left	U	N/A	N/A	C	D	1	66	45	596	1764	1074	55.5%
4/2	Ahead Right	U	N/A	N/A	C		1	21	-	406	1935	387	104.9%
5/1		U	N/A	N/A	-		-	-	-	405	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	563	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	676	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	394	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	416	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	533	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

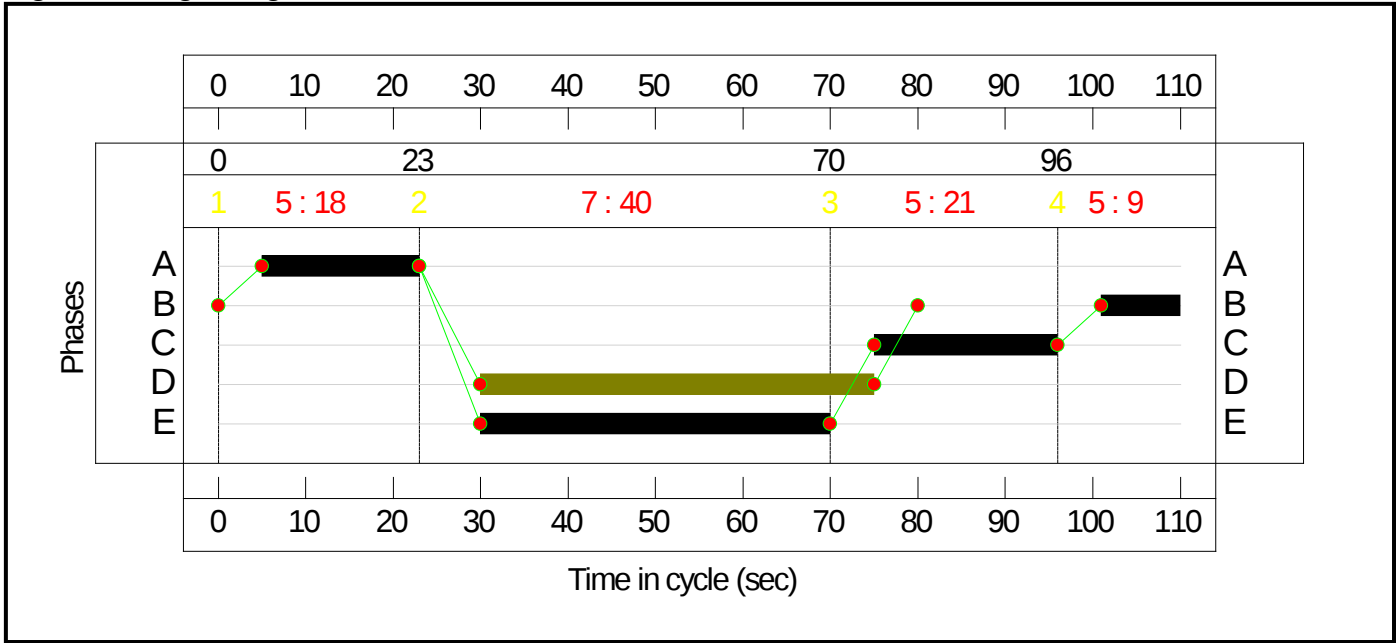
Stage Sequence Diagram



Stage Timings

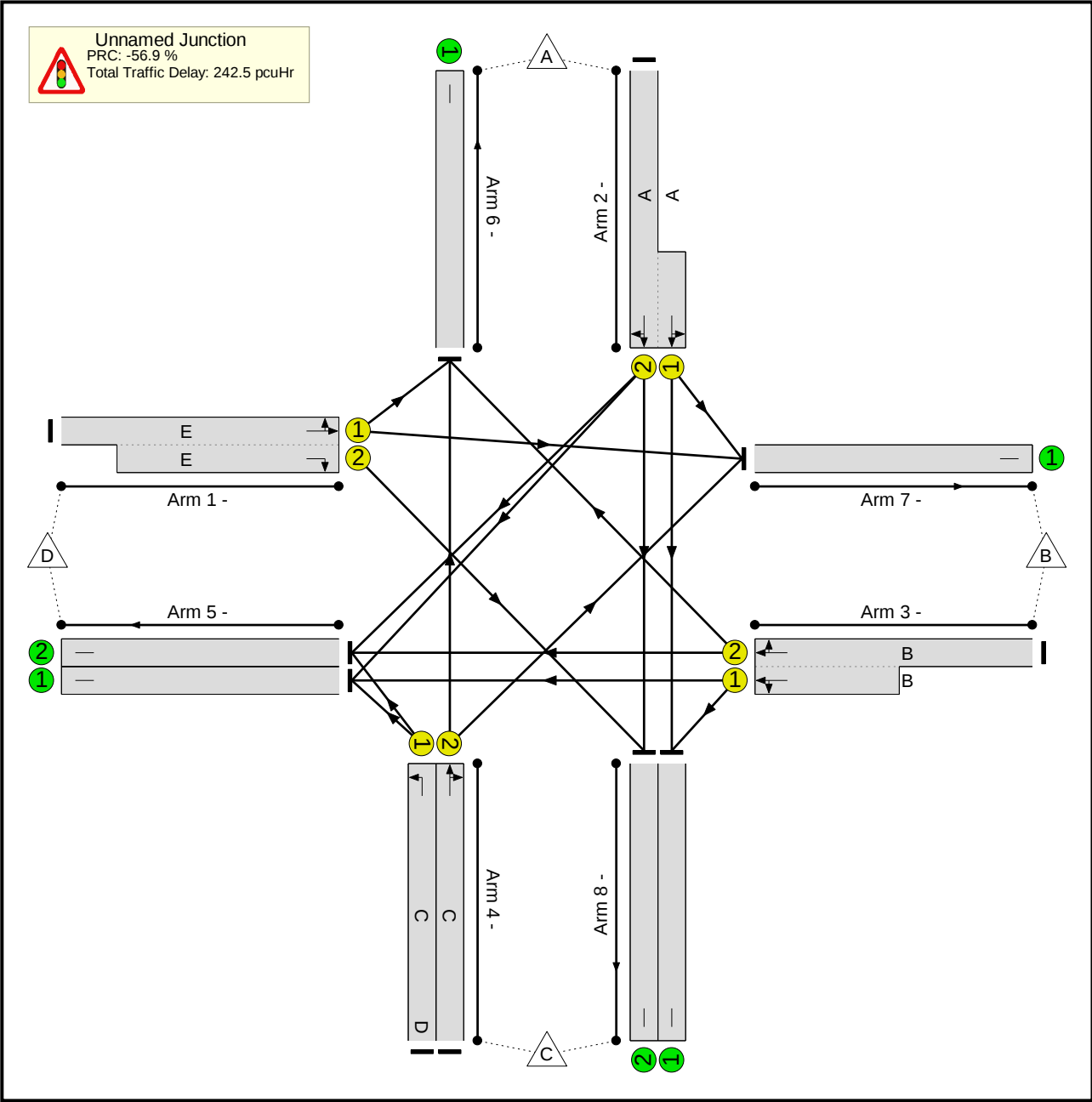
Stage	1	2	3	4
Duration	18	40	21	9
Change Point	0	23	70	96

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	-	-		-	-	-	-	-	-	141.2%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	141.2%
1/1+1/2	Left Ahead Right	U	N/A	N/A	E		1	40	-	1147	1847:1725	688+325	113.2 : 113.2%
2/2+2/1	Right Left Ahead	U	N/A	N/A	A		1	18	-	626	1800:1890	256+188	141.2 : 141.2%
3/2+3/1	Ahead Right Left	U	N/A	N/A	B		1	9	-	332	1913:1741	174+158	100.1 : 99.8%
4/1	Left	U	N/A	N/A	C	D	1	66	45	570	1764	1074	53.1%
4/2	Ahead Right	U	N/A	N/A	C		1	21	-	422	1923	385	109.7%
5/1		U	N/A	N/A	-		-	-	-	397	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	562	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	790	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	419	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	414	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	515	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

Appendix V

A2018 Shepherds Lane / B2174 Princes Road

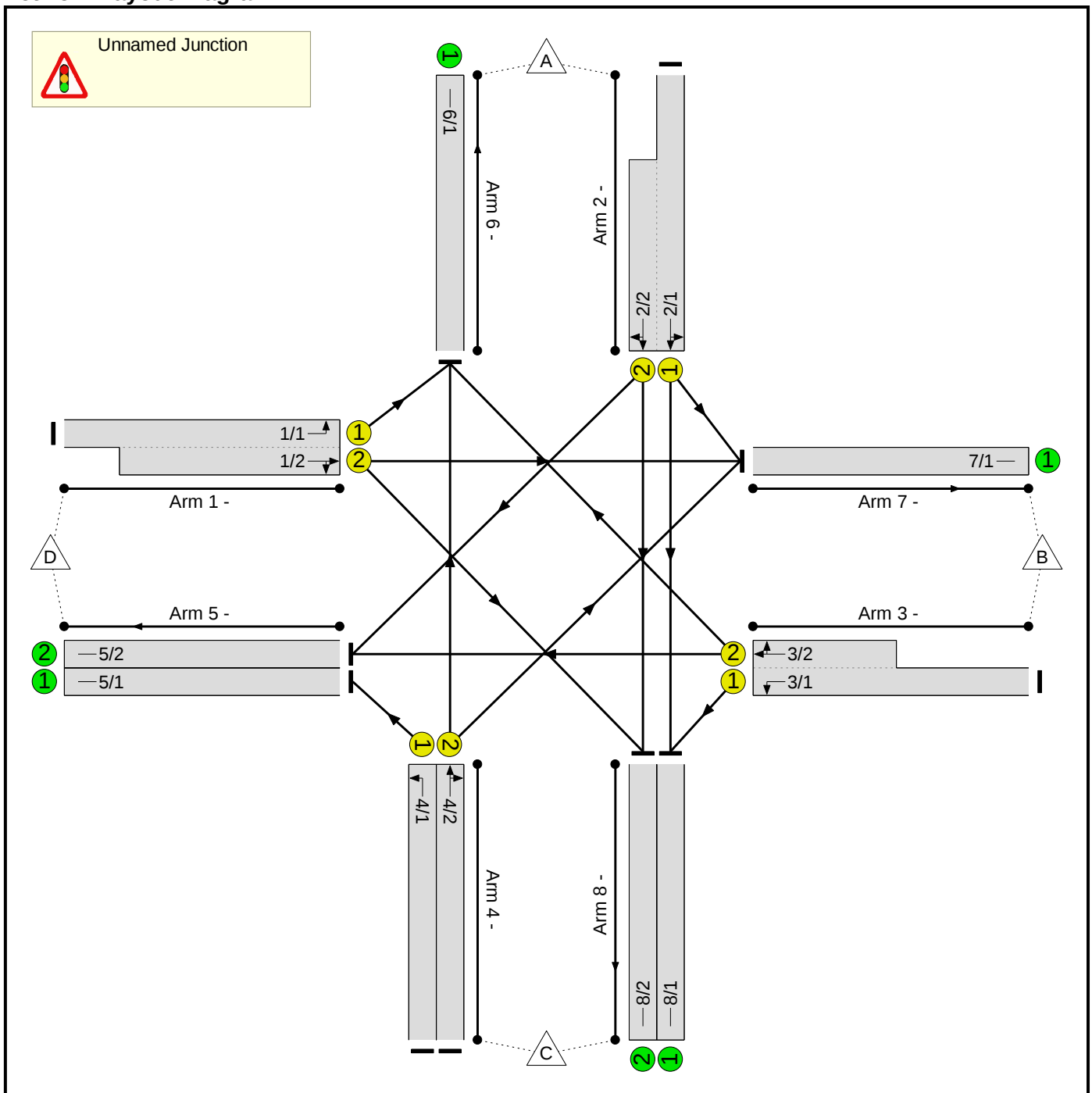
Mitigation Layout Modelling Output

Full Input Data And Results

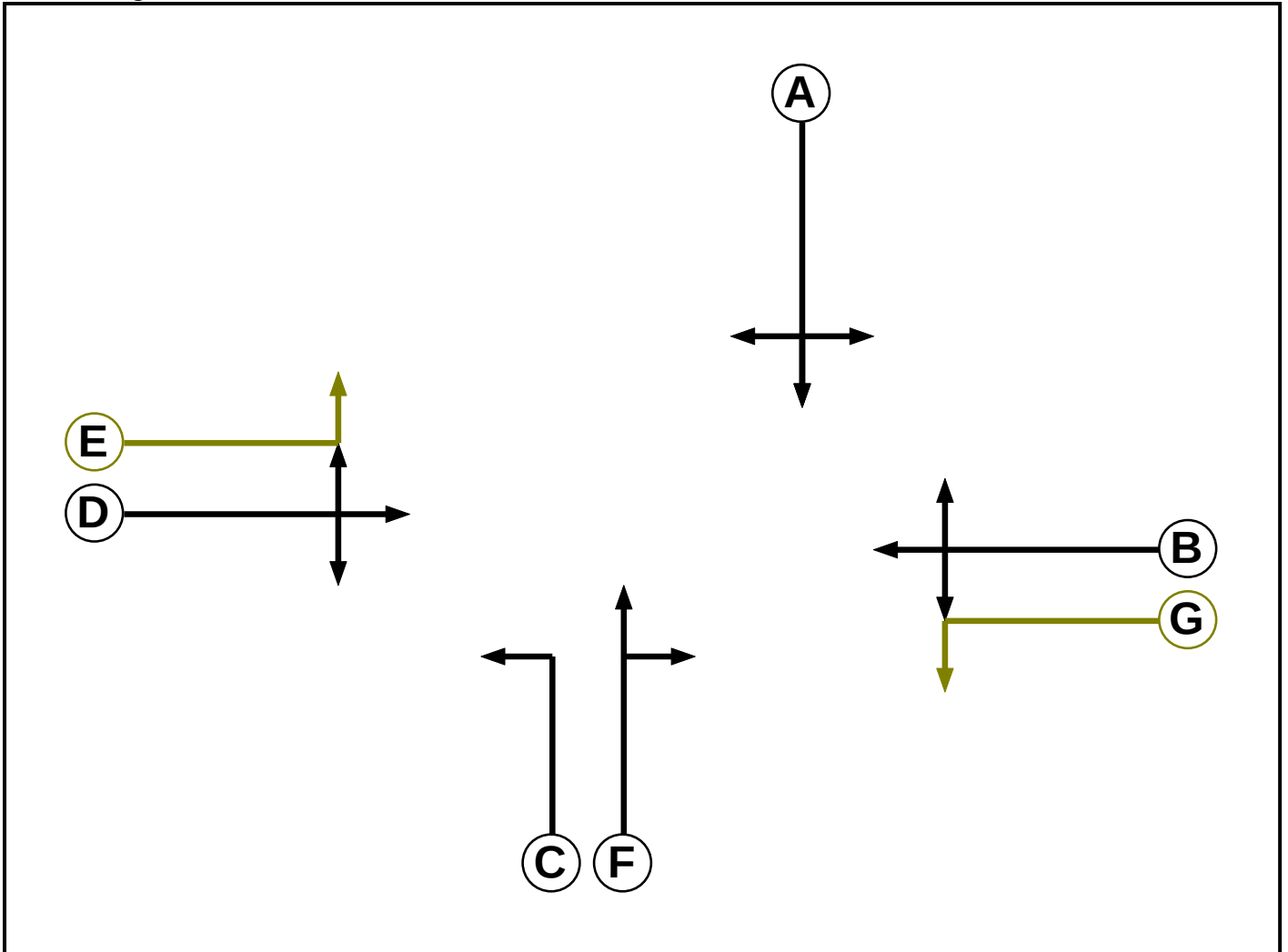
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	7. A2018 _ B2174 - Mitigation.lsg3x
Author:	
Company:	
Address:	

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	Filter	D	4	0
F	Traffic		7	7
G	Filter	B	4	0

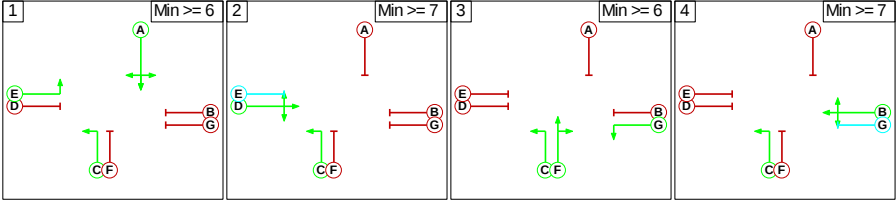
Phase Intergreens Matrix

Terminating Phase	Starting Phase							
		A	B	C	D	E	F	G
	A		6	-	5	-	5	6
	B	5		-	6	6	5	-
	C	-	-		-	-	-	-
	D	6	6	-		-	5	6
	E	-	5	-	-		5	-
	F	6	5	-	5	6		-
	G	5	-	-	5	-	-	

Phases in Stage

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

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	X	X
	2	6		6	6
	3	X	X		5
	4	6	6	5	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1	U	D E	2	3	60.0	Geom	-	3.37	0.00	Y	Arm 6 Left	15.00
1/2	U	D	2	3	13.9	Geom	-	2.83	0.00	Y	Arm 7 Ahead	Inf
											Arm 8 Right	15.00
2/1	U	A	2	3	60.0	Geom	-	2.79	0.00	Y	Arm 7 Left	10.00
											Arm 8 Ahead	Inf
2/2	U	A	2	3	10.4	Geom	-	2.92	0.00	Y	Arm 5 Right	15.00
											Arm 8 Ahead	Inf
3/1	U	B G	2	3	60.0	Geom	-	2.95	0.00	Y	Arm 8 Left	15.00
3/2	U	B	2	3	7.8	Geom	-	3.02	0.00	Y	Arm 5 Ahead	Inf
											Arm 6 Right	15.00
4/1	U	C	2	3	60.0	Geom	-	3.69	0.00	Y	Arm 5 Left	12.00
4/2	U	F	2	3	60.0	Geom	-	3.41	0.00	Y	Arm 6 Ahead	Inf
											Arm 7 Right	16.00
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	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	-	-	-	-	-	-
8/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Ref no LTC AM'	08:00	09:00	01:00	
2: 'Ref no LTC PM'	17:00	18:00	01:00	
3: 'Ref LTC AM'	08:00	09:00	01:00	
4: 'Ref LTC PM'	17:00	18:00	01:00	
5: 'Pref no LTC AM'	08:00	09:00	01:00	
6: 'Pref no LTC PM'	17:00	18:00	01:00	
7: 'Pref LTC AM'	08:00	09:00	01:00	
8: 'Pref LTC PM'	17:00	18:00	01:00	

Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	4	438	181	623
	B	4	0	153	164	321
	C	335	10	0	523	868
	D	314	351	352	0	1017
	Tot.	653	365	943	868	2829

Traffic Lane Flows

Lane	Scenario 1: Ref no LTC AM
Junction: Unnamed Junction	
1/1 (with short)	1017(In) 314(Out)
1/2 (short)	703
2/1 (with short)	623(In) 319(Out)
2/2 (short)	304
3/1 (with short)	321(In) 153(Out)
3/2 (short)	168
4/1	523
4/2	345
5/1	523
5/2	345
6/1	653
7/1	365
8/1	468
8/2	475

Lane Saturation Flows

Junction: Unnamed Junction									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1	3.37	0.00	Y	Arm 6 Left	15.00	100.0 %	1775	1775	
1/2	2.83	0.00	Y	Arm 7 Ahead	Inf	49.9 %	1807	1807	
				Arm 8 Right	15.00	50.1 %			
2/1	2.79	0.00	Y	Arm 7 Left	10.00	1.3 %	1890	1890	
				Arm 8 Ahead	Inf	98.7 %			
2/2	2.92	0.00	Y	Arm 5 Right	15.00	59.5 %	1800	1800	
				Arm 8 Ahead	Inf	40.5 %			
3/1	2.95	0.00	Y	Arm 8 Left	15.00	100.0 %	1736	1736	
3/2	3.02	0.00	Y	Arm 5 Ahead	Inf	97.6 %	1912	1912	
				Arm 6 Right	15.00	2.4 %			
4/1	3.69	0.00	Y	Arm 5 Left	12.00	100.0 %	1764	1764	
4/2	3.41	0.00	Y	Arm 6 Ahead	Inf	97.1 %	1951	1951	
				Arm 7 Right	16.00	2.9 %			
5/1	Infinite Saturation Flow						Inf	Inf	
5/2	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	
8/2	Infinite Saturation Flow						Inf	Inf	

Scenario 2: 'Ref no LTC PM' (FG2: 'Ref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	4	388	236	628
	B	4	0	117	219	340
	C	341	75	0	517	933
	D	444	333	369	0	1146
	Tot.	789	412	874	972	3047

Traffic Lane Flows

Lane	Scenario 2: Ref no LTC PM
Junction: Unnamed Junction	
1/1 (with short)	1146(In) 444(Out)
1/2 (short)	702
2/1 (with short)	628(In) 324(Out)
2/2 (short)	304
3/1 (with short)	340(In) 117(Out)
3/2 (short)	223
4/1	517
4/2	416
5/1	517
5/2	455
6/1	789
7/1	412
8/1	437
8/2	437

Lane Saturation Flows

Junction: Unnamed Junction									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1	3.37	0.00	Y	Arm 6 Left	15.00	100.0 %	1775	1775	
1/2	2.83	0.00	Y	Arm 7 Ahead	Inf	47.4 %	1803	1803	
				Arm 8 Right	15.00	52.6 %			
2/1	2.79	0.00	Y	Arm 7 Left	10.00	1.2 %	1890	1890	
				Arm 8 Ahead	Inf	98.8 %			
2/2	2.92	0.00	Y	Arm 5 Right	15.00	77.6 %	1770	1770	
				Arm 8 Ahead	Inf	22.4 %			
3/1	2.95	0.00	Y	Arm 8 Left	15.00	100.0 %	1736	1736	
3/2	3.02	0.00	Y	Arm 5 Ahead	Inf	98.2 %	1914	1914	
				Arm 6 Right	15.00	1.8 %			
4/1	3.69	0.00	Y	Arm 5 Left	12.00	100.0 %	1764	1764	
4/2	3.41	0.00	Y	Arm 6 Ahead	Inf	82.0 %	1923	1923	
				Arm 7 Right	16.00	18.0 %			
5/1	Infinite Saturation Flow						Inf	Inf	
5/2	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	
8/2	Infinite Saturation Flow						Inf	Inf	

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

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin	A	B	C	D	Tot.	
	A	0	4	421	185	610
	B	4	0	162	143	309
	C	358	43	0	578	979
	D	313	332	372	0	1017
	Tot.	675	379	955	906	2915

Traffic Lane Flows

Lane	Scenario 3: Ref LTC AM
Junction: Unnamed Junction	
1/1 (with short)	1017(In) 313(Out)
1/2 (short)	704
2/1 (with short)	610(In) 313(Out)
2/2 (short)	297
3/1 (with short)	309(In) 162(Out)
3/2 (short)	147
4/1	578
4/2	401
5/1	578
5/2	328
6/1	675
7/1	379
8/1	471
8/2	484

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.37	0.00	Y	Arm 6 Left	15.00	100.0 %	1775	1775
1/2	2.83	0.00	Y	Arm 7 Ahead	Inf	47.2 %	1803	1803
				Arm 8 Right	15.00	52.8 %		
2/1	2.79	0.00	Y	Arm 7 Left	10.00	1.3 %	1890	1890
				Arm 8 Ahead	Inf	98.7 %		
2/2	2.92	0.00	Y	Arm 5 Right	15.00	62.3 %	1795	1795
				Arm 8 Ahead	Inf	37.7 %		
3/1	2.95	0.00	Y	Arm 8 Left	15.00	100.0 %	1736	1736
3/2	3.02	0.00	Y	Arm 5 Ahead	Inf	97.3 %	1912	1912
				Arm 6 Right	15.00	2.7 %		
4/1	3.69	0.00	Y	Arm 5 Left	12.00	100.0 %	1764	1764
4/2	3.41	0.00	Y	Arm 6 Ahead	Inf	89.3 %	1937	1937
				Arm 7 Right	16.00	10.7 %		
5/1	Infinite Saturation Flow						Inf	Inf
5/2	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
8/2	Infinite Saturation Flow						Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	4	375	246	625
	B	4	0	114	217	335
	C	345	77	0	518	940
	D	440	303	399	0	1142
	Tot.	789	384	888	981	3042

Traffic Lane Flows

Lane	Scenario 4: Ref LTC PM
Junction: Unnamed Junction	
1/1 (with short)	1142(In) 440(Out)
1/2 (short)	702
2/1 (with short)	625(In) 323(Out)
2/2 (short)	302
3/1 (with short)	335(In) 114(Out)
3/2 (short)	221
4/1	518
4/2	422
5/1	518
5/2	463
6/1	789
7/1	384
8/1	433
8/2	455

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.37	0.00	Y	Arm 6 Left	15.00	100.0 %	1775	1775
1/2	2.83	0.00	Y	Arm 7 Ahead	Inf	43.2 %	1796	1796
				Arm 8 Right	15.00	56.8 %		
2/1	2.79	0.00	Y	Arm 7 Left	10.00	1.2 %	1890	1890
				Arm 8 Ahead	Inf	98.8 %		
2/2	2.92	0.00	Y	Arm 5 Right	15.00	81.5 %	1763	1763
				Arm 8 Ahead	Inf	18.5 %		
3/1	2.95	0.00	Y	Arm 8 Left	15.00	100.0 %	1736	1736
3/2	3.02	0.00	Y	Arm 5 Ahead	Inf	98.2 %	1914	1914
				Arm 6 Right	15.00	1.8 %		
4/1	3.69	0.00	Y	Arm 5 Left	12.00	100.0 %	1764	1764
4/2	3.41	0.00	Y	Arm 6 Ahead	Inf	81.8 %	1923	1923
				Arm 7 Right	16.00	18.2 %		
5/1	Infinite Saturation Flow						Inf	Inf
5/2	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
8/2	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'Pref no LTC AM' (FG5: 'Pref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	4	451	184	639
	B	4	0	140	194	338
	C	332	9	0	579	920
	D	318	359	349	0	1026
	Tot.	654	372	940	957	2923

Traffic Lane Flows

Lane	Scenario 5: Pref no LTC AM
Junction: Unnamed Junction	
1/1 (with short)	1026(In) 318(Out)
1/2 (short)	708
2/1 (with short)	639(In) 327(Out)
2/2 (short)	312
3/1 (with short)	338(In) 140(Out)
3/2 (short)	198
4/1	579
4/2	341
5/1	579
5/2	378
6/1	654
7/1	372
8/1	463
8/2	477

Lane Saturation Flows

Junction: Unnamed Junction									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1	3.37	0.00	Y	Arm 6 Left	15.00	100.0 %	1775	1775	
1/2	2.83	0.00	Y	Arm 7 Ahead	Inf	50.7 %	1809	1809	
				Arm 8 Right	15.00	49.3 %			
2/1	2.79	0.00	Y	Arm 7 Left	10.00	1.2 %	1891	1891	
				Arm 8 Ahead	Inf	98.8 %			
2/2	2.92	0.00	Y	Arm 5 Right	15.00	59.0 %	1801	1801	
				Arm 8 Ahead	Inf	41.0 %			
3/1	2.95	0.00	Y	Arm 8 Left	15.00	100.0 %	1736	1736	
3/2	3.02	0.00	Y	Arm 5 Ahead	Inf	98.0 %	1913	1913	
				Arm 6 Right	15.00	2.0 %			
4/1	3.69	0.00	Y	Arm 5 Left	12.00	100.0 %	1764	1764	
4/2	3.41	0.00	Y	Arm 6 Ahead	Inf	97.4 %	1951	1951	
				Arm 7 Right	16.00	2.6 %			
5/1	Infinite Saturation Flow						Inf	Inf	
5/2	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	
8/2	Infinite Saturation Flow						Inf	Inf	

Scenario 6: 'Pref no LTC PM' (FG6: 'Pref no LTC PM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	4	407	219	630
	B	4	0	139	193	336
	C	341	75	0	563	979
	D	444	372	316	0	1132
	Tot.	789	451	862	975	3077

Traffic Lane Flows

Lane	Scenario 6: Pref no LTC PM
Junction: Unnamed Junction	
1/1 (with short)	1132(In) 444(Out)
1/2 (short)	688
2/1 (with short)	630(In) 325(Out)
2/2 (short)	305
3/1 (with short)	336(In) 139(Out)
3/2 (short)	197
4/1	563
4/2	416
5/1	563
5/2	412
6/1	789
7/1	451
8/1	460
8/2	402

Lane Saturation Flows

Junction: Unnamed Junction									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1	3.37	0.00	Y	Arm 6 Left	15.00	100.0 %	1775	1775	
1/2	2.83	0.00	Y	Arm 7 Ahead	Inf	54.1 %	1815	1815	
				Arm 8 Right	15.00	45.9 %			
2/1	2.79	0.00	Y	Arm 7 Left	10.00	1.2 %	1891	1891	
				Arm 8 Ahead	Inf	98.8 %			
2/2	2.92	0.00	Y	Arm 5 Right	15.00	71.8 %	1779	1779	
				Arm 8 Ahead	Inf	28.2 %			
3/1	2.95	0.00	Y	Arm 8 Left	15.00	100.0 %	1736	1736	
3/2	3.02	0.00	Y	Arm 5 Ahead	Inf	98.0 %	1913	1913	
				Arm 6 Right	15.00	2.0 %			
4/1	3.69	0.00	Y	Arm 5 Left	12.00	100.0 %	1764	1764	
4/2	3.41	0.00	Y	Arm 6 Ahead	Inf	82.0 %	1923	1923	
				Arm 7 Right	16.00	18.0 %			
5/1	Infinite Saturation Flow						Inf	Inf	
5/2	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	
8/2	Infinite Saturation Flow						Inf	Inf	

Scenario 7: 'Pref LTC AM' (FG7: 'Pref LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	4	442	187	633
	B	4	0	148	185	337
	C	358	48	0	596	1002
	D	314	342	359	0	1015
	Tot.	676	394	949	968	2987

Traffic Lane Flows

Lane	Scenario 7: Pref LTC AM
Junction: Unnamed Junction	
1/1 (with short)	1015(In) 314(Out)
1/2 (short)	701
2/1 (with short)	633(In) 324(Out)
2/2 (short)	309
3/1 (with short)	337(In) 148(Out)
3/2 (short)	189
4/1	596
4/2	406
5/1	596
5/2	372
6/1	676
7/1	394
8/1	468
8/2	481

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.37	0.00	Y	Arm 6 Left	15.00	100.0 %	1775	1775
1/2	2.83	0.00	Y	Arm 7 Ahead	Inf	48.8 %	1806	1806
				Arm 8 Right	15.00	51.2 %		
2/1	2.79	0.00	Y	Arm 7 Left	10.00	1.2 %	1890	1890
				Arm 8 Ahead	Inf	98.8 %		
2/2	2.92	0.00	Y	Arm 5 Right	15.00	60.5 %	1798	1798
				Arm 8 Ahead	Inf	39.5 %		
3/1	2.95	0.00	Y	Arm 8 Left	15.00	100.0 %	1736	1736
3/2	3.02	0.00	Y	Arm 5 Ahead	Inf	97.9 %	1913	1913
				Arm 6 Right	15.00	2.1 %		
4/1	3.69	0.00	Y	Arm 5 Left	12.00	100.0 %	1764	1764
4/2	3.41	0.00	Y	Arm 6 Ahead	Inf	88.2 %	1935	1935
				Arm 7 Right	16.00	11.8 %		
5/1	Infinite Saturation Flow						Inf	Inf
5/2	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
8/2	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Pref LTC PM' (FG8: 'Pref LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	4	408	214	626
	B	4	0	153	175	332
	C	345	77	0	570	992
	D	441	338	368	0	1147
	Tot.	790	419	929	959	3097

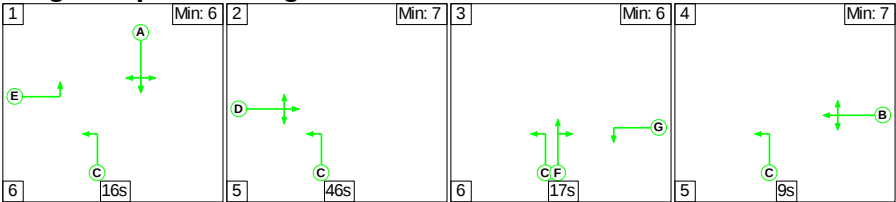
Traffic Lane Flows

Lane	Scenario 8: Pref LTC PM
Junction: Unnamed Junction	
1/1 (with short)	1147(In) 441(Out)
1/2 (short)	706
2/1 (with short)	626(In) 322(Out)
2/2 (short)	304
3/1 (with short)	332(In) 153(Out)
3/2 (short)	179
4/1	570
4/2	422
5/1	570
5/2	389
6/1	790
7/1	419
8/1	471
8/2	458

Lane Saturation Flows

Junction: Unnamed Junction									
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)	
1/1	3.37	0.00	Y	Arm 6 Left	15.00	100.0 %	1775	1775	
1/2	2.83	0.00	Y	Arm 7 Ahead	Inf	47.9 %	1804	1804	
				Arm 8 Right	15.00	52.1 %			
2/1	2.79	0.00	Y	Arm 7 Left	10.00	1.2 %	1890	1890	
				Arm 8 Ahead	Inf	98.8 %			
2/2	2.92	0.00	Y	Arm 5 Right	15.00	70.4 %	1782	1782	
				Arm 8 Ahead	Inf	29.6 %			
3/1	2.95	0.00	Y	Arm 8 Left	15.00	100.0 %	1736	1736	
3/2	3.02	0.00	Y	Arm 5 Ahead	Inf	97.8 %	1913	1913	
				Arm 6 Right	15.00	2.2 %			
4/1	3.69	0.00	Y	Arm 5 Left	12.00	100.0 %	1764	1764	
4/2	3.41	0.00	Y	Arm 6 Ahead	Inf	81.8 %	1923	1923	
				Arm 7 Right	16.00	18.2 %			
5/1	Infinite Saturation Flow						Inf	Inf	
5/2	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	
8/2	Infinite Saturation Flow						Inf	Inf	

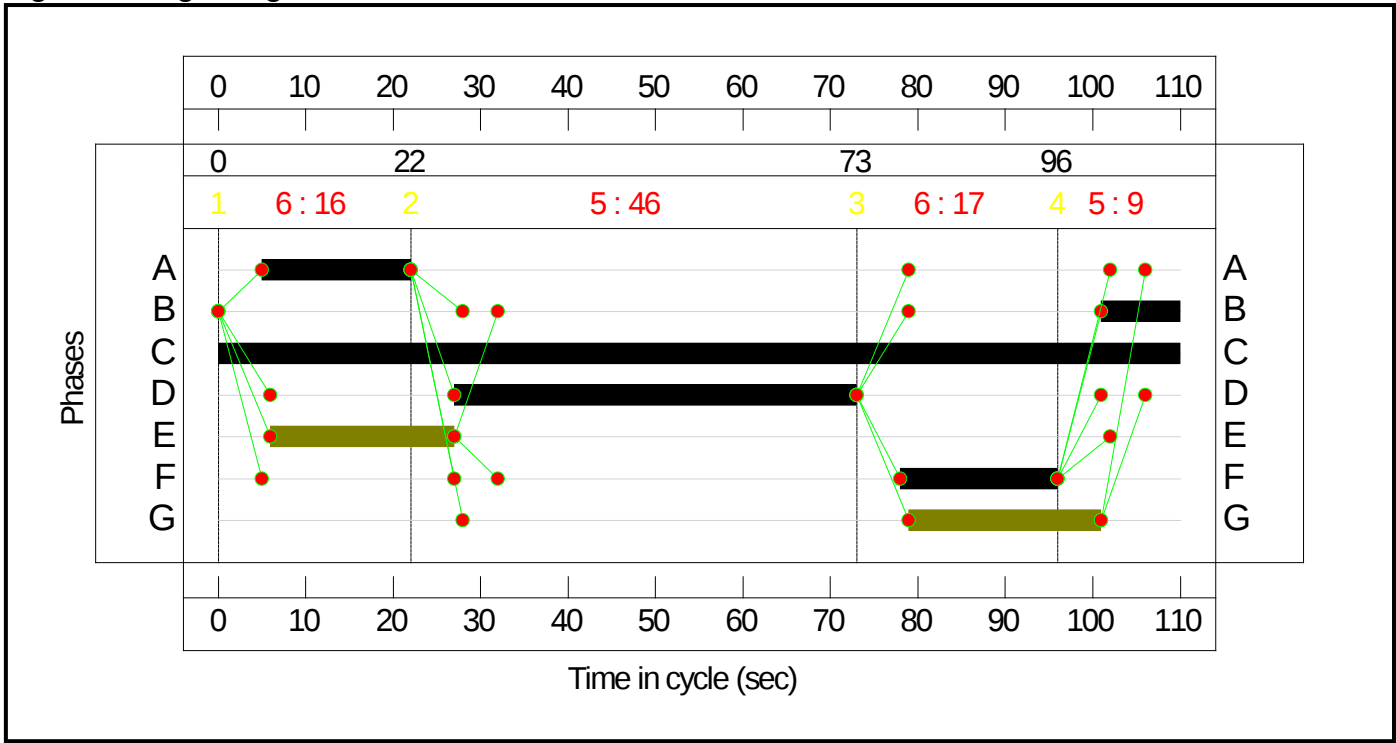
Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')
Stage Sequence Diagram



Stage Timings

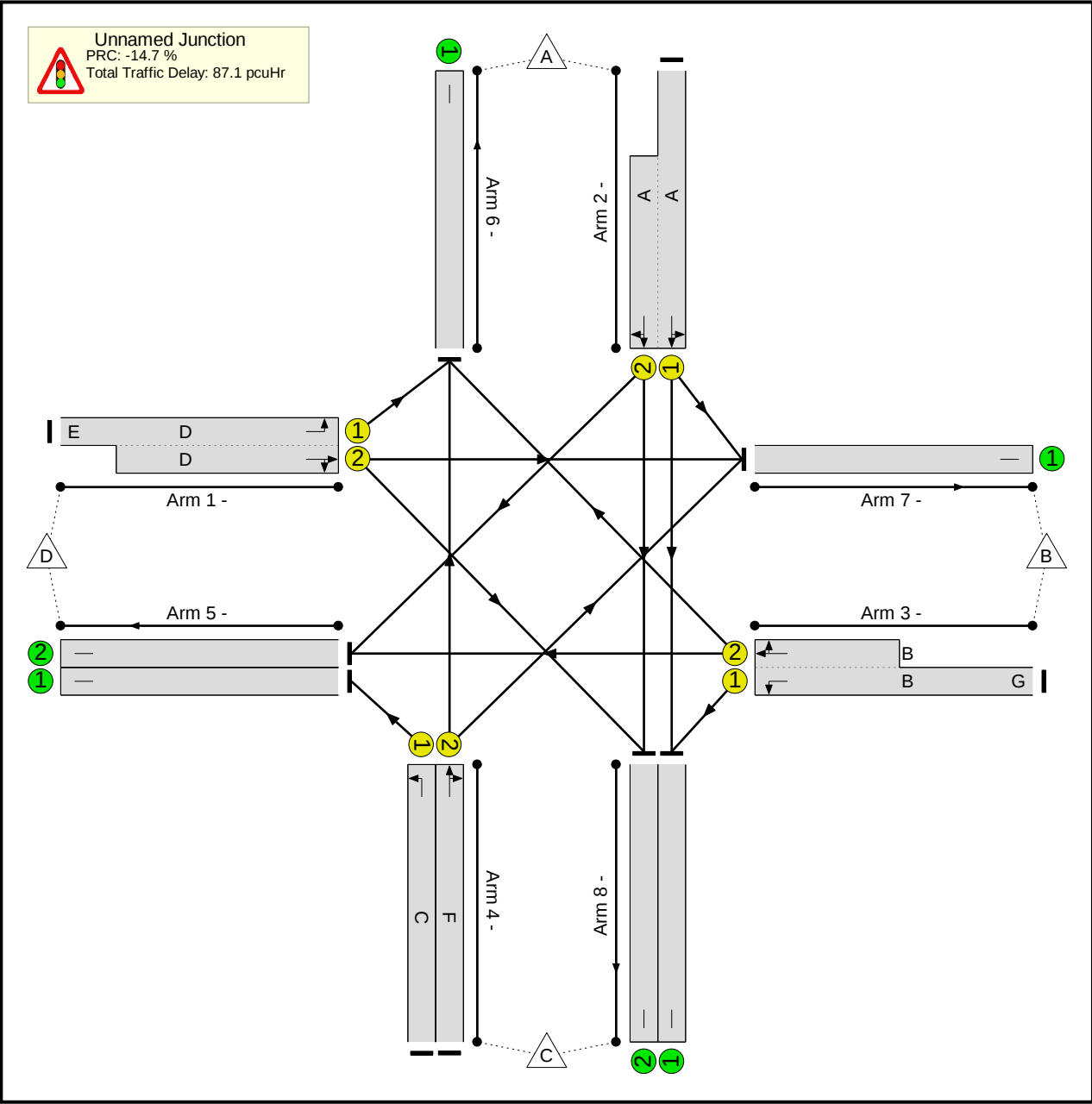
Stage	1	2	3	4
Duration	16	46	17	9
Change Point	0	22	73	96

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	-	-		-	-	-	-	-	-	103.2%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	103.2%
1/1+1/2	Left Ahead Right	U	N/A	N/A	D	E	1	67:46	21	1017	1775:1807	305+682	103.0 : 103.0%
2/1+2/2	Right Left Ahead	U	N/A	N/A	A		1	17	-	623	1890:1800	309+295	103.1 : 103.2%
3/1+3/2	Ahead Right Left	U	N/A	N/A	B	G	1	31:9	22	321	1736:1912	158+174	96.7 : 96.7%
4/1	Left	U	N/A	N/A	C		1	110	-	523	1764	1764	29.6%
4/2	Ahead Right	U	N/A	N/A	F		1	18	-	345	1951	337	102.4%
5/1		U	N/A	N/A	-		-	-	-	523	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	345	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	653	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	365	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	468	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	475	Inf	Inf	0.0%

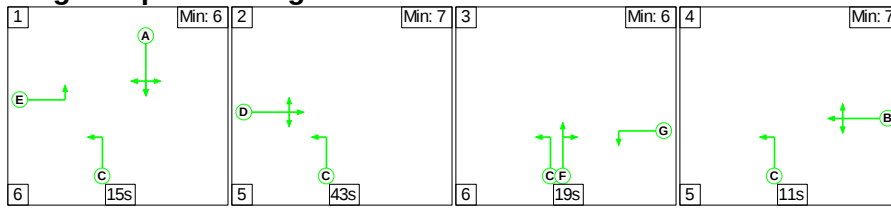
Full Input Data And Results

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Full Input Data And Results

Scenario 2: 'Ref no LTC PM' (FG2: 'Ref no LTC PM', Plan 1: 'Network Control Plan 1')

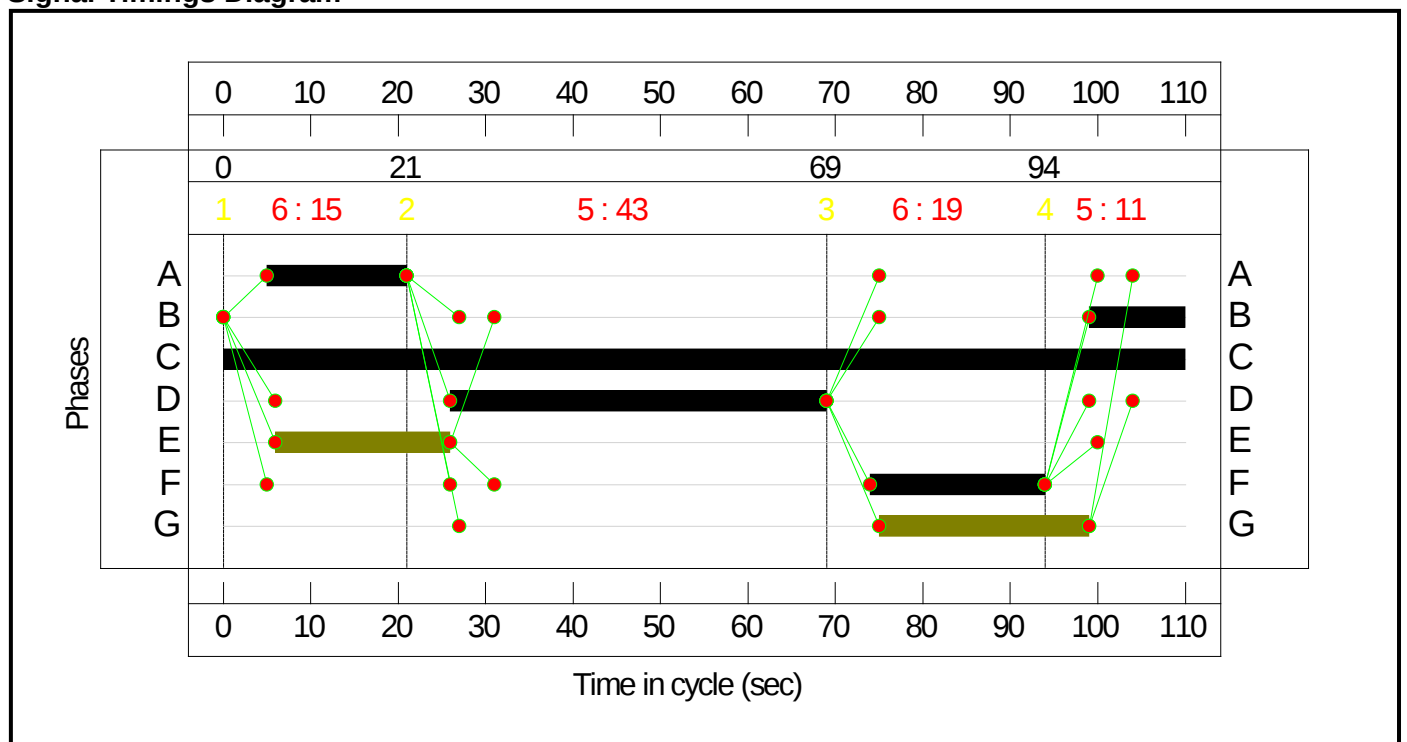
Stage Sequence Diagram



Stage Timings

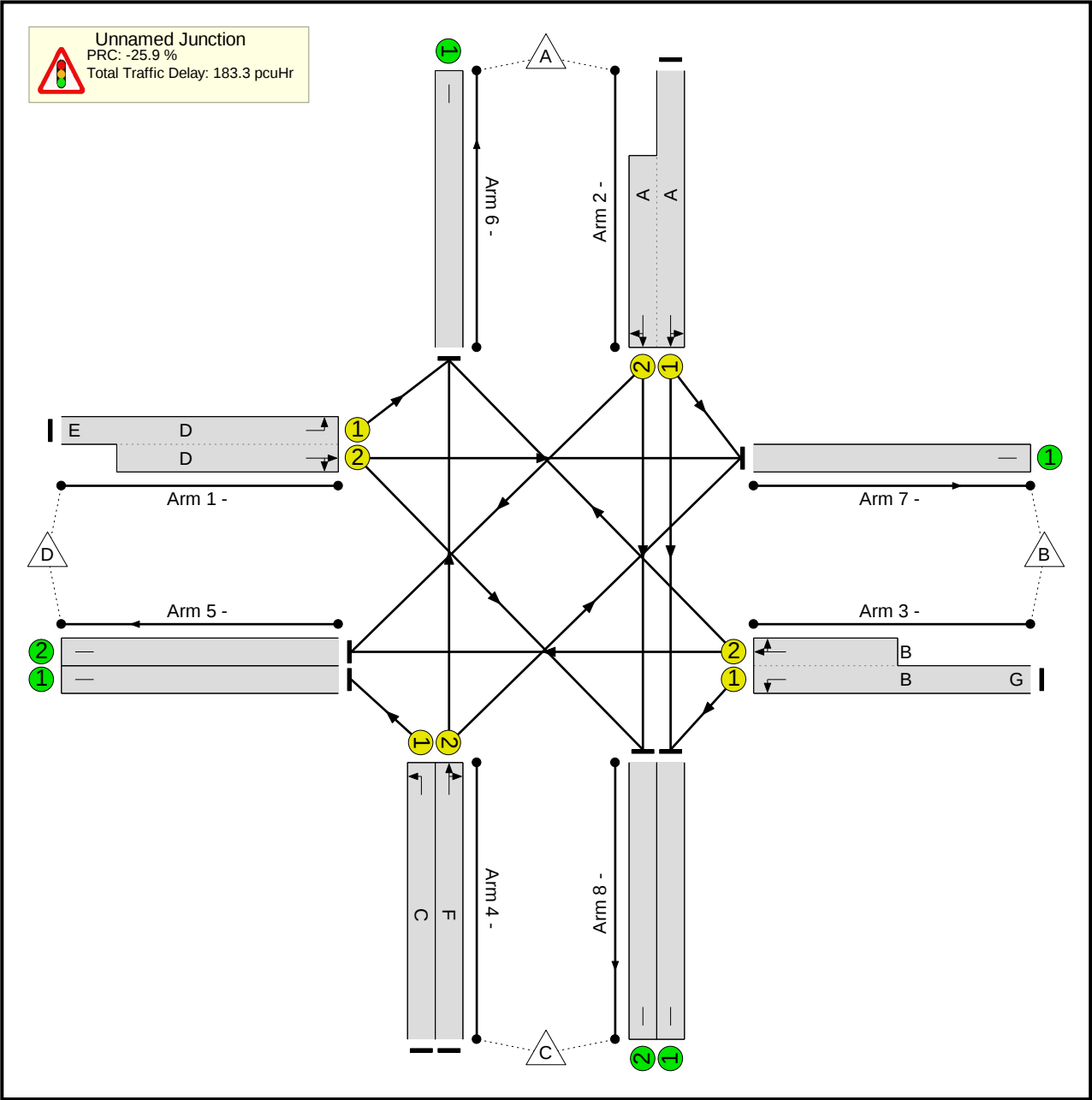
Stage	1	2	3	4
Duration	15	43	19	11
Change Point	0	21	69	94

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	113.3%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	113.3%
1/1+1/2	Left Ahead Right	U	N/A	N/A	D	E	1	63:43	20	1146	1775:1803	396+626	112.1 : 112.1%
2/1+2/2	Right Left Ahead	U	N/A	N/A	A		1	16	-	628	1890:1770	292+274	110.9 : 111.1%
3/1+3/2	Ahead Right Left	U	N/A	N/A	B	G	1	35:11	24	340	1736:1914	110+209	106.8 : 106.8%
4/1	Left	U	N/A	N/A	C		1	110	-	517	1764	1764	29.3%
4/2	Ahead Right	U	N/A	N/A	F		1	20	-	416	1923	367	113.3%
5/1		U	N/A	N/A	-		-	-	-	517	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	455	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	789	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	412	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	437	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	437	Inf	Inf	0.0%

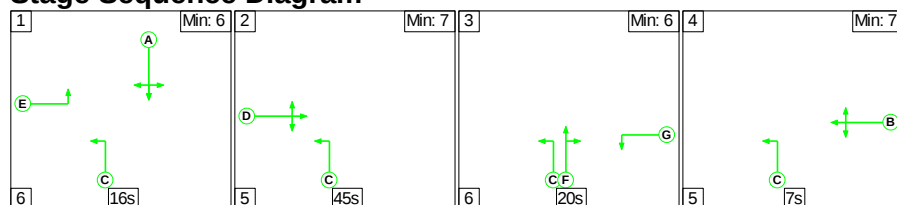
Full Input Data And Results

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Full Input Data And Results

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

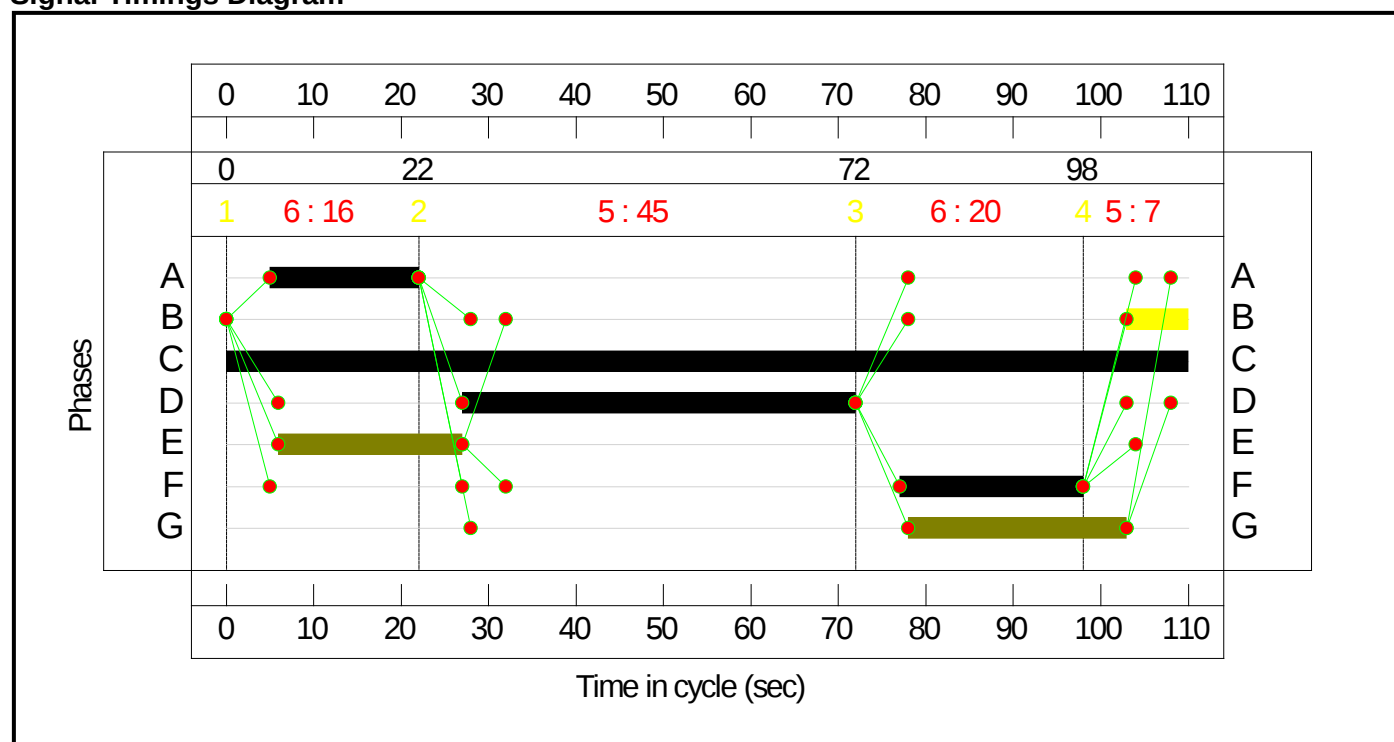
Stage Sequence Diagram



Stage Timings

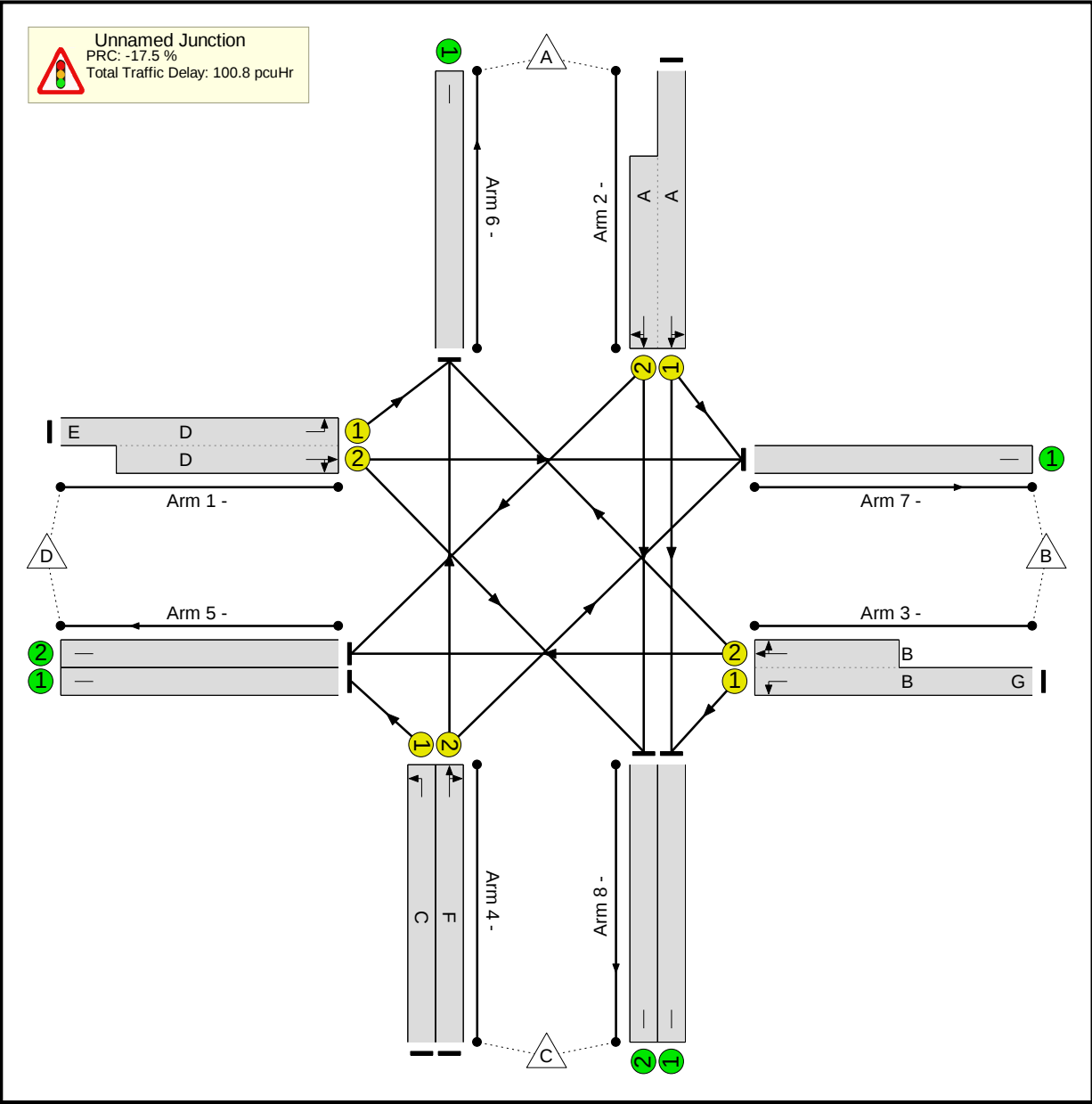
Stage	1	2	3	4
Duration	16	45	20	7
Change Point	0	22	72	98

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	-	-		-	-	-	-	-	-	105.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	105.7%
1/1+1/2	Left Ahead Right	U	N/A	N/A	D	E	1	66:45	21	1017	1775:1803	298+671	104.9 : 104.9%
2/1+2/2	Right Left Ahead	U	N/A	N/A	A		1	17	-	610	1890:1795	309+294	101.2 : 101.1%
3/1+3/2	Ahead Right Left	U	N/A	N/A	B	G	1	32:7	25	309	1736:1912	153+139	105.7 : 105.7%
4/1	Left	U	N/A	N/A	C		1	110	-	578	1764	1764	32.8%
4/2	Ahead Right	U	N/A	N/A	F		1	21	-	401	1937	387	103.5%
5/1		U	N/A	N/A	-		-	-	-	578	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	328	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	675	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	379	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	471	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	484	Inf	Inf	0.0%

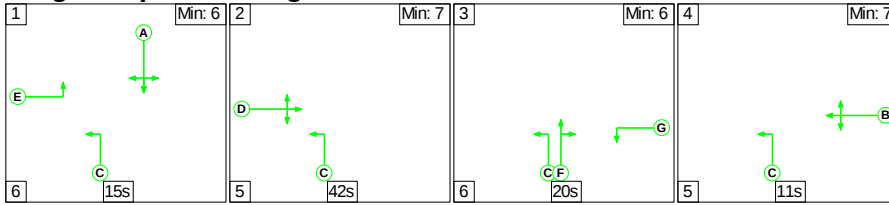
Full Input Data And Results

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Full Input Data And Results

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

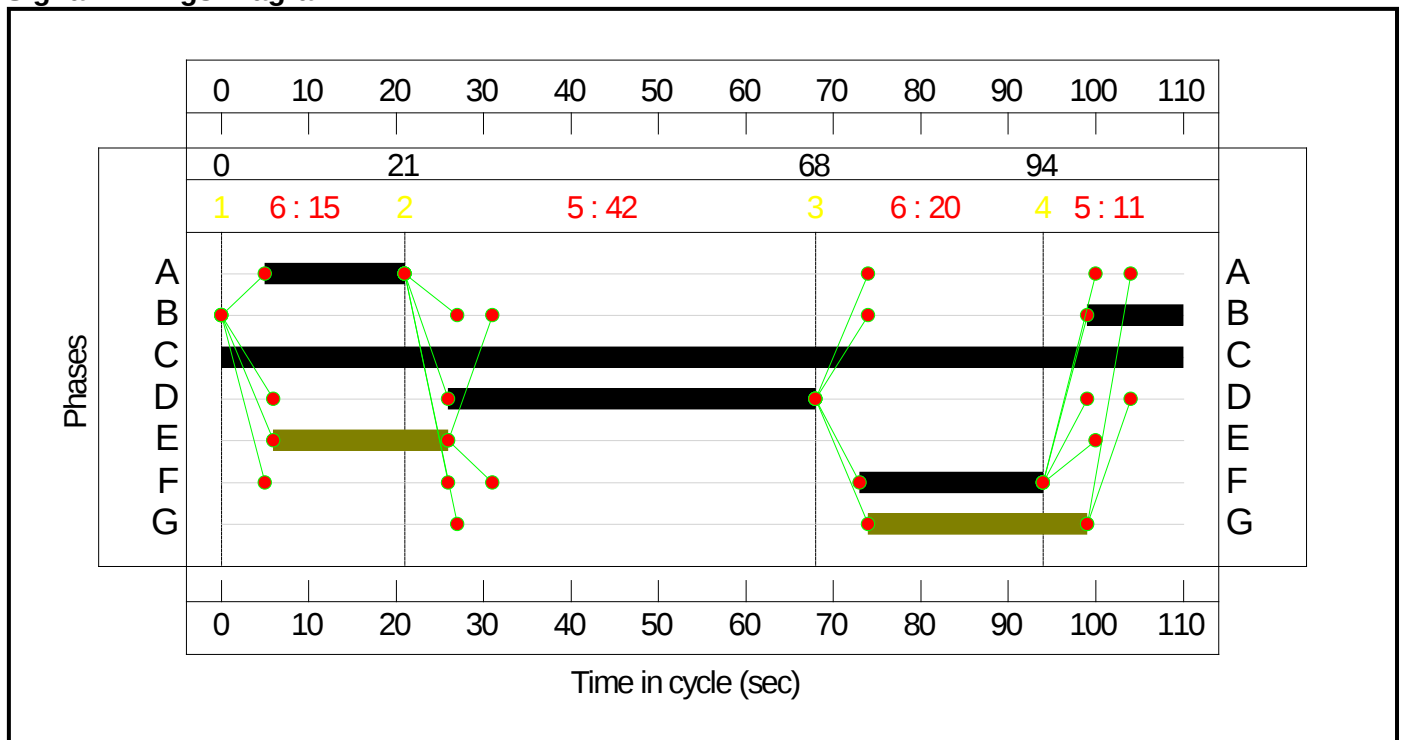
Stage Sequence Diagram



Stage Timings

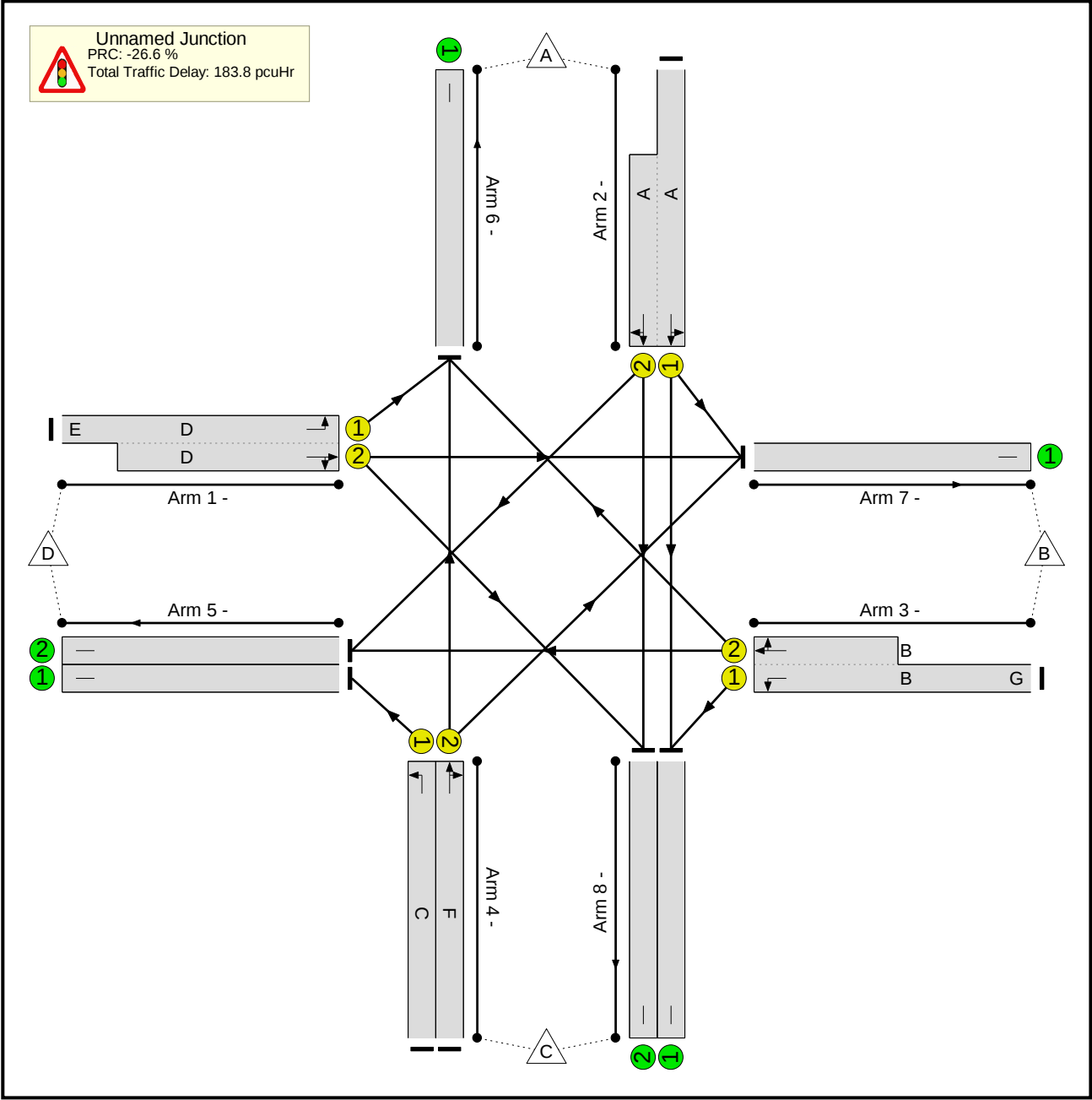
Stage	1	2	3	4
Duration	15	42	20	11
Change Point	0	21	68	94

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	113.9%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	113.9%
1/1+1/2	Left Ahead Right	U	N/A	N/A	D	E	1	62:42	20	1142	1775:1796	386+616	113.9 : 113.9%
2/1+2/2	Right Left Ahead	U	N/A	N/A	A		1	16	-	625	1890:1763	292+272	110.6 : 110.8%
3/1+3/2	Ahead Right Left	U	N/A	N/A	B	G	1	36:11	25	335	1736:1914	108+209	105.8 : 105.8%
4/1	Left	U	N/A	N/A	C		1	110	-	518	1764	1764	29.4%
4/2	Ahead Right	U	N/A	N/A	F		1	21	-	422	1923	385	109.7%
5/1		U	N/A	N/A	-		-	-	-	518	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	463	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	789	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	384	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	433	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	455	Inf	Inf	0.0%

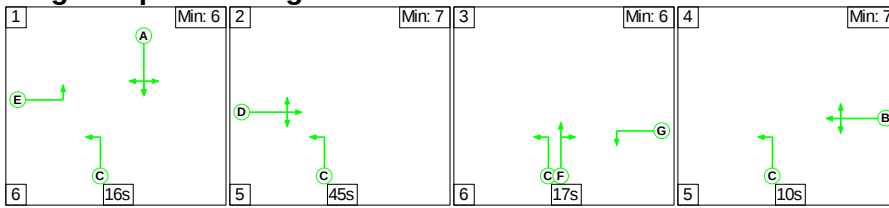
Full Input Data And Results

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	37.2	146.6	0.0	183.8	-	-	-	-
Unnamed Junction	-	-	0	0	0	37.2	146.6	0.0	183.8	-	-	-	-
1/1+1/2	1142	1003	-	-	-	14.7	73.6	-	88.3	278.3	34.6	73.6	108.2
2/1+2/2	625	565	-	-	-	11.5	34.7	-	46.2	266.3	12.1	34.7	46.9
3/1+3/2	335	323	-	-	-	4.4	14.9	-	19.3	207.2	7.1	14.9	22.0
4/1	518	518	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
4/2	422	385	-	-	-	6.6	23.2	-	29.8	254.2	14.0	23.2	37.3
5/1	518	518	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	427	427	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	704	704	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	340	340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	402	402	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	401	401	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -26.6 Total Delay for Signalled Lanes (pcuHr): 183.79 Cycle Time (s): 110 PRC Over All Lanes (%): -26.6 Total Delay Over All Lanes(pcuHr): 183.79													

Full Input Data And Results

Scenario 5: 'Pref no LTC AM' (FG5: 'Pref no LTC AM', Plan 1: 'Network Control Plan 1')

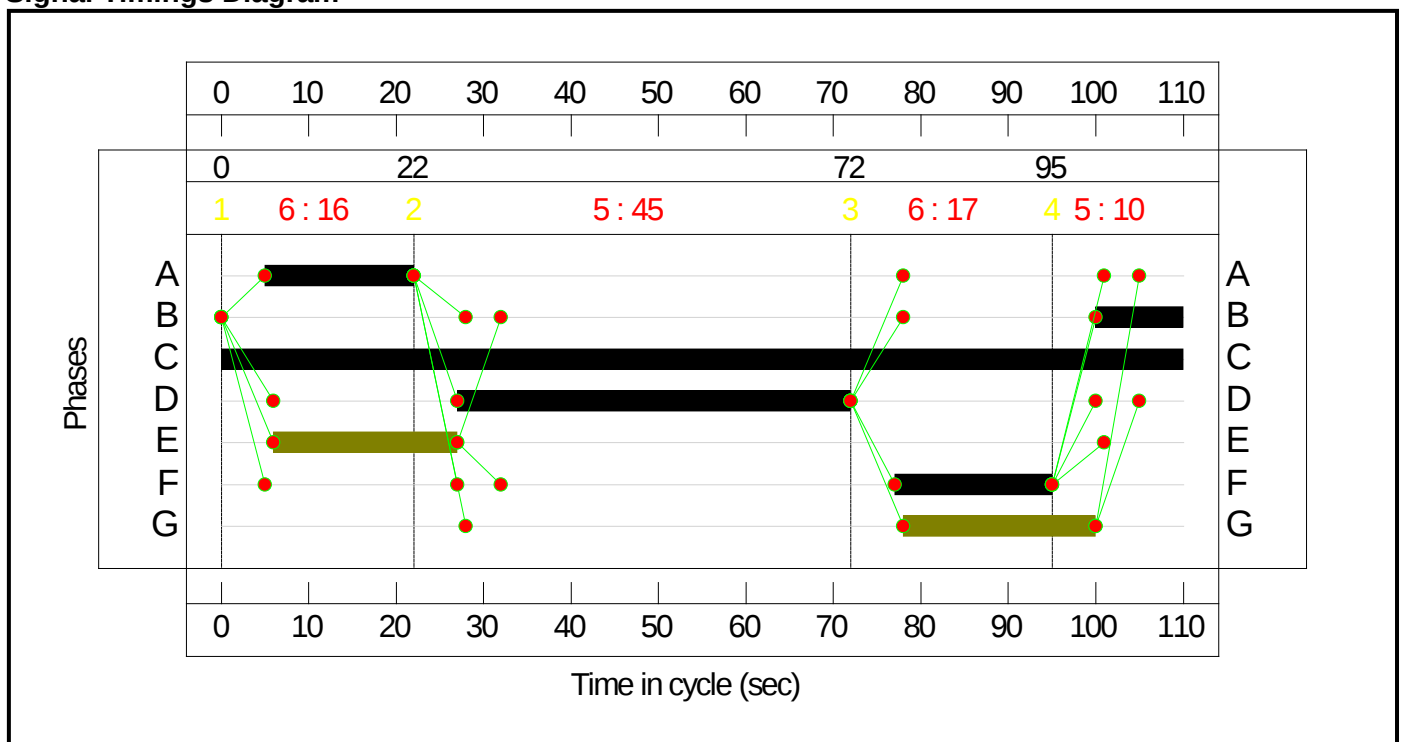
Stage Sequence Diagram



Stage Timings

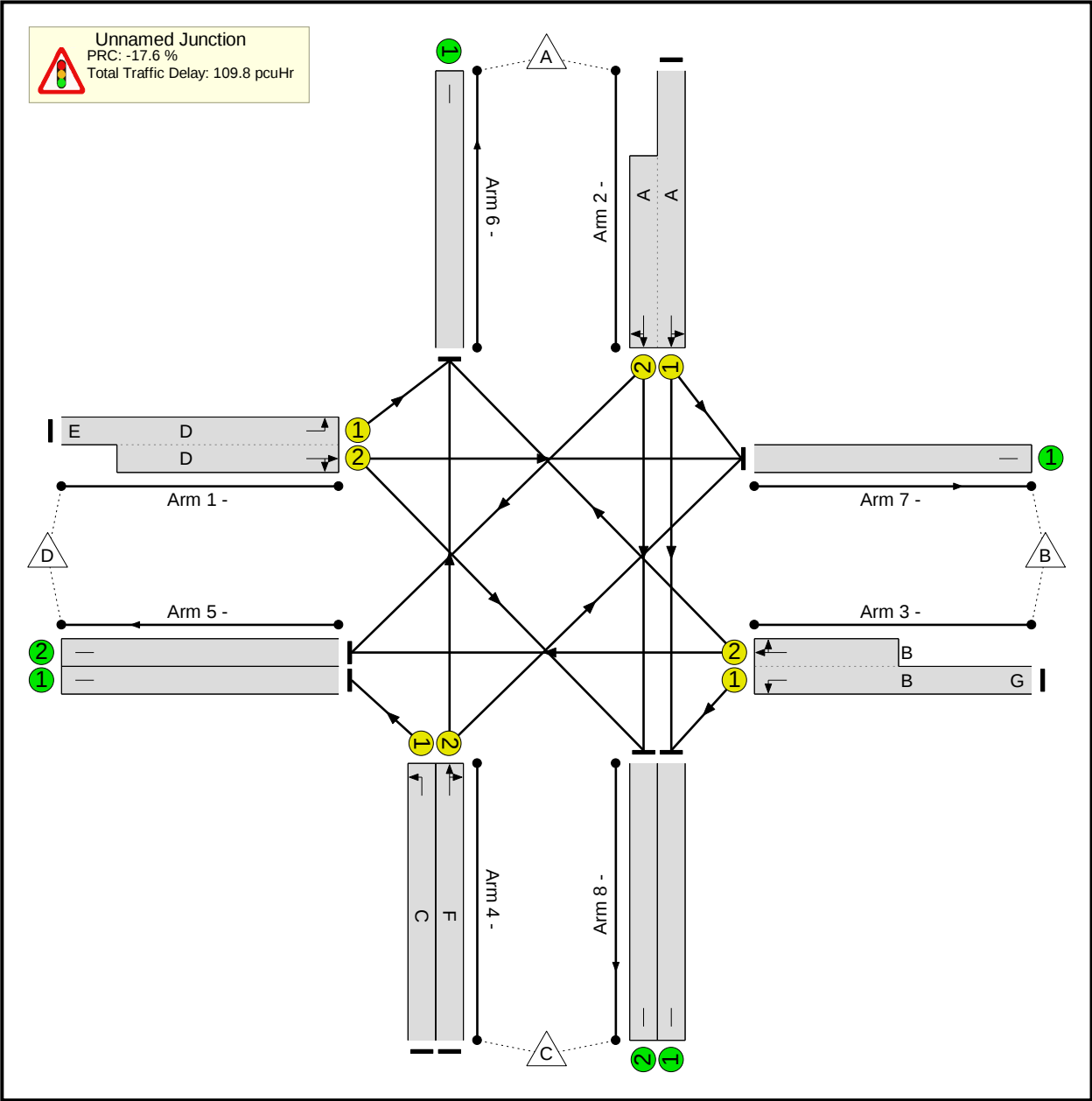
Stage	1	2	3	4
Duration	16	45	17	10
Change Point	0	22	72	95

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	-	-		-	-	-	-	-	-	105.9%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	105.9%
1/1+1/2	Left Ahead Right	U	N/A	N/A	D	E	1	66:45	21	1026	1775:1809	301+671	105.5 : 105.5%
2/1+2/2	Right Left Ahead	U	N/A	N/A	A		1	17	-	639	1891:1801	309+295	105.7 : 105.9%
3/1+3/2	Ahead Right Left	U	N/A	N/A	B	G	1	32:10	22	338	1736:1913	135+191	103.5 : 103.5%
4/1	Left	U	N/A	N/A	C		1	110	-	579	1764	1764	32.8%
4/2	Ahead Right	U	N/A	N/A	F		1	18	-	341	1951	337	101.2%
5/1		U	N/A	N/A	-		-	-	-	579	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	378	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	654	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	372	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	463	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	477	Inf	Inf	0.0%

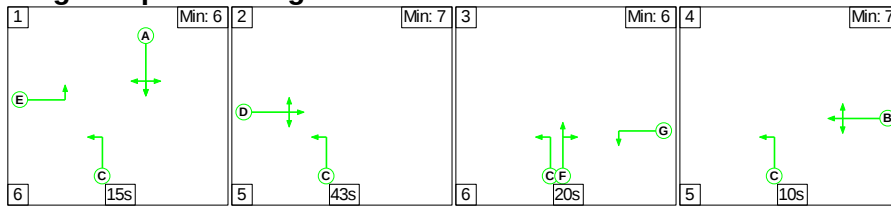
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 6: 'Pref no LTC PM' (FG6: 'Pref no LTC PM', Plan 1: 'Network Control Plan 1')

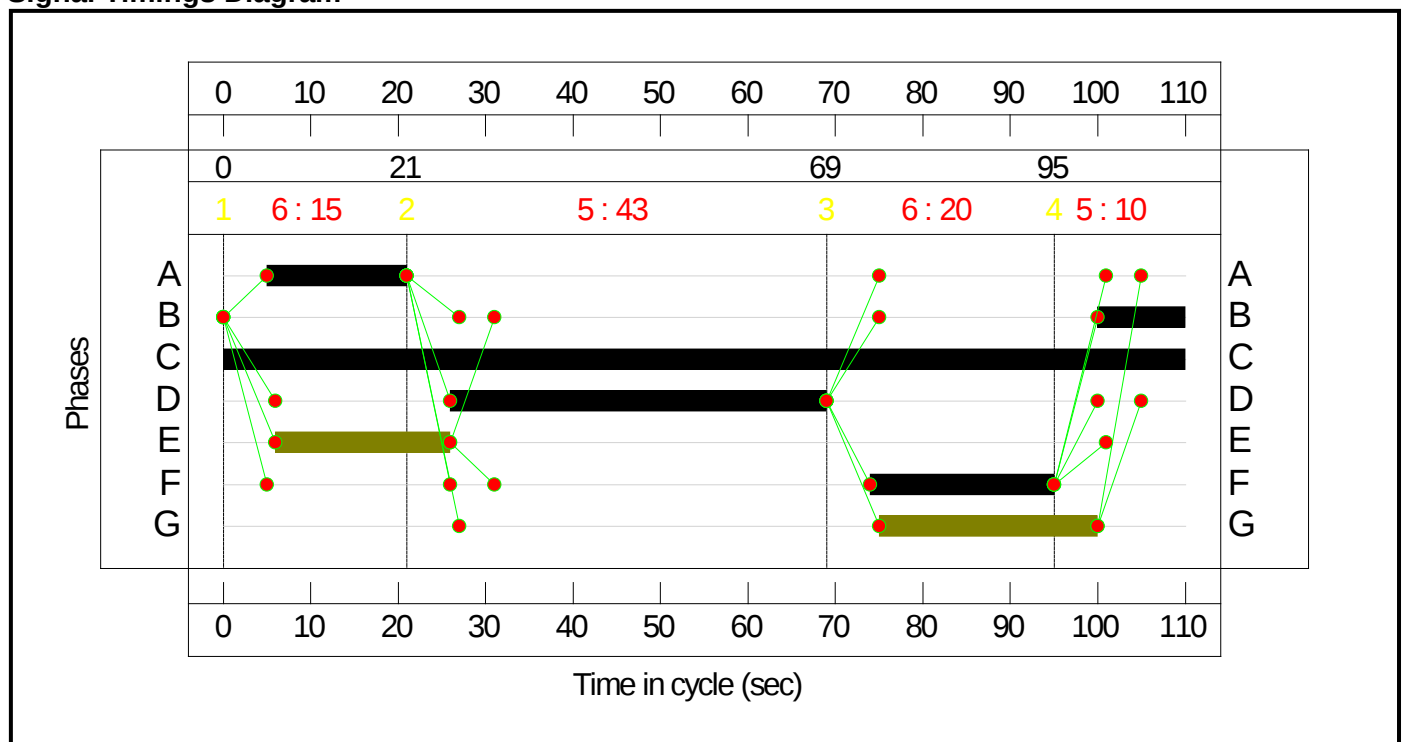
Stage Sequence Diagram



Stage Timings

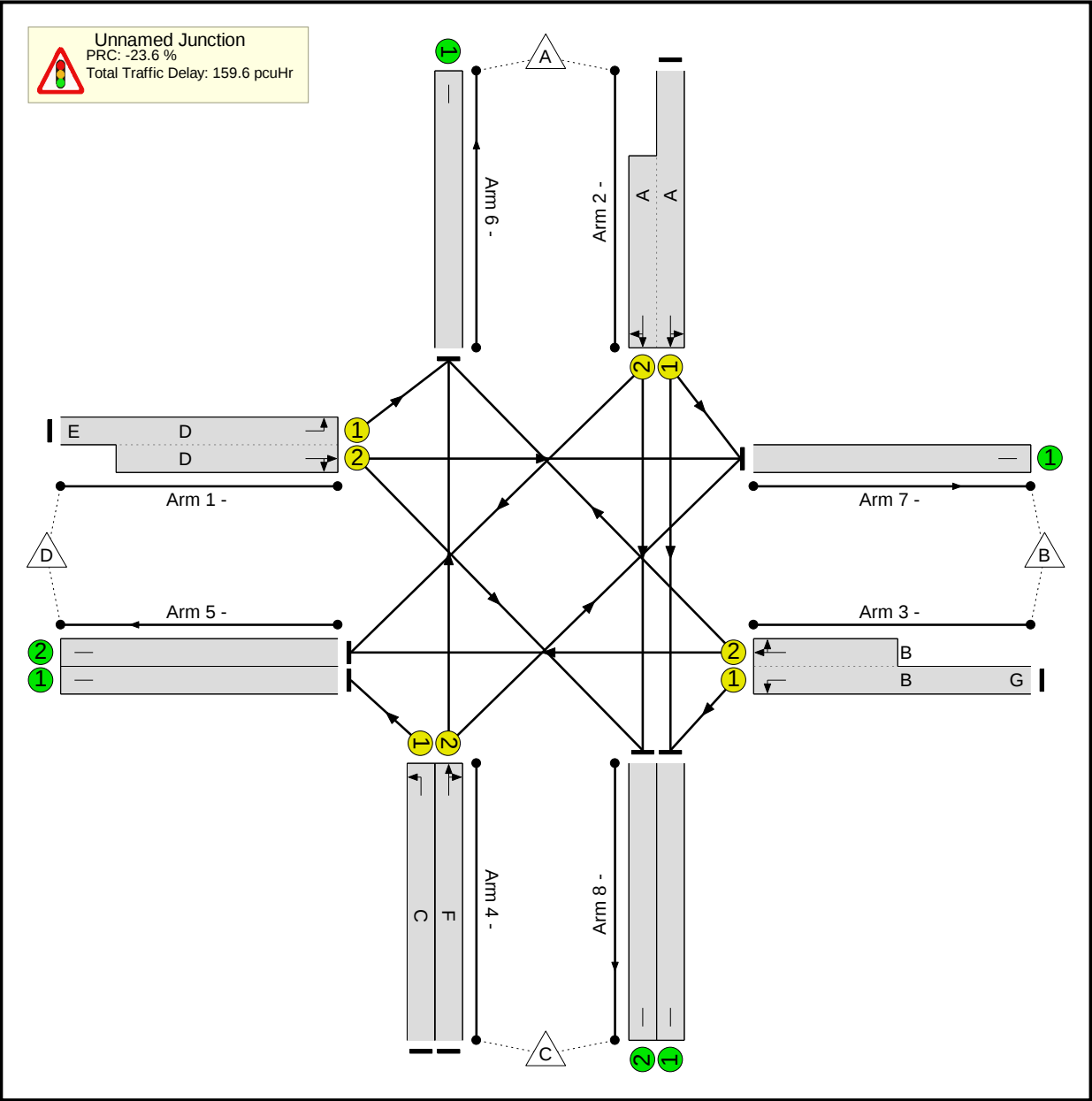
Stage	1	2	3	4
Duration	15	43	20	10
Change Point	0	21	69	95

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	-	-		-	-	-	-	-	-	111.2%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	111.2%
1/1+1/2	Left Ahead Right	U	N/A	N/A	D	E	1	63:43	20	1132	1775:1815	404+625	110.0 : 110.0%
2/1+2/2	Right Left Ahead	U	N/A	N/A	A		1	16	-	630	1891:1779	292+275	111.2 : 110.9%
3/1+3/2	Ahead Right Left	U	N/A	N/A	B	G	1	35:10	25	336	1736:1913	135+191	103.0 : 103.0%
4/1	Left	U	N/A	N/A	C		1	110	-	563	1764	1764	31.9%
4/2	Ahead Right	U	N/A	N/A	F		1	21	-	416	1923	385	108.2%
5/1		U	N/A	N/A	-		-	-	-	563	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	412	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	789	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	451	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	460	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	402	Inf	Inf	0.0%

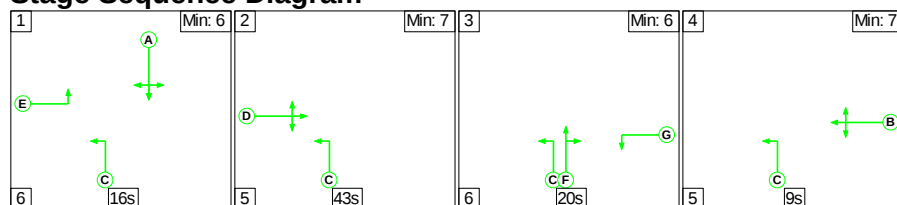
Full Input Data And Results

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	34.5	125.1	0.0	159.6	-	-	-	-
Unnamed Junction	-	-	0	0	0	34.5	125.1	0.0	159.6	-	-	-	-
1/1+1/2	1132	1029	-	-	-	12.6	56.5	-	69.1	219.6	33.1	56.5	89.6
2/1+2/2	630	567	-	-	-	11.7	35.8	-	47.5	271.6	12.7	35.8	48.5
3/1+3/2	336	330	-	-	-	3.9	11.9	-	15.9	169.9	6.0	11.9	18.0
4/1	563	563	-	-	-	0.0	0.2	-	0.2	1.5	0.0	0.2	0.2
4/2	416	385	-	-	-	6.2	20.7	-	27.0	233.4	13.7	20.7	34.4
5/1	563	563	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	385	385	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	723	723	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	411	411	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	428	428	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	365	365	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -23.6 Total Delay for Signalled Lanes (pcuHr): 159.63 Cycle Time (s): 110 PRC Over All Lanes (%): -23.6 Total Delay Over All Lanes(pcuHr): 159.63													

Full Input Data And Results

Scenario 7: 'Pref LTC AM' (FG7: 'Pref LTC AM', Plan 1: 'Network Control Plan 1')

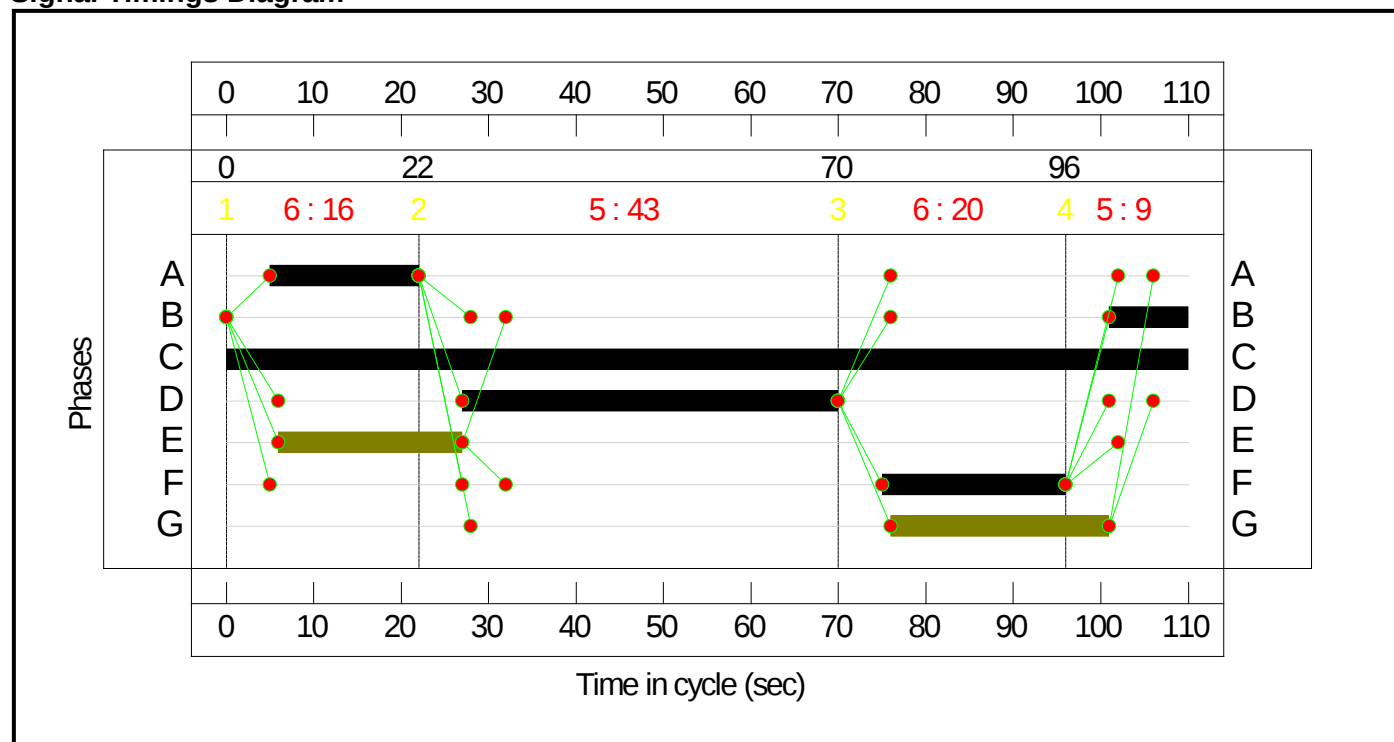
Stage Sequence Diagram



Stage Timings

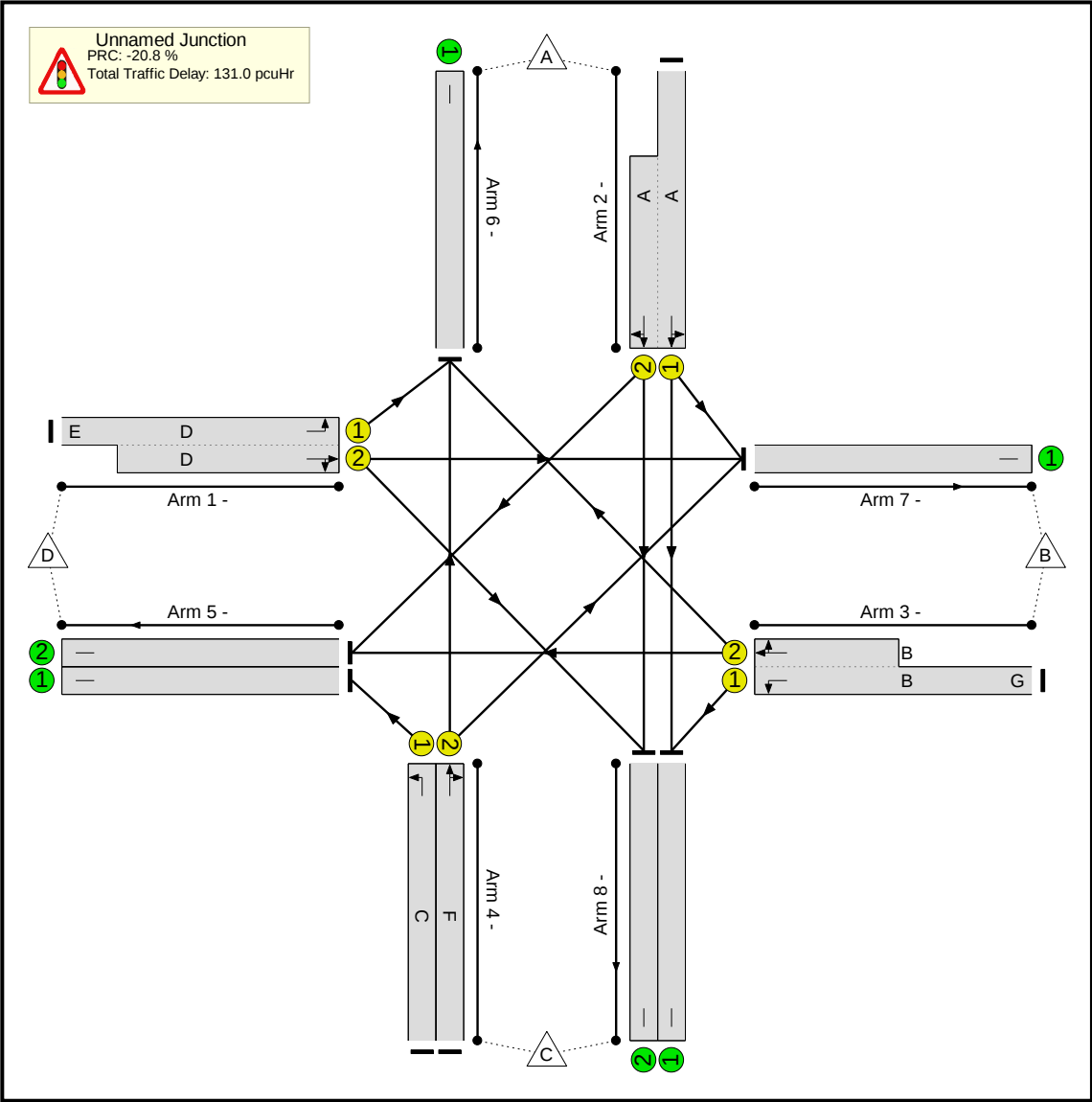
Stage	1	2	3	4
Duration	16	43	20	9
Change Point	0	22	70	96

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

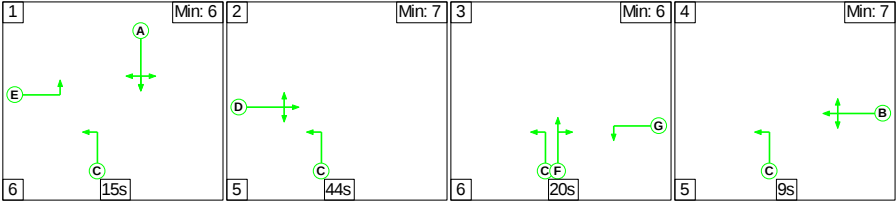
Network Results

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	-	-		-	-	-	-	-	-	108.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	108.7%
1/1+1/2	Left Ahead Right	U	N/A	N/A	D	E	1	64:43	21	1015	1775:1806	290+648	108.1 : 108.1%
2/1+2/2	Right Left Ahead	U	N/A	N/A	A		1	17	-	633	1890:1798	309+294	104.8 : 105.0%
3/1+3/2	Ahead Right Left	U	N/A	N/A	B	G	1	34:9	25	337	1736:1913	136+174	108.7 : 108.7%
4/1	Left	U	N/A	N/A	C		1	110	-	596	1764	1764	33.8%
4/2	Ahead Right	U	N/A	N/A	F		1	21	-	406	1935	387	104.9%
5/1		U	N/A	N/A	-		-	-	-	596	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	372	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	676	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	394	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	468	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	481	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

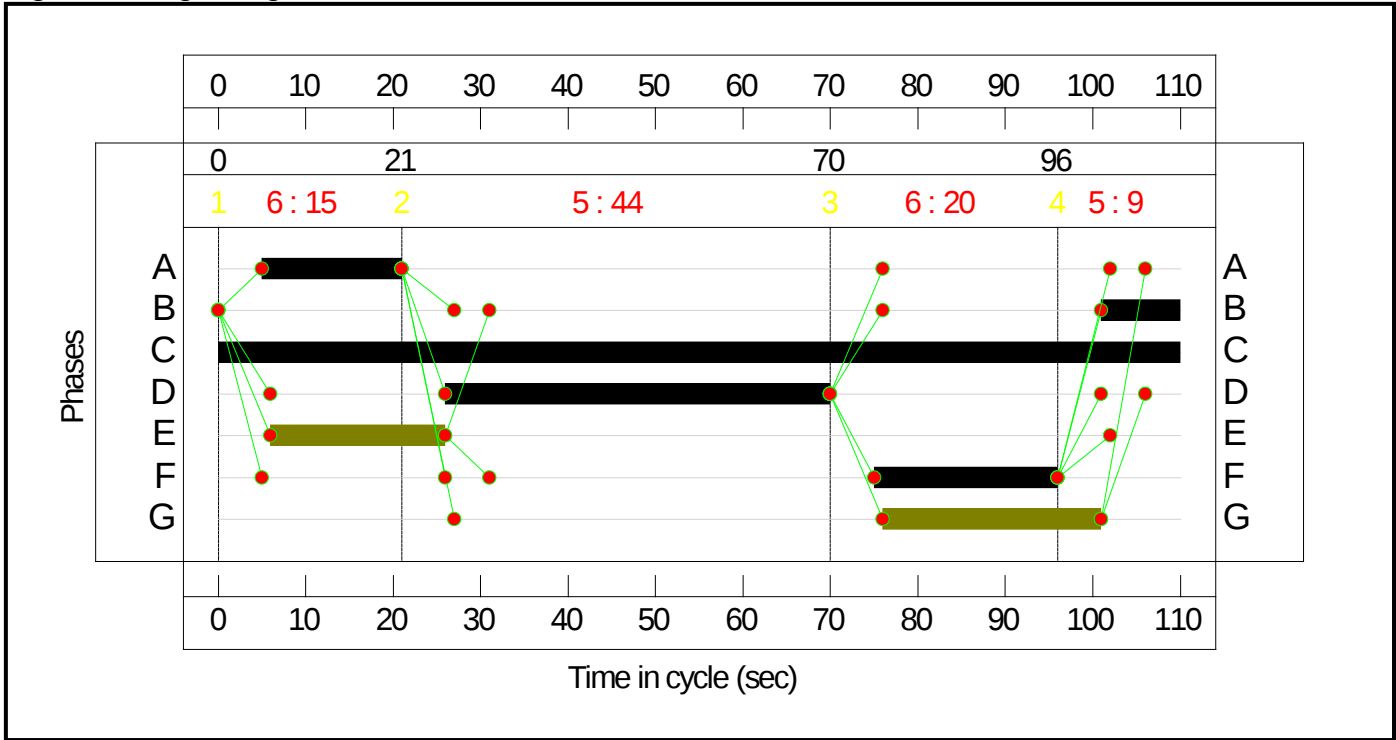
Stage Sequence Diagram



Stage Timings

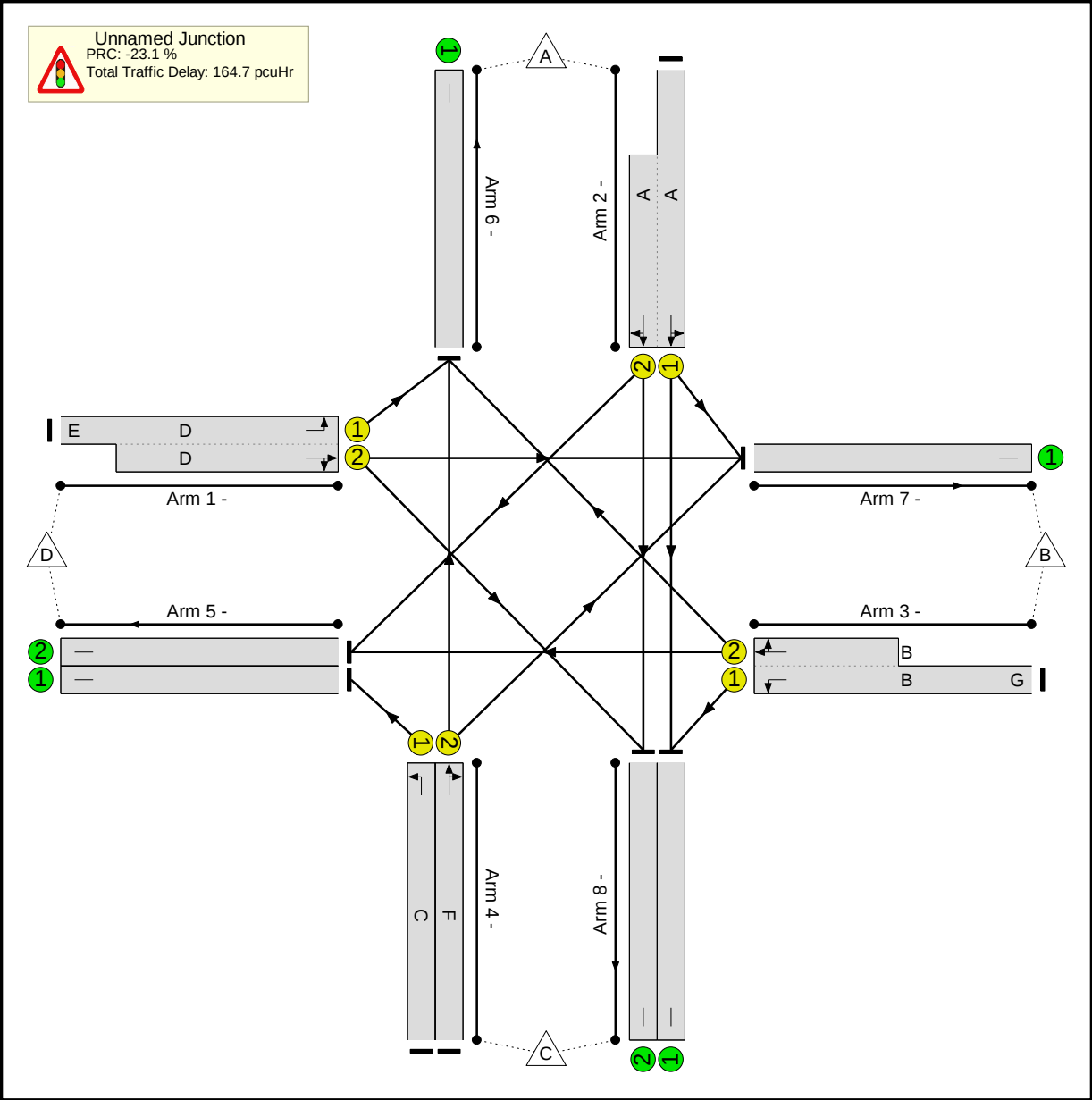
Stage	1	2	3	4
Duration	15	44	20	9
Change Point	0	21	70	96

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	-	-		-	-	-	-	-	-	110.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	110.8%
1/1+1/2	Left Ahead Right	U	N/A	N/A	D	E	1	64:44	20	1147	1775:1804	398+637	110.8 : 110.8%
2/1+2/2	Right Left Ahead	U	N/A	N/A	A		1	16	-	626	1890:1782	292+275	110.2 : 110.4%
3/1+3/2	Ahead Right Left	U	N/A	N/A	B	G	1	34:9	25	332	1736:1913	149+174	102.9 : 102.9%
4/1	Left	U	N/A	N/A	C		1	110	-	570	1764	1764	32.3%
4/2	Ahead Right	U	N/A	N/A	F		1	21	-	422	1923	385	109.7%
5/1		U	N/A	N/A	-		-	-	-	570	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	389	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	790	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	419	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	471	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	458	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

Appendix W

B255 / Castlebridge Drive

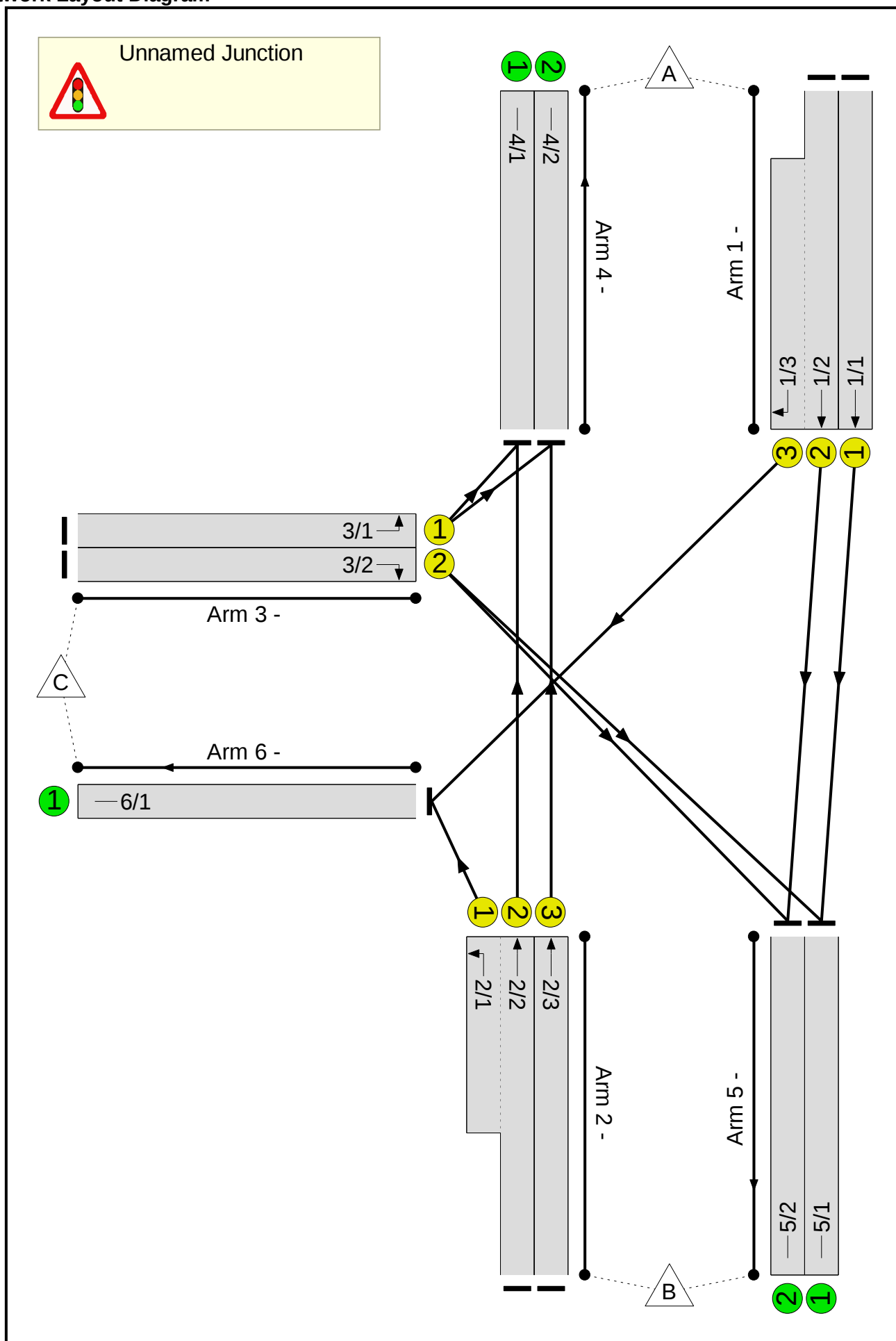
Existing Layout Modelling Output

Full Input Data And Results

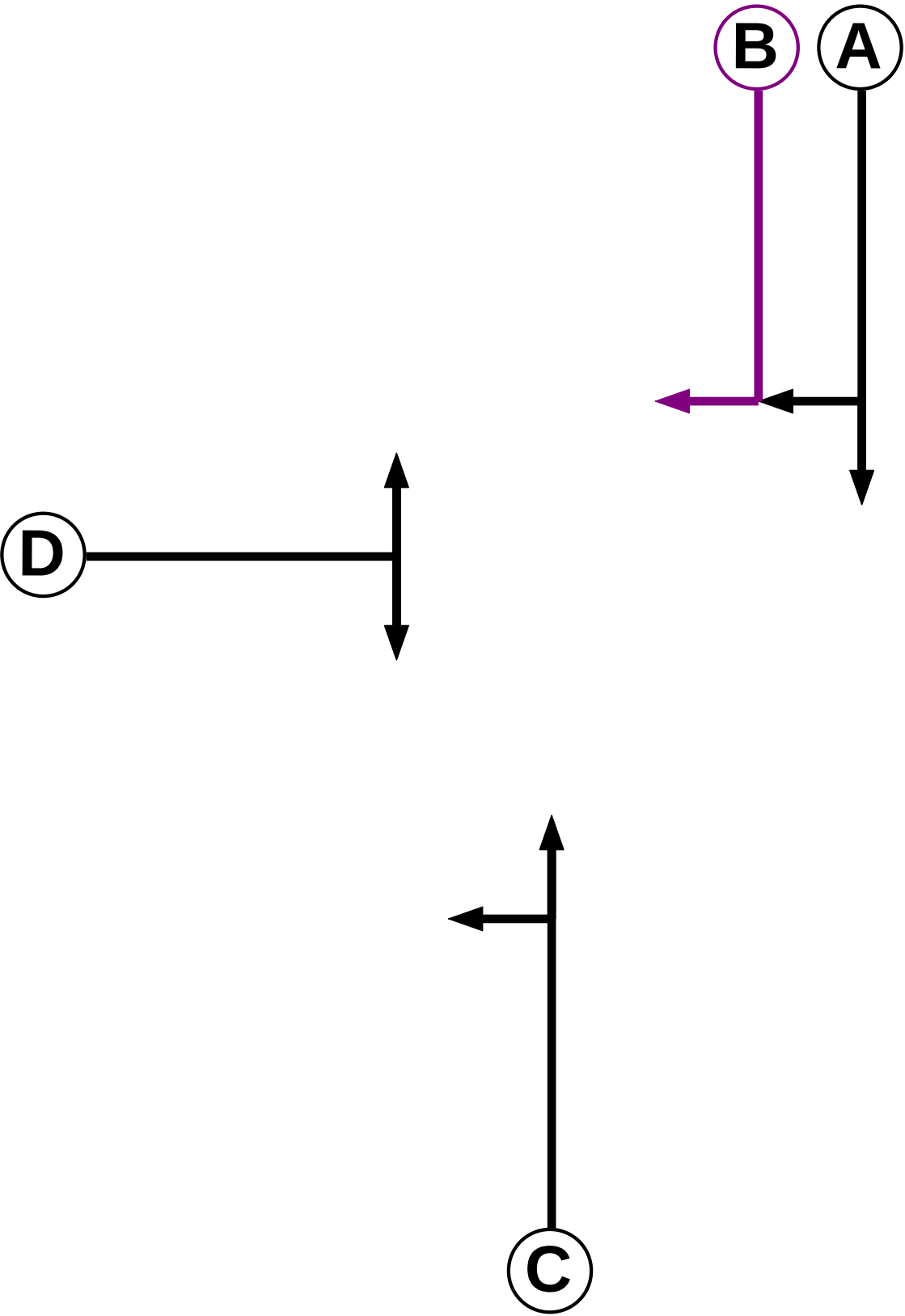
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	8. B255 _ Castlebridge Dr.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Ind. Arrow	A	4	4
C	Traffic		7	7
D	Traffic		7	7

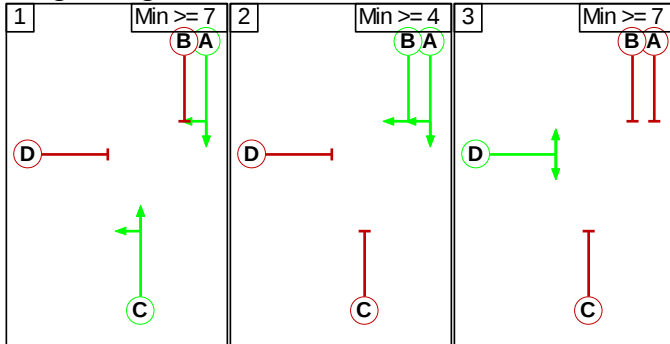
Phase Intergreens Matrix

	Starting Phase				
Terminating Phase		A	B	C	D
	A		-	-	5
	B	-		-	5
	C	-	0		-
	D	5	-	5	

Phases in Stage

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

Stage Diagram



Phase Delays

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

Prohibited Stage Change

	To Stage			
From Stage		1	2	3
	1		0	5
	2	2		5
	3	5	X	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction
There are no Opposed Lanes in this Junction

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1	U	A	2	3	60.0	Geom	-	3.52	0.00	Y	Arm 5 Ahead	Inf
1/2	U	A	2	3	60.0	Geom	-	3.45	0.00	Y	Arm 5 Ahead	Inf
1/3	U	A B	2	3	13.0	Geom	-	3.10	0.00	Y	Arm 6 Right	12.00
2/1	U	C	2	3	8.7	Geom	-	3.53	0.00	Y	Arm 6 Left	18.00
2/2	U	C	2	3	60.0	Geom	-	3.44	0.00	Y	Arm 4 Ahead	Inf
2/3	U	C	2	3	60.0	Geom	-	3.44	0.00	Y	Arm 4 Ahead	Inf
3/1	U	D	2	3	60.0	Geom	-	3.64	0.00	Y	Arm 4 Left	18.00
3/2	U	D	2	3	60.0	Geom	-	3.83	0.00	Y	Arm 5 Right	28.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	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: 'Ref no LTC AM'	08:00	09:00	01:00	
2: 'Ref no LTC PM'	17:00	18:00	01:00	
3: 'Ref LTC AM'	08:00	09:00	01:00	
4: 'Ref LTC PM'	17:00	18:00	01:00	
5: 'Pref no LTC AM'	08:00	09:00	01:00	
6: 'Pref no LTC PM'	17:00	18:00	01:00	
7: 'Pref LTC AM'	08:00	09:00	01:00	
8: 'Pref LTC PM'	17:00	18:00	01:00	

Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	1153	14	1167
	B	1780	0	10	1790
	C	67	31	0	98
	Tot.	1847	1184	24	3055

Traffic Lane Flows

Lane	Scenario 1: Ref no LTC AM
Junction: Unnamed Junction	
1/1	579
1/2 (with short)	588(In) 574(Out)
1/3 (short)	14
2/1 (short)	10
2/2 (with short)	900(In) 890(Out)
2/3	890
3/1	67
3/2	31
4/1	924
4/2	923
5/1	595
5/2	589
6/1	24

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.52	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1967	1967
1/2	3.45	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1960	1960
1/3	3.10	0.00	Y	Arm 6 Right	12.00	100.0 %	1711	1711
2/1	3.53	0.00	Y	Arm 6 Left	18.00	100.0 %	1817	1817
2/2	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
2/3	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
3/1	3.64	0.00	Y	Arm 4 Left	18.00	100.0 %	1827	1827
3/2	3.83	0.00	Y	Arm 5 Right	28.00	100.0 %	1896	1896
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Ref no LTC PM' (FG2: 'Ref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
	A	0	1745	27	1772
	B	1493	0	78	1571
	C	17	26	0	43
	Tot.	1510	1771	105	3386

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: Ref no LTC PM
Junction: Unnamed Junction	
1/1	880
1/2 (with short)	892(In) 865(Out)
1/3 (short)	27
2/1 (short)	78
2/2 (with short)	807(In) 729(Out)
2/3	764
3/1	17
3/2	26
4/1	738
4/2	772
5/1	893
5/2	878
6/1	105

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.52	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1967	1967
1/2	3.45	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1960	1960
1/3	3.10	0.00	Y	Arm 6 Right	12.00	100.0 %	1711	1711
2/1	3.53	0.00	Y	Arm 6 Left	18.00	100.0 %	1817	1817
2/2	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
2/3	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
3/1	3.64	0.00	Y	Arm 4 Left	18.00	100.0 %	1827	1827
3/2	3.83	0.00	Y	Arm 5 Right	28.00	100.0 %	1896	1896
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

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

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	1087	13	1100
	B	1733	0	10	1743
	C	68	31	0	99
	Tot.	1801	1118	23	2942

Traffic Lane Flows

Lane	Scenario 3: Ref LTC AM
Junction: Unnamed Junction	
1/1	546
1/2 (with short)	554(In) 541(Out)
1/3 (short)	13
2/1 (short)	10
2/2 (with short)	877(In) 867(Out)
2/3	866
3/1	68
3/2	31
4/1	901
4/2	900
5/1	562
5/2	556
6/1	23

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.52	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1967	1967
1/2	3.45	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1960	1960
1/3	3.10	0.00	Y	Arm 6 Right	12.00	100.0 %	1711	1711
2/1	3.53	0.00	Y	Arm 6 Left	18.00	100.0 %	1817	1817
2/2	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
2/3	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
3/1	3.64	0.00	Y	Arm 4 Left	18.00	100.0 %	1827	1827
3/2	3.83	0.00	Y	Arm 5 Right	28.00	100.0 %	1896	1896
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	1684	27	1711
	B	1329	0	78	1407
	C	18	25	0	43
	Tot.	1347	1709	105	3161

Traffic Lane Flows

Lane	Scenario 4: Ref LTC PM
Junction: Unnamed Junction	
1/1	849
1/2 (with short)	862(In) 835(Out)
1/3 (short)	27
2/1 (short)	78
2/2 (with short)	729(In) 651(Out)
2/3	678
3/1	18
3/2	25
4/1	660
4/2	687
5/1	862
5/2	847
6/1	105

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.52	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1967	1967
1/2	3.45	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1960	1960
1/3	3.10	0.00	Y	Arm 6 Right	12.00	100.0 %	1711	1711
2/1	3.53	0.00	Y	Arm 6 Left	18.00	100.0 %	1817	1817
2/2	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
2/3	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
3/1	3.64	0.00	Y	Arm 4 Left	18.00	100.0 %	1827	1827
3/2	3.83	0.00	Y	Arm 5 Right	28.00	100.0 %	1896	1896
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: 'Pref no LTC AM' (FG5: 'Pref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	1156	13	1169
	B	1795	0	11	1806
	C	68	31	0	99
	Tot.	1863	1187	24	3074

Traffic Lane Flows

Lane	Scenario 5: Pref no LTC AM
Junction: Unnamed Junction	
1/1	581
1/2 (with short)	588(In) 575(Out)
1/3 (short)	13
2/1 (short)	11
2/2 (with short)	908(In) 897(Out)
2/3	898
3/1	68
3/2	31
4/1	931
4/2	932
5/1	597
5/2	590
6/1	24

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.52	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1967	1967
1/2	3.45	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1960	1960
1/3	3.10	0.00	Y	Arm 6 Right	12.00	100.0 %	1711	1711
2/1	3.53	0.00	Y	Arm 6 Left	18.00	100.0 %	1817	1817
2/2	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
2/3	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
3/1	3.64	0.00	Y	Arm 4 Left	18.00	100.0 %	1827	1827
3/2	3.83	0.00	Y	Arm 5 Right	28.00	100.0 %	1896	1896
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Pref no LTC PM' (FG6: 'Pref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	1718	27	1745
	B	1616	0	78	1694
	C	19	24	0	43
	Tot.	1635	1742	105	3482

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: Pref no LTC PM
Junction: Unnamed Junction	
1/1	866
1/2 (with short)	879(In) 852(Out)
1/3 (short)	27
2/1 (short)	78
2/2 (with short)	867(In) 789(Out)
2/3	827
3/1	19
3/2	24
4/1	799
4/2	836
5/1	878
5/2	864
6/1	105

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.52	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1967	1967
1/2	3.45	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1960	1960
1/3	3.10	0.00	Y	Arm 6 Right	12.00	100.0 %	1711	1711
2/1	3.53	0.00	Y	Arm 6 Left	18.00	100.0 %	1817	1817
2/2	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
2/3	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
3/1	3.64	0.00	Y	Arm 4 Left	18.00	100.0 %	1827	1827
3/2	3.83	0.00	Y	Arm 5 Right	28.00	100.0 %	1896	1896
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 7: 'Pref LTC AM' (FG7: 'Pref LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	1170	14	1184
	B	1744	0	11	1755
	C	70	29	0	99
	Tot.	1814	1199	25	3038

Traffic Lane Flows

Lane	Scenario 7: Pref LTC AM
Junction: Unnamed Junction	
1/1	588
1/2 (with short)	596(In) 582(Out)
1/3 (short)	14
2/1 (short)	11
2/2 (with short)	883(In) 872(Out)
2/3	872
3/1	70
3/2	29
4/1	907
4/2	907
5/1	603
5/2	596
6/1	25

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.52	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1967	1967
1/2	3.45	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1960	1960
1/3	3.10	0.00	Y	Arm 6 Right	12.00	100.0 %	1711	1711
2/1	3.53	0.00	Y	Arm 6 Left	18.00	100.0 %	1817	1817
2/2	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
2/3	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
3/1	3.64	0.00	Y	Arm 4 Left	18.00	100.0 %	1827	1827
3/2	3.83	0.00	Y	Arm 5 Right	28.00	100.0 %	1896	1896
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Pref LTC PM' (FG8: 'Pref LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
	A	0	1625	27	1652
	B	1515	0	78	1593
	C	18	25	0	43
	Tot.	1533	1650	105	3288

Traffic Lane Flows

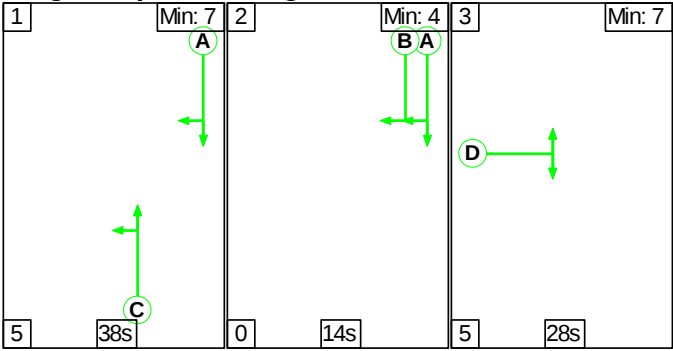
Lane	Scenario 8: Pref LTC PM
Junction: Unnamed Junction	
1/1	819
1/2 (with short)	833(In) 806(Out)
1/3 (short)	27
2/1 (short)	78
2/2 (with short)	818(In) 740(Out)
2/3	775
3/1	18
3/2	25
4/1	749
4/2	784
5/1	832
5/2	818
6/1	105

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.52	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1967	1967
1/2	3.45	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1960	1960
1/3	3.10	0.00	Y	Arm 6 Right	12.00	100.0 %	1711	1711
2/1	3.53	0.00	Y	Arm 6 Left	18.00	100.0 %	1817	1817
2/2	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
2/3	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
3/1	3.64	0.00	Y	Arm 4 Left	18.00	100.0 %	1827	1827
3/2	3.83	0.00	Y	Arm 5 Right	28.00	100.0 %	1896	1896
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')

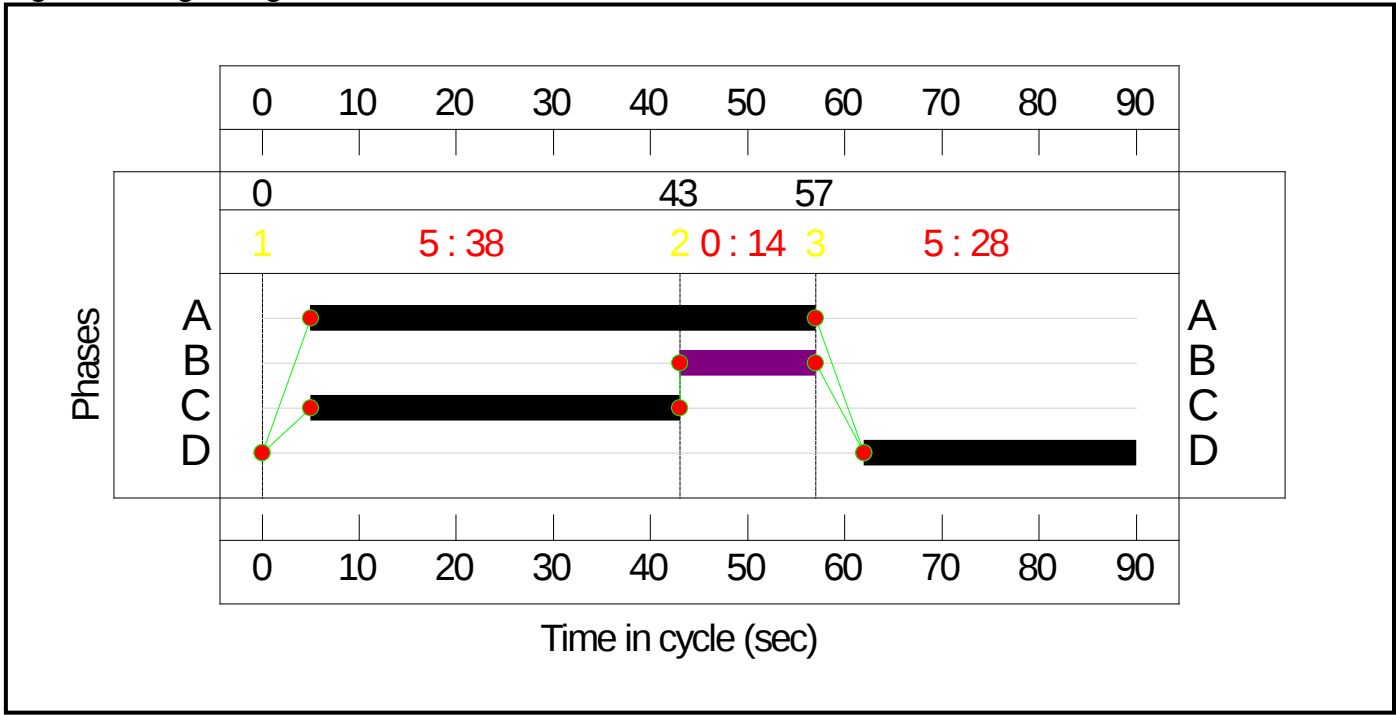
Stage Sequence Diagram



Stage Timings

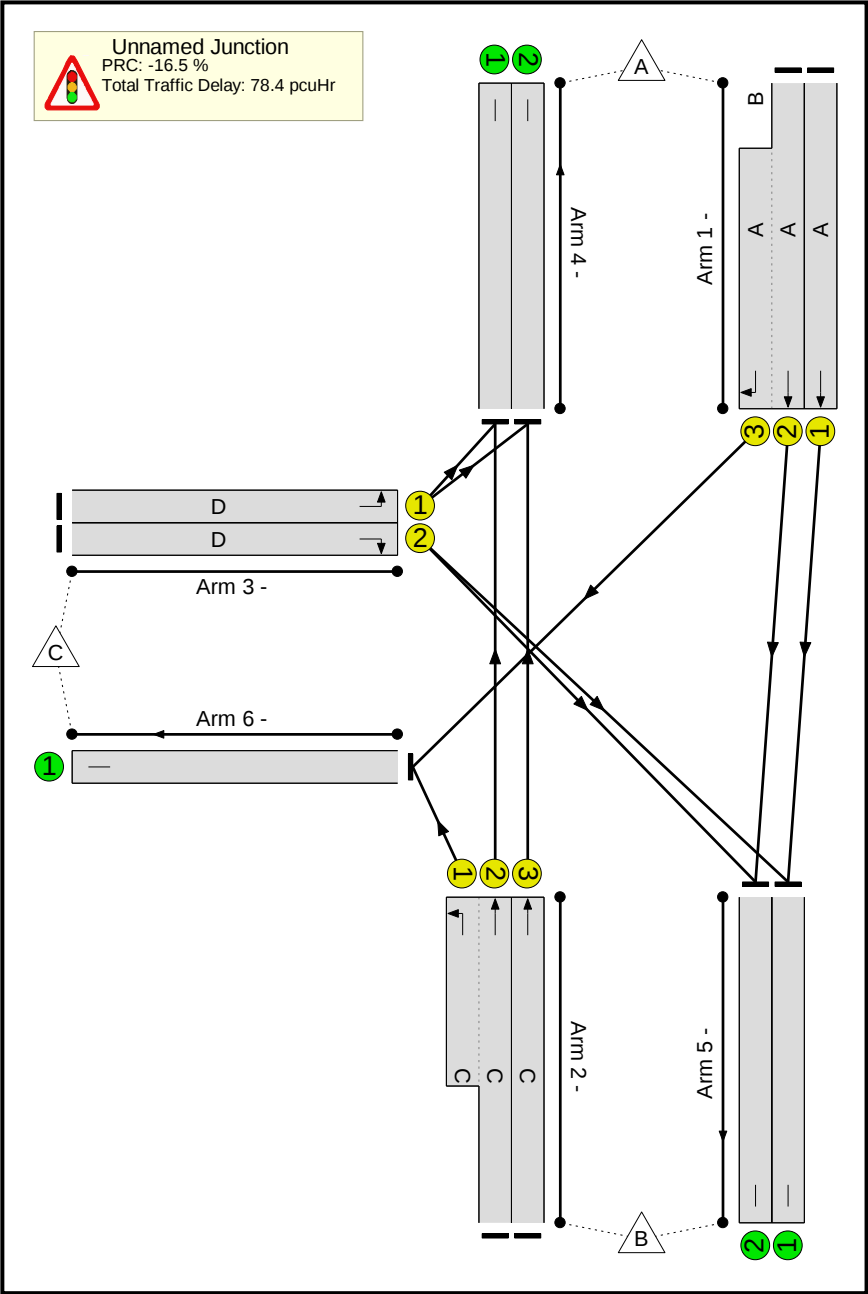
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Duration	38	14	28
Change Point	0	43	57

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

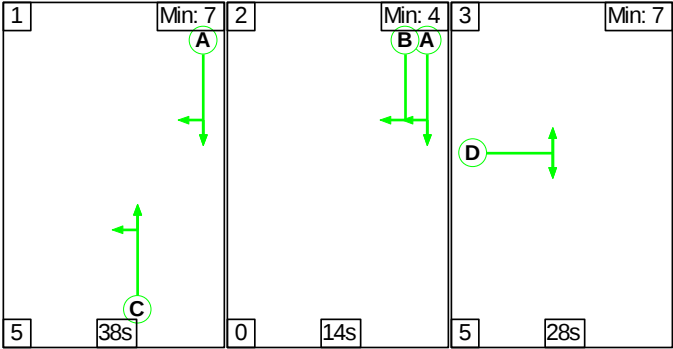
Network Results

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	-	-		-	-	-	-	-	-	104.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	104.8%
1/1	Ahead	U	N/A	N/A	A		1	52	-	579	1967	1158	50.0%
1/2+1/3	Ahead Right	U	N/A	N/A	A	B	1	52	14	588	1960:1711	1134+28	50.6 : 50.6%
2/2+2/1	Ahead Left	U	N/A	N/A	C		1	38	-	900	1959:1817	849+10	104.8 : 104.8%
2/3	Ahead	U	N/A	N/A	C		1	38	-	890	1959	849	104.8%
3/1	Left	U	N/A	N/A	D		1	28	-	67	1827	589	11.4%
3/2	Right	U	N/A	N/A	D		1	28	-	31	1896	611	5.1%
4/1		U	N/A	N/A	-		-	-	-	924	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	923	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	595	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	589	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

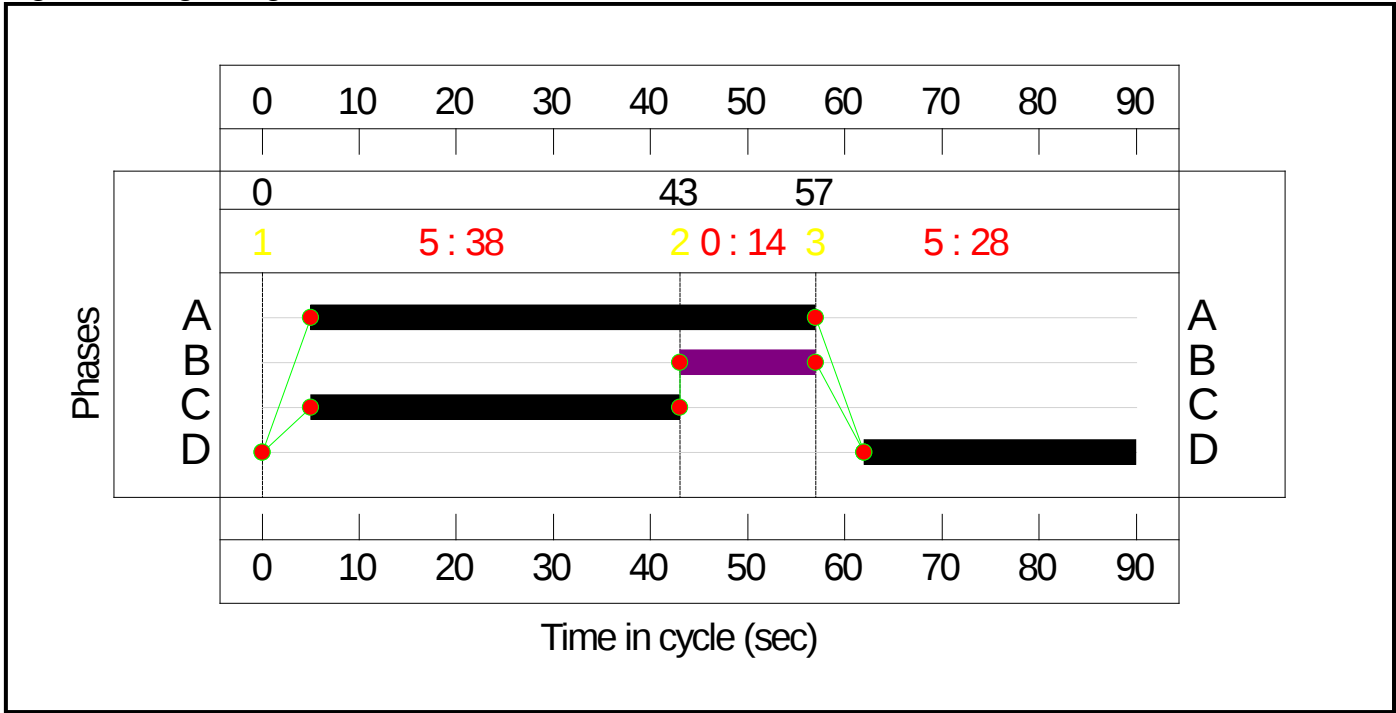
Stage Sequence Diagram



Stage Timings

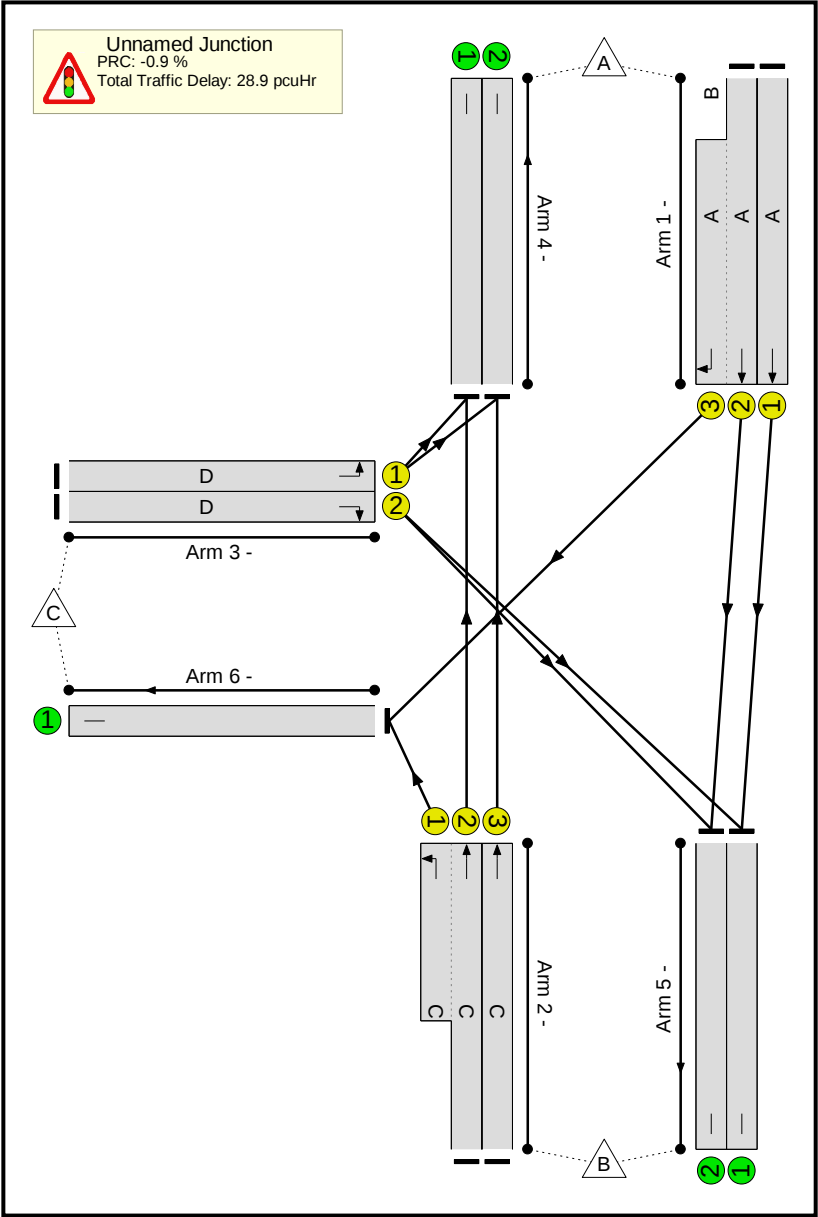
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Duration	38	14	28
Change Point	0	43	57

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

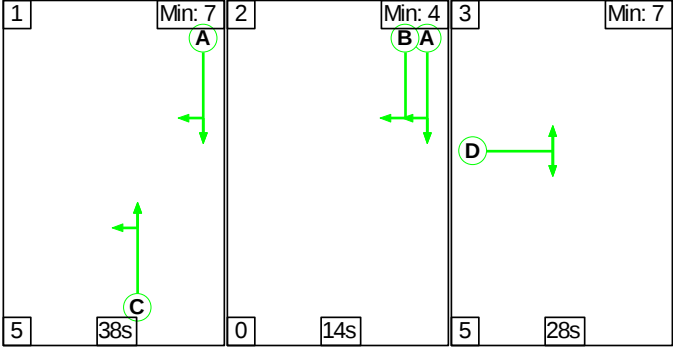
Network Results

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	-	-		-	-	-	-	-	-	90.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	90.8%
1/1	Ahead	U	N/A	N/A	A		1	52	-	880	1967	1158	76.0%
1/2+1/3	Ahead Right	U	N/A	N/A	A	B	1	52	14	892	1960:1711	1130+35	76.6 : 76.6%
2/2+2/1	Ahead Left	U	N/A	N/A	C		1	38	-	807	1959:1817	803+86	90.8 : 90.8%
2/3	Ahead	U	N/A	N/A	C		1	38	-	764	1959	849	90.0%
3/1	Left	U	N/A	N/A	D		1	28	-	17	1827	589	2.9%
3/2	Right	U	N/A	N/A	D		1	28	-	26	1896	611	4.3%
4/1		U	N/A	N/A	-		-	-	-	738	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	772	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	893	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	878	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	105	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	17.1	11.8	0.0	28.9	-	-	-	-
Unnamed Junction	-	-	0	0	0	17.1	11.8	0.0	28.9	-	-	-	-
1/1	880	880	-	-	-	3.4	1.6	-	4.9	20.2	16.1	1.6	17.7
1/2+1/3	892	892	-	-	-	3.3	1.6	-	5.0	20.0	16.0	1.6	17.6
2/2+2/1	807	807	-	-	-	5.1	4.4	-	9.6	42.7	17.7	4.4	22.1
2/3	764	764	-	-	-	5.0	4.1	-	9.1	43.0	17.6	4.1	21.7
3/1	17	17	-	-	-	0.1	0.0	-	0.1	24.2	0.3	0.0	0.3
3/2	26	26	-	-	-	0.2	0.0	-	0.2	24.1	0.4	0.0	0.5
4/1	738	738	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	772	772	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	893	893	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	878	878	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	105	105	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -0.9 Total Delay for Signalled Lanes (pcuHr): 28.88 Cycle Time (s): 90 PRC Over All Lanes (%): -0.9 Total Delay Over All Lanes(pcuHr): 28.88													

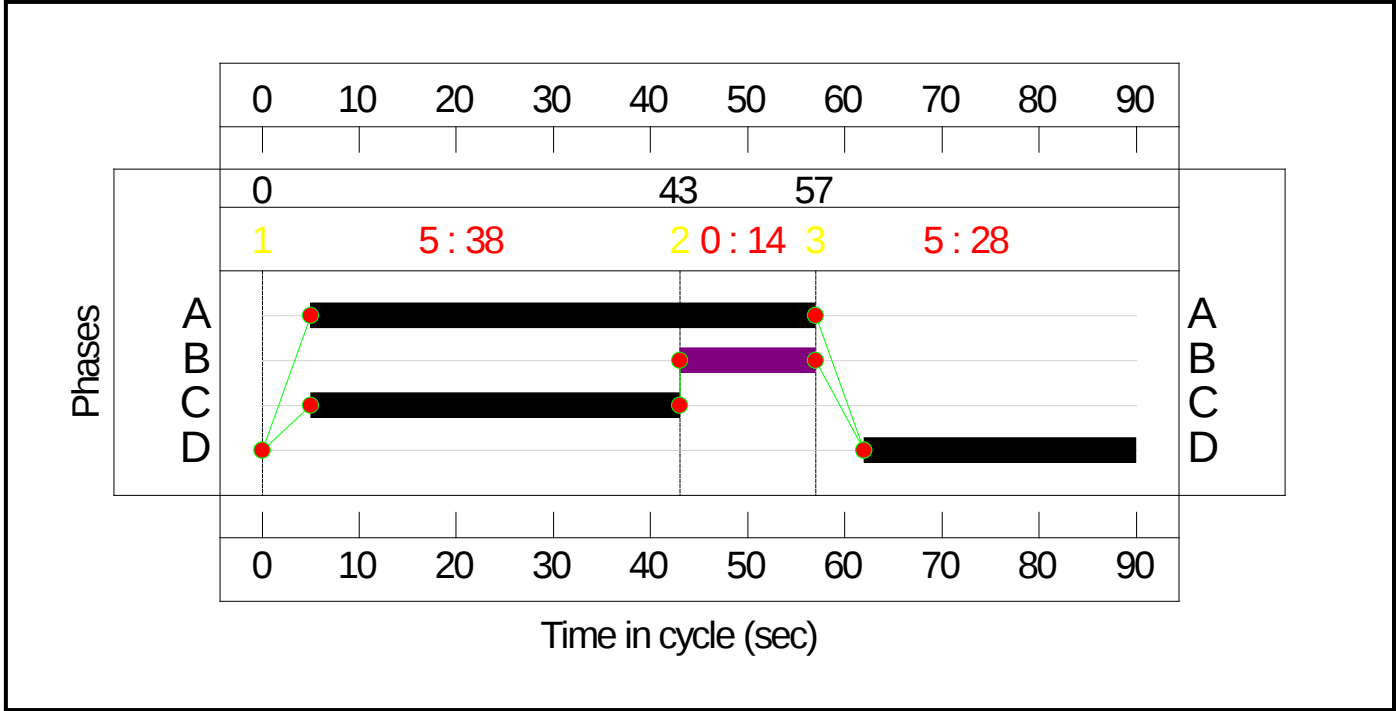
Stage Sequence Diagram



Stage Timings

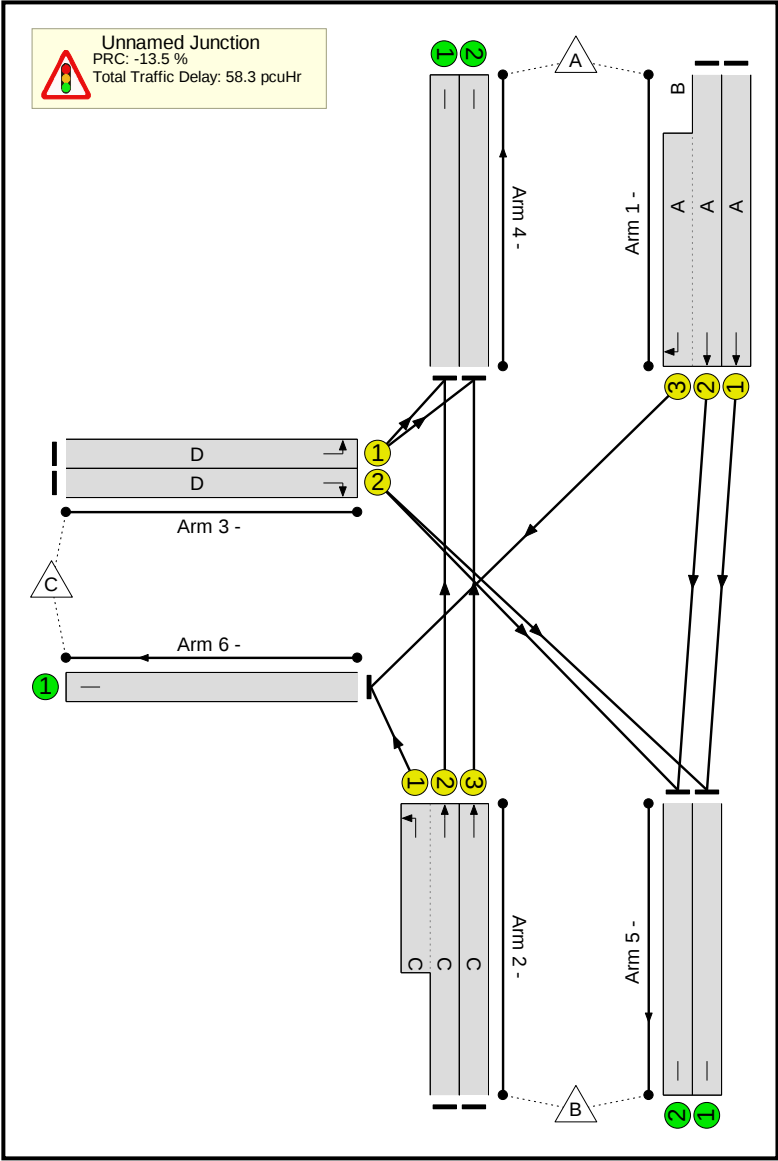
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Duration	38	14	28
Change Point	0	43	57

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

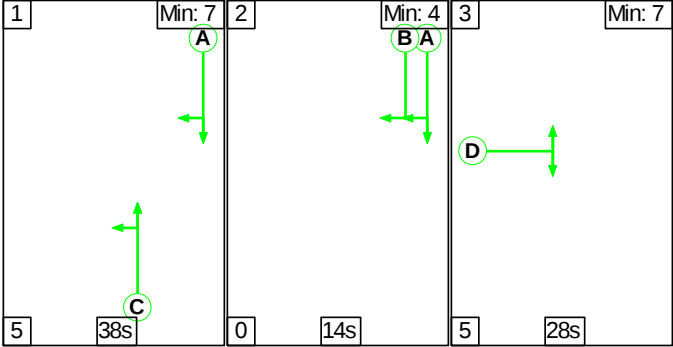
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	102.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	102.1%
1/1	Ahead	U	N/A	N/A	A		1	52	-	546	1967	1158	47.1%
1/2+1/3	Ahead Right	U	N/A	N/A	A	B	1	52	14	554	1960:1711	1135+27	47.7 : 47.7%
2/2+2/1	Ahead Left	U	N/A	N/A	C		1	38	-	877	1959:1817	849+10	102.1 : 102.1%
2/3	Ahead	U	N/A	N/A	C		1	38	-	866	1959	849	102.0%
3/1	Left	U	N/A	N/A	D		1	28	-	68	1827	589	11.6%
3/2	Right	U	N/A	N/A	D		1	28	-	31	1896	611	5.1%
4/1		U	N/A	N/A	-		-	-	-	901	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	900	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	562	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	556	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	23	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

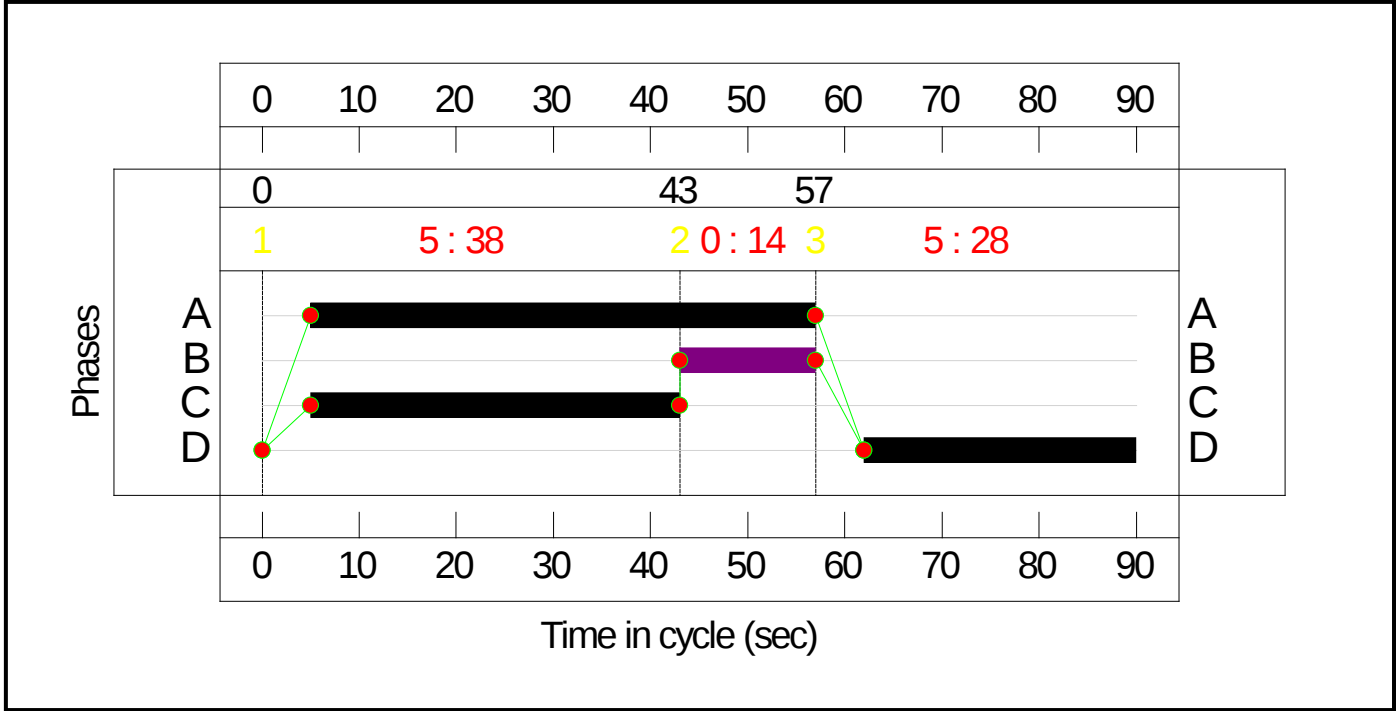
Stage Sequence Diagram



Stage Timings

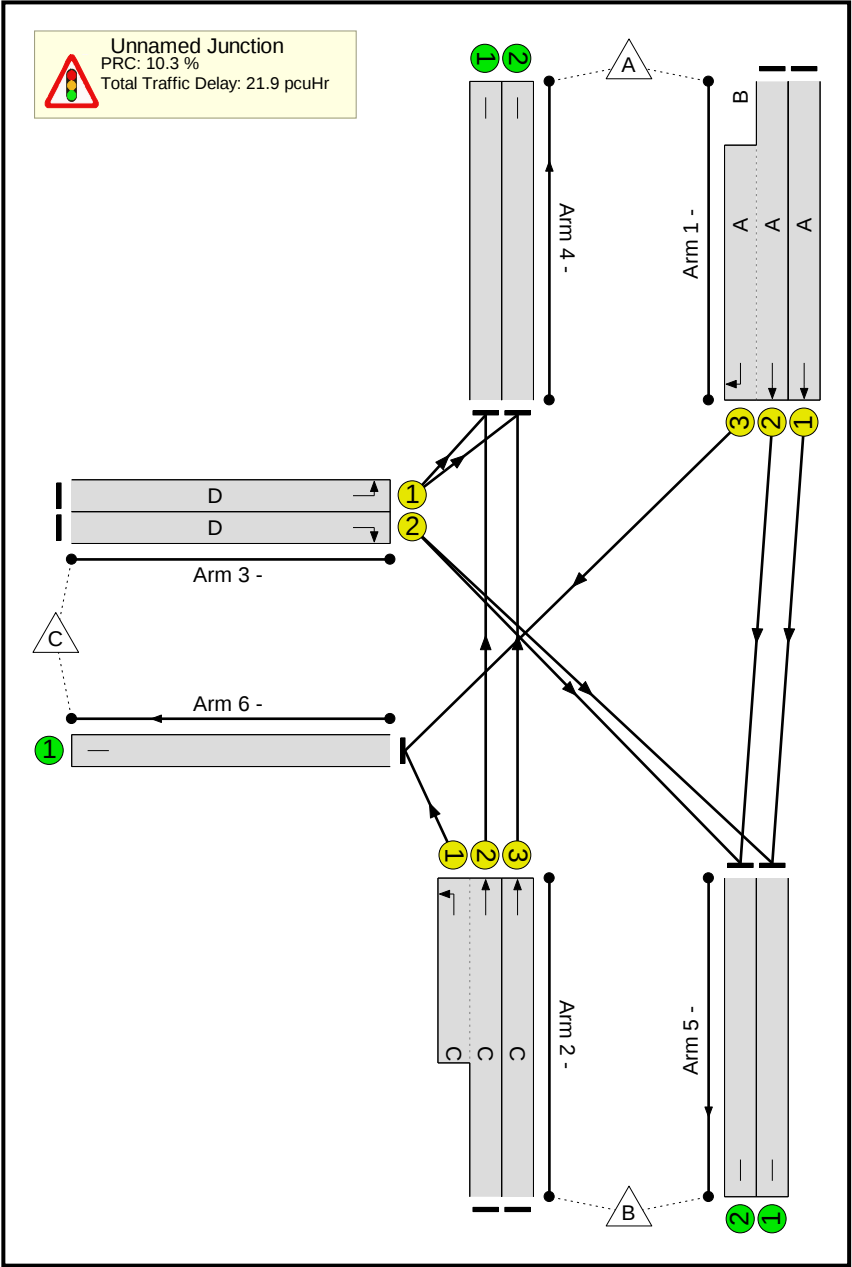
Stage	1	2	3
Duration	38	14	28
Change Point	0	43	57

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

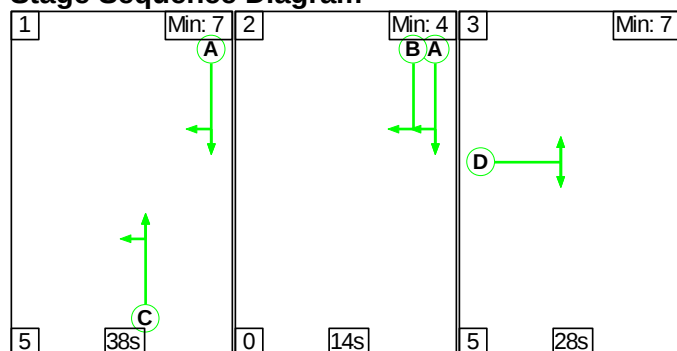
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	81.6%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	81.6%
1/1	Ahead	U	N/A	N/A	A		1	52	-	849	1967	1158	73.3%
1/2+1/3	Ahead Right	U	N/A	N/A	A	B	1	52	14	862	1960:1711	1129+37	74.0 : 74.0%
2/2+2/1	Ahead Left	U	N/A	N/A	C		1	38	-	729	1959:1817	798+96	81.6 : 81.6%
2/3	Ahead	U	N/A	N/A	C		1	38	-	678	1959	849	79.9%
3/1	Left	U	N/A	N/A	D		1	28	-	18	1827	589	3.1%
3/2	Right	U	N/A	N/A	D		1	28	-	25	1896	611	4.1%
4/1		U	N/A	N/A	-		-	-	-	660	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	687	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	862	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	847	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	105	Inf	Inf	0.0%

[illegible][illegible]

Full Input Data And Results

Scenario 5: 'Pref no LTC AM' (FG5: 'Pref no LTC AM', Plan 1: 'Network Control Plan 1')

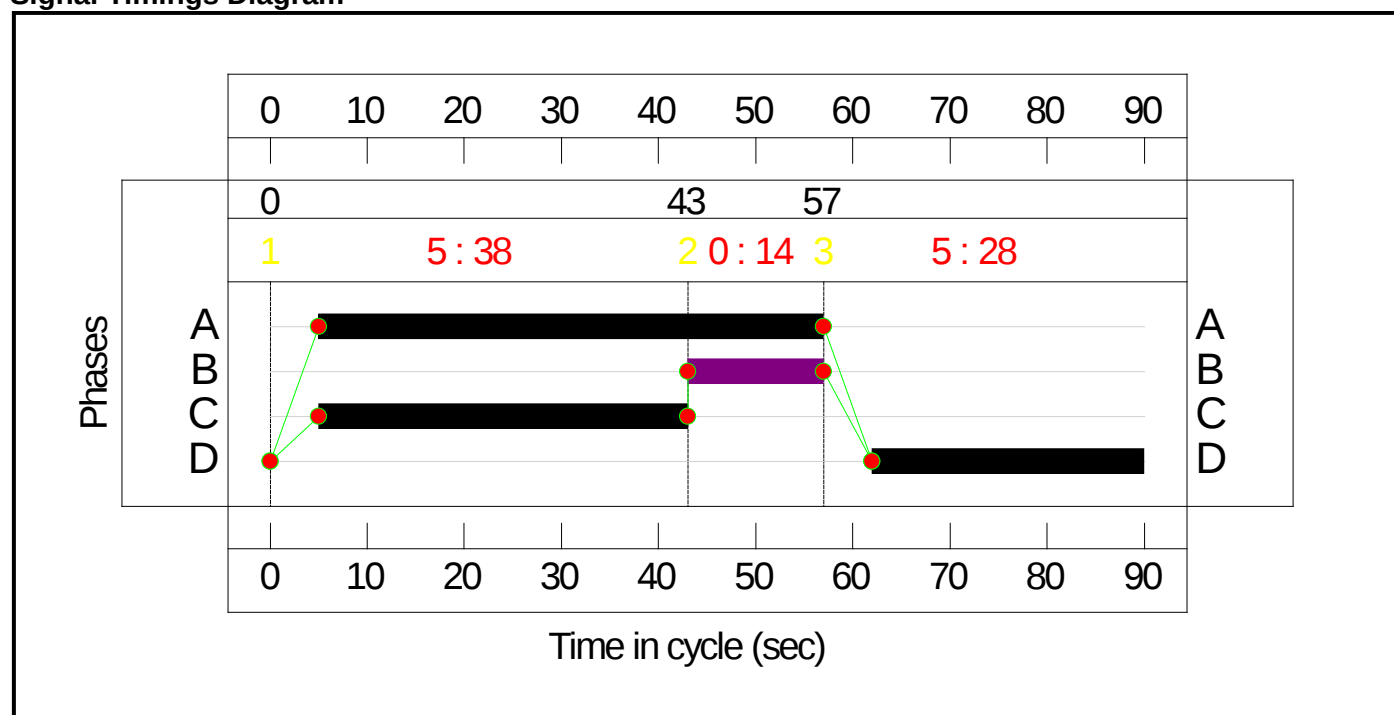
Stage Sequence Diagram



Stage Timings

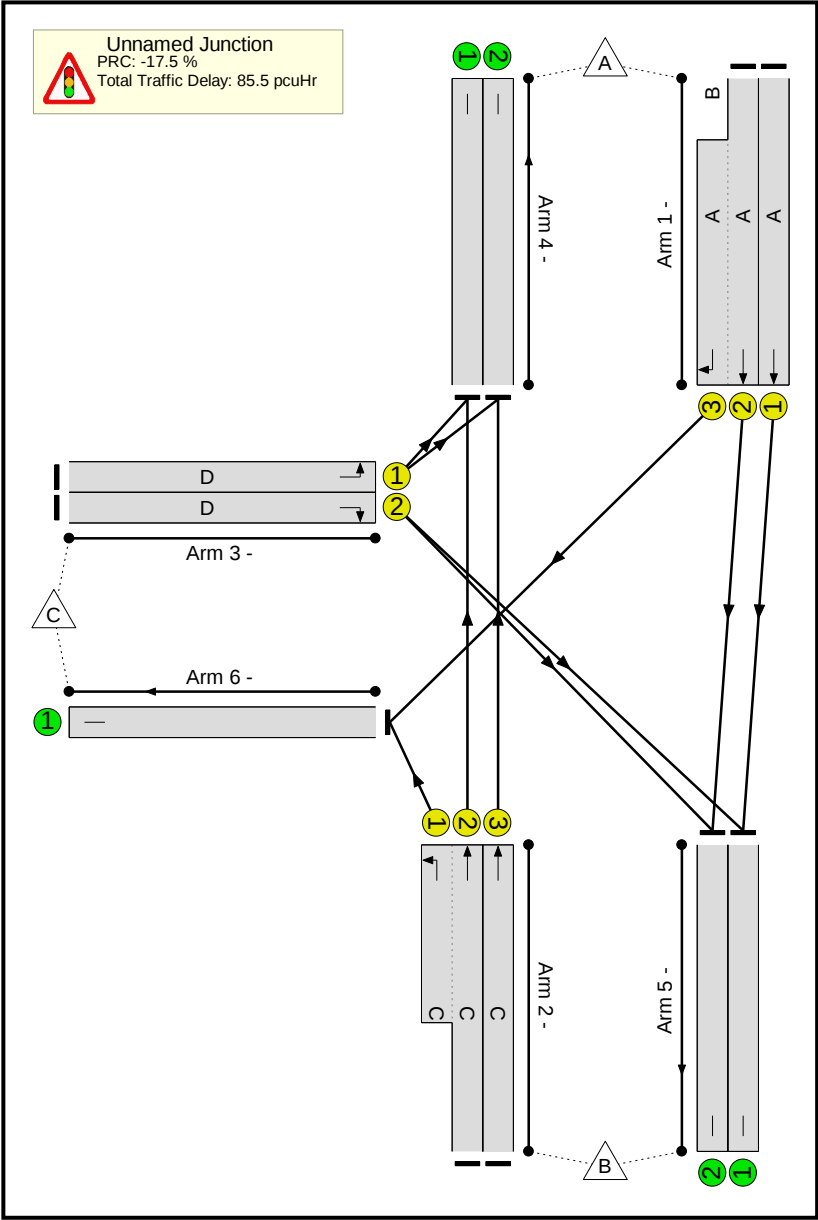
Stage	1	2	3
Duration	38	14	28
Change Point	0	43	57

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	-	-		-	-	-	-	-	-	105.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	105.8%
1/1	Ahead	U	N/A	N/A	A		1	52	-	581	1967	1158	50.2%
1/2+1/3	Ahead Right	U	N/A	N/A	A	B	1	52	14	588	1960:1711	1136+26	50.6 : 50.6%
2/2+2/1	Ahead Left	U	N/A	N/A	C		1	38	-	908	1959:1817	849+10	105.7 : 105.7%
2/3	Ahead	U	N/A	N/A	C		1	38	-	898	1959	849	105.8%
3/1	Left	U	N/A	N/A	D		1	28	-	68	1827	589	11.6%
3/2	Right	U	N/A	N/A	D		1	28	-	31	1896	611	5.1%
4/1		U	N/A	N/A	-		-	-	-	931	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	932	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	597	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	590	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%

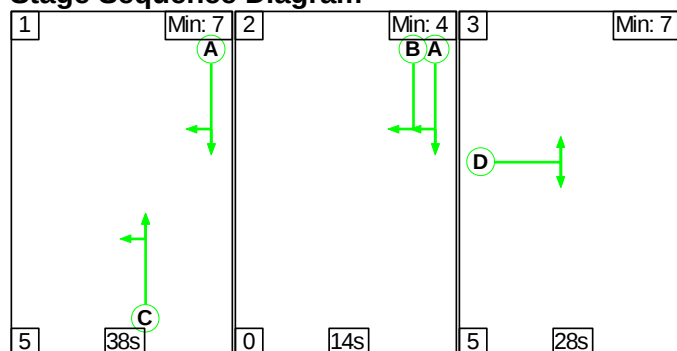
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 6: 'Pref no LTC PM' (FG6: 'Pref no LTC PM', Plan 1: 'Network Control Plan 1')

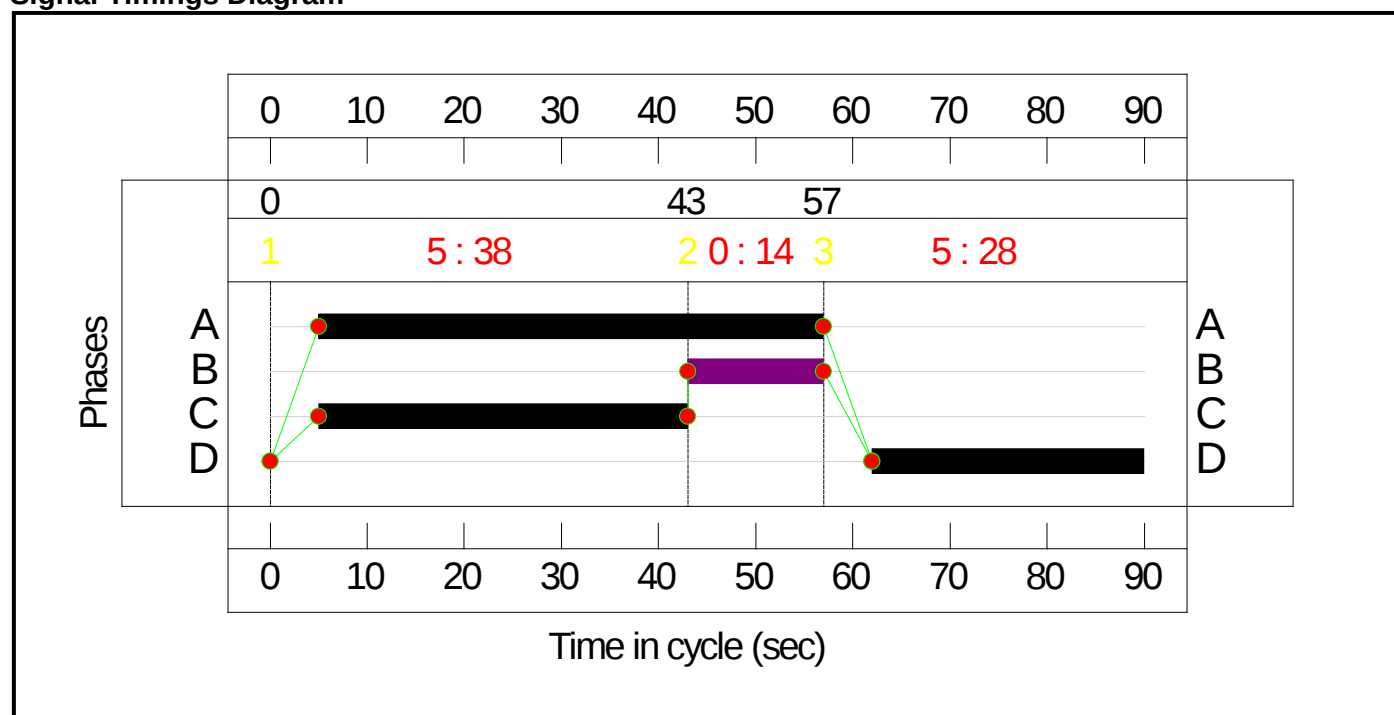
Stage Sequence Diagram



Stage Timings

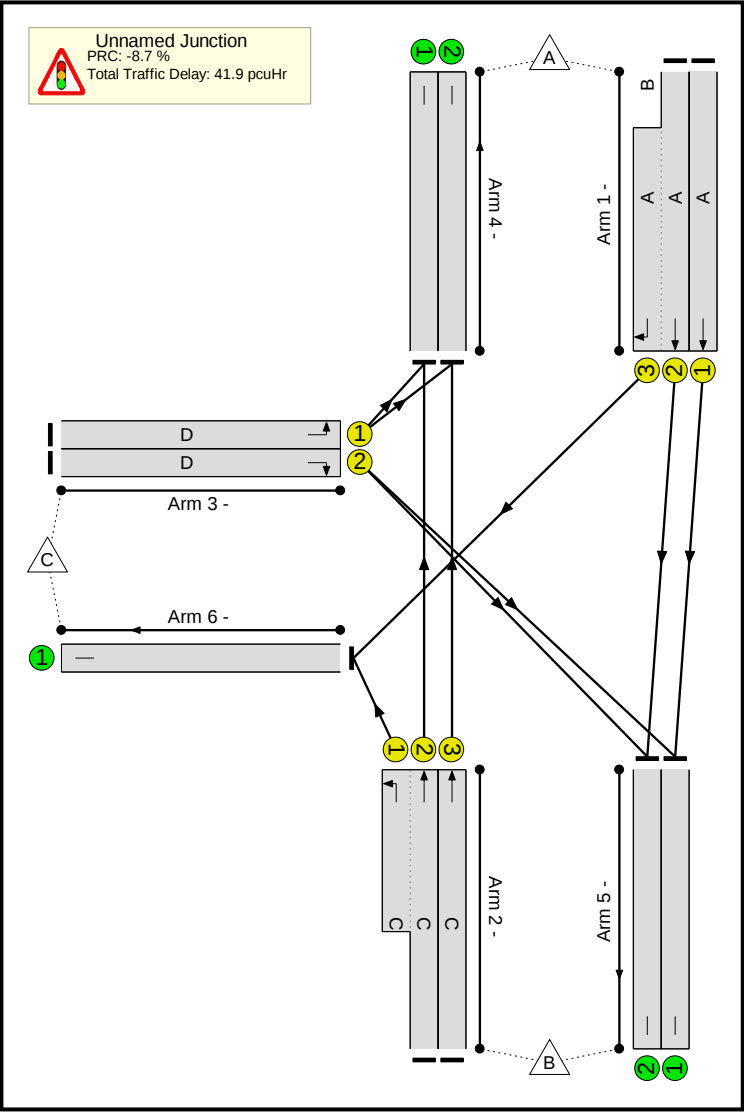
Stage	1	2	3
Duration	38	14	28
Change Point	0	43	57

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

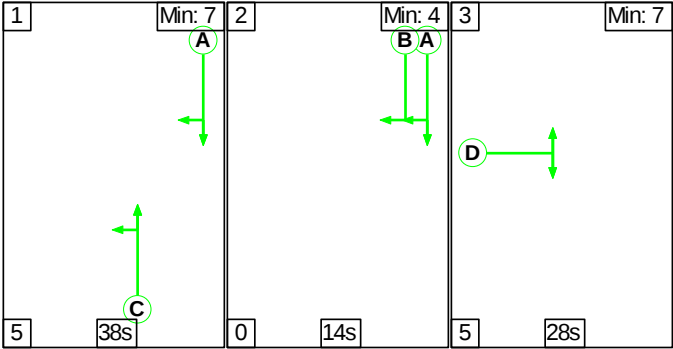
Network Results

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	-	-		-	-	-	-	-	-	97.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	97.8%
1/1	Ahead	U	N/A	N/A	A		1	52	-	866	1967	1158	74.8%
1/2+1/3	Ahead Right	U	N/A	N/A	A	B	1	52	14	879	1960:1711	1129+36	75.4 : 75.4%
2/2+2/1	Ahead Left	U	N/A	N/A	C		1	38	-	867	1959:1817	807+80	97.8 : 97.8%
2/3	Ahead	U	N/A	N/A	C		1	38	-	827	1959	849	97.4%
3/1	Left	U	N/A	N/A	D		1	28	-	19	1827	589	3.2%
3/2	Right	U	N/A	N/A	D		1	28	-	24	1896	611	3.9%
4/1		U	N/A	N/A	-		-	-	-	799	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	836	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	878	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	864	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	105	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	18.4	23.6	0.0	41.9	-	-	-	-
Unnamed Junction	-	-	0	0	0	18.4	23.6	0.0	41.9	-	-	-	-
1/1	866	866	-	-	-	3.3	1.5	-	4.7	19.7	15.9	1.5	17.3
1/2+1/3	879	879	-	-	-	3.3	1.5	-	4.8	19.5	15.7	1.5	17.2
2/2+2/1	867	867	-	-	-	5.9	10.6	-	16.5	68.5	20.3	10.6	31.0
2/3	827	827	-	-	-	5.7	9.9	-	15.7	68.2	20.2	9.9	30.1
3/1	19	19	-	-	-	0.1	0.0	-	0.1	24.2	0.3	0.0	0.3
3/2	24	24	-	-	-	0.1	0.0	-	0.2	24.1	0.4	0.0	0.4
4/1	799	799	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	836	836	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	878	878	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	864	864	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	105	105	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -8.7 Total Delay for Signalled Lanes (pcuHr): 41.94 Cycle Time (s): 90 PRC Over All Lanes (%): -8.7 Total Delay Over All Lanes(pcuHr): 41.94													

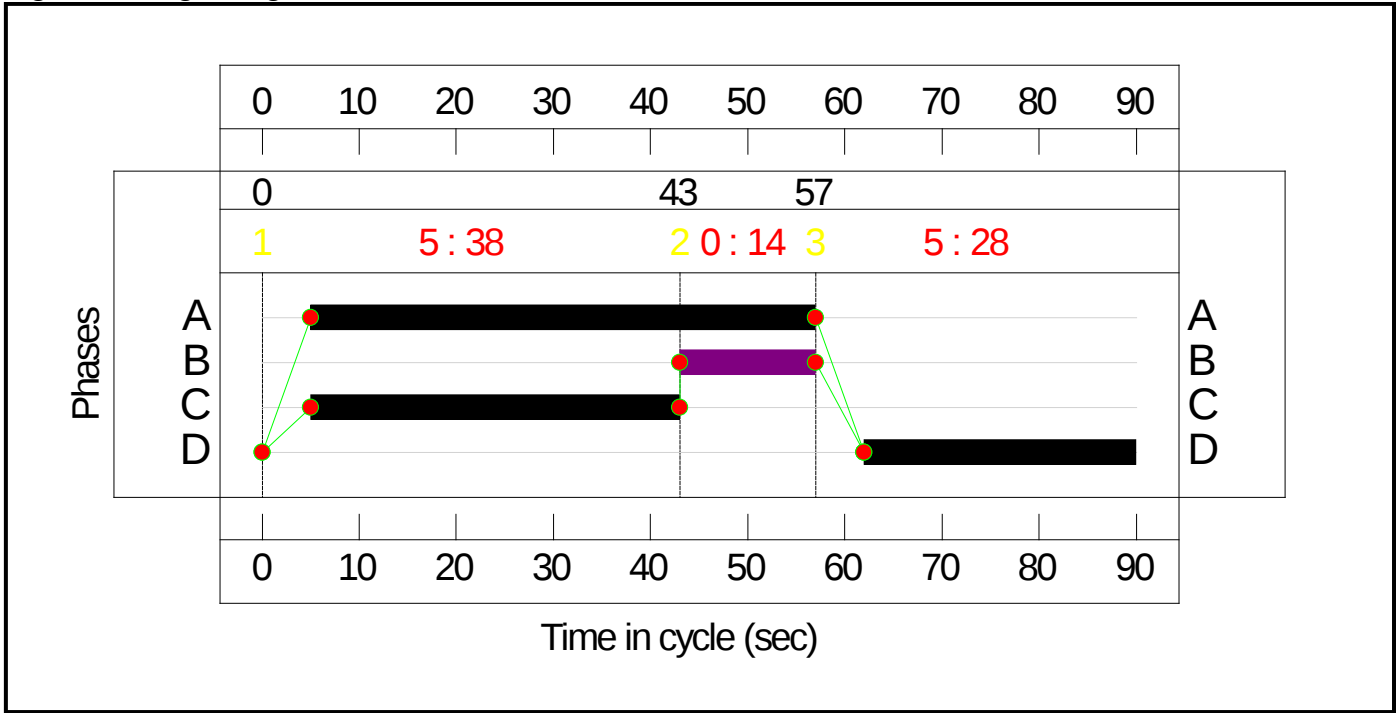
Stage Sequence Diagram



Stage Timings

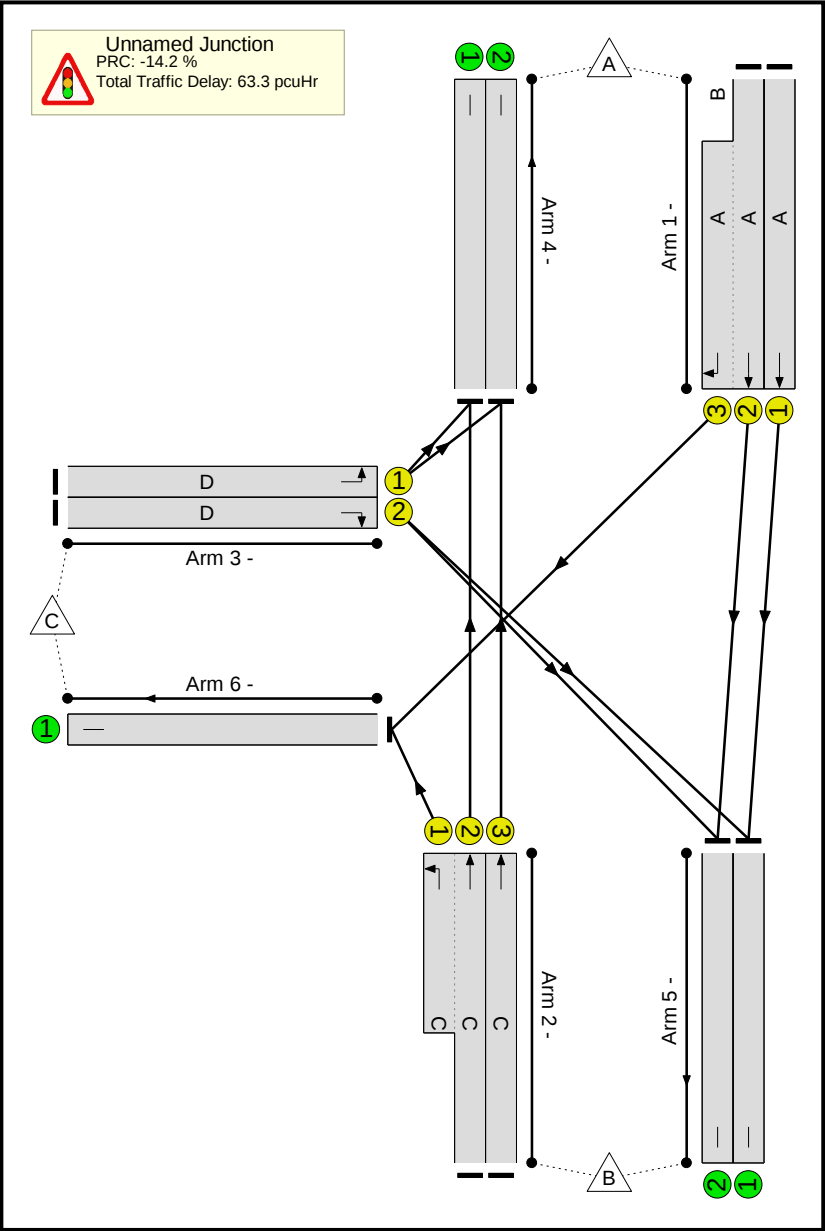
Stage	1	2	3
Duration	38	14	28
Change Point	0	43	57

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

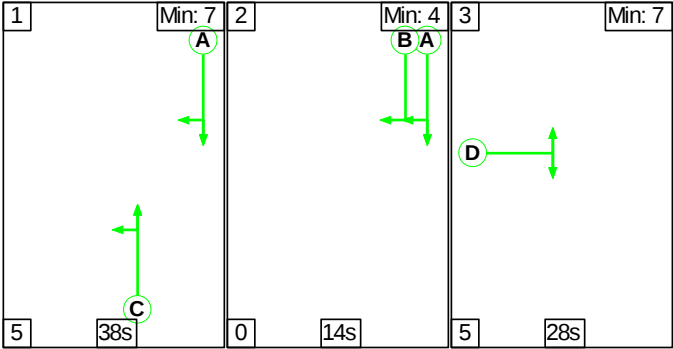
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	102.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	102.8%
1/1	Ahead	U	N/A	N/A	A		1	52	-	588	1967	1158	50.8%
1/2+1/3	Ahead Right	U	N/A	N/A	A	B	1	52	14	596	1960:1711	1135+27	51.3 : 51.3%
2/2+2/1	Ahead Left	U	N/A	N/A	C		1	38	-	883	1959:1817	848+11	102.8 : 102.8%
2/3	Ahead	U	N/A	N/A	C		1	38	-	872	1959	849	102.7%
3/1	Left	U	N/A	N/A	D		1	28	-	70	1827	589	11.9%
3/2	Right	U	N/A	N/A	D		1	28	-	29	1896	611	4.7%
4/1		U	N/A	N/A	-		-	-	-	907	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	907	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	603	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	596	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	25	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	18.6	44.7	0.0	63.3	-	-	-	-
Unnamed Junction	-	-	0	0	0	18.6	44.7	0.0	63.3	-	-	-	-
1/1	588	588	-	-	-	1.8	0.5	-	2.3	14.0	8.5	0.5	9.0
1/2+1/3	596	596	-	-	-	1.8	0.5	-	2.3	13.9	8.4	0.5	8.9
2/2+2/1	883	859	-	-	-	7.3	22.0	-	29.2	119.2	23.5	22.0	45.5
2/3	872	849	-	-	-	7.2	21.6	-	28.8	118.9	22.4	21.6	44.0
3/1	70	70	-	-	-	0.4	0.1	-	0.5	25.0	1.2	0.1	1.3
3/2	29	29	-	-	-	0.2	0.0	-	0.2	24.1	0.5	0.0	0.5
4/1	883	883	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	884	884	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	603	603	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	596	596	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	25	25	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -14.2 Total Delay for Signalled Lanes (pcuHr): 63.31 Cycle Time (s): 90 PRC Over All Lanes (%): -14.2 Total Delay Over All Lanes(pcuHr): 63.31													

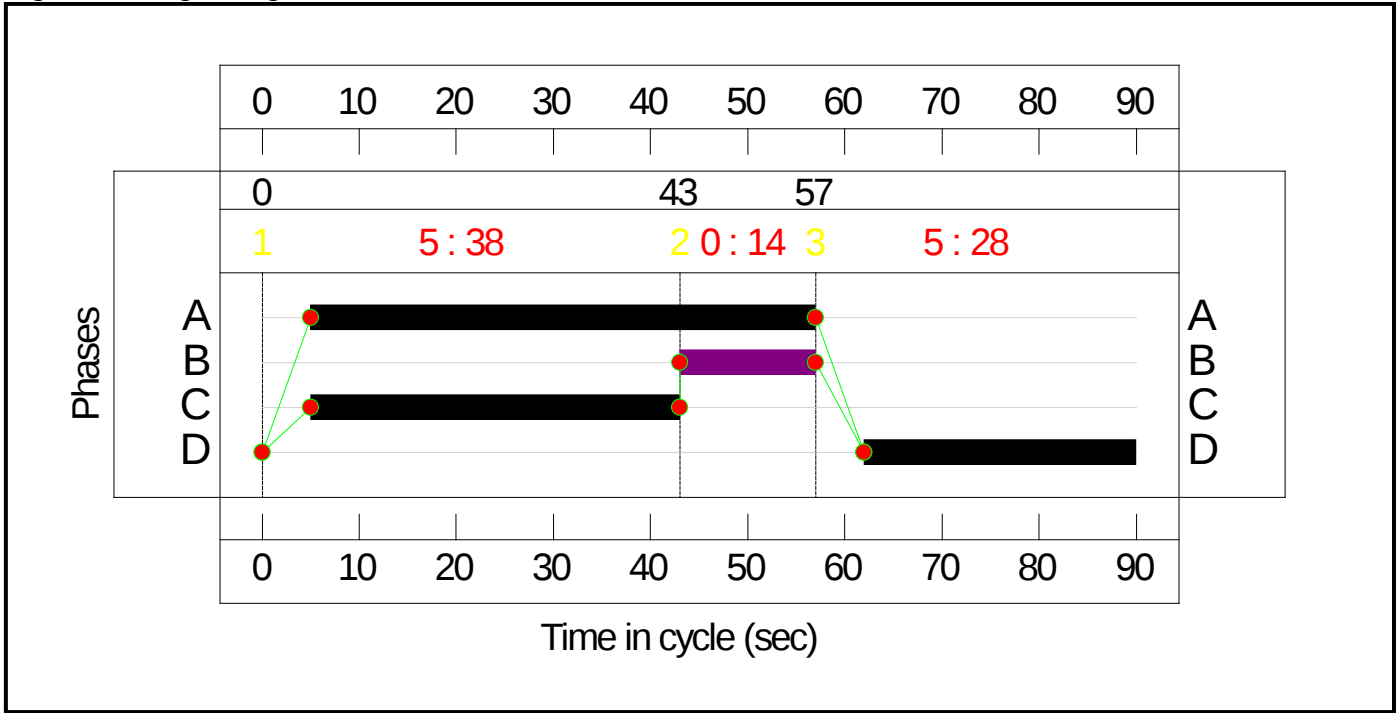
Stage Sequence Diagram



Stage Timings

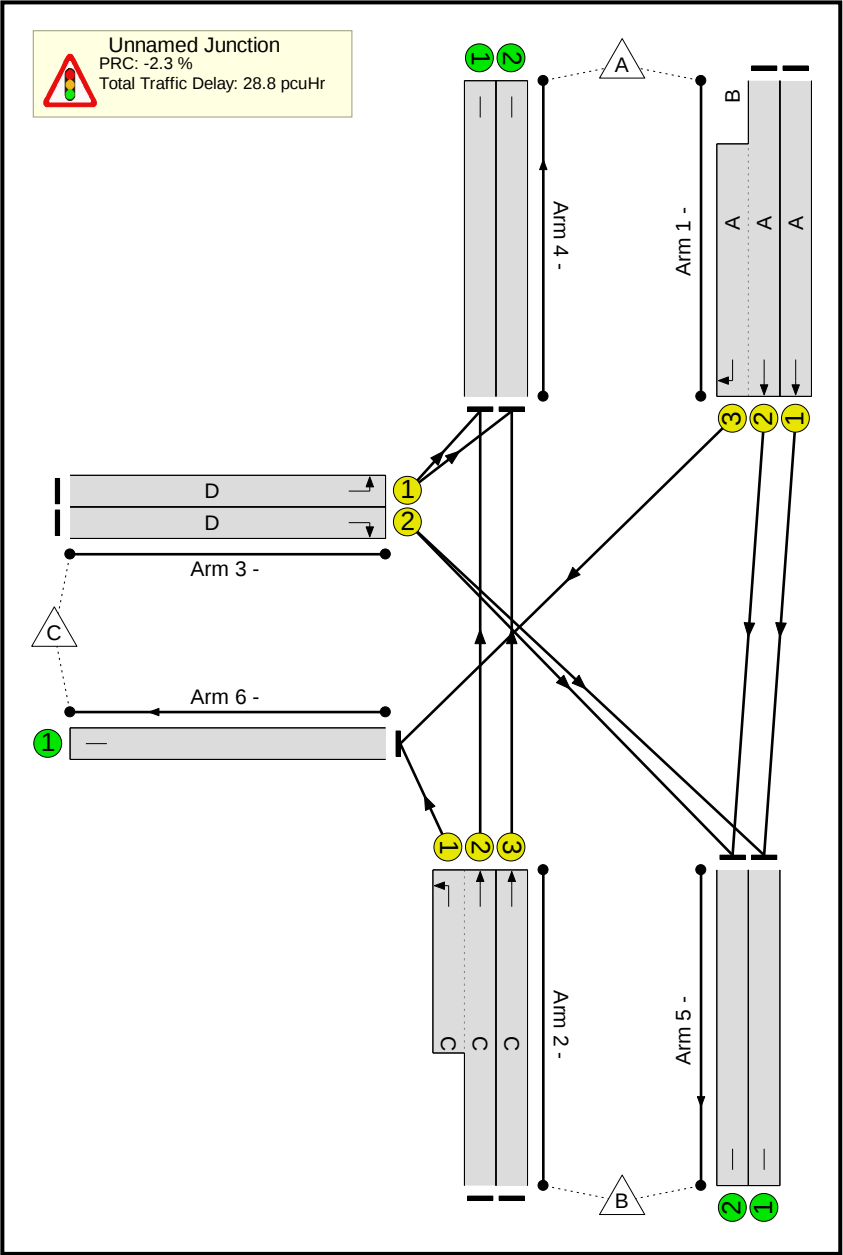
Stage	1	2	3
Duration	38	14	28
Change Point	0	43	57

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	-	-		-	-	-	-	-	-	92.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	92.1%
1/1	Ahead	U	N/A	N/A	A		1	52	-	819	1967	1158	70.7%
1/2+1/3	Ahead Right	U	N/A	N/A	A	B	1	52	14	833	1960:1711	1128+38	71.4 : 71.4%
2/2+2/1	Ahead Left	U	N/A	N/A	C		1	38	-	818	1959:1817	804+85	92.1 : 92.1%
2/3	Ahead	U	N/A	N/A	C		1	38	-	775	1959	849	91.3%
3/1	Left	U	N/A	N/A	D		1	28	-	18	1827	589	3.1%
3/2	Right	U	N/A	N/A	D		1	28	-	25	1896	611	4.1%
4/1		U	N/A	N/A	-		-	-	-	749	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	784	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	832	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	818	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	105	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	16.6	12.2	0.0	28.8	-	-	-	-
Unnamed Junction	-	-	0	0	0	16.6	12.2	0.0	28.8	-	-	-	-
1/1	819	819	-	-	-	3.0	1.2	-	4.2	18.3	14.3	1.2	15.5
1/2+1/3	833	833	-	-	-	3.0	1.2	-	4.2	18.1	14.2	1.2	15.4
2/2+2/1	818	818	-	-	-	5.3	5.1	-	10.3	45.5	18.2	5.1	23.2
2/3	775	775	-	-	-	5.1	4.7	-	9.8	45.5	18.1	4.7	22.7
3/1	18	18	-	-	-	0.1	0.0	-	0.1	24.2	0.3	0.0	0.3
3/2	25	25	-	-	-	0.1	0.0	-	0.2	24.1	0.4	0.0	0.4
4/1	749	749	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	784	784	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	832	832	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	818	818	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	105	105	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -2.3 Total Delay for Signalled Lanes (pcuHr): 28.79 Cycle Time (s): 90 PRC Over All Lanes (%): -2.3 Total Delay Over All Lanes(pcuHr): 28.79													

Appendix X

B255 / Castlebridge Drive

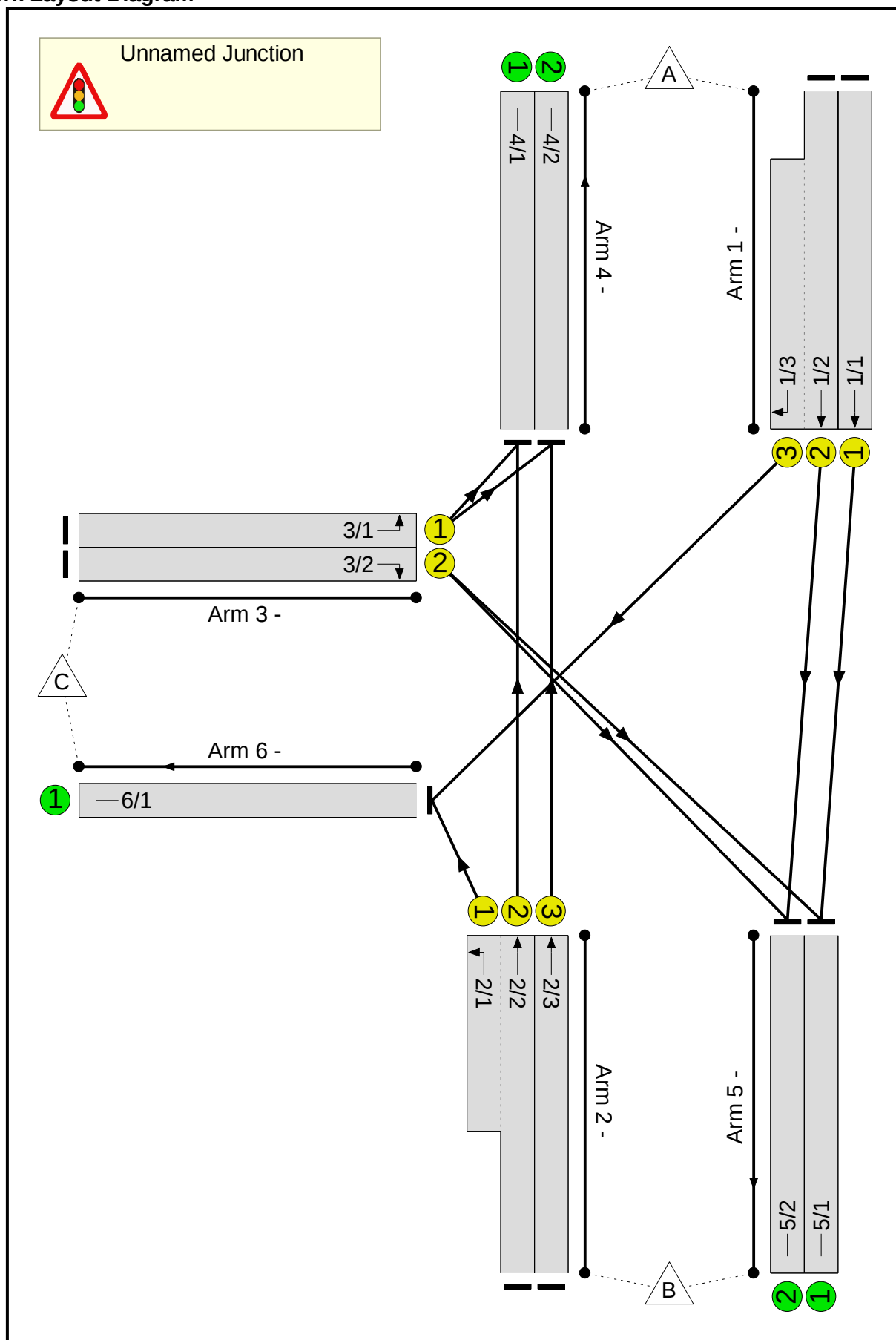
Mitigation Layout Modelling Output

Full Input Data And Results

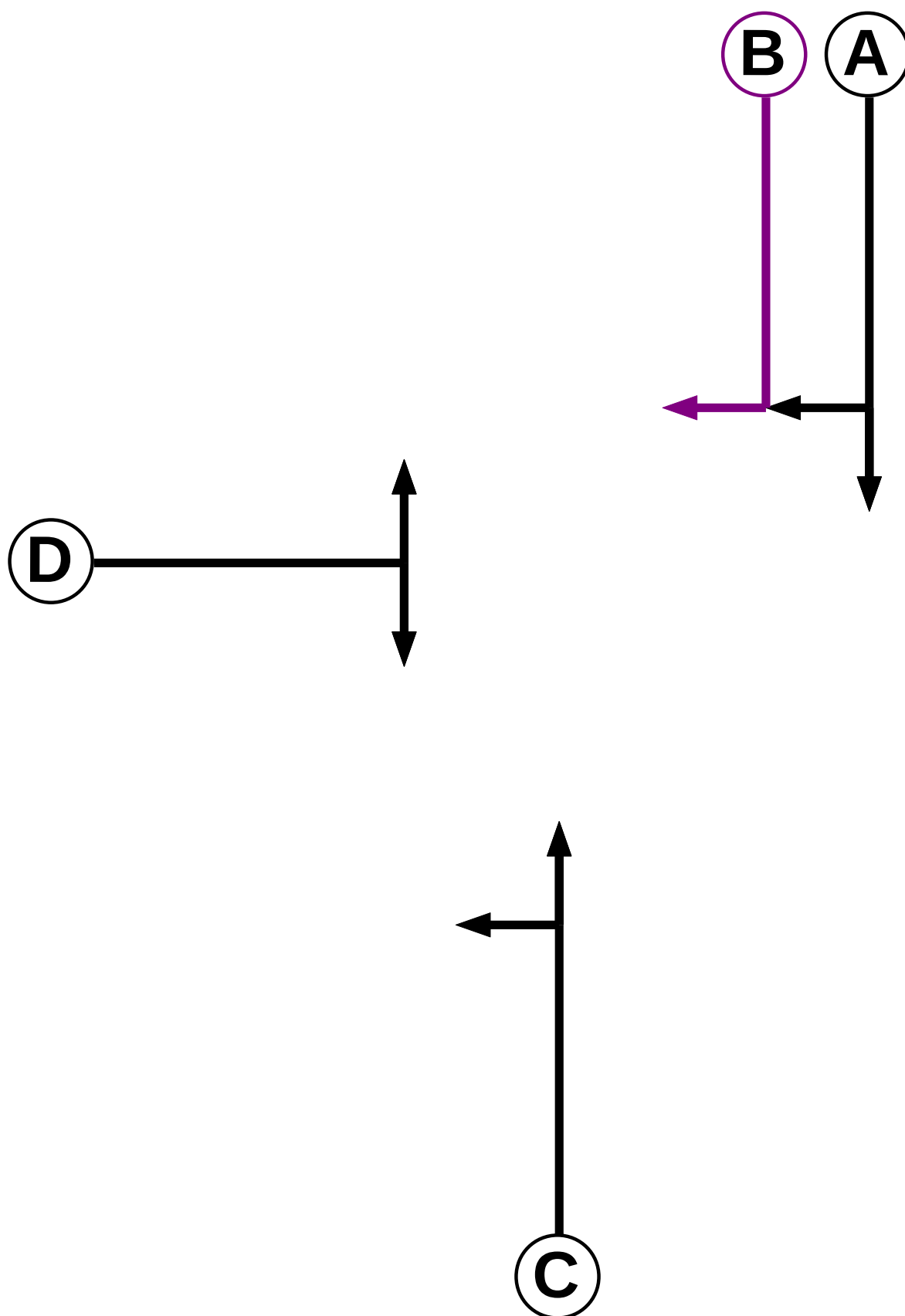
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	8. B255 _ Castlebridge Dr - Mitigation.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic	A	7	7
B	Ind. Arrow		4	4
C	Traffic		7	7
D	Traffic		7	7

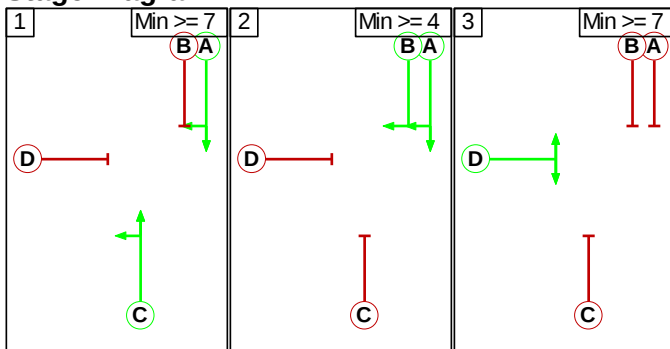
Phase Intergreens Matrix

Terminating Phase	Starting Phase				
		A	B	C	D
	A		-	-	5
	B	-		-	5
	C	-	0		-
	D	5	-	5	

Phases in Stage

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

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		0	5
	2	2		5
	3	5	X	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction
There are no Opposed Lanes in this Junction

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1	U	A	2	3	60.0	Geom	-	3.52	0.00	Y	Arm 5 Ahead	Inf
1/2	U	A	2	3	60.0	Geom	-	3.45	0.00	Y	Arm 5 Ahead	Inf
1/3	U	A B	2	3	13.0	Geom	-	3.10	0.00	Y	Arm 6 Right	12.00
2/1	U	C	2	3	8.7	Geom	-	3.53	0.00	Y	Arm 6 Left	18.00
2/2	U	C	2	3	60.0	Geom	-	3.44	0.00	Y	Arm 4 Ahead	Inf
2/3	U	C	2	3	60.0	Geom	-	3.44	0.00	Y	Arm 4 Ahead	Inf
3/1	U	D	2	3	60.0	Geom	-	3.64	0.00	Y	Arm 4 Left	18.00
3/2	U	D	2	3	60.0	Geom	-	3.83	0.00	Y	Arm 5 Right	28.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	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: 'Ref no LTC AM'	08:00	09:00	01:00	
2: 'Ref no LTC PM'	17:00	18:00	01:00	
3: 'Ref LTC AM'	08:00	09:00	01:00	
4: 'Ref LTC PM'	17:00	18:00	01:00	
5: 'Pref no LTC AM'	08:00	09:00	01:00	
6: 'Pref no LTC PM'	17:00	18:00	01:00	
7: 'Pref LTC AM'	08:00	09:00	01:00	
8: 'Pref LTC PM'	17:00	18:00	01:00	

Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	1153	14	1167
	B	1780	0	10	1790
	C	67	31	0	98
	Tot.	1847	1184	24	3055

Traffic Lane Flows

Lane	Scenario 1: Ref no LTC AM
Junction: Unnamed Junction	
1/1	579
1/2 (with short)	588(In) 574(Out)
1/3 (short)	14
2/1 (short)	10
2/2 (with short)	900(In) 890(Out)
2/3	890
3/1	67
3/2	31
4/1	924
4/2	923
5/1	595
5/2	589
6/1	24

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.52	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1967	1967
1/2	3.45	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1960	1960
1/3	3.10	0.00	Y	Arm 6 Right	12.00	100.0 %	1711	1711
2/1	3.53	0.00	Y	Arm 6 Left	18.00	100.0 %	1817	1817
2/2	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
2/3	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
3/1	3.64	0.00	Y	Arm 4 Left	18.00	100.0 %	1827	1827
3/2	3.83	0.00	Y	Arm 5 Right	28.00	100.0 %	1896	1896
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Ref no LTC PM' (FG2: 'Ref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	1745	27	1772
	B	1493	0	78	1571
	C	17	26	0	43
	Tot.	1510	1771	105	3386

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: Ref no LTC PM
Junction: Unnamed Junction	
1/1	880
1/2 (with short)	892(In) 865(Out)
1/3 (short)	27
2/1 (short)	78
2/2 (with short)	807(In) 729(Out)
2/3	764
3/1	17
3/2	26
4/1	738
4/2	772
5/1	893
5/2	878
6/1	105

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.52	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1967	1967
1/2	3.45	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1960	1960
1/3	3.10	0.00	Y	Arm 6 Right	12.00	100.0 %	1711	1711
2/1	3.53	0.00	Y	Arm 6 Left	18.00	100.0 %	1817	1817
2/2	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
2/3	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
3/1	3.64	0.00	Y	Arm 4 Left	18.00	100.0 %	1827	1827
3/2	3.83	0.00	Y	Arm 5 Right	28.00	100.0 %	1896	1896
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

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

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	1087	13	1100
	B	1733	0	10	1743
	C	68	31	0	99
	Tot.	1801	1118	23	2942

Traffic Lane Flows

Lane	Scenario 3: Ref LTC AM
Junction: Unnamed Junction	
1/1	546
1/2 (with short)	554(In) 541(Out)
1/3 (short)	13
2/1 (short)	10
2/2 (with short)	877(In) 867(Out)
2/3	866
3/1	68
3/2	31
4/1	901
4/2	900
5/1	562
5/2	556
6/1	23

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.52	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1967	1967
1/2	3.45	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1960	1960
1/3	3.10	0.00	Y	Arm 6 Right	12.00	100.0 %	1711	1711
2/1	3.53	0.00	Y	Arm 6 Left	18.00	100.0 %	1817	1817
2/2	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
2/3	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
3/1	3.64	0.00	Y	Arm 4 Left	18.00	100.0 %	1827	1827
3/2	3.83	0.00	Y	Arm 5 Right	28.00	100.0 %	1896	1896
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	1684	27	1711
	B	1329	0	78	1407
	C	18	25	0	43
	Tot.	1347	1709	105	3161

Traffic Lane Flows

Lane	Scenario 4: Ref LTC PM
Junction: Unnamed Junction	
1/1	849
1/2 (with short)	862(In) 835(Out)
1/3 (short)	27
2/1 (short)	78
2/2 (with short)	729(In) 651(Out)
2/3	678
3/1	18
3/2	25
4/1	660
4/2	687
5/1	862
5/2	847
6/1	105

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.52	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1967	1967
1/2	3.45	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1960	1960
1/3	3.10	0.00	Y	Arm 6 Right	12.00	100.0 %	1711	1711
2/1	3.53	0.00	Y	Arm 6 Left	18.00	100.0 %	1817	1817
2/2	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
2/3	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
3/1	3.64	0.00	Y	Arm 4 Left	18.00	100.0 %	1827	1827
3/2	3.83	0.00	Y	Arm 5 Right	28.00	100.0 %	1896	1896
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: 'Pref no LTC AM' (FG5: 'Pref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	1156	13	1169
	B	1795	0	11	1806
	C	68	31	0	99
	Tot.	1863	1187	24	3074

Traffic Lane Flows

Lane	Scenario 5: Pref no LTC AM
Junction: Unnamed Junction	
1/1	581
1/2 (with short)	588(In) 575(Out)
1/3 (short)	13
2/1 (short)	11
2/2 (with short)	908(In) 897(Out)
2/3	898
3/1	68
3/2	31
4/1	931
4/2	932
5/1	597
5/2	590
6/1	24

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.52	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1967	1967
1/2	3.45	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1960	1960
1/3	3.10	0.00	Y	Arm 6 Right	12.00	100.0 %	1711	1711
2/1	3.53	0.00	Y	Arm 6 Left	18.00	100.0 %	1817	1817
2/2	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
2/3	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
3/1	3.64	0.00	Y	Arm 4 Left	18.00	100.0 %	1827	1827
3/2	3.83	0.00	Y	Arm 5 Right	28.00	100.0 %	1896	1896
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Pref no LTC PM' (FG6: 'Pref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	1718	27	1745
	B	1616	0	78	1694
	C	19	24	0	43
	Tot.	1635	1742	105	3482

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: Pref no LTC PM
Junction: Unnamed Junction	
1/1	866
1/2 (with short)	879(In) 852(Out)
1/3 (short)	27
2/1 (short)	78
2/2 (with short)	867(In) 789(Out)
2/3	827
3/1	19
3/2	24
4/1	799
4/2	836
5/1	878
5/2	864
6/1	105

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.52	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1967	1967
1/2	3.45	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1960	1960
1/3	3.10	0.00	Y	Arm 6 Right	12.00	100.0 %	1711	1711
2/1	3.53	0.00	Y	Arm 6 Left	18.00	100.0 %	1817	1817
2/2	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
2/3	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
3/1	3.64	0.00	Y	Arm 4 Left	18.00	100.0 %	1827	1827
3/2	3.83	0.00	Y	Arm 5 Right	28.00	100.0 %	1896	1896
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 7: 'Pref LTC AM' (FG7: 'Pref LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	1170	14	1184
	B	1744	0	11	1755
	C	70	29	0	99
	Tot.	1814	1199	25	3038

Traffic Lane Flows

Lane	Scenario 7: Pref LTC AM
Junction: Unnamed Junction	
1/1	588
1/2 (with short)	596(In) 582(Out)
1/3 (short)	14
2/1 (short)	11
2/2 (with short)	883(In) 872(Out)
2/3	872
3/1	70
3/2	29
4/1	907
4/2	907
5/1	603
5/2	596
6/1	25

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.52	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1967	1967
1/2	3.45	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1960	1960
1/3	3.10	0.00	Y	Arm 6 Right	12.00	100.0 %	1711	1711
2/1	3.53	0.00	Y	Arm 6 Left	18.00	100.0 %	1817	1817
2/2	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
2/3	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
3/1	3.64	0.00	Y	Arm 4 Left	18.00	100.0 %	1827	1827
3/2	3.83	0.00	Y	Arm 5 Right	28.00	100.0 %	1896	1896
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Pref LTC PM' (FG8: 'Pref LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	1625	27	1652
	B	1515	0	78	1593
	C	18	25	0	43
	Tot.	1533	1650	105	3288

Traffic Lane Flows

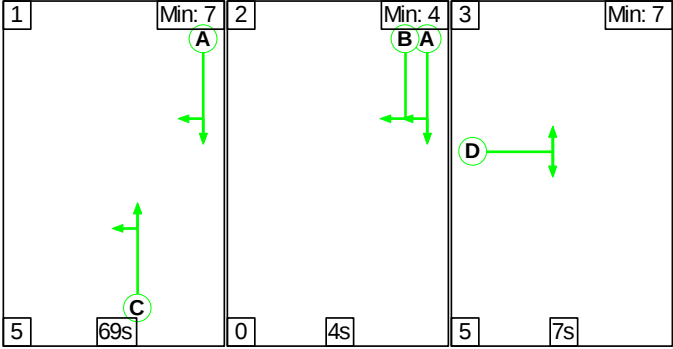
Lane	Scenario 8: Pref LTC PM
Junction: Unnamed Junction	
1/1	819
1/2 (with short)	833(In) 806(Out)
1/3 (short)	27
2/1 (short)	78
2/2 (with short)	818(In) 740(Out)
2/3	775
3/1	18
3/2	25
4/1	749
4/2	784
5/1	832
5/2	818
6/1	105

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	3.52	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1967	1967
1/2	3.45	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1960	1960
1/3	3.10	0.00	Y	Arm 6 Right	12.00	100.0 %	1711	1711
2/1	3.53	0.00	Y	Arm 6 Left	18.00	100.0 %	1817	1817
2/2	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
2/3	3.44	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1959	1959
3/1	3.64	0.00	Y	Arm 4 Left	18.00	100.0 %	1827	1827
3/2	3.83	0.00	Y	Arm 5 Right	28.00	100.0 %	1896	1896
4/1	Infinite Saturation Flow						Inf	Inf
4/2	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')

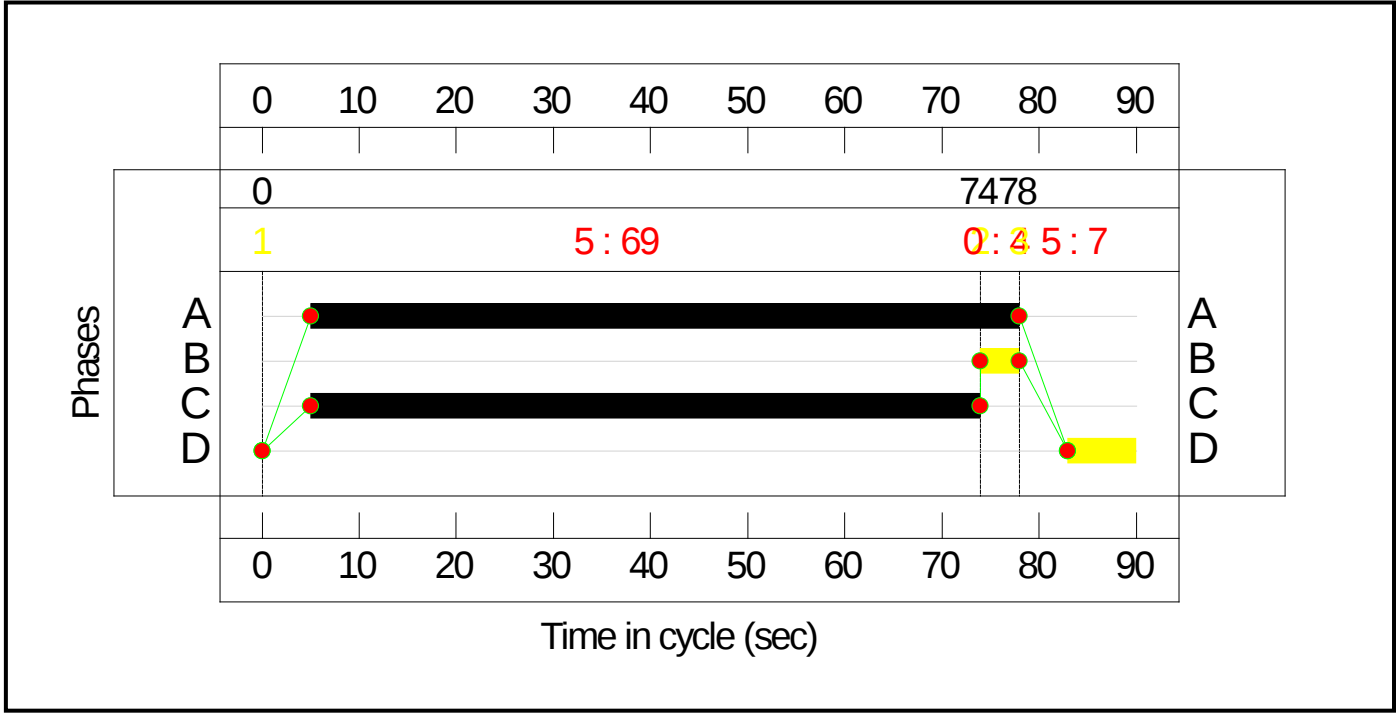
Stage Sequence Diagram



Stage Timings

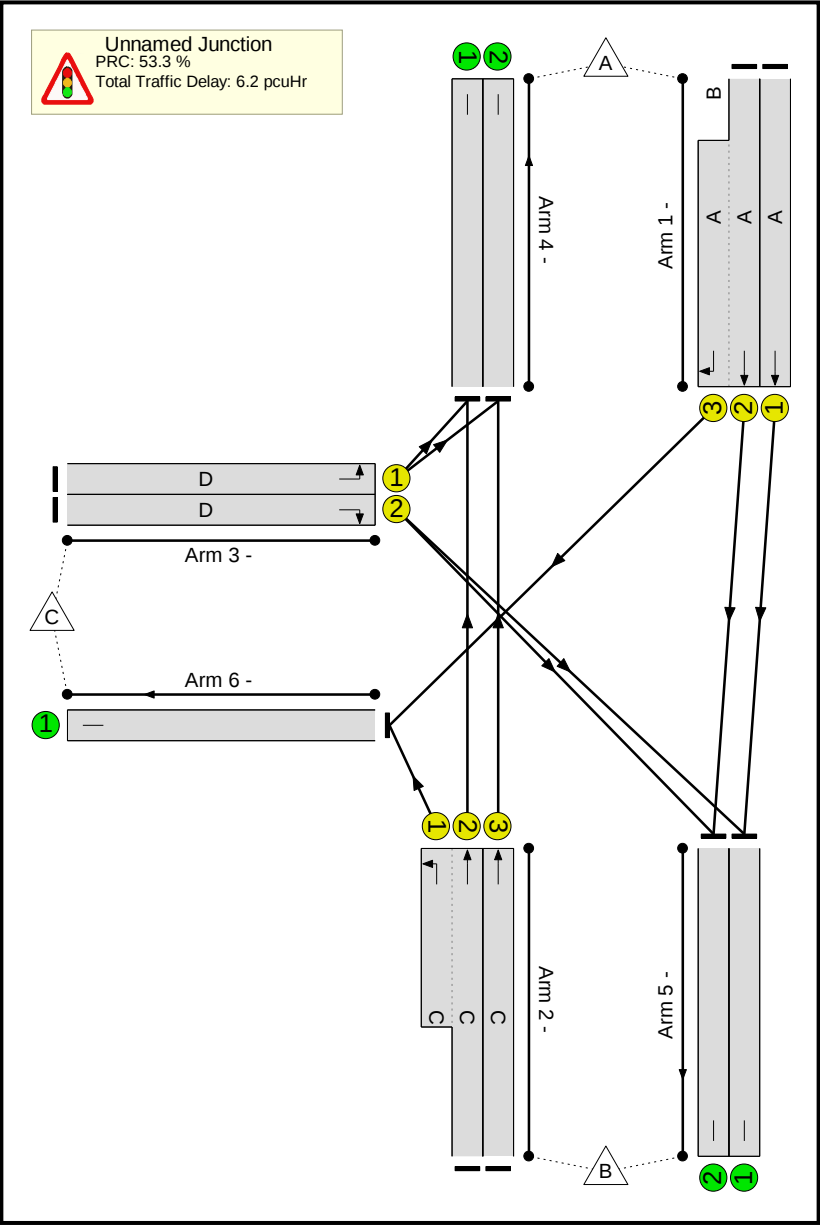
Stage	1	2	3
Duration	69	4	7
Change Point	0	74	78

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

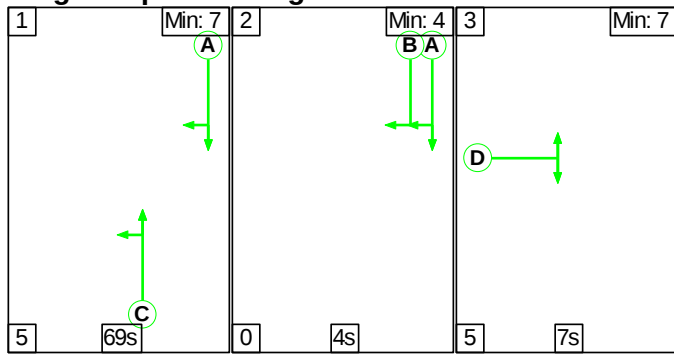
Network Results

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	-	-		-	-	-	-	-	-	58.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	58.7%
1/1	Ahead	U	N/A	N/A	A		1	73	-	579	1967	1617	35.8%
1/2+1/3	Ahead Right	U	N/A	N/A	A	B	1	73	4	588	1960:1711	1579+39	36.3 : 36.3%
2/2+2/1	Ahead Left	U	N/A	N/A	C		1	69	-	900	1959:1817	1516+17	58.7 : 58.7%
2/3	Ahead	U	N/A	N/A	C		1	69	-	890	1959	1524	58.4%
3/1	Left	U	N/A	N/A	D		1	7	-	67	1827	162	41.3%
3/2	Right	U	N/A	N/A	D		1	7	-	31	1896	169	18.4%
4/1		U	N/A	N/A	-		-	-	-	924	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	923	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	595	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	589	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	24	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	3.7	2.4	0.0	6.2	-	-	-	-
Unnamed Junction	-	-	0	0	0	3.7	2.4	0.0	6.2	-	-	-	-
1/1	579	579	-	-	-	0.3	0.3	-	0.6	3.8	3.5	0.3	3.8
1/2+1/3	588	588	-	-	-	0.3	0.3	-	0.6	3.7	3.5	0.3	3.8
2/2+2/1	900	900	-	-	-	1.0	0.7	-	1.7	6.9	9.0	0.7	9.7
2/3	890	890	-	-	-	1.0	0.7	-	1.7	6.9	8.9	0.7	9.6
3/1	67	67	-	-	-	0.7	0.3	-	1.1	57.5	1.6	0.3	1.9
3/2	31	31	-	-	-	0.3	0.1	-	0.4	51.1	0.7	0.1	0.8
4/1	924	924	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	923	923	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	595	595	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	589	589	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	24	24	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		53.3	Total Delay for Signalled Lanes (pcuHr):			6.16	Cycle Time (s):		90	
			PRC Over All Lanes (%):		53.3	Total Delay Over All Lanes(pcuHr):			6.16				

Stage Sequence Diagram



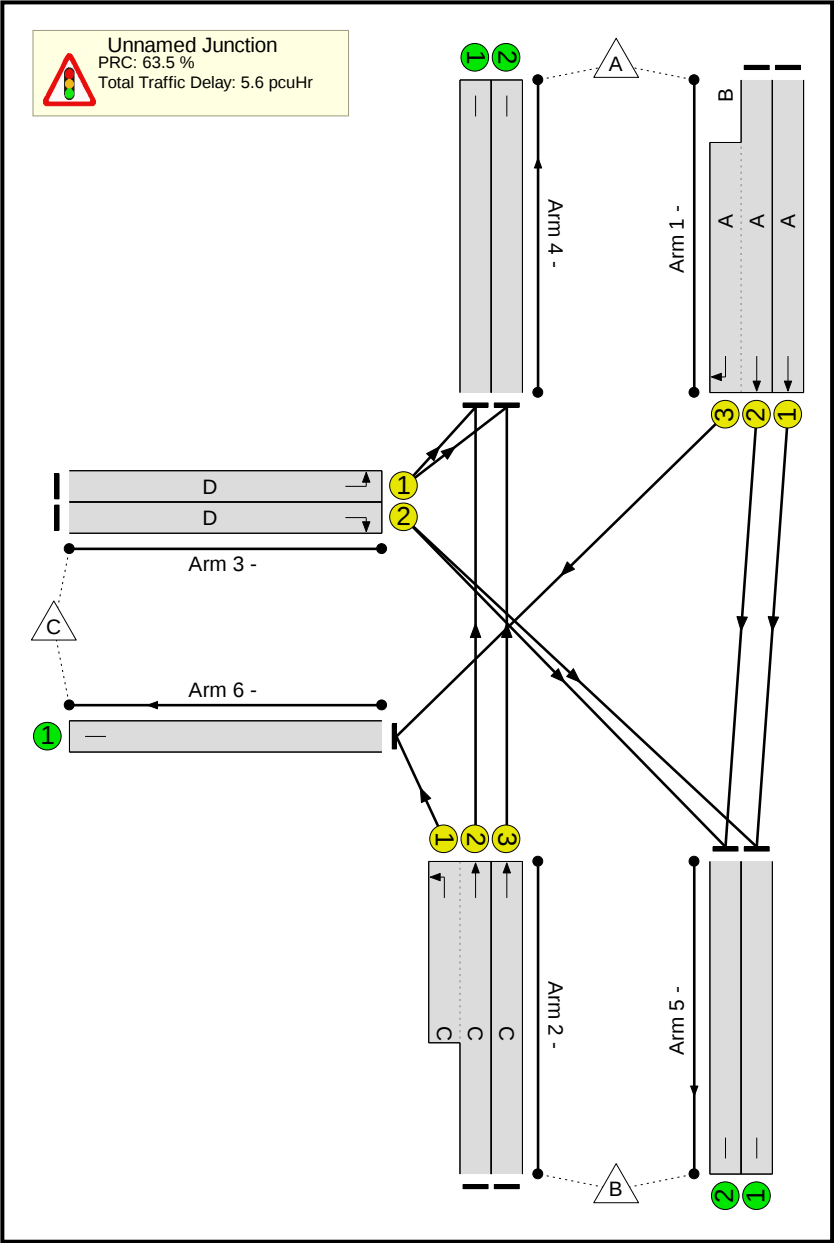
Stage	1	2	3
Duration	69	4	7
Change Point	0	74	78

Stage	1	2	3
Duration	69	4	7
Change Point	0	74	78

Timing diagram for a 4-phase system (A, B, C, D) over 90 seconds. The diagram shows phase transitions and durations. Phase A is high from 0 to 74.78 seconds. Phase B is high from 0 to 74.78 seconds. Phase C is high from 0 to 74.78 seconds. Phase D is high from 0 to 74.78 seconds. The diagram also shows a yellow bar from 74.78 to 84.78 seconds, labeled '0:45:7'.

Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

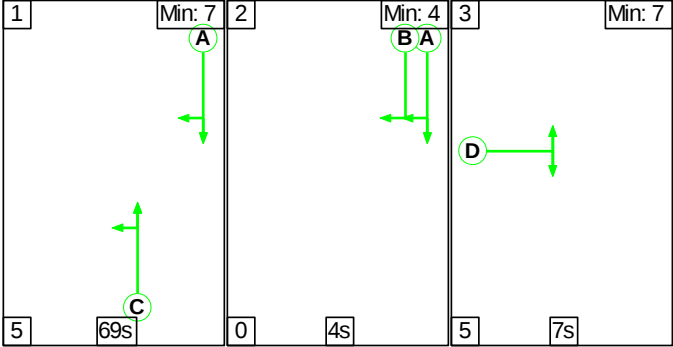
Network Results

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	-	-		-	-	-	-	-	-	55.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	55.1%
1/1	Ahead	U	N/A	N/A	A		1	73	-	880	1967	1617	54.4%
1/2+1/3	Ahead Right	U	N/A	N/A	A	B	1	73	4	892	1960:1711	1571+49	55.1 : 55.1%
2/2+2/1	Ahead Left	U	N/A	N/A	C		1	69	-	807	1959:1817	1408+151	51.8 : 51.8%
2/3	Ahead	U	N/A	N/A	C		1	69	-	764	1959	1524	50.1%
3/1	Left	U	N/A	N/A	D		1	7	-	17	1827	162	10.5%
3/2	Right	U	N/A	N/A	D		1	7	-	26	1896	169	15.4%
4/1		U	N/A	N/A	-		-	-	-	738	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	772	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	893	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	878	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	105	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

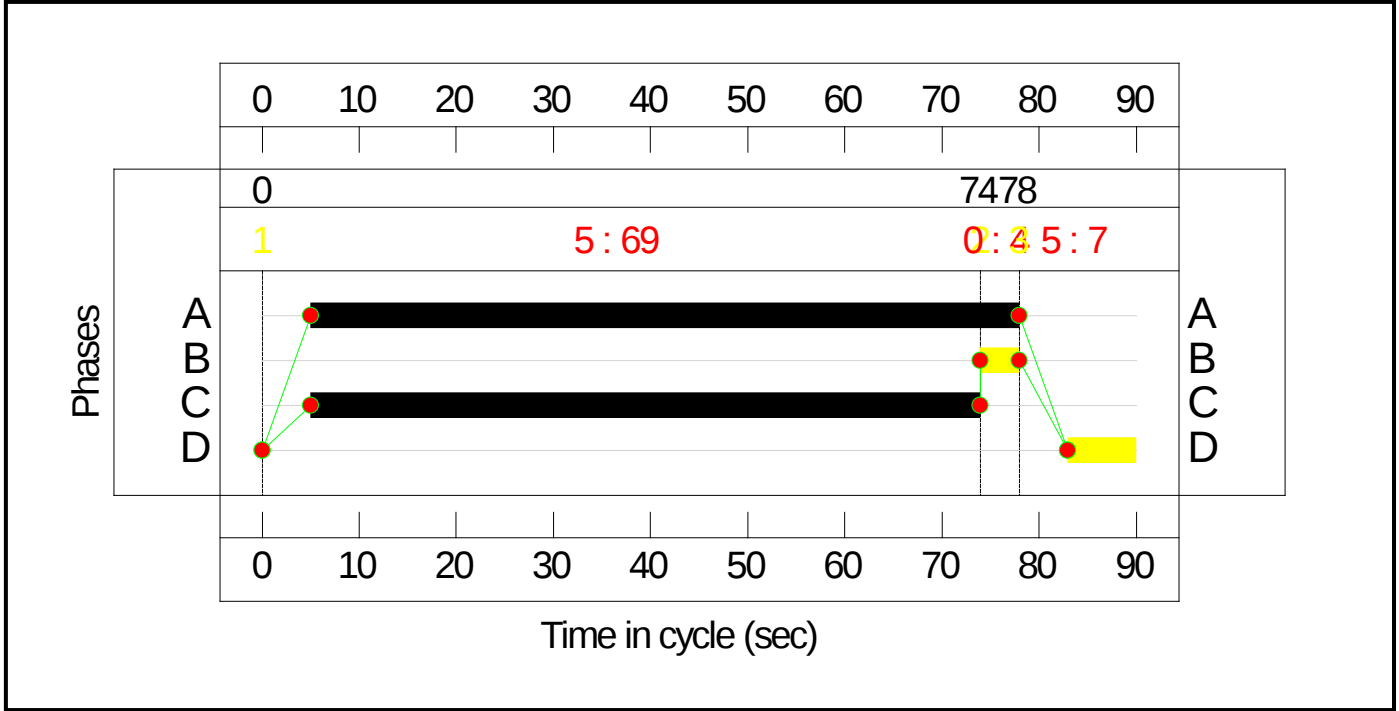
Stage Sequence Diagram



Stage Timings

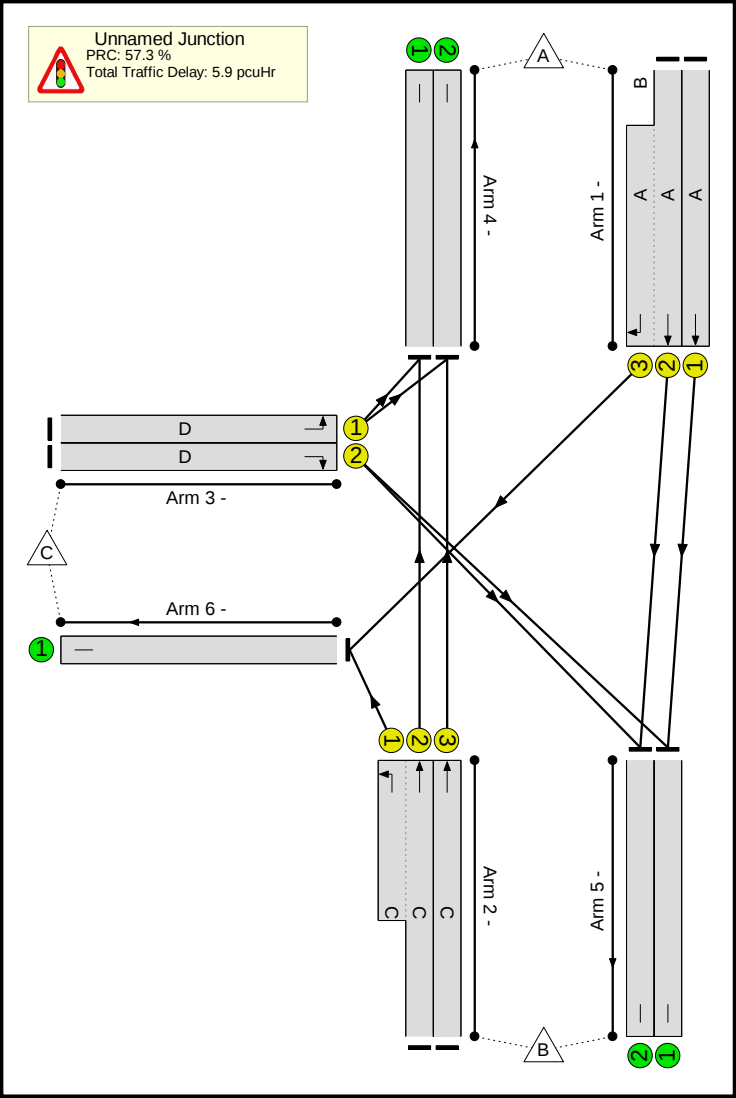
Stage	1	2	3
Duration	69	4	7
Change Point	0	74	78

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

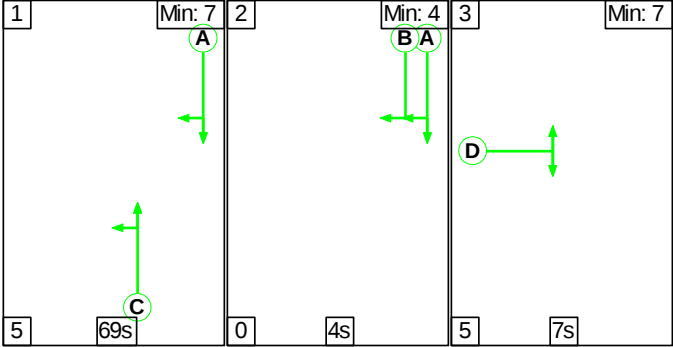
Network Results

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	-	-		-	-	-	-	-	-	57.2%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	57.2%
1/1	Ahead	U	N/A	N/A	A		1	73	-	546	1967	1617	33.8%
1/2+1/3	Ahead Right	U	N/A	N/A	A	B	1	73	4	554	1960:1711	1580+38	34.2 : 34.2%
2/2+2/1	Ahead Left	U	N/A	N/A	C		1	69	-	877	1959:1817	1515+17	57.2 : 57.2%
2/3	Ahead	U	N/A	N/A	C		1	69	-	866	1959	1524	56.8%
3/1	Left	U	N/A	N/A	D		1	7	-	68	1827	162	41.9%
3/2	Right	U	N/A	N/A	D		1	7	-	31	1896	169	18.4%
4/1		U	N/A	N/A	-		-	-	-	901	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	900	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	562	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	556	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	23	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)	Average Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	3.6	2.3	0.0	5.9	-	-	-	-
Unnamed Junction	-	-	0	0	0	3.6	2.3	0.0	5.9	-	-	-	-
1/1	546	546	-	-	-	0.3	0.3	-	0.6	3.6	3.3	0.3	3.6
1/2+1/3	554	554	-	-	-	0.3	0.3	-	0.6	3.6	3.3	0.3	3.6
2/2+2/1	877	877	-	-	-	1.0	0.7	-	1.6	6.7	8.4	0.7	9.1
2/3	866	866	-	-	-	1.0	0.7	-	1.6	6.7	8.4	0.7	9.1
3/1	68	68	-	-	-	0.7	0.4	-	1.1	57.7	1.6	0.4	2.0
3/2	31	31	-	-	-	0.3	0.1	-	0.4	51.1	0.7	0.1	0.8
4/1	901	901	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	900	900	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	562	562	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	556	556	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	23	23	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 57.3 Total Delay for Signalled Lanes (pcuHr): 5.89 Cycle Time (s): 90 PRC Over All Lanes (%): 57.3 Total Delay Over All Lanes(pcuHr): 5.89													

[illegible]

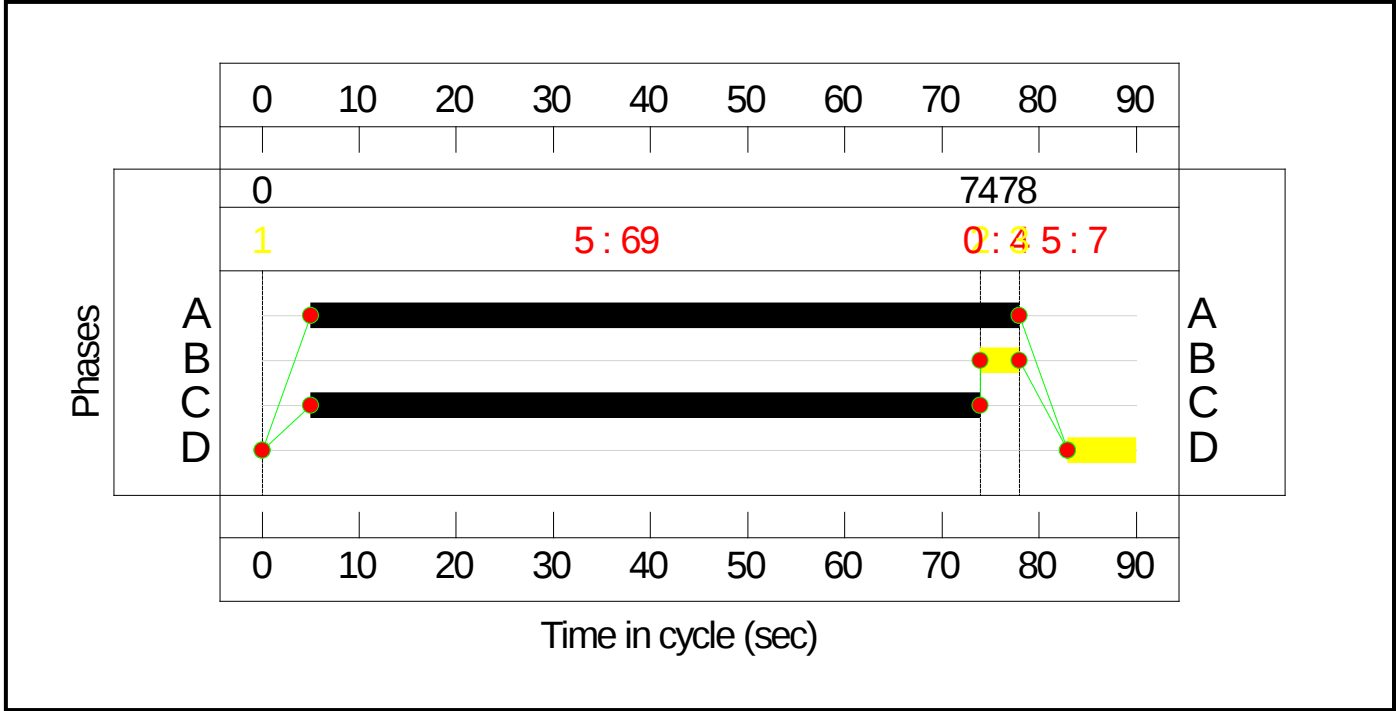
Stage Sequence Diagram



Stage Timings

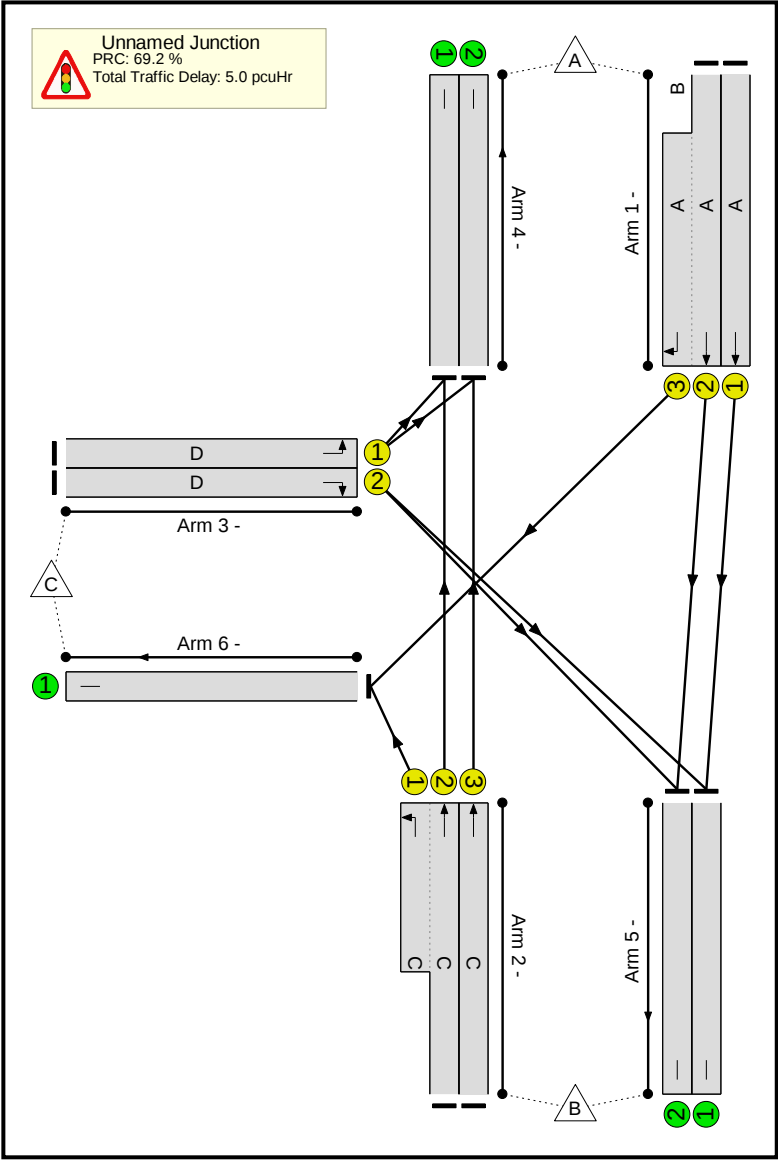
Stage	1	2	3
Duration	69	4	7
Change Point	0	74	78

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

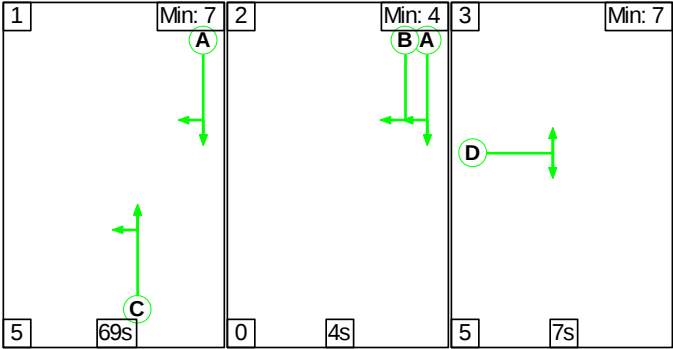
Network Results

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	-	-		-	-	-	-	-	-	53.2%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	53.2%
1/1	Ahead	U	N/A	N/A	A		1	73	-	849	1967	1617	52.5%
1/2+1/3	Ahead Right	U	N/A	N/A	A	B	1	73	4	862	1960:1711	1570+51	53.2 : 53.2%
2/2+2/1	Ahead Left	U	N/A	N/A	C		1	69	-	729	1959:1817	1395+167	46.7 : 46.7%
2/3	Ahead	U	N/A	N/A	C		1	69	-	678	1959	1524	44.5%
3/1	Left	U	N/A	N/A	D		1	7	-	18	1827	162	11.1%
3/2	Right	U	N/A	N/A	D		1	7	-	25	1896	169	14.8%
4/1		U	N/A	N/A	-		-	-	-	660	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	687	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	862	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	847	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	105	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

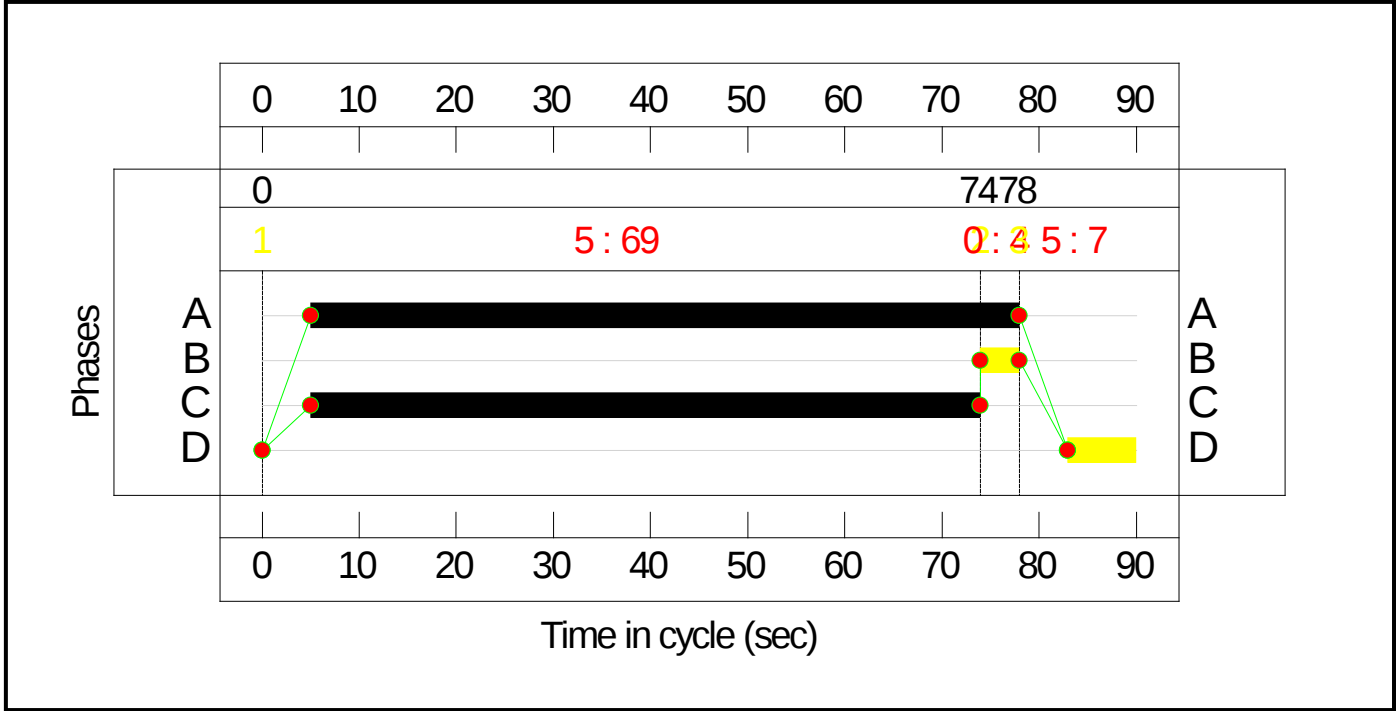
Stage Sequence Diagram



Stage Timings

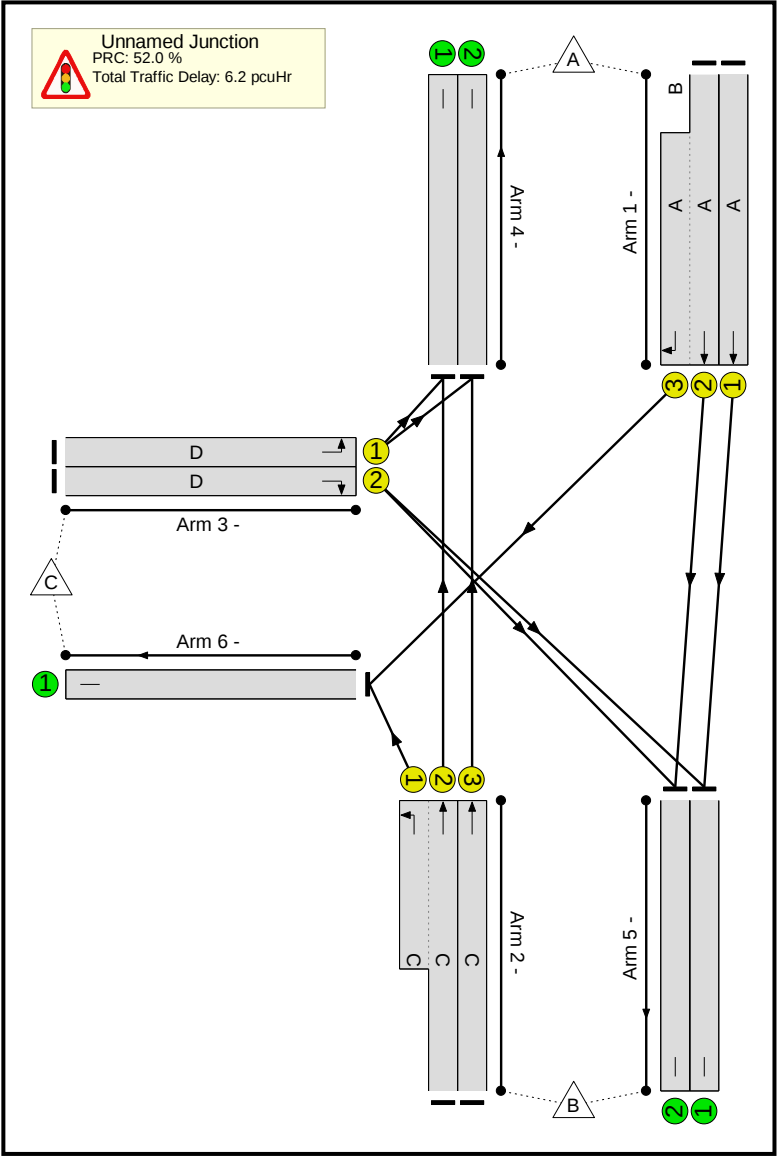
Stage	1	2	3
Duration	69	4	7
Change Point	0	74	78

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

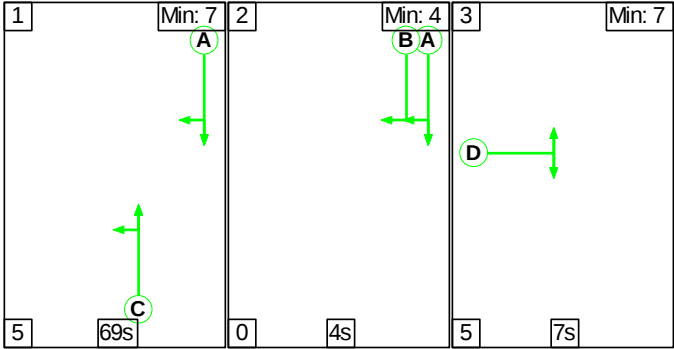
Network Results

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	-	-		-	-	-	-	-	-	59.2%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	59.2%
1/1	Ahead	U	N/A	N/A	A		1	73	-	581	1967	1617	35.9%
1/2+1/3	Ahead Right	U	N/A	N/A	A	B	1	73	4	588	1960:1711	1581+36	36.4 : 36.4%
2/2+2/1	Ahead Left	U	N/A	N/A	C		1	69	-	908	1959:1817	1515+19	59.2 : 59.2%
2/3	Ahead	U	N/A	N/A	C		1	69	-	898	1959	1524	58.9%
3/1	Left	U	N/A	N/A	D		1	7	-	68	1827	162	41.9%
3/2	Right	U	N/A	N/A	D		1	7	-	31	1896	169	18.4%
4/1		U	N/A	N/A	-		-	-	-	931	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	932	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	597	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	590	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%

[illegible]

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	3.8	2.5	0.0	6.2	-	-	-	-
Unnamed Junction	-	-	0	0	0	3.8	2.5	0.0	6.2	-	-	-	-
1/1	581	581	-	-	-	0.3	0.3	-	0.6	3.8	3.6	0.3	3.8
1/2+1/3	588	588	-	-	-	0.3	0.3	-	0.6	3.8	3.5	0.3	3.8
2/2+2/1	908	908	-	-	-	1.0	0.7	-	1.8	7.0	9.2	0.7	9.9
2/3	898	898	-	-	-	1.0	0.7	-	1.7	7.0	9.0	0.7	9.7
3/1	68	68	-	-	-	0.7	0.4	-	1.1	57.7	1.6	0.4	2.0
3/2	31	31	-	-	-	0.3	0.1	-	0.4	51.1	0.7	0.1	0.8
4/1	931	931	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	932	932	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	597	597	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	590	590	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	24	24	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 52.0 Total Delay for Signalled Lanes (pcuHr): 6.24 Cycle Time (s): 90 PRC Over All Lanes (%): 52.0 Total Delay Over All Lanes(pcuHr): 6.24													

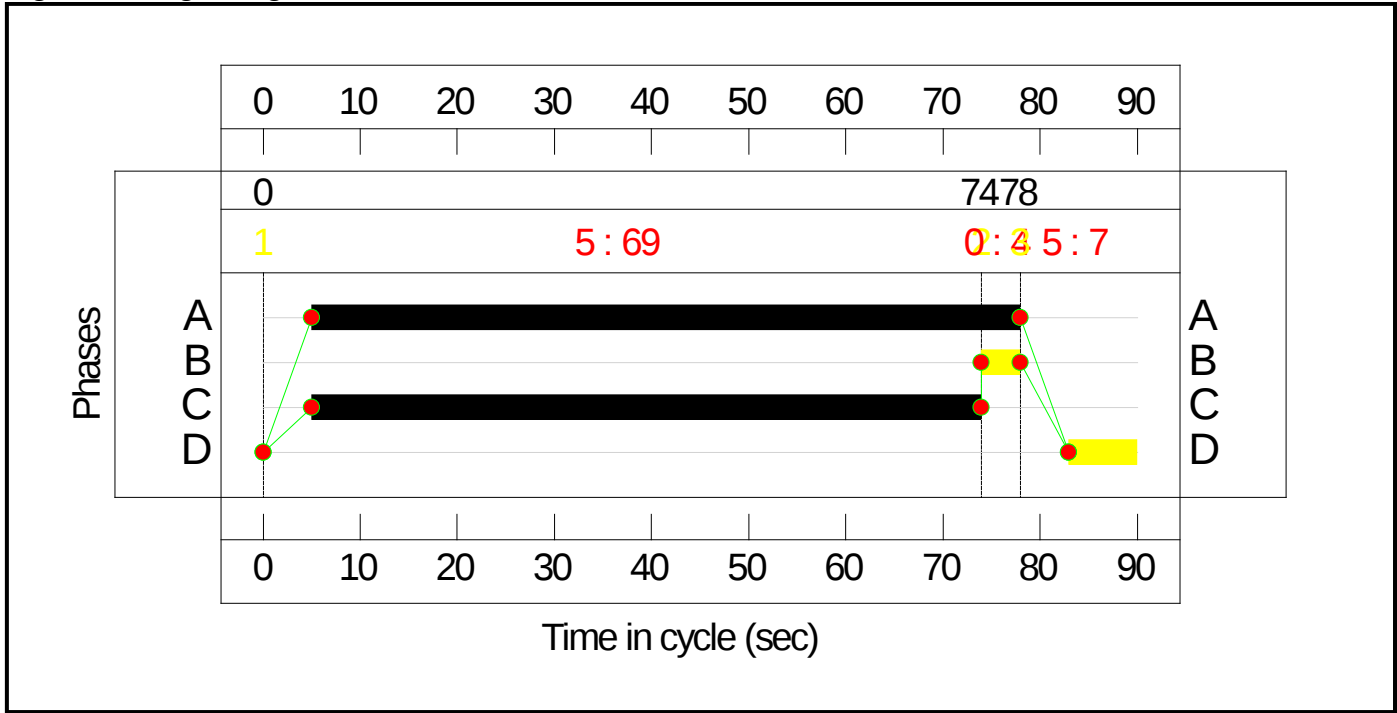
Stage Sequence Diagram



Stage Timings

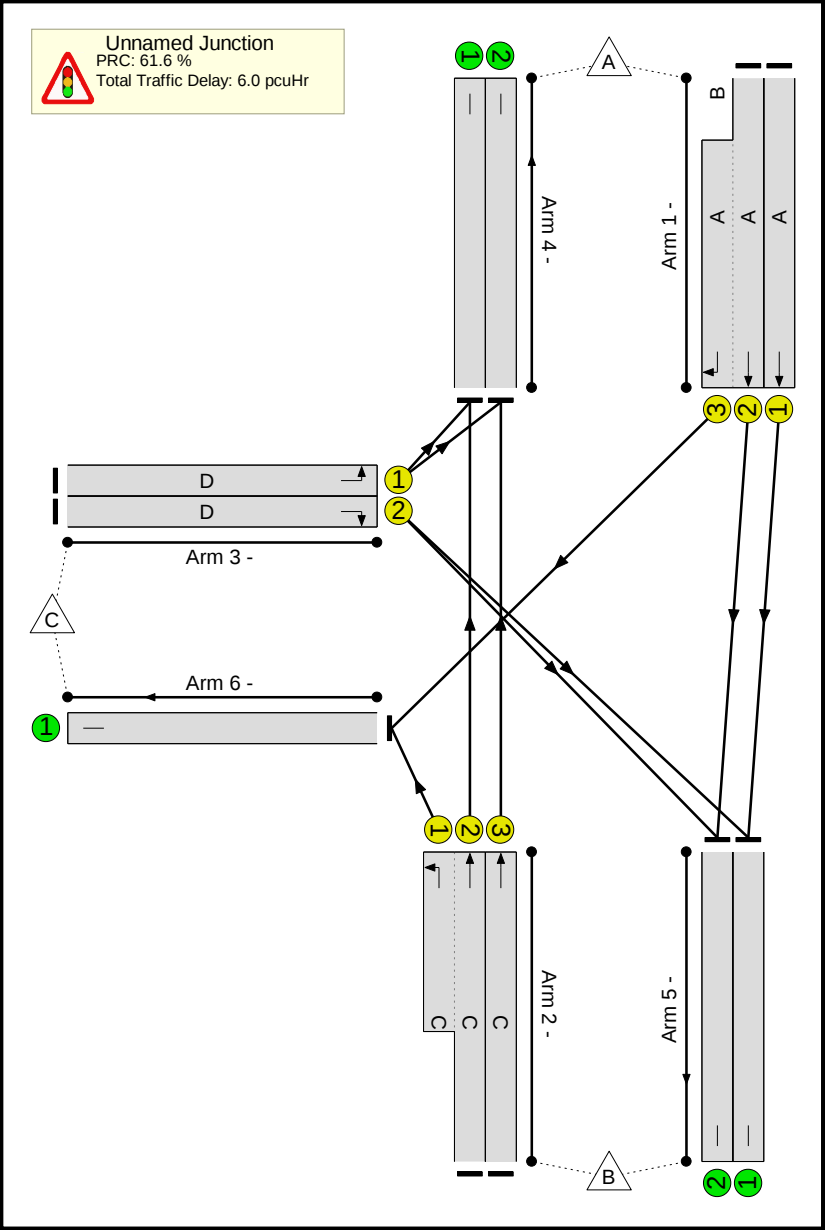
Stage	1	2	3
Duration	69	4	7
Change Point	0	74	78

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

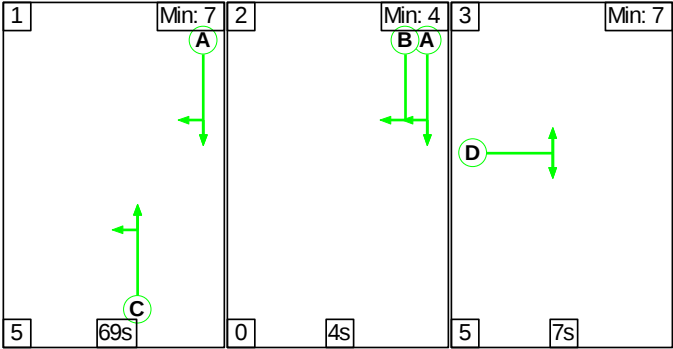
Network Results

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	-	-		-	-	-	-	-	-	55.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	55.7%
1/1	Ahead	U	N/A	N/A	A		1	73	-	866	1967	1617	53.5%
1/2+1/3	Ahead Right	U	N/A	N/A	A	B	1	73	4	879	1960:1711	1571+50	54.2 : 54.2%
2/2+2/1	Ahead Left	U	N/A	N/A	C		1	69	-	867	1959:1817	1417+140	55.7 : 55.7%
2/3	Ahead	U	N/A	N/A	C		1	69	-	827	1959	1524	54.3%
3/1	Left	U	N/A	N/A	D		1	7	-	19	1827	162	11.7%
3/2	Right	U	N/A	N/A	D		1	7	-	24	1896	169	14.2%
4/1		U	N/A	N/A	-		-	-	-	799	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	836	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	878	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	864	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	105	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	3.4	2.5	0.0	6.0	-	-	-	-
Unnamed Junction	-	-	0	0	0	3.4	2.5	0.0	6.0	-	-	-	-
1/1	866	866	-	-	-	0.6	0.6	-	1.2	4.9	6.7	0.6	7.3
1/2+1/3	879	879	-	-	-	0.6	0.6	-	1.2	4.9	6.6	0.6	7.2
2/2+2/1	867	867	-	-	-	0.9	0.6	-	1.5	6.2	7.2	0.6	7.9
2/3	827	827	-	-	-	0.9	0.6	-	1.5	6.4	7.8	0.6	8.4
3/1	19	19	-	-	-	0.2	0.1	-	0.3	50.4	0.4	0.1	0.5
3/2	24	24	-	-	-	0.3	0.1	-	0.3	50.3	0.6	0.1	0.6
4/1	799	799	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	836	836	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	878	878	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	864	864	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	105	105	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 61.6 Total Delay for Signalled Lanes (pcuHr): 5.96 Cycle Time (s): 90 PRC Over All Lanes (%): 61.6 Total Delay Over All Lanes(pcuHr): 5.96													

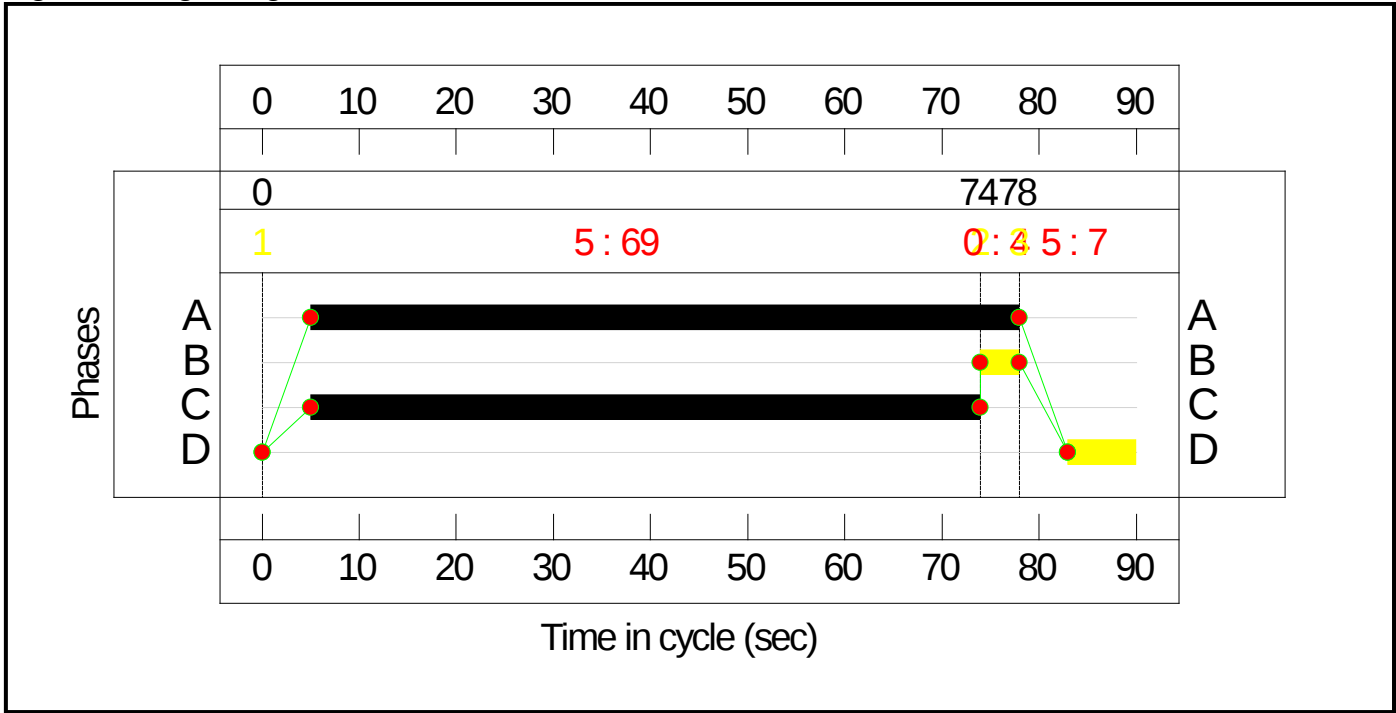
Stage Sequence Diagram



Stage Timings

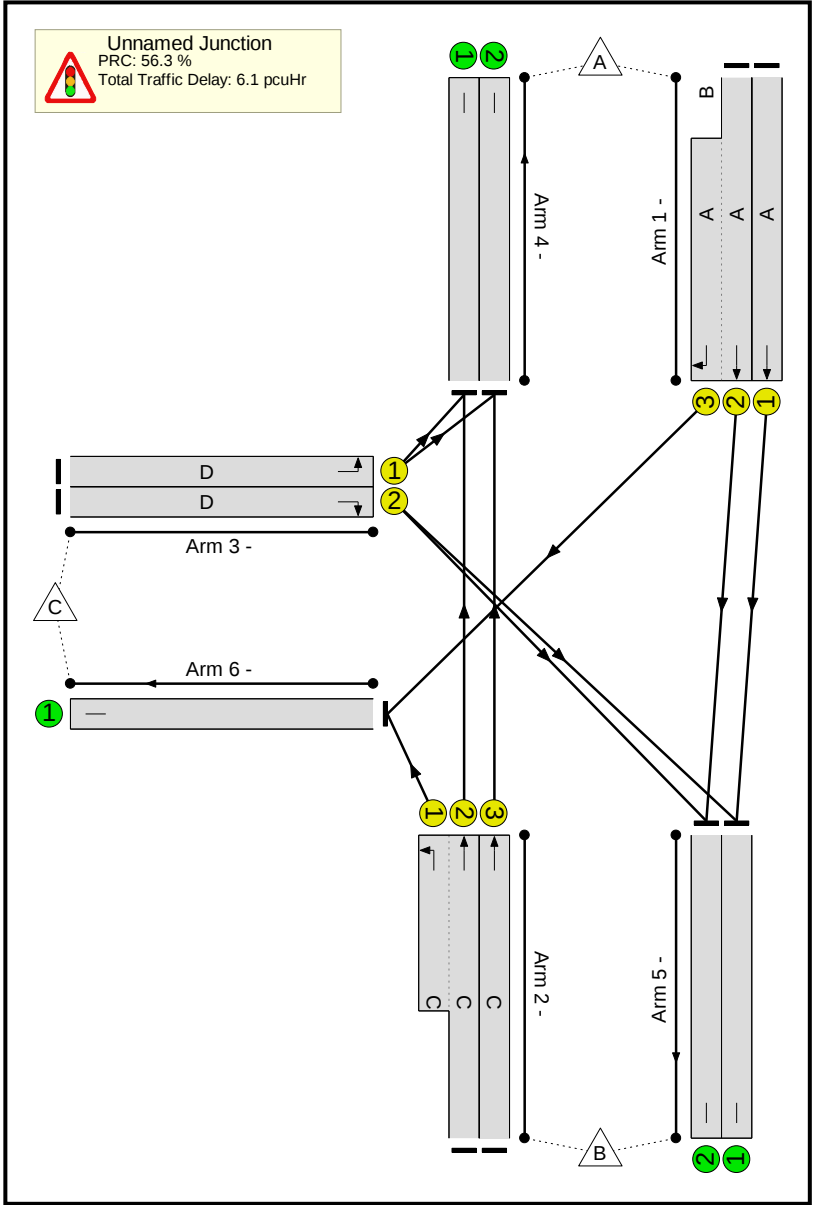
Stage	1	2	3
Duration	69	4	7
Change Point	0	74	78

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

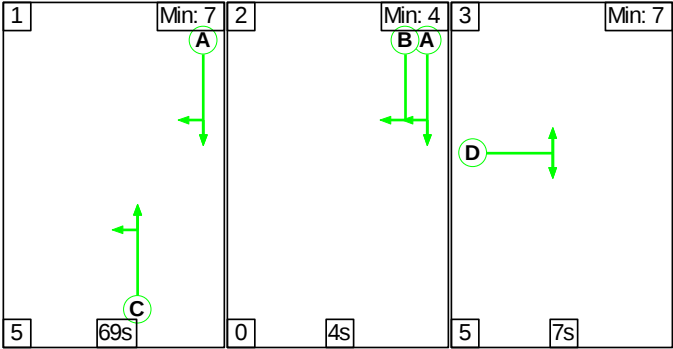
Network Results

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	-	-		-	-	-	-	-	-	57.6%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	57.6%
1/1	Ahead	U	N/A	N/A	A		1	73	-	588	1967	1617	36.4%
1/2+1/3	Ahead Right	U	N/A	N/A	A	B	1	73	4	596	1960:1711	1580+38	36.8 : 36.8%
2/2+2/1	Ahead Left	U	N/A	N/A	C		1	69	-	883	1959:1817	1514+19	57.6 : 57.6%
2/3	Ahead	U	N/A	N/A	C		1	69	-	872	1959	1524	57.2%
3/1	Left	U	N/A	N/A	D		1	7	-	70	1827	162	43.1%
3/2	Right	U	N/A	N/A	D		1	7	-	29	1896	169	17.2%
4/1		U	N/A	N/A	-		-	-	-	907	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	907	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	603	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	596	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	25	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

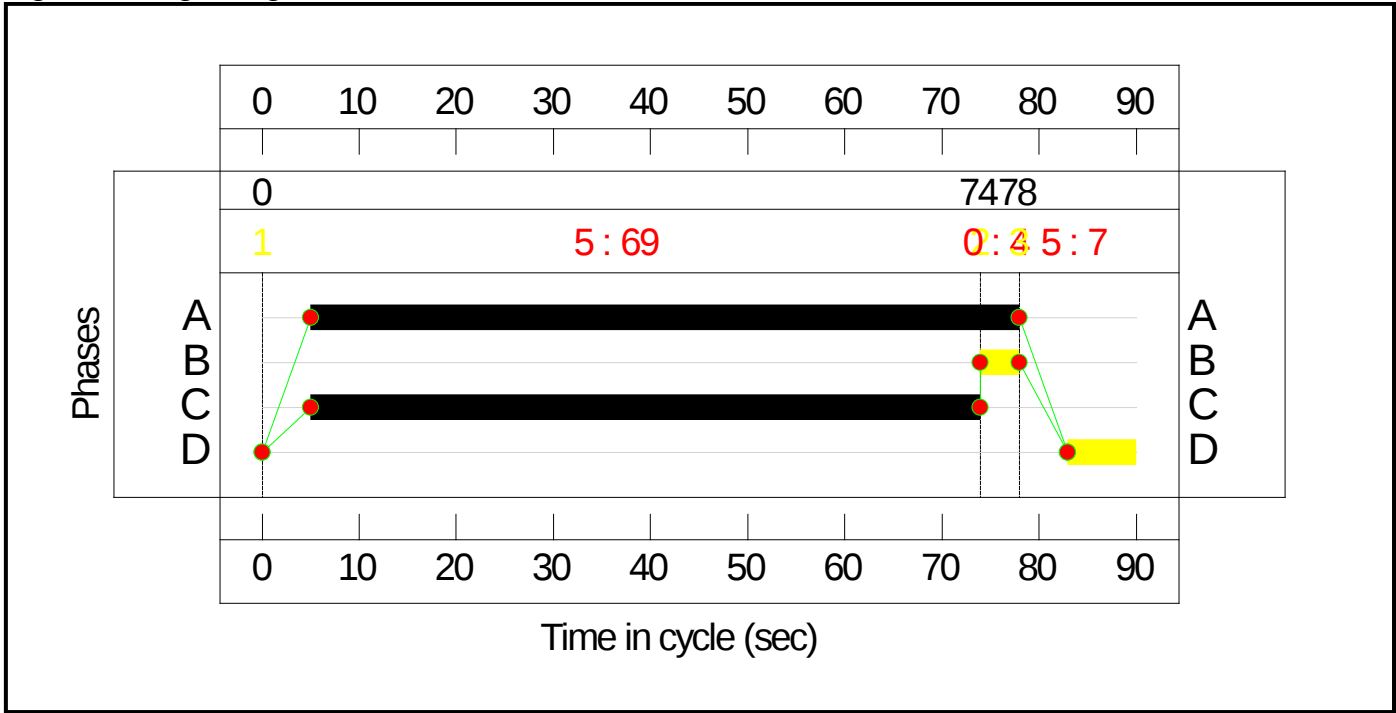
Stage Sequence Diagram



Stage Timings

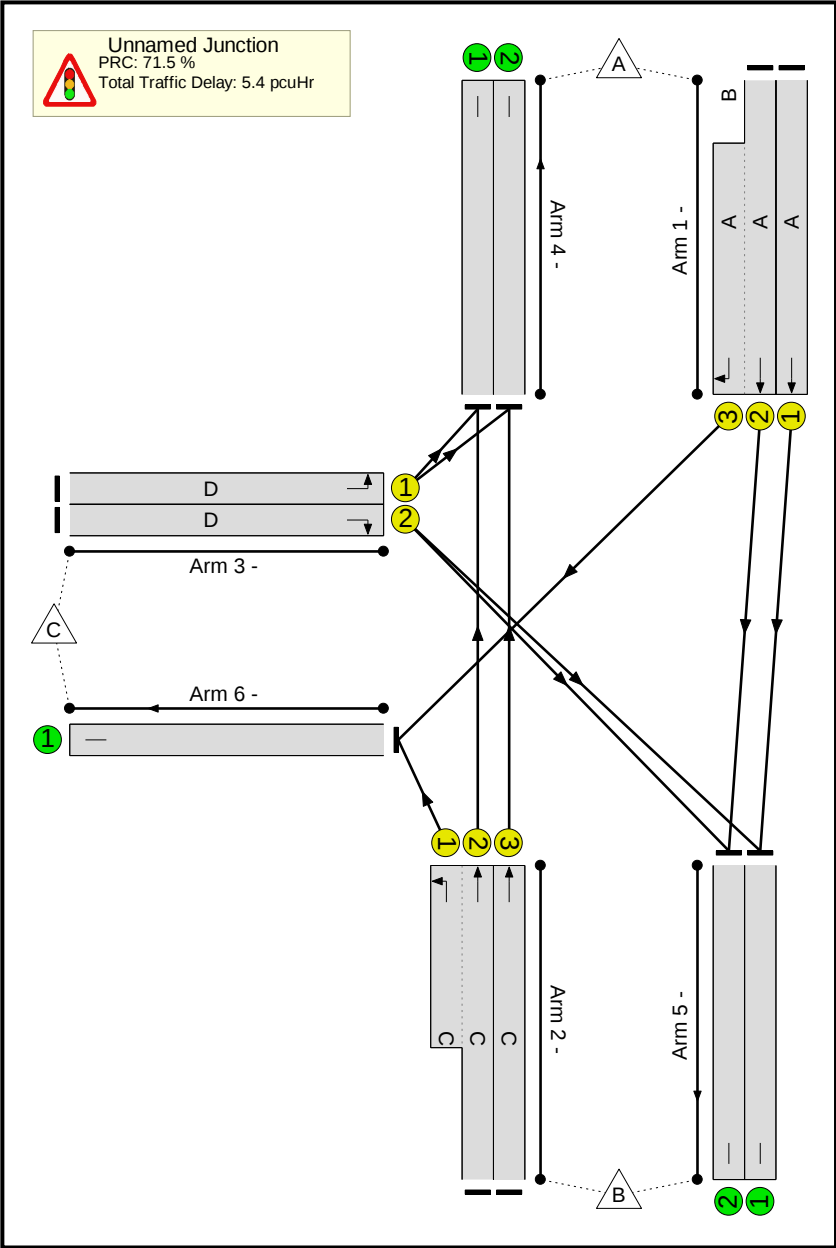
Stage	1	2	3
Duration	69	4	7
Change Point	0	74	78

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	-	-		-	-	-	-	-	-	52.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	52.5%
1/1	Ahead	U	N/A	N/A	A		1	73	-	819	1967	1617	50.6%
1/2+1/3	Ahead Right	U	N/A	N/A	A	B	1	73	4	833	1960:1711	1569+53	51.4 : 51.4%
2/2+2/1	Ahead Left	U	N/A	N/A	C		1	69	-	818	1959:1817	1410+149	52.5 : 52.5%
2/3	Ahead	U	N/A	N/A	C		1	69	-	775	1959	1524	50.9%
3/1	Left	U	N/A	N/A	D		1	7	-	18	1827	162	11.1%
3/2	Right	U	N/A	N/A	D		1	7	-	25	1896	169	14.8%
4/1		U	N/A	N/A	-		-	-	-	749	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	784	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	832	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	818	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	105	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

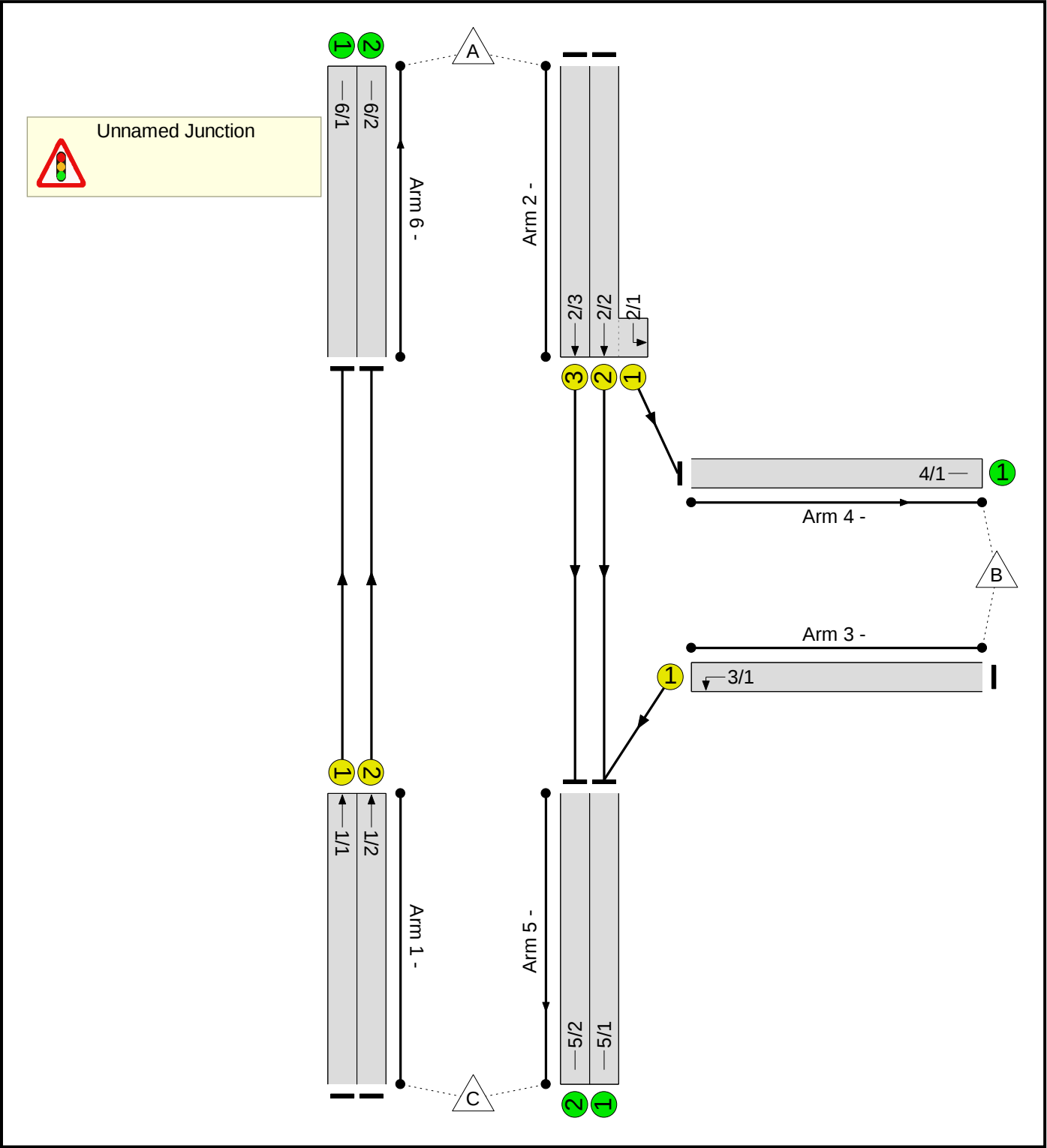
Appendix Y
B255 / Mounts Road
Existing Layout Modelling Output

Full Input Data And Results

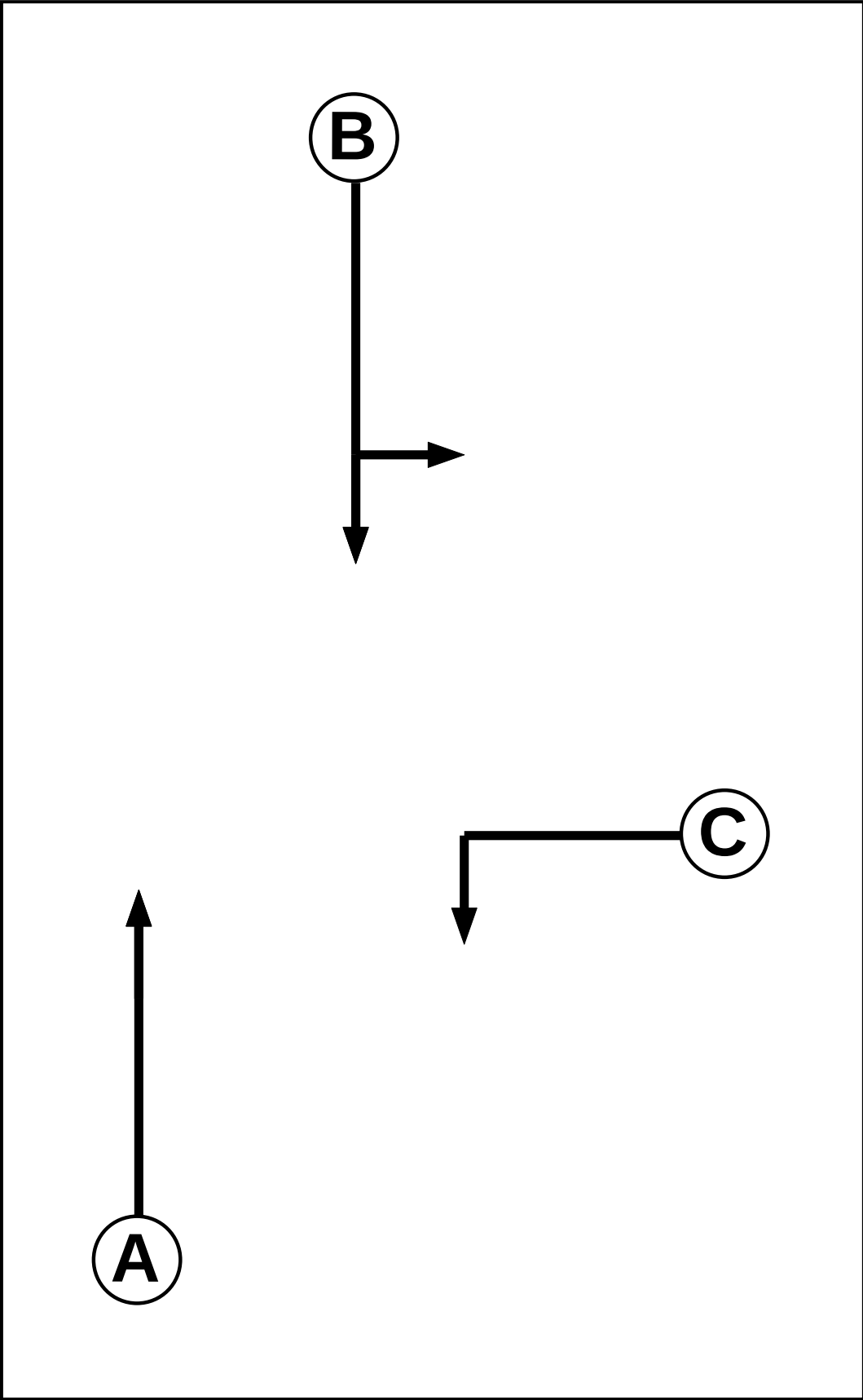
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	9. B255 _ Mounts Road (SATURN).lsg3x
Author:	
Company:	
Address:	

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

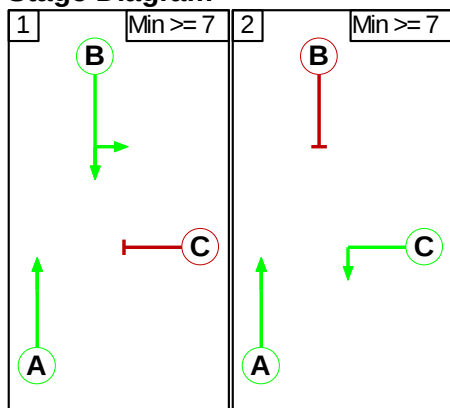
Phase Intergreens Matrix

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

Phases in Stage

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

Stage Diagram



Phase Delays

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

Prohibited Stage Change

	To Stage		
From Stage		1	2
	1		5
	2	5	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction
There are no Opposed Lanes in this Junction

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1	U	A	2	3	60.0	Geom	-	4.83	0.00	Y	Arm 6 Ahead	Inf
1/2	U	A	2	3	60.0	Geom	-	4.78	0.00	N	Arm 6 Ahead	Inf
2/1	U	B	2	3	2.0	Geom	-	3.08	0.00	Y	Arm 4 Left	20.00
2/2	U	B	2	3	60.0	Geom	-	3.58	0.00	Y	Arm 5 Ahead	Inf
2/3	U	B	2	3	60.0	Geom	-	3.02	0.00	N	Arm 5 Ahead	Inf
3/1	U	C	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 5 Left	20.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Ref no LTC AM'	08:00	09:00	01:00	
2: 'Ref no LTC PM'	17:00	18:00	01:00	
3: 'Ref LTC AM'	08:00	09:00	01:00	
4: 'Ref LTC PM'	17:00	18:00	01:00	
5: 'Pref no LTC AM'	08:00	09:00	01:00	
6: 'Pref no LTC PM'	17:00	18:00	01:00	
7: 'Pref LTC AM'	08:00	09:00	01:00	
8: 'Pref LTC PM'	17:00	18:00	01:00	

Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	66	1118	1184
	B	0	0	474	474
	C	1790	0	0	1790
	Tot.	1790	66	1592	3448

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: Ref no LTC AM
Junction: Unnamed Junction	
1/1	827
1/2	963
2/1 (short)	66
2/2 (with short)	571(In) 505(Out)
2/3	613
3/1	474
4/1	66
5/1	979
5/2	613
6/1	827
6/2	963

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	4.83	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2098	2098
1/2	4.78	0.00	N	Arm 6 Ahead	Inf	100.0 %	2233	2233
2/1	3.08	0.00	Y	Arm 4 Left	20.00	100.0 %	1789	1789
2/2	3.58	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1973	1973
2/3	3.02	0.00	N	Arm 5 Ahead	Inf	100.0 %	2057	2057
3/1	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Ref no LTC PM' (FG2: 'Ref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
	A	0	164	1607	1771
	B	0	0	346	346
	C	1570	0	0	1570
	Tot.	1570	164	1953	3687

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: Ref no LTC PM
Junction: Unnamed Junction	
1/1	717
1/2	853
2/1 (short)	164
2/2 (with short)	865(In) 701(Out)
2/3	906
3/1	346
4/1	164
5/1	1047
5/2	906
6/1	717
6/2	853

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	4.83	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2098	2098
1/2	4.78	0.00	N	Arm 6 Ahead	Inf	100.0 %	2233	2233
2/1	3.08	0.00	Y	Arm 4 Left	20.00	100.0 %	1789	1789
2/2	3.58	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1973	1973
2/3	3.02	0.00	N	Arm 5 Ahead	Inf	100.0 %	2057	2057
3/1	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	68	1050	1118
	B	0	0	456	456
	C	1743	0	0	1743
	Tot.	1743	68	1506	3317

Traffic Lane Flows

Lane	Scenario 3: Ref LTC AM
Junction: Unnamed Junction	
1/1	804
1/2	939
2/1 (short)	68
2/2 (with short)	540(In) 472(Out)
2/3	578
3/1	456
4/1	68
5/1	928
5/2	578
6/1	804
6/2	939

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	4.83	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2098	2098
1/2	4.78	0.00	N	Arm 6 Ahead	Inf	100.0 %	2233	2233
2/1	3.08	0.00	Y	Arm 4 Left	20.00	100.0 %	1789	1789
2/2	3.58	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1973	1973
2/3	3.02	0.00	N	Arm 5 Ahead	Inf	100.0 %	2057	2057
3/1	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	150	1559	1709
	B	0	0	261	261
	C	1406	0	0	1406
	Tot.	1406	150	1820	3376

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: Ref LTC PM
Junction: Unnamed Junction	
1/1	635
1/2	771
2/1 (short)	150
2/2 (with short)	834(In) 684(Out)
2/3	875
3/1	261
4/1	150
5/1	945
5/2	875
6/1	635
6/2	771

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	4.83	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2098	2098
1/2	4.78	0.00	N	Arm 6 Ahead	Inf	100.0 %	2233	2233
2/1	3.08	0.00	Y	Arm 4 Left	20.00	100.0 %	1789	1789
2/2	3.58	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1973	1973
2/3	3.02	0.00	N	Arm 5 Ahead	Inf	100.0 %	2057	2057
3/1	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'Pref no LTC AM' (FG5: 'Pref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
	A	0	67	1120	1187
	B	0	0	481	481
	C	1806	0	0	1806
	Tot.	1806	67	1601	3474

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: Pref no LTC AM
Junction: Unnamed Junction	
1/1	835
1/2	971
2/1 (short)	67
2/2 (with short)	572(In) 505(Out)
2/3	615
3/1	481
4/1	67
5/1	986
5/2	615
6/1	835
6/2	971

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	4.83	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2098	2098
1/2	4.78	0.00	N	Arm 6 Ahead	Inf	100.0 %	2233	2233
2/1	3.08	0.00	Y	Arm 4 Left	20.00	100.0 %	1789	1789
2/2	3.58	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1973	1973
2/3	3.02	0.00	N	Arm 5 Ahead	Inf	100.0 %	2057	2057
3/1	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Pref no LTC PM' (FG6: 'Pref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	215	1526	1741
	B	0	0	447	447
	C	1694	0	0	1694
	Tot.	1694	215	1973	3882

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: Pref no LTC PM
Junction: Unnamed Junction	
1/1	779
1/2	915
2/1 (short)	215
2/2 (with short)	858(In) 643(Out)
2/3	883
3/1	447
4/1	215
5/1	1090
5/2	883
6/1	779
6/2	915

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	4.83	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2098	2098
1/2	4.78	0.00	N	Arm 6 Ahead	Inf	100.0 %	2233	2233
2/1	3.08	0.00	Y	Arm 4 Left	20.00	100.0 %	1789	1789
2/2	3.58	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1973	1973
2/3	3.02	0.00	N	Arm 5 Ahead	Inf	100.0 %	2057	2057
3/1	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 7: 'Pref LTC AM' (FG7: 'Pref LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	68	1130	1198
	B	0	0	470	470
	C	1755	0	0	1755
	Tot.	1755	68	1600	3423

Traffic Lane Flows

Lane	Scenario 7: Pref LTC AM
Junction: Unnamed Junction	
1/1	810
1/2	945
2/1 (short)	68
2/2 (with short)	578(In) 510(Out)
2/3	620
3/1	470
4/1	68
5/1	980
5/2	620
6/1	810
6/2	945

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	4.83	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2098	2098
1/2	4.78	0.00	N	Arm 6 Ahead	Inf	100.0 %	2233	2233
2/1	3.08	0.00	Y	Arm 4 Left	20.00	100.0 %	1789	1789
2/2	3.58	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1973	1973
2/3	3.02	0.00	N	Arm 5 Ahead	Inf	100.0 %	2057	2057
3/1	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Pref LTC PM' (FG8: 'Pref LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	185	1466	1651
	B	0	0	426	426
	C	1593	0	0	1593
	Tot.	1593	185	1892	3670

Traffic Lane Flows

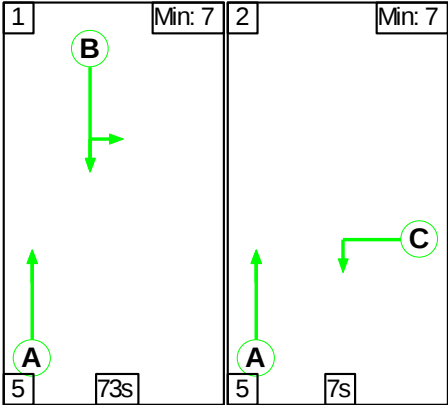
Lane	Scenario 8: Pref LTC PM
Junction: Unnamed Junction	
1/1	729
1/2	864
2/1 (short)	185
2/2 (with short)	812(In) 627(Out)
2/3	839
3/1	426
4/1	185
5/1	1053
5/2	839
6/1	729
6/2	864

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	4.83	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2098	2098
1/2	4.78	0.00	N	Arm 6 Ahead	Inf	100.0 %	2233	2233
2/1	3.08	0.00	Y	Arm 4 Left	20.00	100.0 %	1789	1789
2/2	3.58	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1973	1973
2/3	3.02	0.00	N	Arm 5 Ahead	Inf	100.0 %	2057	2057
3/1	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')

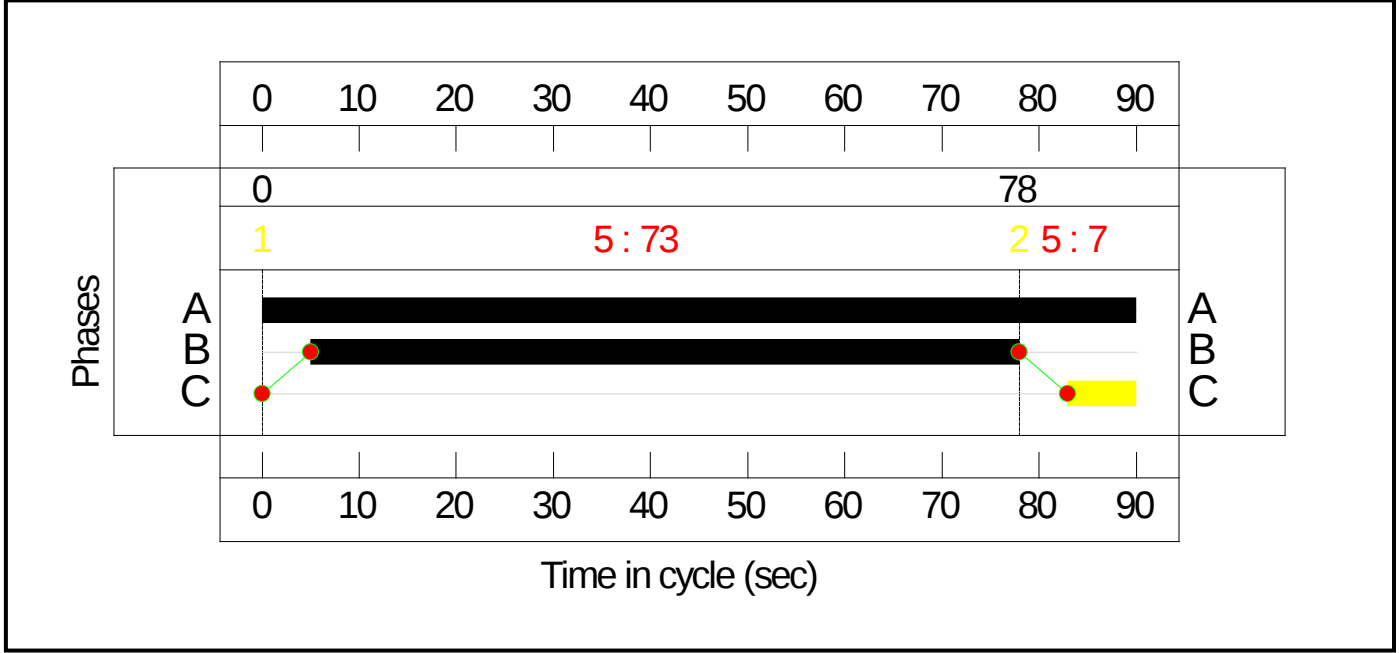
Stage Sequence Diagram



Stage Timings

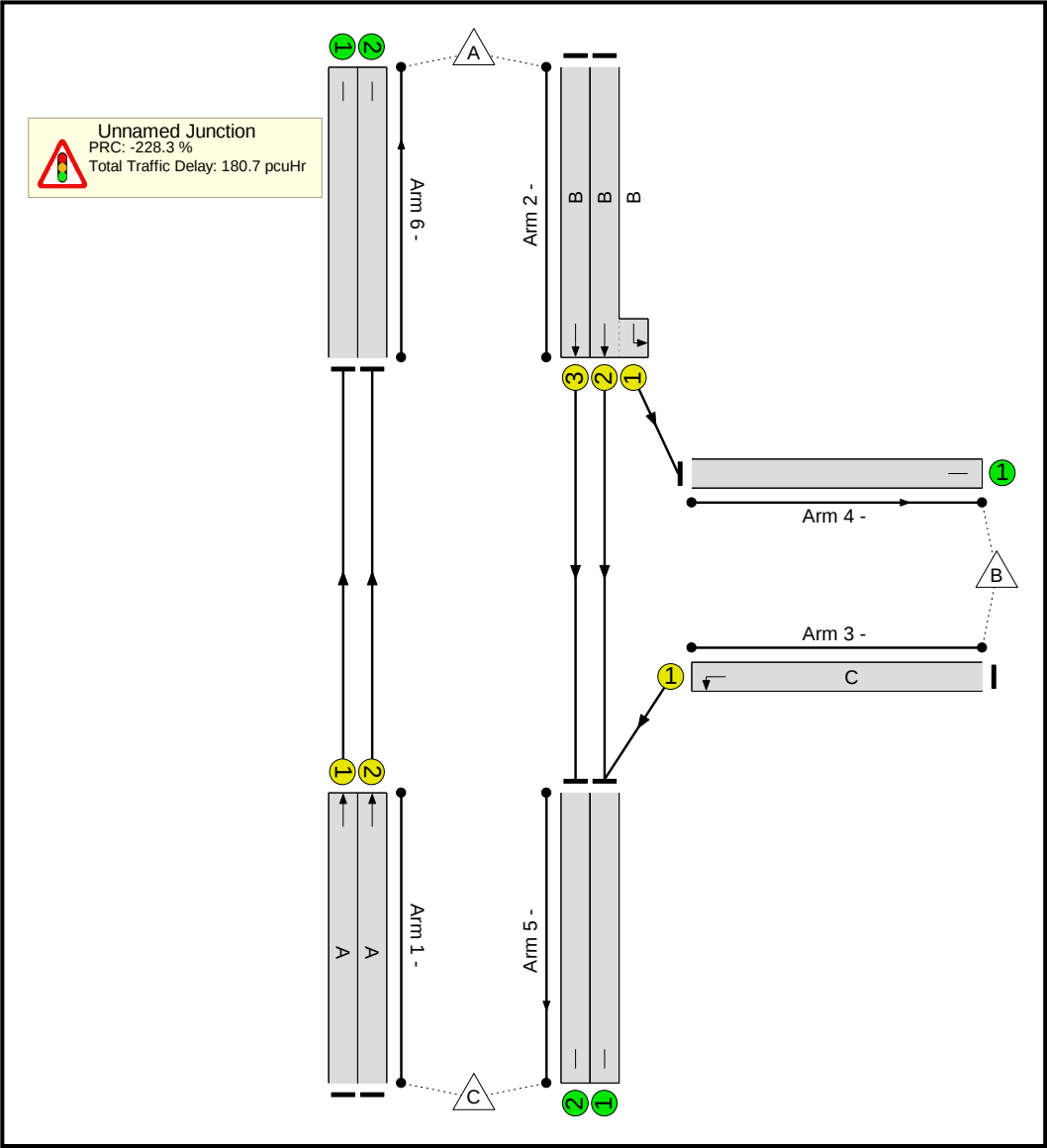
Stage	1	2
Duration	73	7
Change Point	0	78

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

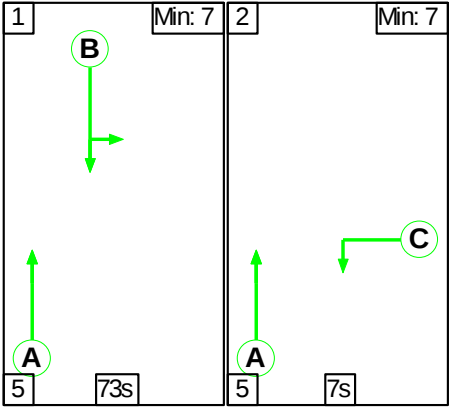
Network Results

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	-	-		-	-	-	-	-	-	295.4%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	295.4%
1/1	Ahead	U	N/A	N/A	A		1	90	-	827	2098	2098	39.4%
1/2	Ahead	U	N/A	N/A	A		1	90	-	963	2233	2233	43.1%
2/2+2/1	Left Ahead	U	N/A	N/A	B		1	73	-	571	1973:1789	1421+186	35.5 : 35.5%
2/3	Ahead	U	N/A	N/A	B		1	73	-	613	2057	1691	36.2%
3/1	Left	U	N/A	N/A	C		1	7	-	474	1805	160	295.4%
4/1		U	N/A	N/A	-		-	-	-	66	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	979	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	613	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	827	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	963	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

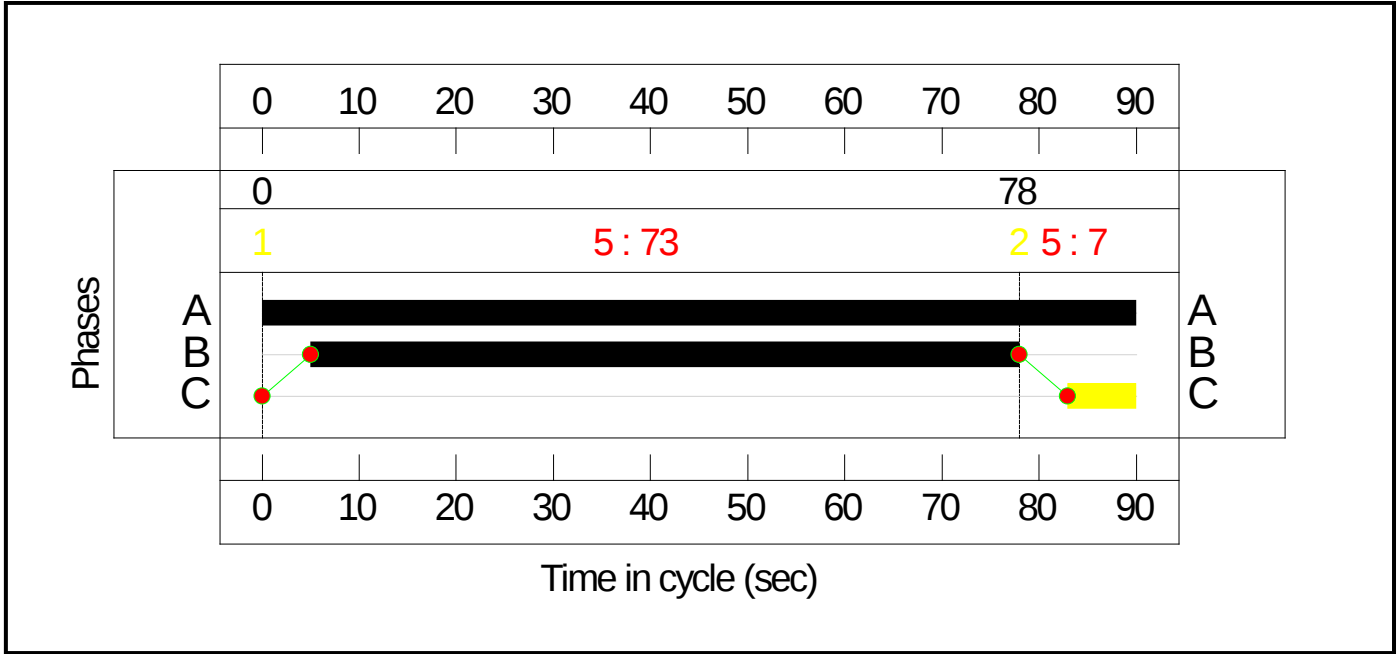
Stage Sequence Diagram



Stage Timings

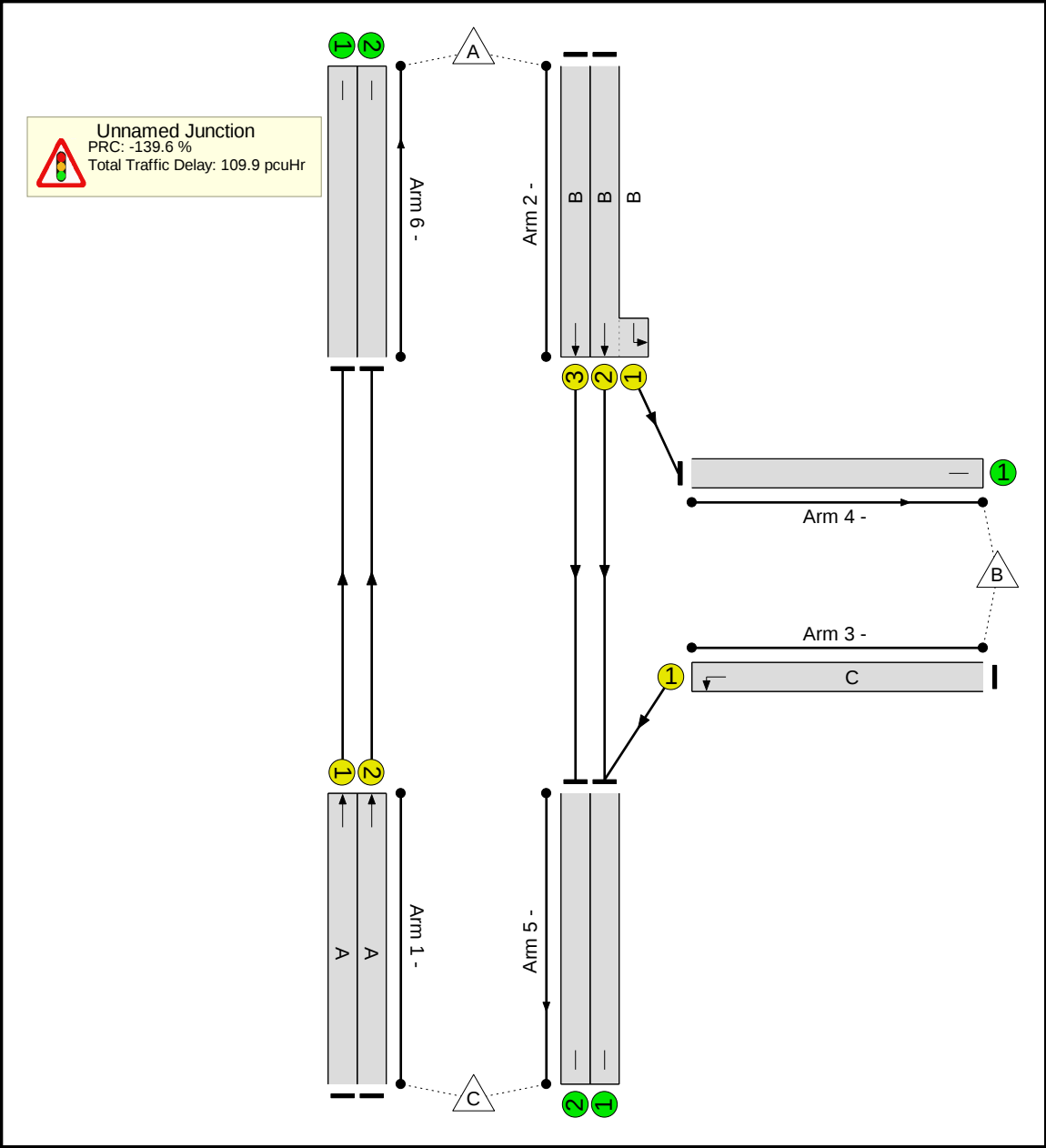
Stage	1	2
Duration	73	7
Change Point	0	78

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

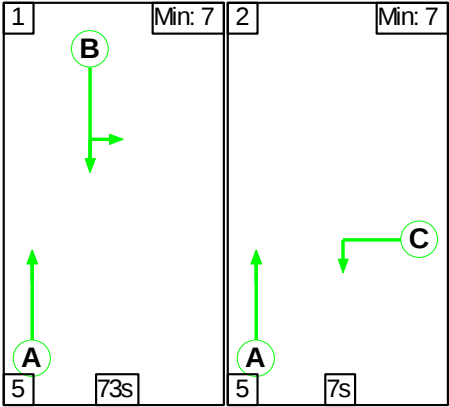
Network Results

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	-	-		-	-	-	-	-	-	215.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	215.7%
1/1	Ahead	U	N/A	N/A	A		1	90	-	717	2098	2098	34.2%
1/2	Ahead	U	N/A	N/A	A		1	90	-	853	2233	2233	38.2%
2/2+2/1	Left Ahead	U	N/A	N/A	B		1	73	-	865	1973:1789	1300+304	53.9 : 53.9%
2/3	Ahead	U	N/A	N/A	B		1	73	-	906	2057	1691	53.6%
3/1	Left	U	N/A	N/A	C		1	7	-	346	1805	160	215.7%
4/1		U	N/A	N/A	-		-	-	-	164	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	1047	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	906	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	717	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	853	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

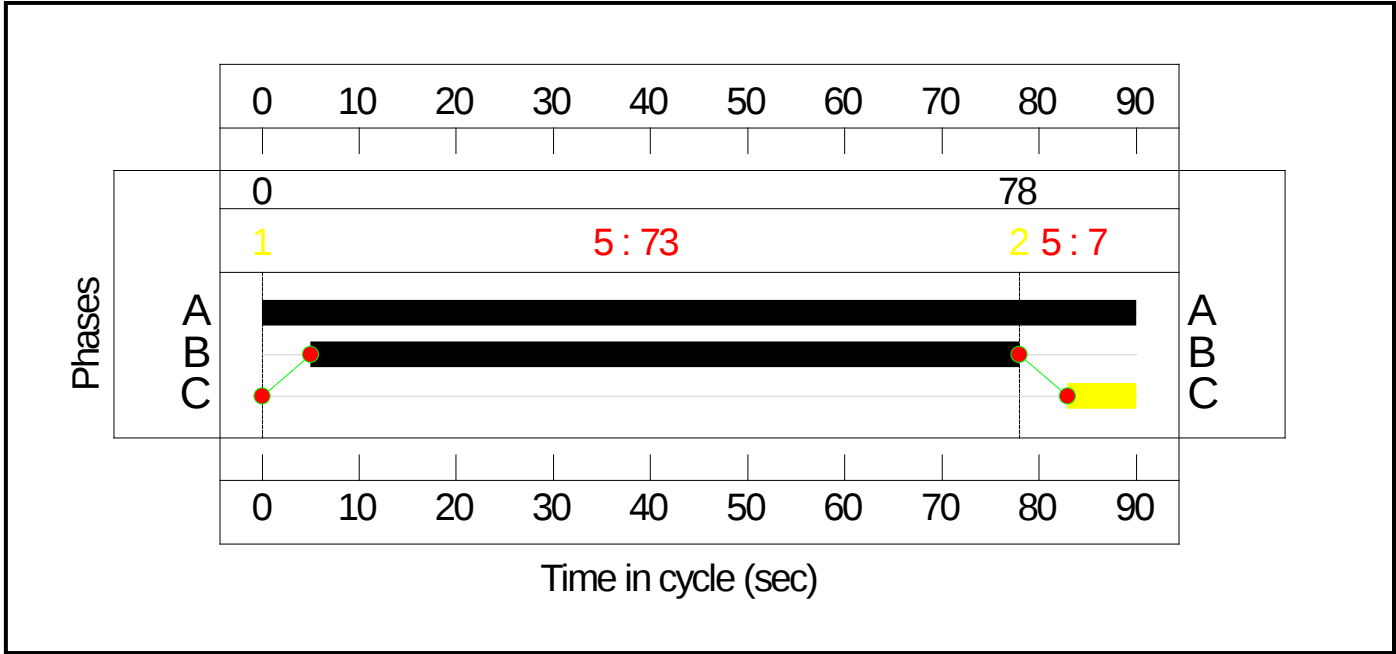
Stage Sequence Diagram



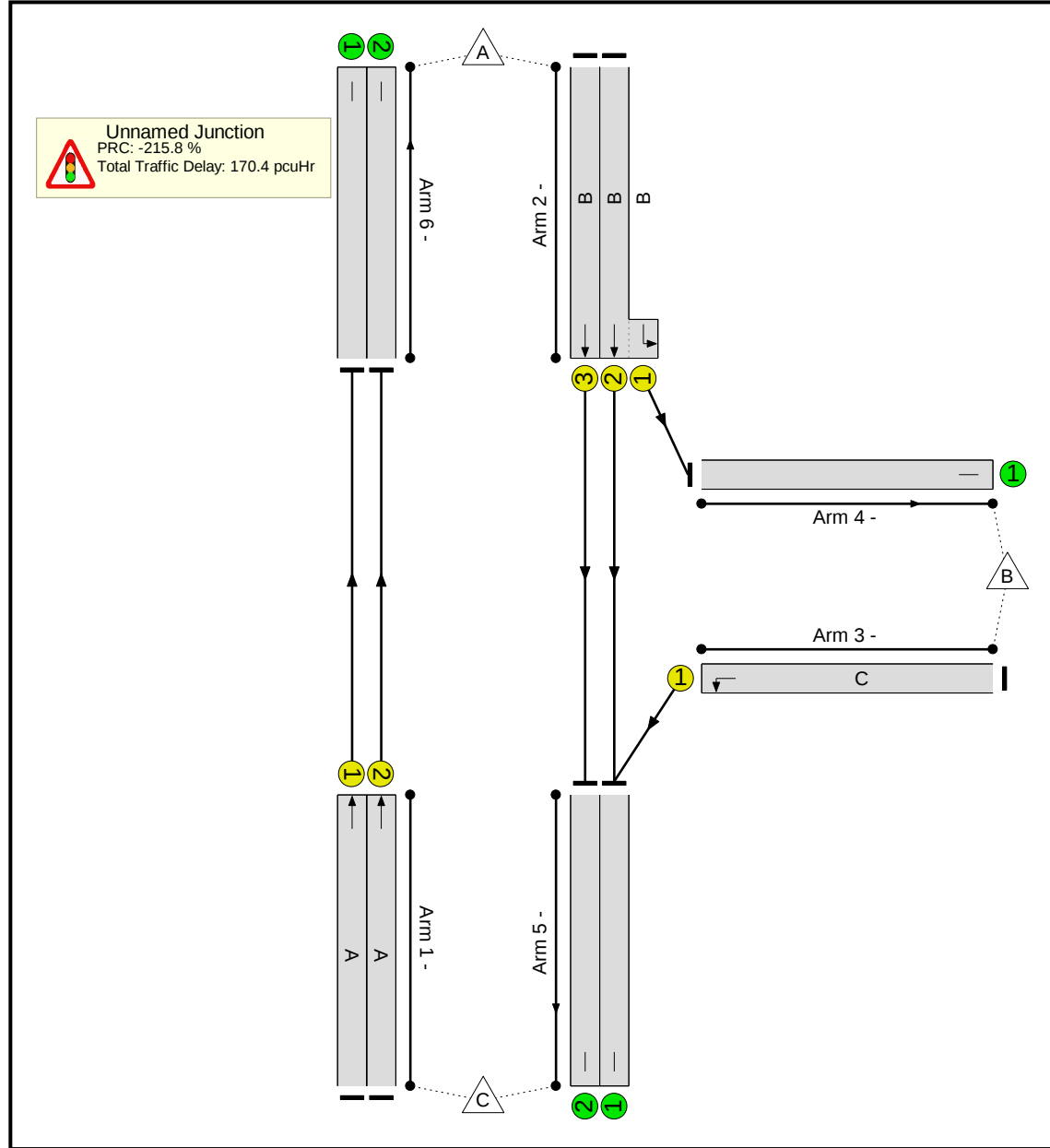
Stage Timings

Stage	1	2
Duration	73	7
Change Point	0	78

Signal Timings Diagram



Network Layout Diagram



Full Input Data And Results

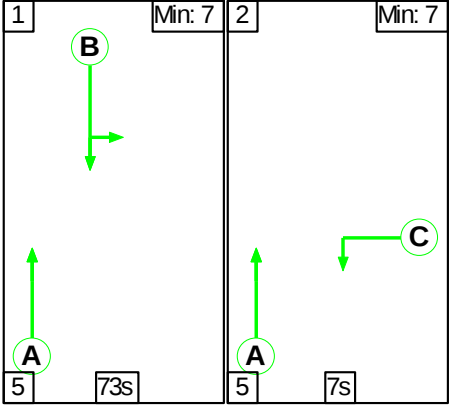
Network Results

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	-	-		-	-	-	-	-	-	284.2%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	284.2%
1/1	Ahead	U	N/A	N/A	A		1	90	-	804	2098	2098	38.3%
1/2	Ahead	U	N/A	N/A	A		1	90	-	939	2233	2233	42.1%
2/2+2/1	Left Ahead	U	N/A	N/A	B		1	73	-	540	1973:1789	1404+202	33.6 : 33.6%
2/3	Ahead	U	N/A	N/A	B		1	73	-	578	2057	1691	34.2%
3/1	Left	U	N/A	N/A	C		1	7	-	456	1805	160	284.2%
4/1		U	N/A	N/A	-		-	-	-	68	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	928	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	578	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	804	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	939	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

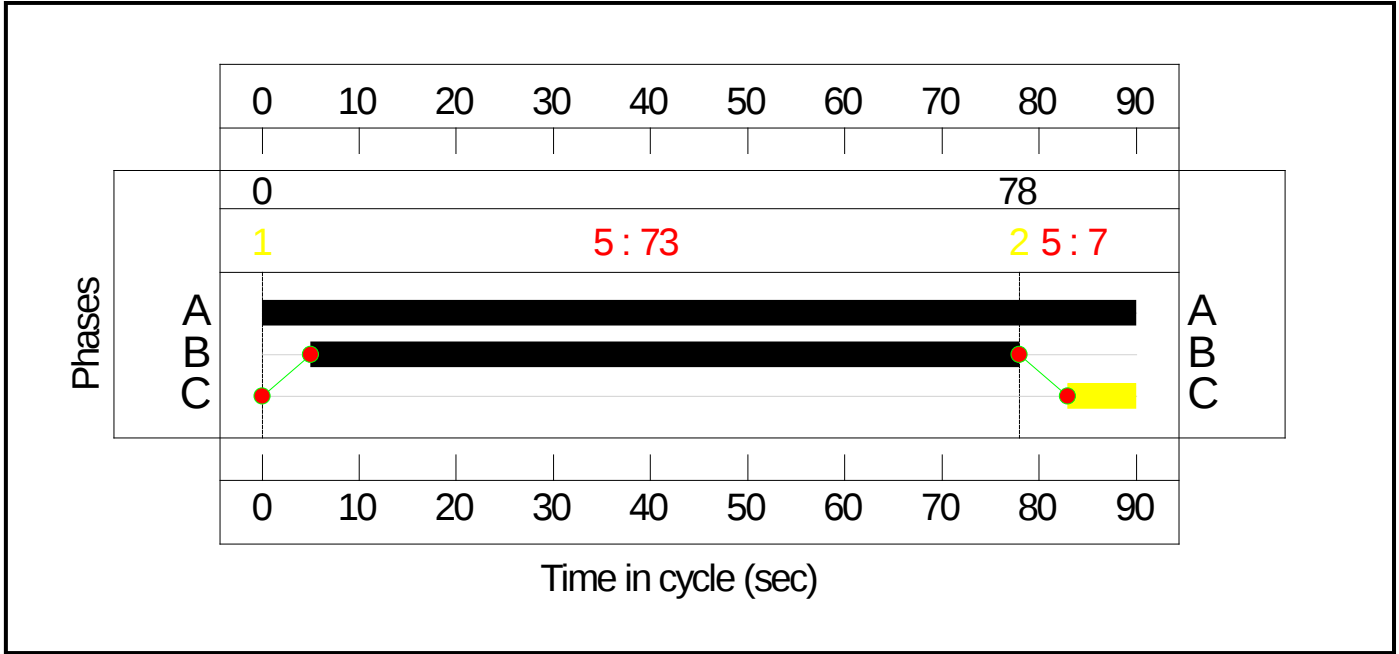
Stage Sequence Diagram



Stage Timings

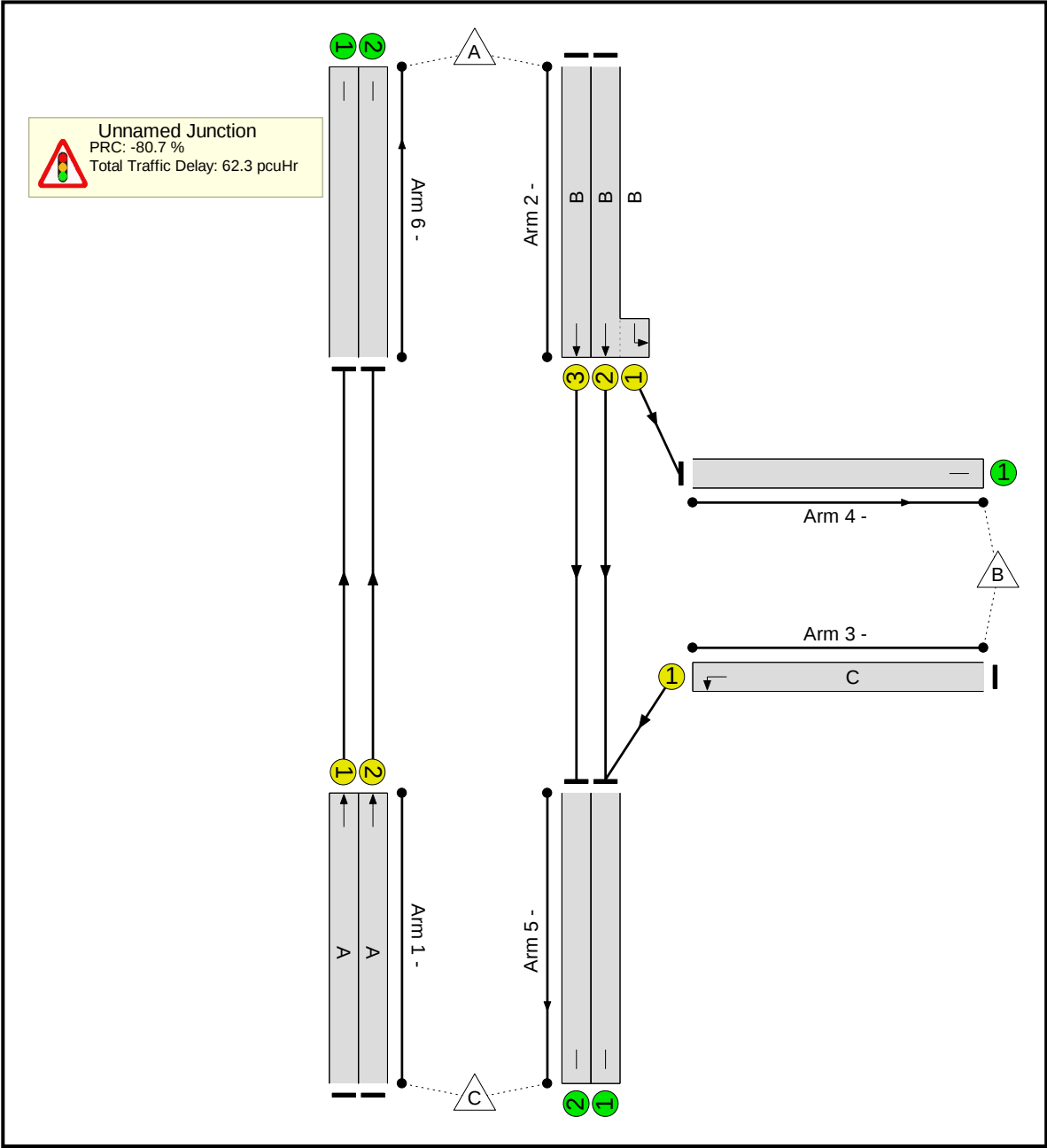
Stage	1	2
Duration	73	7
Change Point	0	78

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

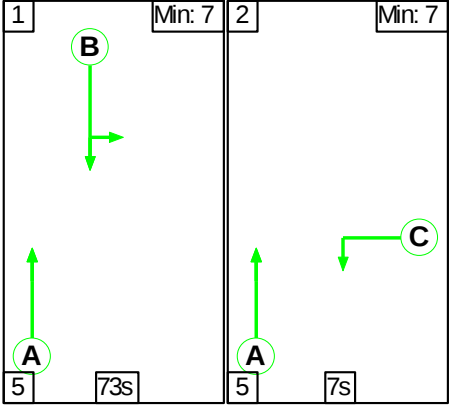
Network Results

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	-	-		-	-	-	-	-	-	162.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	162.7%
1/1	Ahead	U	N/A	N/A	A		1	90	-	635	2098	2098	30.3%
1/2	Ahead	U	N/A	N/A	A		1	90	-	771	2233	2233	34.5%
2/2+2/1	Left Ahead	U	N/A	N/A	B		1	73	-	834	1973:1789	1316+289	52.0 : 52.0%
2/3	Ahead	U	N/A	N/A	B		1	73	-	875	2057	1691	51.7%
3/1	Left	U	N/A	N/A	C		1	7	-	261	1805	160	162.7%
4/1		U	N/A	N/A	-		-	-	-	150	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	945	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	875	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	635	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	771	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	9.2	53.1	0.0	62.3	-	-	-	-
Unnamed Junction	-	-	0	0	0	9.2	53.1	0.0	62.3	-	-	-	-
1/1	635	635	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
1/2	771	771	-	-	-	0.0	0.3	-	0.3	1.2	0.0	0.3	0.3
2/2+2/1	834	834	-	-	-	0.5	0.5	-	1.1	4.7	5.8	0.5	6.4
2/3	875	875	-	-	-	0.6	0.5	-	1.1	4.7	6.6	0.5	7.1
3/1	261	160	-	-	-	8.0	51.5	-	59.6	821.9	11.3	51.5	62.9
4/1	150	150	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	844	844	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	875	875	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	635	635	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	771	771	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -80.7 Total Delay for Signalled Lanes (pcuHr): 62.28 Cycle Time (s): 90 PRC Over All Lanes (%): -80.7 Total Delay Over All Lanes(pcuHr): 62.28													

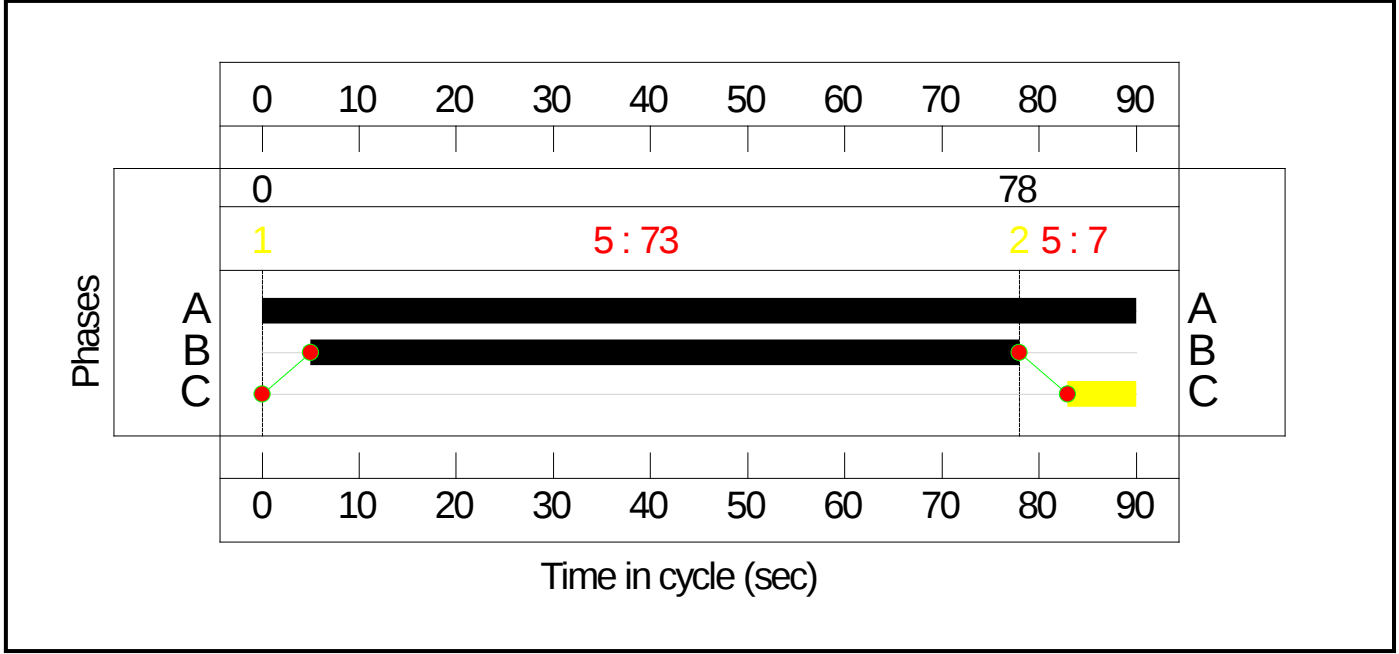
Stage Sequence Diagram



Stage Timings

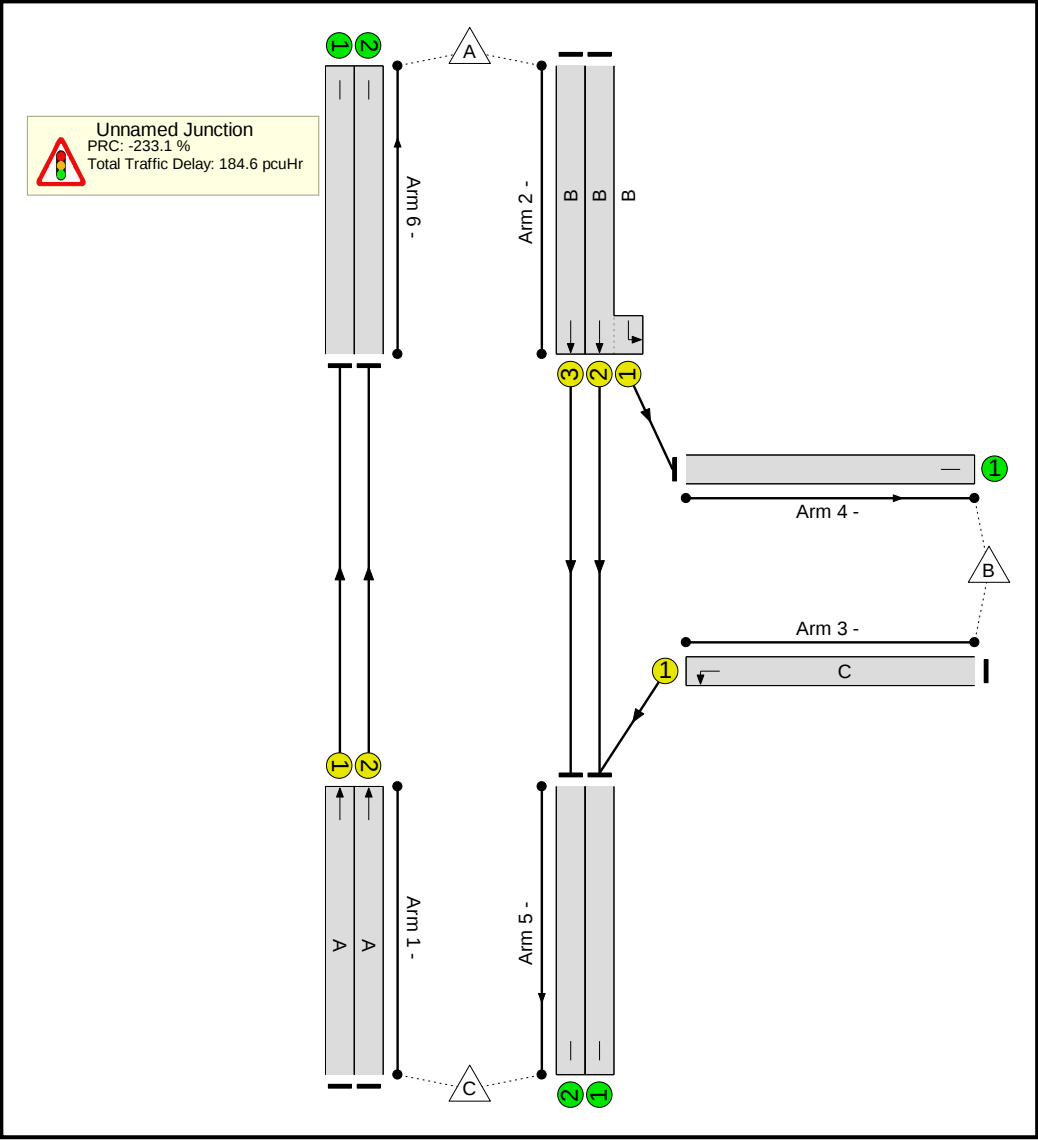
Stage	1	2
Duration	73	7
Change Point	0	78

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

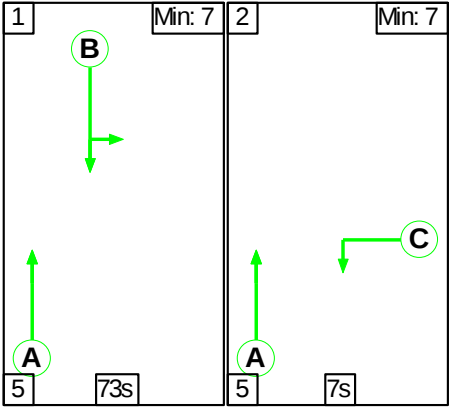
Network Results

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	-	-		-	-	-	-	-	-	299.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	299.8%
1/1	Ahead	U	N/A	N/A	A		1	90	-	835	2098	2098	39.8%
1/2	Ahead	U	N/A	N/A	A		1	90	-	971	2233	2233	43.5%
2/2+2/1	Left Ahead	U	N/A	N/A	B		1	73	-	572	1973:1789	1419+188	35.6 : 35.6%
2/3	Ahead	U	N/A	N/A	B		1	73	-	615	2057	1691	36.4%
3/1	Left	U	N/A	N/A	C		1	7	-	481	1805	160	299.8%
4/1		U	N/A	N/A	-		-	-	-	67	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	986	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	615	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	835	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	971	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	22.3	162.3	0.0	184.6	-	-	-	-
Unnamed Junction	-	-	0	0	0	22.3	162.3	0.0	184.6	-	-	-	-
1/1	835	835	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
1/2	971	971	-	-	-	0.0	0.4	-	0.4	1.4	0.0	0.4	0.4
2/2+2/1	572	572	-	-	-	0.3	0.3	-	0.6	3.7	3.2	0.3	3.5
2/3	615	615	-	-	-	0.3	0.3	-	0.6	3.7	3.8	0.3	4.0
3/1	481	160	-	-	-	21.6	161.0	-	182.7	1367.1	27.7	161.0	188.7
4/1	67	67	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	665	665	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	615	615	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	835	835	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	971	971	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -233.1 Total Delay for Signalled Lanes (pcuHr): 184.60 Cycle Time (s): 90 PRC Over All Lanes (%): -233.1 Total Delay Over All Lanes(pcuHr): 184.60													

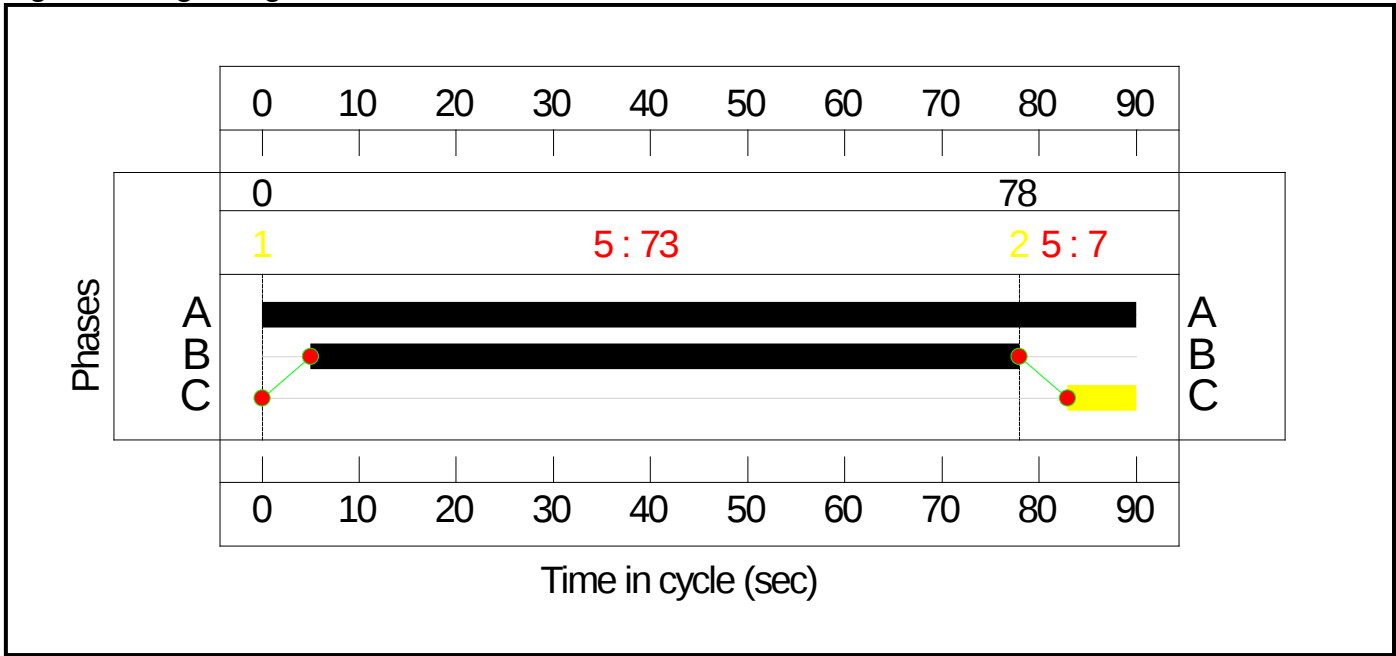
Stage Sequence Diagram



Stage Timings

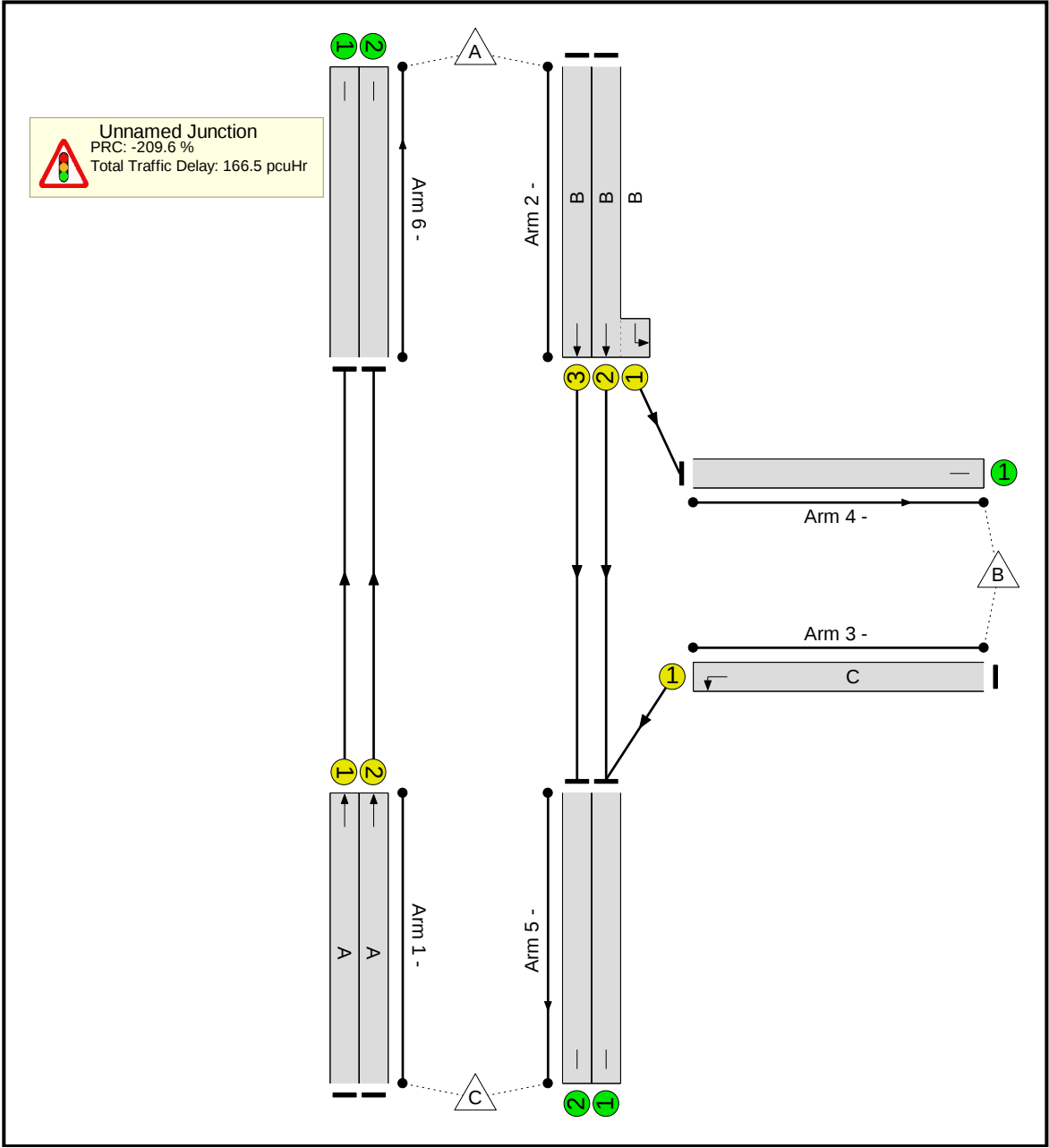
Stage	1	2
Duration	73	7
Change Point	0	78

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

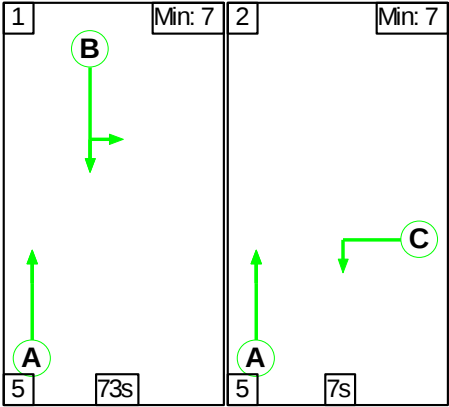
Network Results

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	-	-		-	-	-	-	-	-	278.6%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	278.6%
1/1	Ahead	U	N/A	N/A	A		1	90	-	779	2098	2098	37.1%
1/2	Ahead	U	N/A	N/A	A		1	90	-	915	2233	2233	41.0%
2/2+2/1	Left Ahead	U	N/A	N/A	B		1	73	-	858	1973:1789	1201+402	53.5 : 53.5%
2/3	Ahead	U	N/A	N/A	B		1	73	-	883	2057	1691	52.2%
3/1	Left	U	N/A	N/A	C		1	7	-	447	1805	160	278.6%
4/1		U	N/A	N/A	-		-	-	-	215	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	1090	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	883	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	779	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	915	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

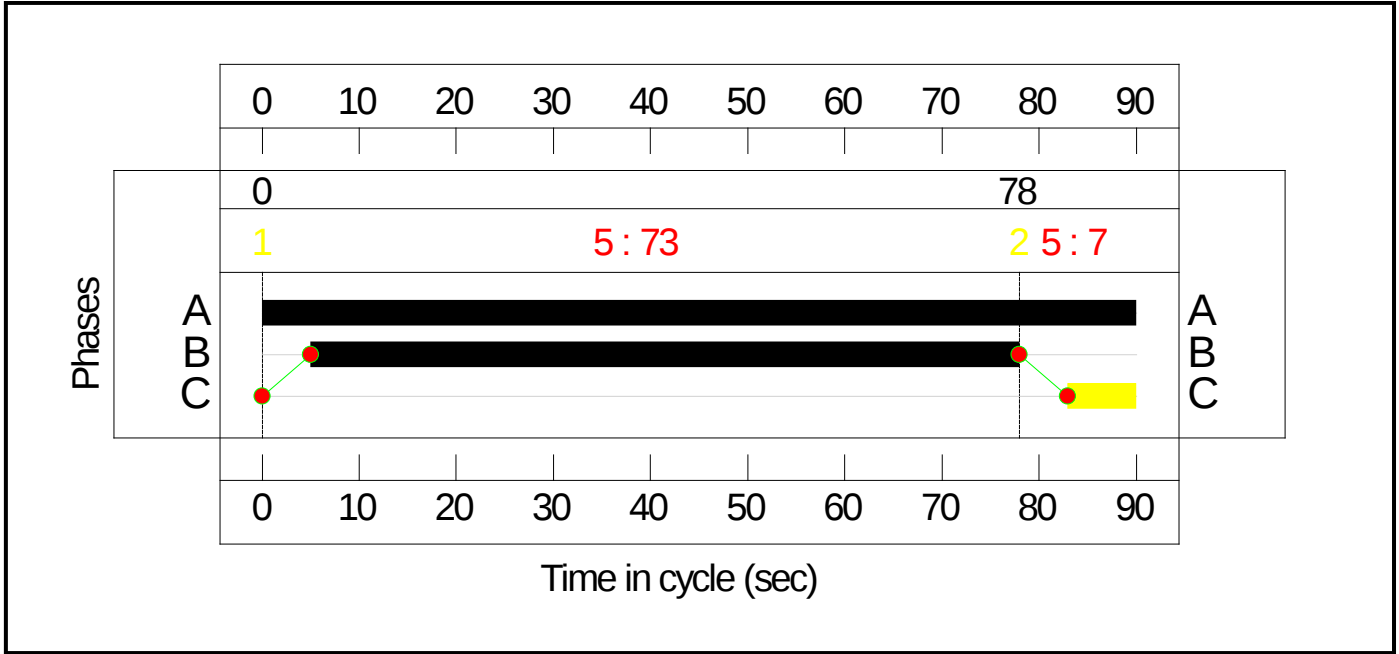
Stage Sequence Diagram



Stage Timings

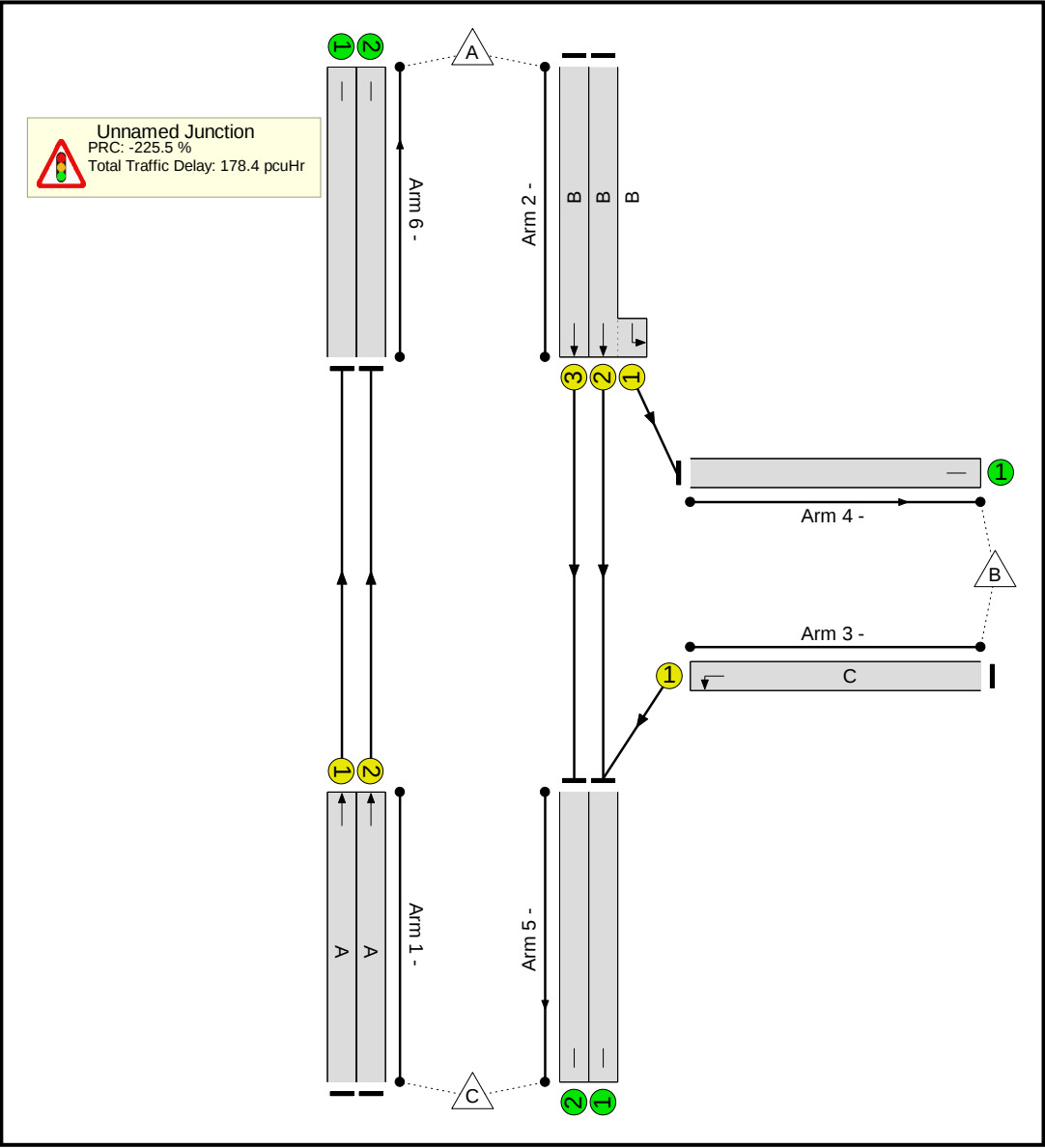
Stage	1	2
Duration	73	7
Change Point	0	78

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

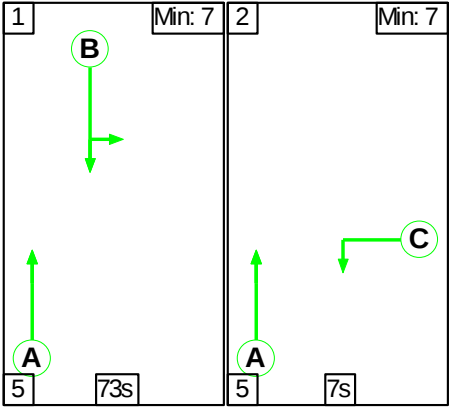
Network Results

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	-	-		-	-	-	-	-	-	292.9%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	292.9%
1/1	Ahead	U	N/A	N/A	A		1	90	-	810	2098	2098	38.6%
1/2	Ahead	U	N/A	N/A	A		1	90	-	945	2233	2233	42.3%
2/2+2/1	Left Ahead	U	N/A	N/A	B		1	73	-	578	1973:1789	1418+189	36.0 : 36.0%
2/3	Ahead	U	N/A	N/A	B		1	73	-	620	2057	1691	36.7%
3/1	Left	U	N/A	N/A	C		1	7	-	470	1805	160	292.9%
4/1		U	N/A	N/A	-		-	-	-	68	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	980	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	620	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	810	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	945	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

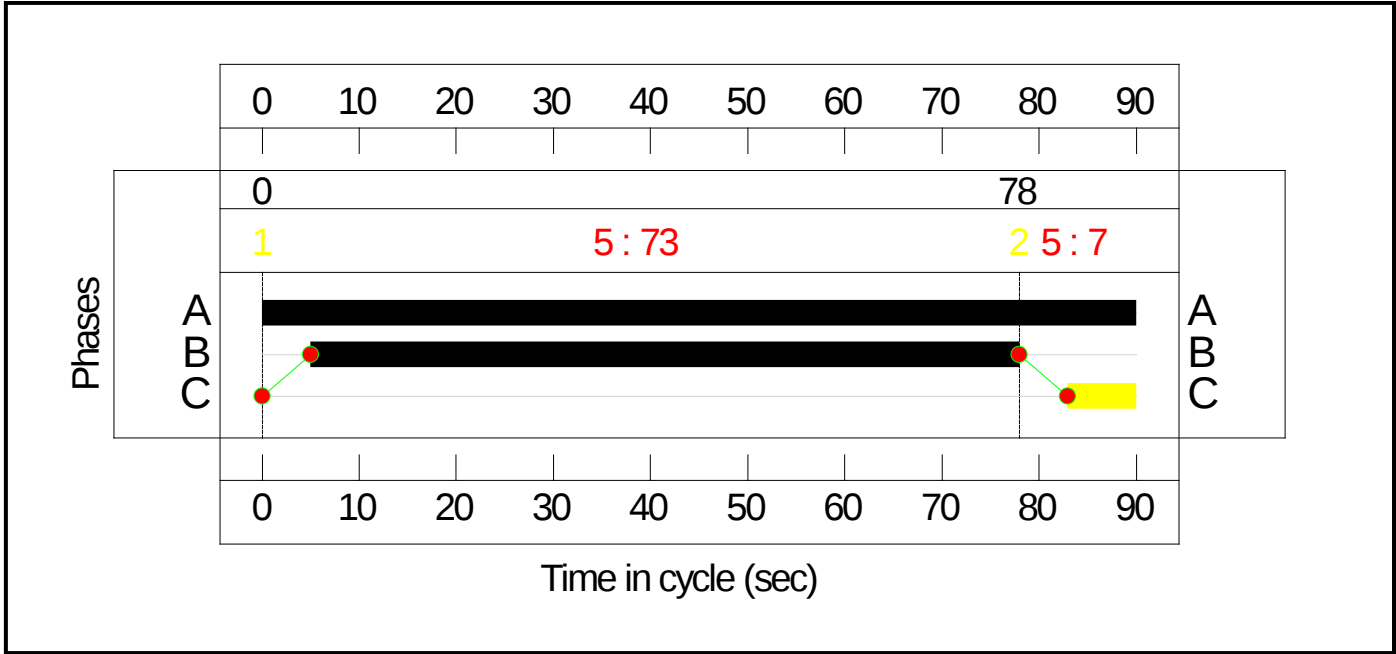
Stage Sequence Diagram



Stage Timings

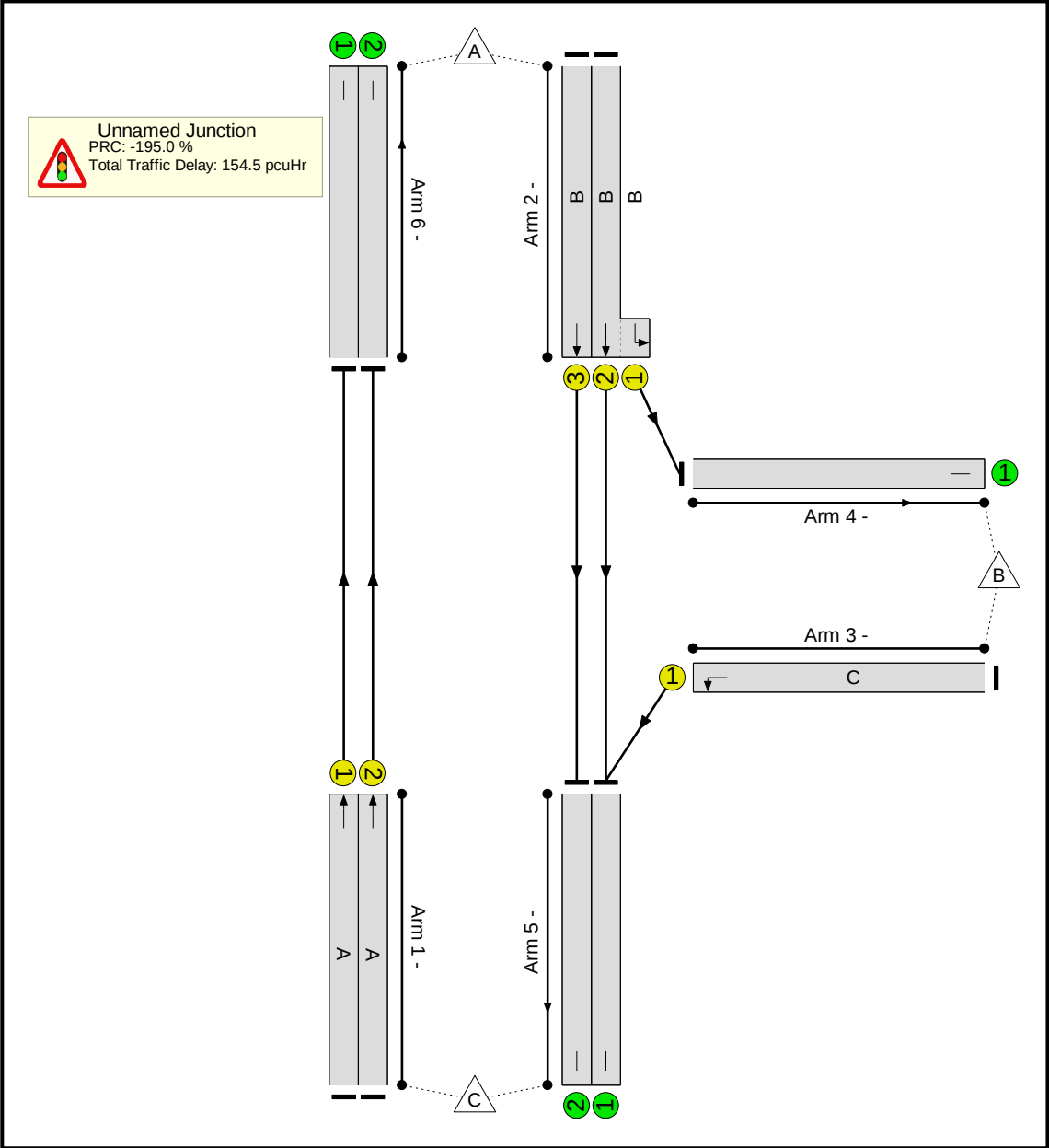
Stage	1	2
Duration	73	7
Change Point	0	78

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	-	-		-	-	-	-	-	-	265.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	265.5%
1/1	Ahead	U	N/A	N/A	A		1	90	-	729	2098	2098	34.7%
1/2	Ahead	U	N/A	N/A	A		1	90	-	864	2233	2233	38.7%
2/2+2/1	Left Ahead	U	N/A	N/A	B		1	73	-	812	1973:1789	1238+365	50.7 : 50.7%
2/3	Ahead	U	N/A	N/A	B		1	73	-	839	2057	1691	49.6%
3/1	Left	U	N/A	N/A	C		1	7	-	426	1805	160	265.5%
4/1		U	N/A	N/A	-		-	-	-	185	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	1053	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	839	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	729	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	864	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

Appendix Z

B255 / Mounts Road

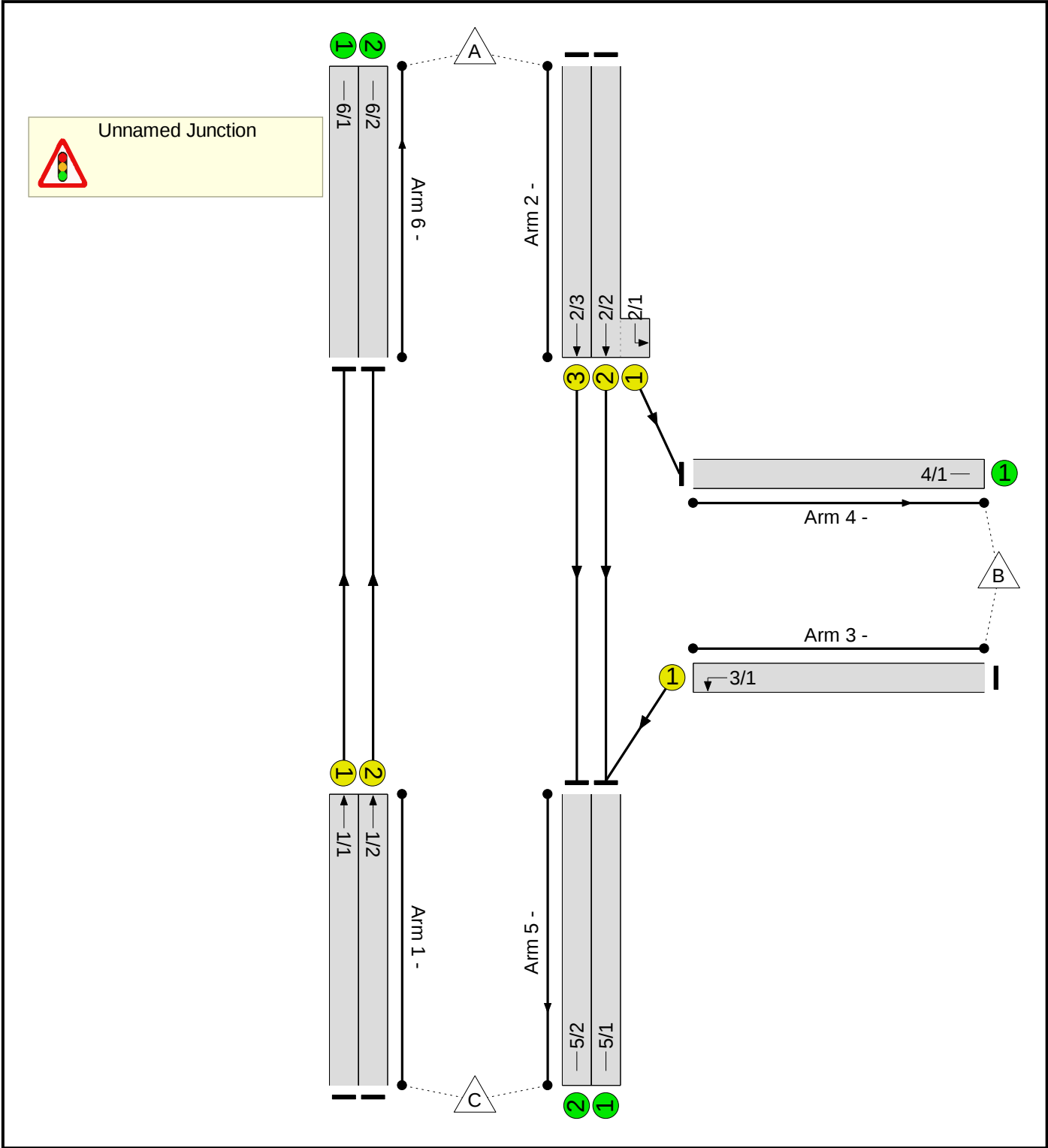
Mitigation Layout Modelling Output

Full Input Data And Results

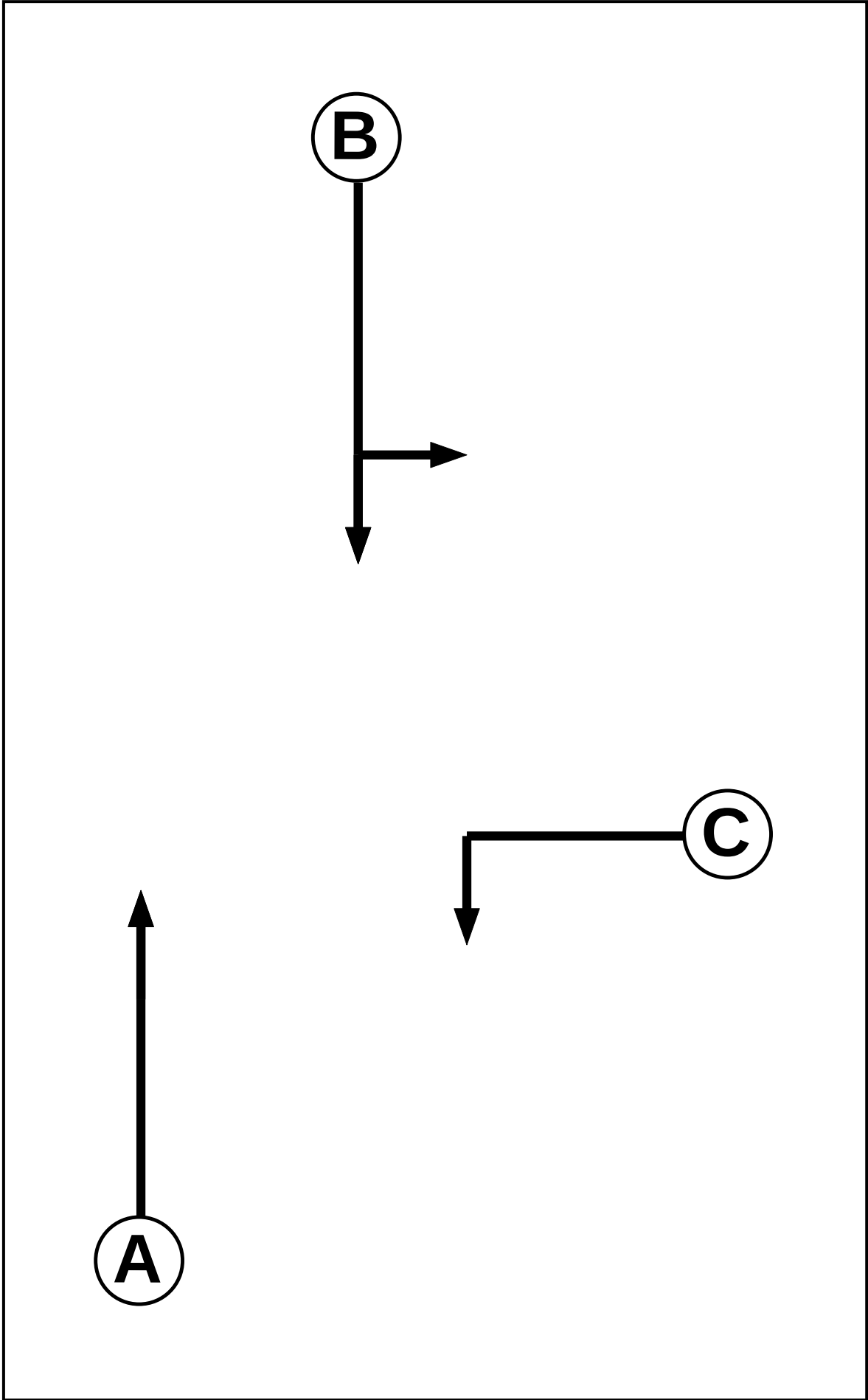
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	9. B255 _ Mounts Road (SATURN) - Mitigation.lsg3x
Author:	
Company:	
Address:	

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

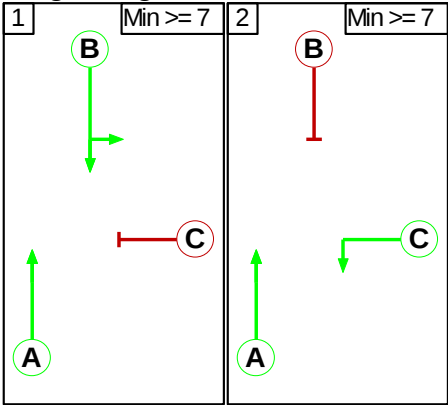
Phase Intergreens Matrix

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

Phases in Stage

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

Stage Diagram



Phase Delays

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

Prohibited Stage Change

	To Stage		
From Stage		1	2
	1		5
	2	5	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction
There are no Opposed Lanes in this Junction

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1	U	A	2	3	60.0	Geom	-	4.83	0.00	Y	Arm 6 Ahead	Inf
1/2	U	A	2	3	60.0	Geom	-	4.78	0.00	N	Arm 6 Ahead	Inf
2/1	U	B	2	3	2.0	Geom	-	3.08	0.00	Y	Arm 4 Left	20.00
2/2	U	B	2	3	60.0	Geom	-	3.58	0.00	Y	Arm 5 Ahead	Inf
2/3	U	B	2	3	60.0	Geom	-	3.02	0.00	N	Arm 5 Ahead	Inf
3/1	U	C	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 5 Left	20.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Ref no LTC AM'	08:00	09:00	01:00	
2: 'Ref no LTC PM'	17:00	18:00	01:00	
3: 'Ref LTC AM'	08:00	09:00	01:00	
4: 'Ref LTC PM'	17:00	18:00	01:00	
5: 'Pref no LTC AM'	08:00	09:00	01:00	
6: 'Pref no LTC PM'	17:00	18:00	01:00	
7: 'Pref LTC AM'	08:00	09:00	01:00	
8: 'Pref LTC PM'	17:00	18:00	01:00	

Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	66	1118	1184
	B	0	0	474	474
	C	1790	0	0	1790
	Tot.	1790	66	1592	3448

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: Ref no LTC AM
Junction: Unnamed Junction	
1/1	827
1/2	963
2/1 (short)	66
2/2 (with short)	571(In) 505(Out)
2/3	613
3/1	474
4/1	66
5/1	979
5/2	613
6/1	827
6/2	963

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	4.83	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2098	2098
1/2	4.78	0.00	N	Arm 6 Ahead	Inf	100.0 %	2233	2233
2/1	3.08	0.00	Y	Arm 4 Left	20.00	100.0 %	1789	1789
2/2	3.58	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1973	1973
2/3	3.02	0.00	N	Arm 5 Ahead	Inf	100.0 %	2057	2057
3/1	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Ref no LTC PM' (FG2: 'Ref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
	A	0	164	1607	1771
	B	0	0	346	346
	C	1570	0	0	1570
	Tot.	1570	164	1953	3687

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: Ref no LTC PM
Junction: Unnamed Junction	
1/1	717
1/2	853
2/1 (short)	164
2/2 (with short)	865(In) 701(Out)
2/3	906
3/1	346
4/1	164
5/1	1047
5/2	906
6/1	717
6/2	853

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	4.83	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2098	2098
1/2	4.78	0.00	N	Arm 6 Ahead	Inf	100.0 %	2233	2233
2/1	3.08	0.00	Y	Arm 4 Left	20.00	100.0 %	1789	1789
2/2	3.58	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1973	1973
2/3	3.02	0.00	N	Arm 5 Ahead	Inf	100.0 %	2057	2057
3/1	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	68	1050	1118
	B	0	0	456	456
	C	1743	0	0	1743
	Tot.	1743	68	1506	3317

Traffic Lane Flows

Lane	Scenario 3: Ref LTC AM
Junction: Unnamed Junction	
1/1	804
1/2	939
2/1 (short)	68
2/2 (with short)	540(In) 472(Out)
2/3	578
3/1	456
4/1	68
5/1	928
5/2	578
6/1	804
6/2	939

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	4.83	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2098	2098
1/2	4.78	0.00	N	Arm 6 Ahead	Inf	100.0 %	2233	2233
2/1	3.08	0.00	Y	Arm 4 Left	20.00	100.0 %	1789	1789
2/2	3.58	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1973	1973
2/3	3.02	0.00	N	Arm 5 Ahead	Inf	100.0 %	2057	2057
3/1	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	150	1559	1709
	B	0	0	261	261
	C	1406	0	0	1406
	Tot.	1406	150	1820	3376

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: Ref LTC PM
Junction: Unnamed Junction	
1/1	635
1/2	771
2/1 (short)	150
2/2 (with short)	834(In) 684(Out)
2/3	875
3/1	261
4/1	150
5/1	945
5/2	875
6/1	635
6/2	771

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	4.83	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2098	2098
1/2	4.78	0.00	N	Arm 6 Ahead	Inf	100.0 %	2233	2233
2/1	3.08	0.00	Y	Arm 4 Left	20.00	100.0 %	1789	1789
2/2	3.58	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1973	1973
2/3	3.02	0.00	N	Arm 5 Ahead	Inf	100.0 %	2057	2057
3/1	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'Pref no LTC AM' (FG5: 'Pref no LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	67	1120	1187
	B	0	0	481	481
	C	1806	0	0	1806
	Tot.	1806	67	1601	3474

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: Pref no LTC AM
Junction: Unnamed Junction	
1/1	835
1/2	971
2/1 (short)	67
2/2 (with short)	572(In) 505(Out)
2/3	615
3/1	481
4/1	67
5/1	986
5/2	615
6/1	835
6/2	971

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	4.83	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2098	2098
1/2	4.78	0.00	N	Arm 6 Ahead	Inf	100.0 %	2233	2233
2/1	3.08	0.00	Y	Arm 4 Left	20.00	100.0 %	1789	1789
2/2	3.58	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1973	1973
2/3	3.02	0.00	N	Arm 5 Ahead	Inf	100.0 %	2057	2057
3/1	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Pref no LTC PM' (FG6: 'Pref no LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	215	1526	1741
	B	0	0	447	447
	C	1694	0	0	1694
	Tot.	1694	215	1973	3882

Traffic Lane Flows

Lane	Scenario 6: Pref no LTC PM
Junction: Unnamed Junction	
1/1	779
1/2	915
2/1 (short)	215
2/2 (with short)	858(In) 643(Out)
2/3	883
3/1	447
4/1	215
5/1	1090
5/2	883
6/1	779
6/2	915

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	4.83	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2098	2098
1/2	4.78	0.00	N	Arm 6 Ahead	Inf	100.0 %	2233	2233
2/1	3.08	0.00	Y	Arm 4 Left	20.00	100.0 %	1789	1789
2/2	3.58	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1973	1973
2/3	3.02	0.00	N	Arm 5 Ahead	Inf	100.0 %	2057	2057
3/1	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 7: 'Pref LTC AM' (FG7: 'Pref LTC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	68	1130	1198
	B	0	0	470	470
	C	1755	0	0	1755
	Tot.	1755	68	1600	3423

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: Pref LTC AM
Junction: Unnamed Junction	
1/1	810
1/2	945
2/1 (short)	68
2/2 (with short)	578(In) 510(Out)
2/3	620
3/1	470
4/1	68
5/1	980
5/2	620
6/1	810
6/2	945

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	4.83	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2098	2098
1/2	4.78	0.00	N	Arm 6 Ahead	Inf	100.0 %	2233	2233
2/1	3.08	0.00	Y	Arm 4 Left	20.00	100.0 %	1789	1789
2/2	3.58	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1973	1973
2/3	3.02	0.00	N	Arm 5 Ahead	Inf	100.0 %	2057	2057
3/1	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Pref LTC PM' (FG8: 'Pref LTC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	185	1466	1651
	B	0	0	426	426
	C	1593	0	0	1593
	Tot.	1593	185	1892	3670

Traffic Lane Flows

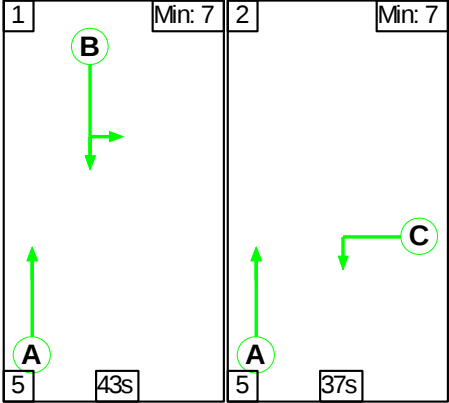
Lane	Scenario 8: Pref LTC PM
Junction: Unnamed Junction	
1/1	729
1/2	864
2/1 (short)	185
2/2 (with short)	812(In) 627(Out)
2/3	839
3/1	426
4/1	185
5/1	1053
5/2	839
6/1	729
6/2	864

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	4.83	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2098	2098
1/2	4.78	0.00	N	Arm 6 Ahead	Inf	100.0 %	2233	2233
2/1	3.08	0.00	Y	Arm 4 Left	20.00	100.0 %	1789	1789
2/2	3.58	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1973	1973
2/3	3.02	0.00	N	Arm 5 Ahead	Inf	100.0 %	2057	2057
3/1	3.25	0.00	Y	Arm 5 Left	20.00	100.0 %	1805	1805
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
5/2	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'Ref no LTC AM' (FG1: 'Ref no LTC AM', Plan 1: 'Network Control Plan 1')

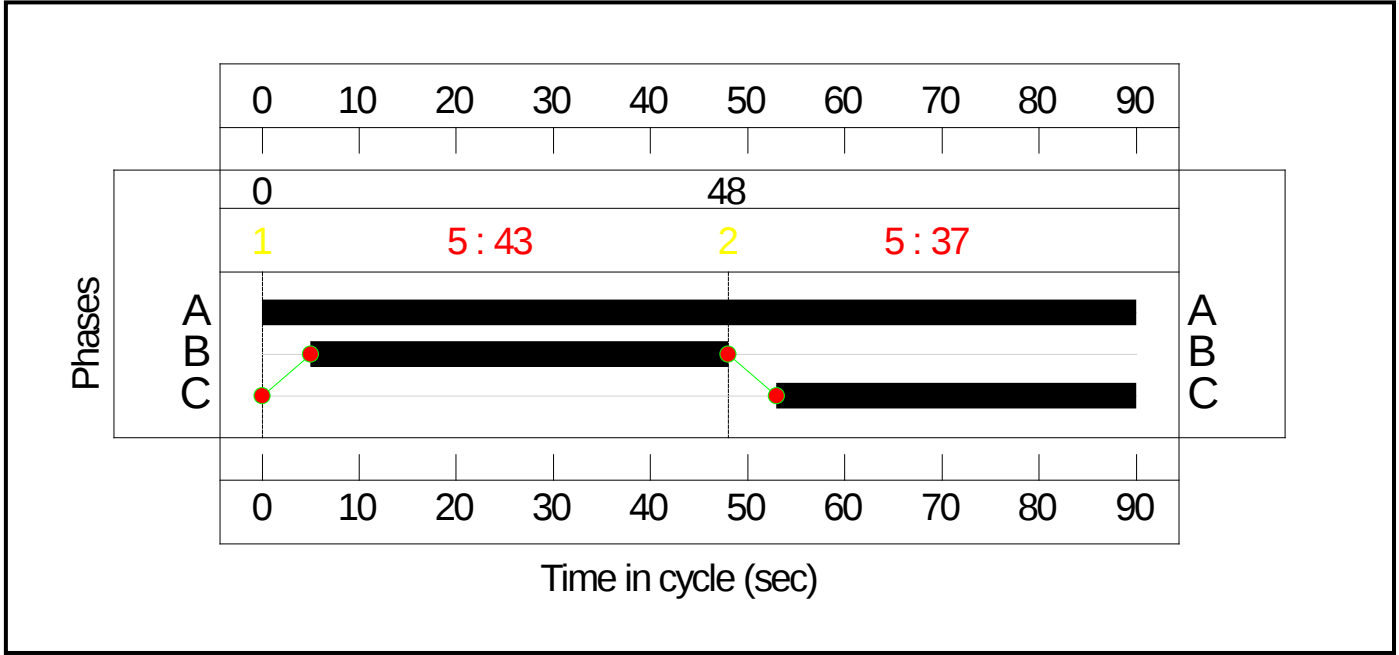
Stage Sequence Diagram



Stage Timings

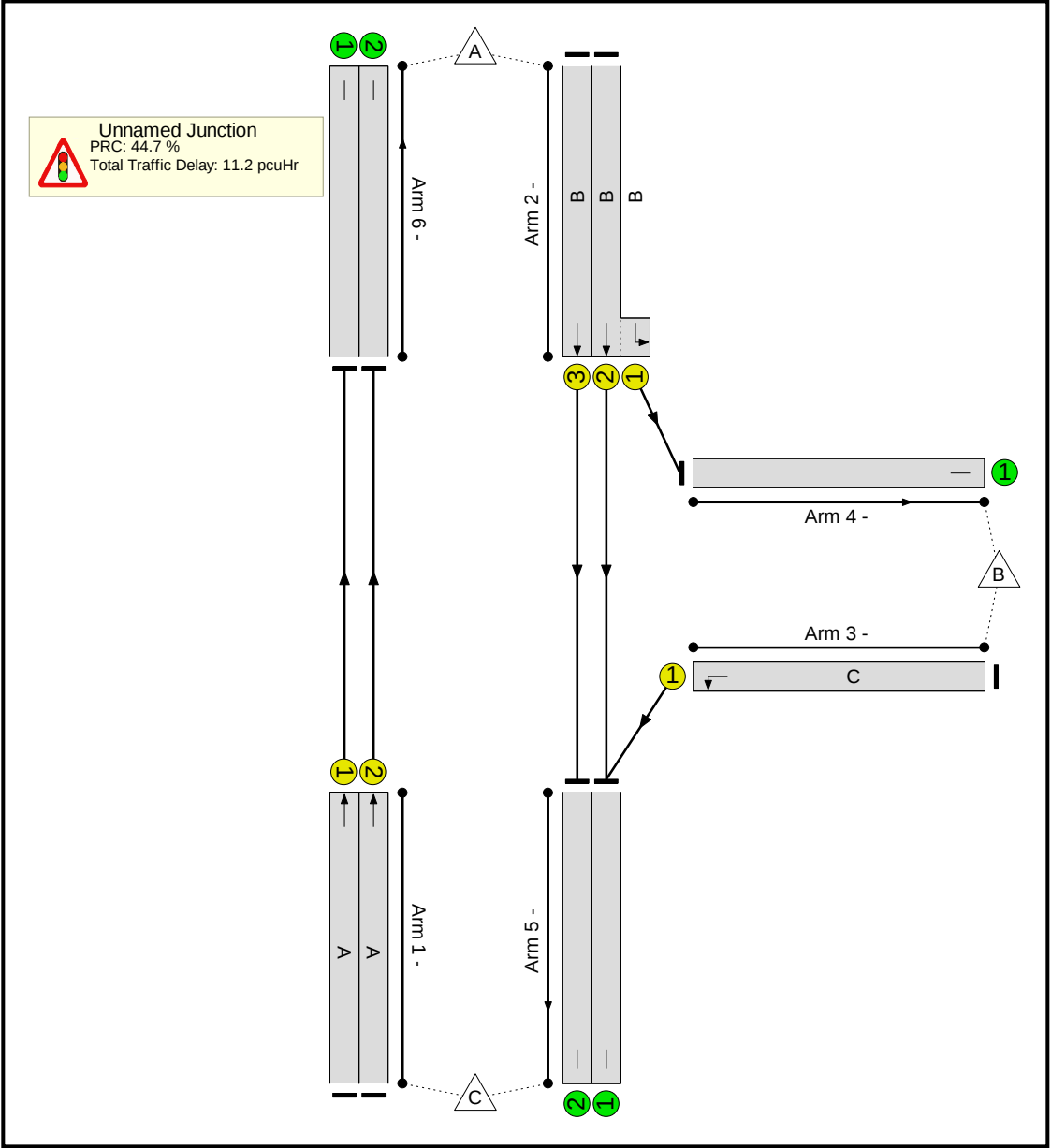
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Duration	43	37
Change Point	0	48

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

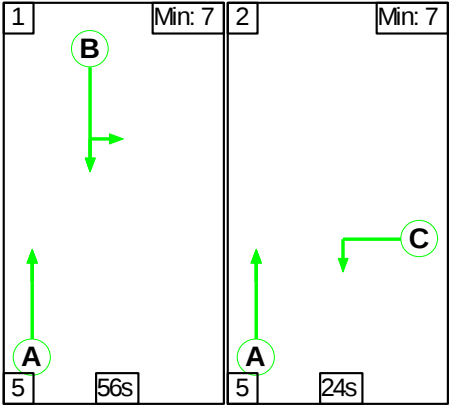
Network Results

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	-	-		-	-	-	-	-	-	62.2%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	62.2%
1/1	Ahead	U	N/A	N/A	A		1	90	-	827	2098	2098	39.4%
1/2	Ahead	U	N/A	N/A	A		1	90	-	963	2233	2233	43.1%
2/2+2/1	Left Ahead	U	N/A	N/A	B		1	43	-	571	1973:1789	846+111	59.7 : 59.7%
2/3	Ahead	U	N/A	N/A	B		1	43	-	613	2057	1006	61.0%
3/1	Left	U	N/A	N/A	C		1	37	-	474	1805	762	62.2%
4/1		U	N/A	N/A	-		-	-	-	66	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	979	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	613	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	827	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	963	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	8.1	3.0	0.0	11.2	-	-	-	-
Unnamed Junction	-	-	0	0	0	8.1	3.0	0.0	11.2	-	-	-	-
1/1	827	827	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
1/2	963	963	-	-	-	0.0	0.4	-	0.4	1.4	0.0	0.4	0.4
2/2+2/1	571	571	-	-	-	2.6	0.7	-	3.3	21.1	9.9	0.7	10.6
2/3	613	613	-	-	-	2.9	0.8	-	3.6	21.3	11.1	0.8	11.8
3/1	474	474	-	-	-	2.7	0.8	-	3.5	26.6	9.2	0.8	10.0
4/1	66	66	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	979	979	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	613	613	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	827	827	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	963	963	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 44.7 Total Delay for Signalled Lanes (pcuHr): 11.18 Cycle Time (s): 90 PRC Over All Lanes (%): 44.7 Total Delay Over All Lanes(pcuHr): 11.18													

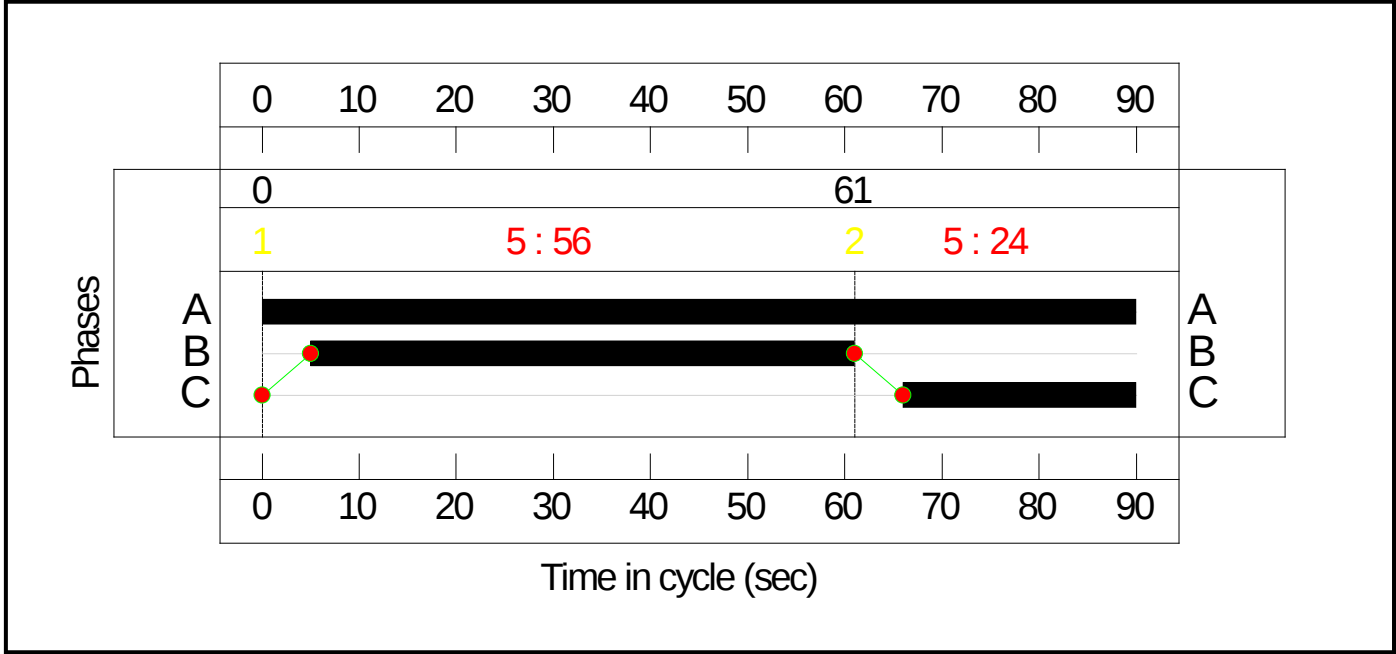
Stage Sequence Diagram



Stage Timings

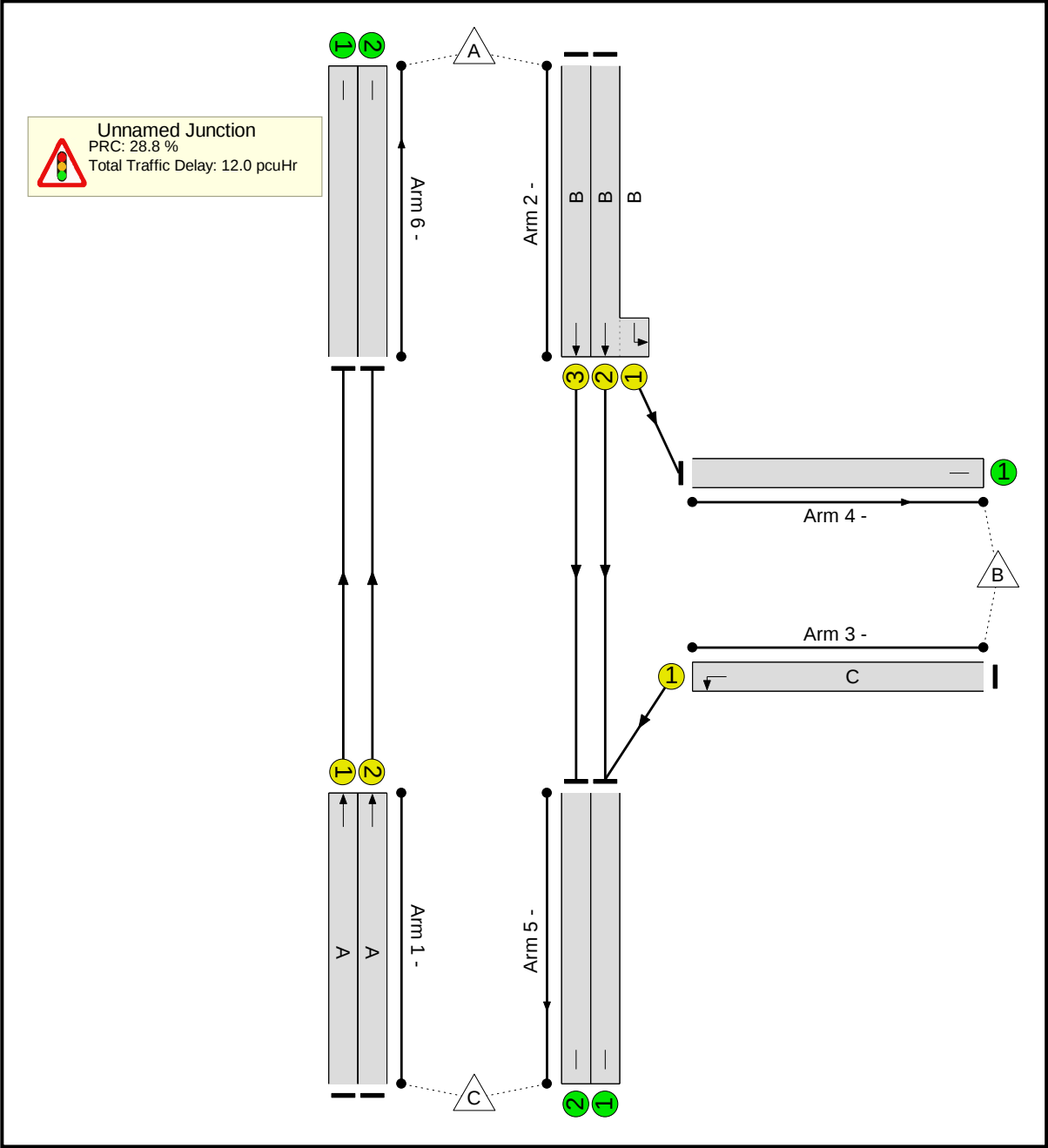
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Duration	56	24
Change Point	0	61

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

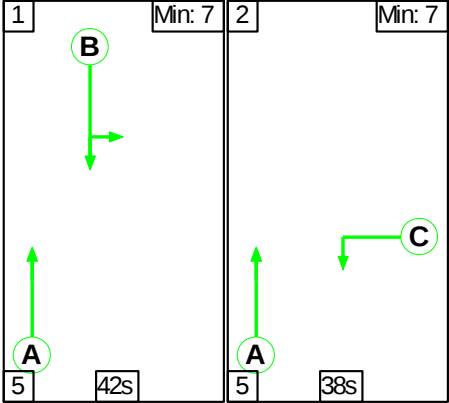
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	69.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	69.8%
1/1	Ahead	U	N/A	N/A	A		1	90	-	717	2098	2098	34.2%
1/2	Ahead	U	N/A	N/A	A		1	90	-	853	2233	2233	38.2%
2/2+2/1	Left Ahead	U	N/A	N/A	B		1	56	-	865	1973:1789	1004+235	69.8 : 69.8%
2/3	Ahead	U	N/A	N/A	B		1	56	-	906	2057	1303	69.5%
3/1	Left	U	N/A	N/A	C		1	24	-	346	1805	501	69.0%
4/1		U	N/A	N/A	-		-	-	-	164	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	1047	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	906	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	717	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	853	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	8.0	4.0	0.0	12.0	-	-	-	-
Unnamed Junction	-	-	0	0	0	8.0	4.0	0.0	12.0	-	-	-	-
1/1	717	717	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
1/2	853	853	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
2/2+2/1	865	865	-	-	-	2.5	1.2	-	3.7	15.3	13.5	1.2	14.6
2/3	906	906	-	-	-	2.7	1.1	-	3.9	15.3	14.6	1.1	15.7
3/1	346	346	-	-	-	2.8	1.1	-	3.9	40.5	7.7	1.1	8.8
4/1	164	164	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1047	1047	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	906	906	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	717	717	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	853	853	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 28.8 Total Delay for Signalled Lanes (pcuHr): 12.00 Cycle Time (s): 90 PRC Over All Lanes (%): 28.8 Total Delay Over All Lanes(pcuHr): 12.00													

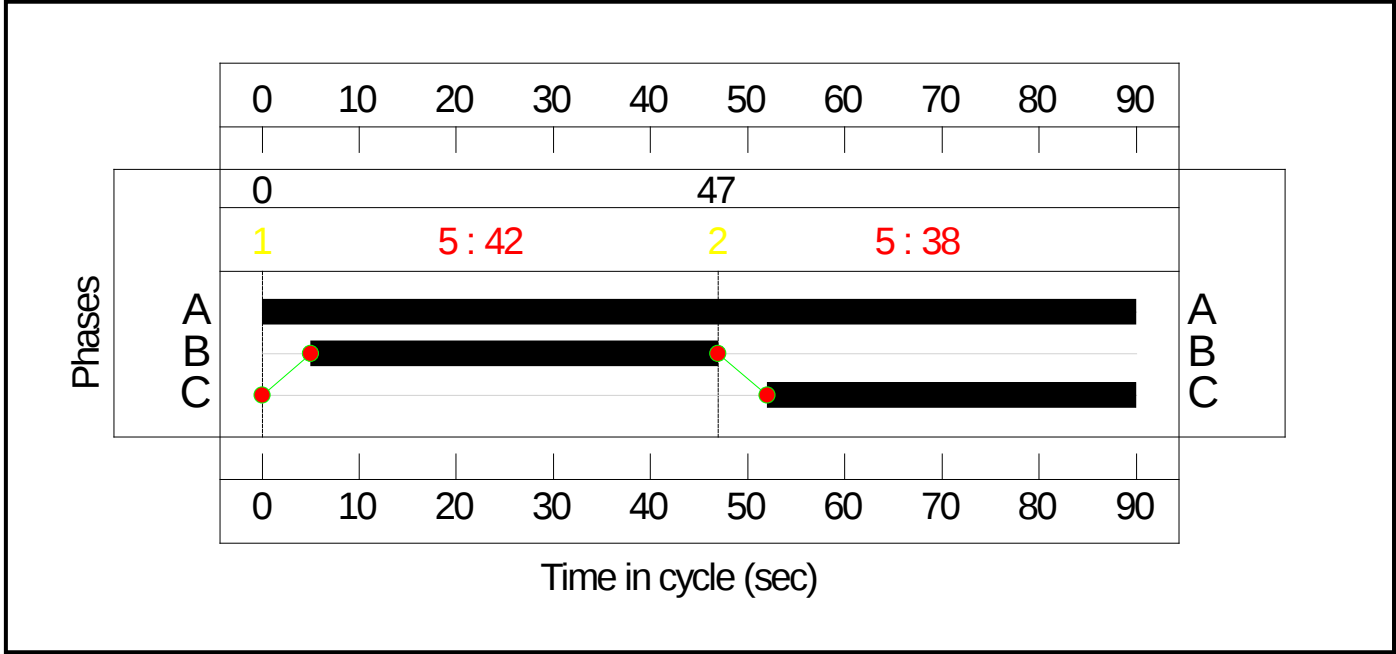
Stage Sequence Diagram



Stage Timings

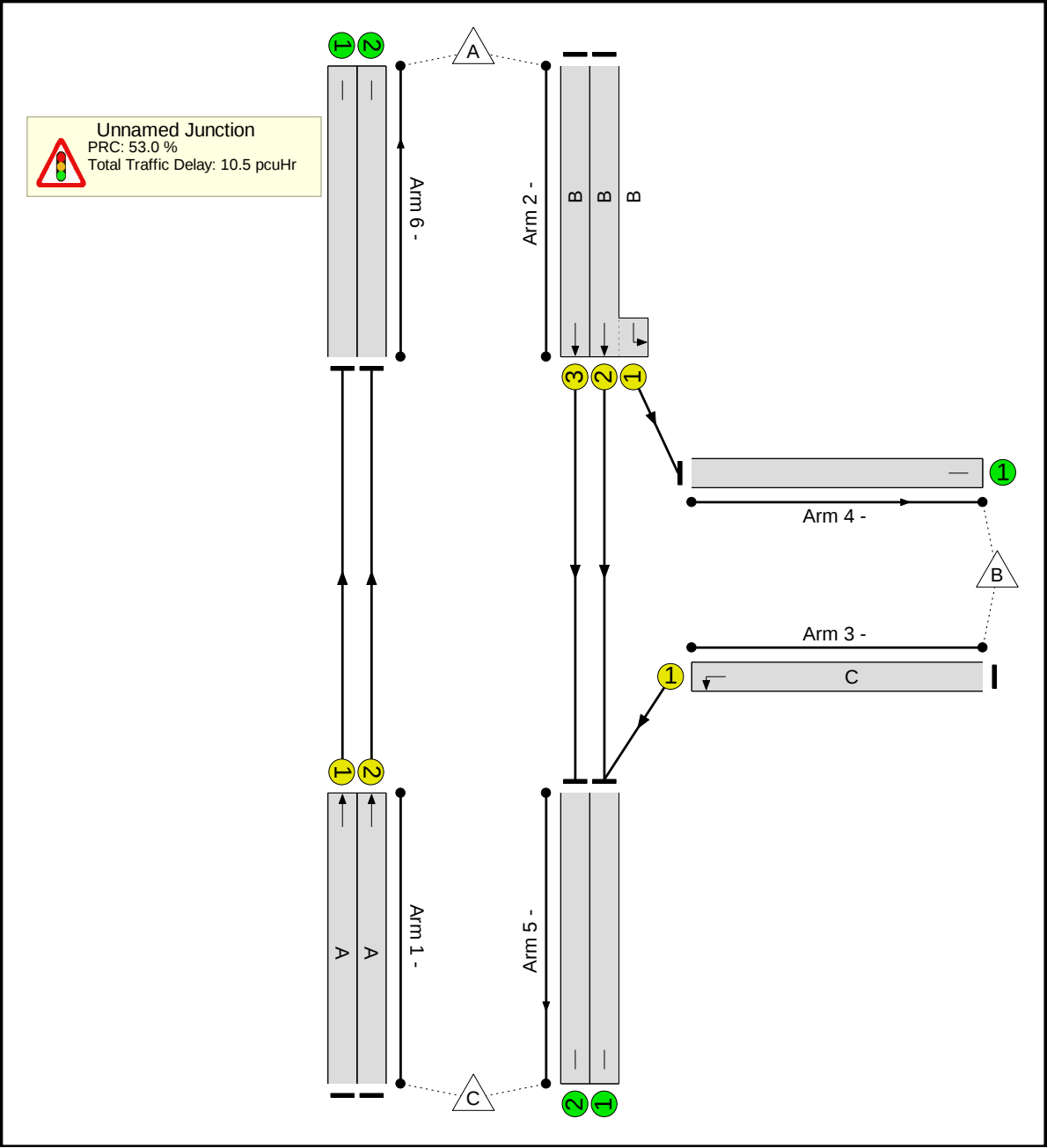
Stage	1	2
Duration	42	38
Change Point	0	47

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

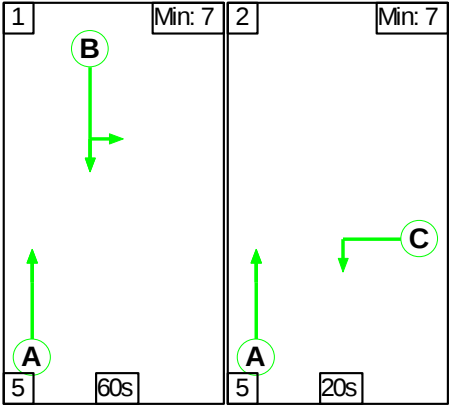
Network Results

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	-	-		-	-	-	-	-	-	58.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	58.8%
1/1	Ahead	U	N/A	N/A	A		1	90	-	804	2098	2098	38.3%
1/2	Ahead	U	N/A	N/A	A		1	90	-	939	2233	2233	42.1%
2/2+2/1	Left Ahead	U	N/A	N/A	B		1	42	-	540	1973:1789	818+118	57.7 : 57.7%
2/3	Ahead	U	N/A	N/A	B		1	42	-	578	2057	983	58.8%
3/1	Left	U	N/A	N/A	C		1	38	-	456	1805	782	58.3%
4/1		U	N/A	N/A	-		-	-	-	68	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	928	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	578	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	804	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	939	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

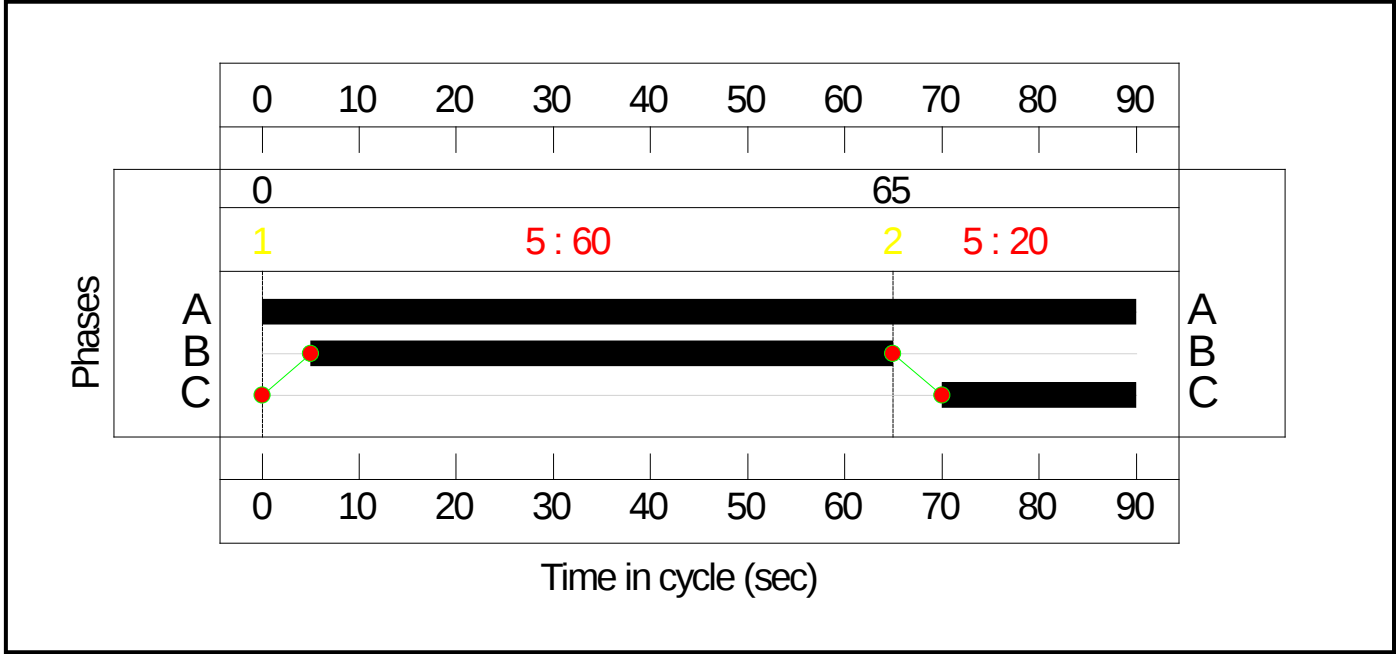
Stage Sequence Diagram



Stage Timings

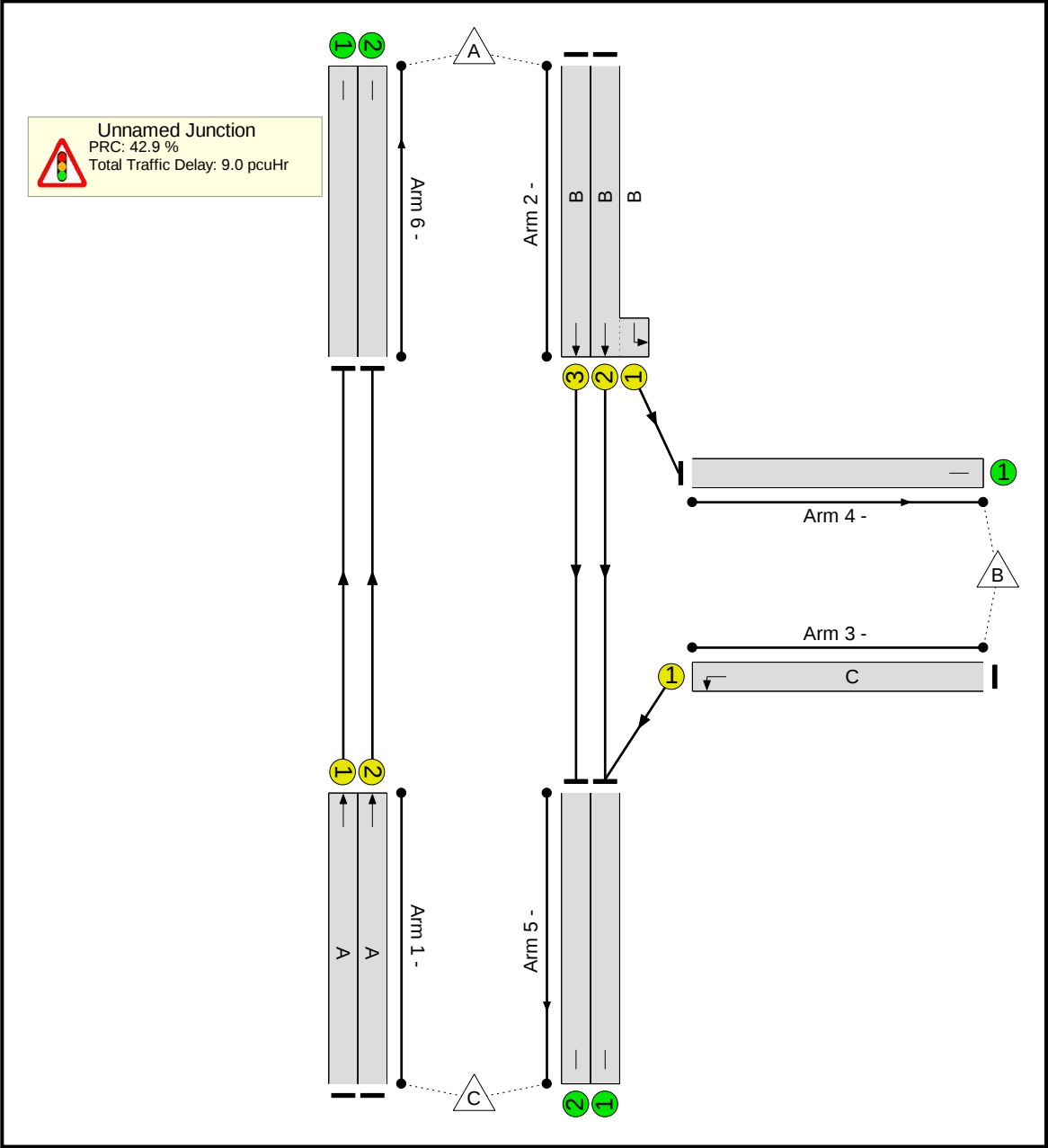
Stage	1	2
Duration	60	20
Change Point	0	65

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

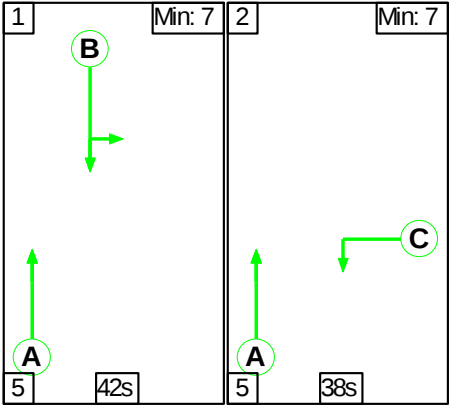
Network Results

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	-	-		-	-	-	-	-	-	63.0%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	63.0%
1/1	Ahead	U	N/A	N/A	A		1	90	-	635	2098	2098	30.3%
1/2	Ahead	U	N/A	N/A	A		1	90	-	771	2233	2233	34.5%
2/2+2/1	Left Ahead	U	N/A	N/A	B		1	60	-	834	1973:1789	1086+238	63.0 : 63.0%
2/3	Ahead	U	N/A	N/A	B		1	60	-	875	2057	1394	62.8%
3/1	Left	U	N/A	N/A	C		1	20	-	261	1805	421	62.0%
4/1		U	N/A	N/A	-		-	-	-	150	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	945	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	875	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	635	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	771	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	6.0	3.0	0.0	9.0	-	-	-	-
Unnamed Junction	-	-	0	0	0	6.0	3.0	0.0	9.0	-	-	-	-
1/1	635	635	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
1/2	771	771	-	-	-	0.0	0.3	-	0.3	1.2	0.0	0.3	0.3
2/2+2/1	834	834	-	-	-	1.8	0.8	-	2.7	11.5	10.9	0.8	11.8
2/3	875	875	-	-	-	2.0	0.8	-	2.8	11.6	12.2	0.8	13.0
3/1	261	261	-	-	-	2.2	0.8	-	3.0	42.1	5.8	0.8	6.6
4/1	150	150	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	945	945	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	875	875	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	635	635	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	771	771	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 42.9 Total Delay for Signalled Lanes (pcuHr): 9.02 Cycle Time (s): 90 PRC Over All Lanes (%): 42.9 Total Delay Over All Lanes(pcuHr): 9.02													

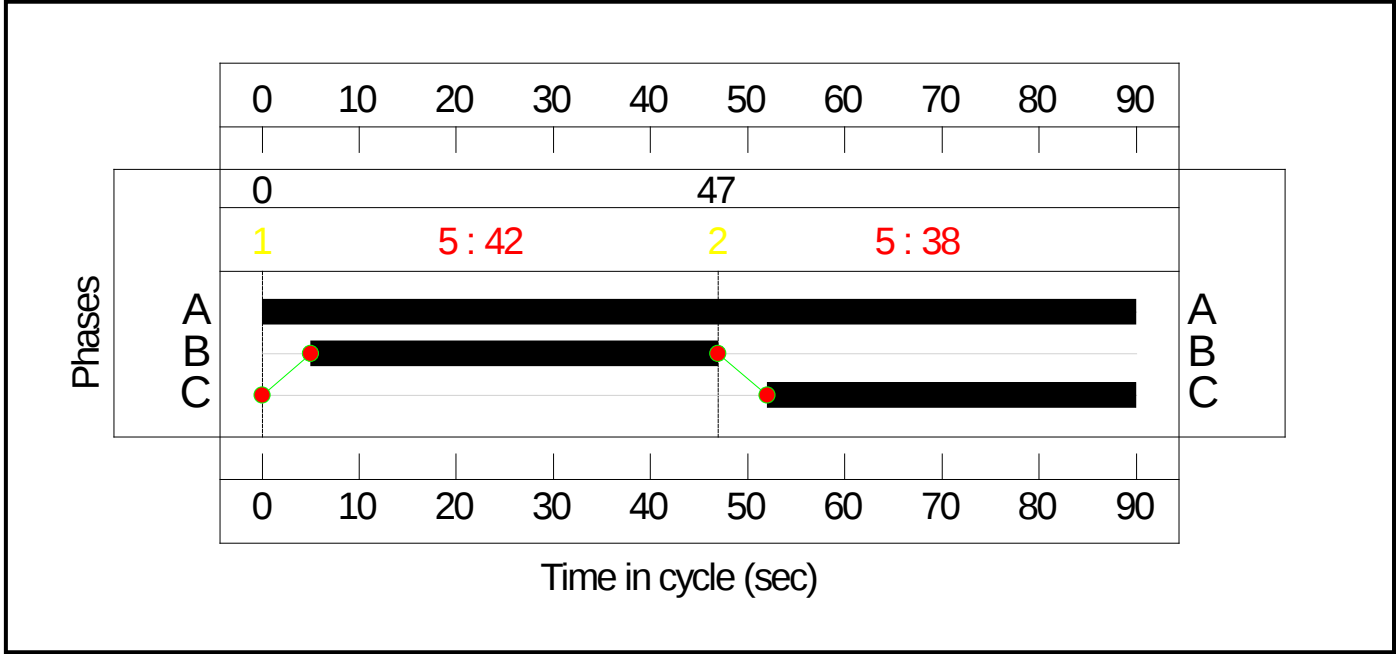
Stage Sequence Diagram



Stage Timings

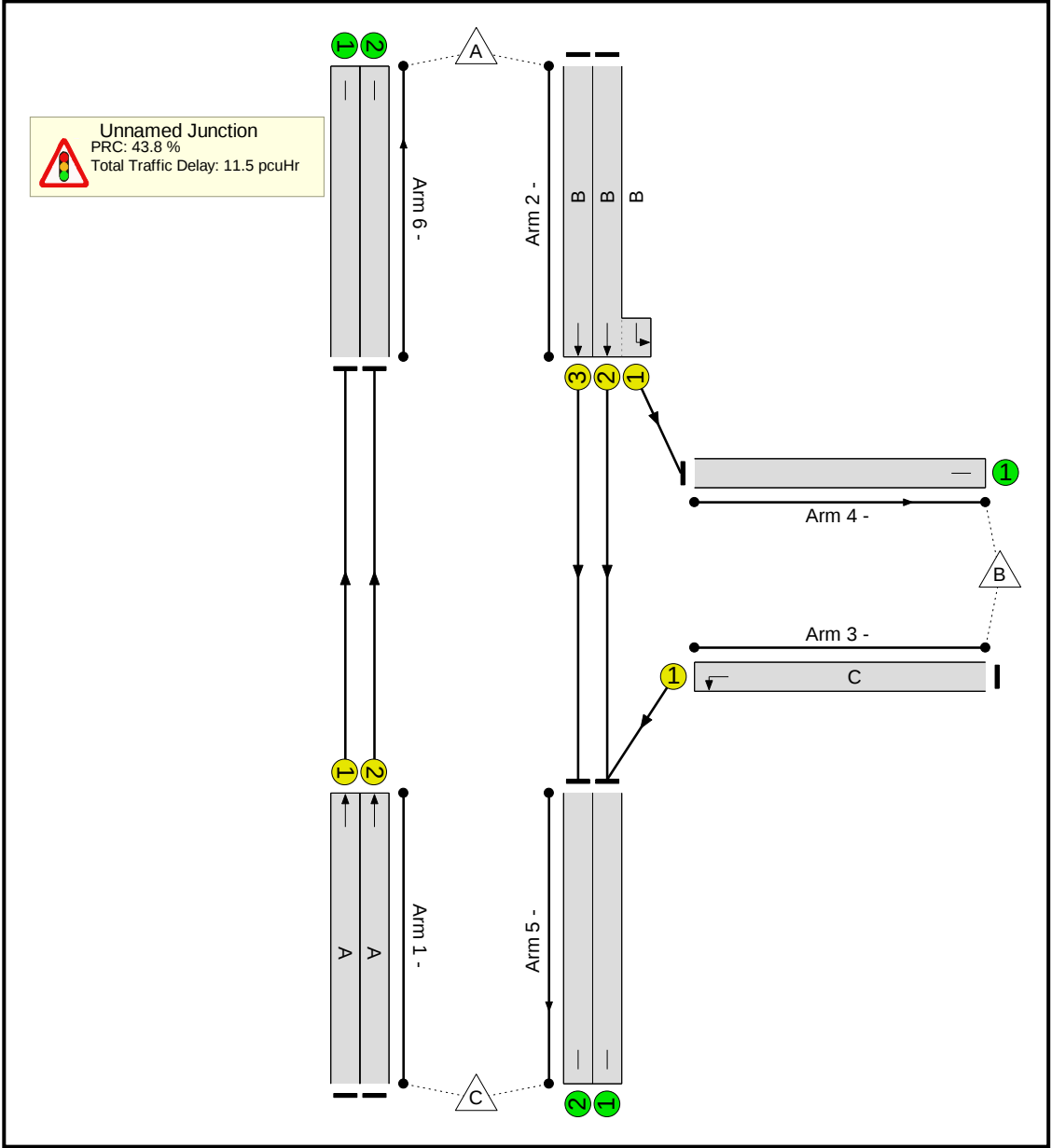
Stage	1	2
Duration	42	38
Change Point	0	47

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

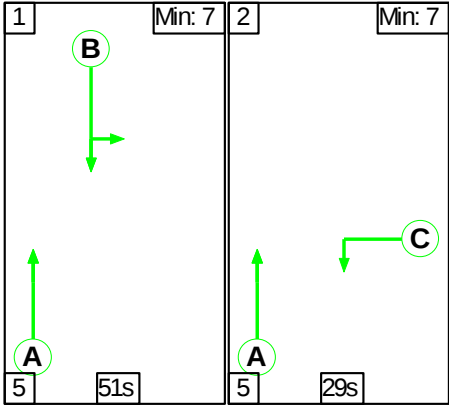
Network Results

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	-	-		-	-	-	-	-	-	62.6%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	62.6%
1/1	Ahead	U	N/A	N/A	A		1	90	-	835	2098	2098	39.8%
1/2	Ahead	U	N/A	N/A	A		1	90	-	971	2233	2233	43.5%
2/2+2/1	Left Ahead	U	N/A	N/A	B		1	42	-	572	1973:1789	826+110	61.2 : 61.2%
2/3	Ahead	U	N/A	N/A	B		1	42	-	615	2057	983	62.6%
3/1	Left	U	N/A	N/A	C		1	38	-	481	1805	782	61.5%
4/1		U	N/A	N/A	-		-	-	-	67	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	986	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	615	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	835	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	971	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

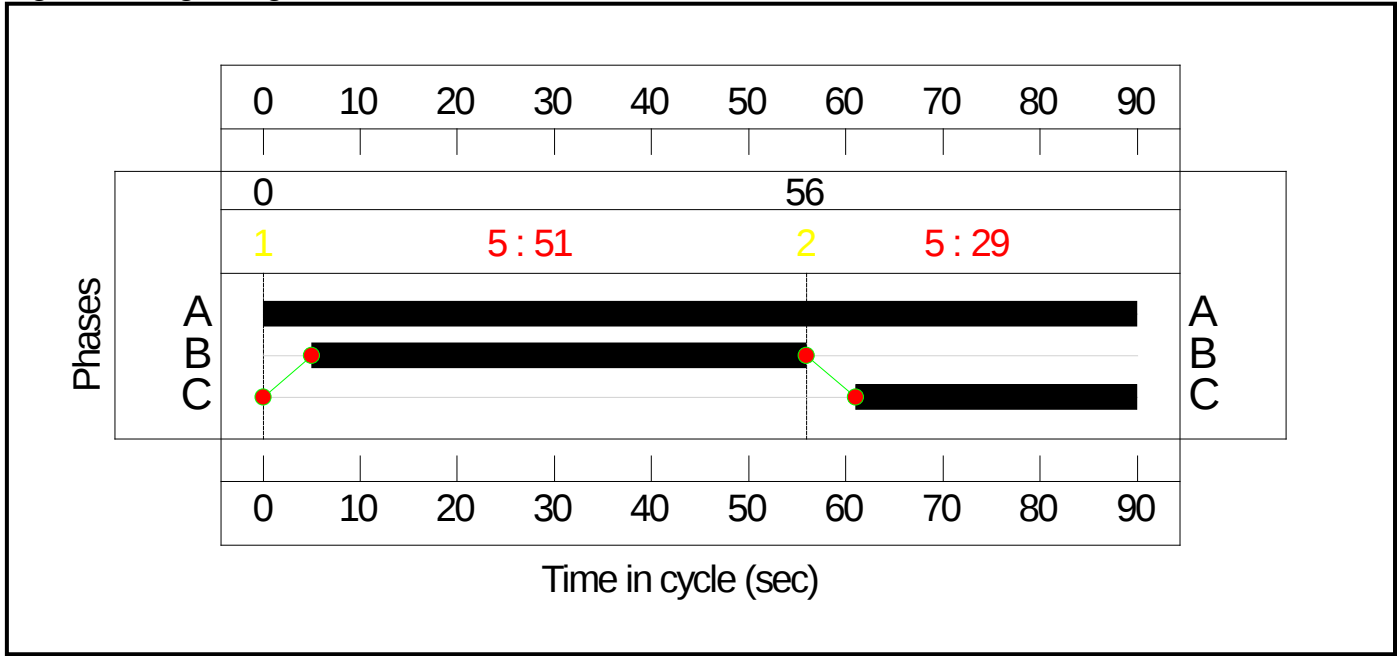
Stage Sequence Diagram



Stage Timings

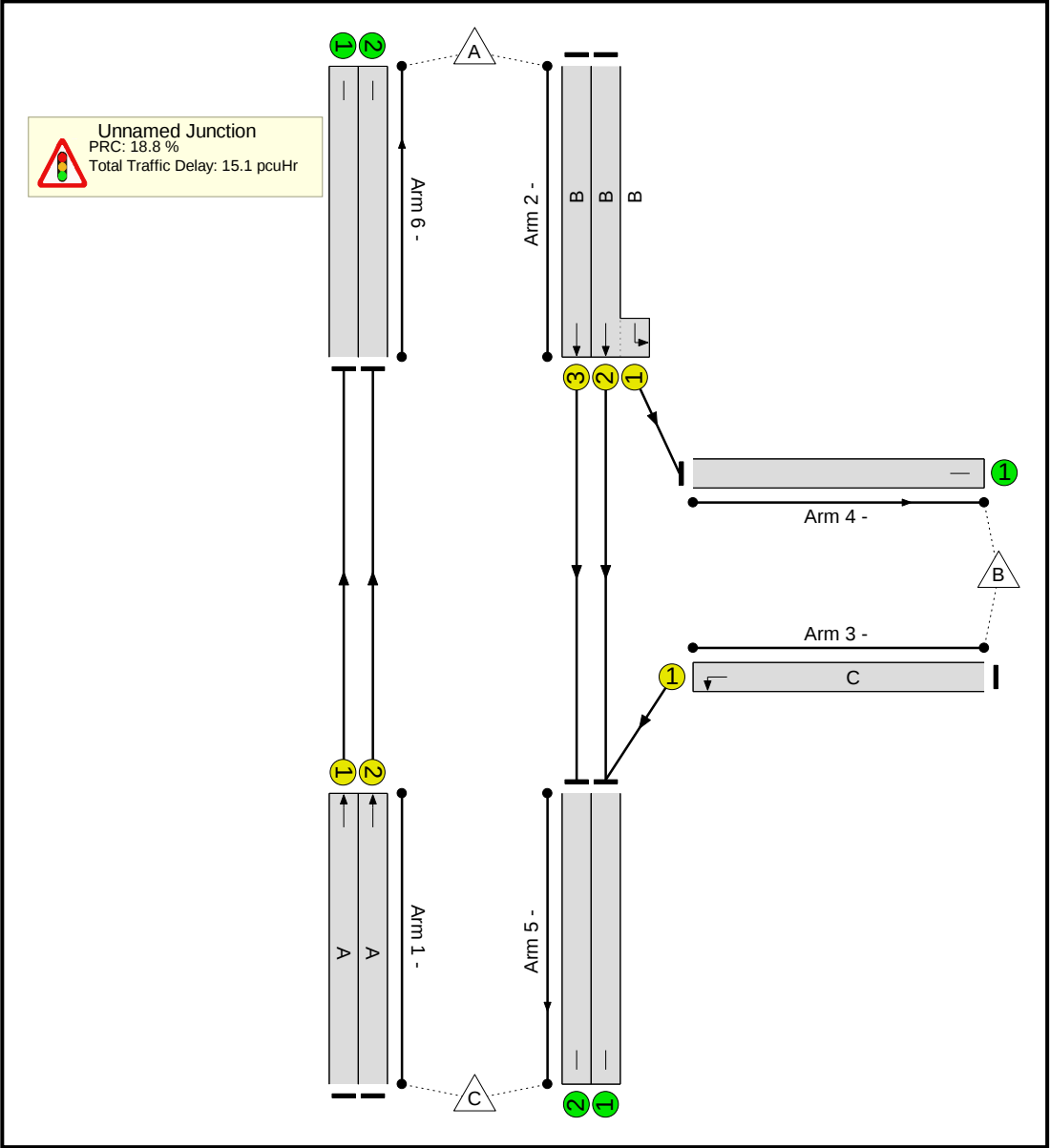
Stage	1	2
Duration	51	29
Change Point	0	56

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

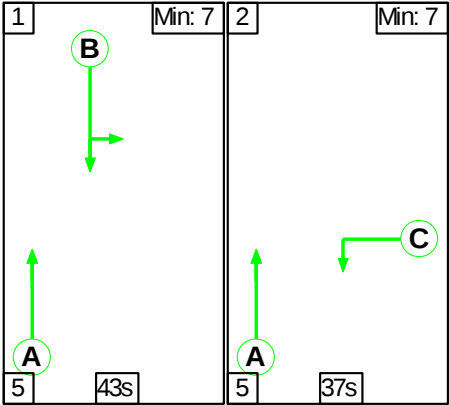
Network Results

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	-	-		-	-	-	-	-	-	75.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	75.8%
1/1	Ahead	U	N/A	N/A	A		1	90	-	779	2098	2098	37.1%
1/2	Ahead	U	N/A	N/A	A		1	90	-	915	2233	2233	41.0%
2/2+2/1	Left Ahead	U	N/A	N/A	B		1	51	-	858	1973:1789	849+284	75.8 : 75.8%
2/3	Ahead	U	N/A	N/A	B		1	51	-	883	2057	1188	74.3%
3/1	Left	U	N/A	N/A	C		1	29	-	447	1805	602	74.3%
4/1		U	N/A	N/A	-		-	-	-	215	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	1090	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	883	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	779	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	915	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

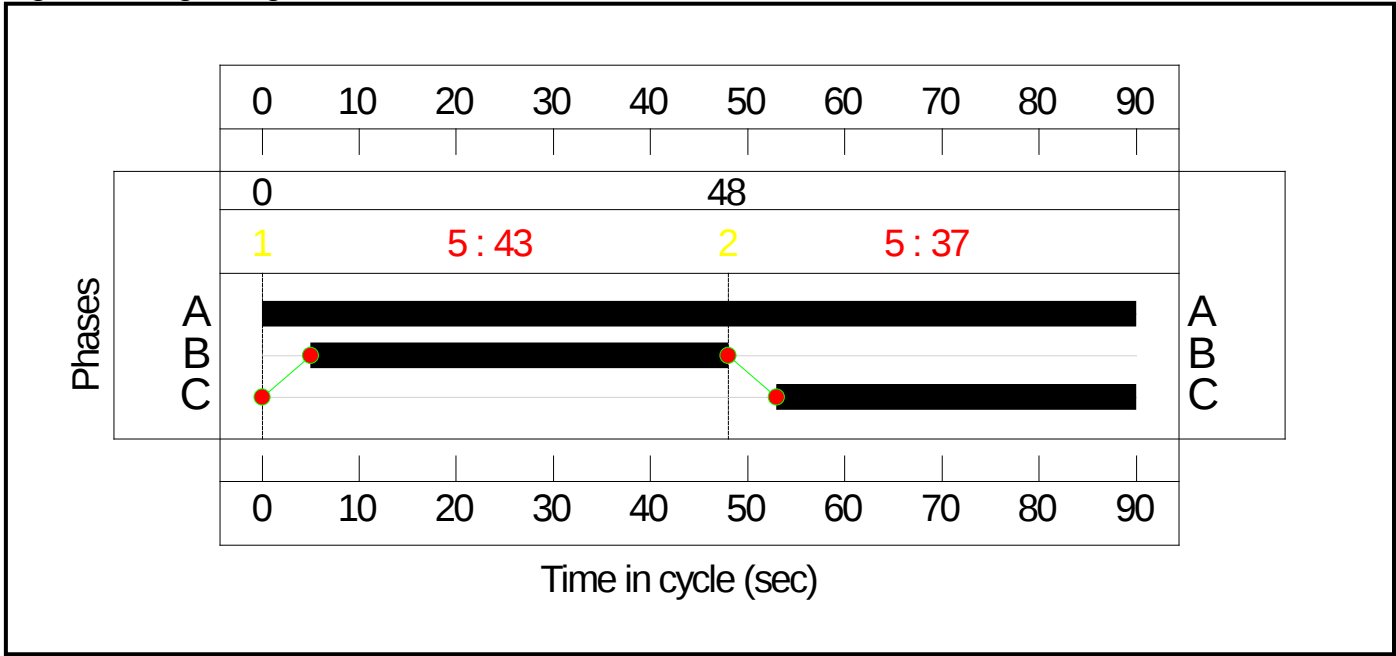
Stage Sequence Diagram



Stage Timings

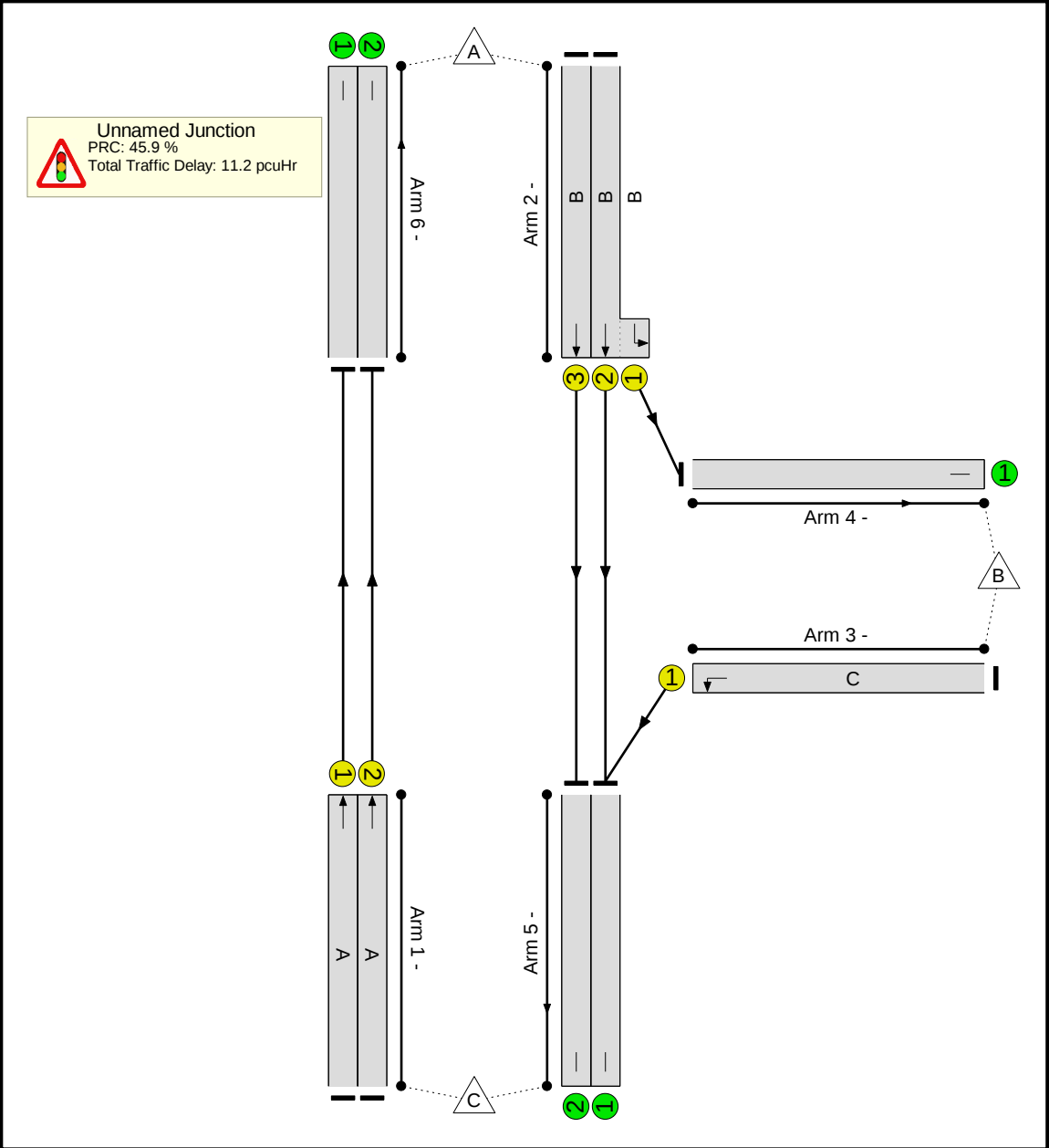
Stage	1	2
Duration	43	37
Change Point	0	48

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

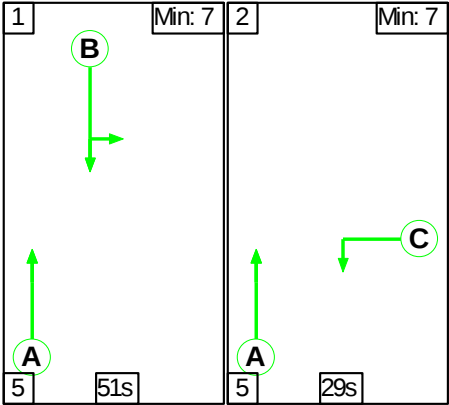
Network Results

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	-	-		-	-	-	-	-	-	61.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	61.7%
1/1	Ahead	U	N/A	N/A	A		1	90	-	810	2098	2098	38.6%
1/2	Ahead	U	N/A	N/A	A		1	90	-	945	2233	2233	42.3%
2/2+2/1	Left Ahead	U	N/A	N/A	B		1	43	-	578	1973:1789	844+113	60.4 : 60.4%
2/3	Ahead	U	N/A	N/A	B		1	43	-	620	2057	1006	61.7%
3/1	Left	U	N/A	N/A	C		1	37	-	470	1805	762	61.7%
4/1		U	N/A	N/A	-		-	-	-	68	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	980	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	620	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	810	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	945	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	8.2	3.0	0.0	11.2	-	-	-	-
Unnamed Junction	-	-	0	0	0	8.2	3.0	0.0	11.2	-	-	-	-
1/1	810	810	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
1/2	945	945	-	-	-	0.0	0.4	-	0.4	1.4	0.0	0.4	0.4
2/2+2/1	578	578	-	-	-	2.7	0.8	-	3.4	21.3	10.2	0.8	10.9
2/3	620	620	-	-	-	2.9	0.8	-	3.7	21.5	11.2	0.8	12.0
3/1	470	470	-	-	-	2.7	0.8	-	3.5	26.4	9.1	0.8	9.9
4/1	68	68	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	980	980	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	620	620	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	810	810	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	945	945	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 45.9 Total Delay for Signalled Lanes (pcuHr): 11.25 Cycle Time (s): 90 PRC Over All Lanes (%): 45.9 Total Delay Over All Lanes(pcuHr): 11.25													

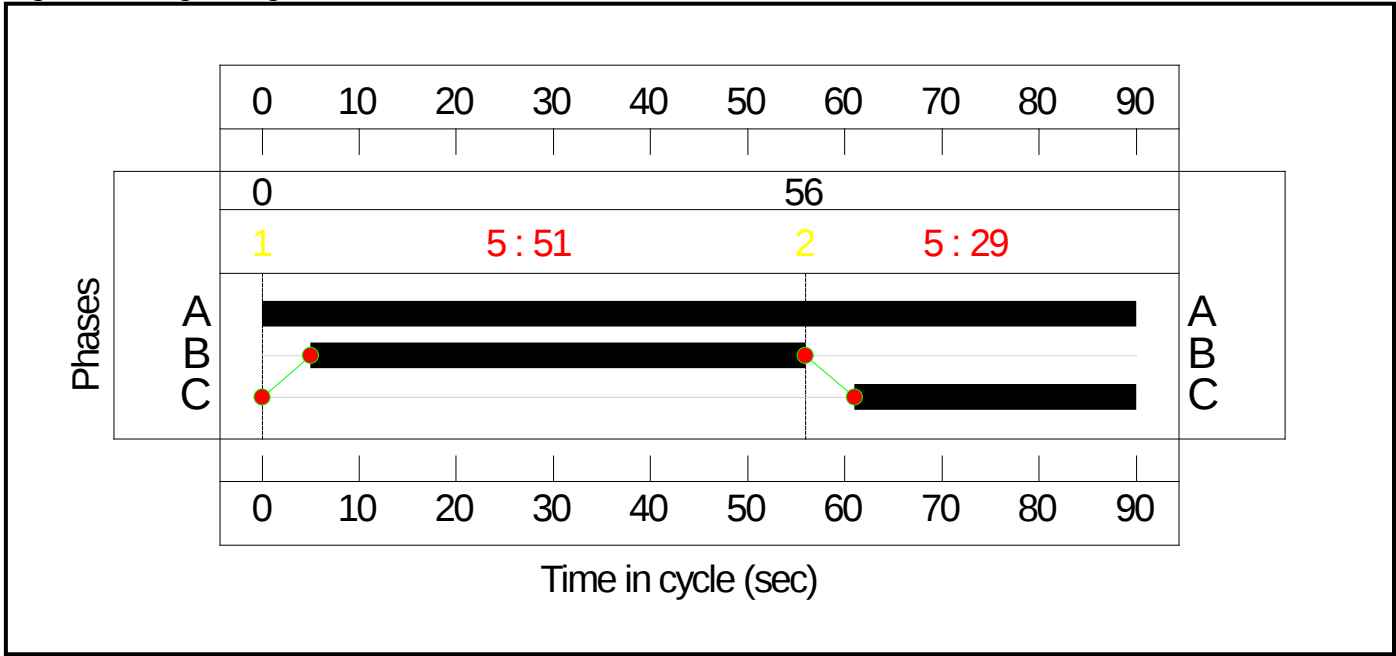
Stage Sequence Diagram



Stage Timings

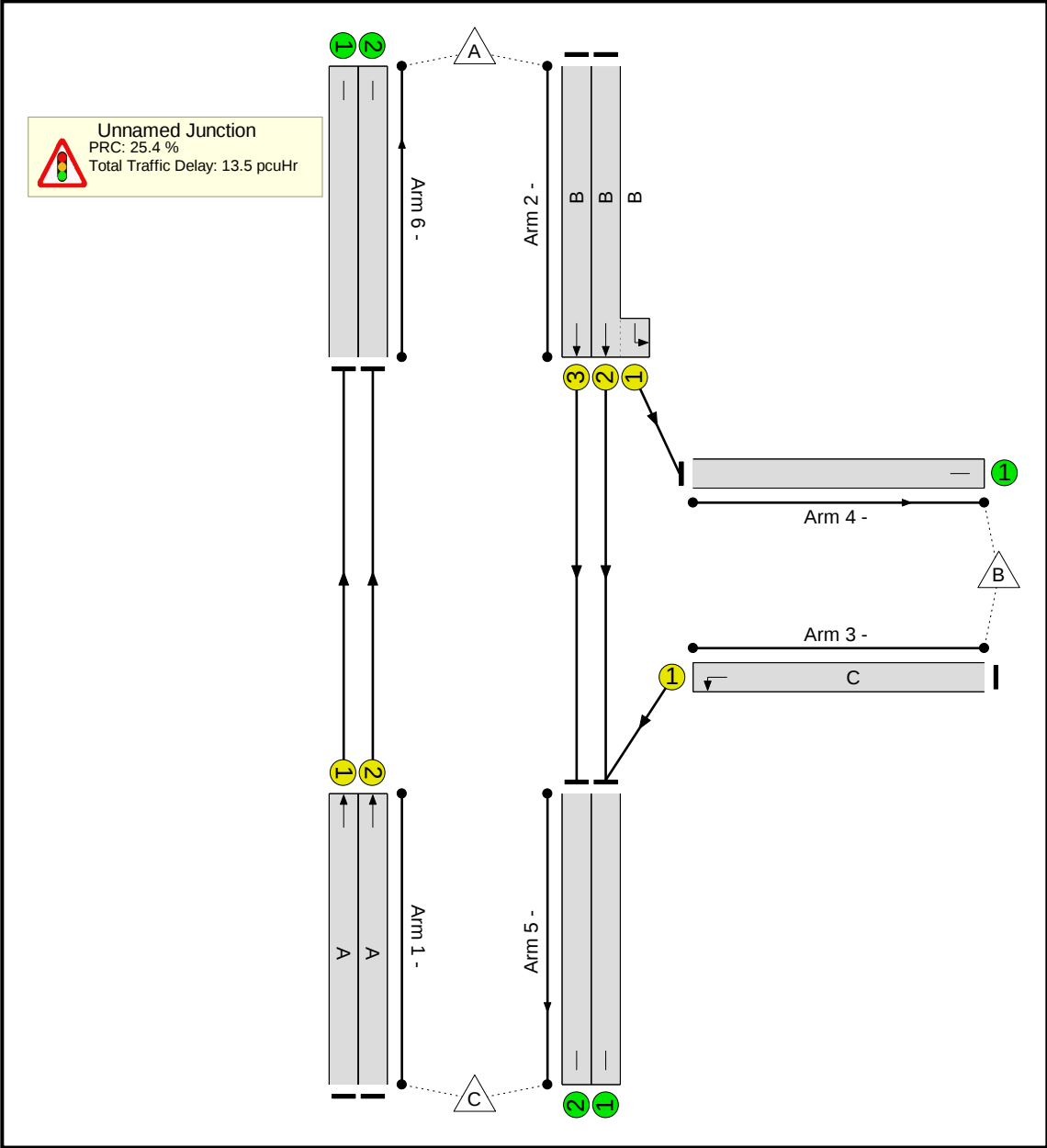
Stage	1	2
Duration	51	29
Change Point	0	56

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	-	-		-	-	-	-	-	-	71.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	71.7%
1/1	Ahead	U	N/A	N/A	A		1	90	-	729	2098	2098	34.7%
1/2	Ahead	U	N/A	N/A	A		1	90	-	864	2233	2233	38.7%
2/2+2/1	Left Ahead	U	N/A	N/A	B		1	51	-	812	1973:1789	874+258	71.7 : 71.7%
2/3	Ahead	U	N/A	N/A	B		1	51	-	839	2057	1188	70.6%
3/1	Left	U	N/A	N/A	C		1	29	-	426	1805	602	70.8%
4/1		U	N/A	N/A	-		-	-	-	185	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	1053	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	839	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	729	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	864	Inf	Inf	0.0%

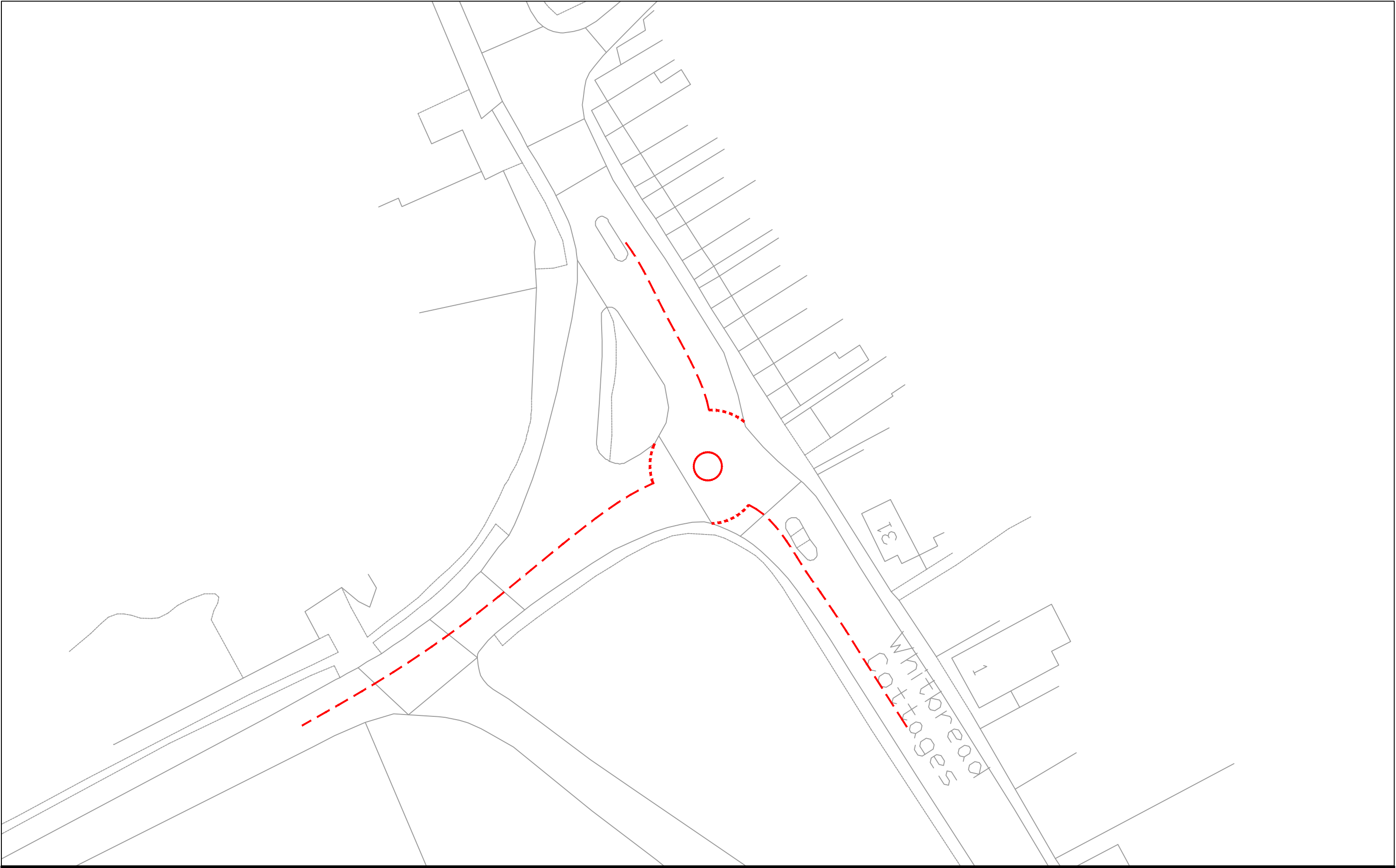
Full Input Data And Results

[illegible]

Appendix AA
B206 / Darenth Hill
Mitigation Scheme

J:\46416 - gh - dartford local plan (saturn)\3-autocad\drawings\5501\332410093_5501_001 - mitigation modelling

2021.11.04 4:07:59 PM





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www.stantec.com

Notes

Client/Project	DARTFORD DC
	DARTFORD LP (SATURN)
Project No.	332410093

Title	
INDICATIVE MITIGATION SCHEME - B260 / Darenth Hill	
Revision	Date
#	2021.11.04
Reference Sheet	Figure No.
0-001	5

Appendix AB

B260 / Darenth Hill

Existing Layout Modelling Output

Junctions 10

Junctions 10									
ARCADY 10 - Roundabout Module									
Version: 10.0.0.1499 © Copyright TRL Software Limited, 2021									
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com									
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution									

Filename: 11. B260 _ Darenth Hill.j10

Path: J:\46416 - GH - Dartford Local Plan (SATURN)\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10

Report generation date: 06/12/2021 09:02:15

- »Ref no LTC, AM
- »Ref no LTC, PM
- »Ref LTC, AM
- »Ref LTC, PM
- »Pref no LTC, AM
- »Pref no LTC, PM
- »Pref LTC, AM
- »Pref LTC, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Ref no LTC									
Arm 1	D1	37.7	163.52	1.07	F	D2	202.7	1103.97	1.42	F
Arm 2		264.8	1150.14	1.45	F		108.8	498.33	1.23	F
Arm 3		287.4	1751.37	1.58	F		628.5	3892.07	2.13	F
	Ref LTC									
Arm 1	D3	22.1	106.65	1.01	F	D4	162.5	829.17	1.34	F
Arm 2		197.1	828.46	1.37	F		95.4	429.26	1.20	F
Arm 3		269.9	1580.97	1.54	F		621.6	3804.43	2.12	F
	Pref no LTC									
Arm 1	D5	40.8	173.89	1.08	F	D6	215.3	1178.48	1.44	F
Arm 2		269.4	1167.23	1.46	F		112.8	514.70	1.24	F
Arm 3		295.6	1799.52	1.60	F		640.1	3963.60	2.15	F
	Pref LTC									
Arm 1	D7	26.1	121.56	1.03	F	D8	178.0	918.44	1.37	F
Arm 2		202.4	847.93	1.37	F		99.4	449.21	1.21	F
Arm 3		276.3	1625.00	1.55	F		639.5	3891.20	2.14	F

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

File summary

File Description

Title	
Location	
Site number	
Date	22/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\dansmith
Description	

Units

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

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
JUNCTION S 9	5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D2	Ref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D3	Ref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D4	Ref LTC	PM	ONE HOUR	00:00	01:30	15	✓
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

Ref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	1074.02	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		1074.02	F

Arms

Arms

Arm	Name	Description
1	B260 (N)	
2	B260 (S)	
3	Darenth Hill	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	3.31	3.31	3.93	3.5	11.84	10.15	0.0	
2	2.56	2.56	4.20	4.7	13.34	10.40	0.0	✓
3	3.11	3.11	3.26	27.4	11.40	8.37	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.619	916
2	0.494	935
3	0.601	873

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	716	100.000
2		ONE HOUR	✓	1062	100.000
3		ONE HOUR	✓	841	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	491	225
	2	596	0	466
	3	464	377	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	2	1
	2	2	0	2
	3	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	1.07	163.52	37.7	F	657	986
2	1.45	1150.14	264.8	F	975	1462
3	1.58	1751.37	287.4	F	772	1158

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	539	135	254	742	0.727	529	739	0.0	2.5	16.252	C
2	800	200	166	835	0.957	759	617	0.0	10.0	37.206	E
3	633	158	426	600	1.055	566	500	0.0	16.7	69.644	F

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	644	161	260	738	0.872	632	776	2.5	5.5	30.829	D
2	955	239	199	819	1.165	813	693	10.0	45.5	137.477	F
3	756	189	456	582	1.298	580	555	16.7	60.6	254.304	F

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	788	197	262	737	1.070	717	775	5.5	23.2	88.078	F

2	1169	292	225	806	1.450	806	754	45.5	136.4	415.554	F
3	926	231	452	585	1.584	584	579	60.6	146.0	646.016	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	788	197	262	736	1.070	730	774	23.2	37.7	163.518	F
2	1169	292	230	804	1.454	804	763	136.4	227.6	820.471	F
3	926	231	451	585	1.582	585	582	146.0	231.2	1168.536	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	644	161	262	737	0.874	718	775	37.7	19.2	147.338	F
2	955	239	226	806	1.184	806	754	227.6	264.8	1101.289	F
3	756	189	452	585	1.293	584	579	231.2	274.1	1569.266	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	539	135	260	738	0.730	604	780	19.2	3.0	36.872	E
2	800	200	190	824	0.971	821	674	264.8	259.5	1150.144	F
3	633	158	461	580	1.092	580	550	274.1	287.4	1751.371	F

Ref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	1973.45	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		1973.45	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Ref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	846	100.000
2		ONE HOUR	✓	884	100.000
3		ONE HOUR	✓	1068	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	556	290
	2	552	0	332
	3	344	724	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	3	3
	2	3	0	5
	3	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	1.42	1103.97	202.7	F	776	1164
2	1.23	498.33	108.8	F	811	1217
3	2.13	3892.07	628.5	F	980	1470

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	637	159	402	641	0.994	590	596	0.0	11.7	51.761	F
2	666	166	202	802	0.830	649	790	0.0	4.2	21.583	C
3	804	201	405	604	1.331	593	446	0.0	52.8	173.507	F

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	761	190	383	652	1.166	647	652	11.7	40.1	159.882	F

2	795	199	222	792	1.003	753	808	4.2	14.7	59.499	F
3	960	240	470	565	1.699	565	505	52.8	151.6	669.060	F

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	931	233	374	658	1.416	657	669	40.1	108.6	417.889	F
2	973	243	225	791	1.231	787	806	14.7	61.2	186.419	F
3	1176	294	492	552	2.130	552	521	151.6	307.6	1505.555	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	931	233	374	658	1.415	658	671	108.6	177.0	789.752	F
2	973	243	226	790	1.231	790	806	61.2	107.0	392.455	F
3	1176	294	493	551	2.134	551	522	307.6	463.8	2522.620	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	761	190	374	658	1.156	658	670	177.0	202.7	1046.698	F
2	795	199	225	791	1.005	788	806	107.0	108.8	498.332	F
3	960	240	492	552	1.739	552	521	463.8	565.8	3358.690	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	637	159	375	657	0.969	654	668	202.7	198.4	1103.966	F
2	666	166	224	791	0.841	784	805	108.8	79.2	432.841	F
3	804	201	490	553	1.453	553	519	565.8	628.5	3892.075	F

Ref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	891.64	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		891.64	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Ref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	678	100.000
2		ONE HOUR	✓	991	100.000
3		ONE HOUR	✓	859	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	450	228
	2	501	0	490
	3	486	373	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	1	2
	2	2	0	2
	3	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	1.01	106.65	22.1	F	622	933
2	1.37	828.46	197.1	F	909	1364
3	1.54	1580.97	269.9	F	788	1182

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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1	510	128	258	742	0.688	502	700	0.0	2.1	14.544	B
2	746	187	169	833	0.895	720	591	0.0	6.4	27.640	D
3	647	162	364	638	1.014	593	525	0.0	13.4	56.880	F

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	610	152	265	737	0.827	601	750	2.1	4.1	25.001	D
2	891	223	202	817	1.091	801	664	6.4	28.9	94.698	F
3	772	193	405	613	1.259	610	598	13.4	53.8	213.228	F

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	746	187	266	736	1.014	702	751	4.1	15.3	65.112	F
2	1091	273	236	800	1.364	799	732	28.9	101.9	305.315	F
3	946	236	404	614	1.541	614	631	53.8	136.8	569.133	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	746	187	267	736	1.014	719	751	15.3	22.1	106.654	F
2	1091	273	242	797	1.369	797	744	101.9	175.5	631.603	F
3	946	236	403	614	1.539	614	636	136.8	219.7	1055.514	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	610	152	266	737	0.827	674	753	22.1	5.9	67.787	F
2	891	223	227	805	1.107	804	713	175.5	197.1	828.459	F
3	772	193	407	612	1.261	612	624	219.7	259.7	1422.499	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	510	128	263	739	0.691	525	760	5.9	2.4	17.821	C
2	746	187	176	829	0.900	825	611	197.1	177.3	817.067	F
3	647	162	417	606	1.067	606	584	259.7	269.9	1580.968	F

Ref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	1849.42	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		1849.42	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Ref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	832	100.000
2		ONE HOUR	✓	878	100.000
3		ONE HOUR	✓	1072	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		1	2	3
	1	0	529	303
	2	559	0	319
	3	376	696	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1	2	3
	1	0	1	1
	2	1	0	1
	3	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	1.34	829.17	162.5	F	763	1145
2	1.20	429.26	95.4	F	806	1209
3	2.12	3804.43	621.6	F	984	1476

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	626	157	393	664	0.944	593	624	0.0	8.4	40.404	E
2	661	165	216	819	0.807	646	770	0.0	3.7	19.428	C
3	807	202	411	617	1.308	605	451	0.0	50.5	163.417	F

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	748	187	373	676	1.107	665	683	8.4	29.1	117.950	F
2	789	197	242	806	0.979	755	796	3.7	12.2	51.154	F
3	964	241	481	575	1.675	575	517	50.5	147.6	639.072	F

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	916	229	363	682	1.342	682	704	29.1	87.7	320.086	F
2	967	242	248	803	1.204	799	796	12.2	54.2	163.240	F
3	1180	295	508	559	2.112	559	538	147.6	303.0	1460.120	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	916	229	362	683	1.341	683	706	87.7	146.0	625.114	F
2	967	242	249	803	1.204	802	796	54.2	95.4	345.411	F
3	1180	295	511	557	2.117	557	540	303.0	458.7	2461.595	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	748	187	363	682	1.096	682	704	146.0	162.5	821.958	F
2	789	197	248	803	0.983	798	797	95.4	93.3	429.256	F
3	964	241	508	559	1.724	559	538	458.7	559.9	3282.630	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	626	157	364	682	0.918	678	703	162.5	149.6	829.167	F
2	661	165	247	804	0.822	795	795	93.3	59.7	348.242	F
3	807	202	506	560	1.441	560	536	559.9	621.6	3804.428	F

Pref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	1098.74	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		1098.74	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	725	100.000
2		ONE HOUR	✓	1074	100.000
3		ONE HOUR	✓	846	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	517	208
	2	600	0	474
	3	466	380	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	1	2
	2	2	0	2
	3	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	1.08	173.89	40.8	F	665	998
2	1.46	1167.23	269.4	F	986	1478
3	1.60	1799.52	295.6	F	776	1164

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	546	136	255	744	0.733	536	741	0.0	2.6	16.529	C
2	809	202	154	841	0.962	767	636	0.0	10.4	37.922	E
3	637	159	428	599	1.063	567	492	0.0	17.6	72.263	F

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	652	163	260	741	0.880	639	777	2.6	5.7	31.901	D
2	966	241	183	826	1.169	820	716	10.4	46.9	140.074	F
3	761	190	458	581	1.308	580	545	17.6	62.8	264.090	F

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	798	200	262	740	1.079	722	776	5.7	24.8	92.180	F
2	1182	296	207	814	1.452	814	777	46.9	139.1	420.332	F
3	931	233	455	583	1.597	583	566	62.8	149.9	666.576	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	798	200	262	739	1.079	734	775	24.8	40.8	173.891	F
2	1182	296	211	812	1.455	812	786	139.1	231.6	826.902	F
3	931	233	454	584	1.596	584	569	149.9	236.9	1201.355	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	652	163	262	740	0.881	722	776	40.8	23.2	163.319	F
2	966	241	207	814	1.186	814	777	231.6	269.4	1110.182	F
3	761	190	455	583	1.304	583	566	236.9	281.3	1611.763	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	546	136	260	741	0.737	626	780	23.2	3.1	46.490	E
2	809	202	180	828	0.977	825	707	269.4	265.4	1167.229	F
3	637	159	461	580	1.099	579	544	281.3	295.6	1799.521	F

Pref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	2027.53	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		2027.53	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	858	100.000
2		ONE HOUR	✓	889	100.000
3		ONE HOUR	✓	1076	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	565	293
	2	555	0	334
	3	347	729	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	3	3
	2	3	0	5
	3	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	1.44	1178.48	215.3	F	787	1181
2	1.24	514.70	112.8	F	816	1224
3	2.15	3963.60	640.1	F	987	1481

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	646	161	401	641	1.008	595	598	0.0	12.8	54.914	F
2	669	167	203	801	0.835	652	793	0.0	4.4	22.027	C
3	810	203	407	603	1.344	592	448	0.0	54.5	178.887	F

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	771	193	382	653	1.181	648	653	12.8	43.6	171.954	F
2	799	200	221	792	1.008	755	809	4.4	15.3	61.426	F
3	967	242	471	564	1.715	564	505	54.5	155.3	687.102	F

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	945	236	374	658	1.436	658	670	43.6	115.3	445.305	F
2	979	245	225	791	1.238	788	807	15.3	63.1	191.967	F
3	1185	296	492	552	2.147	552	521	155.3	313.5	1537.424	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	945	236	373	658	1.435	658	671	115.3	186.9	834.949	F
2	979	245	225	791	1.238	790	807	63.1	110.2	403.639	F
3	1185	296	493	551	2.150	551	522	313.5	471.9	2569.396	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	771	193	374	658	1.172	658	670	186.9	215.3	1107.943	F
2	799	200	225	791	1.011	789	807	110.2	112.8	514.696	F
3	967	242	492	552	1.753	552	521	471.9	575.8	3419.159	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	646	161	375	657	0.983	654	668	215.3	213.2	1178.484	F
2	669	167	223	791	0.846	785	806	112.8	84.0	452.761	F
3	810	203	490	553	1.464	553	518	575.8	640.1	3963.596	F

Pref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	914.94	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		914.94	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	689	100.000
2		ONE HOUR	✓	998	100.000
3		ONE HOUR	✓	860	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
	From	1	0	464
		2	511	0
		3	484	376

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		1	2	3
	1	0	1	2
	2	2	0	2
	3	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	1.03	121.56	26.1	F	632	948
2	1.37	847.93	202.4	F	916	1374
3	1.55	1625.00	276.3	F	789	1184

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	519	130	259	741	0.700	510	704	0.0	2.2	15.031	C
2	751	188	167	834	0.901	725	602	0.0	6.6	28.268	D
3	647	162	371	634	1.022	591	520	0.0	14.0	59.094	F

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	619	155	265	737	0.840	610	753	2.2	4.5	26.536	D
2	897	224	199	818	1.097	803	676	6.6	30.1	97.582	F
3	773	193	411	609	1.269	607	591	14.0	55.6	221.626	F

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	759	190	267	736	1.030	707	754	4.5	17.4	71.242	F
2	1099	275	231	802	1.369	802	743	30.1	104.4	312.438	F
3	947	237	410	610	1.553	610	622	55.6	139.9	587.059	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	759	190	267	736	1.030	723	753	17.4	26.1	121.561	F
2	1099	275	236	800	1.374	800	754	104.4	179.2	644.189	F
3	947	237	409	610	1.551	610	626	139.9	224.0	1083.479	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	619	155	266	737	0.841	696	755	26.1	7.0	86.475	F
2	897	224	227	804	1.115	804	735	179.2	202.4	847.926	F
3	773	193	412	609	1.269	609	620	224.0	265.0	1458.987	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	519	130	263	738	0.702	537	762	7.0	2.5	19.259	C
2	751	188	175	830	0.905	826	625	202.4	183.8	842.131	F
3	647	162	423	602	1.075	602	578	265.0	276.3	1625.003	F

Pref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	1918.12	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		1918.12	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	847	100.000
2		ONE HOUR	✓	885	100.000
3		ONE HOUR	✓	1088	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1	2	3
From	1	0	541	306
	2	557	0	328
	3	385	703	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1	2	3
From	1	0	1	1
	2	1	0	1
	3	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	1.37	918.44	178.0	F	777	1166
2	1.21	449.21	99.4	F	812	1218
3	2.14	3891.20	639.5	F	998	1498

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	638	159	392	664	0.960	600	624	0.0	9.4	43.446	E
2	666	167	217	818	0.814	651	775	0.0	3.9	19.944	C
3	819	205	410	618	1.325	607	458	0.0	53.1	170.632	F

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	761	190	373	676	1.126	668	682	9.4	32.8	130.021	F
2	796	199	241	806	0.987	759	799	3.9	12.9	53.365	F
3	978	245	478	577	1.695	577	523	53.1	153.4	662.792	F

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	933	233	363	682	1.367	682	702	32.8	95.5	350.128	F

2	974	244	246	804	1.212	800	798	12.9	56.6	169.672	F
3	1198	299	503	562	2.132	562	543	153.4	312.4	1500.877	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	933	233	362	683	1.366	683	704	95.5	158.0	677.534	F
2	974	244	247	804	1.212	803	798	56.6	99.4	358.899	F
3	1198	299	505	561	2.137	561	544	312.4	471.8	2517.949	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	761	190	364	682	1.117	682	700	158.0	178.0	894.895	F
2	796	199	246	804	0.990	796	799	99.4	99.4	449.207	F
3	978	245	501	563	1.736	563	541	471.8	575.4	3354.603	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	638	159	364	682	0.935	678	701	178.0	167.9	918.444	F
2	666	167	245	805	0.828	797	797	99.4	66.8	377.113	F
3	819	205	501	563	1.455	563	540	575.4	639.5	3891.205	F

Appendix AC

B260 / Darenth Hill

Mitigation Layout Modelling Output

Junctions 10

Junctions 10	
ARCADY 10 - Roundabout Module	
Version: 10.0.0.1499 © Copyright TRL Software Limited, 2021	
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Filename: 11. B260 _ Darenth Hill - Mitigation.j10
Path: J:\46416 - GH - Dartford Local Plan (SATURN)\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10
Report generation date: 06/12/2021 09:03:53

»Pref no LTC, AM
 »Pref no LTC, PM
 »Pref LTC, AM
 »Pref LTC, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Pref no LTC									
1 - B260 (N)	D5	23.0	103.30	1.01	F	D6	193.3	1015.05	1.39	F
2 - B260 (S)		260.4	1090.12	1.44	F		106.6	485.04	1.23	F
3 - Darenth Hill		101.5	486.50	1.22	F		385.5	1863.20	1.63	F
	Pref LTC									
1 - B260 (N)	D7	13.9	69.23	0.97	F	D8	153.0	752.76	1.32	F
2 - B260 (S)		192.2	798.33	1.36	F		95.3	424.28	1.20	F
3 - Darenth Hill		91.9	424.11	1.20	F		381.2	1811.01	1.62	F

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

File summary

File Description

Title	
Location	
Site number	
Date	22/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\dansmith

Description	
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Units

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

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
JUNCTION S 9	5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

Pref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	627.61	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		627.61	F

Arms

Arms

Arm	Name	Description
1	B260 (N)	
2	B260 (S)	

3	Darenth Hill	
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Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - B260 (N)	3.31	3.31	4.50	15.0	11.84	10.15	0.0	
2 - B260 (S)	2.56	2.56	4.50	4.7	13.34	10.40	0.0	✓
3 - Darenth Hill	3.11	3.11	4.50	27.4	11.40	8.37	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - B260 (N)	0.640	1022
2 - B260 (S)	0.496	946
3 - Darenth Hill	0.641	1075

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B260 (N)		ONE HOUR	✓	725	100.000
2 - B260 (S)		ONE HOUR	✓	1074	100.000
3 - Darenth Hill		ONE HOUR	✓	846	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		1 - B260 (N)	2 - B260 (S)	3 - Darenth Hill
	1 - B260 (N)	0	517	208
	2 - B260 (S)	600	0	474
	3 - Darenth Hill	466	380	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - B260 (N)	2 - B260 (S)	3 - Darenth Hill
	1 - B260 (N)	0	1	2
	2 - B260 (S)	2	0	2
	3 - Darenth Hill	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B260 (N)	1.01	103.30	23.0	F	665	998
2 - B260 (S)	1.44	1090.12	260.4	F	986	1478
3 - Darenth Hill	1.22	486.50	101.5	F	776	1164

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	546	136	279	827	0.660	538	773	0.0	1.9	12.161	B
2 - B260 (S)	809	202	154	851	0.950	770	663	0.0	9.5	35.415	E
3 - Darenth Hill	637	159	430	779	0.818	621	494	0.0	3.9	21.099	C

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	652	163	323	799	0.816	643	859	1.9	3.9	22.043	C
2 - B260 (S)	966	241	185	836	1.155	829	782	9.5	43.7	130.183	F
3 - Darenth Hill	761	190	463	758	1.003	719	550	3.9	14.3	60.277	F

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	798	200	340	788	1.014	751	876	3.9	15.8	61.885	F
2 - B260 (S)	1182	296	215	821	1.440	821	876	43.7	134.2	399.775	F
3 - Darenth Hill	931	233	458	761	1.224	758	578	14.3	57.7	184.590	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	798	200	342	787	1.015	769	876	15.8	23.0	103.302	F
2 - B260 (S)	1182	296	221	818	1.445	818	890	134.2	225.3	794.328	F
3 - Darenth Hill	931	233	457	762	1.223	761	582	57.7	100.3	383.628	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	652	163	340	788	0.827	721	877	23.0	5.9	64.062	F
2 - B260 (S)	966	241	207	825	1.170	825	853	225.3	260.4	1060.959	F
3 - Darenth Hill	761	190	461	759	1.001	756	571	100.3	101.5	486.500	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	546	136	335	791	0.690	560	882	5.9	2.3	16.402	C
2 - B260 (S)	809	202	161	848	0.953	845	734	260.4	251.3	1090.119	F
3 - Darenth Hill	637	159	472	752	0.847	745	534	101.5	74.4	426.249	F

Pref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	1169.84	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		1169.84	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B260 (N)		ONE HOUR	✓	858	100.000
2 - B260 (S)		ONE HOUR	✓	889	100.000
3 - Darenth Hill		ONE HOUR	✓	1076	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - B260 (N)	2 - B260 (S)	3 - Darenth Hill
	1 - B260 (N)	0	565	293
	2 - B260 (S)	555	0	334
	3 - Darenth Hill	347	729	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - B260 (N)	2 - B260 (S)	3 - Darenth Hill
	1 - B260 (N)	0	3	3
	2 - B260 (S)	3	0	5
	3 - Darenth Hill	3	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B260 (N)	1.39	1015.05	193.3	F	787	1181
2 - B260 (S)	1.23	485.04	106.6	F	816	1224
3 - Darenth Hill	1.63	1863.20	385.5	F	987	1481

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	646	161	502	671	0.962	608	646	0.0	9.6	43.661	E

2 - B260 (S)	669	167	208	810	0.826	653	902	0.0	4.1	21.096	C
3 - Darenth Hill	810	203	407	783	1.035	740	453	0.0	17.4	56.990	F

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	771	193	500	672	1.148	665	712	9.6	36.2	140.024	F
2 - B260 (S)	799	200	227	800	0.999	759	938	4.1	14.2	57.635	F
3 - Darenth Hill	967	242	474	740	1.307	738	512	17.4	74.7	238.169	F

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	945	236	492	678	1.394	677	730	36.2	103.1	381.250	F
2 - B260 (S)	979	245	231	798	1.226	795	938	14.2	60.2	181.611	F
3 - Darenth Hill	1185	296	496	726	1.632	726	530	74.7	189.4	663.636	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	945	236	491	678	1.393	678	732	103.1	169.8	733.327	F
2 - B260 (S)	979	245	231	798	1.226	798	937	60.2	105.5	383.233	F
3 - Darenth Hill	1185	296	498	725	1.635	725	531	189.4	304.4	1233.226	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	771	193	492	678	1.138	677	730	169.8	193.3	972.470	F
2 - B260 (S)	799	200	231	798	1.001	795	938	105.5	106.6	485.035	F
3 - Darenth Hill	967	242	496	726	1.333	726	530	304.4	364.8	1664.263	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	646	161	493	677	0.954	673	729	193.3	186.4	1015.046	F
2 - B260 (S)	669	167	230	799	0.838	791	936	106.6	76.1	416.932	F
3 - Darenth Hill	810	203	494	727	1.114	727	527	364.8	385.5	1863.202	F

Pref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	475.49	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		475.49	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B260 (N)		ONE HOUR	✓	689	100.000
2 - B260 (S)		ONE HOUR	✓	998	100.000
3 - Darenth Hill		ONE HOUR	✓	860	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - B260 (N)	2 - B260 (S)	3 - Darenth Hill
From	1 - B260 (N)	0	464	225
	2 - B260 (S)	511	0	487
	3 - Darenth Hill	484	376	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - B260 (N)	2 - B260 (S)	3 - Darenth Hill
From	1 - B260 (N)	0	1	2
	2 - B260 (S)	2	0	2
	3 - Darenth Hill	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B260 (N)	0.97	69.23	13.9	F	632	948
2 - B260 (S)	1.36	798.33	192.2	F	916	1374
3 - Darenth Hill	1.20	424.11	91.9	F	789	1184

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	519	130	277	828	0.626	512	729	0.0	1.6	11.170	B
2 - B260 (S)	751	188	167	845	0.889	727	622	0.0	6.2	26.584	D
3 - Darenth Hill	647	162	372	817	0.793	634	522	0.0	3.5	18.424	C

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	619	155	323	799	0.776	613	831	1.6	3.2	18.791	C
2 - B260 (S)	897	224	200	828	1.083	811	736	6.2	27.7	90.293	F
3 - Darenth Hill	773	193	415	789	0.980	739	596	3.5	12.1	51.363	F

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	759	190	343	785	0.966	728	856	3.2	10.8	47.354	E
2 - B260 (S)	1099	275	238	810	1.357	809	834	27.7	100.1	295.036	F
3 - Darenth Hill	947	237	414	790	1.199	785	633	12.1	52.6	161.943	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	759	190	345	784	0.967	746	857	10.8	13.9	69.228	F
2 - B260 (S)	1099	275	244	807	1.362	807	848	100.1	173.1	612.920	F
3 - Darenth Hill	947	237	413	790	1.198	789	637	52.6	91.9	339.668	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	619	155	340	788	0.786	659	858	13.9	4.1	33.436	D
2 - B260 (S)	897	224	215	821	1.093	821	783	173.1	192.2	798.329	F
3 - Darenth Hill	773	193	420	786	0.984	777	616	91.9	91.0	424.108	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	519	130	337	789	0.657	527	863	4.1	2.0	14.149	B
2 - B260 (S)	751	188	172	842	0.892	838	692	192.2	170.5	779.481	F
3 - Darenth Hill	647	162	429	780	0.830	772	581	91.0	59.9	353.834	F

Pref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	1057.96	F

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		1057.96	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B260 (N)		ONE HOUR	✓	847	100.000
2 - B260 (S)		ONE HOUR	✓	885	100.000
3 - Darenth Hill		ONE HOUR	✓	1088	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - B260 (N)	2 - B260 (S)	3 - Darenth Hill
From	1 - B260 (N)	0	541	306
	2 - B260 (S)	557	0	328
	3 - Darenth Hill	385	703	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - B260 (N)	2 - B260 (S)	3 - Darenth Hill
From	1 - B260 (N)	0	1	1
	2 - B260 (S)	1	0	1
	3 - Darenth Hill	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B260 (N)	1.32	752.76	153.0	F	777	1166
2 - B260 (S)	1.20	424.28	95.3	F	812	1218
3 - Darenth Hill	1.62	1811.01	381.2	F	998	1498

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	638	159	488	700	0.911	610	677	0.0	6.8	33.762	D
2 - B260 (S)	666	167	221	828	0.805	651	878	0.0	3.7	19.102	C
3 - Darenth Hill	819	205	410	802	1.022	755	462	0.0	16.1	52.806	F

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	761	190	488	700	1.088	685	747	6.8	25.9	102.419	F
2 - B260 (S)	796	199	248	814	0.977	762	925	3.7	12.0	50.167	F

3 - Darenth Hill	978	245	480	757	1.292	755	530	16.1	71.9	223.501	F
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00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	933	233	478	706	1.321	705	769	25.9	82.8	289.194	F
2 - B260 (S)	974	244	255	811	1.202	806	928	12.0	54.1	161.167	F
3 - Darenth Hill	1198	299	507	739	1.620	739	553	71.9	186.5	637.837	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	933	233	477	707	1.320	707	771	82.8	139.3	574.397	F
2 - B260 (S)	974	244	255	810	1.202	810	928	54.1	95.3	341.778	F
3 - Darenth Hill	1198	299	510	738	1.623	738	555	186.5	301.5	1197.078	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	761	190	477	707	1.077	706	771	139.3	153.0	752.755	F
2 - B260 (S)	796	199	255	810	0.982	810	928	95.3	91.6	424.277	F
3 - Darenth Hill	978	245	510	738	1.326	738	556	301.5	361.6	1621.322	F

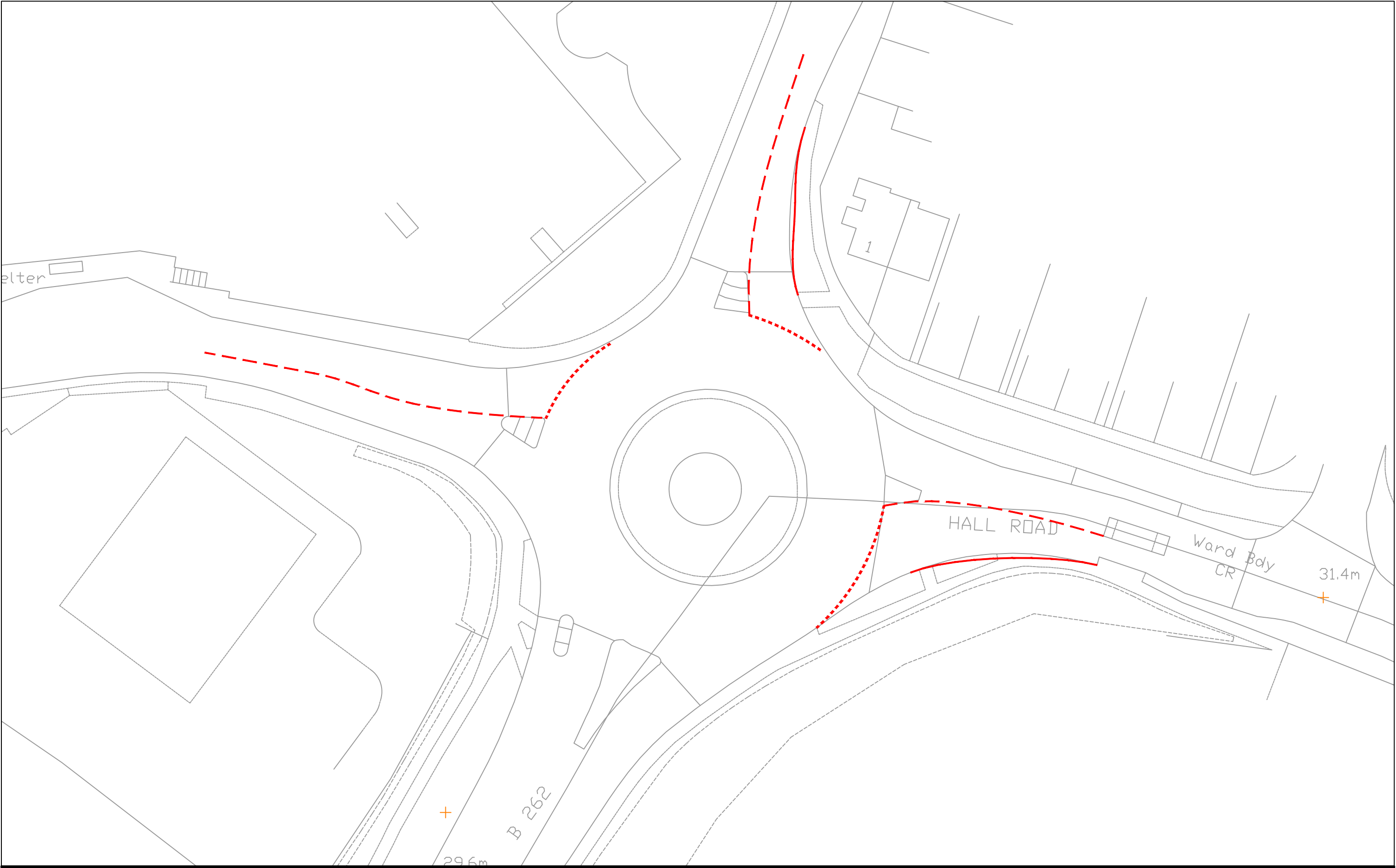
01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B260 (N)	638	159	479	706	0.904	701	767	153.0	137.2	745.541	F
2 - B260 (S)	666	167	253	811	0.821	803	926	91.6	57.5	336.443	F
3 - Darenth Hill	819	205	505	741	1.106	741	551	361.6	381.2	1811.007	F

Appendix AD
B262 / Springhead Road
Mitigation Scheme

J:\46416 - gh - dartford local plan (saturn)\3-autocad\drawings\5501\332410093_5501_001 - mitigation modelling

2021.11.04 4:08:00 PM



Stantec
Street Address
City, Province/State, Postal/Zip Code
Tel: +1.555.555.1234
www.stantec.com

Notes

Client/Project

DARTFORD DC

DARTFORD LP (SATURN)

Project No.

332410093

Title

INDICATIVE MITIGATION
SCHEME - B262 /
Springhead Road

Revision

#

Reference Sheet

0-001

Date

2021.11.04

Figure No.

6

Appendix AE
B262 / Springhead Road
Existing Layout Modelling Output

Junctions 10

Junctions 10									
ARCADY 10 - Roundabout Module									
Version: 10.0.0.1499									
© Copyright TRL Software Limited, 2021									
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution									

Filename: 12. B262 _ Springhead Road.j10

Path: J:\46416 - GH - Dartford Local Plan (SATURN)\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10

Report generation date: 06/12/2021 09:05:07

»Ref no LTC, AM
 »Ref no LTC, PM
 »Ref LTC, AM
 »Ref LTC, PM
 »Pref no LTC, AM
 »Pref no LTC, PM
 »Pref LTC, AM
 »Pref LTC, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Ref no LTC									
1 - Springhead Rd	D1	7.3	31.28	0.89	D	D2	112.3	572.36	1.35	F
2 - Hall Rd (E)		46.2	132.61	1.07	F		12.4	52.40	0.95	F
3 - Hall Rd (S)		2.3	4.37	0.70	A		4.6	7.19	0.82	A
4 - Supermarket Access		0.1	5.76	0.12	A		38.0	277.45	1.19	F
	Ref LTC									
1 - Springhead Rd	D3	4.8	21.69	0.84	C	D4	109.4	553.88	1.30	F
2 - Hall Rd (E)		21.8	71.11	1.00	F		12.8	51.77	0.95	F
3 - Hall Rd (S)		2.4	4.39	0.71	A		4.8	7.42	0.83	A
4 - Supermarket Access		0.1	5.77	0.12	A		55.3	374.23	1.29	F
	Pref no LTC									
1 - Springhead Rd	D5	10.2	42.77	0.93	E	D6	135.9	667.77	1.36	F
2 - Hall Rd (E)		55.2	155.64	1.09	F		12.7	53.49	0.95	F
3 - Hall Rd (S)		2.6	4.72	0.72	A		5.1	7.89	0.84	A
4 - Supermarket Access		0.1	6.13	0.13	A		53.9	388.28	1.31	F
	Pref LTC									
1 - Springhead Rd	D7	8.7	37.52	0.91	E	D8	125.8	629.65	1.31	F
2 - Hall Rd (E)		34.2	103.71	1.04	F		12.5	50.47	0.95	F
3 - Hall Rd (S)		2.7	4.74	0.73	A		5.5	8.30	0.85	A
4 - Supermarket Access		0.1	6.16	0.13	A		73.7	503.29	1.44	F

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

File summary

File Description

Title	
Location	
Site number	
Date	22/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\dansmith
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D2	Ref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D3	Ref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D4	Ref LTC	PM	ONE HOUR	00:00	01:30	15	✓
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

Ref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	45.27	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	45.27	E

Arms

Arms

Arm	Name	Description	No give-way line
1	Springhead Rd		
2	Hall Rd (E)		
3	Hall Rd (S)		
4	Supermarket Access		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Springhead Rd	3.52	7.05	9.1	29.6	49.6	22.4		
2 - Hall Rd (E)	3.04	10.40	12.7	53.7	49.8	37.6		
3 - Hall Rd (S)	6.48	11.34	29.9	21.3	49.9	27.5		
4 - Supermarket Access	5.15	7.94	5.5	29.7	49.8	28.3		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Springhead Rd	0.605	1610
2 - Hall Rd (E)	0.612	1708
3 - Hall Rd (S)	0.852	2966
4 - Supermarket Access	0.658	1925

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Ref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Springhead Rd		ONE HOUR	✓	812	100.000
2 - Hall Rd (E)		ONE HOUR	✓	1038	100.000
3 - Hall Rd (S)		ONE HOUR	✓	1770	100.000
4 - Supermarket Access		ONE HOUR	✓	79	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	45	767	0
	2 - Hall Rd (E)	96	0	933	9
	3 - Hall Rd (S)	824	647	33	266
	4 - Supermarket Access	0	9	70	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	1	10	0
	2 - Hall Rd (E)	0	0	0	0
	3 - Hall Rd (S)	6	2	1	1
	4 - Supermarket Access	0	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Springhead Rd	0.89	31.28	7.3	D	745	1117
2 - Hall Rd (E)	1.07	132.61	46.2	F	952	1429
3 - Hall Rd (S)	0.70	4.37	2.3	A	1624	2436
4 - Supermarket Access	0.12	5.76	0.1	A	72	109

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	611	153	569	1149	0.532	607	690	0.0	1.1	6.579	A
2 - Hall Rd (E)	781	195	650	1274	0.613	775	526	0.0	1.6	7.132	A
3 - Hall Rd (S)	1332	333	78	2796	0.477	1329	1347	0.0	0.9	2.447	A
4 - Supermarket Access	59	15	1201	1083	0.055	59	206	0.0	0.1	3.515	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	730	182	681	1086	0.672	726	826	1.1	2.0	9.898	A
2 - Hall Rd (E)	933	233	778	1189	0.785	926	629	1.6	3.4	13.325	B
3 - Hall Rd (S)	1591	398	94	2783	0.572	1589	1610	0.9	1.3	3.011	A
4 - Supermarket Access	71	18	1436	925	0.077	71	247	0.1	0.1	4.214	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	894	223	833	1001	0.893	875	1003	2.0	6.6	25.665	D
2 - Hall Rd (E)	1143	286	940	1081	1.057	1051	769	3.4	26.5	64.012	F
3 - Hall Rd (S)	1948	487	106	2773	0.703	1944	1884	1.3	2.3	4.325	A
4 - Supermarket Access	87	22	1749	714	0.122	87	301	0.1	0.1	5.733	A

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	894	223	835	1000	0.894	891	1006	6.6	7.3	31.279	D
2 - Hall Rd (E)	1143	286	955	1071	1.067	1064	771	26.5	46.2	132.607	F
3 - Hall Rd (S)	1948	487	108	2772	0.703	1948	1911	2.3	2.3	4.371	A
4 - Supermarket Access	87	22	1754	711	0.122	87	302	0.1	0.1	5.763	A

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	730	182	684	1085	0.672	750	844	7.3	2.1	11.374	B
2 - Hall Rd (E)	933	233	802	1173	0.796	1099	632	46.2	4.6	72.097	F
3 - Hall Rd (S)	1591	398	111	2769	0.575	1595	1790	2.3	1.4	3.075	A
4 - Supermarket Access	71	18	1457	911	0.078	71	249	0.1	0.1	4.286	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	611	153	572	1148	0.532	615	695	2.1	1.2	6.799	A

2 - Hall Rd (E)	781	195	659	1269	0.61 6	794	528	4.6	1.6	7.76 3	A
3 - Hall Rd (S)	1332	333	80	2794	0.47 7	1334	1372	1.4	0.9	2.46 9	A
4 - Supermarket Access	59	15	1207	1079	0.05 5	60	207	0.1	0.1	3.53 3	A

Ref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	143.72	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	143.72	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Ref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Springhead Rd		ONE HOUR	✓	727	100.000
2 - Hall Rd (E)		ONE HOUR	✓	823	100.000
3 - Hall Rd (S)		ONE HOUR	✓	2113	100.000
4 - Supermarket Access		ONE HOUR	✓	395	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
From		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
	1 - Springhead Rd	0	30	697	0
	2 - Hall Rd (E)	19	0	801	3
	3 - Hall Rd (S)	918	896	219	80
	4 - Supermarket Access	0	23	372	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	1	4	0
	2 - Hall Rd (E)	5	0	3	26
	3 - Hall Rd (S)	5	4	0	8
	4 - Supermarket Access	0	6	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Springhead Rd	1.35	572.36	112.3	F	667	1000
2 - Hall Rd (E)	0.95	52.40	12.4	F	755	1133
3 - Hall Rd (S)	0.82	7.19	4.6	A	1939	2908
4 - Supermarket Access	1.19	277.45	38.0	F	362	544

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	547	137	1132	869	0.629	541	703	0.0	1.6	10.751	B
2 - Hall Rd (E)	620	155	961	1069	0.580	614	712	0.0	1.4	7.835	A
3 - Hall Rd (S)	1591	398	17	2833	0.562	1586	1559	0.0	1.3	2.875	A
4 - Supermarket Access	297	74	1540	844	0.353	295	62	0.0	0.5	6.541	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	653	163	1353	736	0.888	636	841	1.6	6.0	31.713	D
2 - Hall Rd (E)	740	185	1139	960	0.771	733	851	1.4	3.1	15.387	C
3 - Hall Rd (S)	1900	475	20	2830	0.671	1897	1852	1.3	2.0	3.845	A
4 - Supermarket Access	355	89	1842	643	0.552	352	75	0.5	1.2	12.272	B

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	800	200	1581	599	1.335	595	1027	6.0	57.2	206.373	F
2 - Hall Rd (E)	906	227	1148	955	0.949	879	1028	3.1	10.1	37.692	E
3 - Hall Rd (S)	2326	582	24	2826	0.823	2317	2003	2.0	4.5	6.934	A
4 - Supermarket Access	435	109	2249	373	1.167	358	91	1.2	20.3	130.175	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	800	200	1592	593	1.350	592	1031	57.2	109.1	501.866	F
2 - Hall Rd (E)	906	227	1152	953	0.951	897	1032	10.1	12.4	52.404	F
3 - Hall Rd (S)	2326	582	24	2826	0.823	2326	2025	4.5	4.6	7.188	A
4 - Supermarket Access	435	109	2259	366	1.187	364	92	20.3	38.0	277.450	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	653	163	1509	642	1.017	641	847	109.1	112.3	572.358	F
2 - Hall Rd (E)	740	185	1285	871	0.850	763	865	12.4	6.6	37.564	E
3 - Hall Rd (S)	1900	475	21	2829	0.671	1909	2028	4.6	2.1	3.956	A
4 - Supermarket Access	355	89	1855	634	0.560	502	75	38.0	1.4	63.288	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	547	137	1142	863	0.634	856	707	112.3	35.1	313.379	F
2 - Hall Rd (E)	620	155	1269	878	0.705	636	728	6.6	2.5	15.729	C
3 - Hall Rd (S)	1591	398	17	2832	0.562	1594	1888	2.1	1.3	2.916	A
4 - Supermarket Access	297	74	1548	838	0.355	301	63	1.4	0.6	6.736	A

Ref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	25.92	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	25.92	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Ref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Springhead Rd		ONE HOUR	✓	766	100.000
2 - Hall Rd (E)		ONE HOUR	✓	1005	100.000
3 - Hall Rd (S)		ONE HOUR	✓	1802	100.000
4 - Supermarket Access		ONE HOUR	✓	79	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	45	721	0
	2 - Hall Rd (E)	52	0	944	9
	3 - Hall Rd (S)	862	648	23	269
	4 - Supermarket Access	0	10	69	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	1	10	0
	2 - Hall Rd (E)	1	0	0	0
	3 - Hall Rd (S)	6	2	2	1
	4 - Supermarket Access	0	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Springhead Rd	0.84	21.69	4.8	C	702	1054
2 - Hall Rd (E)	1.00	71.11	21.8	F	922	1383
3 - Hall Rd (S)	0.71	4.39	2.4	A	1653	2480
4 - Supermarket Access	0.12	5.77	0.1	A	72	109

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	576	144	563	1153	0.500	572	686	0.0	1.0	6.158	A
2 - Hall Rd (E)	757	189	608	1301	0.582	751	527	0.0	1.4	6.484	A
3 - Hall Rd (S)	1356	339	46	2821	0.481	1353	1313	0.0	0.9	2.446	A
4 - Supermarket Access	59	15	1190	1080	0.055	59	209	0.0	0.1	3.527	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	688	172	673	1091	0.631	685	821	1.0	1.7	8.823	A
2 - Hall Rd (E)	903	226	728	1221	0.740	898	631	1.4	2.7	10.966	B
3 - Hall Rd (S)	1620	405	55	2813	0.576	1618	1571	0.9	1.3	3.008	A
4 - Supermarket Access	71	18	1423	924	0.077	71	250	0.1	0.1	4.219	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	843	211	823	1006	0.838	831	1002	1.7	4.6	19.443	C
2 - Hall Rd (E)	1107	277	883	1117	0.991	1057	771	2.7	15.2	42.168	E
3 - Hall Rd (S)	1984	496	64	2805	0.707	1979	1876	1.3	2.4	4.338	A
4 - Supermarket Access	87	22	1739	713	0.122	87	305	0.1	0.1	5.743	A

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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	(Veh/hr)	Arrivals (Veh)					side) (Veh/hr)	e (Veh)	e (Veh)		
1 - Springhead Rd	843	211	825	1005	0.839	842	1005	4.6	4.8	21.692	C
2 - Hall Rd (E)	1107	277	894	1110	0.997	1080	773	15.2	21.8	71.108	F
3 - Hall Rd (S)	1984	496	66	2804	0.707	1983	1908	2.4	2.4	4.385	A
4 - Supermarket Access	87	22	1743	710	0.122	87	306	0.1	0.1	5.774	A

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	688	172	675	1089	0.632	701	827	4.8	1.8	9.538	A
2 - Hall Rd (E)	903	226	742	1211	0.746	978	634	21.8	3.1	20.061	C
3 - Hall Rd (S)	1620	405	59	2809	0.577	1624	1661	2.4	1.4	3.048	A
4 - Supermarket Access	71	18	1432	918	0.077	71	251	0.1	0.1	4.251	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	576	144	565	1152	0.500	579	689	1.8	1.0	6.323	A
2 - Hall Rd (E)	757	189	615	1297	0.584	763	530	3.1	1.4	6.834	A
3 - Hall Rd (S)	1356	339	46	2820	0.481	1358	1332	1.4	0.9	2.467	A
4 - Supermarket Access	59	15	1195	1076	0.055	60	210	0.1	0.1	3.543	A

Ref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	150.23	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	150.23	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Ref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Springhead Rd		ONE HOUR	✓	732	100.000
2 - Hall Rd (E)		ONE HOUR	✓	859	100.000
3 - Hall Rd (S)		ONE HOUR	✓	2168	100.000
4 - Supermarket Access		ONE HOUR	✓	427	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	21	711	0
	2 - Hall Rd (E)	15	0	840	4
	3 - Hall Rd (S)	974	926	181	87
	4 - Supermarket Access	0	25	402	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	0	4	0
	2 - Hall Rd (E)	1	0	0	0
	3 - Hall Rd (S)	5	1	0	1
	4 - Supermarket Access	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Springhead Rd	1.30	553.88	109.4	F	672	1008
2 - Hall Rd (E)	0.95	51.77	12.8	F	788	1182
3 - Hall Rd (S)	0.83	7.42	4.8	A	1989	2984
4 - Supermarket Access	1.29	374.23	55.3	F	392	588

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	551	138	1150	876	0.629	545	742	0.0	1.6	10.669	B
2 - Hall Rd (E)	647	162	965	1104	0.586	641	729	0.0	1.4	7.687	A
3 - Hall Rd (S)	1632	408	14	2876	0.568	1627	1592	0.0	1.3	2.871	A
4 - Supermarket Access	321	80	1573	861	0.373	319	68	0.0	0.6	6.619	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	658	165	1374	744	0.884	641	887	1.6	5.8	30.974	D
2 - Hall Rd (E)	772	193	1144	993	0.778	765	872	1.4	3.3	15.311	C
3 - Hall Rd (S)	1949	487	17	2874	0.678	1946	1892	1.3	2.1	3.867	A
4 - Supermarket Access	384	96	1881	652	0.589	381	82	0.6	1.4	13.105	B

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	806	201	1575	626	1.287	621	1084	5.8	52.0	182.877	F
2 - Hall Rd (E)	946	236	1142	994	0.951	917	1054	3.3	10.4	37.261	E
3 - Hall Rd (S)	2387	597	20	2871	0.832	2376	2039	2.1	4.7	7.136	A
4 - Supermarket Access	470	118	2297	371	1.268	361	100	1.4	28.6	170.090	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	806	201	1582	622	1.295	622	1088	52.0	98.1	447.471	F
2 - Hall Rd (E)	946	236	1145	992	0.953	936	1058	10.4	12.8	51.770	F
3 - Hall Rd (S)	2387	597	21	2870	0.832	2387	2060	4.7	4.8	7.423	A
4 - Supermarket Access	470	118	2307	364	1.291	363	100	28.6	55.3	374.232	F

01:00 - 01:15

Arm	Total Demand	Junction	Circulating flow (Veh/hr)	Capacity	RFC	Throughput (Veh/hr)	Throughput (exit	Start queue	End queue	Delay (s)	Unsignalised level of service
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	(Veh/hr)	Arrivals (Veh)		(Veh/hr)			side) (Veh/hr)	e (Veh)	e (Veh)		
1 - Springhead Rd	658	165	1599	613	1.073	613	894	98.1	109.4	553.880	F
2 - Hall Rd (E)	772	193	1322	884	0.873	791	890	12.8	8.2	42.378	E
3 - Hall Rd (S)	1949	487	17	2873	0.678	1960	2095	4.8	2.1	3.988	A
4 - Supermarket Access	384	96	1895	643	0.597	598	82	55.3	1.7	150.600	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	551	138	1161	869	0.634	861	746	109.4	31.8	298.754	F
2 - Hall Rd (E)	647	162	1280	904	0.715	669	742	8.2	2.6	16.579	C
3 - Hall Rd (S)	1632	408	15	2875	0.568	1635	1934	2.1	1.3	2.912	A
4 - Supermarket Access	321	80	1581	855	0.376	326	69	1.7	0.6	6.861	A

Pref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	53.67	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	53.67	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Springhead Rd		ONE HOUR	✓	838	100.000
2 - Hall Rd (E)		ONE HOUR	✓	1044	100.000

3 - Hall Rd (S)		ONE HOUR	✓	1822	100.000
4 - Supermarket Access		ONE HOUR	✓	79	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	45	793	0
	2 - Hall Rd (E)	90	0	946	8
	3 - Hall Rd (S)	851	665	38	268
	4 - Supermarket Access	0	9	70	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	1	9	0
	2 - Hall Rd (E)	1	0	0	0
	3 - Hall Rd (S)	6	3	1	1
	4 - Supermarket Access	0	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Springhead Rd	0.93	42.77	10.2	E	769	1153
2 - Hall Rd (E)	1.09	155.64	55.2	F	958	1437
3 - Hall Rd (S)	0.72	4.72	2.6	A	1672	2507
4 - Supermarket Access	0.13	6.13	0.1	A	72	109

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	631	158	587	1147	0.550	626	706	0.0	1.2	6.849	A
2 - Hall Rd (E)	786	196	673	1261	0.623	780	539	0.0	1.6	7.376	A
3 - Hall Rd (S)	1371	343	73	2790	0.492	1368	1380	0.0	1.0	2.526	A

4 - Supermarket Access	59	15	1234	1057	0.056	59	207	0.0	0.1	3.607	A
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00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	753	188	702	1081	0.697	749	844	1.2	2.2	10.719	B
2 - Hall Rd (E)	939	235	806	1174	0.800	930	645	1.6	3.7	14.306	B
3 - Hall Rd (S)	1638	409	87	2778	0.590	1636	1649	1.0	1.4	3.146	A
4 - Supermarket Access	71	18	1475	894	0.079	71	248	0.1	0.1	4.373	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	922	231	858	991	0.931	896	1025	2.2	8.7	31.827	D
2 - Hall Rd (E)	1149	287	967	1067	1.077	1043	788	3.7	30.4	71.717	F
3 - Hall Rd (S)	2006	501	98	2769	0.724	2001	1912	1.4	2.6	4.659	A
4 - Supermarket Access	87	22	1797	677	0.128	87	302	0.1	0.1	6.092	A

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	922	231	860	990	0.932	916	1027	8.7	10.2	42.775	E
2 - Hall Rd (E)	1149	287	986	1055	1.090	1050	791	30.4	55.2	155.643	F
3 - Hall Rd (S)	2006	501	99	2769	0.724	2006	1937	2.6	2.6	4.716	A
4 - Supermarket Access	87	22	1801	674	0.129	87	303	0.1	0.1	6.128	A

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	753	188	705	1079	0.698	784	865	10.2	2.4	13.413	B
2 - Hall Rd (E)	939	235	840	1151	0.815	1131	649	55.2	7.1	105.982	F
3 - Hall Rd (S)	1638	409	106	2762	0.593	1642	1865	2.6	1.5	3.226	A
4 - Supermarket Access	71	18	1498	879	0.081	71	250	0.1	0.1	4.456	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	631	158	589	1145	0.551	635	711	2.4	1.2	7.120	A
2 - Hall Rd (E)	786	196	683	1255	0.626	807	542	7.1	1.7	8.411	A
3 - Hall Rd (S)	1371	343	76	2787	0.492	1373	1414	1.5	1.0	2.549	A
4 - Supermarket Access	59	15	1241	1052	0.056	60	208	0.1	0.1	3.628	A

Pref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	172.36	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	172.36	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Springhead Rd		ONE HOUR	✓	749	100.000
2 - Hall Rd (E)		ONE HOUR	✓	829	100.000
3 - Hall Rd (S)		ONE HOUR	✓	2159	100.000
4 - Supermarket Access		ONE HOUR	✓	401	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	38	711	0
	2 - Hall Rd (E)	14	0	812	3
	3 - Hall Rd (S)	948	895	235	81
	4 - Supermarket Access	0	22	379	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	2	3	0
	2 - Hall Rd (E)	3	0	3	31
	3 - Hall Rd (S)	5	4	0	8
	4 - Supermarket Access	0	7	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Springhead Rd	1.36	667.77	135.9	F	687	1031
2 - Hall Rd (E)	0.95	53.49	12.7	F	760	1141
3 - Hall Rd (S)	0.84	7.89	5.1	A	1981	2972
4 - Supermarket Access	1.31	388.28	53.9	F	368	552

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	564	141	1148	868	0.650	557	722	0.0	1.8	11.332	B
2 - Hall Rd (E)	624	156	988	1056	0.591	618	716	0.0	1.4	8.233	A
3 - Hall Rd (S)	1625	406	12	2837	0.573	1620	1594	0.0	1.3	2.945	A
4 - Supermarket Access	302	75	1569	824	0.366	300	63	0.0	0.6	6.840	A

00:15 - 00:30

Arm	Total Demand	Junction	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit	Start queue	End queue	Delay (s)	Unsignalised level of service
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	(Veh/hr)	Arrivals (Veh)					side) (Veh/hr)	e (Veh)	e (Veh)		
1 - Springhead Rd	673	168	1372	732	0.920	651	863	1.8	7.4	37.233	E
2 - Hall Rd (E)	745	186	1167	947	0.787	737	856	1.4	3.4	16.538	C
3 - Hall Rd (S)	1941	485	15	2835	0.685	1938	1889	1.3	2.1	3.999	A
4 - Supermarket Access	360	90	1877	620	0.582	357	75	0.6	1.3	13.562	B

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	825	206	1574	609	1.354	606	1053	7.4	62.1	221.550	F
2 - Hall Rd (E)	912	228	1150	958	0.952	884	1030	3.4	10.4	38.717	E
3 - Hall Rd (S)	2377	594	18	2832	0.839	2366	2017	2.1	5.0	7.544	A
4 - Supermarket Access	442	110	2292	345	1.280	336	92	1.3	27.7	177.820	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	825	206	1581	605	1.364	605	1058	62.1	117.2	546.410	F
2 - Hall Rd (E)	912	228	1151	957	0.953	903	1034	10.4	12.7	53.491	F
3 - Hall Rd (S)	2377	594	18	2832	0.839	2377	2036	5.0	5.1	7.887	A
4 - Supermarket Access	442	110	2302	338	1.307	337	92	27.7	53.9	388.277	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	673	168	1591	599	1.125	598	870	117.2	135.9	667.771	F
2 - Hall Rd (E)	745	186	1318	854	0.872	763	871	12.7	8.1	43.650	E
3 - Hall Rd (S)	1941	485	15	2834	0.685	1952	2066	5.1	2.2	4.136	A
4 - Supermarket Access	360	90	1892	610	0.591	569	76	53.9	1.7	156.561	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	564	141	1159	861	0.655	855	726	135.9	63.3	421.861	F
2 - Hall Rd (E)	624	156	1278	878	0.710	646	735	8.1	2.6	16.791	C

3 - Hall Rd (S)	1625	406	13	2836	0.57 3	1629	1911	2.2	1.4	2.989	A
4 - Supermarket Access	302	75	1578	818	0.36 9	306	63	1.7	0.6	7.096	A

Pref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	37.78	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	37.78	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Springhead Rd		ONE HOUR	✓	813	100.000
2 - Hall Rd (E)		ONE HOUR	✓	1012	100.000
3 - Hall Rd (S)		ONE HOUR	✓	1861	100.000
4 - Supermarket Access		ONE HOUR	✓	79	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
From		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
	1 - Springhead Rd	0	47	766	0
	2 - Hall Rd (E)	41	0	964	7
	3 - Hall Rd (S)	883	677	31	270
	4 - Supermarket Access	0	10	69	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	1	10	0
	2 - Hall Rd (E)	2	0	0	0
	3 - Hall Rd (S)	6	3	1	1
	4 - Supermarket Access	0	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Springhead Rd	0.91	37.52	8.7	E	746	1118
2 - Hall Rd (E)	1.04	103.71	34.2	F	929	1393
3 - Hall Rd (S)	0.73	4.74	2.7	A	1707	2561
4 - Supermarket Access	0.13	6.16	0.1	A	72	109

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	612	153	590	1135	0.539	607	694	0.0	1.2	6.768	A
2 - Hall Rd (E)	762	190	647	1275	0.598	756	550	0.0	1.5	6.868	A
3 - Hall Rd (S)	1401	350	36	2819	0.497	1397	1367	0.0	1.0	2.523	A
4 - Supermarket Access	59	15	1225	1053	0.056	59	208	0.0	0.1	3.622	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	730	183	706	1069	0.683	727	829	1.2	2.1	10.411	B
2 - Hall Rd (E)	910	227	775	1190	0.765	903	658	1.5	3.1	12.298	B
3 - Hall Rd (S)	1673	418	43	2813	0.595	1671	1635	1.0	1.5	3.145	A
4 - Supermarket Access	71	18	1465	892	0.080	71	249	0.1	0.1	4.384	A

00:30 - 00:45

Arm	Total Demand	Junction	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit	Start queue	End queue	Delay (s)	Unsignalised level of service
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	(Veh/hr)	Arrivals (Veh)					side) (Veh/hr)	e (Veh)	e (Veh)		
1 - Springhead Rd	895	224	864	979	0.914	873	1012	2.1	7.6	29.208	D
2 - Hall Rd (E)	1114	279	932	1085	1.027	1044	804	3.1	20.7	53.664	F
3 - Hall Rd (S)	2049	512	50	2808	0.730	2044	1926	1.5	2.6	4.683	A
4 - Supermarket Access	87	22	1790	674	0.129	87	304	0.1	0.1	6.121	A

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	895	224	866	978	0.915	890	1015	7.6	8.7	37.521	E
2 - Hall Rd (E)	1114	279	949	1073	1.038	1060	807	20.7	34.2	103.715	F
3 - Hall Rd (S)	2049	512	50	2807	0.730	2049	1959	2.6	2.7	4.743	A
4 - Supermarket Access	87	22	1794	671	0.129	87	305	0.1	0.1	6.158	A

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	730	183	709	1067	0.685	756	838	8.7	2.3	12.477	B
2 - Hall Rd (E)	910	227	803	1171	0.777	1031	663	34.2	3.9	41.417	E
3 - Hall Rd (S)	1673	418	49	2808	0.596	1677	1785	2.7	1.5	3.195	A
4 - Supermarket Access	71	18	1476	885	0.080	71	251	0.1	0.1	4.425	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	612	153	593	1133	0.540	616	697	2.3	1.2	7.015	A
2 - Hall Rd (E)	762	190	656	1269	0.600	771	553	3.9	1.5	7.363	A
3 - Hall Rd (S)	1401	350	37	2819	0.497	1403	1391	1.5	1.0	2.545	A
4 - Supermarket Access	59	15	1230	1049	0.057	60	209	0.1	0.1	3.640	A

Pref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	176.65	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	176.65	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Springhead Rd		ONE HOUR	✓	752	100.000
2 - Hall Rd (E)		ONE HOUR	✓	863	100.000
3 - Hall Rd (S)		ONE HOUR	✓	2204	100.000
4 - Supermarket Access		ONE HOUR	✓	432	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	18	734	0
	2 - Hall Rd (E)	15	0	845	3
	3 - Hall Rd (S)	993	932	192	87
	4 - Supermarket Access	0	24	408	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	1	3	0
	2 - Hall Rd (E)	2	0	0	1
	3 - Hall Rd (S)	5	2	0	2
	4 - Supermarket Access	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Springhead Rd	1.31	629.65	125.8	F	690	1035
2 - Hall Rd (E)	0.95	50.47	12.5	F	792	1187
3 - Hall Rd (S)	0.85	8.30	5.5	A	2022	3034
4 - Supermarket Access	1.44	503.29	73.7	F	396	595

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	566	142	1166	870	0.651	559	756	0.0	1.8	11.326	B
2 - Hall Rd (E)	649	162	994	1089	0.596	644	731	0.0	1.4	7.987	A
3 - Hall Rd (S)	1659	415	13	2863	0.579	1654	1625	0.0	1.4	2.963	A
4 - Supermarket Access	325	81	1600	838	0.388	323	67	0.0	0.6	6.953	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	676	169	1393	735	0.920	653	904	1.8	7.4	37.070	E
2 - Hall Rd (E)	776	194	1173	978	0.793	767	873	1.4	3.5	16.486	C
3 - Hall Rd (S)	1981	495	16	2861	0.692	1978	1925	1.4	2.2	4.060	A
4 - Supermarket Access	388	97	1913	625	0.621	385	81	0.6	1.6	14.744	B

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	828	207	1564	632	1.309	629	1103	7.4	57.2	199.791	F
2 - Hall Rd (E)	950	237	1138	1000	0.950	923	1054	3.5	10.3	37.285	E
3 - Hall Rd (S)	2427	607	19	2859	0.849	2414	2042	2.2	5.3	7.888	A
4 - Supermarket Access	476	119	2335	338	1.405	333	98	1.6	37.4	232.101	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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1 - Springhead Rd	828	207	1567	630	1.31 4	630	1109	57.2	106.7	487.09 6	F
2 - Hall Rd (E)	950	237	1138	1000	0.95 0	941	1059	10.3	12.5	50.472	F
3 - Hall Rd (S)	2427	607	19	2858	0.84 9	2426	2060	5.3	5.5	8.297	A
4 - Supermarket Access	476	119	2346	331	1.43 9	330	99	37.4	73.7	503.29 3	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	676	169	1623	600	1.12 7	599	912	106.7	125.8	629.64 9	F
2 - Hall Rd (E)	776	194	1331	882	0.87 9	791	891	12.5	8.7	43.245	E
3 - Hall Rd (S)	1981	495	16	2861	0.69 3	1994	2106	5.5	2.3	4.211	A
4 - Supermarket Access	388	97	1929	614	0.63 2	606	81	73.7	19.3	278.32 0	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	566	142	1248	822	0.68 9	815	761	125.8	63.5	420.02 2	F
2 - Hall Rd (E)	649	162	1319	886	0.73 3	673	745	8.7	2.9	18.445	C
3 - Hall Rd (S)	1659	415	14	2863	0.58 0	1663	1977	2.3	1.4	3.007	A
4 - Supermarket Access	325	81	1609	832	0.39 1	400	68	19.3	0.7	9.927	A

Appendix AF
B262 / Springhead Road
Mitigation Layout Modelling Output

Junctions 10

Junctions 10									
ARCADY 10 - Roundabout Module									
Version: 10.0.0.1499 © Copyright TRL Software Limited, 2021									
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com									
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution									

Filename: 12. B262 _ Springhead Road - Mitigation.j10
Path: J:\46416 - GH - Dartford Local Plan (SATURN)\BRIEF 5501 - Transport\MODELLING\TRANSPORT\JUNCTIONS 10
Report generation date: 06/12/2021 09:07:13

»Pref no LTC, AM
 »Pref no LTC, PM
 »Pref LTC, AM
 »Pref LTC, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	Pref no LTC									
1 - Springhead Rd	D5	6.5	27.09	0.88	D	D6	101.3	485.20	1.31	F
2 - Hall Rd (E)		30.5	91.14	1.02	F		9.7	41.08	0.93	E
3 - Hall Rd (S)		2.6	4.74	0.73	A		5.1	7.89	0.84	A
4 - Supermarket Access		0.1	5.69	0.12	A		35.4	254.87	1.17	F
	Pref LTC									
1 - Springhead Rd	D7	5.8	24.59	0.86	C	D8	96.5	479.23	1.26	F
2 - Hall Rd (E)		17.0	56.76	0.98	F		9.7	39.15	0.92	E
3 - Hall Rd (S)		2.7	4.75	0.73	A		5.5	8.30	0.85	A
4 - Supermarket Access		0.1	5.70	0.12	A		53.7	357.58	1.28	F

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

File summary

File Description

Title	
Location	
Site number	
Date	22/09/2021
Version	
Status	(new file)
Identifier	
Client	

Jobnumber	
Enumerator	CORP\dansmith
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

Pref no LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	32.90	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	32.90	D

Arms

Arms

Arm	Name	Description	No give-way line
1	Springhead Rd		
2	Hall Rd (E)		

3	Hall Rd (S)		
4	Supermarket Access		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Springhead Rd	3.52	7.05	12.0	29.6	49.6	22.4		
2 - Hall Rd (E)	3.04	10.40	15.0	53.7	49.8	37.6		
3 - Hall Rd (S)	6.48	11.34	29.9	21.3	49.9	27.5		
4 - Supermarket Access	5.15	7.94	8.0	29.7	49.8	28.3		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Springhead Rd	0.620	1686
2 - Hall Rd (E)	0.629	1795
3 - Hall Rd (S)	0.852	2966
4 - Supermarket Access	0.673	2002

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Pref no LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Springhead Rd		ONE HOUR	✓	838	100.000
2 - Hall Rd (E)		ONE HOUR	✓	1044	100.000
3 - Hall Rd (S)		ONE HOUR	✓	1822	100.000
4 - Supermarket Access		ONE HOUR	✓	79	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	45	793	0
	2 - Hall Rd (E)	90	0	946	8
	3 - Hall Rd (S)	851	665	38	268
	4 - Supermarket Access	0	9	70	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	1	9	0
	2 - Hall Rd (E)	1	0	0	0
	3 - Hall Rd (S)	6	3	1	1
	4 - Supermarket Access	0	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Springhead Rd	0.88	27.09	6.5	D	769	1153
2 - Hall Rd (E)	1.02	91.14	30.5	F	958	1437
3 - Hall Rd (S)	0.73	4.74	2.6	A	1672	2507
4 - Supermarket Access	0.12	5.69	0.1	A	72	109

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	631	158	587	1208	0.522	626	706	0.0	1.1	6.138	A
2 - Hall Rd (E)	786	196	674	1336	0.588	780	539	0.0	1.4	6.412	A
3 - Hall Rd (S)	1371	343	73	2789	0.492	1368	1381	0.0	1.0	2.526	A
4 - Supermarket Access	59	15	1234	1114	0.053	59	207	0.0	0.1	3.411	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	753	188	702	1141	0.660	750	845	1.1	1.9	9.125	A
2 - Hall Rd (E)	939	235	806	1246	0.753	933	645	1.4	2.9	11.263	B
3 - Hall Rd (S)	1638	409	88	2778	0.590	1636	1651	1.0	1.4	3.147	A
4 - Supermarket Access	71	18	1475	948	0.075	71	248	0.1	0.1	4.105	A

00:30 - 00:45

Arm	Total Demand	Junction	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit	Start queue	End queue	Delay (s)	Unsignalised level of service
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	(Veh/hr)	Arrivals (Veh)					side) (Veh/hr)	e (Veh)	e (Veh)		
1 - Springhead Rd	922	231	858	1049	0.879	906	1028	1.9	6.0	22.905	C
2 - Hall Rd (E)	1149	287	976	1131	1.016	1084	788	2.9	19.2	48.949	E
3 - Hall Rd (S)	2006	501	102	2766	0.725	2001	1958	1.4	2.6	4.677	A
4 - Supermarket Access	87	22	1800	724	0.120	87	303	0.1	0.1	5.649	A

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	922	231	860	1048	0.880	920	1032	6.0	6.5	27.093	D
2 - Hall Rd (E)	1149	287	989	1122	1.025	1105	791	19.2	30.5	91.140	F
3 - Hall Rd (S)	2006	501	104	2764	0.726	2006	1990	2.6	2.6	4.742	A
4 - Supermarket Access	87	22	1806	720	0.121	87	304	0.1	0.1	5.686	A

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	753	188	705	1139	0.661	771	857	6.5	2.0	10.229	B
2 - Hall Rd (E)	939	235	827	1232	0.762	1047	649	30.5	3.5	29.404	D
3 - Hall Rd (S)	1638	409	98	2769	0.591	1642	1775	2.6	1.5	3.210	A
4 - Supermarket Access	71	18	1491	937	0.076	71	250	0.1	0.1	4.156	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	631	158	589	1207	0.522	634	710	2.0	1.1	6.325	A
2 - Hall Rd (E)	786	196	682	1331	0.591	794	542	3.5	1.5	6.800	A
3 - Hall Rd (S)	1371	343	75	2788	0.492	1373	1401	1.5	1.0	2.547	A
4 - Supermarket Access	59	15	1240	1110	0.054	60	208	0.1	0.1	3.428	A

Pref no LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	124.18	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	124.18	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Pref no LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Springhead Rd		ONE HOUR	✓	749	100.000
2 - Hall Rd (E)		ONE HOUR	✓	829	100.000
3 - Hall Rd (S)		ONE HOUR	✓	2159	100.000
4 - Supermarket Access		ONE HOUR	✓	401	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	38	711	0
	2 - Hall Rd (E)	14	0	812	3
	3 - Hall Rd (S)	948	895	235	81
	4 - Supermarket Access	0	22	379	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	2	3	0
	2 - Hall Rd (E)	3	0	3	31
	3 - Hall Rd (S)	5	4	0	8
	4 - Supermarket Access	0	7	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Springhead Rd	1.31	485.20	101.3	F	687	1031
2 - Hall Rd (E)	0.93	41.08	9.7	E	760	1141
3 - Hall Rd (S)	0.84	7.89	5.1	A	1981	2972
4 - Supermarket Access	1.17	254.87	35.4	F	368	552

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	564	141	1148	925	0.610	558	722	0.0	1.5	9.662	A
2 - Hall Rd (E)	624	156	989	1123	0.555	619	716	0.0	1.2	7.070	A
3 - Hall Rd (S)	1625	406	12	2837	0.573	1620	1596	0.0	1.3	2.945	A
4 - Supermarket Access	302	75	1569	876	0.345	300	63	0.0	0.5	6.229	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	673	168	1372	785	0.857	659	863	1.5	5.0	26.185	D
2 - Hall Rd (E)	745	186	1175	1007	0.740	739	856	1.2	2.7	13.145	B
3 - Hall Rd (S)	1941	485	15	2835	0.685	1938	1900	1.3	2.1	3.999	A
4 - Supermarket Access	360	90	1877	667	0.540	358	75	0.5	1.1	11.557	B

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	825	206	1608	639	1.291	633	1053	5.0	52.8	179.317	F
2 - Hall Rd (E)	912	228	1208	987	0.924	890	1033	2.7	8.3	31.450	D
3 - Hall Rd (S)	2377	594	18	2832	0.839	2366	2080	2.1	5.0	7.546	A
4 - Supermarket Access	442	110	2292	386	1.144	370	92	1.1	19.1	120.152	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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1 - Springhead Rd	825	206	1620	631	1.306	631	1058	52.8	101.3	437.042	F
2 - Hall Rd (E)	912	228	1213	984	0.927	907	1038	8.3	9.7	41.083	E
3 - Hall Rd (S)	2377	594	18	2832	0.840	2377	2101	5.0	5.1	7.889	A
4 - Supermarket Access	442	110	2302	379	1.166	376	92	19.1	35.4	254.866	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	673	168	1519	694	0.970	687	870	101.3	97.7	485.196	F
2 - Hall Rd (E)	745	186	1335	907	0.821	763	872	9.7	5.1	27.367	D
3 - Hall Rd (S)	1941	485	15	2834	0.685	1952	2083	5.1	2.2	4.135	A
4 - Supermarket Access	360	90	1892	657	0.549	497	76	35.4	1.3	47.821	E

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	564	141	1157	919	0.614	909	726	97.7	11.4	221.138	F
2 - Hall Rd (E)	624	156	1329	910	0.685	635	738	5.1	2.3	13.584	B
3 - Hall Rd (S)	1625	406	13	2836	0.573	1629	1951	2.2	1.4	2.991	A
4 - Supermarket Access	302	75	1578	870	0.347	305	63	1.3	0.5	6.404	A

Pref LTC, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	22.71	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	22.71	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Pref LTC	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Springhead Rd		ONE HOUR	✓	813	100.000
2 - Hall Rd (E)		ONE HOUR	✓	1012	100.000
3 - Hall Rd (S)		ONE HOUR	✓	1861	100.000
4 - Supermarket Access		ONE HOUR	✓	79	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
	1 - Springhead Rd	0	47	766	0
	2 - Hall Rd (E)	41	0	964	7
	3 - Hall Rd (S)	883	677	31	270
	4 - Supermarket Access	0	10	69	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
	1 - Springhead Rd	0	1	10	0
	2 - Hall Rd (E)	2	0	0	0
	3 - Hall Rd (S)	6	3	1	1
	4 - Supermarket Access	0	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Springhead Rd	0.86	24.59	5.8	C	746	1118
2 - Hall Rd (E)	0.98	56.76	17.0	F	929	1393
3 - Hall Rd (S)	0.73	4.75	2.7	A	1707	2561
4 - Supermarket Access	0.12	5.70	0.1	A	72	109

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	612	153	590	1196	0.512	608	694	0.0	1.0	6.077	A
2 - Hall Rd (E)	762	190	648	1350	0.564	757	550	0.0	1.3	6.017	A
3 - Hall Rd (S)	1401	350	36	2819	0.497	1397	1368	0.0	1.0	2.523	A
4 - Supermarket Access	59	15	1225	1110	0.054	59	208	0.0	0.1	3.426	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	730	183	706	1128	0.647	727	830	1.0	1.8	8.909	A
2 - Hall Rd (E)	910	227	775	1263	0.721	905	658	1.3	2.5	9.933	A
3 - Hall Rd (S)	1673	418	43	2813	0.595	1671	1637	1.0	1.5	3.145	A
4 - Supermarket Access	71	18	1465	945	0.075	71	249	0.1	0.1	4.116	A

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	895	224	864	1037	0.863	880	1013	1.8	5.4	21.328	C
2 - Hall Rd (E)	1114	279	939	1150	0.969	1074	805	2.5	12.6	35.989	E
3 - Hall Rd (S)	2049	512	51	2807	0.730	2044	1962	1.5	2.7	4.689	A
4 - Supermarket Access	87	22	1791	722	0.120	87	304	0.1	0.1	5.663	A

00:45 - 01:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	895	224	866	1035	0.864	893	1017	5.4	5.8	24.588	C
2 - Hall Rd (E)	1114	279	952	1142	0.976	1097	807	12.6	17.0	56.765	F
3 - Hall Rd (S)	2049	512	52	2806	0.730	2049	1996	2.7	2.7	4.752	A
4 - Supermarket Access	87	22	1796	719	0.121	87	305	0.1	0.1	5.695	A

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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1 - Springhead Rd	730	183	709	1127	0.648	746	835	5.8	1.9	9.822	A
2 - Hall Rd (E)	910	227	793	1250	0.728	967	662	17.0	2.8	15.101	C
3 - Hall Rd (S)	1673	418	46	2811	0.595	1678	1714	2.7	1.5	3.188	A
4 - Supermarket Access	71	18	1473	940	0.075	71	250	0.1	0.1	4.145	A

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	612	153	593	1194	0.512	615	697	1.9	1.1	6.250	A
2 - Hall Rd (E)	762	190	655	1345	0.566	768	553	2.8	1.3	6.300	A
3 - Hall Rd (S)	1401	350	36	2819	0.497	1403	1386	1.5	1.0	2.547	A
4 - Supermarket Access	59	15	1230	1106	0.054	60	209	0.1	0.1	3.441	A

Pref LTC, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	133.10	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	133.10	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Pref LTC	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Springhead Rd		ONE HOUR	✓	752	100.000
2 - Hall Rd (E)		ONE HOUR	✓	863	100.000
3 - Hall Rd (S)		ONE HOUR	✓	2204	100.000

4 - Supermarket Access		ONE HOUR	✓	432	100.000
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Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	18	734	0
	2 - Hall Rd (E)	15	0	845	3
	3 - Hall Rd (S)	993	932	192	87
	4 - Supermarket Access	0	24	408	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Springhead Rd	2 - Hall Rd (E)	3 - Hall Rd (S)	4 - Supermarket Access
From	1 - Springhead Rd	0	1	3	0
	2 - Hall Rd (E)	2	0	0	1
	3 - Hall Rd (S)	5	2	0	2
	4 - Supermarket Access	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Springhead Rd	1.26	479.23	96.5	F	690	1035
2 - Hall Rd (E)	0.92	39.15	9.7	E	792	1187
3 - Hall Rd (S)	0.85	8.30	5.5	A	2022	3034
4 - Supermarket Access	1.28	357.58	53.7	F	396	595

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	566	142	1166	927	0.611	560	756	0.0	1.5	9.655	A
2 - Hall Rd (E)	649	162	996	1159	0.561	644	731	0.0	1.3	6.935	A
3 - Hall Rd (S)	1659	415	13	2863	0.579	1654	1627	0.0	1.4	2.963	A
4 - Supermarket Access	325	81	1600	891	0.365	323	68	0.0	0.6	6.310	A

00:15 - 00:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	676	169	1394	788	0.857	662	904	1.5	5.0	26.100	D
2 - Hall Rd (E)	776	194	1183	1039	0.746	769	874	1.3	2.8	13.044	B
3 - Hall Rd (S)	1981	495	16	2861	0.692	1978	1936	1.4	2.2	4.060	A
4 - Supermarket Access	388	97	1913	673	0.577	385	81	0.6	1.3	12.371	B

00:30 - 00:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	828	207	1601	661	1.25 2	655	1104	5.0	48.2	161.34 3	F
2 - Hall Rd (E)	950	237	1199	1029	0.92 3	928	1057	2.8	8.3	30.379	D
3 - Hall Rd (S)	2427	607	19	2859	0.84 9	2414	2108	2.2	5.3	7.889	A
4 - Supermarket Access	476	119	2335	380	1.25 0	370	98	1.3	27.7	161.75 9	F

00:45 - 01:00

Arm	Total Demand (Veh/hr)	junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	828	207	1609	657	1.260	656	1109	48.2	91.1	393.375	F
2 - Hall Rd (E)	950	237	1203	1027	0.925	944	1062	8.3	9.7	39.147	E
3 - Hall Rd (S)	2427	607	19	2858	0.849	2426	2128	5.3	5.5	8.298	A
4 - Supermarket Access	476	119	2346	372	1.277	371	99	27.7	53.7	357.578	F

01:00 - 01:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Springhead Rd	676	169	1614	656	1.030	654	912	91.1	96.5	479.229	F
2 - Hall Rd (E)	776	194	1376	918	0.845	789	892	9.7	6.2	30.294	D
3 - Hall Rd (S)	1981	495	16	2861	0.693	1994	2150	5.5	2.3	4.213	A
4 - Supermarket Access	388	97	1929	662	0.586	597	81	53.7	1.6	130.044	F

01:15 - 01:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
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1 - Springhead Rd	566	142	1177	920	0.61 5	911	761	96.5	10.2	216.16 7	F
2 - Hall Rd (E)	649	162	1345	933	0.69 6	665	743	6.2	2.4	14.121	B
3 - Hall Rd (S)	1659	415	14	2863	0.58 0	1663	1996	2.3	1.4	3.009	A
4 - Supermarket Access	325	81	1609	885	0.36 8	329	68	1.6	0.6	6.527	A