

Appendix G

Ben Stone

From: Andrew Blackburn <Andrew.Blackburn@halton.gov.uk>
Sent: 23 November 2022 15:49
To: Ben Stone; Sasha Boland
Cc: Jonathan Farmer
Subject: TRAFFIC COUNTS/Trip rates
Attachments: Traffic Count.xlsx

Follow Up Flag: Follow up
Flag Status: Flagged

Hi,

Please see recent traffic counts, by my colleague and myself, below and attached to be taken as consideration for TAs in Halton, below and attached

Traffic count this morning - 08 November 2022 - 8am till 9am - dry conditions - for the 172 properties that make up the Upton Grange Estate.

I have attached the results of the survey below and calculate that the AM peak time trip rate observed to be 0.63.

	CARS OUT	CARS IN	PEDS	CYCLES
8.00 AM	15	5	6	1
8.15 AM	21	6	3	2
8.30 AM	29	8	4	0
8.42 AM	6	19	1	0
TOTALS	71	38	14	3

Regards,

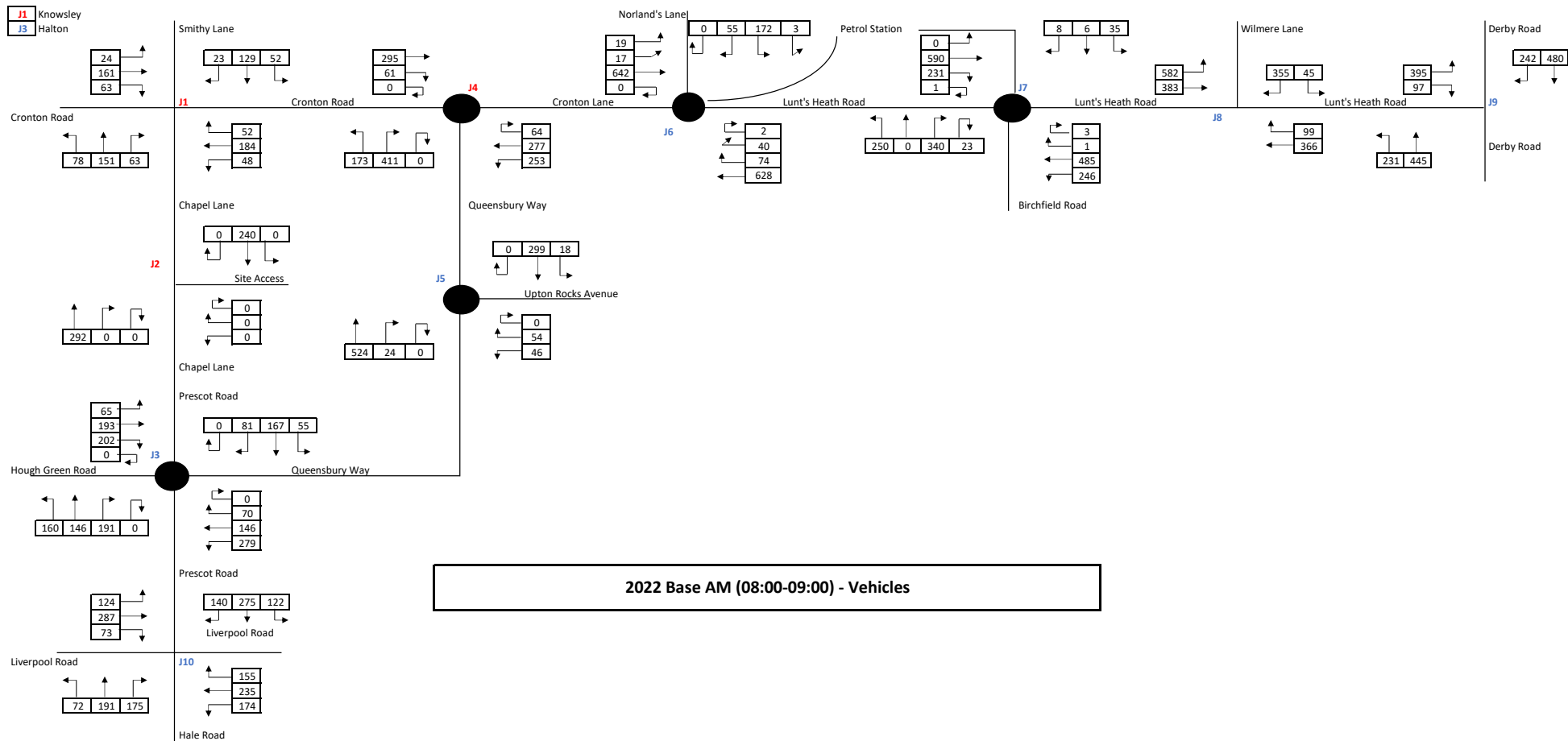
Andrew Blackburn

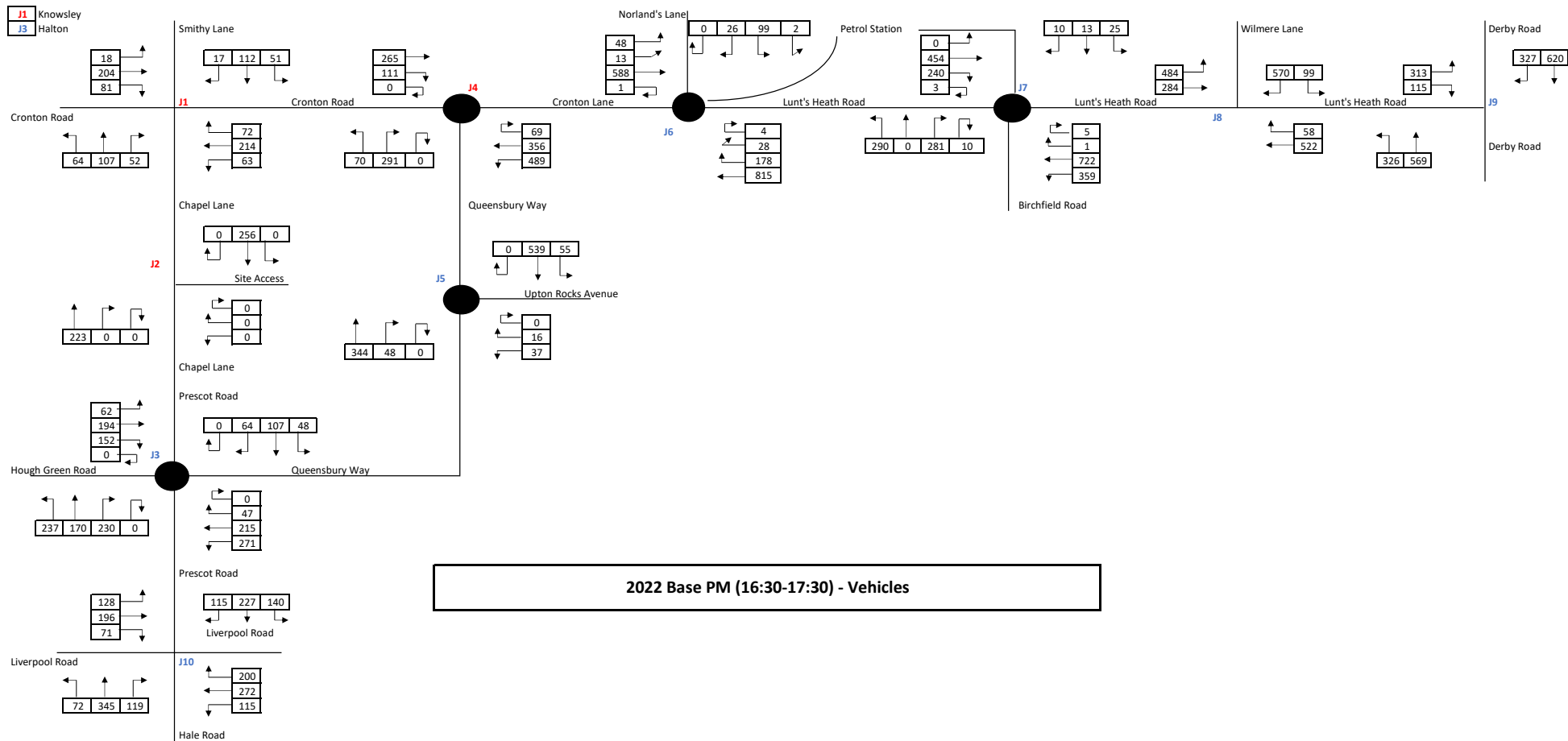
Highways Development & Impact Officer
Halton Borough Council | Highway Planning and Development | Municipal Building | Kingsway | Widnes | WA8 7QF

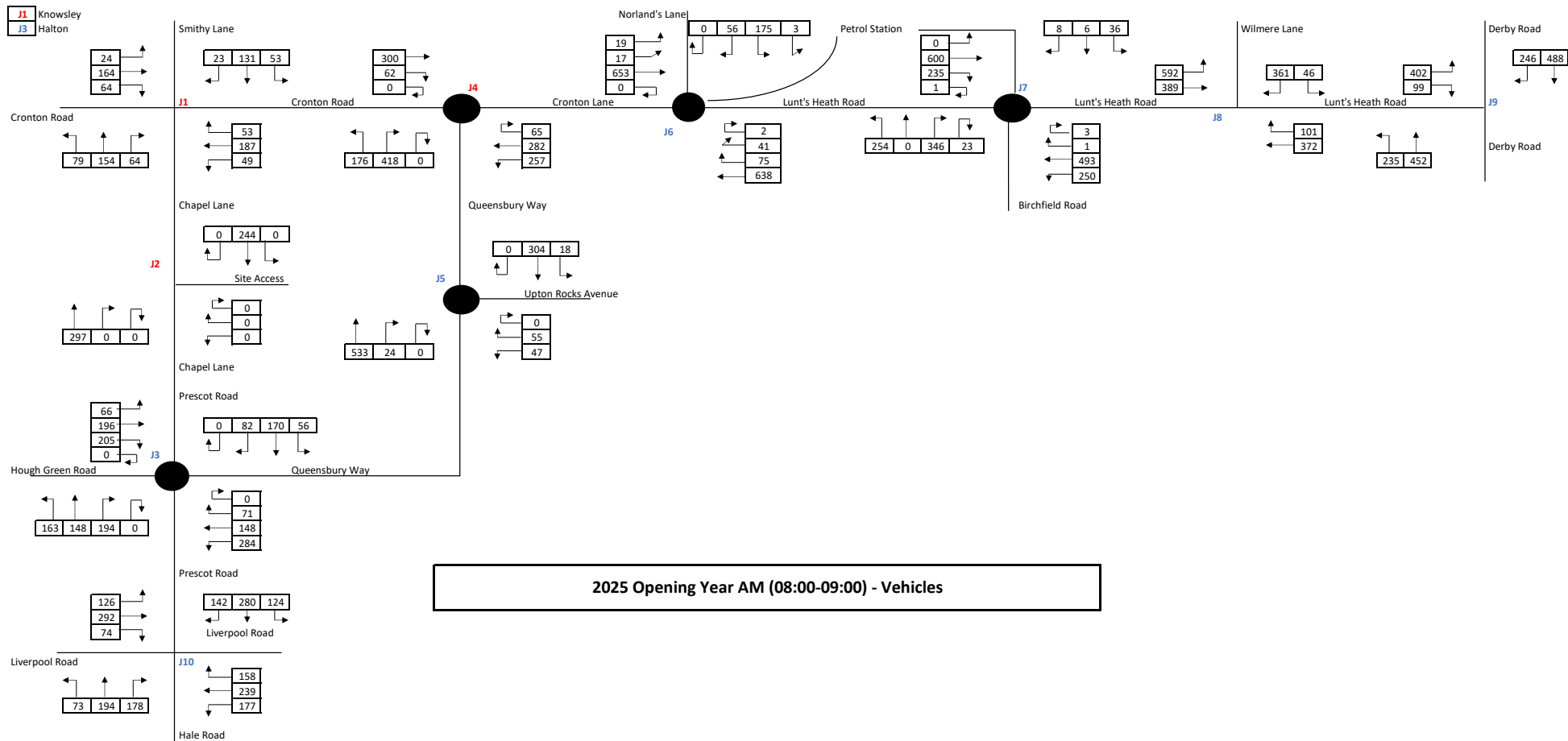
Tel: DD 0151 511 7185
Tel (internal) 7185
Email: Andrew.Blackburn@halton.gov.uk

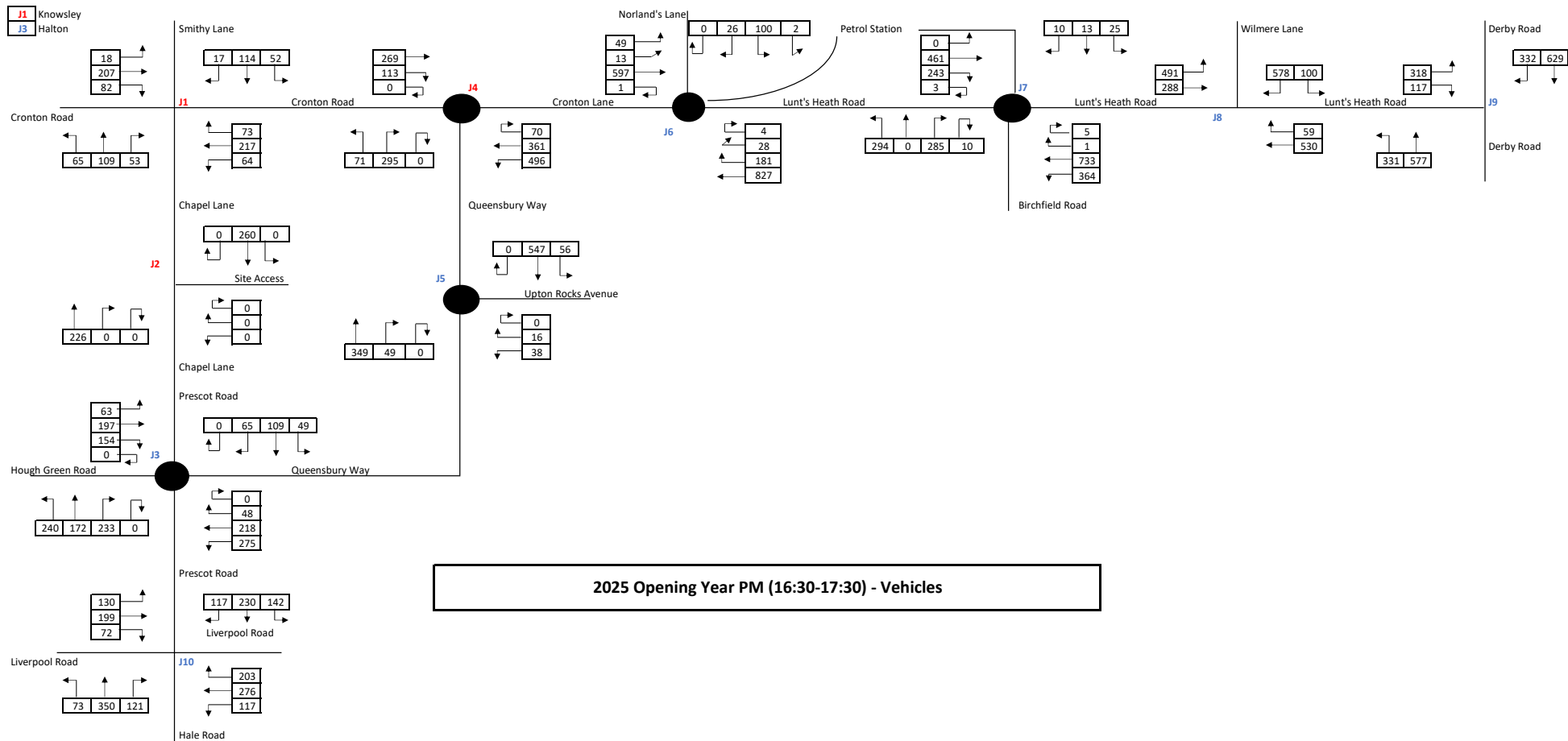
From: Iain Dignall <Iain.Dignall@halton.gov.uk>
Sent: 08 November 2022 10:01
To: Andrew Blackburn <Andrew.Blackburn@halton.gov.uk>; Jonathan Farmer <Jonathan.Farmer@halton.gov.uk>
Subject: UPTON GRANGE TRAFFIC COUNT

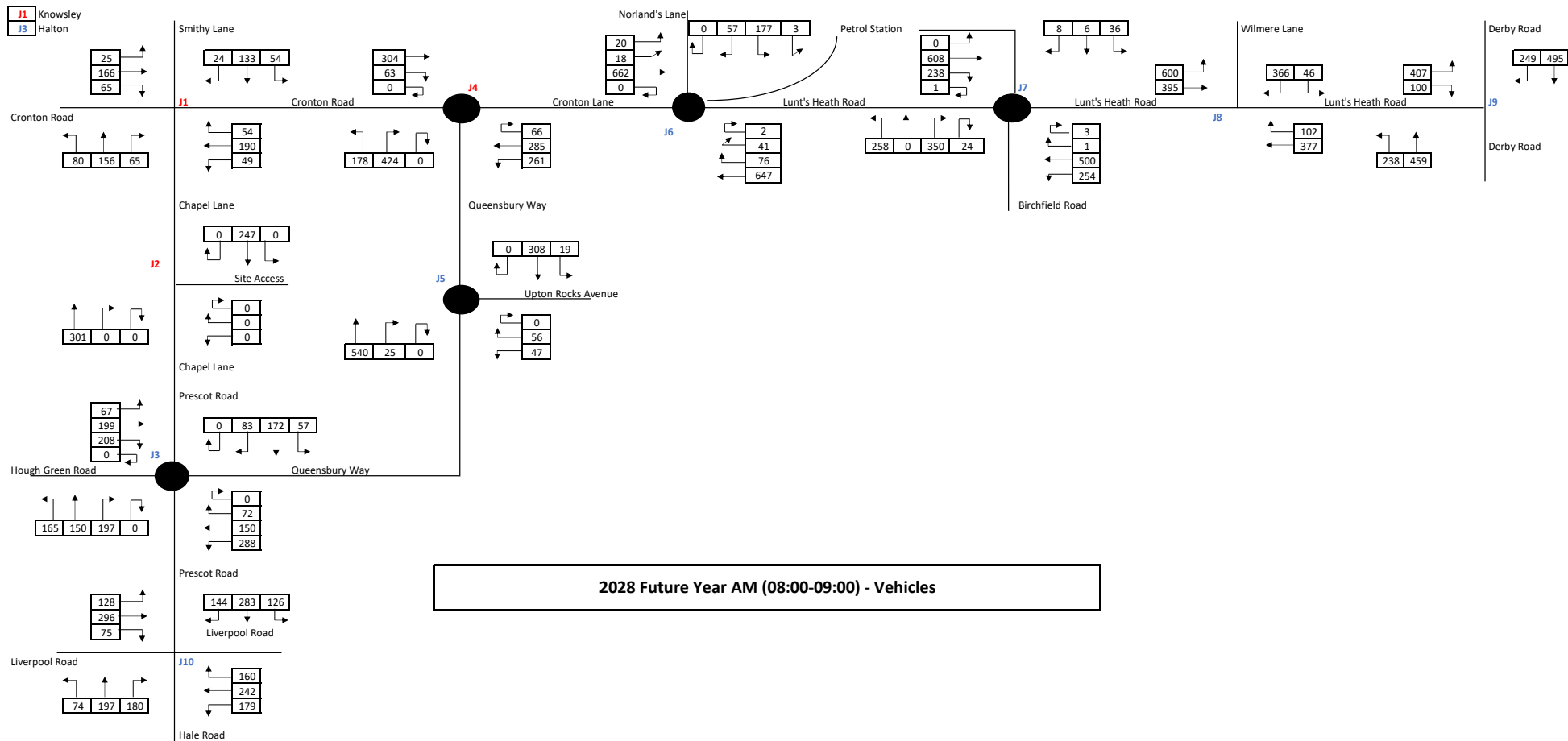
Appendix H

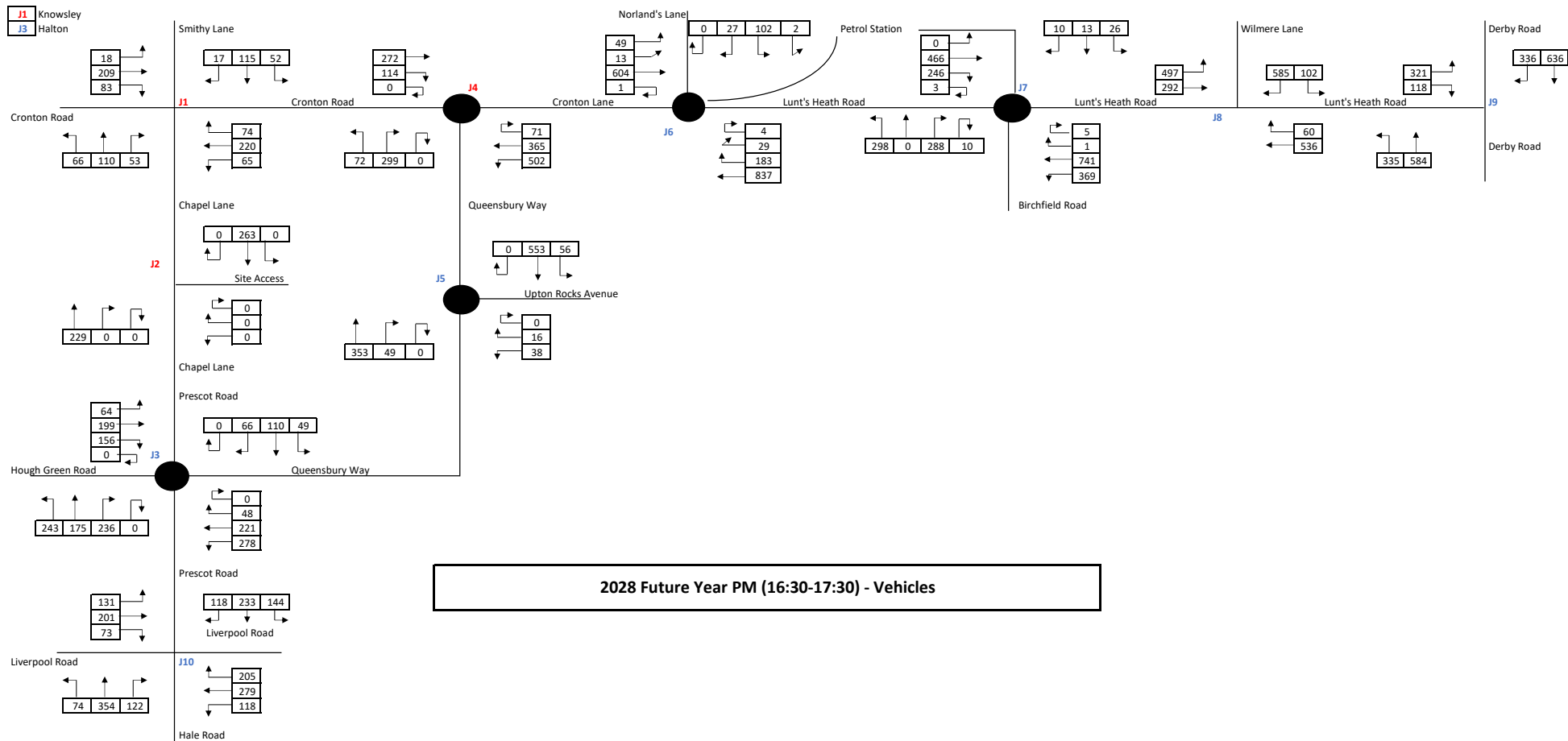


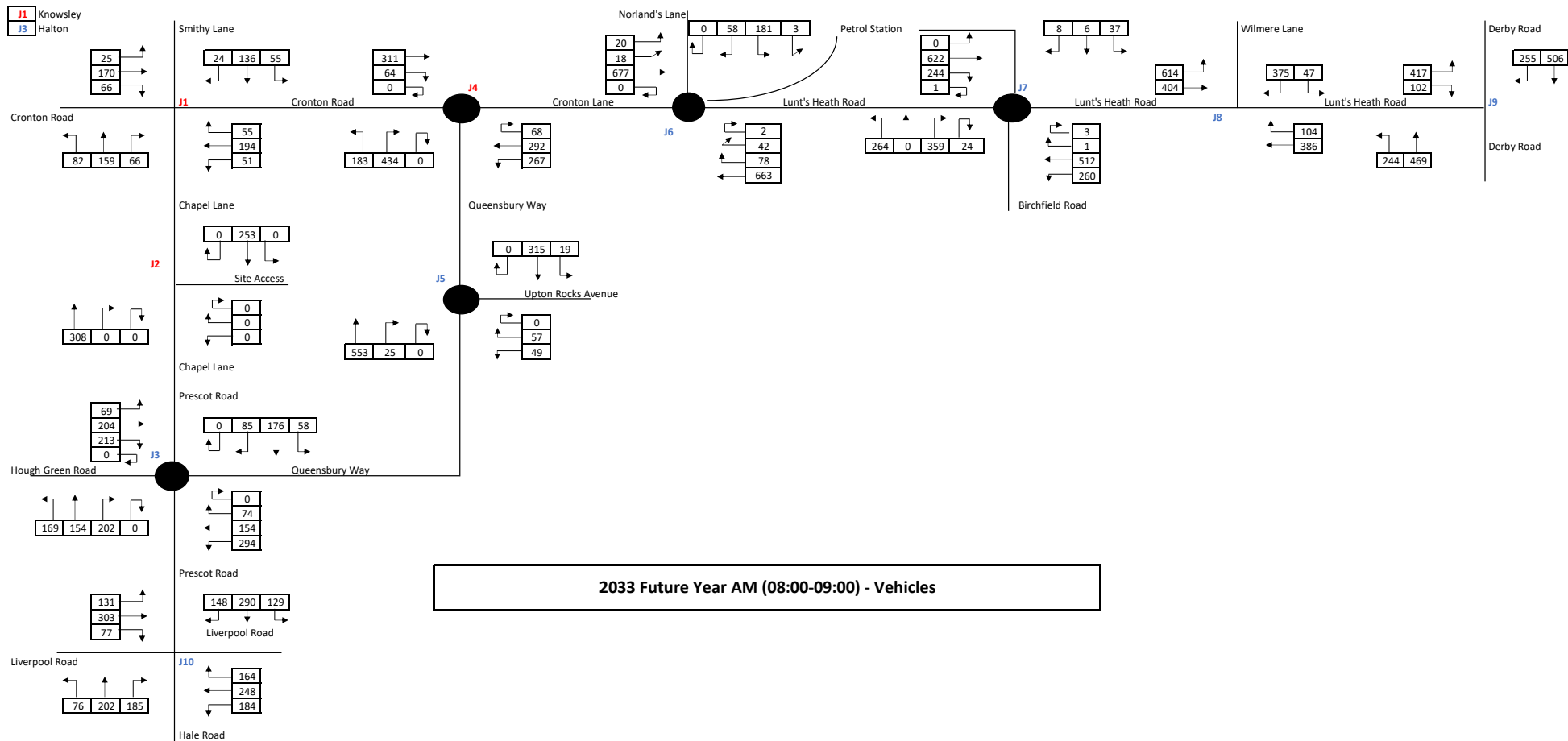


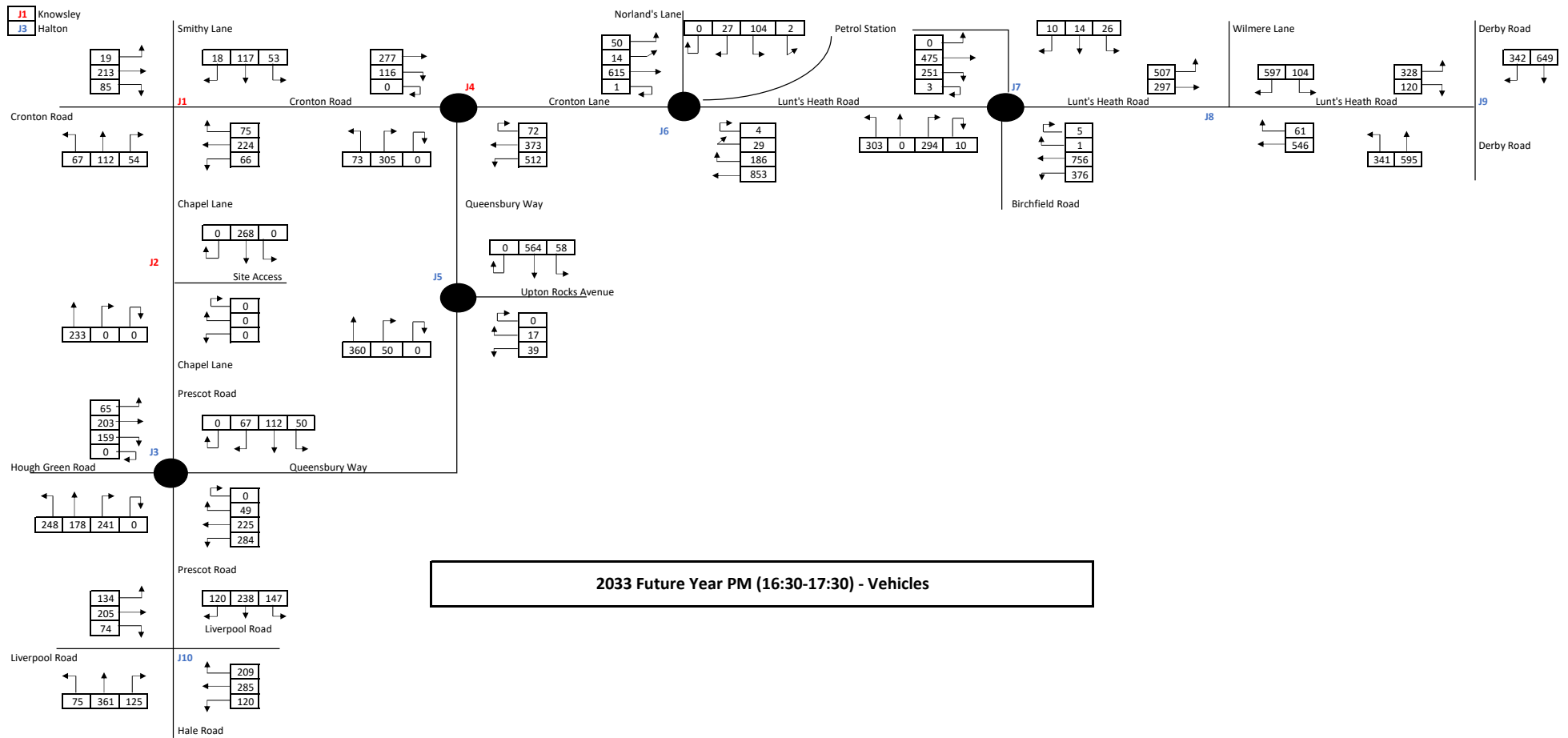


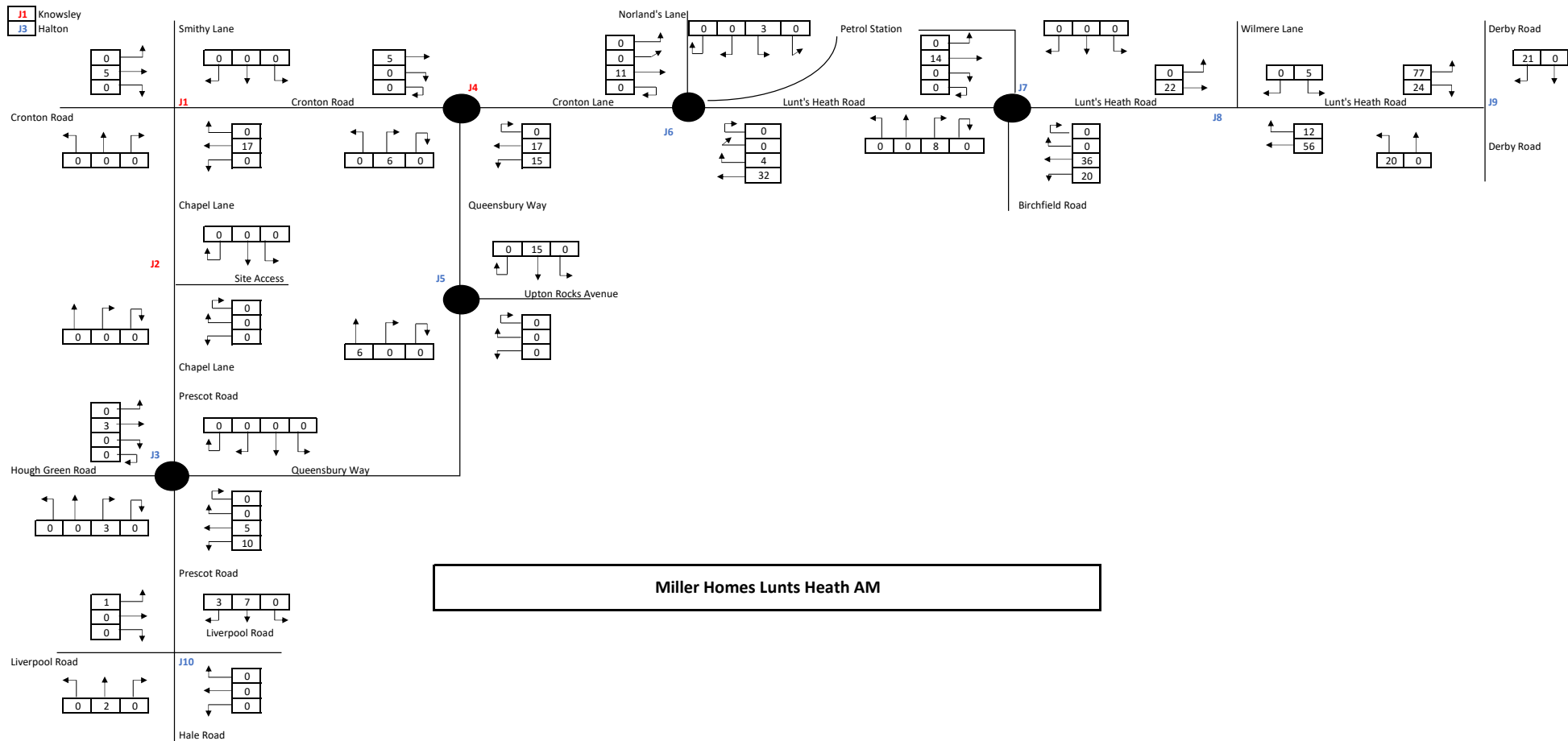


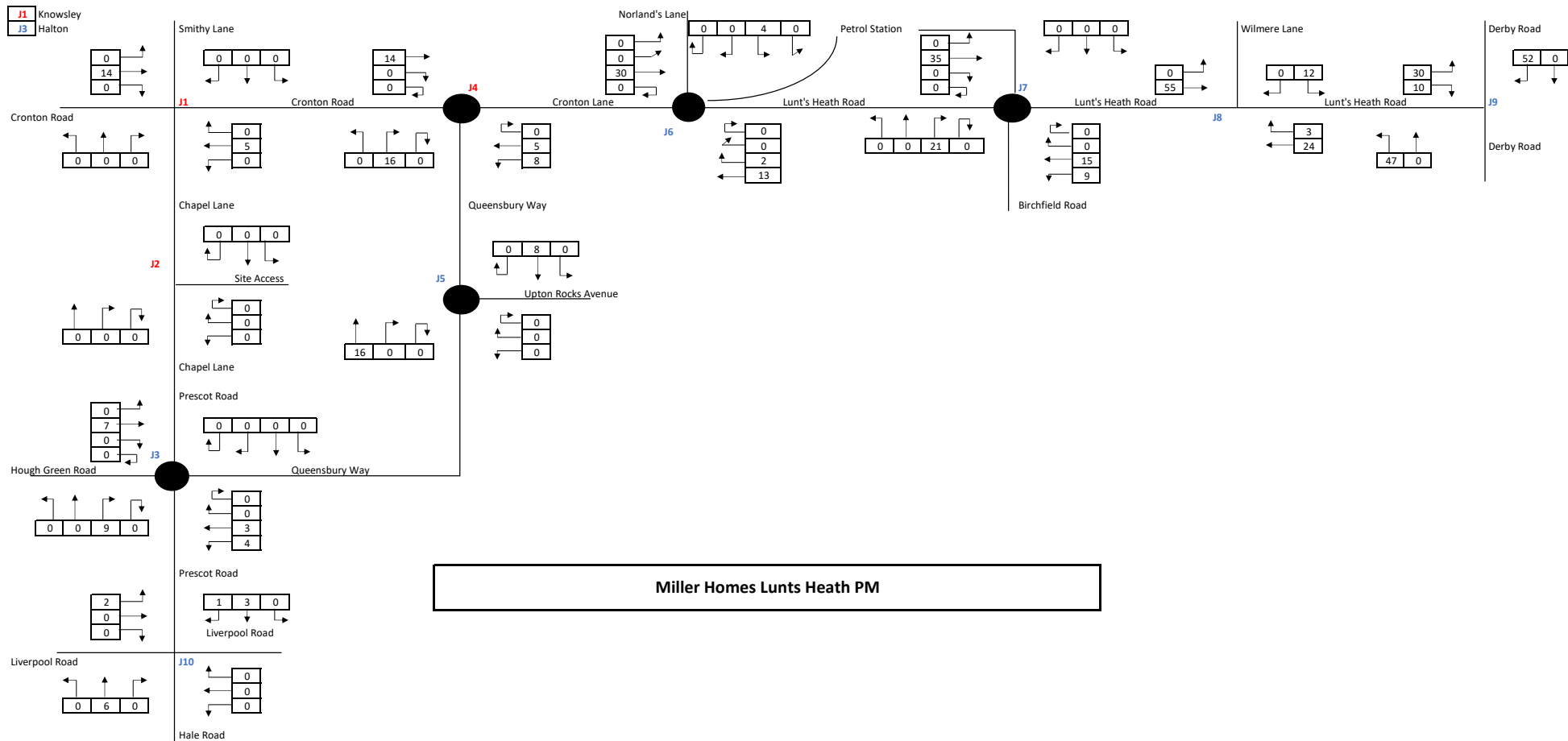


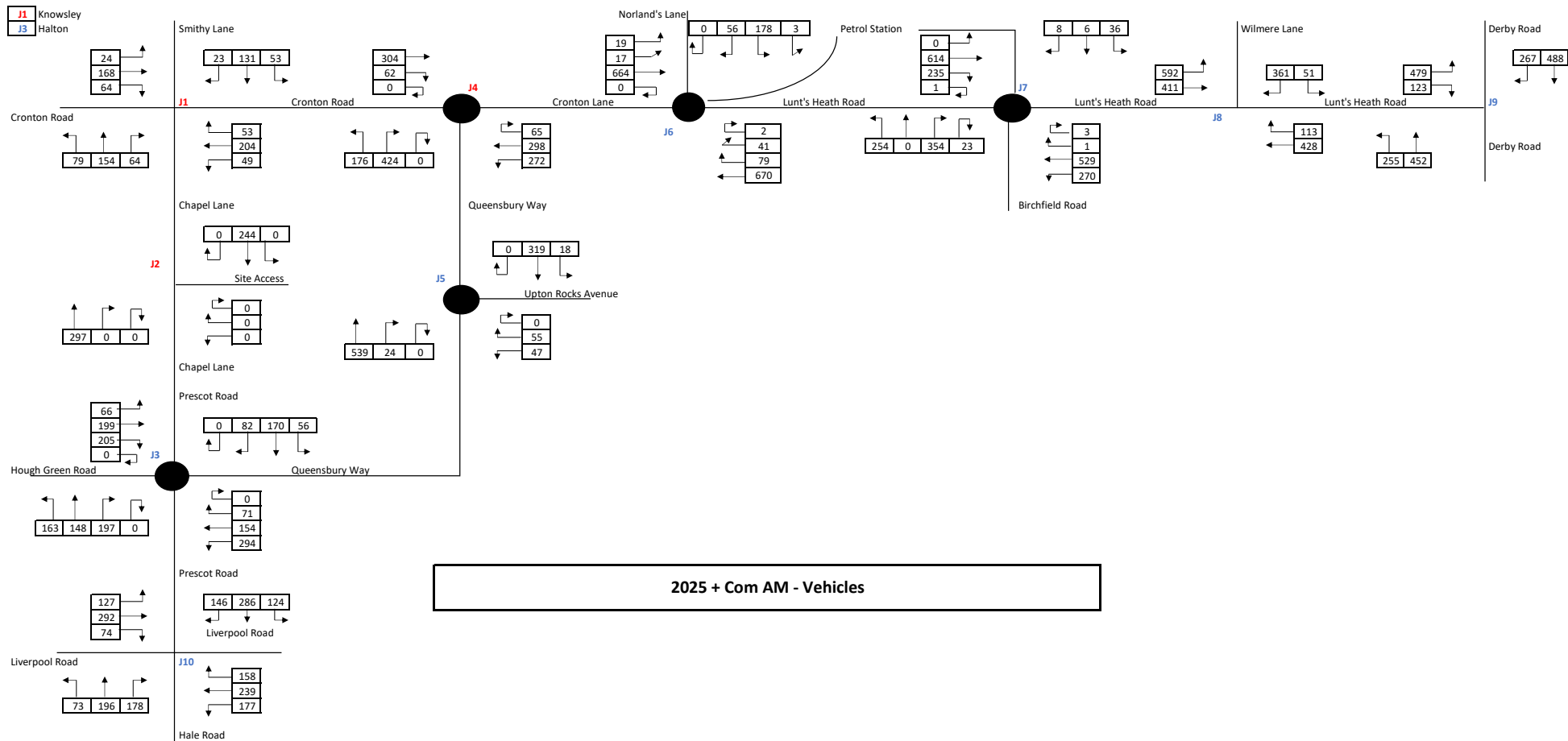


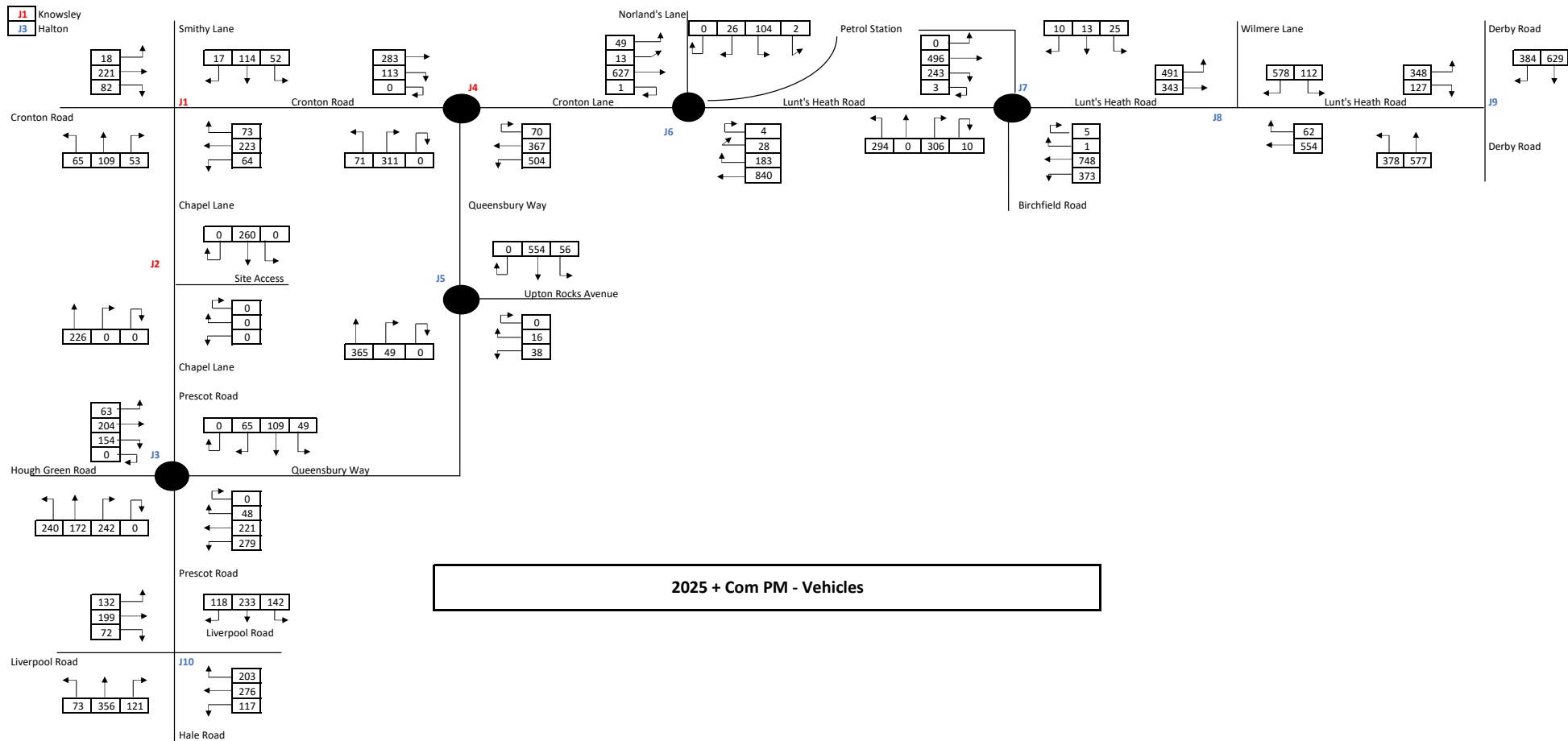


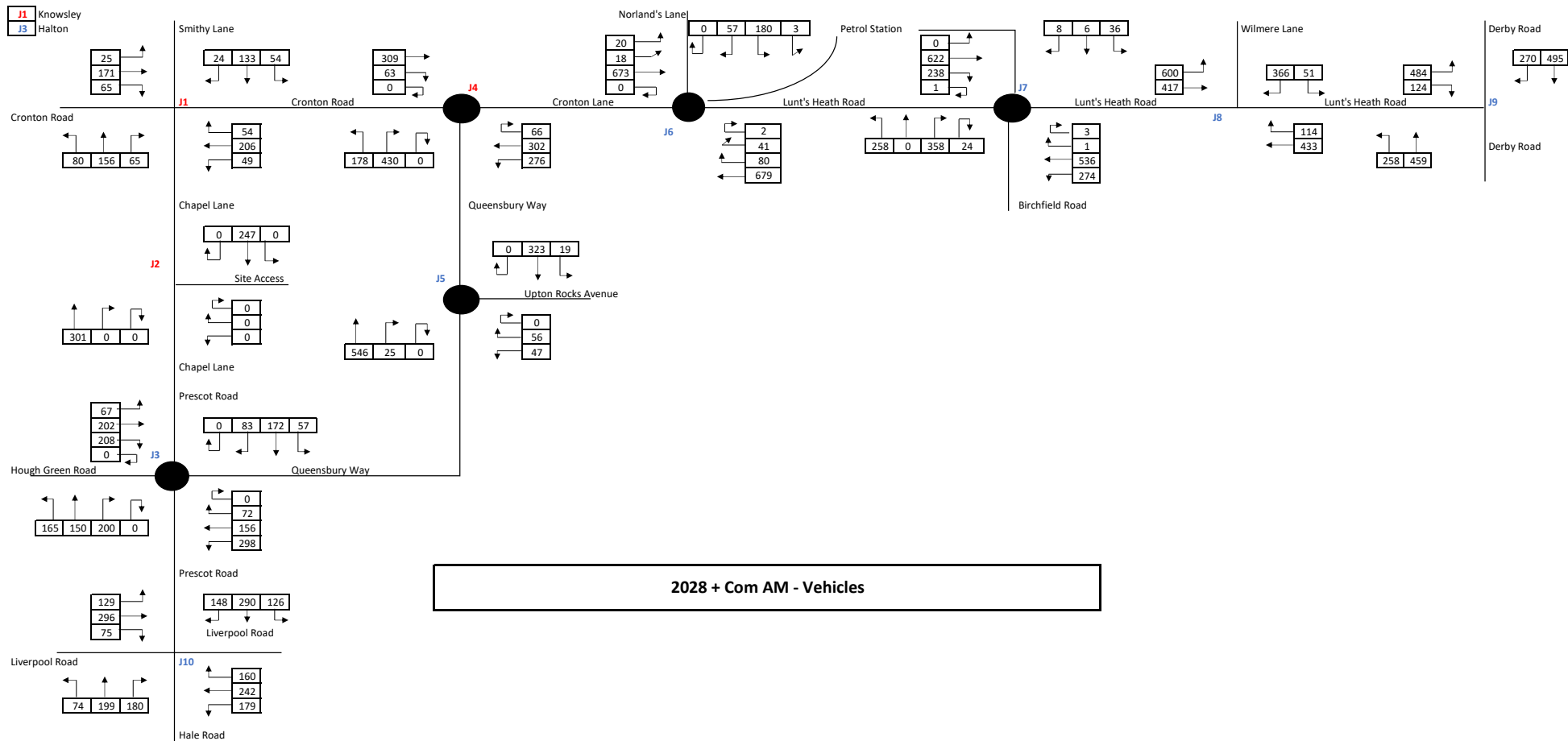


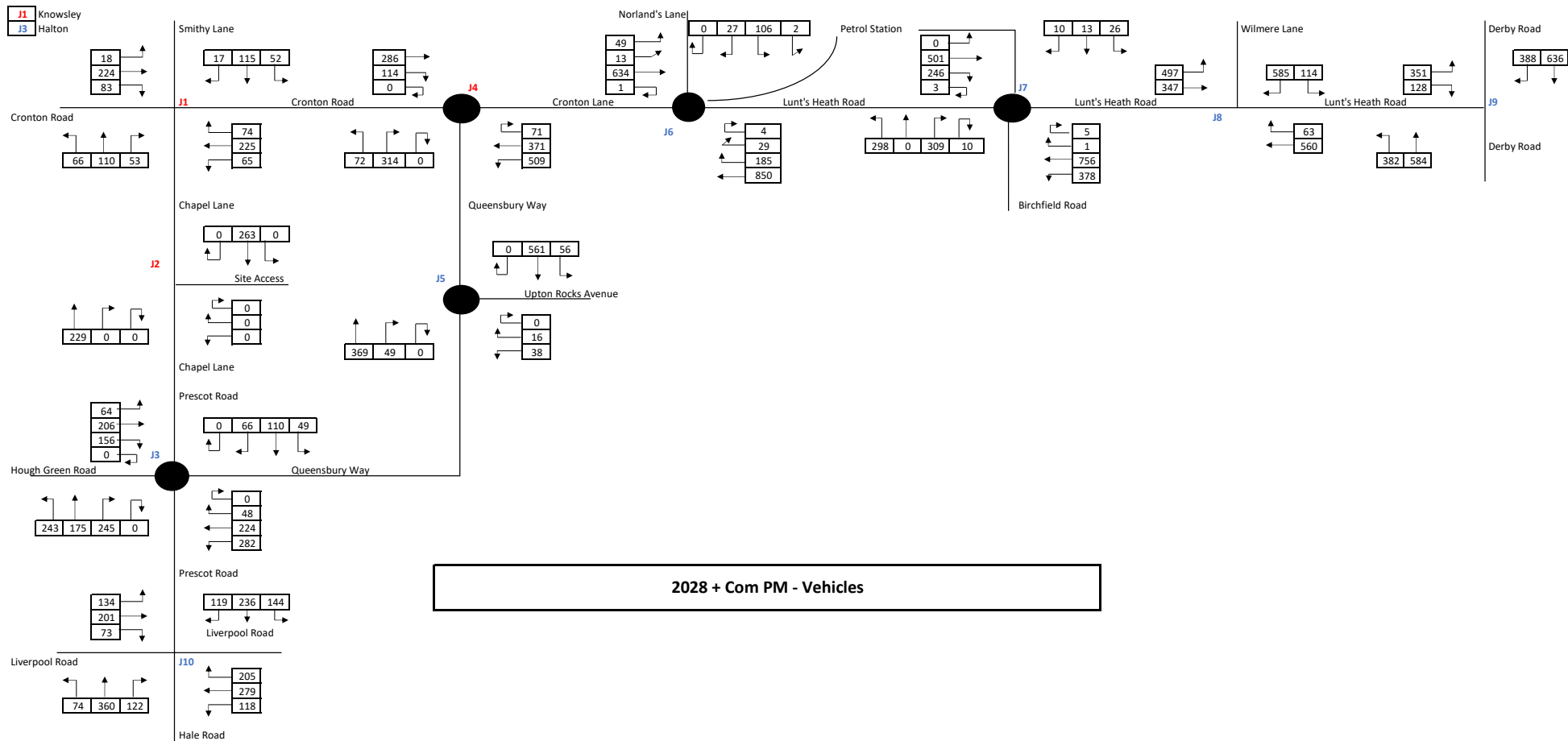


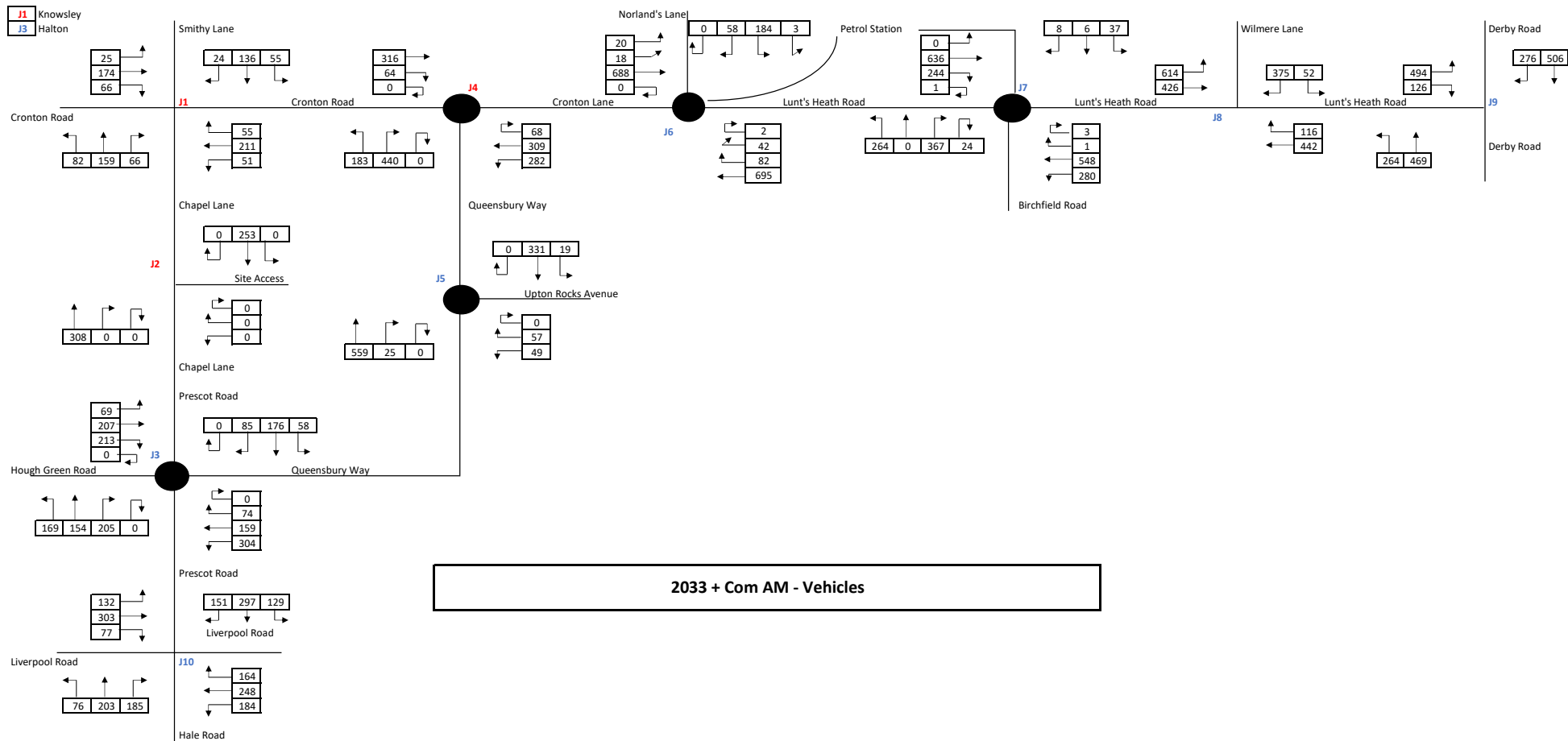


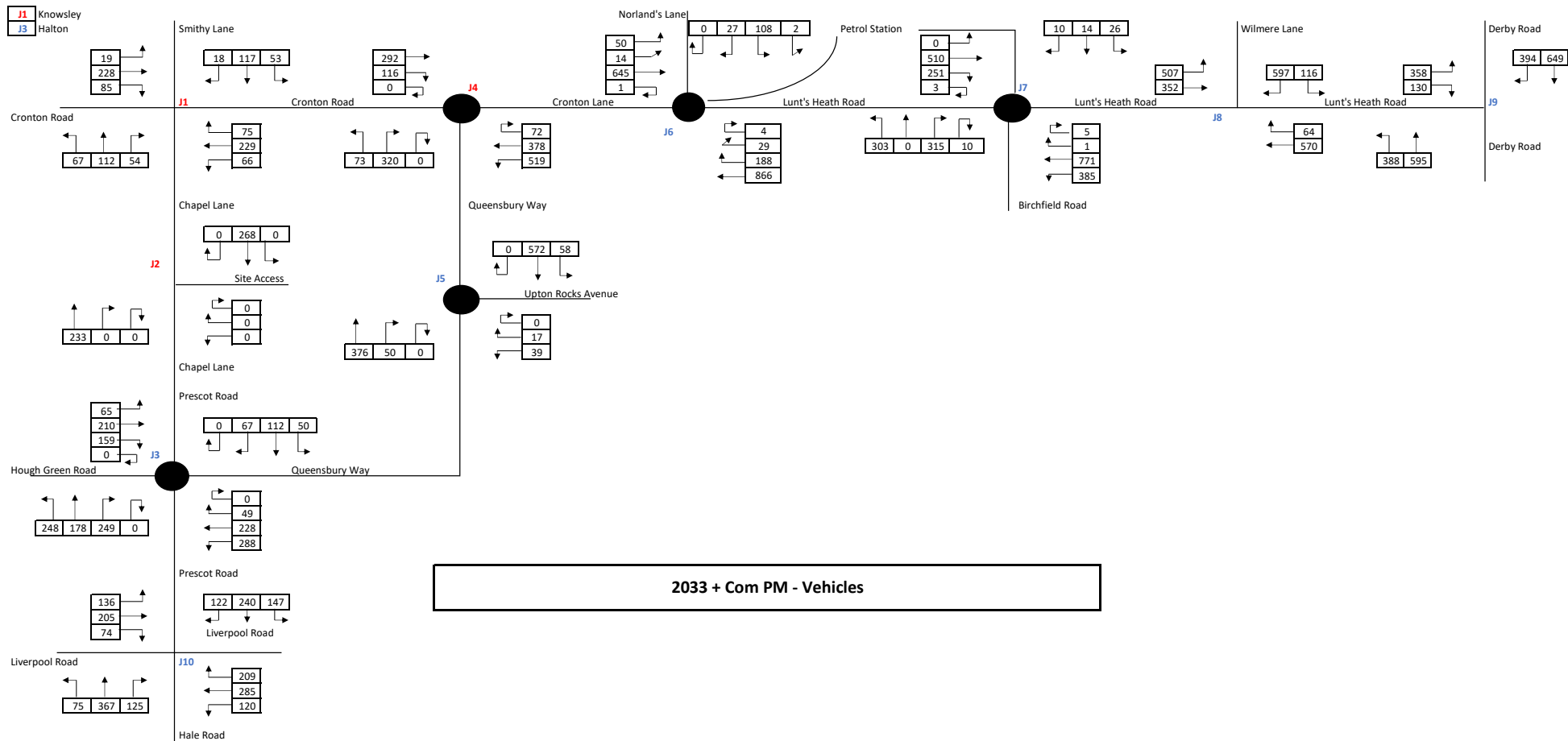


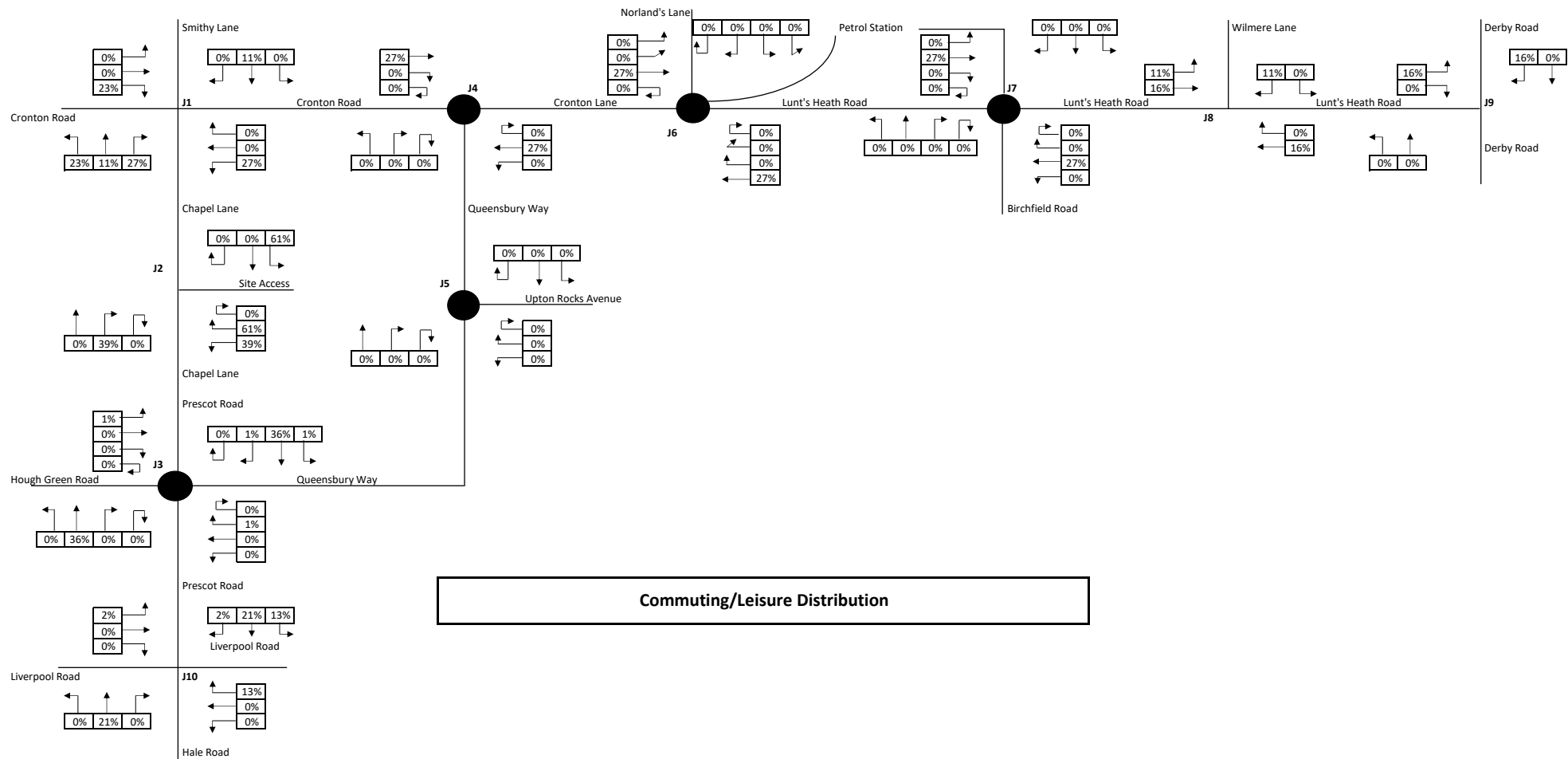


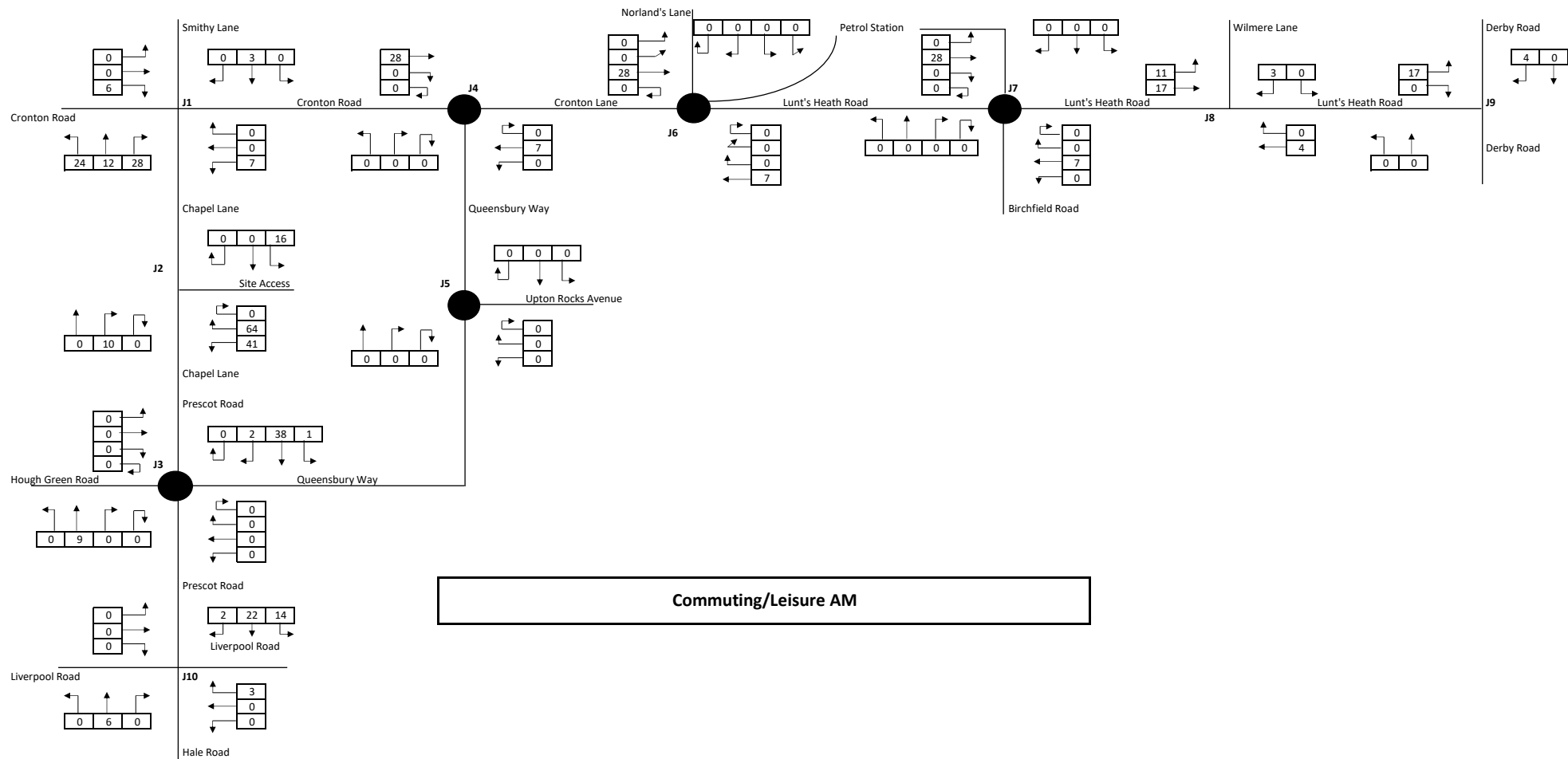


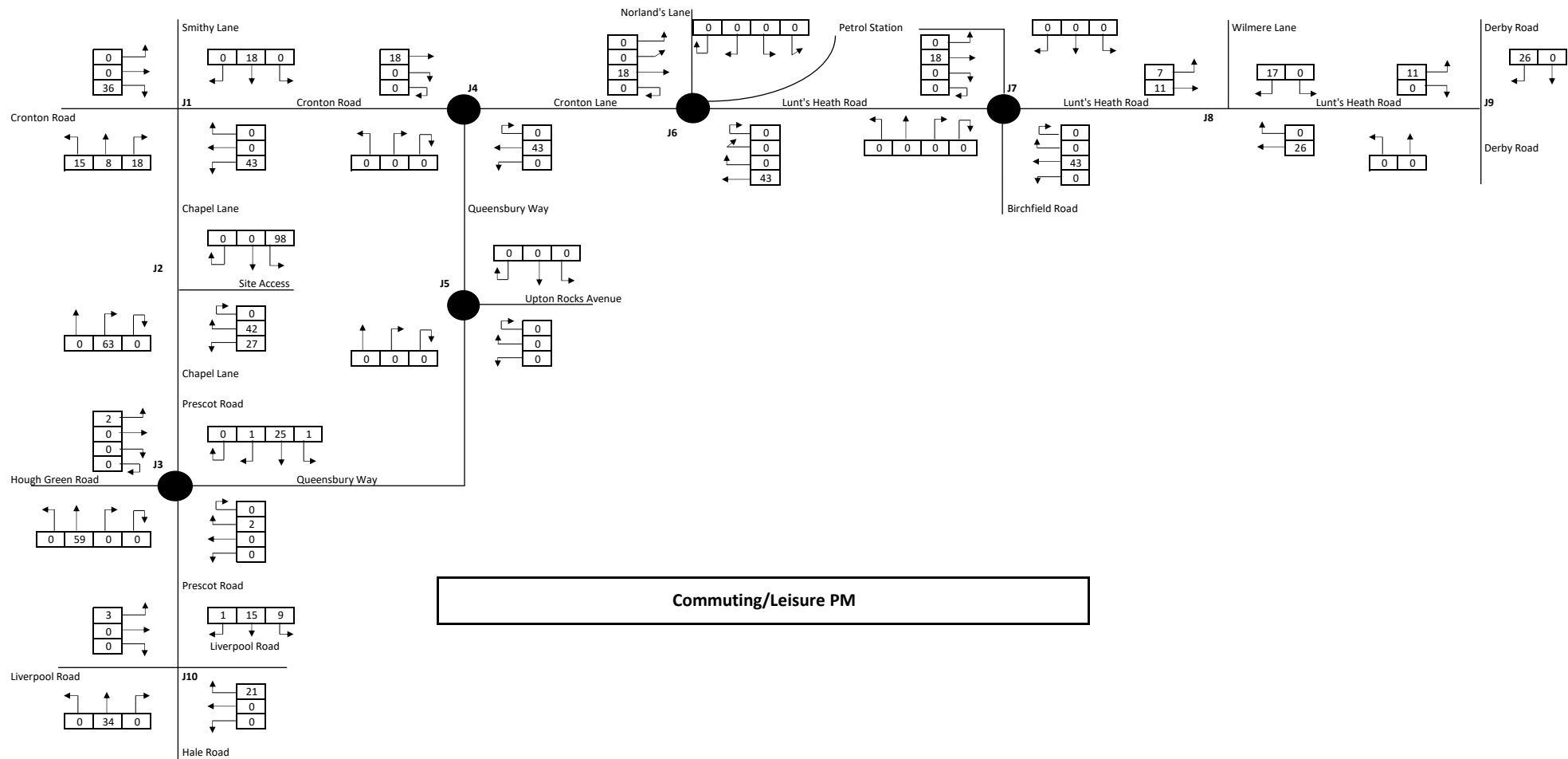


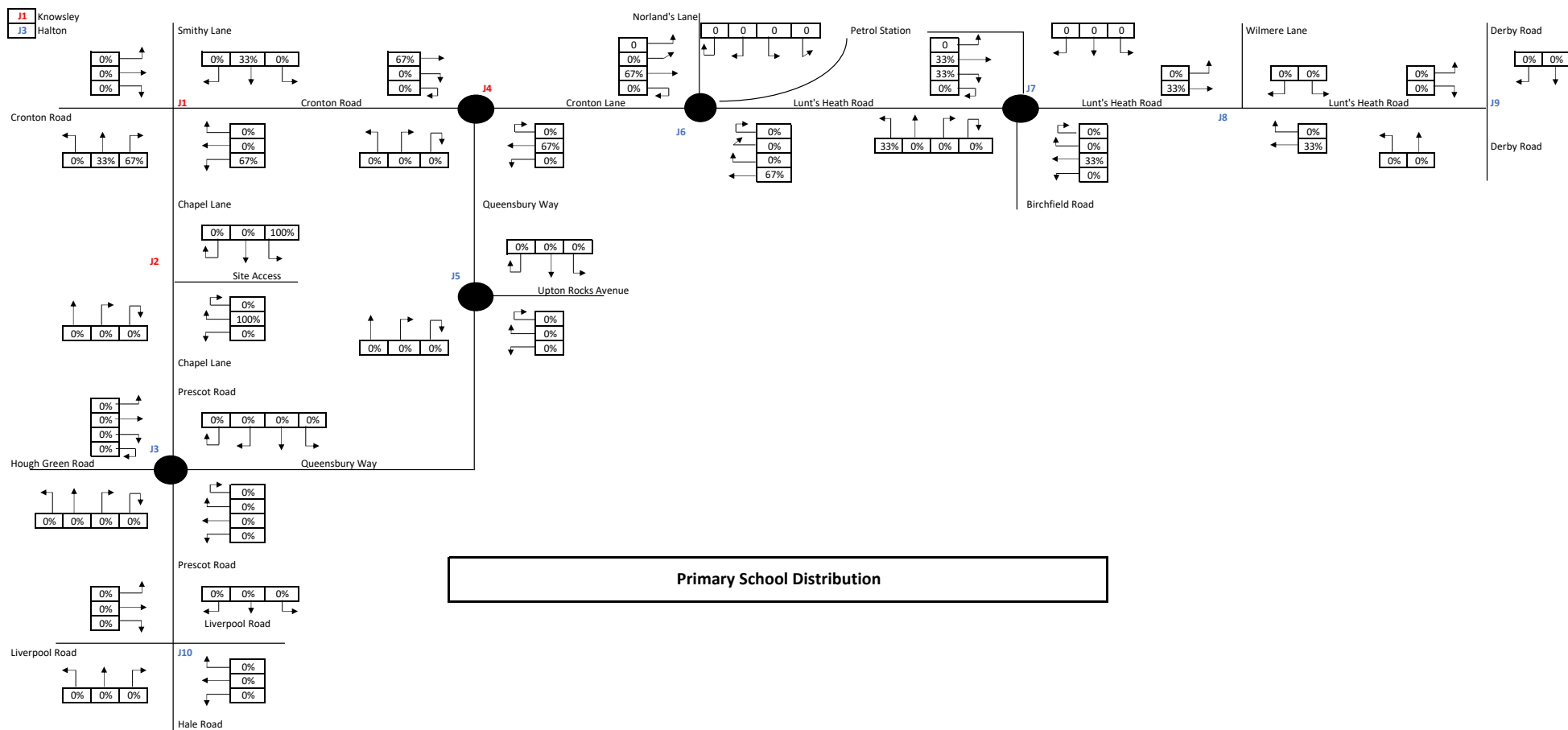


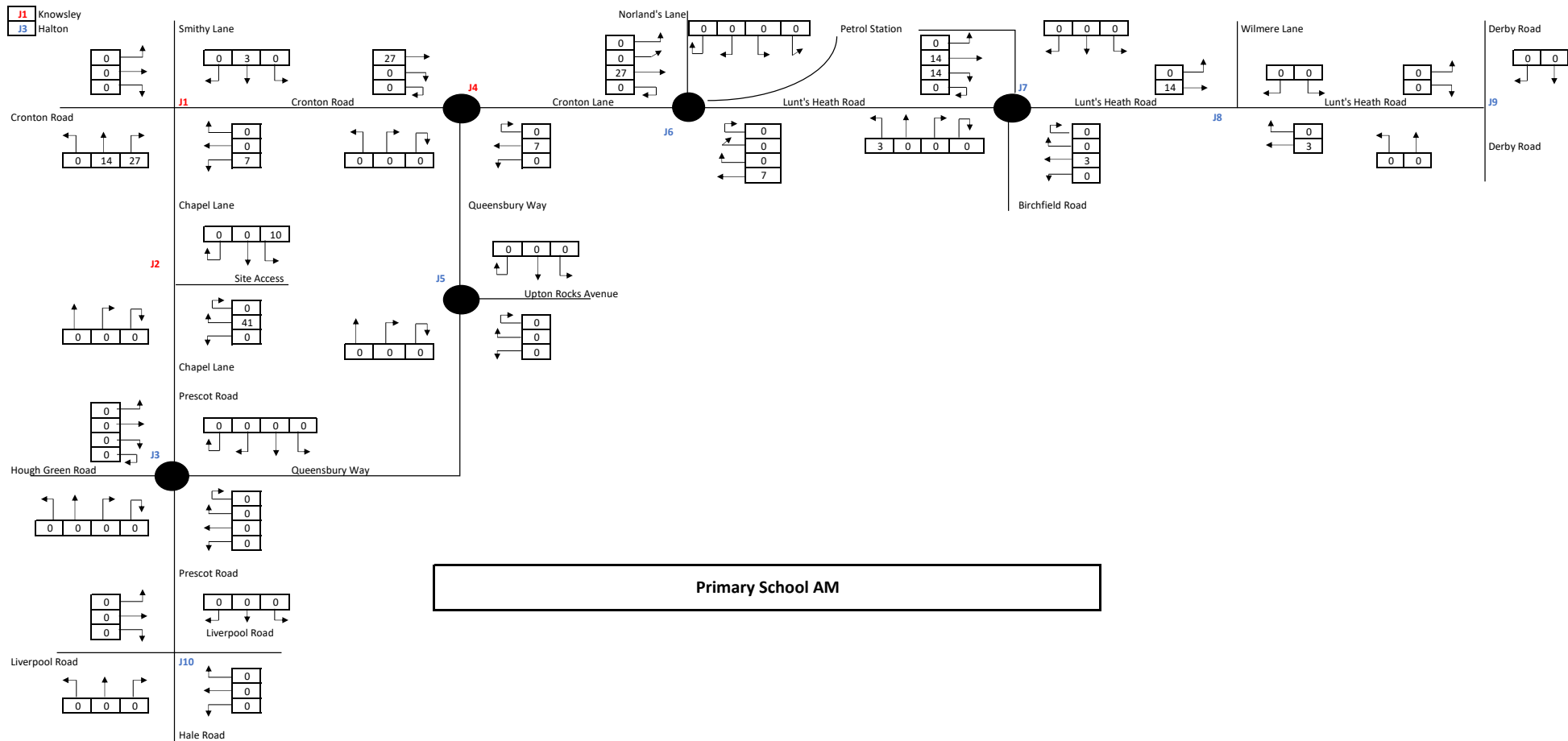


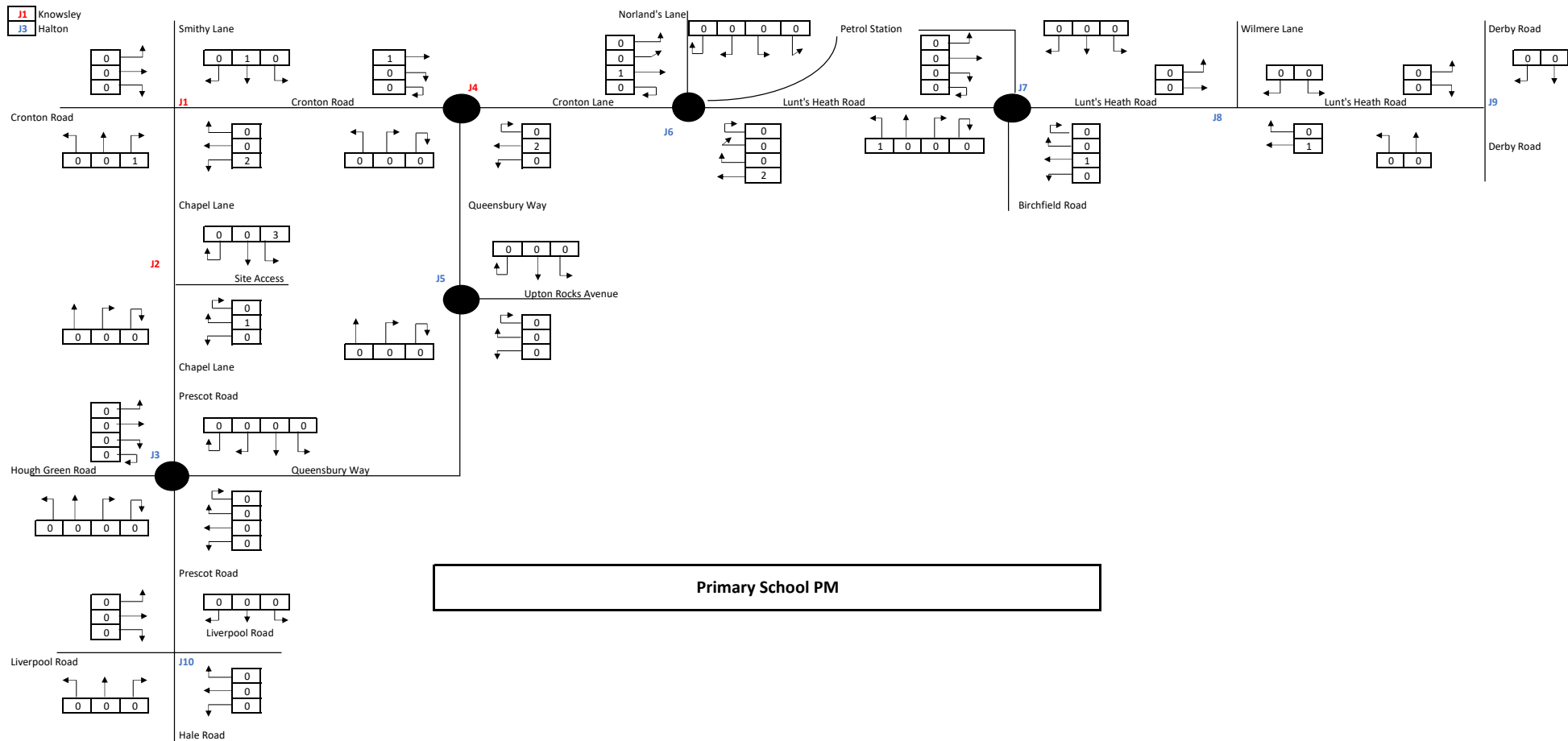


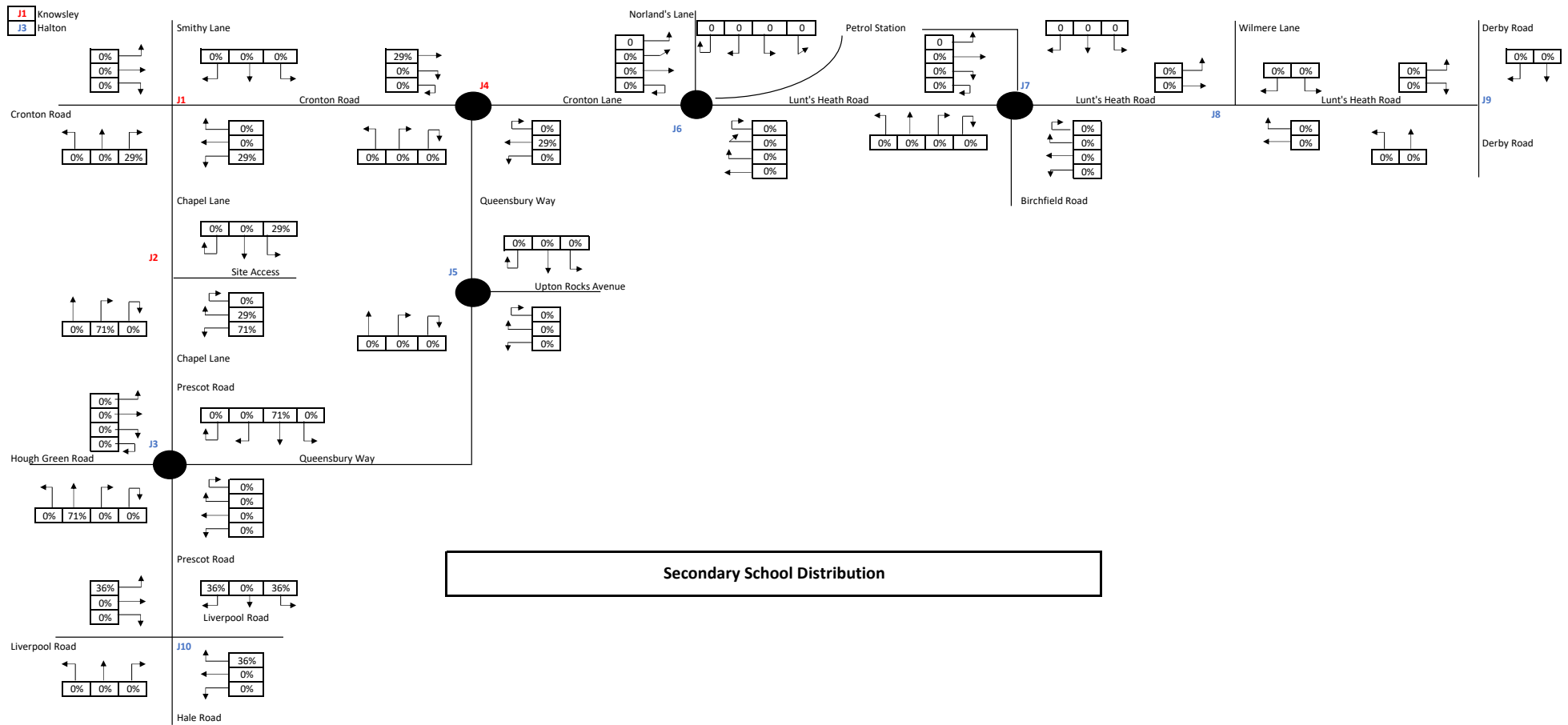


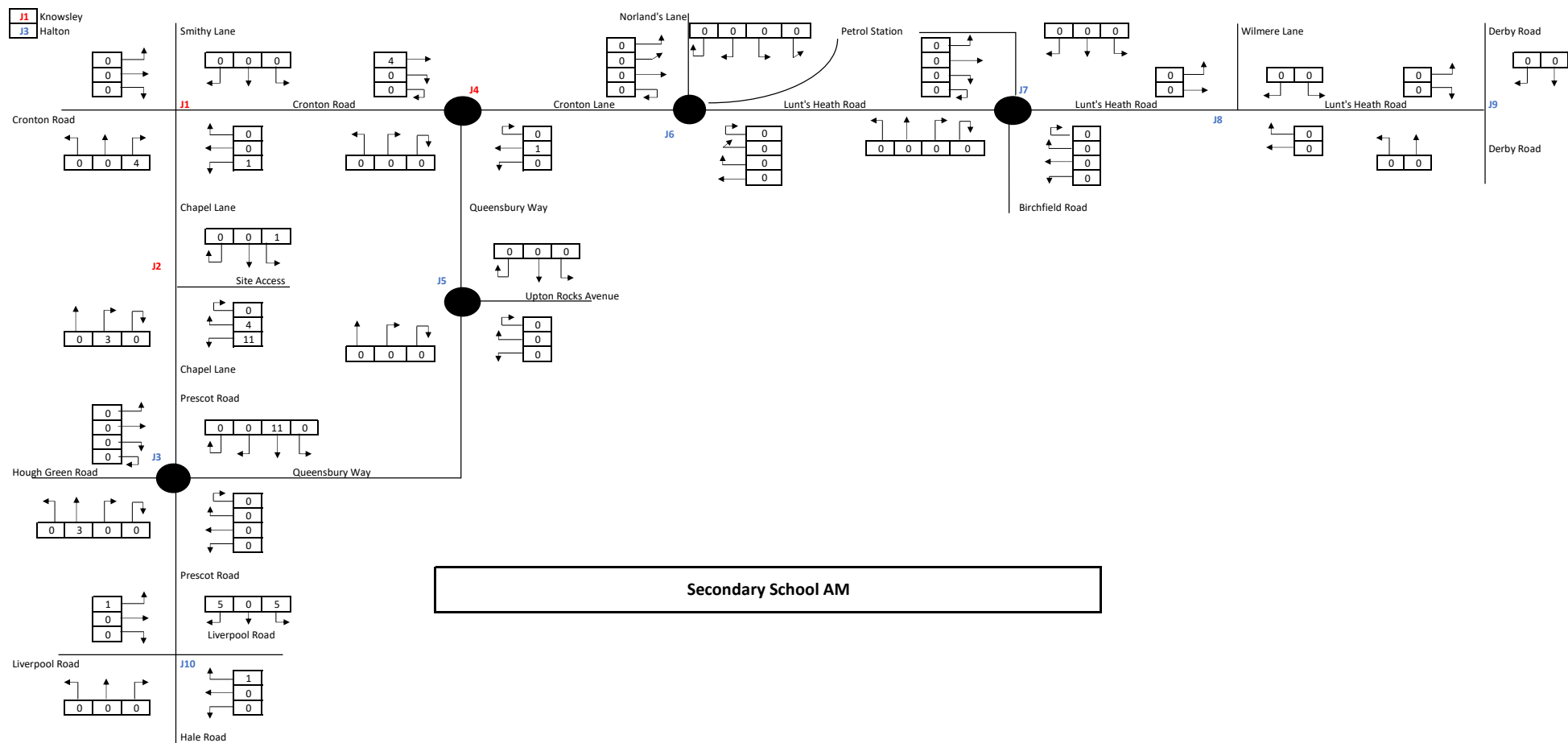




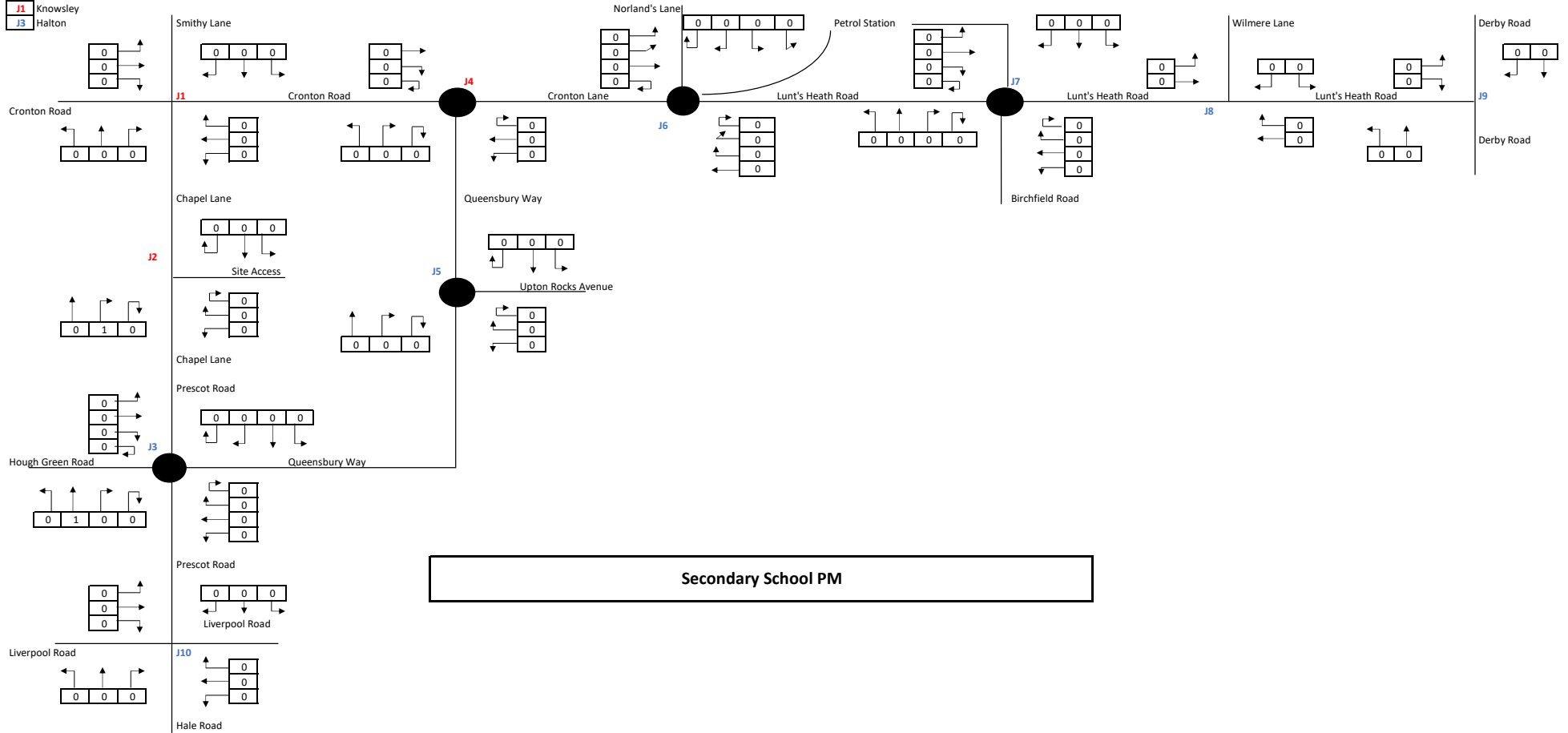




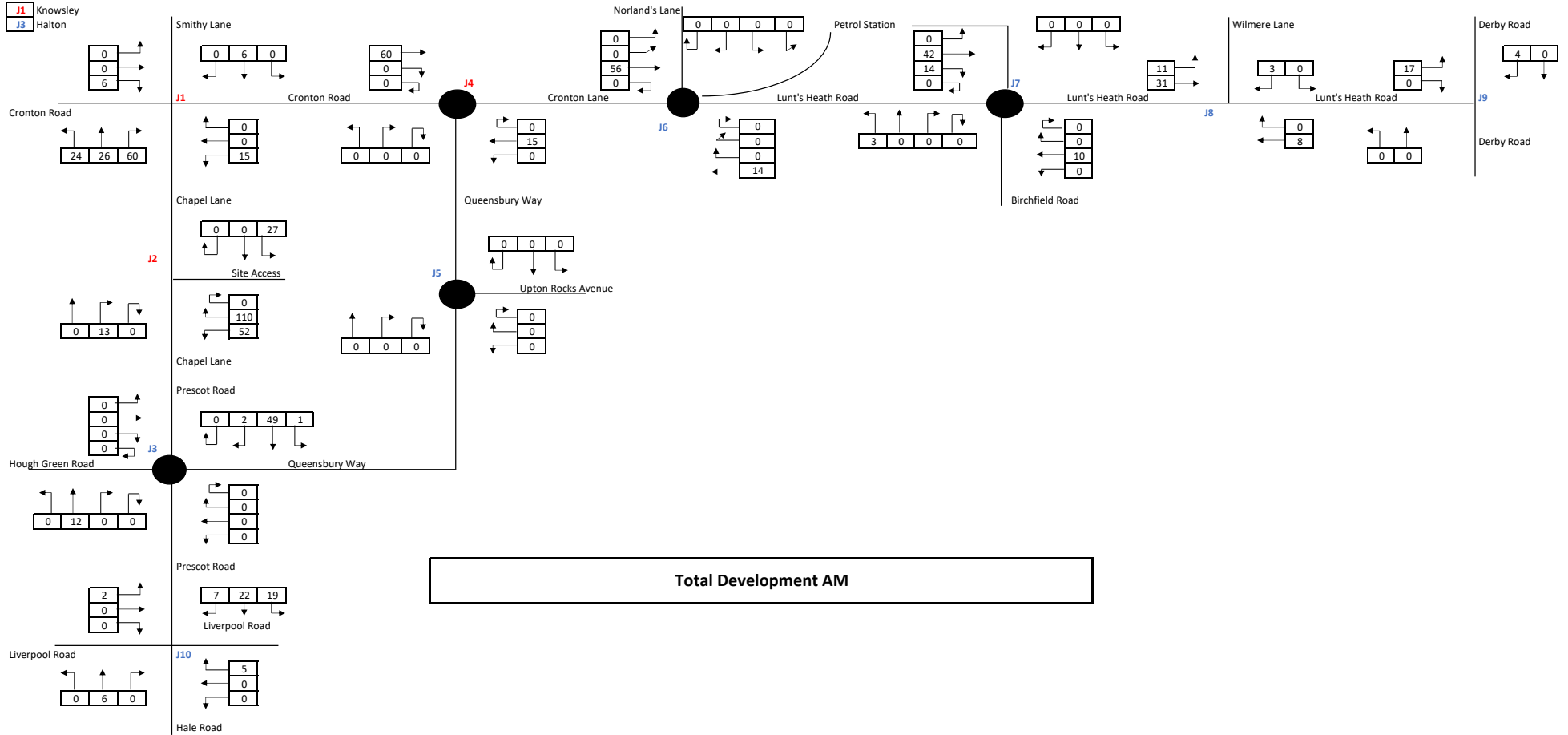




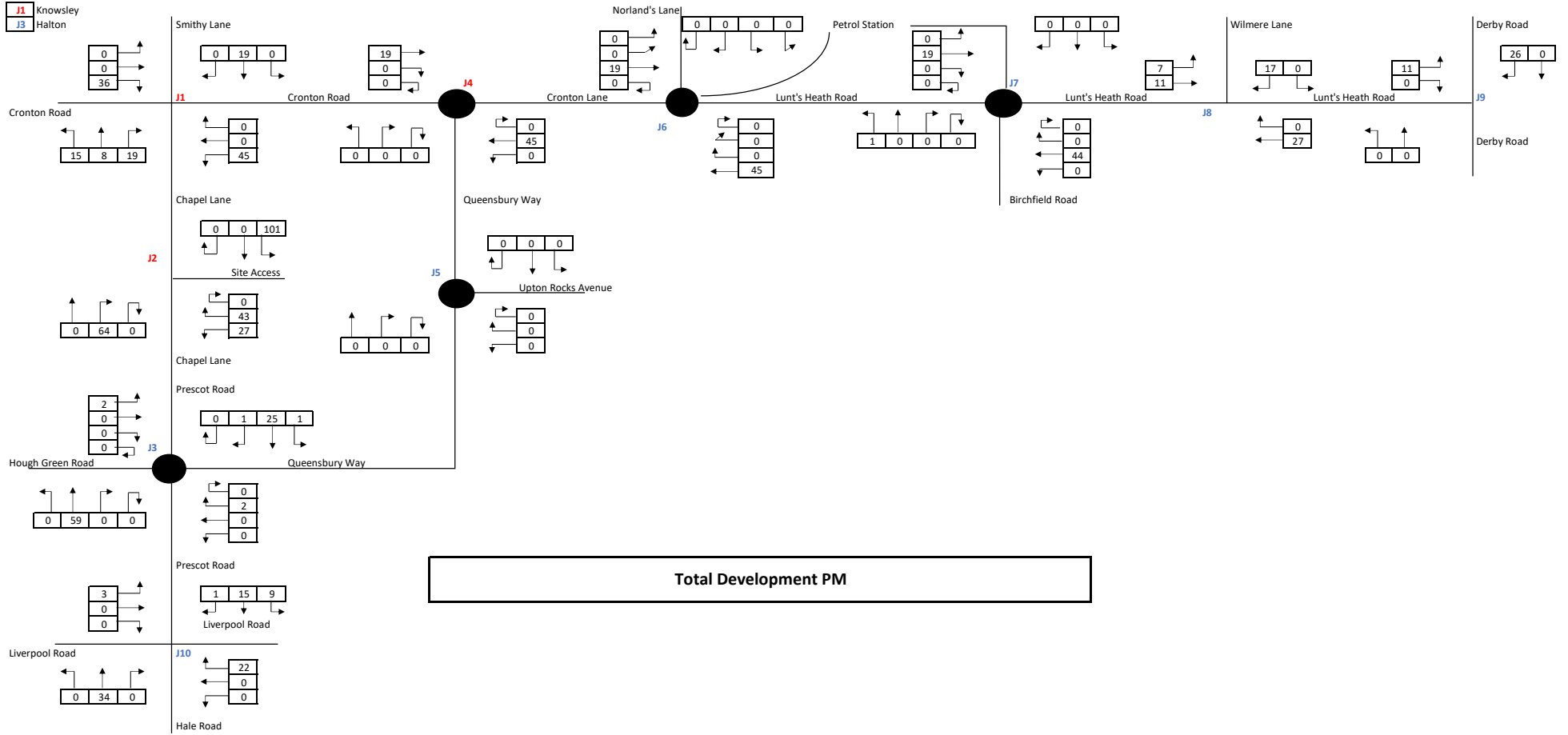
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J3 Halton

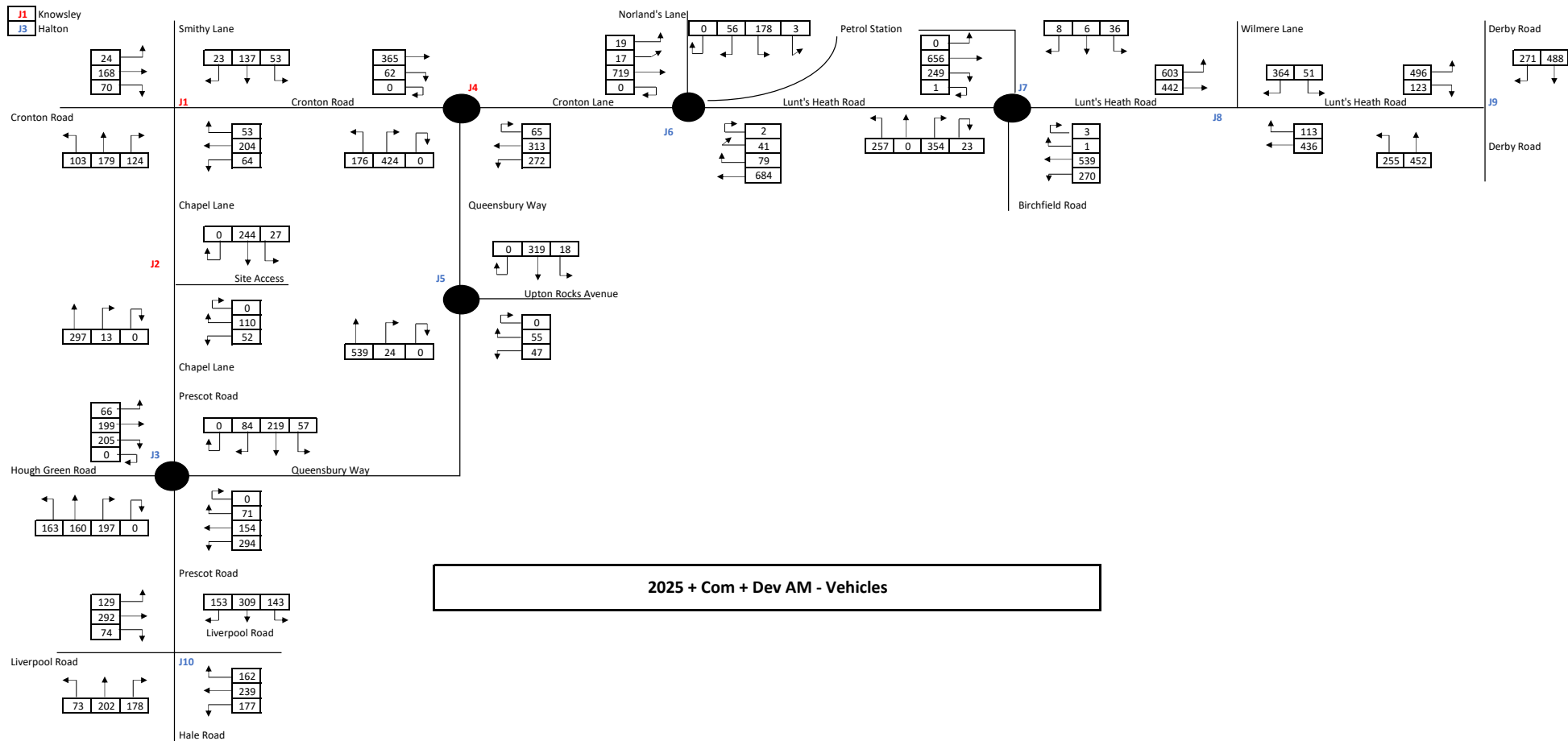


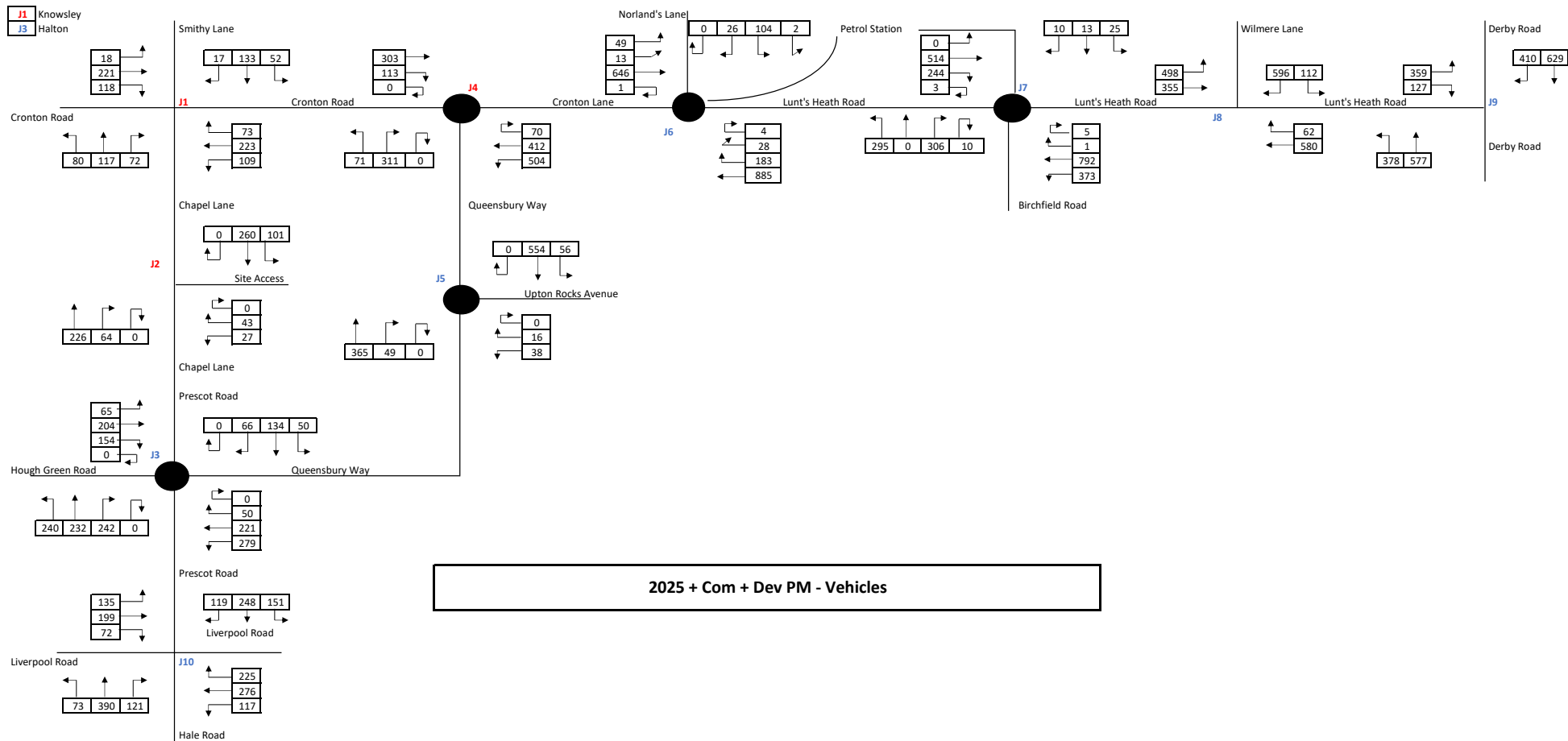
J1 Knowsley
J3 Halton

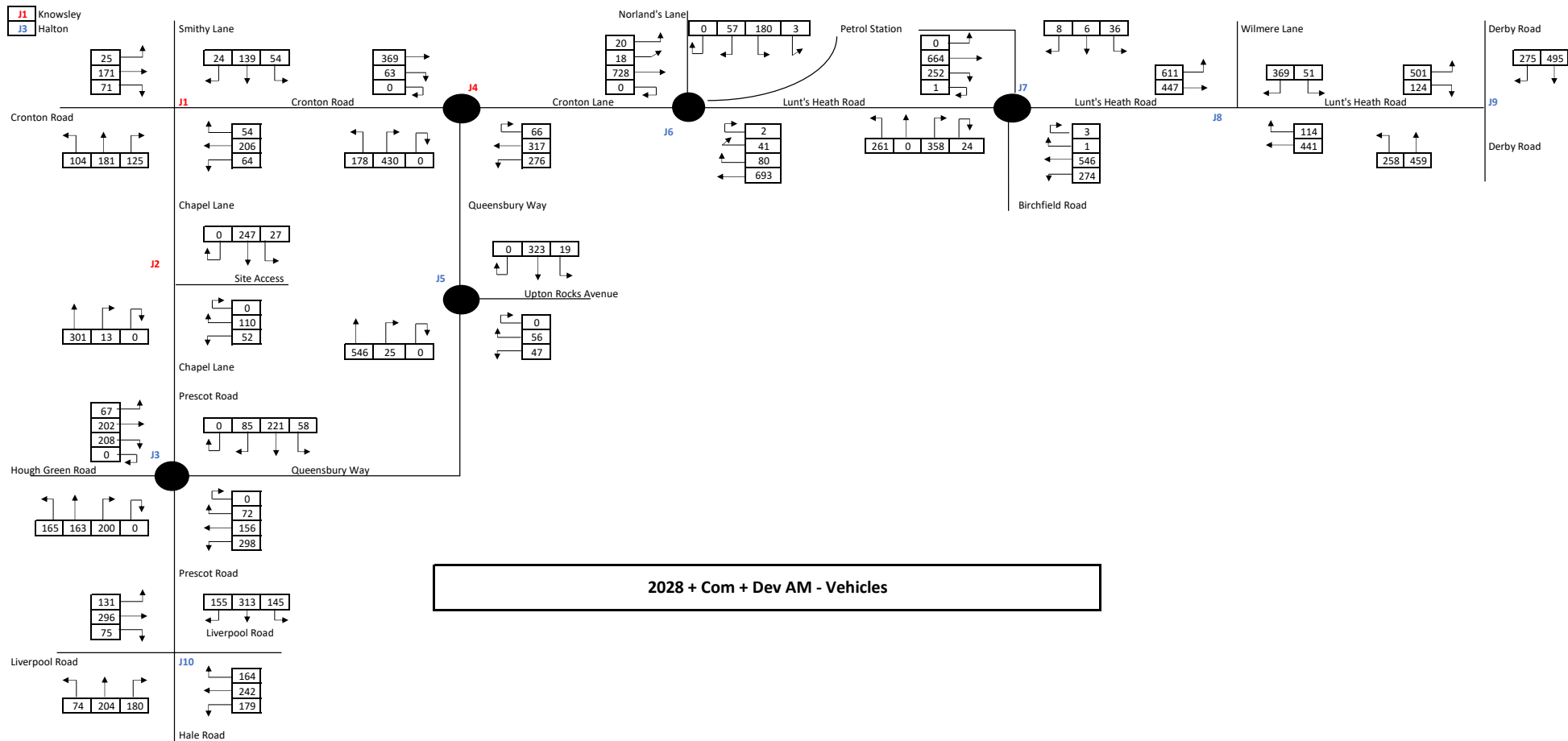


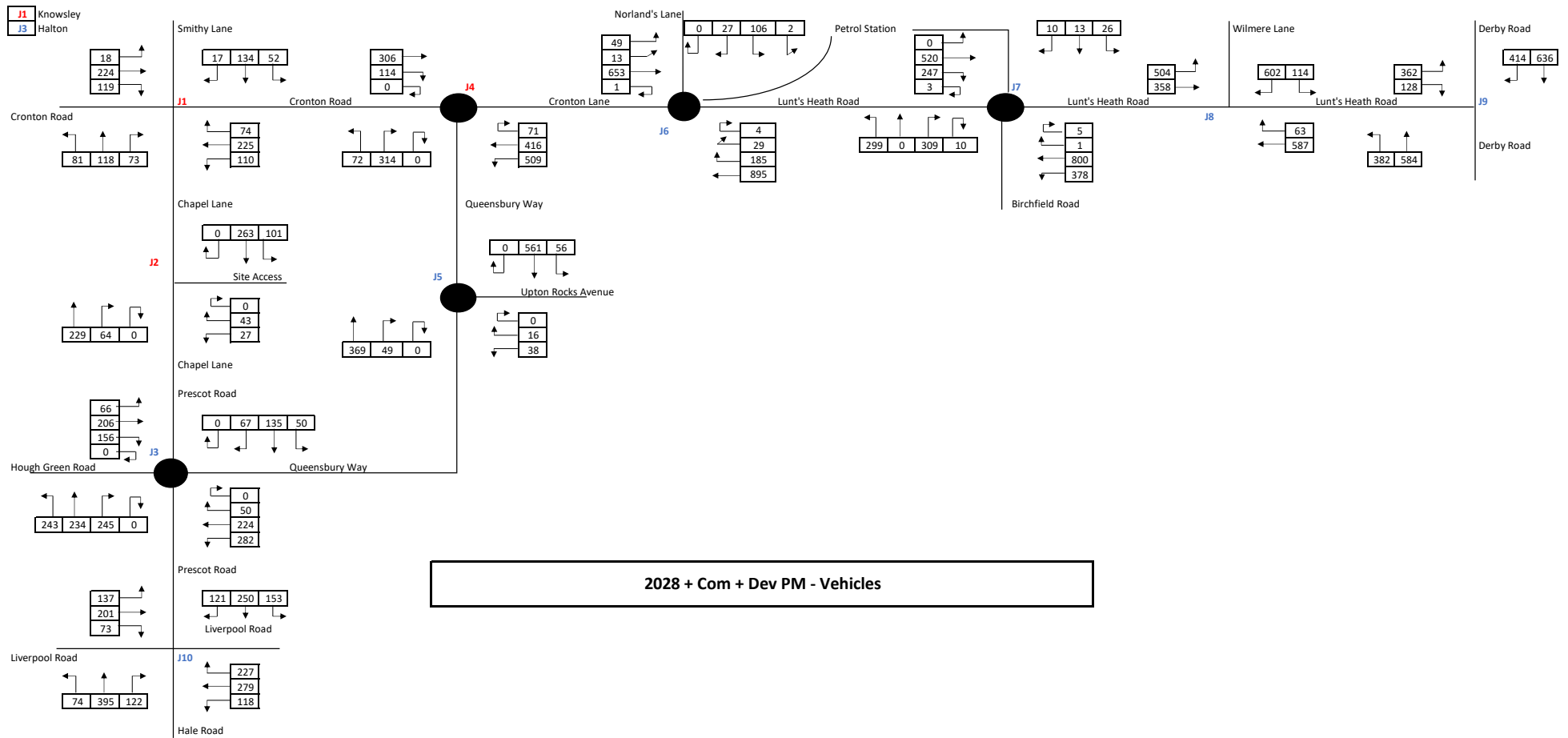
J1 Knowsley
J3 Halton

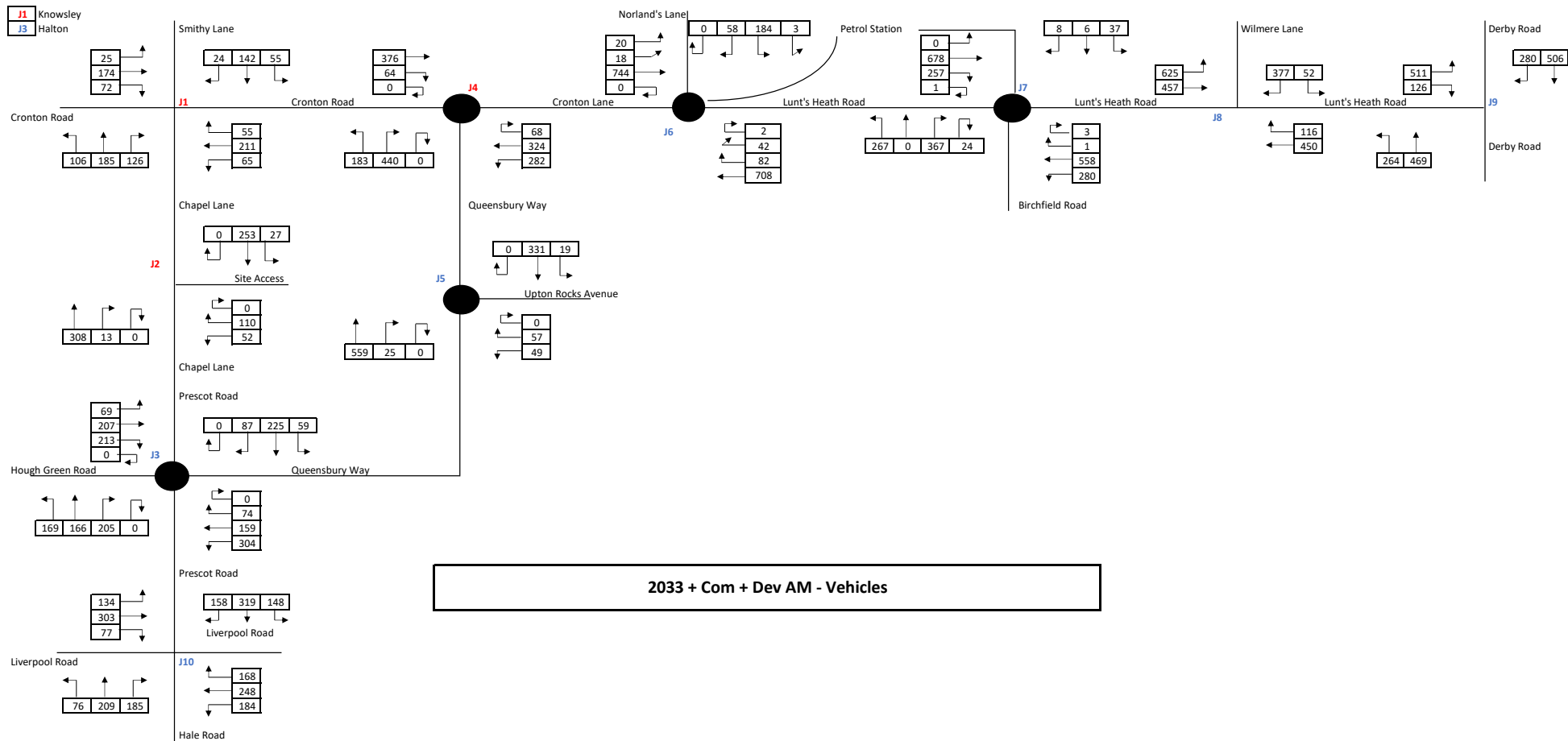


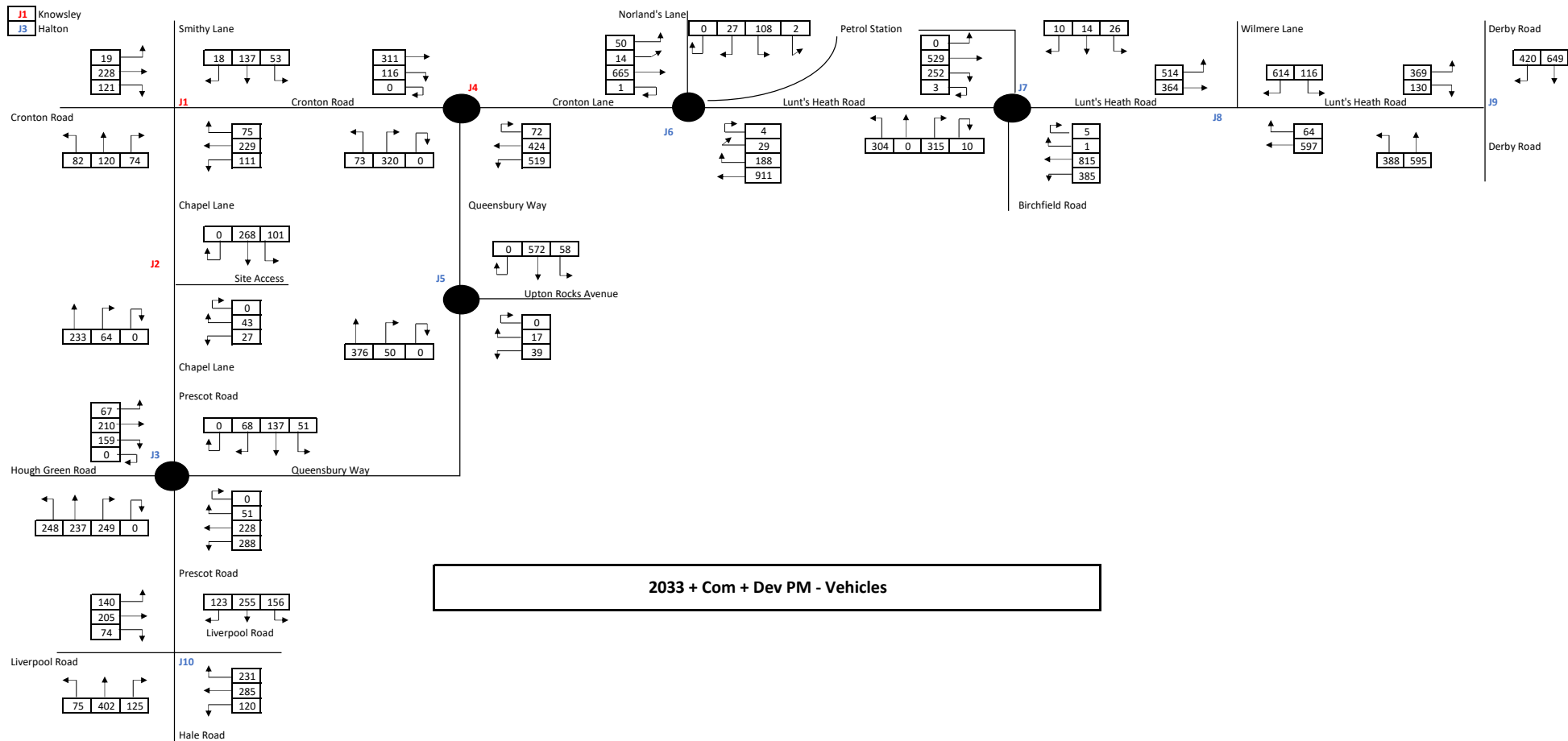












Appendix I

Junctions 10		
PICADY 10 - Priority Intersection Module		
Version: 10.0.4.1693 © 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: 216175-Site Access (PD03 Rev D)-V2.j10

Path: O:\Cardiff\Vectos\CardiffShare\Projects\W210000\216175 - Chapel Lane, Halton\Technical\D - Transport Assessment\Modelling\Picady

Report generation date: 17/05/2023 09:47:46

»2025 + Com + Dev, AM

»2025 + Com + Dev, PM

»2028 + Com + Dev, AM

»2028 + Com + Dev, PM

»2033 + Com + Dev, AM

»2033 + Com + Dev, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2025 + Com + Dev						
Stream B-AC	0.6	12.76	0.39	0.2	9.55	0.17
Stream C-AB	0.0	6.32	0.02	0.1	7.35	0.13
2028 + Com + Dev						
Stream B-AC	0.6	12.83	0.39	0.2	9.59	0.17
Stream C-AB	0.0	6.33	0.02	0.1	7.37	0.13
2033 + Com + Dev						
Stream B-AC	0.6	12.96	0.39	0.2	9.64	0.17
Stream C-AB	0.0	6.35	0.02	0.1	7.39	0.13

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	21/07/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	VECTOS\ben.stone
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
D3	2025 + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D4	2025 + Com + Dev	PM	ONE HOUR	16:15	17:45	15	✓
D5	2028 + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2028 + Com + Dev	PM	ONE HOUR	16:15	17:45	15	✓
D7	2033 + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D8	2033 + Com + Dev	PM	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

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

2025 + Com + Dev, 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		2.86	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.86	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		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	6.14		✓	3.00	59.0	✓	5.00

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	3.80	30	21

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	538	0.097	0.244	0.154	0.349
B-C	688	0.106	0.267	-	-
C-B	661	0.255	0.255	-	-

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
D3	2025 + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	271	100.000
B		ONE HOUR	✓	162	100.000
C		ONE HOUR	✓	310	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	27	244
	B	110	0	52
	C	297	13	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	2
	B	0	0	0
	C	1	0	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	0.39	12.76	0.6	B	149	223
C-AB	0.02	6.32	0.0	A	12	18
C-A					273	409
A-B					25	37
A-C					224	336

Main Results for each time segment

07:45 - 08:00

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	122	30	498	0.245	121	0.0	0.3	9.506	A
C-AB	10	2	608	0.016	10	0.0	0.0	6.015	A
C-A	224	56			224				
A-B	20	5			20				
A-C	184	46			184				

08:00 - 08:15

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	146	36	482	0.302	145	0.3	0.4	10.665	B
C-AB	12	3	598	0.020	12	0.0	0.0	6.139	A
C-A	267	67			267				
A-B	24	6			24				
A-C	219	55			219				

08:15 - 08:30

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	178	45	460	0.387	178	0.4	0.6	12.696	B
C-AB	14	4	584	0.025	14	0.0	0.0	6.321	A
C-A	327	82			327				
A-B	30	7			30				
A-C	269	67			269				

08:30 - 08:45

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	178	45	460	0.387	178	0.6	0.6	12.764	B
C-AB	14	4	584	0.025	14	0.0	0.0	6.321	A
C-A	327	82			327				
A-B	30	7			30				
A-C	269	67			269				

08:45 - 09:00

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	146	36	482	0.302	146	0.6	0.4	10.742	B
C-AB	12	3	598	0.020	12	0.0	0.0	6.142	A
C-A	267	67			267				
A-B	24	6			24				
A-C	219	55			219				

09:00 - 09:15

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	122	30	498	0.245	122	0.4	0.3	9.595	A
C-AB	10	2	608	0.016	10	0.0	0.0	6.017	A
C-A	224	56			224				
A-B	20	5			20				
A-C	184	46			184				

2025 + Com + Dev, 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		1.58	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.58	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
D4	2025 + Com + Dev	PM	ONE HOUR	16:15	17:45	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	✓	361	100.000
B		ONE HOUR	✓	70	100.000
C		ONE HOUR	✓	290	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	101	260
	B	43	0	27
	C	226	64	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	0
	B	0	0	0
	C	1	0	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	0.17	9.55	0.2	A	64	96
C-AB	0.13	7.35	0.1	A	59	88
C-A					207	311
A-B					93	139
A-C					239	358

Main Results for each time segment

16:15 - 16:30

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	53	13	497	0.106	52	0.0	0.1	8.089	A
C-AB	48	12	592	0.081	48	0.0	0.1	6.612	A
C-A	170	43			170				
A-B	76	19			76				
A-C	196	49			196				

16:30 - 16:45

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	63	16	479	0.131	63	0.1	0.1	8.649	A
C-AB	58	14	578	0.099	57	0.1	0.1	6.909	A
C-A	203	51			203				
A-B	91	23			91				
A-C	234	58			234				

16:45 - 17:00

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	77	19	454	0.170	77	0.1	0.2	9.544	A
C-AB	70	18	560	0.126	70	0.1	0.1	7.351	A
C-A	249	62			249				
A-B	111	28			111				
A-C	286	72			286				

17:00 - 17:15

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	77	19	454	0.170	77	0.2	0.2	9.554	A
C-AB	70	18	560	0.126	70	0.1	0.1	7.354	A
C-A	249	62			249				
A-B	111	28			111				
A-C	286	72			286				

17:15 - 17:30

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	63	16	479	0.131	63	0.2	0.2	8.664	A
C-AB	58	14	578	0.099	58	0.1	0.1	6.916	A
C-A	203	51			203				
A-B	91	23			91				
A-C	234	58			234				

17:30 - 17:45

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	53	13	497	0.106	53	0.2	0.1	8.112	A
C-AB	48	12	592	0.081	48	0.1	0.1	6.625	A
C-A	170	43			170				
A-B	76	19			76				
A-C	196	49			196				

2028 + Com + Dev, 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		2.85	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.85	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
D5	2028 + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	274	100.000
B		ONE HOUR	✓	162	100.000
C		ONE HOUR	✓	314	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	27	247
	B	110	0	52
	C	301	13	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	2
	B	0	0	0
	C	1	0	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	0.39	12.83	0.6	B	149	223
C-AB	0.02	6.33	0.0	A	12	18
C-A					276	414
A-B					25	37
A-C					227	340

Main Results for each time segment

07:45 - 08:00

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	122	30	497	0.245	121	0.0	0.3	9.531	A
C-AB	10	2	608	0.016	10	0.0	0.0	6.021	A
C-A	227	57			227				
A-B	20	5			20				
A-C	186	46			186				

08:00 - 08:15

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	146	36	481	0.303	145	0.3	0.4	10.702	B
C-AB	12	3	597	0.020	12	0.0	0.0	6.147	A
C-A	271	68			271				
A-B	24	6			24				
A-C	222	56			222				

08:15 - 08:30

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	178	45	459	0.389	178	0.4	0.6	12.761	B
C-AB	14	4	583	0.025	14	0.0	0.0	6.330	A
C-A	331	83			331				
A-B	30	7			30				
A-C	272	68			272				

08:30 - 08:45

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	178	45	459	0.389	178	0.6	0.6	12.829	B
C-AB	14	4	583	0.025	14	0.0	0.0	6.330	A
C-A	331	83			331				
A-B	30	7			30				
A-C	272	68			272				

08:45 - 09:00

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	146	36	481	0.303	146	0.6	0.4	10.780	B
C-AB	12	3	597	0.020	12	0.0	0.0	6.147	A
C-A	271	68			271				
A-B	24	6			24				
A-C	222	56			222				

09:00 - 09:15

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	122	30	497	0.245	122	0.4	0.3	9.618	A
C-AB	10	2	608	0.016	10	0.0	0.0	6.023	A
C-A	227	57			227				
A-B	20	5			20				
A-C	186	46			186				

2028 + Com + Dev, 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		1.57	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.57	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
D6	2028 + Com + Dev	PM	ONE HOUR	16:15	17:45	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	✓	364	100.000
B		ONE HOUR	✓	70	100.000
C		ONE HOUR	✓	293	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	101	263
	B	43	0	27
	C	229	64	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	0
	B	0	0	0
	C	1	0	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	0.17	9.59	0.2	A	64	96
C-AB	0.13	7.37	0.1	A	59	88
C-A					210	315
A-B					93	139
A-C					241	362

Main Results for each time segment

16:15 - 16:30

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	53	13	496	0.106	52	0.0	0.1	8.104	A
C-AB	48	12	591	0.081	48	0.0	0.1	6.619	A
C-A	172	43			172				
A-B	76	19			76				
A-C	198	50			198				

16:30 - 16:45

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	63	16	478	0.132	63	0.1	0.2	8.671	A
C-AB	58	14	578	0.100	57	0.1	0.1	6.919	A
C-A	206	51			206				
A-B	91	23			91				
A-C	236	59			236				

16:45 - 17:00

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	77	19	453	0.170	77	0.2	0.2	9.577	A
C-AB	70	18	559	0.126	70	0.1	0.1	7.364	A
C-A	252	63			252				
A-B	111	28			111				
A-C	290	72			290				

17:00 - 17:15

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	77	19	453	0.170	77	0.2	0.2	9.587	A
C-AB	70	18	559	0.126	70	0.1	0.1	7.367	A
C-A	252	63			252				
A-B	111	28			111				
A-C	290	72			290				

17:15 - 17:30

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	63	16	478	0.132	63	0.2	0.2	8.686	A
C-AB	58	14	578	0.100	58	0.1	0.1	6.925	A
C-A	206	51			206				
A-B	91	23			91				
A-C	236	59			236				

17:30 - 17:45

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	53	13	496	0.106	53	0.2	0.1	8.129	A
C-AB	48	12	591	0.081	48	0.1	0.1	6.632	A
C-A	172	43			172				
A-B	76	19			76				
A-C	198	50			198				

2033 + Com + Dev, 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		2.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.83	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	2033 + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	280	100.000
B		ONE HOUR	✓	162	100.000
C		ONE HOUR	✓	321	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	27	253
	B	110	0	52
	C	308	13	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	2
	B	0	0	0
	C	1	0	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	0.39	12.96	0.6	B	149	223
C-AB	0.02	6.35	0.0	A	12	18
C-A					283	424
A-B					25	37
A-C					232	348

Main Results for each time segment

07:45 - 08:00

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	122	30	495	0.246	121	0.0	0.3	9.578	A
C-AB	10	2	606	0.016	10	0.0	0.0	6.032	A
C-A	232	58			232				
A-B	20	5			20				
A-C	190	48			190				

08:00 - 08:15

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	146	36	479	0.304	145	0.3	0.4	10.773	B
C-AB	12	3	596	0.020	12	0.0	0.0	6.162	A
C-A	277	69			277				
A-B	24	6			24				
A-C	227	57			227				

08:15 - 08:30

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	178	45	456	0.391	178	0.4	0.6	12.885	B
C-AB	14	4	581	0.025	14	0.0	0.0	6.349	A
C-A	339	85			339				
A-B	30	7			30				
A-C	279	70			279				

08:30 - 08:45

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	178	45	456	0.391	178	0.6	0.6	12.957	B
C-AB	14	4	581	0.025	14	0.0	0.0	6.349	A
C-A	339	85			339				
A-B	30	7			30				
A-C	279	70			279				

08:45 - 09:00

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	146	36	479	0.304	146	0.6	0.4	10.850	B
C-AB	12	3	596	0.020	12	0.0	0.0	6.164	A
C-A	277	69			277				
A-B	24	6			24				
A-C	227	57			227				

09:00 - 09:15

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	122	30	495	0.246	122	0.4	0.3	9.666	A
C-AB	10	2	606	0.016	10	0.0	0.0	6.033	A
C-A	232	58			232				
A-B	20	5			20				
A-C	190	48			190				

2033 + Com + Dev, 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		1.55	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.55	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
D8	2033 + Com + Dev	PM	ONE HOUR	16:15	17:45	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	✓	369	100.000
B		ONE HOUR	✓	70	100.000
C		ONE HOUR	✓	297	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	101	268
	B	43	0	27
	C	233	64	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	0
	B	0	0	0
	C	1	0	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	0.17	9.64	0.2	A	64	96
C-AB	0.13	7.39	0.1	A	59	88
C-A					214	321
A-B					93	139
A-C					246	369

Main Results for each time segment

16:15 - 16:30

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	53	13	495	0.107	52	0.0	0.1	8.129	A
C-AB	48	12	590	0.082	48	0.0	0.1	6.631	A
C-A	175	44			175				
A-B	76	19			76				
A-C	202	50			202				

16:30 - 16:45

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	63	16	476	0.132	63	0.1	0.2	8.704	A
C-AB	58	14	577	0.100	57	0.1	0.1	6.934	A
C-A	209	52			209				
A-B	91	23			91				
A-C	241	60			241				

16:45 - 17:00

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	77	19	451	0.171	77	0.2	0.2	9.628	A
C-AB	70	18	558	0.126	70	0.1	0.1	7.385	A
C-A	257	64			257				
A-B	111	28			111				
A-C	295	74			295				

17:00 - 17:15

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	77	19	451	0.171	77	0.2	0.2	9.638	A
C-AB	70	18	558	0.126	70	0.1	0.1	7.388	A
C-A	257	64			257				
A-B	111	28			111				
A-C	295	74			295				

17:15 - 17:30

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	63	16	476	0.132	63	0.2	0.2	8.720	A
C-AB	58	14	577	0.100	58	0.1	0.1	6.937	A
C-A	209	52			209				
A-B	91	23			91				
A-C	241	60			241				

17:30 - 17:45

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	53	13	495	0.107	53	0.2	0.1	8.154	A
C-AB	48	12	590	0.082	48	0.1	0.1	6.643	A
C-A	175	44			175				
A-B	76	19			76				
A-C	202	50			202				

Appendix J

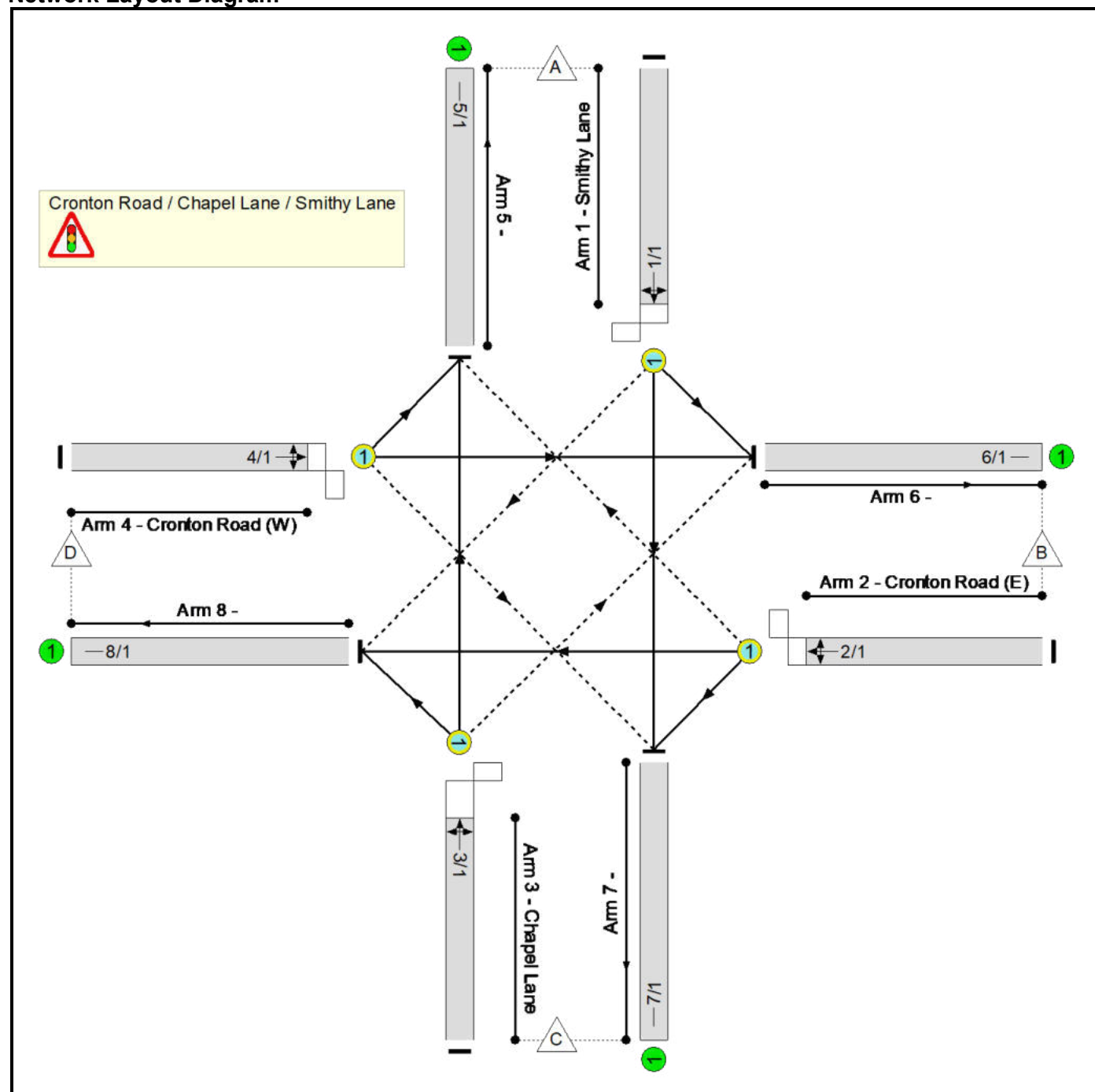
Full Input Data And Results

Full Input Data And Results

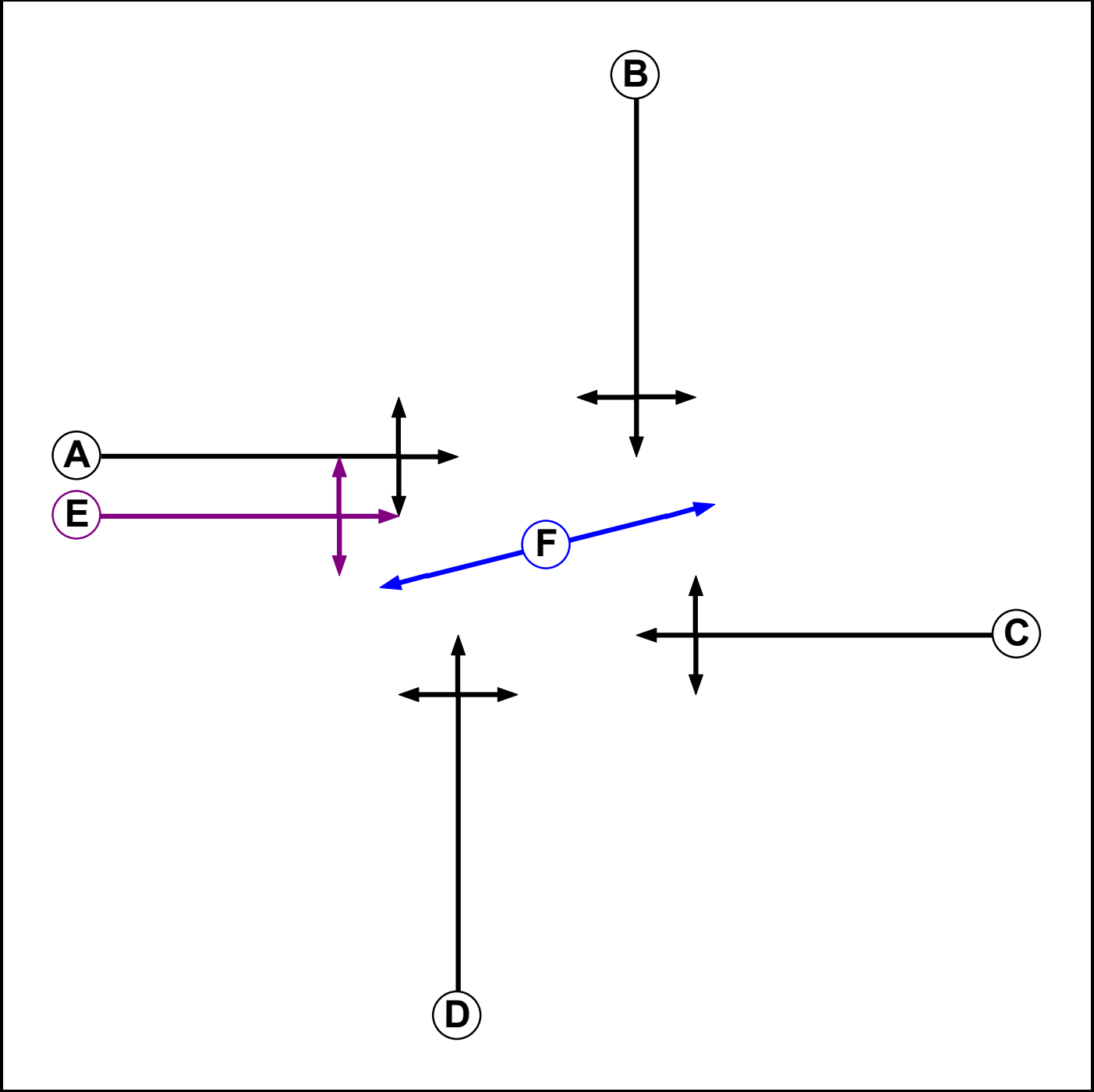
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	216175 - Cronton Rd_Chapel Ln_Smithy Ln - V3.lsg3x
Author:	Ben Stone
Company:	Vectos, part of SLR
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		-9999	7
B	Traffic		-9999	7
C	Traffic		-9999	7
D	Traffic		-9999	7
E	Ind. Arrow	A	-9999	4
F	Pedestrian		-9999	8

Full Input Data And Results

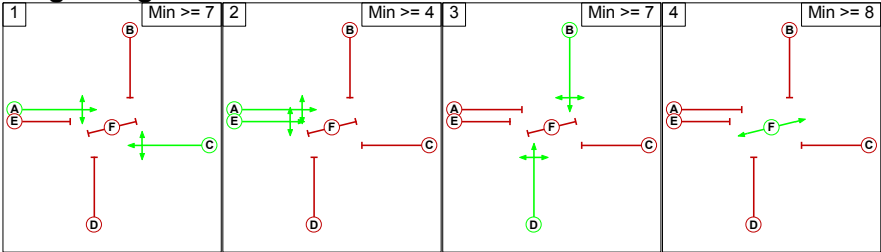
Phase Intergreens Matrix

Terminating Phase	Starting Phase						
		A	B	C	D	E	F
	A		7	-	7	-	12
	B	7		7	-	5	11
	C	-	7		7	7	12
	D	7	-	7		5	10
	E	-	8	7	8		8
	F	8	8	8	8	8	

Phases in Stage

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

Stage Diagram



Phase Delays

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

Prohibited Stage Change

From Stage	To Stage				
		1	2	3	4
	1		7	7	12
	2	7		8	12
	3	7	X		11
	4	8	8	8	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Cronton Road / Chapel Lane / Smithy 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)
1/1 (Smithy Lane)	8/1 (Right)	1439	0	3/1	1.09	To 5/1 (Ahead) To 8/1 (Left)	2.00	1.00	0.50	2	2.00
2/1 (Cronton Road (E))	5/1 (Right)	1439	0	4/1	1.09	To 5/1 (Left) To 6/1 (Ahead)	2.00	1.00	0.50	2	2.00
3/1 (Chapel Lane)	6/1 (Right)	1439	0	1/1	1.09	To 6/1 (Left) To 7/1 (Ahead)	3.00	1.00	0.50	3	3.00
4/1 (Cronton Road (W))	7/1 (Right)	1439	0	2/1	1.09	To 7/1 (Left) To 8/1 (Ahead)	2.00	1.00	0.50	2	2.00

Lane Input Data

Junction: Cronton Road / Chapel Lane / Smithy 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 (Smithy Lane)	O	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 6 Left	15.00
											Arm 7 Ahead	Inf
											Arm 8 Right	10.00
2/1 (Cronton Road (E))	O	C	2	3	60.0	Geom	-	3.30	0.00	Y	Arm 5 Right	10.00
											Arm 7 Left	7.00
											Arm 8 Ahead	Inf
3/1 (Chapel Lane)	O	D	2	3	60.0	Geom	-	2.75	0.00	Y	Arm 5 Ahead	Inf
											Arm 6 Right	10.00
											Arm 8 Left	7.00
4/1 (Cronton Road (W))	O	A E	2	3	60.0	Geom	-	3.80	0.00	Y	Arm 5 Left	14.00
											Arm 6 Ahead	Inf
											Arm 7 Right	8.00
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	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 Observed AM'	08:00	09:00	01:00	
2: '2022 Observed PM'	16:30	17:30	01:00	
3: '2025 + Com AM'	08:00	09:00	01:00	
4: '2025 + Com PM'	16:30	17:30	01:00	
5: '2028 + Com AM'	08:00	09:00	01:00	
6: '2028 + Com PM'	16:30	17:30	01:00	
7: '2033 + Com AM'	08:00	09:00	01:00	
8: '2033 + Com PM'	16:30	17:30	01:00	
9: '2025 + Com + Dev AM'	08:00	09:00	01:00	
10: '2025 + Com + Dev PM'	16:30	17:30	01:00	
11: '2028 + Com + Dev AM'	08:00	09:00	01:00	
12: '2028 + Com + Dev PM'	16:30	17:30	01:00	
13: '2033 + Com + Dev AM'	08:00	09:00	01:00	
14: '2033 + Com + Dev PM'	16:30	17:30	01:00	

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

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	55	130	24	209
	B	52	0	48	190	290
	C	152	63	0	78	293
	D	24	172	65	0	261
	Tot.	228	290	243	292	1053

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2022 Observed AM
Junction: Cronton Road / Chapel Lane / Smithy Lane	
1/1	209
2/1	290
3/1	293
4/1	261
5/1	228
6/1	290
7/1	243
8/1	292

Lane Saturation Flows

Junction: Cronton Road / Chapel Lane / Smithy 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 (Smithy Lane)	3.50	0.00	Y	Arm 6 Left	15.00	26.3 %	1883	1883
				Arm 7 Ahead	Inf	62.2 %		
				Arm 8 Right	10.00	11.5 %		
2/1 (Cronton Road (E))	3.30	0.00	Y	Arm 5 Right	10.00	17.9 %	1831	1831
				Arm 7 Left	7.00	16.6 %		
				Arm 8 Ahead	Inf	65.5 %		
3/1 (Chapel Lane)	2.75	0.00	Y	Arm 5 Ahead	Inf	51.9 %	1735	1735
				Arm 6 Right	10.00	21.5 %		
				Arm 8 Left	7.00	26.6 %		
4/1 (Cronton Road (W))	3.80	0.00	Y	Arm 5 Left	14.00	9.2 %	1888	1888
				Arm 6 Ahead	Inf	65.9 %		
				Arm 7 Right	8.00	24.9 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

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

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	53	112	18	183
	B	72	0	63	219	354
	C	108	51	0	65	224
	D	18	208	81	0	307
	Tot.	198	312	256	302	1068

Traffic Lane Flows

Lane	Scenario 2: 2022 Observed PM
Junction: Cronton Road / Chapel Lane / Smithy Lane	
1/1	183
2/1	354
3/1	224
4/1	307
5/1	198
6/1	312
7/1	256
8/1	302

Lane Saturation Flows

Junction: Cronton Road / Chapel Lane / Smithy 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 (Smithy Lane)	3.50	0.00	Y	Arm 6 Left	15.00	29.0 %	1883	1883
				Arm 7 Ahead	Inf	61.2 %		
				Arm 8 Right	10.00	9.8 %		
2/1 (Cronton Road (E))	3.30	0.00	Y	Arm 5 Right	10.00	20.3 %	1820	1820
				Arm 7 Left	7.00	17.8 %		
				Arm 8 Ahead	Inf	61.9 %		
3/1 (Chapel Lane)	2.75	0.00	Y	Arm 5 Ahead	Inf	48.2 %	1724	1724
				Arm 6 Right	10.00	22.8 %		
				Arm 8 Left	7.00	29.0 %		
4/1 (Cronton Road (W))	3.80	0.00	Y	Arm 5 Left	14.00	5.9 %	1890	1890
				Arm 6 Ahead	Inf	67.8 %		
				Arm 7 Right	8.00	26.4 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2025 + Com AM' (FG3: '2025 + Com AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

	Destination					
Origin	A	0	55	132	25	212
	B	53	0	49	210	312
	C	155	64	0	79	298
	D	25	179	66	0	270
	Tot.	233	298	247	314	1092

Traffic Lane Flows

Lane	Scenario 3: 2025 + Com AM
Junction: Cronton Road / Chapel Lane / Smithy Lane	
1/1	212
2/1	312
3/1	298
4/1	270
5/1	233
6/1	298
7/1	247
8/1	314

Lane Saturation Flows

Junction: Cronton Road / Chapel Lane / Smithy 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 (Smithy Lane)	3.50	0.00	Y	Arm 6 Left	15.00	25.9 %	1883	1883
				Arm 7 Ahead	Inf	62.3 %		
				Arm 8 Right	10.00	11.8 %		
2/1 (Cronton Road (E))	3.30	0.00	Y	Arm 5 Right	10.00	17.0 %	1836	1836
				Arm 7 Left	7.00	15.7 %		
				Arm 8 Ahead	Inf	67.3 %		
3/1 (Chapel Lane)	2.75	0.00	Y	Arm 5 Ahead	Inf	52.0 %	1736	1736
				Arm 6 Right	10.00	21.5 %		
				Arm 8 Left	7.00	26.5 %		
4/1 (Cronton Road (W))	3.80	0.00	Y	Arm 5 Left	14.00	9.3 %	1890	1890
				Arm 6 Ahead	Inf	66.3 %		
				Arm 7 Right	8.00	24.4 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2025 + Com PM' (FG4: '2025 + Com PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin	A	A	B	C	D	Tot.
	A	0	54	114	18	186
	B	73	0	64	227	364
	C	110	52	0	65	227
	D	18	225	82	0	325
	Tot.	201	331	260	310	1102

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2025 + Com PM
Junction: Cronton Road / Chapel Lane / Smithy Lane	
1/1	186
2/1	364
3/1	227
4/1	325
5/1	201
6/1	331
7/1	260
8/1	310

Lane Saturation Flows

Junction: Cronton Road / Chapel Lane / Smithy 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 (Smithy Lane)	3.50	0.00	Y	Arm 6 Left	15.00	29.0 %	1883	1883
				Arm 7 Ahead	Inf	61.3 %		
				Arm 8 Right	10.00	9.7 %		
2/1 (Cronton Road (E))	3.30	0.00	Y	Arm 5 Right	10.00	20.1 %	1822	1822
				Arm 7 Left	7.00	17.6 %		
				Arm 8 Ahead	Inf	62.4 %		
3/1 (Chapel Lane)	2.75	0.00	Y	Arm 5 Ahead	Inf	48.5 %	1725	1725
				Arm 6 Right	10.00	22.9 %		
				Arm 8 Left	7.00	28.6 %		
4/1 (Cronton Road (W))	3.80	0.00	Y	Arm 5 Left	14.00	5.5 %	1894	1894
				Arm 6 Ahead	Inf	69.2 %		
				Arm 7 Right	8.00	25.2 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '2025 + Com + Dev AM' (FG9: '2025 + Com + Dev AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	55	138	25	218
	B	53	0	64	210	327
	C	180	124	0	103	407
	D	25	179	71	0	275
	Tot.	258	358	273	338	1227

Traffic Lane Flows

Lane	Scenario 5: 2025 + Com + Dev AM
Junction: Cronton Road / Chapel Lane / Smithy Lane	
1/1	218
2/1	327
3/1	407
4/1	275
5/1	258
6/1	358
7/1	273
8/1	338

Lane Saturation Flows

Junction: Cronton Road / Chapel Lane / Smithy 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 (Smithy Lane)	3.50	0.00	Y	Arm 6 Left	15.00	25.2 %	1885	1885
				Arm 7 Ahead	Inf	63.3 %		
				Arm 8 Right	10.00	11.5 %		
2/1 (Cronton Road (E))	3.30	0.00	Y	Arm 5 Right	10.00	16.2 %	1824	1824
				Arm 7 Left	7.00	19.6 %		
				Arm 8 Ahead	Inf	64.2 %		
3/1 (Chapel Lane)	2.75	0.00	Y	Arm 5 Ahead	Inf	44.2 %	1718	1718
				Arm 6 Right	10.00	30.5 %		
				Arm 8 Left	7.00	25.3 %		
4/1 (Cronton Road (W))	3.80	0.00	Y	Arm 5 Left	14.00	9.1 %	1885	1885
				Arm 6 Ahead	Inf	65.1 %		
				Arm 7 Right	8.00	25.8 %		
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

Scenario 6: '2025 + Com + Dev PM' (FG10: '2025 + Com + Dev PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin	A	A	B	C	D	Tot.
	A	0	54	133	18	205
	B	73	0	109	227	409
	C	118	72	0	81	271
	D	18	225	118	0	361
	Tot.	209	351	360	326	1246

Traffic Lane Flows

Lane	Scenario 6: 2025 + Com + Dev PM
Junction: Cronton Road / Chapel Lane / Smithy Lane	
1/1	205
2/1	409
3/1	271
4/1	361
5/1	209
6/1	351
7/1	360
8/1	326

Lane Saturation Flows

Junction: Cronton Road / Chapel Lane / Smithy 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 (Smithy Lane)	3.50	0.00	Y	Arm 6 Left	15.00	26.3 %	1890	1890
				Arm 7 Ahead	Inf	64.9 %		
				Arm 8 Right	10.00	8.8 %		
2/1 (Cronton Road (E))	3.30	0.00	Y	Arm 5 Right	10.00	17.8 %	1794	1794
				Arm 7 Left	7.00	26.7 %		
				Arm 8 Ahead	Inf	55.5 %		
3/1 (Chapel Lane)	2.75	0.00	Y	Arm 5 Ahead	Inf	43.5 %	1712	1712
				Arm 6 Right	10.00	26.6 %		
				Arm 8 Left	7.00	29.9 %		
4/1 (Cronton Road (W))	3.80	0.00	Y	Arm 5 Left	14.00	5.0 %	1870	1870
				Arm 6 Ahead	Inf	62.3 %		
				Arm 7 Right	8.00	32.7 %		
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

Scenario 7: '2028 + Com AM' (FG5: '2028 + Com AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	56	133	25	214
	B	54	0	49	212	315
	C	157	65	0	80	302
	D	25	181	66	0	272
	Tot.	236	302	248	317	1103

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: 2028 + Com AM
Junction: Cronton Road / Chapel Lane / Smithy Lane	
1/1	214
2/1	315
3/1	302
4/1	272
5/1	236
6/1	302
7/1	248
8/1	317

Lane Saturation Flows

Junction: Cronton Road / Chapel Lane / Smithy 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 (Smithy Lane)	3.50	0.00	Y	Arm 6 Left	15.00	26.2 %	1883	1883
				Arm 7 Ahead	Inf	62.1 %		
				Arm 8 Right	10.00	11.7 %		
2/1 (Cronton Road (E))	3.30	0.00	Y	Arm 5 Right	10.00	17.1 %	1837	1837
				Arm 7 Left	7.00	15.6 %		
				Arm 8 Ahead	Inf	67.3 %		
3/1 (Chapel Lane)	2.75	0.00	Y	Arm 5 Ahead	Inf	52.0 %	1735	1735
				Arm 6 Right	10.00	21.5 %		
				Arm 8 Left	7.00	26.5 %		
4/1 (Cronton Road (W))	3.80	0.00	Y	Arm 5 Left	14.00	9.2 %	1890	1890
				Arm 6 Ahead	Inf	66.5 %		
				Arm 7 Right	8.00	24.3 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 8: '2028 + Com PM' (FG6: '2028 + Com PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	54	115	18	187
	B	74	0	65	230	369
	C	111	53	0	66	230
	D	18	228	83	0	329
	Tot.	203	335	263	314	1115

Traffic Lane Flows

Lane	Scenario 8: 2028 + Com PM
Junction: Cronton Road / Chapel Lane / Smithy Lane	
1/1	187
2/1	369
3/1	230
4/1	329
5/1	203
6/1	335
7/1	263
8/1	314

Lane Saturation Flows

Junction: Cronton Road / Chapel Lane / Smithy 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 (Smithy Lane)	3.50	0.00	Y	Arm 6 Left	15.00	28.9 %	1883	1883
				Arm 7 Ahead	Inf	61.5 %		
				Arm 8 Right	10.00	9.6 %		
2/1 (Cronton Road (E))	3.30	0.00	Y	Arm 5 Right	10.00	20.1 %	1821	1821
				Arm 7 Left	7.00	17.6 %		
				Arm 8 Ahead	Inf	62.3 %		
3/1 (Chapel Lane)	2.75	0.00	Y	Arm 5 Ahead	Inf	48.3 %	1724	1724
				Arm 6 Right	10.00	23.0 %		
				Arm 8 Left	7.00	28.7 %		
4/1 (Cronton Road (W))	3.80	0.00	Y	Arm 5 Left	14.00	5.5 %	1894	1894
				Arm 6 Ahead	Inf	69.3 %		
				Arm 7 Right	8.00	25.2 %		
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

Scenario 9: '2028 + Com + Dev AM' (FG11: '2028 + Com + Dev AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin	A	A	B	C	D	Tot.
	A	0	56	140	25	221
	B	54	0	64	212	330
	C	182	125	0	104	411
	D	25	181	72	0	278
	Tot.	261	362	276	341	1240

Traffic Lane Flows

Lane	Scenario 9: 2028 + Com + Dev AM
Junction: Cronton Road / Chapel Lane / Smithy Lane	
1/1	221
2/1	330
3/1	411
4/1	278
5/1	261
6/1	362
7/1	276
8/1	341

Lane Saturation Flows

Junction: Cronton Road / Chapel Lane / Smithy 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 (Smithy Lane)	3.50	0.00	Y	Arm 6 Left	15.00	25.3 %	1885	1885
				Arm 7 Ahead	Inf	63.3 %		
				Arm 8 Right	10.00	11.3 %		
2/1 (Cronton Road (E))	3.30	0.00	Y	Arm 5 Right	10.00	16.4 %	1824	1824
				Arm 7 Left	7.00	19.4 %		
				Arm 8 Ahead	Inf	64.2 %		
3/1 (Chapel Lane)	2.75	0.00	Y	Arm 5 Ahead	Inf	44.3 %	1718	1718
				Arm 6 Right	10.00	30.4 %		
				Arm 8 Left	7.00	25.3 %		
4/1 (Cronton Road (W))	3.80	0.00	Y	Arm 5 Left	14.00	9.0 %	1885	1885
				Arm 6 Ahead	Inf	65.1 %		
				Arm 7 Right	8.00	25.9 %		
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

Scenario 10: '2028 + Com + Dev PM' (FG12: '2028 + Com + Dev PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired**Desired Flow :**

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	54	134	18	206
	B	74	0	110	230	414
	C	119	72	0	82	273
	D	18	228	119	0	365
	Tot.	211	354	363	330	1258

Traffic Lane Flows

Lane	Scenario 10: 2028 + Com + Dev PM
Junction: Cronton Road / Chapel Lane / Smithy Lane	
1/1	206
2/1	414
3/1	273
4/1	365
5/1	211
6/1	354
7/1	363
8/1	330

Lane Saturation Flows

Junction: Cronton Road / Chapel Lane / Smithy 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 (Smithy Lane)	3.50	0.00	Y	Arm 6 Left	15.00	26.2 %	1891	1891
				Arm 7 Ahead	Inf	65.0 %		
				Arm 8 Right	10.00	8.7 %		
2/1 (Cronton Road (E))	3.30	0.00	Y	Arm 5 Right	10.00	17.9 %	1795	1795
				Arm 7 Left	7.00	26.6 %		
				Arm 8 Ahead	Inf	55.6 %		
3/1 (Chapel Lane)	2.75	0.00	Y	Arm 5 Ahead	Inf	43.6 %	1712	1712
				Arm 6 Right	10.00	26.4 %		
				Arm 8 Left	7.00	30.0 %		
4/1 (Cronton Road (W))	3.80	0.00	Y	Arm 5 Left	14.00	4.9 %	1871	1871
				Arm 6 Ahead	Inf	62.5 %		
				Arm 7 Right	8.00	32.6 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 11: '2033 + Com AM' (FG7: '2033 + Com AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	57	137	26	220
	B	55	0	51	217	323
	C	160	66	0	82	308
	D	26	186	68	0	280
	Tot.	241	309	256	325	1131

Traffic Lane Flows

Lane	Scenario 11: 2033 + Com AM
Junction: Cronton Road / Chapel Lane / Smithy Lane	
1/1	220
2/1	323
3/1	308
4/1	280
5/1	241
6/1	309
7/1	256
8/1	325

Lane Saturation Flows

Junction: Cronton Road / Chapel Lane / Smithy 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 (Smithy Lane)	3.50	0.00	Y	Arm 6 Left	15.00	25.9 %	1883	1883
				Arm 7 Ahead	Inf	62.3 %		
				Arm 8 Right	10.00	11.8 %		
2/1 (Cronton Road (E))	3.30	0.00	Y	Arm 5 Right	10.00	17.0 %	1836	1836
				Arm 7 Left	7.00	15.8 %		
				Arm 8 Ahead	Inf	67.2 %		
3/1 (Chapel Lane)	2.75	0.00	Y	Arm 5 Ahead	Inf	51.9 %	1735	1735
				Arm 6 Right	10.00	21.4 %		
				Arm 8 Left	7.00	26.6 %		
4/1 (Cronton Road (W))	3.80	0.00	Y	Arm 5 Left	14.00	9.3 %	1890	1890
				Arm 6 Ahead	Inf	66.4 %		
				Arm 7 Right	8.00	24.3 %		
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

Scenario 12: '2033 + Com PM' (FG8: '2033 + Com PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin	A	A	B	C	D	Tot.
	A	0	55	117	18	190
	B	75	0	66	234	375
	C	113	54	0	67	234
	D	18	232	85	0	335
	Tot.	206	341	268	319	1134

Traffic Lane Flows

Lane	Scenario 12: 2033 + Com PM
Junction: Cronton Road / Chapel Lane / Smithy Lane	
1/1	190
2/1	375
3/1	234
4/1	335
5/1	206
6/1	341
7/1	268
8/1	319

Lane Saturation Flows

Junction: Cronton Road / Chapel Lane / Smithy 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 (Smithy Lane)	3.50	0.00	Y	Arm 6 Left	15.00	28.9 %	1884	1884
				Arm 7 Ahead	Inf	61.6 %		
				Arm 8 Right	10.00	9.5 %		
2/1 (Cronton Road (E))	3.30	0.00	Y	Arm 5 Right	10.00	20.0 %	1822	1822
				Arm 7 Left	7.00	17.6 %		
				Arm 8 Ahead	Inf	62.4 %		
3/1 (Chapel Lane)	2.75	0.00	Y	Arm 5 Ahead	Inf	48.3 %	1724	1724
				Arm 6 Right	10.00	23.1 %		
				Arm 8 Left	7.00	28.6 %		
4/1 (Cronton Road (W))	3.80	0.00	Y	Arm 5 Left	14.00	5.4 %	1894	1894
				Arm 6 Ahead	Inf	69.3 %		
				Arm 7 Right	8.00	25.4 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 13: '2033 + Com + Dev AM' (FG13: '2033 + Com + Dev AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired**Desired Flow :**

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	57	143	26	226
	B	55	0	65	217	337
	C	186	126	0	106	418
	D	26	186	74	0	286
	Tot.	267	369	282	349	1267

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 13: 2033 + Com + Dev AM
Junction: Cronton Road / Chapel Lane / Smithy Lane	
1/1	226
2/1	337
3/1	418
4/1	286
5/1	267
6/1	369
7/1	282
8/1	349

Lane Saturation Flows

Junction: Cronton Road / Chapel Lane / Smithy 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 (Smithy Lane)	3.50	0.00	Y	Arm 6 Left	15.00	25.2 %	1885	1885
				Arm 7 Ahead	Inf	63.3 %		
				Arm 8 Right	10.00	11.5 %		
2/1 (Cronton Road (E))	3.30	0.00	Y	Arm 5 Right	10.00	16.3 %	1825	1825
				Arm 7 Left	7.00	19.3 %		
				Arm 8 Ahead	Inf	64.4 %		
3/1 (Chapel Lane)	2.75	0.00	Y	Arm 5 Ahead	Inf	44.5 %	1719	1719
				Arm 6 Right	10.00	30.1 %		
				Arm 8 Left	7.00	25.4 %		
4/1 (Cronton Road (W))	3.80	0.00	Y	Arm 5 Left	14.00	9.1 %	1885	1885
				Arm 6 Ahead	Inf	65.0 %		
				Arm 7 Right	8.00	25.9 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 14: '2033 + Com + Dev PM' (FG14: '2033 + Com + Dev PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	55	137	18	210
	B	75	0	111	234	420
	C	121	73	0	83	277
	D	18	232	121	0	371
	Tot.	214	360	369	335	1278

Traffic Lane Flows

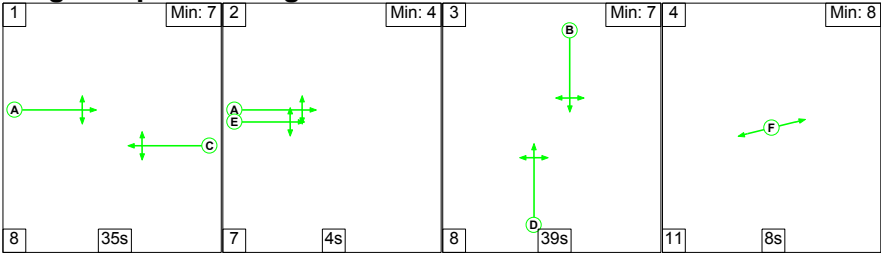
Lane	Scenario 14: 2033 + Com + Dev PM	
Junction: Cronton Road / Chapel Lane / Smithy Lane		
1/1		210
2/1		420
3/1		277
4/1		371
5/1		214
6/1		360
7/1		369
8/1		335

Lane Saturation Flows

Junction: Cronton Road / Chapel Lane / Smithy 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 (Smithy Lane)	3.50	0.00	Y	Arm 6 Left	15.00	26.2 %	1891	1891
				Arm 7 Ahead	Inf	65.2 %		
				Arm 8 Right	10.00	8.6 %		
2/1 (Cronton Road (E))	3.30	0.00	Y	Arm 5 Right	10.00	17.9 %	1795	1795
				Arm 7 Left	7.00	26.4 %		
				Arm 8 Ahead	Inf	55.7 %		
3/1 (Chapel Lane)	2.75	0.00	Y	Arm 5 Ahead	Inf	43.7 %	1712	1712
				Arm 6 Right	10.00	26.4 %		
				Arm 8 Left	7.00	30.0 %		
4/1 (Cronton Road (W))	3.80	0.00	Y	Arm 5 Left	14.00	4.9 %	1871	1871
				Arm 6 Ahead	Inf	62.5 %		
				Arm 7 Right	8.00	32.6 %		
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

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

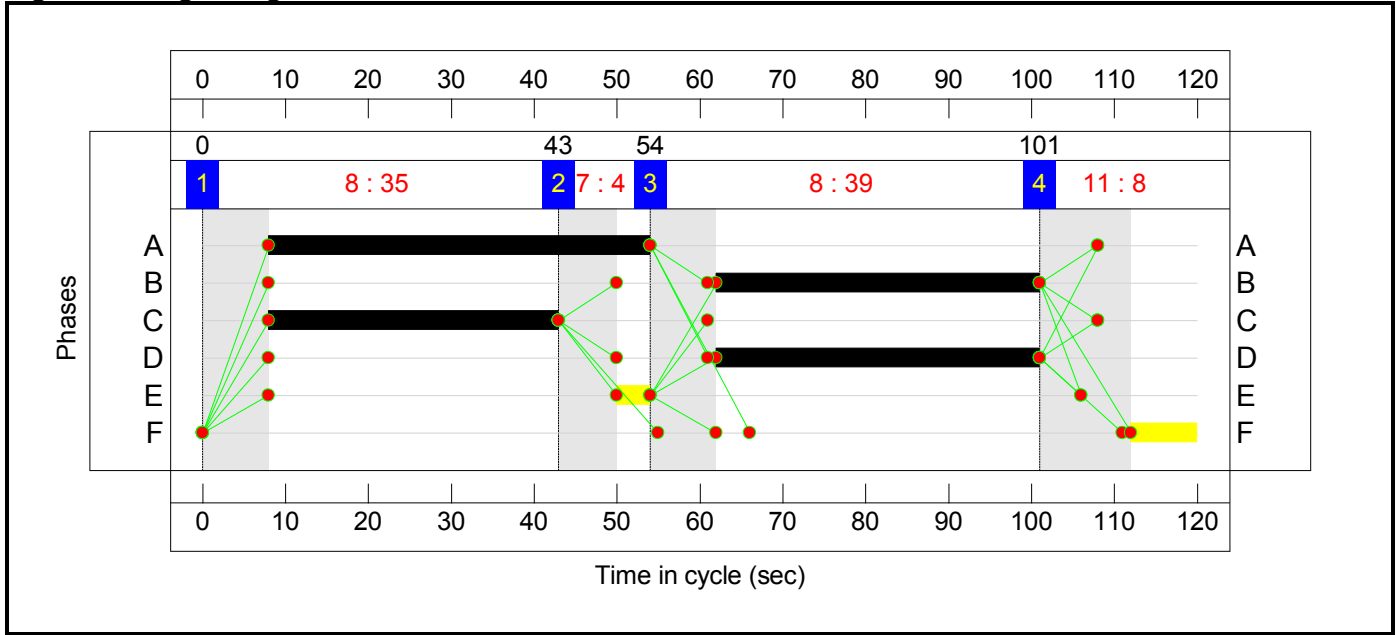
Stage Sequence Diagram



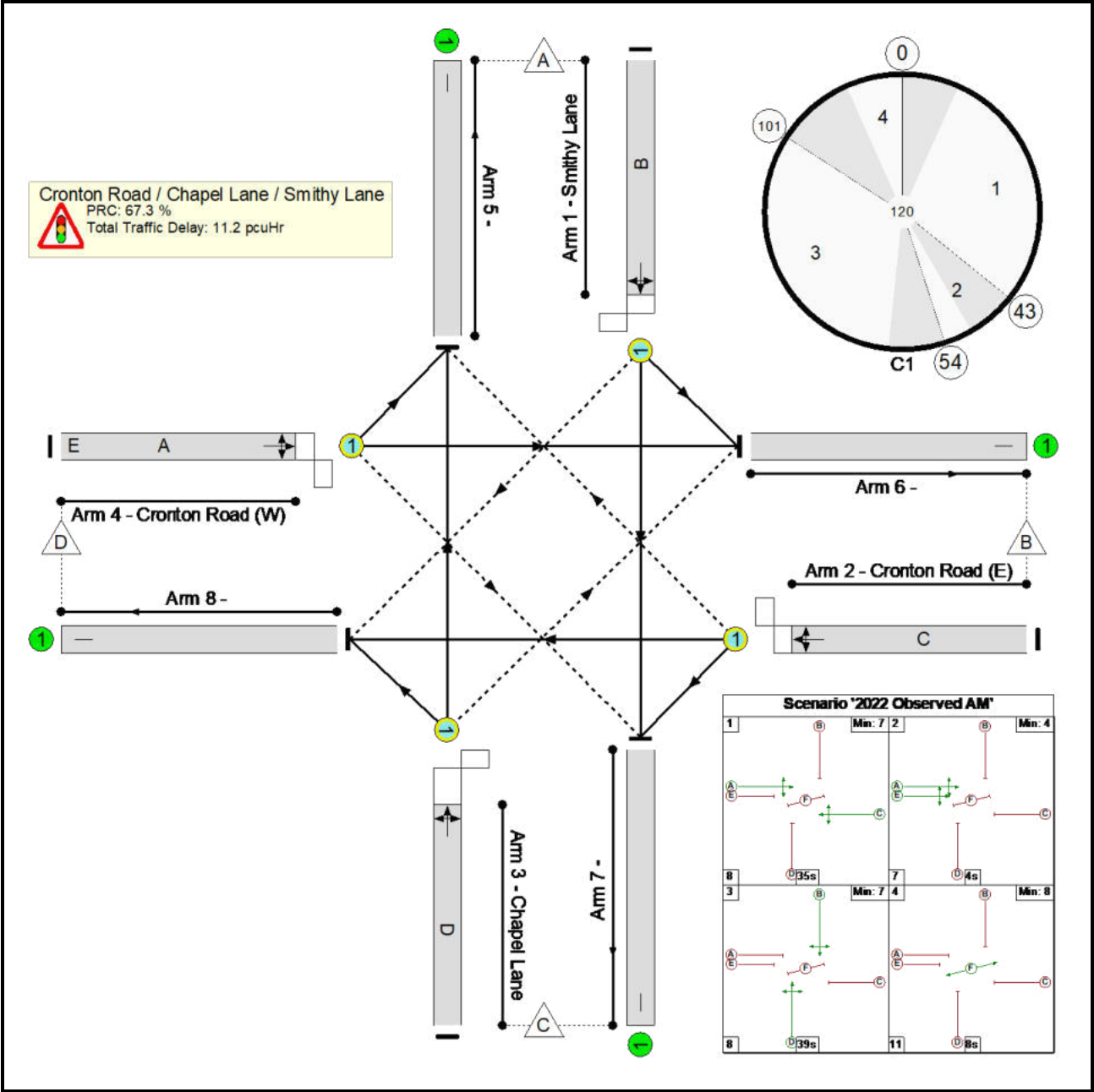
Stage Timings

Stage	1	2	3	4
Duration	35	4	39	8
Change Point	0	43	54	101

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	-	-		-	-	-	-	-	-	53.8%
Cronton Road / Chapel Lane / Smithy Lane	-	-	N/A	-	-		-	-	-	-	-	-	53.8%
1/1	Smithy Lane Left Ahead Right	O	N/A	N/A	B		1	39	-	209	1883	628	33.3%
2/1	Cronton Road (E) Right Left Ahead	O	N/A	N/A	C		1	35	-	290	1831	547	53.0%
3/1	Chapel Lane Ahead Right Left	O	N/A	N/A	D		1	39	-	293	1735	545	53.8%
4/1	Cronton Road (W) Left Ahead Right	O	N/A	N/A	A	E	1	46	4	261	1888	579	45.1%
5/1		U	N/A	N/A	-		-	-	-	228	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	290	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	243	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	292	Inf	Inf	0.0%

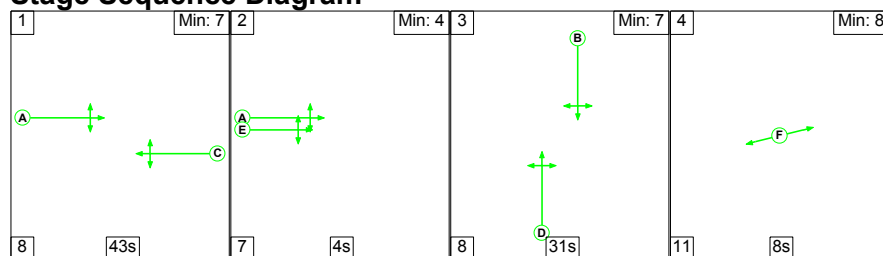
Full Input Data And Results

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	-	-	196	5	3	9.1	1.8	0.3	11.2	-	-	-	-
Cronton Road / Chapel Lane / Smithy Lane	-	-	196	5	3	9.1	1.8	0.3	11.2	-	-	-	-
1/1	209	209	24	0	0	1.7	0.2	0.0	2.0	34.7	5.2	0.2	5.4
2/1	290	290	52	0	0	2.8	0.6	0.0	3.4	42.4	8.0	0.6	8.5
3/1	293	293	62	0	1	2.6	0.6	0.1	3.3	40.3	8.0	0.6	8.6
4/1	261	261	59	5	1	1.9	0.4	0.1	2.5	34.4	7.0	0.4	7.4
5/1	228	228	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	290	290	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	243	243	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	292	292	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 67.3 Total Delay for Signalled Lanes (pcuHr): 11.19 Cycle Time (s): 120 PRC Over All Lanes (%): 67.3 Total Delay Over All Lanes(pcuHr): 11.19													

Full Input Data And Results

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

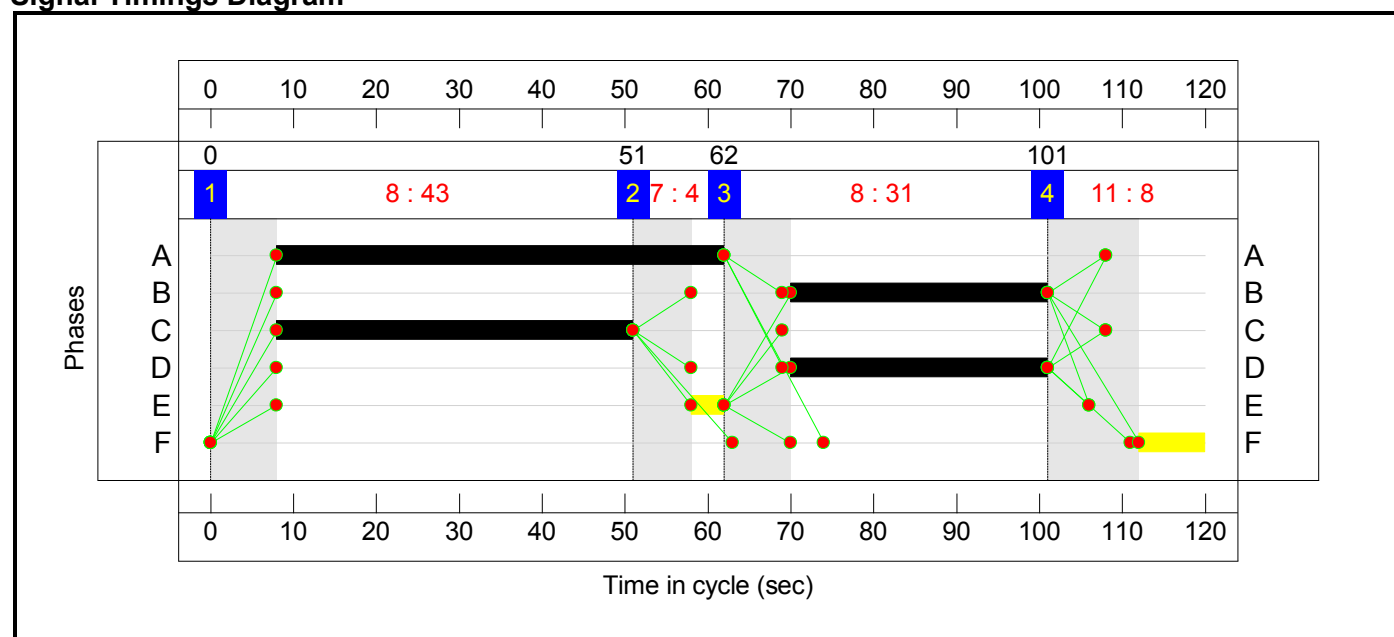
Stage Sequence Diagram



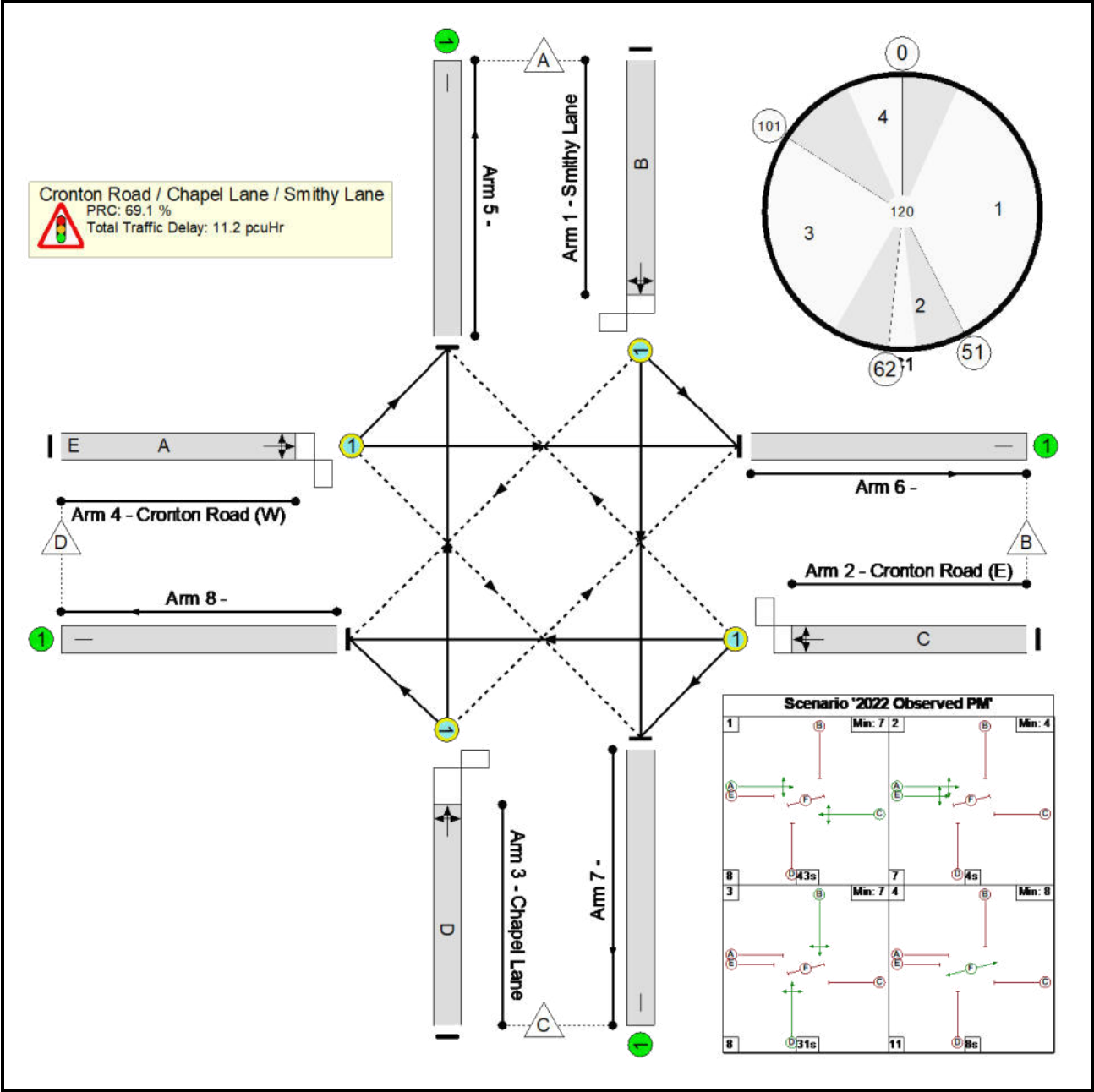
Stage Timings

Stage	1	2	3	4
Duration	43	4	31	8
Change Point	0	51	62	101

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%
Cronton Road / Chapel Lane / Smithy Lane	-	-	N/A	-	-		-	-	-	-	-	-	53.2%
1/1	Smithy Lane Left Ahead Right	O	N/A	N/A	B		1	31	-	183	1883	502	36.4%
2/1	Cronton Road (E) Right Left Ahead	O	N/A	N/A	C		1	43	-	354	1820	665	53.2%
3/1	Chapel Lane Ahead Right Left	O	N/A	N/A	D		1	31	-	224	1724	421	53.2%
4/1	Cronton Road (W) Left Ahead Right	O	N/A	N/A	A	E	1	54	4	307	1890	669	45.9%
5/1		U	N/A	N/A	-		-	-	-	198	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	312	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	256	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	302	Inf	Inf	0.0%

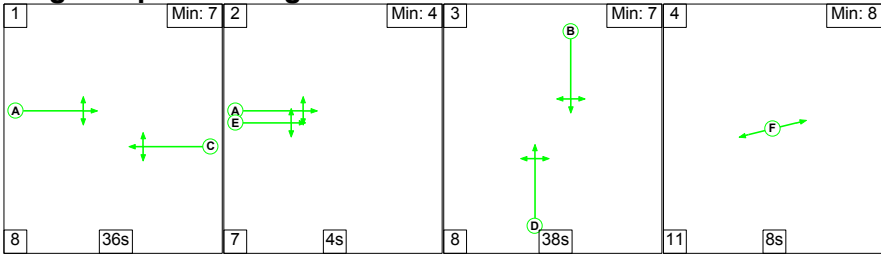
Full Input Data And Results

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	-	-	213	6	3	9.0	1.8	0.3	11.2	-	-	-	-
Cronton Road / Chapel Lane / Smithy Lane	-	-	213	6	3	9.0	1.8	0.3	11.2	-	-	-	-
1/1	183	183	18	0	0	1.8	0.3	0.0	2.1	41.6	4.9	0.3	5.2
2/1	354	354	71	0	1	2.9	0.6	0.0	3.5	36.1	9.2	0.6	9.8
3/1	224	224	50	0	1	2.3	0.6	0.1	2.9	47.2	6.3	0.6	6.8
4/1	307	307	74	6	1	2.0	0.4	0.2	2.6	30.1	7.8	0.4	8.3
5/1	198	198	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	312	312	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	256	256	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	302	302	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 69.1 Total Delay for Signalled Lanes (pcuHr): 11.17 Cycle Time (s): 120 PRC Over All Lanes (%): 69.1 Total Delay Over All Lanes(pcuHr): 11.17													

Full Input Data And Results

Scenario 3: '2025 + Com AM' (FG3: '2025 + Com AM', Plan 1: 'Network Control Plan 1')

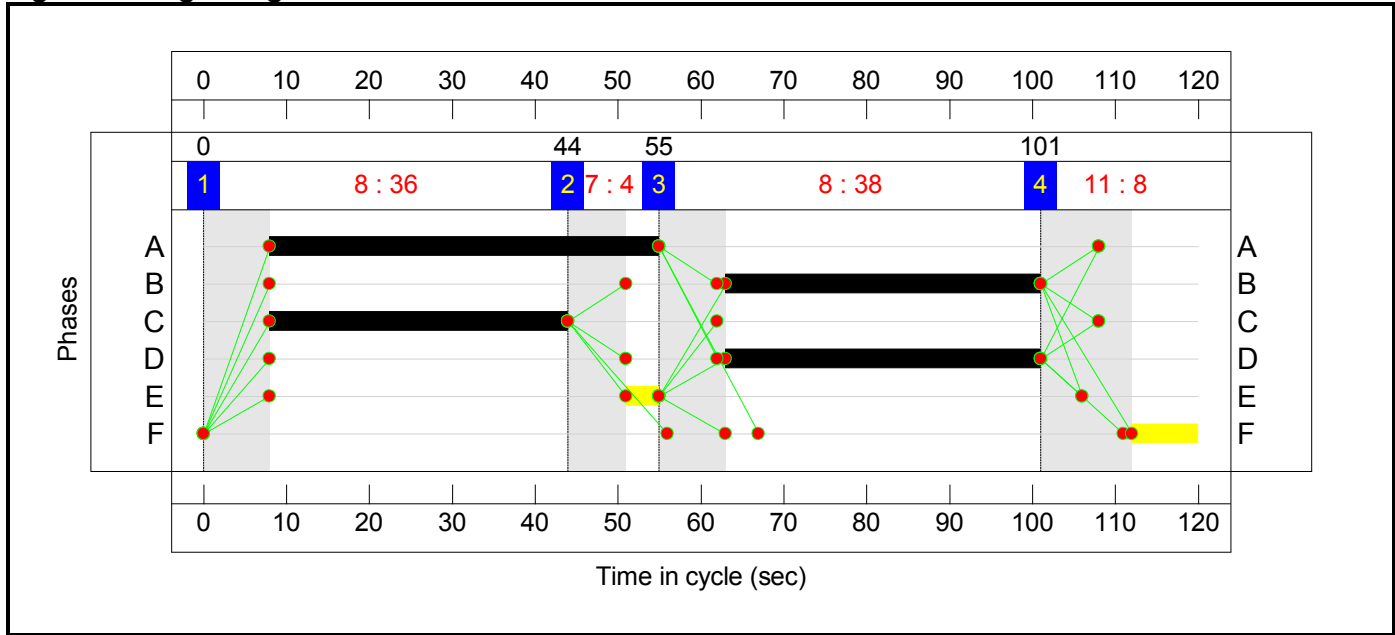
Stage Sequence Diagram



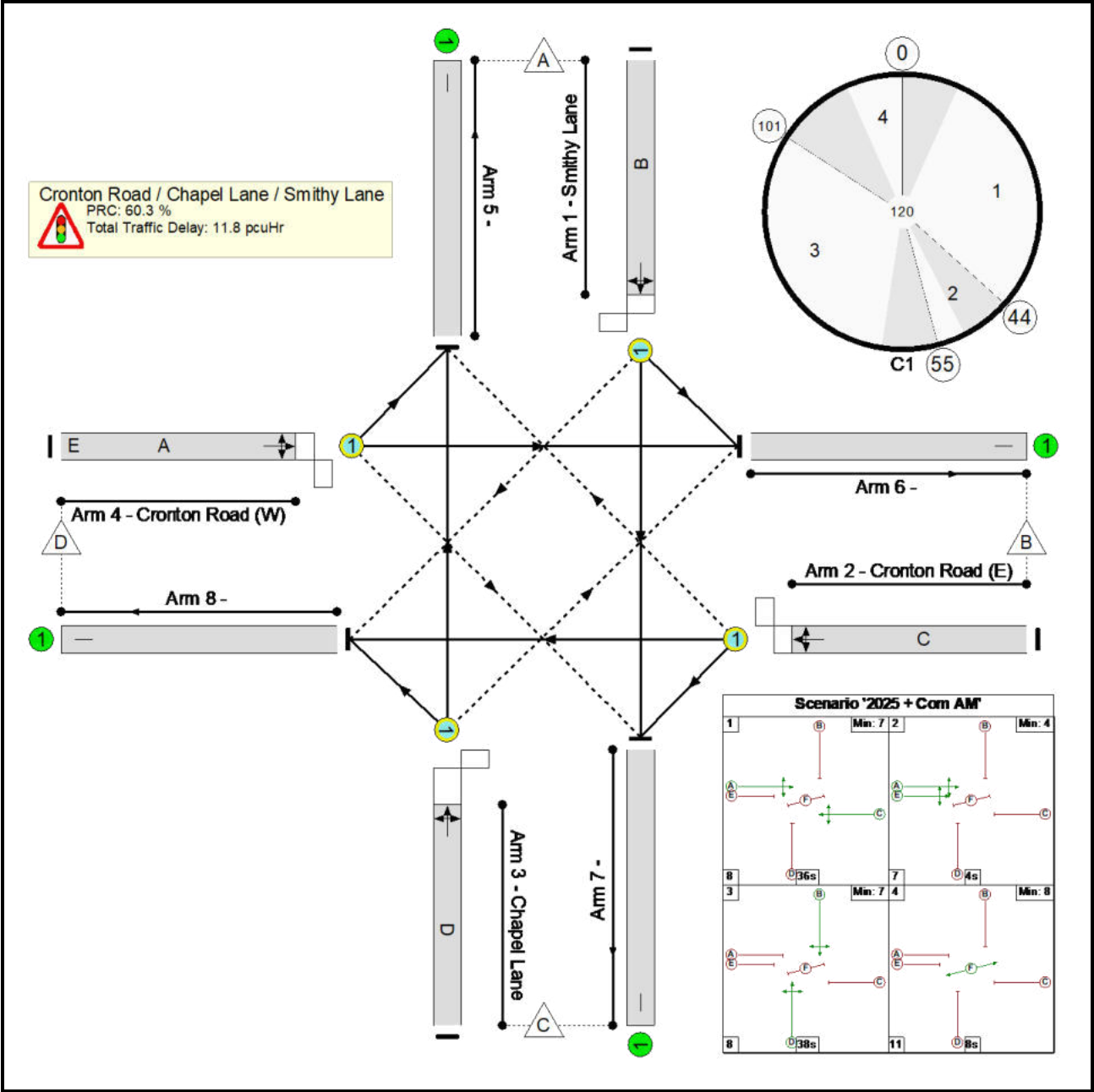
Stage Timings

Stage	1	2	3	4
Duration	36	4	38	8
Change Point	0	44	55	101

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	-	-		-	-	-	-	-	-	56.2%
Cronton Road / Chapel Lane / Smithy Lane	-	-	N/A	-	-		-	-	-	-	-	-	56.2%
1/1	Smithy Lane Left Ahead Right	O	N/A	N/A	B		1	38	-	212	1883	610	34.8%
2/1	Cronton Road (E) Right Left Ahead	O	N/A	N/A	C		1	36	-	312	1836	564	55.3%
3/1	Chapel Lane Ahead Right Left	O	N/A	N/A	D		1	38	-	298	1736	531	56.2%
4/1	Cronton Road (W) Left Ahead Right	O	N/A	N/A	A	E	1	47	4	270	1890	583	46.3%
5/1		U	N/A	N/A	-		-	-	-	233	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	298	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	247	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	314	Inf	Inf	0.0%

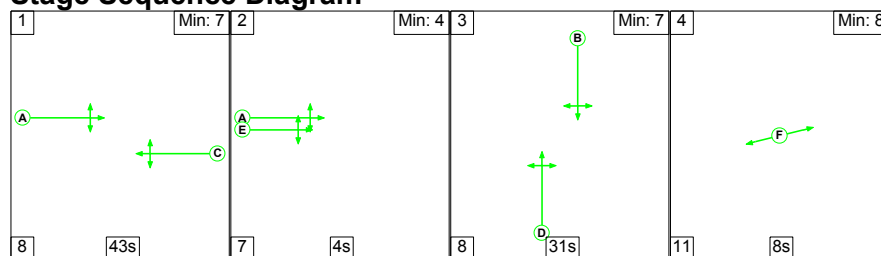
Full Input Data And Results

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	-	-	200	5	3	9.6	1.9	0.3	11.8	-	-	-	-
Cronton Road / Chapel Lane / Smithy Lane	-	-	200	5	3	9.6	1.9	0.3	11.8	-	-	-	-
1/1	212	212	25	0	0	1.8	0.3	0.0	2.1	35.7	5.4	0.3	5.6
2/1	312	312	53	0	0	3.0	0.6	0.0	3.6	42.1	8.7	0.6	9.3
3/1	298	298	63	0	1	2.8	0.6	0.1	3.5	41.8	8.3	0.6	8.9
4/1	270	270	60	5	1	2.0	0.4	0.1	2.6	34.2	7.2	0.4	7.6
5/1	233	233	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	298	298	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	247	247	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	314	314	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 60.3 Total Delay for Signalled Lanes (pcuHr): 11.78 Cycle Time (s): 120 PRC Over All Lanes (%): 60.3 Total Delay Over All Lanes(pcuHr): 11.78													

Full Input Data And Results

Scenario 4: '2025 + Com PM' (FG4: '2025 + Com PM', Plan 1: 'Network Control Plan 1')

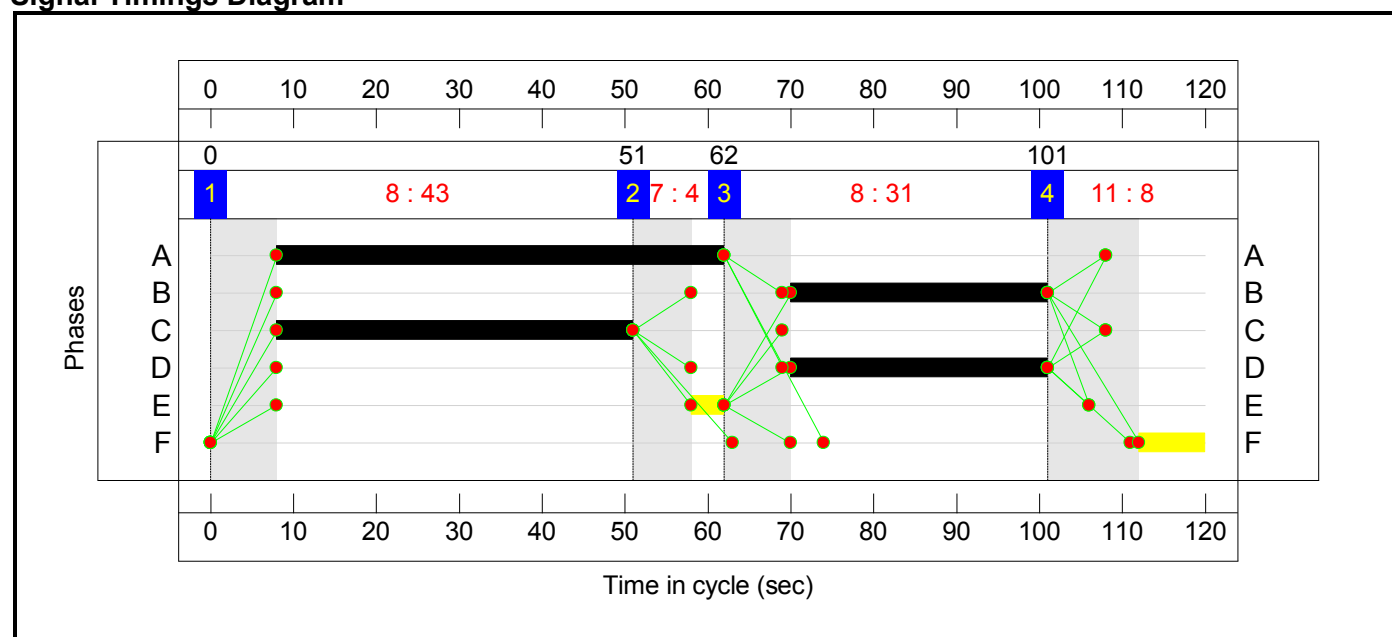
Stage Sequence Diagram



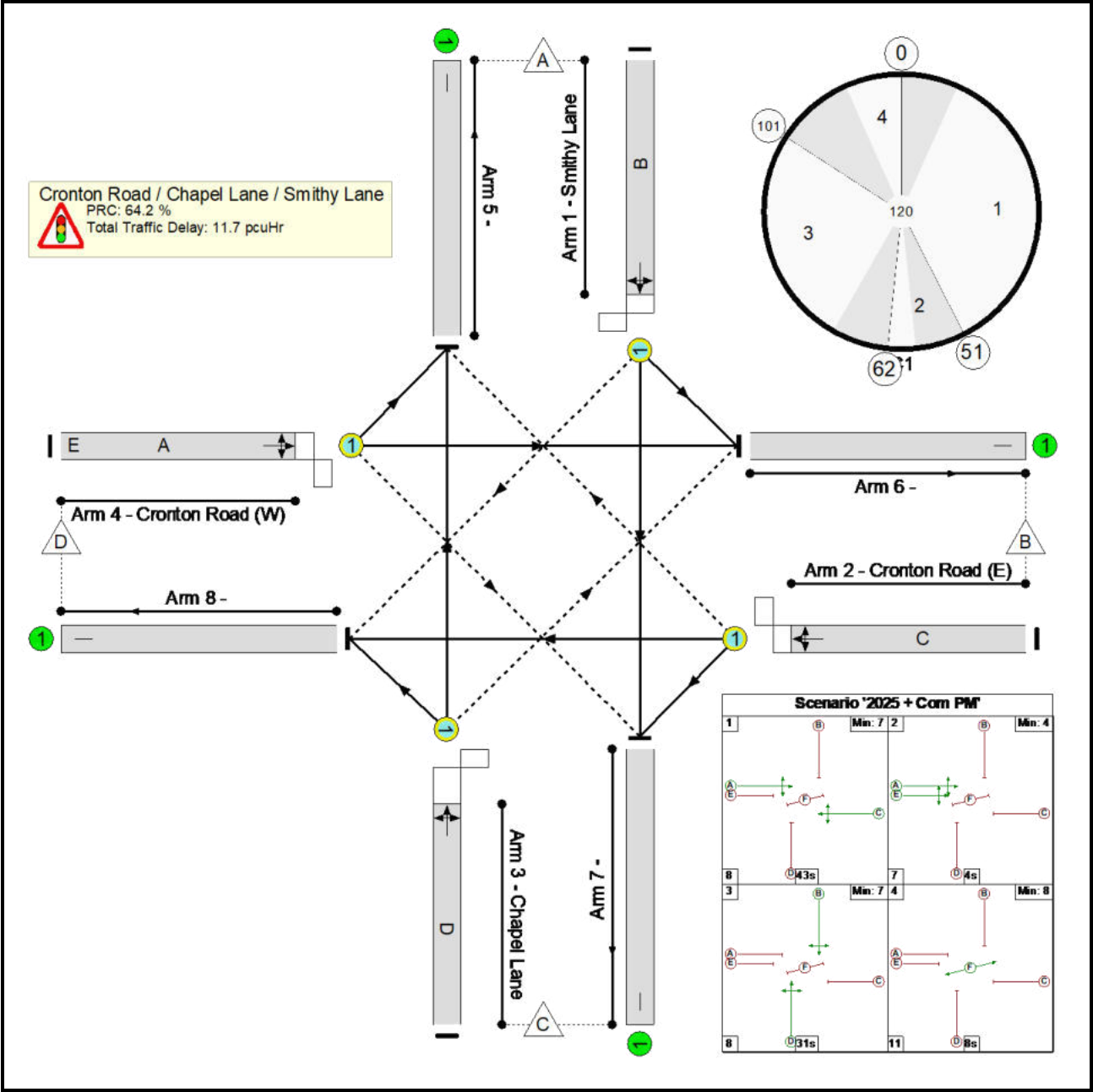
Stage Timings

Stage	1	2	3	4
Duration	43	4	31	8
Change Point	0	51	62	101

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	-	-		-	-	-	-	-	-	54.8%
Cronton Road / Chapel Lane / Smithy Lane	-	-	N/A	-	-		-	-	-	-	-	-	54.8%
1/1	Smithy Lane Left Ahead Right	O	N/A	N/A	B		1	31	-	186	1883	502	37.0%
2/1	Cronton Road (E) Right Left Ahead	O	N/A	N/A	C		1	43	-	364	1822	664	54.8%
3/1	Chapel Lane Ahead Right Left	O	N/A	N/A	D		1	31	-	227	1725	421	53.9%
4/1	Cronton Road (W) Left Ahead Right	O	N/A	N/A	A	E	1	54	4	325	1894	660	49.2%
5/1		U	N/A	N/A	-		-	-	-	201	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	331	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	260	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	310	Inf	Inf	0.0%

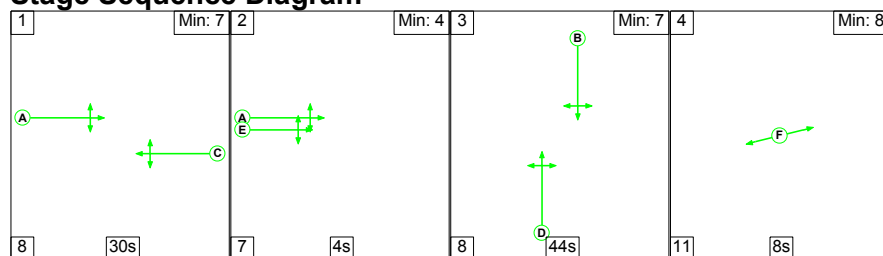
Full Input Data And Results

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	-	-	216	6	3	9.4	2.0	0.3	11.7	-	-	-	-
Cronton Road / Chapel Lane / Smithy Lane	-	-	216	6	3	9.4	2.0	0.3	11.7	-	-	-	-
1/1	186	186	18	0	0	1.9	0.3	0.0	2.2	41.7	5.0	0.3	5.3
2/1	364	364	72	0	1	3.0	0.6	0.0	3.7	36.6	9.6	0.6	10.2
3/1	227	227	51	0	1	2.3	0.6	0.1	3.0	47.5	6.6	0.6	7.1
4/1	325	325	74	6	1	2.2	0.5	0.2	2.8	31.1	8.5	0.5	9.0
5/1	201	201	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	331	331	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	260	260	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	310	310	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 64.2 Total Delay for Signalled Lanes (pcuHr): 11.65 Cycle Time (s): 120 PRC Over All Lanes (%): 64.2 Total Delay Over All Lanes(pcuHr): 11.65													

Full Input Data And Results

Scenario 5: '2025 + Com + Dev AM' (FG9: '2025 + Com + Dev AM', Plan 1: 'Network Control Plan 1')

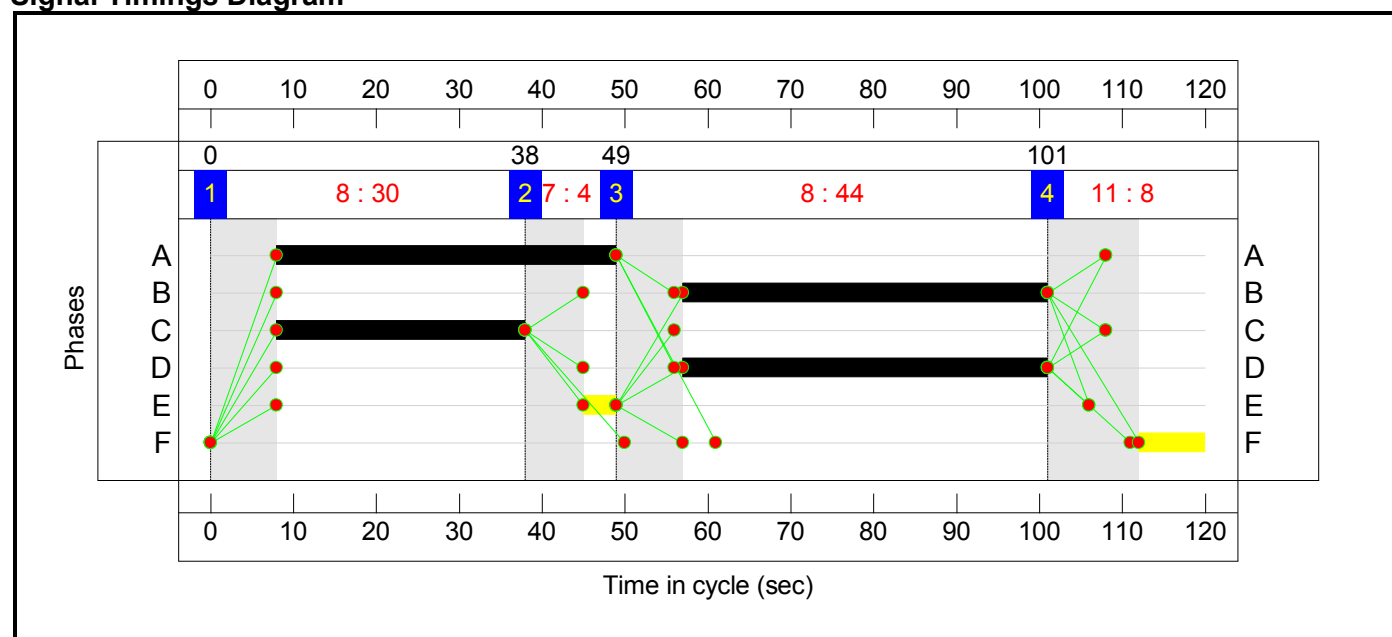
Stage Sequence Diagram



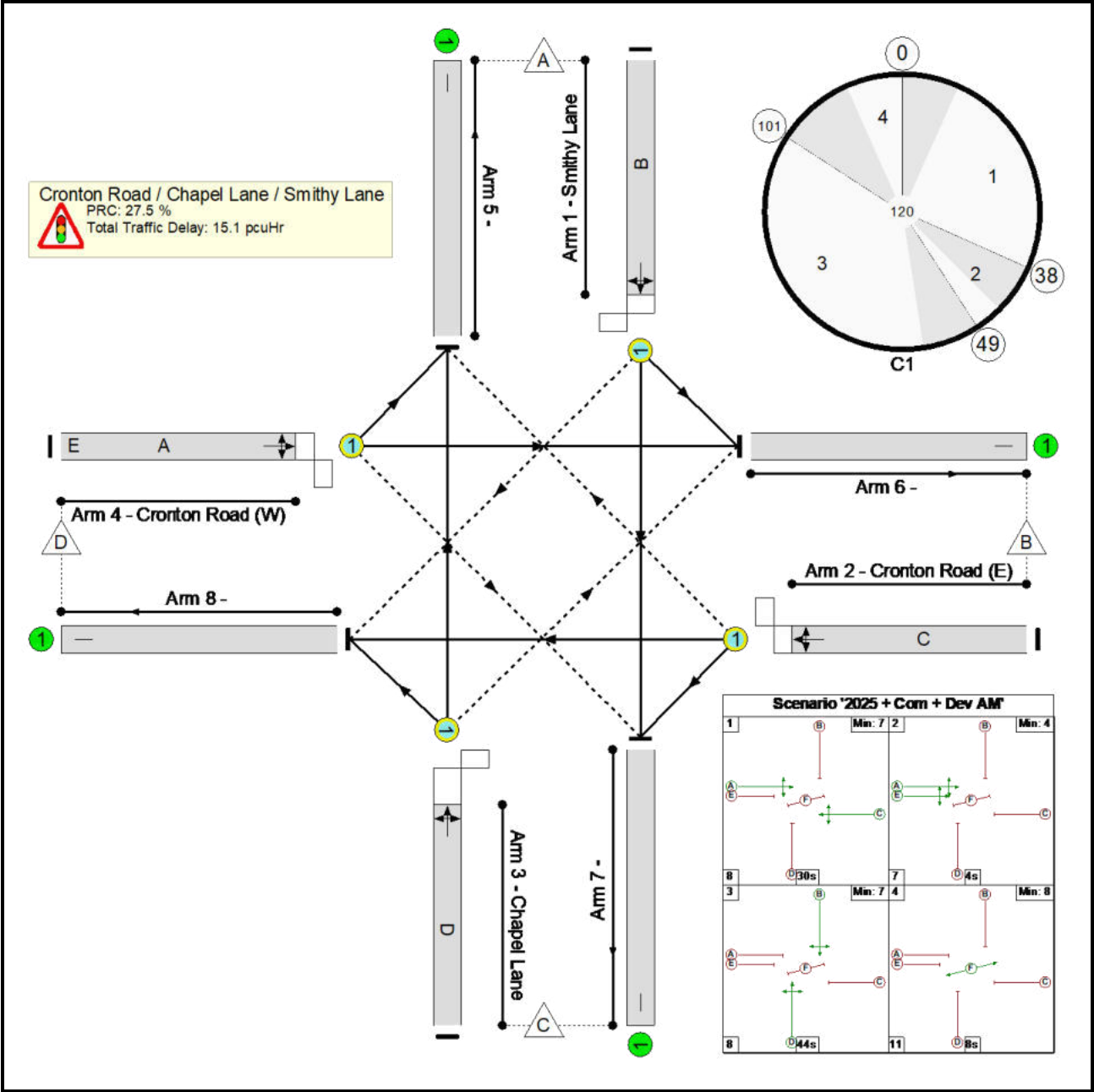
Stage Timings

Stage	1	2	3	4
Duration	30	4	44	8
Change Point	0	38	49	101

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	-	-		-	-	-	-	-	-	70.6%
Cronton Road / Chapel Lane / Smithy Lane	-	-	N/A	-	-		-	-	-	-	-	-	70.6%
1/1	Smithy Lane Left Ahead Right	O	N/A	N/A	B		1	44	-	218	1885	707	30.8%
2/1	Cronton Road (E) Right Left Ahead	O	N/A	N/A	C		1	30	-	327	1824	471	69.4%
3/1	Chapel Lane Ahead Right Left	O	N/A	N/A	D		1	44	-	407	1718	577	70.6%
4/1	Cronton Road (W) Left Ahead Right	O	N/A	N/A	A	E	1	41	4	275	1885	448	61.4%
5/1		U	N/A	N/A	-		-	-	-	258	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	358	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	273	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%

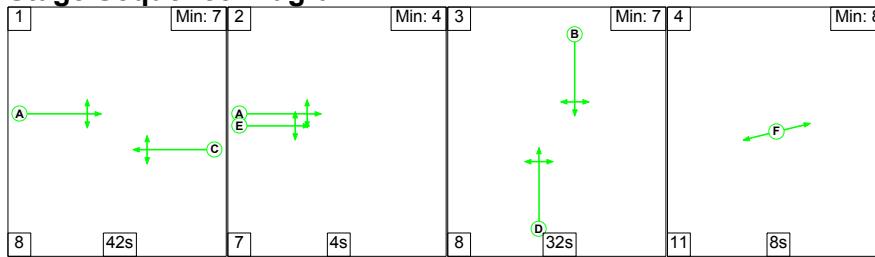
Full Input Data And Results

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	-	-	264	5	4	11.5	3.3	0.3	15.1	-	-	-	-
Cronton Road / Chapel Lane / Smithy Lane	-	-	264	5	4	11.5	3.3	0.3	15.1	-	-	-	-
1/1	218	218	25	0	0	1.6	0.2	0.0	1.8	30.2	5.1	0.2	5.3
2/1	327	327	53	0	0	3.7	1.1	0.0	4.8	52.8	9.8	1.1	10.9
3/1	407	407	122	0	2	3.7	1.2	0.1	5.0	44.1	11.8	1.2	12.9
4/1	275	275	64	5	1	2.5	0.8	0.2	3.5	45.4	8.2	0.8	9.0
5/1	258	258	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	358	358	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	273	273	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	338	338	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 27.5 Total Delay for Signalled Lanes (pcuHr): 15.08 Cycle Time (s): 120 PRC Over All Lanes (%): 27.5 Total Delay Over All Lanes(pcuHr): 15.08													

Full Input Data And Results

Scenario 6: '2025 + Com + Dev PM' (FG10: '2025 + Com + Dev PM', Plan 1: 'Network Control Plan 1')

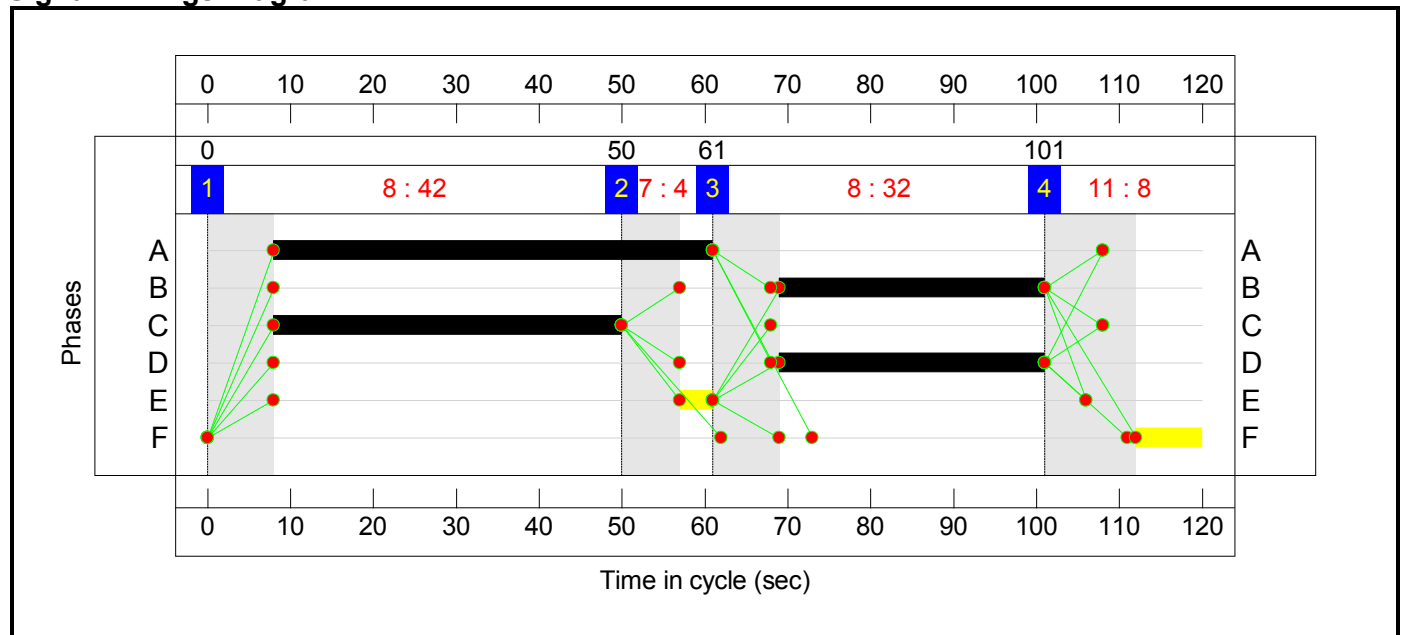
Stage Sequence Diagram



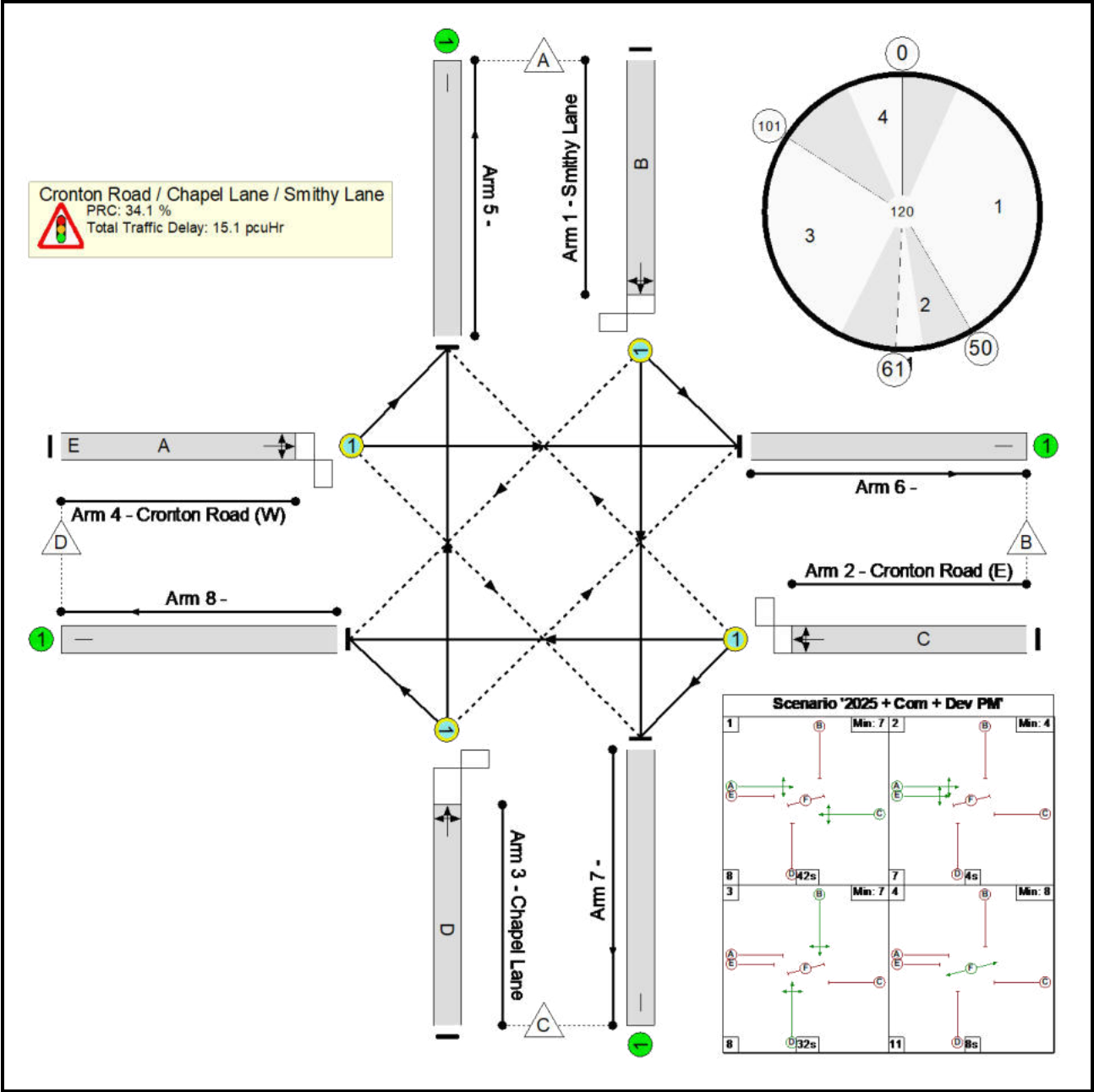
Stage Timings

Stage	1	2	3	4
Duration	42	4	32	8
Change Point	0	50	61	101

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	-	-		-	-	-	-	-	-	67.1%
Cronton Road / Chapel Lane / Smithy Lane	-	-	N/A	-	-		-	-	-	-	-	-	67.1%
1/1	Smithy Lane Left Ahead Right	O	N/A	N/A	B		1	32	-	205	1890	520	39.4%
2/1	Cronton Road (E) Right Left Ahead	O	N/A	N/A	C		1	42	-	409	1794	642	63.7%
3/1	Chapel Lane Ahead Right Left	O	N/A	N/A	D		1	32	-	271	1712	404	67.1%
4/1	Cronton Road (W) Left Ahead Right	O	N/A	N/A	A	E	1	53	4	361	1870	546	66.1%
5/1		U	N/A	N/A	-		-	-	-	209	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	351	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	360	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	326	Inf	Inf	0.0%

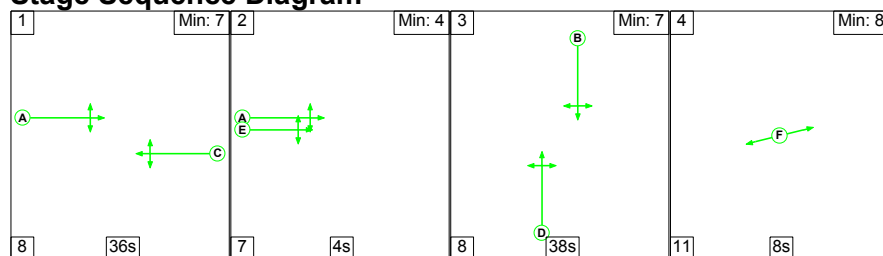
Full Input Data And Results

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	-	-	268	9	4	11.6	3.2	0.3	15.1	-	-	-	-
Cronton Road / Chapel Lane / Smithy Lane	-	-	268	9	4	11.6	3.2	0.3	15.1	-	-	-	-
1/1	205	205	18	0	0	2.0	0.3	0.0	2.3	41.2	5.5	0.3	5.8
2/1	409	409	72	0	1	3.6	0.9	0.0	4.5	39.8	11.2	0.9	12.1
3/1	271	271	71	0	1	2.9	1.0	0.1	4.0	53.1	8.1	1.0	9.1
4/1	361	361	107	9	2	3.0	1.0	0.2	4.2	41.9	10.5	1.0	11.5
5/1	209	209	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	351	351	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	360	360	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	326	326	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 34.1 Total Delay for Signalled Lanes (pcuHr): 15.07 Cycle Time (s): 120 PRC Over All Lanes (%): 34.1 Total Delay Over All Lanes(pcuHr): 15.07													

Full Input Data And Results

Scenario 7: '2028 + Com AM' (FG5: '2028 + Com AM', Plan 1: 'Network Control Plan 1')

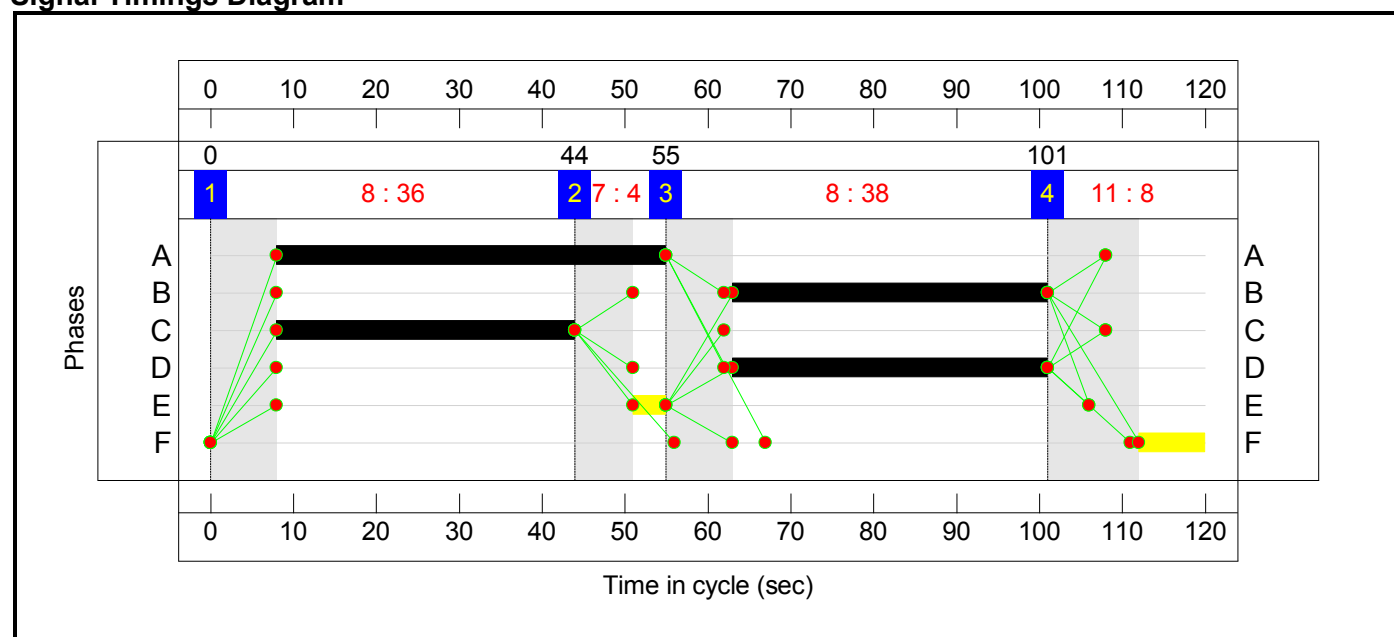
Stage Sequence Diagram



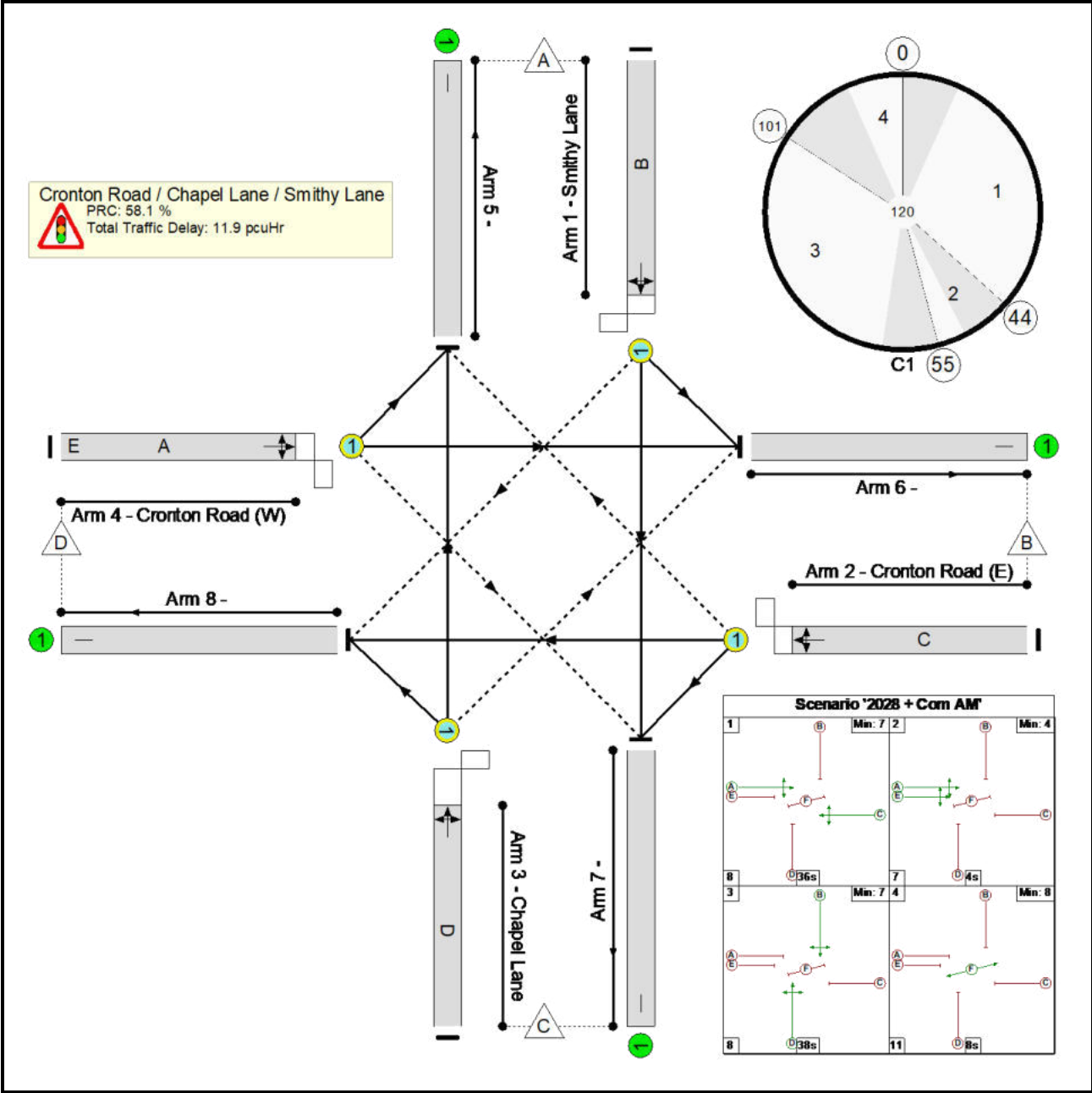
Stage Timings

Stage	1	2	3	4
Duration	36	4	38	8
Change Point	0	44	55	101

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	-	-		-	-	-	-	-	-	56.9%
Cronton Road / Chapel Lane / Smithy Lane	-	-	N/A	-	-		-	-	-	-	-	-	56.9%
1/1	Smithy Lane Left Ahead Right	O	N/A	N/A	B		1	38	-	214	1883	611	35.0%
2/1	Cronton Road (E) Right Left Ahead	O	N/A	N/A	C		1	36	-	315	1837	565	55.8%
3/1	Chapel Lane Ahead Right Left	O	N/A	N/A	D		1	38	-	302	1735	530	56.9%
4/1	Cronton Road (W) Left Ahead Right	O	N/A	N/A	A	E	1	47	4	272	1890	584	46.6%
5/1		U	N/A	N/A	-		-	-	-	236	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	302	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	248	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	317	Inf	Inf	0.0%

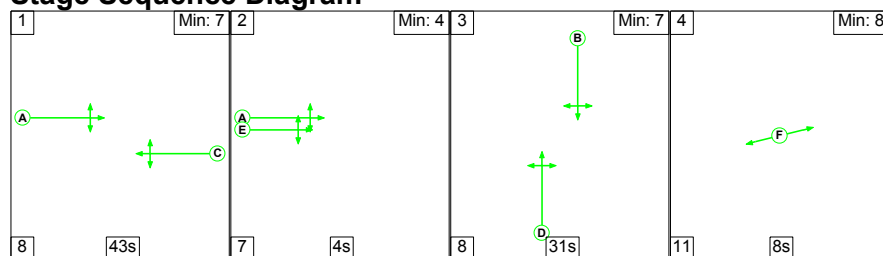
Full Input Data And Results

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	-	-	202	5	3	9.7	2.0	0.3	11.9	-	-	-	-
Cronton Road / Chapel Lane / Smithy Lane	-	-	202	5	3	9.7	2.0	0.3	11.9	-	-	-	-
1/1	214	214	25	0	0	1.8	0.3	0.0	2.1	35.8	5.4	0.3	5.7
2/1	315	315	54	0	0	3.0	0.6	0.0	3.7	42.3	8.8	0.6	9.4
3/1	302	302	64	0	1	2.8	0.7	0.1	3.5	42.1	8.4	0.7	9.0
4/1	272	272	60	5	1	2.0	0.4	0.1	2.6	34.2	7.3	0.4	7.7
5/1	236	236	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	302	302	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	248	248	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	317	317	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalised Lanes (%): 58.1 Total Delay for Signalised Lanes (pcuHr): 11.94 Cycle Time (s): 120 PRC Over All Lanes (%): 58.1 Total Delay Over All Lanes(pcuHr): 11.94													

Full Input Data And Results

Scenario 8: '2028 + Com PM' (FG6: '2028 + Com PM', Plan 1: 'Network Control Plan 1')

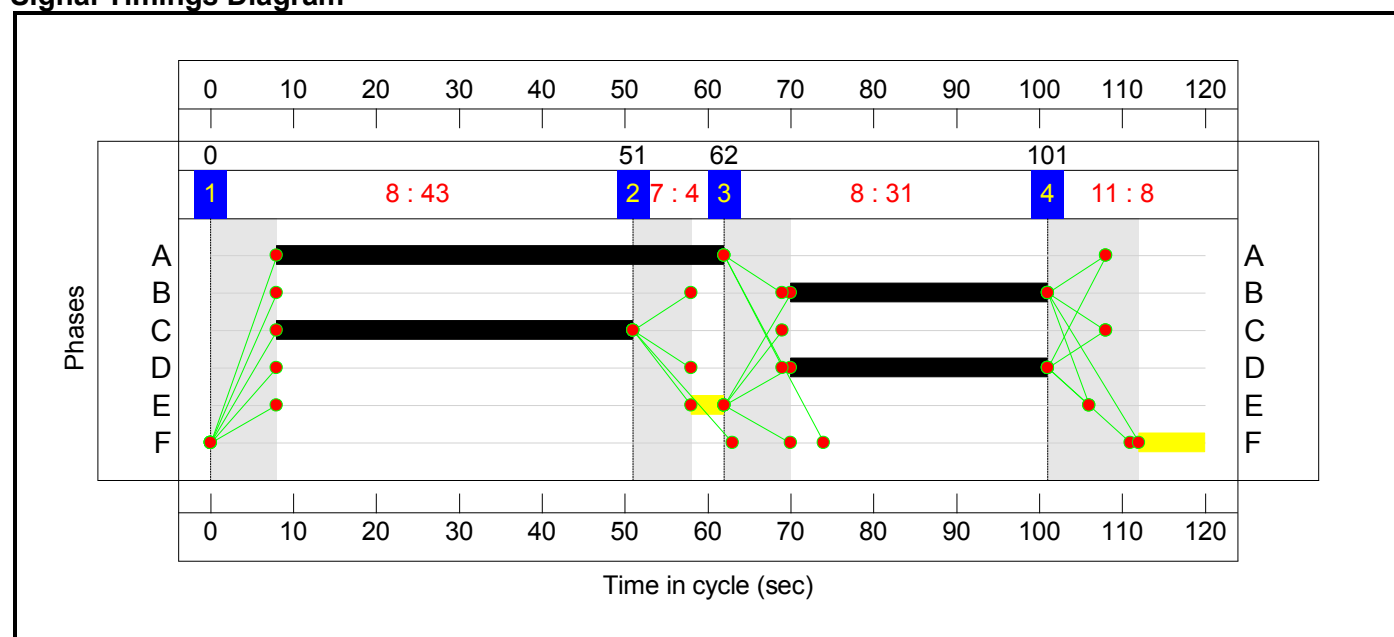
Stage Sequence Diagram



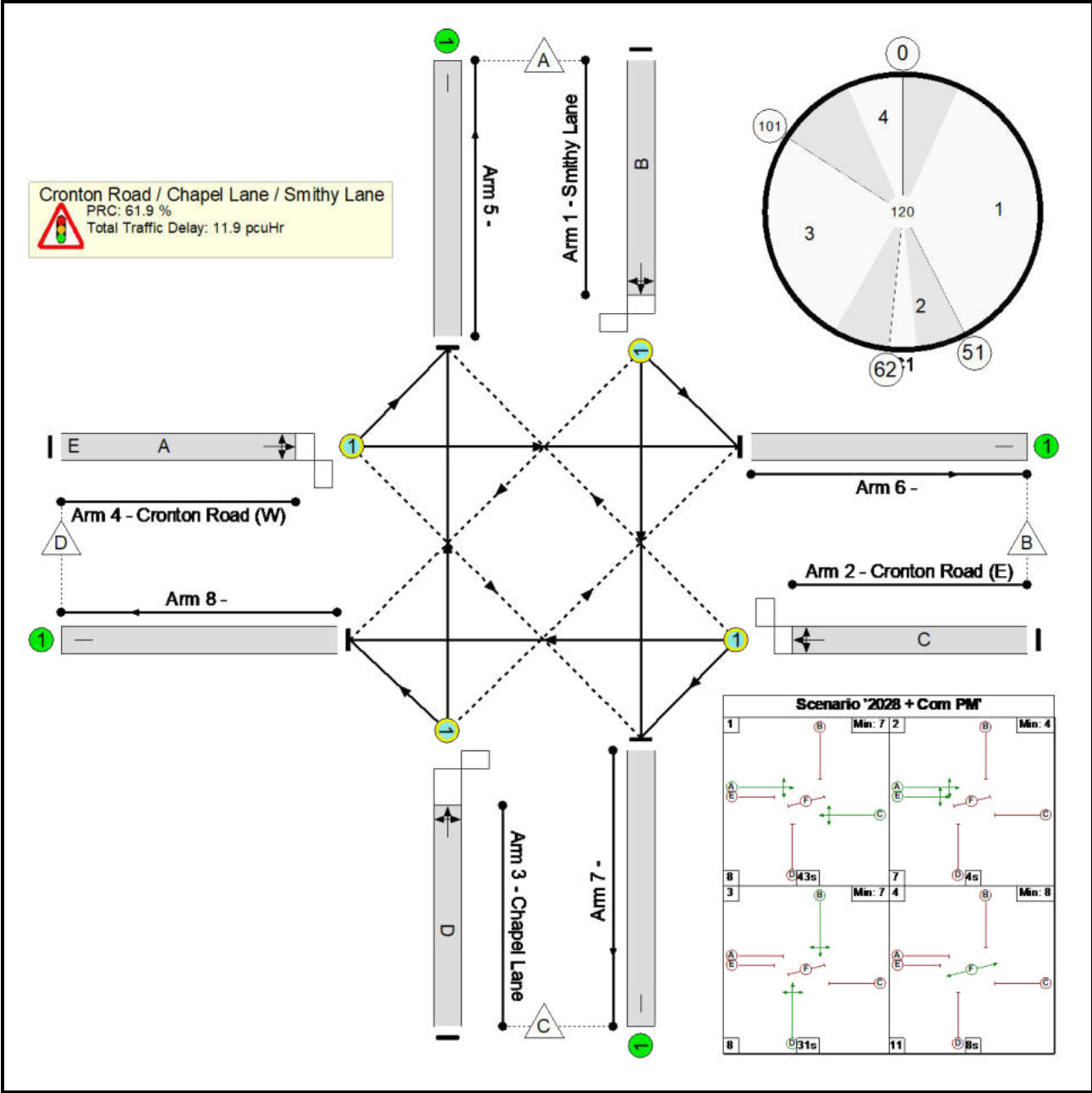
Stage Timings

Stage	1	2	3	4
Duration	43	4	31	8
Change Point	0	51	62	101

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	-	-		-	-	-	-	-	-	55.6%
Cronton Road / Chapel Lane / Smithy Lane	-	-	N/A	-	-		-	-	-	-	-	-	55.6%
1/1	Smithy Lane Left Ahead Right	O	N/A	N/A	B		1	31	-	187	1883	502	37.2%
2/1	Cronton Road (E) Right Left Ahead	O	N/A	N/A	C		1	43	-	369	1821	664	55.6%
3/1	Chapel Lane Ahead Right Left	O	N/A	N/A	D		1	31	-	230	1724	420	54.7%
4/1	Cronton Road (W) Left Ahead Right	O	N/A	N/A	A	E	1	54	4	329	1894	660	49.8%
5/1		U	N/A	N/A	-		-	-	-	203	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	335	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	263	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	314	Inf	Inf	0.0%

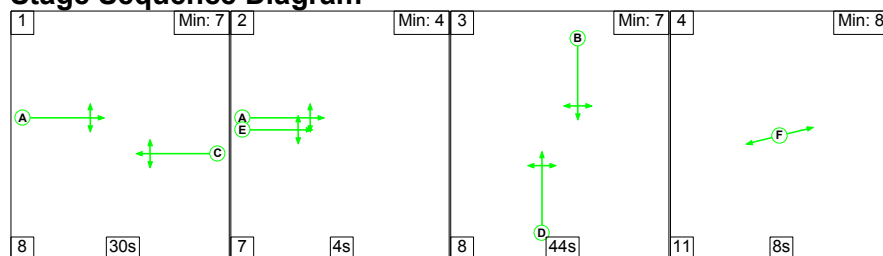
Full Input Data And Results

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	-	-	219	6	3	9.5	2.0	0.3	11.9	-	-	-	-
Cronton Road / Chapel Lane / Smithy Lane	-	-	219	6	3	9.5	2.0	0.3	11.9	-	-	-	-
1/1	187	187	18	0	0	1.9	0.3	0.0	2.2	41.7	5.0	0.3	5.3
2/1	369	369	73	0	1	3.1	0.6	0.0	3.8	36.8	9.7	0.6	10.4
3/1	230	230	52	0	1	2.4	0.6	0.1	3.1	47.8	6.6	0.6	7.2
4/1	329	329	75	6	1	2.2	0.5	0.2	2.9	31.4	8.6	0.5	9.1
5/1	203	203	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	335	335	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	263	263	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	314	314	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 61.9 Total Delay for Signalled Lanes (pcuHr): 11.85 Cycle Time (s): 120 PRC Over All Lanes (%): 61.9 Total Delay Over All Lanes(pcuHr): 11.85													

Full Input Data And Results

Scenario 9: '2028 + Com + Dev AM' (FG11: '2028 + Com + Dev AM', Plan 1: 'Network Control Plan 1')

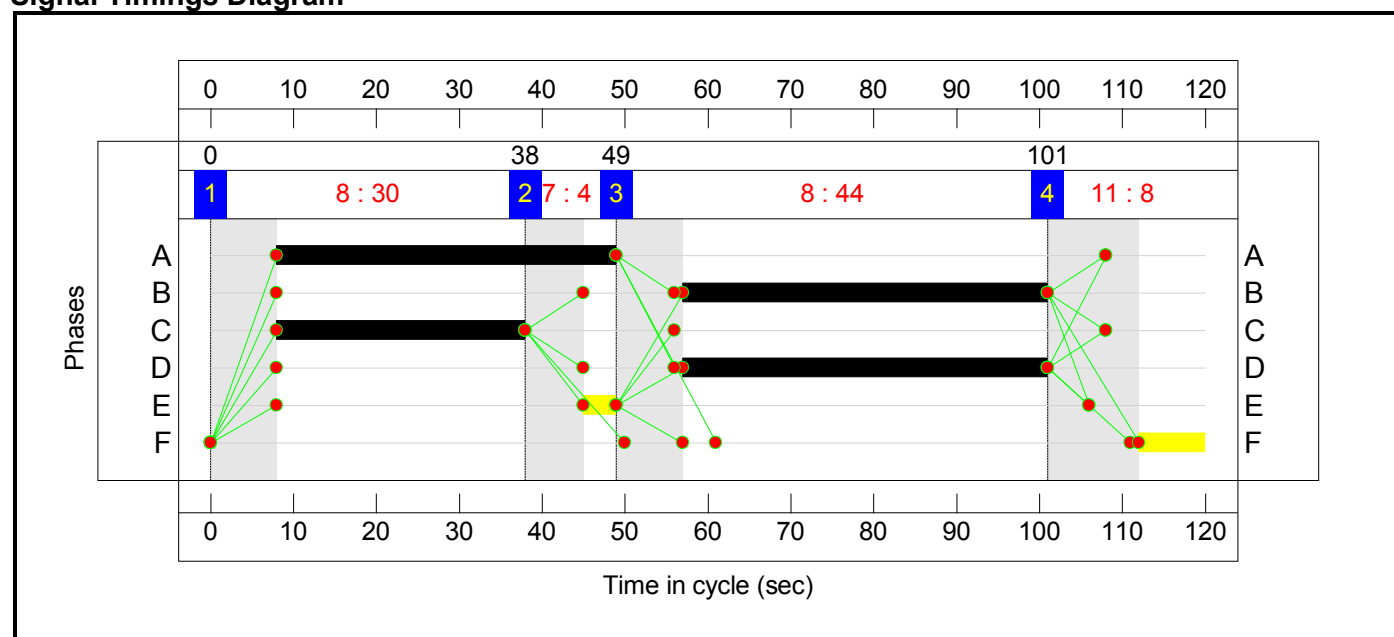
Stage Sequence Diagram



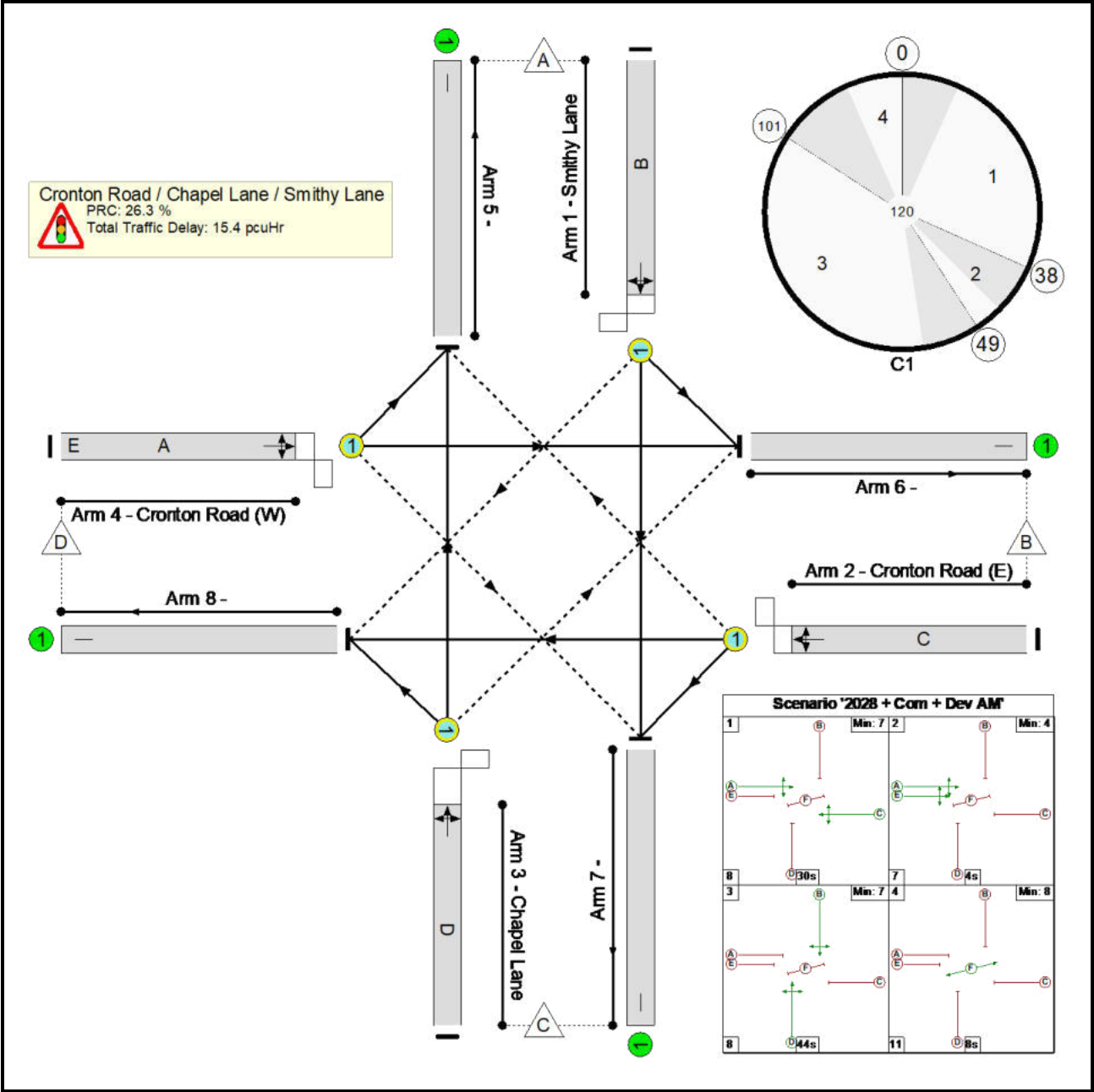
Stage Timings

Stage	1	2	3	4
Duration	30	4	44	8
Change Point	0	38	49	101

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	-	-		-	-	-	-	-	-	71.2%
Cronton Road / Chapel Lane / Smithy Lane	-	-	N/A	-	-		-	-	-	-	-	-	71.2%
1/1	Smithy Lane Left Ahead Right	O	N/A	N/A	B		1	44	-	221	1885	707	31.3%
2/1	Cronton Road (E) Right Left Ahead	O	N/A	N/A	C		1	30	-	330	1824	471	70.0%
3/1	Chapel Lane Ahead Right Left	O	N/A	N/A	D		1	44	-	411	1718	577	71.2%
4/1	Cronton Road (W) Left Ahead Right	O	N/A	N/A	A	E	1	41	4	278	1885	432	64.3%
5/1		U	N/A	N/A	-		-	-	-	261	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	362	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	276	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	341	Inf	Inf	0.0%

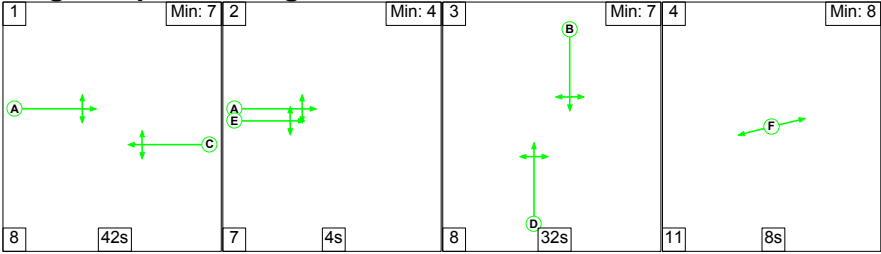
Full Input Data And Results

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	-	-	267	5	4	11.7	3.5	0.3	15.4	-	-	-	-
Cronton Road / Chapel Lane / Smithy Lane	-	-	267	5	4	11.7	3.5	0.3	15.4	-	-	-	-
1/1	221	221	25	0	0	1.6	0.2	0.0	1.9	30.3	5.2	0.2	5.4
2/1	330	330	54	0	0	3.7	1.1	0.0	4.9	53.2	9.9	1.1	11.0
3/1	411	411	123	0	2	3.8	1.2	0.1	5.1	44.5	11.9	1.2	13.1
4/1	278	278	65	5	1	2.6	0.9	0.2	3.6	47.1	8.3	0.9	9.2
5/1	261	261	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	362	362	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	276	276	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	341	341	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 26.3 Total Delay for Signalled Lanes (pcuHr): 15.45 Cycle Time (s): 120 PRC Over All Lanes (%): 26.3 Total Delay Over All Lanes(pcuHr): 15.45													

Full Input Data And Results

Scenario 10: '2028 + Com + Dev PM' (FG12: '2028 + Com + Dev PM', Plan 1: 'Network Control Plan 1')

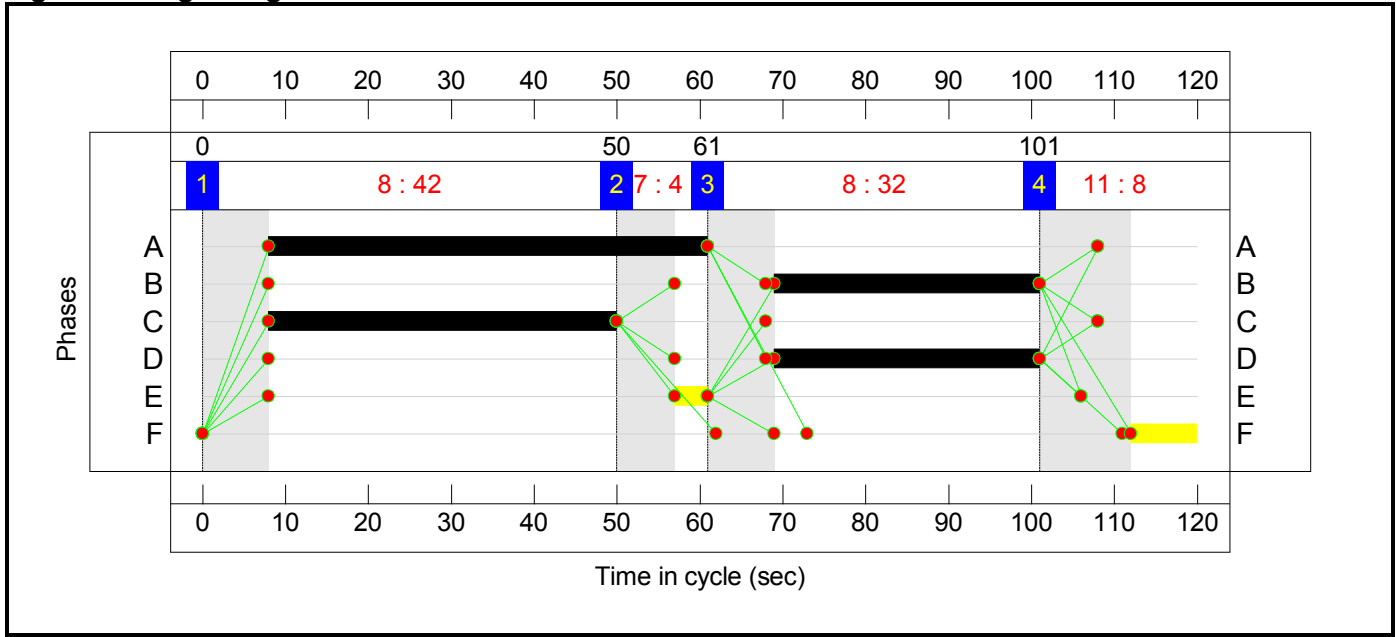
Stage Sequence Diagram



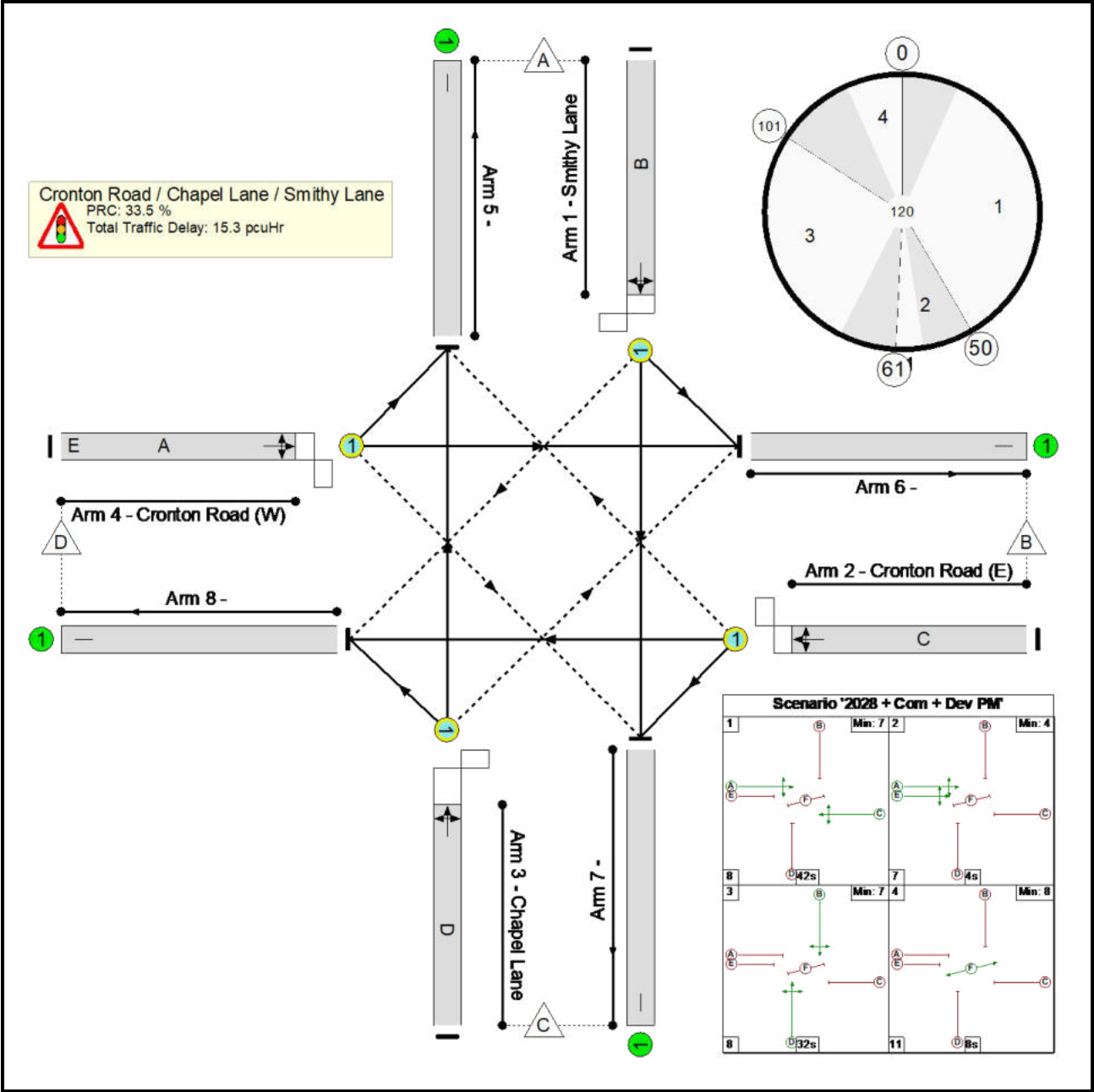
Stage Timings

Stage	1	2	3	4
Duration	42	4	32	8
Change Point	0	50	61	101

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	-	-		-	-	-	-	-	-	67.4%
Cronton Road / Chapel Lane / Smithy Lane	-	-	N/A	-	-		-	-	-	-	-	-	67.4%
1/1	Smithy Lane Left Ahead Right	O	N/A	N/A	B		1	32	-	206	1891	520	39.6%
2/1	Cronton Road (E) Right Left Ahead	O	N/A	N/A	C		1	42	-	414	1795	639	64.8%
3/1	Chapel Lane Ahead Right Left	O	N/A	N/A	D		1	32	-	273	1712	405	67.4%
4/1	Cronton Road (W) Left Ahead Right	O	N/A	N/A	A	E	1	53	4	365	1871	546	66.8%
5/1		U	N/A	N/A	-		-	-	-	211	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	354	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	363	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	330	Inf	Inf	0.0%

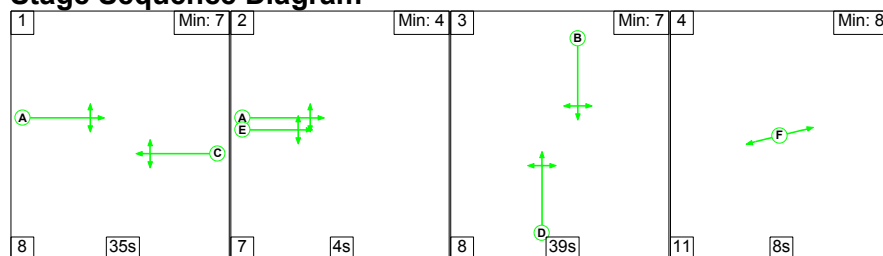
Full Input Data And Results

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	-	-	270	9	4	11.7	3.3	0.4	15.3	-	-	-	-
Cronton Road / Chapel Lane / Smithy Lane	-	-	270	9	4	11.7	3.3	0.4	15.3	-	-	-	-
1/1	206	206	18	0	0	2.0	0.3	0.0	2.4	41.2	5.6	0.3	5.9
2/1	414	414	73	0	1	3.7	0.9	0.0	4.6	40.2	11.5	0.9	12.4
3/1	273	273	71	0	1	2.9	1.0	0.1	4.0	53.3	8.3	1.0	9.3
4/1	365	365	108	9	2	3.0	1.0	0.2	4.3	42.2	10.6	1.0	11.6
5/1	211	211	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	354	354	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	363	363	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	330	330	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 33.5 Total Delay for Signalled Lanes (pcuHr): 15.30 Cycle Time (s): 120 PRC Over All Lanes (%): 33.5 Total Delay Over All Lanes(pcuHr): 15.30													

Full Input Data And Results

Scenario 11: '2033 + Com AM' (FG7: '2033 + Com AM', Plan 1: 'Network Control Plan 1')

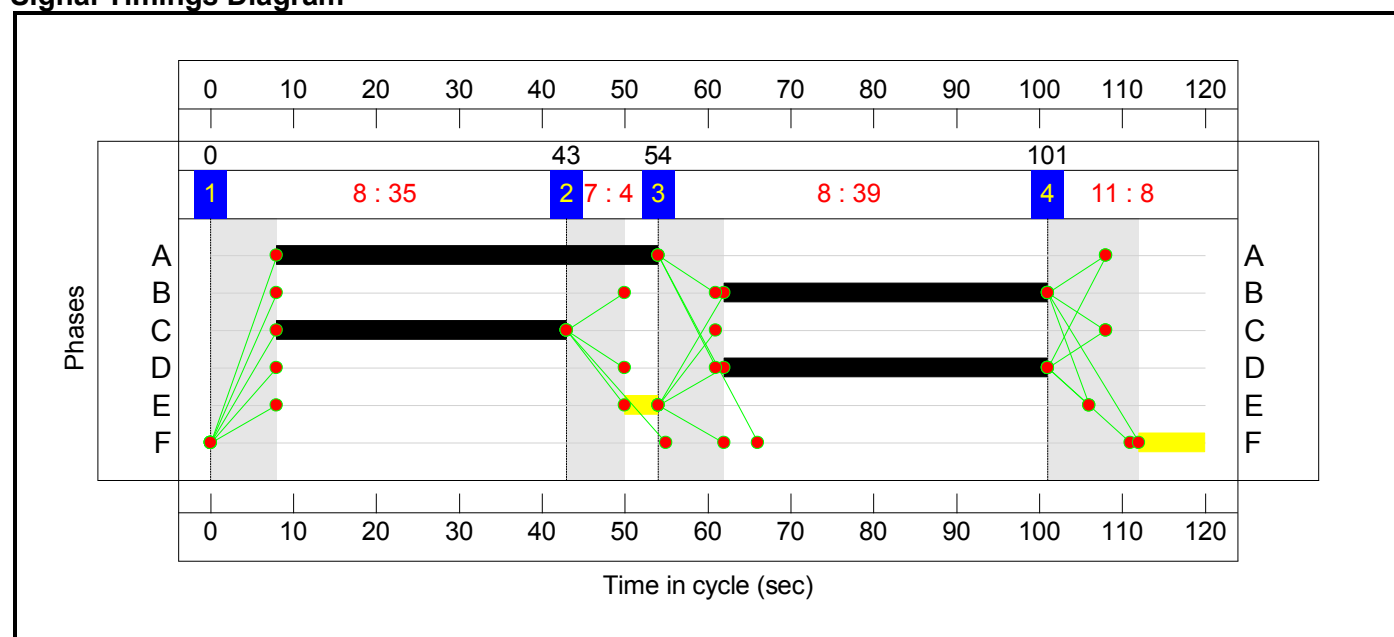
Stage Sequence Diagram



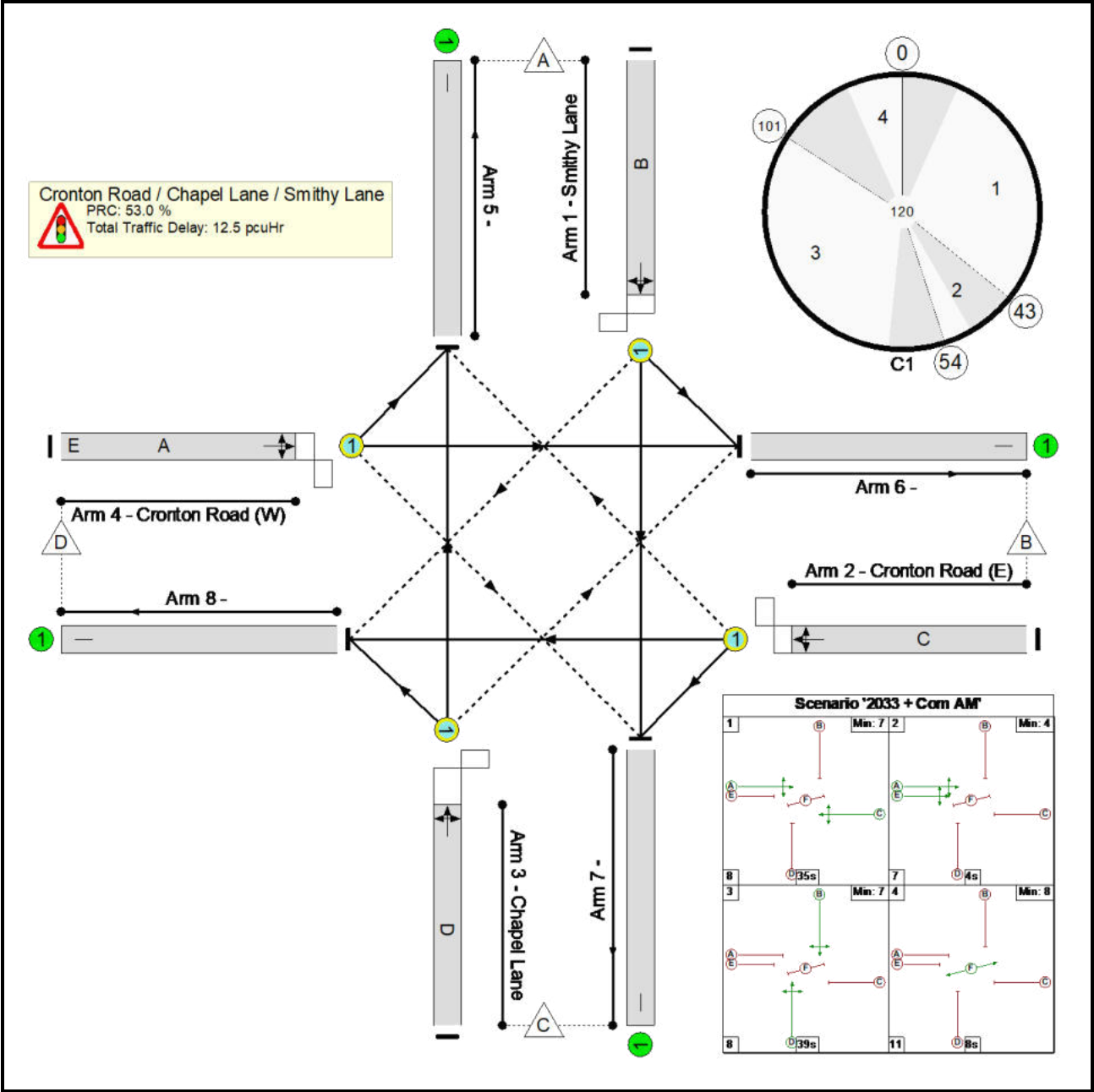
Stage Timings

Stage	1	2	3	4
Duration	35	4	39	8
Change Point	0	43	54	101

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%
Cronton Road / Chapel Lane / Smithy Lane	-	-	N/A	-	-		-	-	-	-	-	-	58.8%
1/1	Smithy Lane Left Ahead Right	O	N/A	N/A	B		1	39	-	220	1883	628	35.1%
2/1	Cronton Road (E) Right Left Ahead	O	N/A	N/A	C		1	35	-	323	1836	549	58.8%
3/1	Chapel Lane Ahead Right Left	O	N/A	N/A	D		1	39	-	308	1735	535	57.6%
4/1	Cronton Road (W) Left Ahead Right	O	N/A	N/A	A	E	1	46	4	280	1890	552	50.7%
5/1		U	N/A	N/A	-		-	-	-	241	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	309	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	256	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	325	Inf	Inf	0.0%

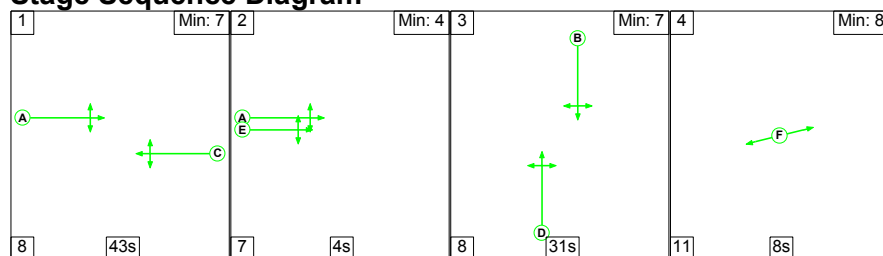
Full Input Data And Results

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	-	-	207	5	3	10.0	2.2	0.3	12.5	-	-	-	-
Cronton Road / Chapel Lane / Smithy Lane	-	-	207	5	3	10.0	2.2	0.3	12.5	-	-	-	-
1/1	220	220	26	0	0	1.8	0.3	0.0	2.1	35.0	5.5	0.3	5.8
2/1	323	323	55	0	0	3.2	0.7	0.0	3.9	44.0	9.1	0.7	9.8
3/1	308	308	65	0	1	2.8	0.7	0.1	3.6	41.6	8.6	0.7	9.2
4/1	280	280	62	5	1	2.2	0.5	0.2	2.8	36.5	7.7	0.5	8.2
5/1	241	241	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	309	309	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	256	256	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	325	325	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 53.0 Total Delay for Signalled Lanes (pcuHr): 12.49 Cycle Time (s): 120 PRC Over All Lanes (%): 53.0 Total Delay Over All Lanes(pcuHr): 12.49													

Full Input Data And Results

Scenario 12: '2033 + Com PM' (FG8: '2033 + Com PM', Plan 1: 'Network Control Plan 1')

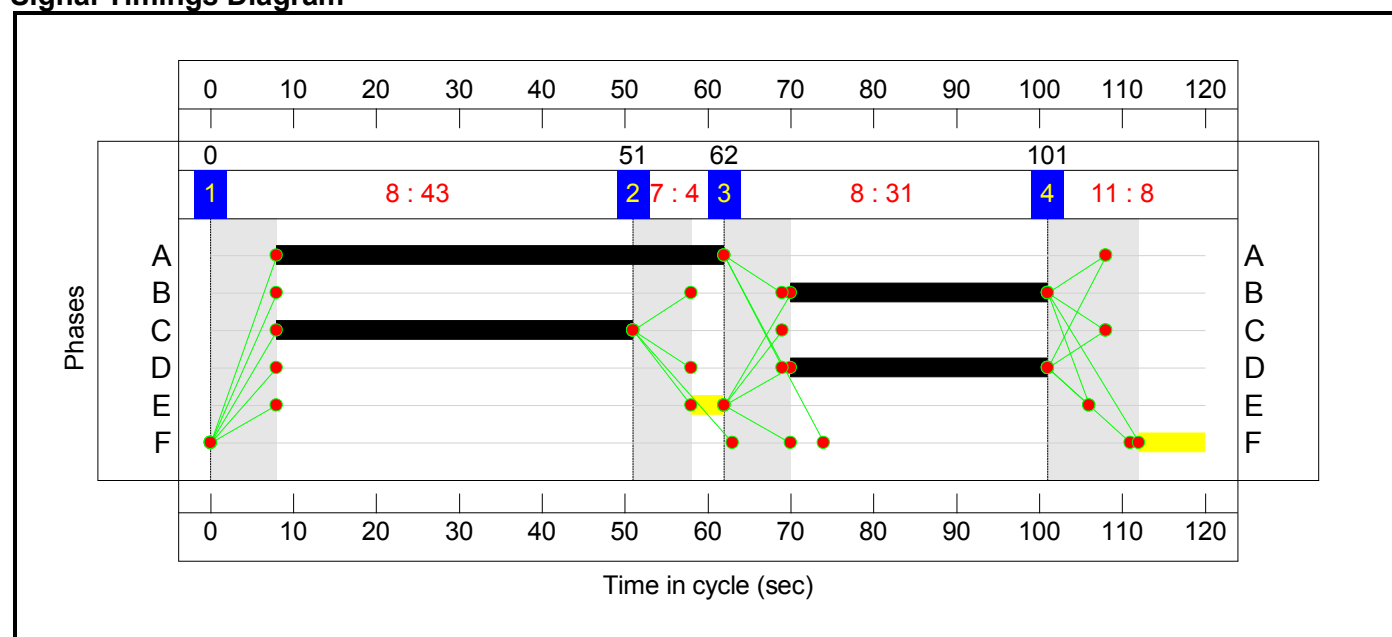
Stage Sequence Diagram



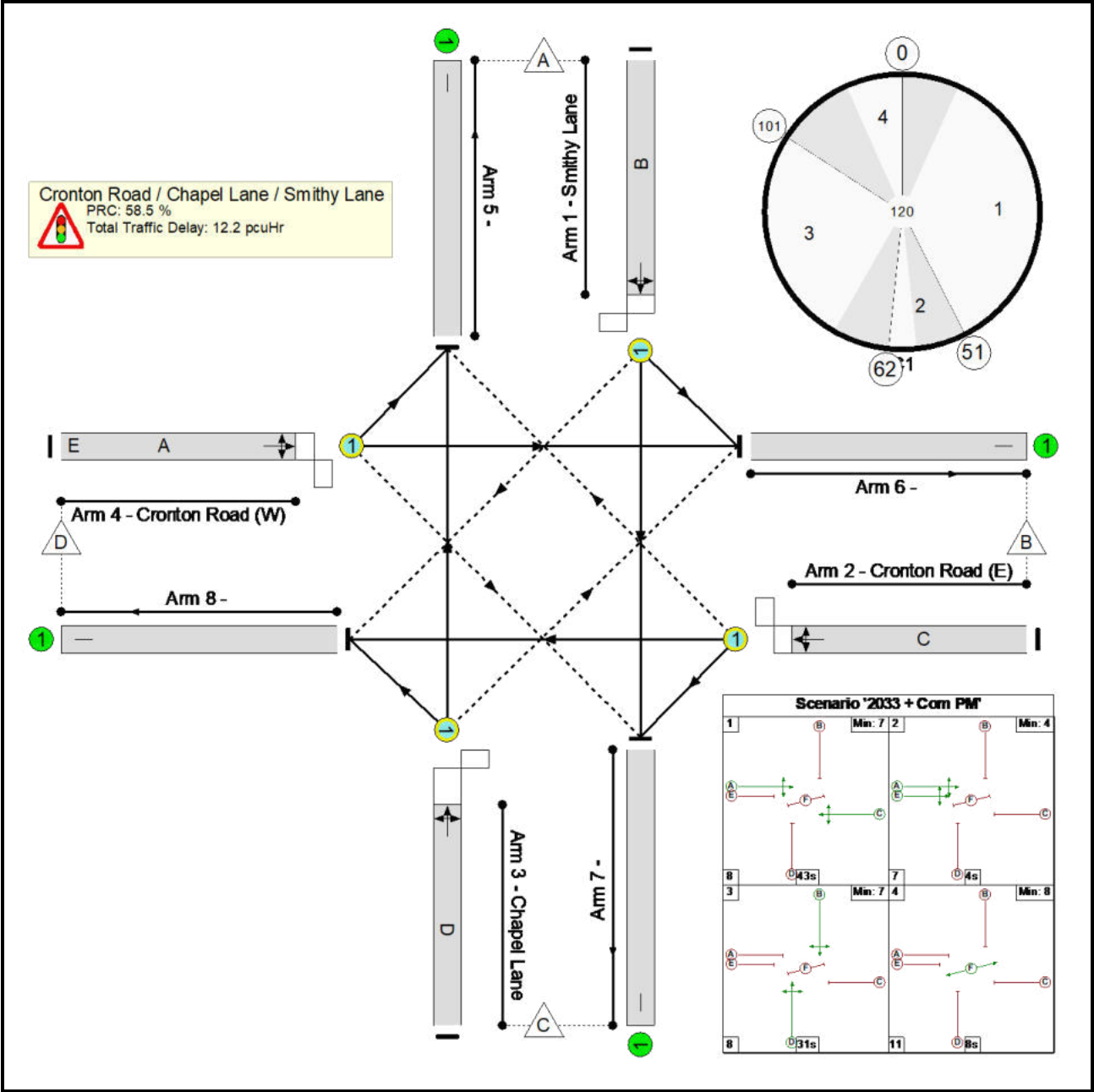
Stage Timings

Stage	1	2	3	4
Duration	43	4	31	8
Change Point	0	51	62	101

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	-	-		-	-	-	-	-	-	56.8%
Cronton Road / Chapel Lane / Smithy Lane	-	-	N/A	-	-		-	-	-	-	-	-	56.8%
1/1	Smithy Lane Left Ahead Right	O	N/A	N/A	B		1	31	-	190	1884	502	37.8%
2/1	Cronton Road (E) Right Left Ahead	O	N/A	N/A	C		1	43	-	375	1822	660	56.8%
3/1	Chapel Lane Ahead Right Left	O	N/A	N/A	D		1	31	-	234	1724	420	55.7%
4/1	Cronton Road (W) Left Ahead Right	O	N/A	N/A	A	E	1	54	4	335	1894	644	52.0%
5/1		U	N/A	N/A	-		-	-	-	206	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	341	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	268	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	319	Inf	Inf	0.0%

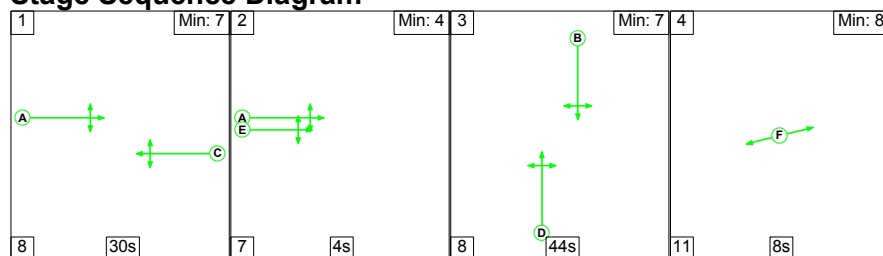
Full Input Data And Results

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	-	-	223	6	3	9.8	2.1	0.3	12.2	-	-	-	-
Cronton Road / Chapel Lane / Smithy Lane	-	-	223	6	3	9.8	2.1	0.3	12.2	-	-	-	-
1/1	190	190	18	0	0	1.9	0.3	0.0	2.2	41.8	5.1	0.3	5.4
2/1	375	375	74	0	1	3.2	0.7	0.0	3.9	37.1	9.9	0.7	10.5
3/1	234	234	53	0	1	2.4	0.6	0.1	3.1	48.1	6.8	0.6	7.4
4/1	335	335	77	6	1	2.3	0.5	0.2	3.0	32.3	8.9	0.5	9.5
5/1	206	206	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	341	341	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	268	268	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	319	319	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 58.5 Total Delay for Signalled Lanes (pcuHr): 12.20 Cycle Time (s): 120 PRC Over All Lanes (%): 58.5 Total Delay Over All Lanes(pcuHr): 12.20													

Full Input Data And Results

Scenario 13: '2033 + Com + Dev AM' (FG13: '2033 + Com + Dev AM', Plan 1: 'Network Control Plan 1')

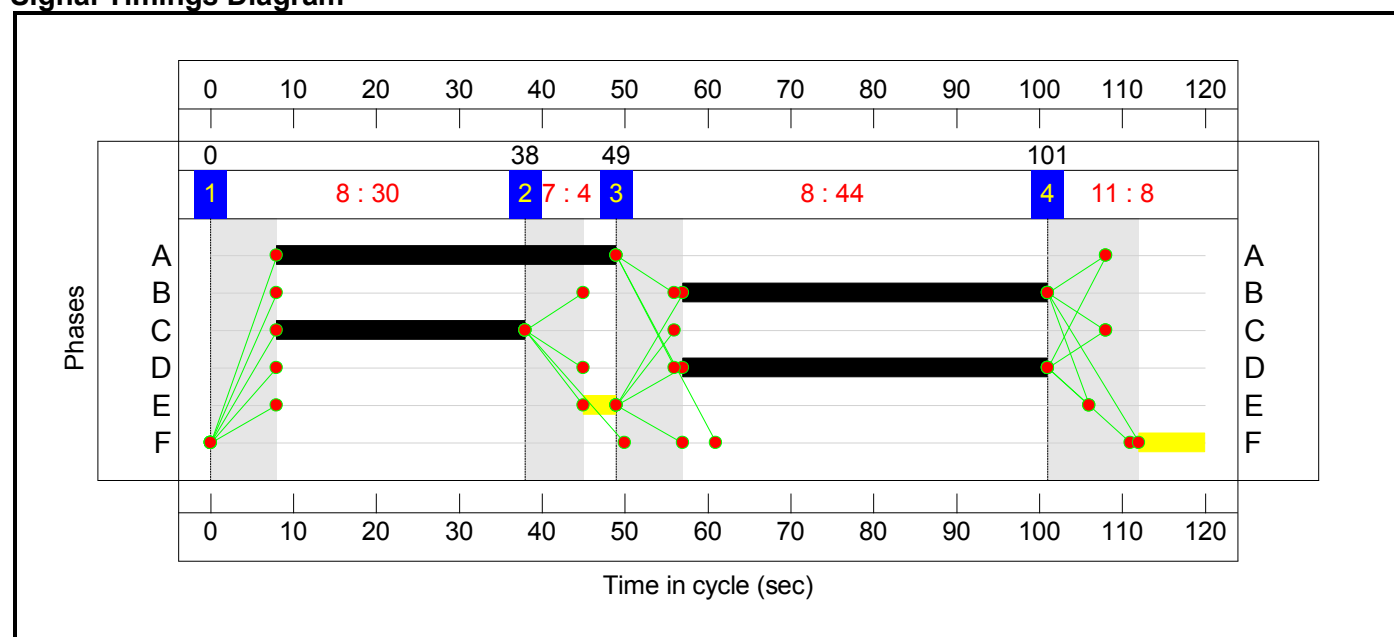
Stage Sequence Diagram



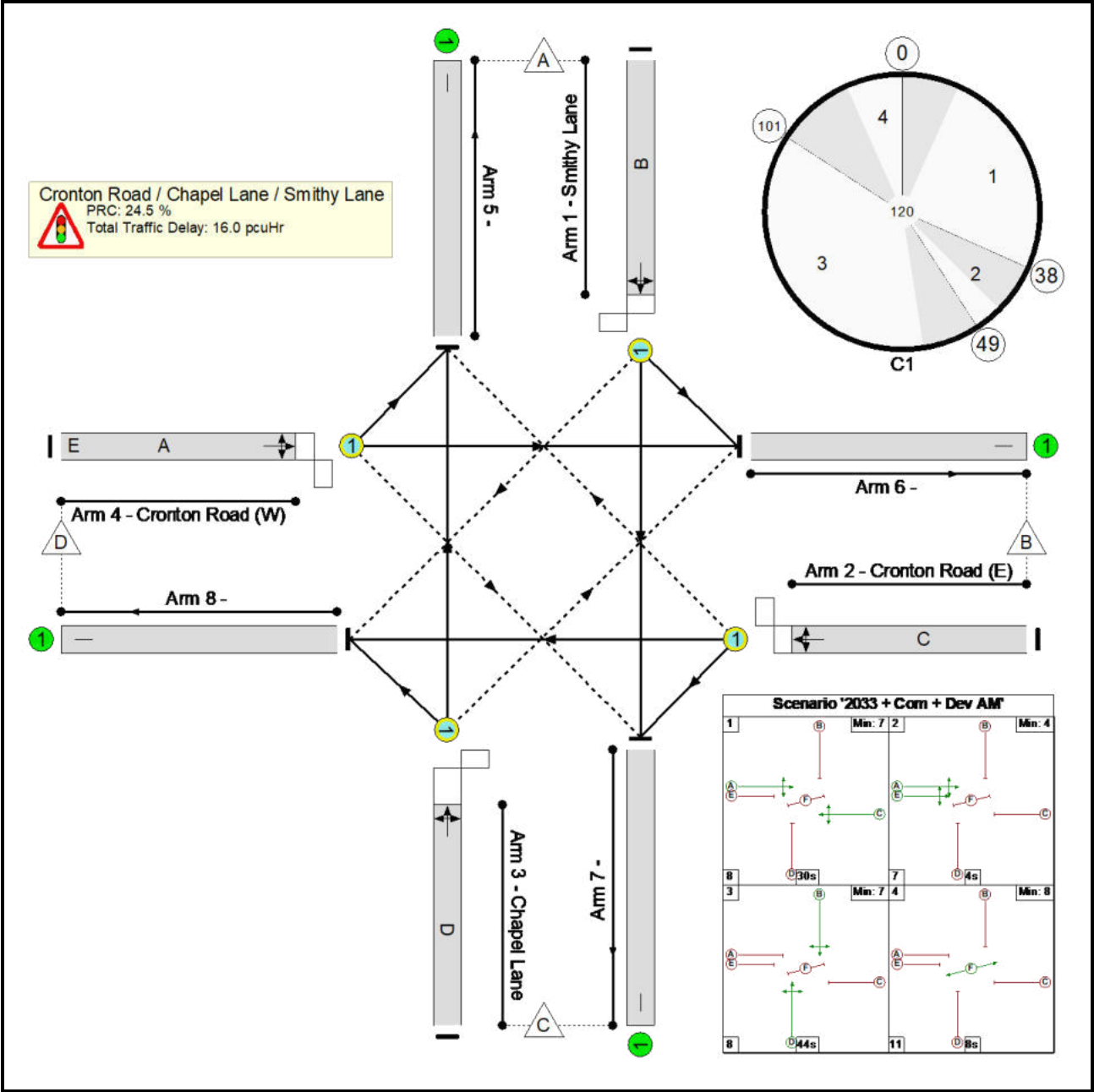
Stage Timings

Stage	1	2	3	4
Duration	30	4	44	8
Change Point	0	38	49	101

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	-	-		-	-	-	-	-	-	72.3%
Cronton Road / Chapel Lane / Smithy Lane	-	-	N/A	-	-		-	-	-	-	-	-	72.3%
1/1	Smithy Lane Left Ahead Right	O	N/A	N/A	B		1	44	-	226	1885	707	32.0%
2/1	Cronton Road (E) Right Left Ahead	O	N/A	N/A	C		1	30	-	337	1825	471	71.5%
3/1	Chapel Lane Ahead Right Left	O	N/A	N/A	D		1	44	-	418	1719	578	72.3%
4/1	Cronton Road (W) Left Ahead Right	O	N/A	N/A	A	E	1	41	4	286	1885	433	66.1%
5/1		U	N/A	N/A	-		-	-	-	267	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	369	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	282	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	349	Inf	Inf	0.0%

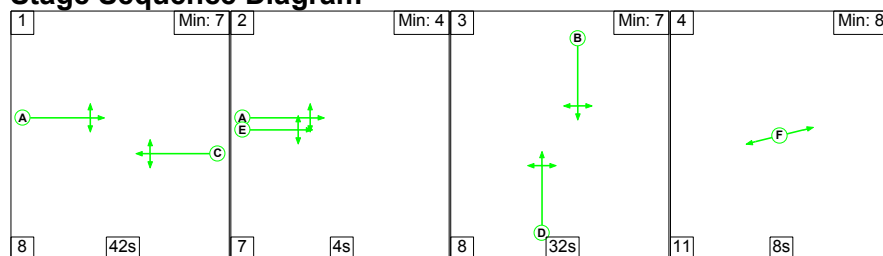
Full Input Data And Results

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	-	-	271	6	4	12.0	3.7	0.3	16.0	-	-	-	-
Cronton Road / Chapel Lane / Smithy Lane	-	-	271	6	4	12.0	3.7	0.3	16.0	-	-	-	-
1/1	226	226	26	0	0	1.7	0.2	0.0	1.9	30.4	5.3	0.2	5.6
2/1	337	337	55	0	0	3.8	1.2	0.0	5.1	54.0	10.2	1.2	11.4
3/1	418	418	124	0	2	3.8	1.3	0.1	5.2	45.0	12.2	1.3	13.5
4/1	286	286	67	6	1	2.7	1.0	0.2	3.8	48.1	8.6	1.0	9.5
5/1	267	267	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	369	369	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	282	282	-	-	-	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
C1 PRC for Signalled Lanes (%): 24.5 Total Delay for Signalled Lanes (pcuHr): 16.01 Cycle Time (s): 120 PRC Over All Lanes (%): 24.5 Total Delay Over All Lanes(pcuHr): 16.01													

Full Input Data And Results

Scenario 14: '2033 + Com + Dev PM' (FG14: '2033 + Com + Dev PM', Plan 1: 'Network Control Plan 1')

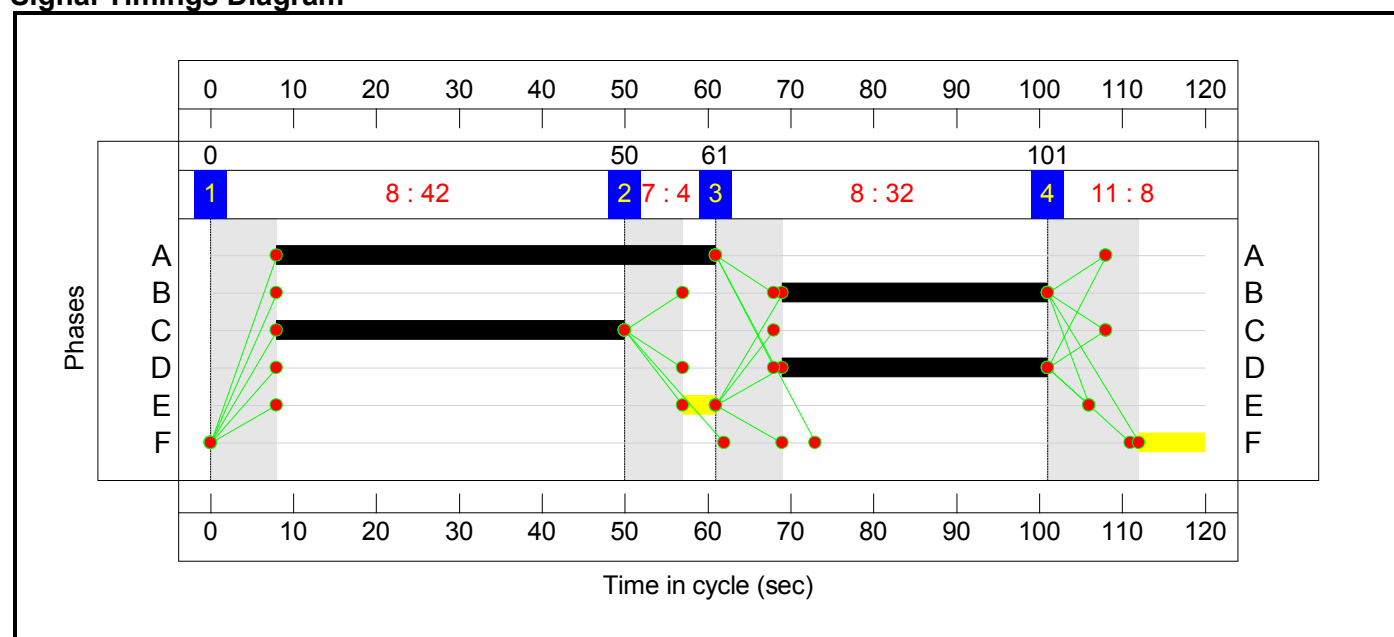
Stage Sequence Diagram



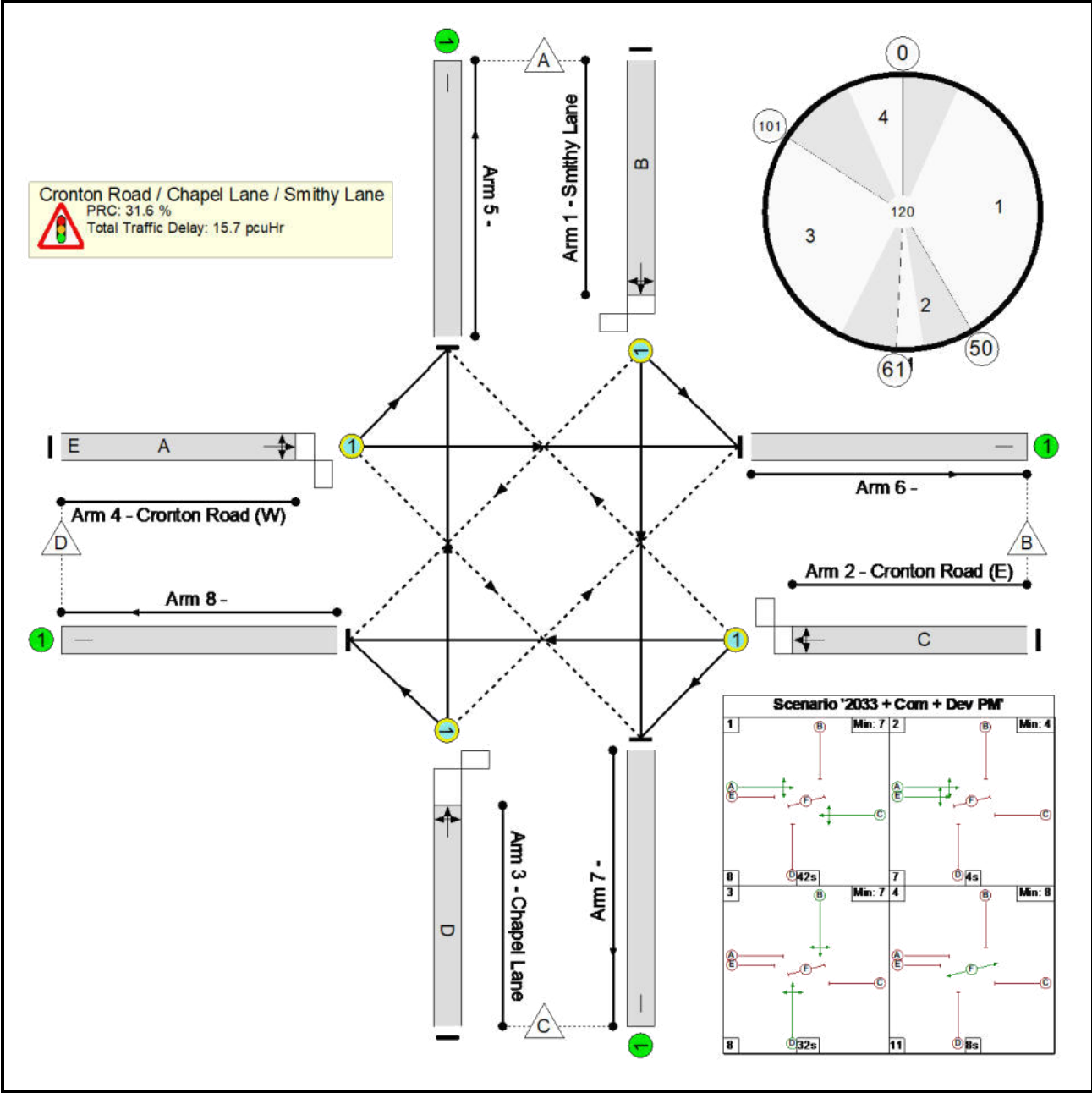
Stage Timings

Stage	1	2	3	4
Duration	42	4	32	8
Change Point	0	50	61	101

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	-	-		-	-	-	-	-	-	68.4%
Cronton Road / Chapel Lane / Smithy Lane	-	-	N/A	-	-		-	-	-	-	-	-	68.4%
1/1	Smithy Lane Left Ahead Right	O	N/A	N/A	B		1	32	-	210	1891	520	40.4%
2/1	Cronton Road (E) Right Left Ahead	O	N/A	N/A	C		1	42	-	420	1795	631	66.5%
3/1	Chapel Lane Ahead Right Left	O	N/A	N/A	D		1	32	-	277	1712	405	68.4%
4/1	Cronton Road (W) Left Ahead Right	O	N/A	N/A	A	E	1	53	4	371	1871	546	67.9%
5/1		U	N/A	N/A	-		-	-	-	214	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	360	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	369	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	335	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	-	-	274	9	4	11.9	3.4	0.4	15.7	-	-	-	-
Cronton Road / Chapel Lane / Smithy Lane	-	-	274	9	4	11.9	3.4	0.4	15.7	-	-	-	-
1/1	210	210	18	0	0	2.1	0.3	0.0	2.4	41.4	5.7	0.3	6.0
2/1	420	420	74	0	1	3.8	1.0	0.0	4.8	40.9	11.7	1.0	12.7
3/1	277	277	72	0	1	3.0	1.1	0.1	4.1	53.8	8.4	1.1	9.5
4/1	371	371	110	9	2	3.1	1.0	0.2	4.4	42.8	10.8	1.0	11.9
5/1	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	360	360	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	369	369	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	335	335	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 31.6 Total Delay for Signalled Lanes (pcuHr): 15.74 Cycle Time (s): 120 PRC Over All Lanes (%): 31.6 Total Delay Over All Lanes(pcuHr): 15.74													

Appendix K

Junctions 10	
ARCADY 10 - Roundabout Module	
Version: 10.0.4.1693	
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Filename: 216175 - Prescott Road_Queensbury Way - V3.j10

Path: O:\Cardiff\Vectos\CardiffShare\Projects\W210000\216175 - Chapel Lane, Halton\Technical\ID - Transport Assessment\Modelling\Arcady

Report generation date: 17/05/2023 16:28:34

»2022, AM
 »2022, PM
 »2025 + Com, AM
 »2025 + Com, PM
 »2025 + Com + Dev, AM
 »2025 + Com + Dev, PM
 »2028 + Com, AM
 »2028 + Com, PM
 »2028 + Com + Dev, AM
 »2028 + Com + Dev, PM
 »2033 + Com, AM
 »2033 + Com, PM
 »2033 + Com + Dev, AM
 »2033 + Com + Dev, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2022						
1 - Prescott Road (N)	0.3	3.33	0.24	0.2	2.96	0.17
2 - Queensbury Way	0.5	3.16	0.32	0.5	3.02	0.33
3 - Prescott Road (S)	0.9	6.11	0.48	1.6	8.14	0.61
4 - Hough Green Road	0.6	3.93	0.36	0.5	3.70	0.32
2025 + Com						
1 - Prescott Road (N)	0.3	3.38	0.24	0.2	3.01	0.17
2 - Queensbury Way	0.5	3.25	0.34	0.5	3.07	0.34
3 - Prescott Road (S)	1.0	6.29	0.49	1.7	8.58	0.63
4 - Hough Green Road	0.6	4.00	0.37	0.5	3.79	0.33
2025 + Com + Dev						
1 - Prescott Road (N)	0.4	3.53	0.28	0.2	3.08	0.19
2 - Queensbury Way	0.5	3.35	0.35	0.5	3.12	0.34
3 - Prescott Road (S)	1.0	6.46	0.51	2.2	10.23	0.69
4 - Hough Green Road	0.6	4.03	0.37	0.5	3.96	0.34
2028 + Com						
1 - Prescott Road (N)	0.3	3.41	0.25	0.2	3.02	0.17
2 - Queensbury Way	0.5	3.29	0.35	0.5	3.09	0.34
3 - Prescott Road (S)	1.0	6.41	0.50	1.8	8.84	0.64
4 - Hough Green Road	0.6	4.05	0.37	0.5	3.83	0.33
2028 + Com + Dev						
1 - Prescott Road (N)	0.4	3.57	0.28	0.2	3.10	0.19
2 - Queensbury Way	0.5	3.39	0.35	0.5	3.15	0.35
3 - Prescott Road (S)	1.1	6.58	0.52	2.3	10.56	0.70
4 - Hough Green Road	0.6	4.09	0.37	0.5	4.00	0.34
2033 + Com						
1 - Prescott Road (N)	0.3	3.47	0.25	0.2	3.05	0.18
2 - Queensbury Way	0.5	3.35	0.35	0.5	3.14	0.35
3 - Prescott Road (S)	1.1	6.62	0.52	1.9	9.20	0.66
4 - Hough Green Road	0.6	4.15	0.38	0.5	3.88	0.34
2033 + Com + Dev						
1 - Prescott Road (N)	0.4	3.63	0.29	0.2	3.13	0.20
2 - Queensbury Way	0.6	3.45	0.36	0.6	3.19	0.36
3 - Prescott Road (S)	1.1	6.80	0.53	2.4	11.09	0.71
4 - Hough Green Road	0.6	4.18	0.38	0.5	4.06	0.35

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	24/08/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	VECTOS\ben.stone
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	2022	AM	ONE HOUR	07:45	09:15	15	✓
D2	2022	PM	ONE HOUR	16:15	17:45	15	✓
D3	2025 + Com	AM	ONE HOUR	07:45	09:15	15	✓
D4	2025 + Com	PM	ONE HOUR	16:15	17:45	15	✓
D5	2025 + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2025 + Com + Dev	PM	ONE HOUR	16:15	17:45	15	✓
D7	2028 + Com	AM	ONE HOUR	07:45	09:15	15	✓
D8	2028 + Com	PM	ONE HOUR	16:15	17:45	15	✓
D9	2028 + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D10	2028 + Com + Dev	PM	ONE HOUR	16:15	17:45	15	✓
D11	2033 + Com	AM	ONE HOUR	07:45	09:15	15	✓
D12	2033 + Com	PM	ONE HOUR	16:15	17:45	15	✓
D13	2033 + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D14	2033 + Com + Dev	PM	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

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

2022, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Safety	1 - Prescott Road (N) - Accident Parameters	Roundabout accident prediction: Angles between arms expected to sum to 360 degrees.
Info	Safety	Accident Prediction	Roundabout accident prediction: Accident frequencies are unavailable due to the roundabout type or shape. (Inscribed circle diameter on all arms must be bigger than Central island diameter)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Prescot Road / Queensbury Way	Standard Roundabout		1, 2, 3, 4	4.23	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.23	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Prescot Road (N)		
2	Queensbury Way		
3	Prescot Road (S)		
4	Hough Green Road		

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 - Prescott Road (N)	3.65	8.04	15.0	24.8	60.0	25.9		
2 - Queensbury Way	3.73	8.29	19.2	40.2	60.0	21.7		
3 - Prescott Road (S)	4.95	8.63	9.9	3.0	13.0	48.2		
4 - Hough Green Road	3.91	8.13	8.9	20.5	60.0	25.3		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Prescott Road (N)	0.587	1835
2 - Queensbury Way	0.626	2017
3 - Prescott Road (S)	0.482	1326
4 - Hough Green Road	0.566	1722

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	2022	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Prescott Road (N)		ONE HOUR	✓	303	100.000
2 - Queensbury Way		ONE HOUR	✓	495	100.000
3 - Prescott Road (S)		ONE HOUR	✓	497	100.000
4 - Hough Green Road		ONE HOUR	✓	460	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
From	1 - Prescott Road (N)	0	55	167	81
	2 - Queensbury Way	70	0	279	146
	3 - Prescott Road (S)	146	191	0	160
	4 - Hough Green Road	65	193	202	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
From	1 - Prescott Road (N)	0	2	1	5
	2 - Queensbury Way	1	0	0	3
	3 - Prescott Road (S)	2	3	0	2
	4 - Hough Green Road	2	4	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 - Prescott Road (N)	0.24	3.33	0.3	A	278	417
2 - Queensbury Way	0.32	3.16	0.5	A	454	681
3 - Prescott Road (S)	0.48	6.11	0.9	A	456	684
4 - Hough Green Road	0.36	3.93	0.6	A	422	633

Main Results for each time segment

07:45 - 08:00

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 - Prescott Road (N)	228	57	439	1535	0.149	227	211	0.0	0.2	2.751	A
2 - Queensbury Way	373	93	338	1783	0.209	372	329	0.0	0.3	2.549	A
3 - Prescott Road (S)	374	94	223	1187	0.315	372	486	0.0	0.5	4.409	A
4 - Hough Green Road	346	87	305	1503	0.230	345	290	0.0	0.3	3.106	A

08:00 - 08:15

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 - Prescott Road (N)	272	68	526	1484	0.184	272	252	0.2	0.2	2.970	A
2 - Queensbury Way	445	111	404	1741	0.256	445	394	0.3	0.3	2.777	A
3 - Prescott Road (S)	447	112	267	1166	0.383	446	582	0.5	0.6	4.999	A
4 - Hough Green Road	414	103	365	1469	0.281	413	348	0.3	0.4	3.409	A

08:15 - 08:30

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 - Prescott Road (N)	334	83	644	1414	0.236	333	309	0.2	0.3	3.330	A
2 - Queensbury Way	545	136	495	1684	0.324	544	483	0.3	0.5	3.158	A
3 - Prescott Road (S)	547	137	327	1137	0.481	546	713	0.6	0.9	6.083	A
4 - Hough Green Road	506	127	447	1423	0.356	506	425	0.4	0.5	3.922	A

08:30 - 08:45

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 - Prescott Road (N)	334	83	645	1414	0.236	334	309	0.3	0.3	3.332	A
2 - Queensbury Way	545	136	495	1683	0.324	545	483	0.5	0.5	3.161	A
3 - Prescott Road (S)	547	137	327	1136	0.481	547	713	0.9	0.9	6.108	A
4 - Hough Green Road	506	127	448	1423	0.356	506	426	0.5	0.6	3.928	A

08:45 - 09:00

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 - Prescott Road (N)	272	68	528	1483	0.184	273	253	0.3	0.2	2.976	A
2 - Queensbury Way	445	111	405	1740	0.256	446	395	0.5	0.3	2.782	A
3 - Prescott Road (S)	447	112	267	1165	0.383	448	583	0.9	0.6	5.027	A
4 - Hough Green Road	414	103	367	1468	0.282	414	349	0.6	0.4	3.418	A

09:00 - 09:15

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 - Prescott Road (N)	228	57	442	1534	0.149	228	212	0.2	0.2	2.757	A
2 - Queensbury Way	373	93	339	1782	0.209	373	331	0.3	0.3	2.554	A
3 - Prescott Road (S)	374	94	224	1187	0.315	375	488	0.6	0.5	4.438	A
4 - Hough Green Road	346	87	307	1502	0.231	347	292	0.4	0.3	3.118	A

Accident Prediction

Accident Prediction Options

Accident prediction type	Junction Environment	Central Island Diameter (m)
Simple (M0)	Urban	5.00

Accident Parameters

Arm	Use geometries from capacity?	Entry path radius (m)	Approach radius (m)	Angle to next arm (Deg)	Yellow bars
1 - Prescott Road (N)	✓	0.00	0.00	40.00	
2 - Queensbury Way	✓	0.00	0.00	40.00	
3 - Prescott Road (S)	✓	0.00	0.00	40.00	
4 - Hough Green Road	✓	0.00	0.00	40.00	

Accident Flows

Arm	Total entry flow (AADT x 1000)	Total exit flow (AADT x 1000)	Total circulating flow (AADT x 1000)	Motorcycles entry flow (AADT x 1000)	Motorcycles exit flow (AADT x 1000)	Motorcycles circulating flow (AADT x 1000)	Pedestrian flow (peds x 1000)
1 - Prescott Road (N)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2 - Queensbury Way	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 - Prescott Road (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4 - Hough Green Road	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Accident Arm Results

Arm	Vehicle accidents index	Pedestrian accidents index
1 - Prescott Road (N)	0.000	0.000
2 - Queensbury Way	0.000	0.000
3 - Prescott Road (S)	0.000	0.000
4 - Hough Green Road	0.000	0.000

2022, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Safety	1 - Prescott Road (N) - Accident Parameters	Roundabout accident prediction: Angles between arms expected to sum to 360 degrees.
Info	Safety	Accident Prediction	Roundabout accident prediction: Accident frequencies are unavailable due to the roundabout type or shape. (Inscribed circle diameter on all arms must be bigger than Central island diameter)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Prescot Road / Queensbury Way	Standard Roundabout		1, 2, 3, 4	4.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.98	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2022	PM	ONE HOUR	16:15	17:45	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 - Prescott Road (N)		ONE HOUR	✓	219	100.000
2 - Queensbury Way		ONE HOUR	✓	533	100.000
3 - Prescott Road (S)		ONE HOUR	✓	637	100.000
4 - Hough Green Road		ONE HOUR	✓	408	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
From	1 - Prescott Road (N)	0	48	107	64
	2 - Queensbury Way	47	0	271	215
	3 - Prescott Road (S)	170	230	0	237
	4 - Hough Green Road	62	194	152	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
	1 - Prescott Road (N)	0	0	0	0
	2 - Queensbury Way	0	0	0	2
	3 - Prescott Road (S)	1	1	0	0
	4 - Hough Green Road	0	2	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 - Prescott Road (N)	0.17	2.96	0.2	A	201	301
2 - Queensbury Way	0.33	3.02	0.5	A	489	734
3 - Prescott Road (S)	0.61	8.14	1.6	A	585	877
4 - Hough Green Road	0.32	3.70	0.5	A	374	562

Main Results for each time segment

16:15 - 16:30

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 - Prescott Road (N)	165	41	432	1579	0.104	164	209	0.0	0.1	2.546	A
2 - Queensbury Way	401	100	242	1850	0.217	400	354	0.0	0.3	2.482	A
3 - Prescott Road (S)	480	120	245	1199	0.400	477	398	0.0	0.7	4.968	A
4 - Hough Green Road	307	77	335	1511	0.203	306	387	0.0	0.3	2.984	A

16:30 - 16:45

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 - Prescott Road (N)	197	49	517	1528	0.129	197	250	0.1	0.1	2.704	A
2 - Queensbury Way	479	120	290	1820	0.263	479	424	0.3	0.4	2.683	A
3 - Prescott Road (S)	573	143	293	1176	0.487	572	476	0.7	0.9	5.948	A
4 - Hough Green Road	367	92	401	1474	0.249	366	463	0.3	0.3	3.250	A

16:45 - 17:00

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 - Prescott Road (N)	241	60	633	1459	0.165	241	306	0.1	0.2	2.955	A
2 - Queensbury Way	587	147	355	1780	0.330	586	519	0.4	0.5	3.015	A
3 - Prescott Road (S)	701	175	359	1144	0.613	699	583	0.9	1.6	8.048	A
4 - Hough Green Road	449	112	491	1424	0.316	449	567	0.3	0.5	3.690	A

17:00 - 17:15

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 - Prescott Road (N)	241	60	634	1458	0.165	241	307	0.2	0.2	2.957	A
2 - Queensbury Way	587	147	356	1779	0.330	587	520	0.5	0.5	3.018	A
3 - Prescott Road (S)	701	175	359	1144	0.613	701	584	1.6	1.6	8.135	A
4 - Hough Green Road	449	112	492	1423	0.316	449	568	0.5	0.5	3.697	A

17:15 - 17:30

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 - Prescott Road (N)	197	49	519	1527	0.129	197	252	0.2	0.1	2.709	A
2 - Queensbury Way	479	120	291	1820	0.263	480	425	0.5	0.4	2.688	A
3 - Prescott Road (S)	573	143	293	1175	0.487	575	477	1.6	1.0	6.020	A
4 - Hough Green Road	367	92	403	1473	0.249	367	465	0.5	0.3	3.257	A

17:30 - 17:45

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 - Prescott Road (N)	165	41	434	1577	0.105	165	210	0.1	0.1	2.551	A
2 - Queensbury Way	401	100	243	1849	0.217	402	356	0.4	0.3	2.488	A
3 - Prescott Road (S)	480	120	246	1199	0.400	481	399	1.0	0.7	5.024	A
4 - Hough Green Road	307	77	337	1510	0.203	307	389	0.3	0.3	2.996	A

Accident Prediction

Accident Prediction Options

Accident prediction type	Junction Environment	Central Island Diameter (m)
Simple (M0)	Urban	5.00

Accident Parameters

Arm	Use geometries from capacity?	Entry path radius (m)	Approach radius (m)	Angle to next arm (Deg)	Yellow bars
1 - Prescott Road (N)	✓	0.00	0.00	40.00	
2 - Queensbury Way	✓	0.00	0.00	40.00	
3 - Prescott Road (S)	✓	0.00	0.00	40.00	
4 - Hough Green Road	✓	0.00	0.00	40.00	

Accident Flows

Arm	Total entry flow (AADT x 1000)	Total exit flow (AADT x 1000)	Total circulating flow (AADT x 1000)	Motorcycles entry flow (AADT x 1000)	Motorcycles exit flow (AADT x 1000)	Motorcycles circulating flow (AADT x 1000)	Pedestrian flow (peds x 1000)
1 - Prescott Road (N)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2 - Queensbury Way	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 - Prescott Road (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4 - Hough Green Road	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Accident Arm Results

Arm	Vehicle accidents index	Pedestrian accidents index
1 - Prescott Road (N)	0.000	0.000
2 - Queensbury Way	0.000	0.000
3 - Prescott Road (S)	0.000	0.000
4 - Hough Green Road	0.000	0.000

2025 + Com, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Safety	1 - Prescott Road (N) - Accident Parameters	Roundabout accident prediction: Angles between arms expected to sum to 360 degrees.
Info	Safety	Accident Prediction	Roundabout accident prediction: Accident frequencies are unavailable due to the roundabout type or shape. (Inscribed circle diameter on all arms must be bigger than Central island diameter)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Prescot Road / Queensbury Way	Standard Roundabout		1, 2, 3, 4	4.33	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.33	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	2025 + Com	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Prescott Road (N)		ONE HOUR	✓	308	100.000
2 - Queensbury Way		ONE HOUR	✓	519	100.000
3 - Prescott Road (S)		ONE HOUR	✓	508	100.000
4 - Hough Green Road		ONE HOUR	✓	470	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
From	1 - Prescott Road (N)	0	56	170	82
	2 - Queensbury Way	71	0	294	154
	3 - Prescott Road (S)	148	197	0	163
	4 - Hough Green Road	66	199	205	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
	1 - Prescott Road (N)	0	2	1	5
	2 - Queensbury Way	1	0	0	3
	3 - Prescott Road (S)	2	3	0	2
	4 - Hough Green Road	2	4	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 - Prescott Road (N)	0.24	3.38	0.3	A	283	424
2 - Queensbury Way	0.34	3.25	0.5	A	476	714
3 - Prescott Road (S)	0.49	6.29	1.0	A	466	699
4 - Hough Green Road	0.37	4.00	0.6	A	431	647

Main Results for each time segment

07:45 - 08:00

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 - Prescott Road (N)	232	58	451	1529	0.152	231	214	0.0	0.2	2.773	A
2 - Queensbury Way	391	98	343	1780	0.220	390	339	0.0	0.3	2.587	A
3 - Prescott Road (S)	382	96	230	1183	0.323	381	502	0.0	0.5	4.478	A
4 - Hough Green Road	354	88	312	1499	0.236	353	299	0.0	0.3	3.137	A

08:00 - 08:15

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 - Prescott Road (N)	277	69	540	1476	0.188	277	256	0.2	0.2	3.001	A
2 - Queensbury Way	467	117	410	1737	0.269	466	406	0.3	0.4	2.832	A
3 - Prescott Road (S)	457	114	276	1161	0.393	456	601	0.5	0.6	5.100	A
4 - Hough Green Road	423	106	373	1465	0.289	422	358	0.3	0.4	3.453	A

08:15 - 08:30

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 - Prescott Road (N)	339	85	661	1405	0.241	339	313	0.2	0.3	3.378	A
2 - Queensbury Way	571	143	503	1679	0.340	571	497	0.4	0.5	3.247	A
3 - Prescott Road (S)	559	140	338	1131	0.494	558	736	0.6	1.0	6.266	A
4 - Hough Green Road	517	129	457	1418	0.365	517	439	0.4	0.6	3.994	A

08:30 - 08:45

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 - Prescott Road (N)	339	85	662	1404	0.242	339	314	0.3	0.3	3.380	A
2 - Queensbury Way	571	143	503	1678	0.340	571	498	0.5	0.5	3.251	A
3 - Prescott Road (S)	559	140	338	1131	0.494	559	737	1.0	1.0	6.295	A
4 - Hough Green Road	517	129	458	1417	0.365	517	439	0.6	0.6	4.001	A

08:45 - 09:00

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 - Prescott Road (N)	277	69	541	1475	0.188	277	257	0.3	0.2	3.005	A
2 - Queensbury Way	467	117	411	1736	0.269	467	407	0.5	0.4	2.839	A
3 - Prescott Road (S)	457	114	276	1161	0.393	458	602	1.0	0.7	5.129	A
4 - Hough Green Road	423	106	375	1464	0.289	423	359	0.6	0.4	3.461	A

09:00 - 09:15

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 - Prescott Road (N)	232	58	453	1527	0.152	232	215	0.2	0.2	2.779	A
2 - Queensbury Way	391	98	344	1779	0.220	391	341	0.4	0.3	2.596	A
3 - Prescott Road (S)	382	96	231	1183	0.323	383	504	0.7	0.5	4.506	A
4 - Hough Green Road	354	88	314	1498	0.236	354	301	0.4	0.3	3.147	A

Accident Prediction

Accident Prediction Options

Accident prediction type	Junction Environment	Central Island Diameter (m)
Simple (M0)	Urban	5.00

Accident Parameters

Arm	Use geometries from capacity?	Entry path radius (m)	Approach radius (m)	Angle to next arm (Deg)	Yellow bars
1 - Prescott Road (N)	✓	0.00	0.00	40.00	
2 - Queensbury Way	✓	0.00	0.00	40.00	
3 - Prescott Road (S)	✓	0.00	0.00	40.00	
4 - Hough Green Road	✓	0.00	0.00	40.00	

Accident Flows

Arm	Total entry flow (AADT x 1000)	Total exit flow (AADT x 1000)	Total circulating flow (AADT x 1000)	Motorcycles entry flow (AADT x 1000)	Motorcycles exit flow (AADT x 1000)	Motorcycles circulating flow (AADT x 1000)	Pedestrian flow (peds x 1000)
1 - Prescott Road (N)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2 - Queensbury Way	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 - Prescott Road (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4 - Hough Green Road	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Accident Arm Results

Arm	Vehicle accidents index	Pedestrian accidents index
1 - Prescott Road (N)	0.000	0.000
2 - Queensbury Way	0.000	0.000
3 - Prescott Road (S)	0.000	0.000
4 - Hough Green Road	0.000	0.000

2025 + Com, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Safety	1 - Prescott Road (N) - Accident Parameters	Roundabout accident prediction: Angles between arms expected to sum to 360 degrees.
Info	Safety	Accident Prediction	Roundabout accident prediction: Accident frequencies are unavailable due to the roundabout type or shape. (Inscribed circle diameter on all arms must be bigger than Central island diameter)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Prescot Road / Queensbury Way	Standard Roundabout		1, 2, 3, 4	5.18	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.18	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
D4	2025 + Com	PM	ONE HOUR	16:15	17:45	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 - Prescott Road (N)		ONE HOUR	✓	223	100.000
2 - Queensbury Way		ONE HOUR	✓	548	100.000
3 - Prescott Road (S)		ONE HOUR	✓	654	100.000
4 - Hough Green Road		ONE HOUR	✓	421	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
From	1 - Prescott Road (N)	0	49	109	65
	2 - Queensbury Way	48	0	279	221
	3 - Prescott Road (S)	172	242	0	240
	4 - Hough Green Road	63	204	154	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
	1 - Prescott Road (N)	0	0	0	0
	2 - Queensbury Way	0	0	0	2
	3 - Prescott Road (S)	1	1	0	0
	4 - Hough Green Road	0	2	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 - Prescott Road (N)	0.17	3.01	0.2	A	205	307
2 - Queensbury Way	0.34	3.07	0.5	A	503	754
3 - Prescott Road (S)	0.63	8.58	1.7	A	600	900
4 - Hough Green Road	0.33	3.79	0.5	A	386	579

Main Results for each time segment

16:15 - 16:30

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 - Prescott Road (N)	168	42	450	1568	0.107	167	212	0.0	0.1	2.570	A
2 - Queensbury Way	413	103	246	1848	0.223	411	371	0.0	0.3	2.504	A
3 - Prescott Road (S)	492	123	251	1196	0.412	490	407	0.0	0.7	5.077	A
4 - Hough Green Road	317	79	346	1505	0.211	316	394	0.0	0.3	3.025	A

16:30 - 16:45

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 - Prescott Road (N)	200	50	539	1515	0.132	200	254	0.1	0.2	2.738	A
2 - Queensbury Way	493	123	295	1817	0.271	492	444	0.3	0.4	2.716	A
3 - Prescott Road (S)	588	147	300	1172	0.502	587	487	0.7	1.0	6.138	A
4 - Hough Green Road	378	95	415	1466	0.258	378	472	0.3	0.3	3.308	A

16:45 - 17:00

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 - Prescott Road (N)	246	61	659	1443	0.170	245	311	0.2	0.2	3.004	A
2 - Queensbury Way	603	151	361	1776	0.340	603	544	0.4	0.5	3.066	A
3 - Prescott Road (S)	720	180	367	1139	0.632	717	596	1.0	1.7	8.474	A
4 - Hough Green Road	464	116	507	1414	0.328	463	578	0.3	0.5	3.782	A

17:00 - 17:15

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 - Prescott Road (N)	246	61	661	1443	0.170	246	312	0.2	0.2	3.006	A
2 - Queensbury Way	603	151	361	1776	0.340	603	545	0.5	0.5	3.069	A
3 - Prescott Road (S)	720	180	368	1139	0.632	720	597	1.7	1.7	8.583	A
4 - Hough Green Road	464	116	509	1413	0.328	464	579	0.5	0.5	3.789	A

17:15 - 17:30

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 - Prescott Road (N)	200	50	541	1514	0.132	201	255	0.2	0.2	2.743	A
2 - Queensbury Way	493	123	295	1817	0.271	493	446	0.5	0.4	2.719	A
3 - Prescott Road (S)	588	147	301	1172	0.502	591	488	1.7	1.0	6.222	A
4 - Hough Green Road	378	95	417	1465	0.258	379	474	0.5	0.4	3.319	A

17:30 - 17:45

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 - Prescott Road (N)	168	42	452	1566	0.107	168	213	0.2	0.1	2.574	A
2 - Queensbury Way	413	103	247	1847	0.223	413	373	0.4	0.3	2.512	A
3 - Prescott Road (S)	492	123	252	1196	0.412	494	408	1.0	0.7	5.137	A
4 - Hough Green Road	317	79	349	1503	0.211	317	397	0.4	0.3	3.035	A

Accident Prediction

Accident Prediction Options

Accident prediction type	Junction Environment	Central Island Diameter (m)
Simple (M0)	Urban	5.00

Accident Parameters

Arm	Use geometries from capacity?	Entry path radius (m)	Approach radius (m)	Angle to next arm (Deg)	Yellow bars
1 - Prescott Road (N)	✓	0.00	0.00	40.00	
2 - Queensbury Way	✓	0.00	0.00	40.00	
3 - Prescott Road (S)	✓	0.00	0.00	40.00	
4 - Hough Green Road	✓	0.00	0.00	40.00	

Accident Flows

Arm	Total entry flow (AADT x 1000)	Total exit flow (AADT x 1000)	Total circulating flow (AADT x 1000)	Motorcycles entry flow (AADT x 1000)	Motorcycles exit flow (AADT x 1000)	Motorcycles circulating flow (AADT x 1000)	Pedestrian flow (peds x 1000)
1 - Prescott Road (N)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2 - Queensbury Way	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 - Prescott Road (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4 - Hough Green Road	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Accident Arm Results

Arm	Vehicle accidents index	Pedestrian accidents index
1 - Prescott Road (N)	0.000	0.000
2 - Queensbury Way	0.000	0.000
3 - Prescott Road (S)	0.000	0.000
4 - Hough Green Road	0.000	0.000

2025 + Com + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Safety	1 - Prescott Road (N) - Accident Parameters	Roundabout accident prediction: Angles between arms expected to sum to 360 degrees.
Info	Safety	Accident Prediction	Roundabout accident prediction: Accident frequencies are unavailable due to the roundabout type or shape. (Inscribed circle diameter on all arms must be bigger than Central island diameter)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Prescot Road / Queensbury Way	Standard Roundabout		1, 2, 3, 4	4.43	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.43	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
D5	2025 + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Prescott Road (N)		ONE HOUR	✓	360	100.000
2 - Queensbury Way		ONE HOUR	✓	519	100.000
3 - Prescott Road (S)		ONE HOUR	✓	520	100.000
4 - Hough Green Road		ONE HOUR	✓	470	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
From	1 - Prescott Road (N)	0	57	219	84
	2 - Queensbury Way	71	0	294	154
	3 - Prescott Road (S)	160	197	0	163
	4 - Hough Green Road	66	199	205	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
	1 - Prescott Road (N)	0	2	0	5
	2 - Queensbury Way	1	0	0	3
	3 - Prescott Road (S)	2	3	0	2
	4 - Hough Green Road	2	4	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 - Prescott Road (N)	0.28	3.53	0.4	A	330	496
2 - Queensbury Way	0.35	3.35	0.5	A	476	714
3 - Prescott Road (S)	0.51	6.46	1.0	A	477	716
4 - Hough Green Road	0.37	4.03	0.6	A	431	647

Main Results for each time segment

07:45 - 08:00

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 - Prescott Road (N)	271	68	451	1540	0.176	270	223	0.0	0.2	2.833	A
2 - Queensbury Way	391	98	381	1757	0.222	390	340	0.0	0.3	2.630	A
3 - Prescott Road (S)	391	98	232	1183	0.331	390	539	0.0	0.5	4.528	A
4 - Hough Green Road	354	88	321	1494	0.237	353	301	0.0	0.3	3.151	A

08:00 - 08:15

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 - Prescott Road (N)	324	81	540	1487	0.218	323	267	0.2	0.3	3.093	A
2 - Queensbury Way	467	117	456	1710	0.273	466	407	0.3	0.4	2.895	A
3 - Prescott Road (S)	467	117	278	1161	0.403	467	645	0.5	0.7	5.183	A
4 - Hough Green Road	423	106	384	1459	0.290	422	360	0.3	0.4	3.474	A

08:15 - 08:30

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 - Prescott Road (N)	396	99	661	1415	0.280	396	326	0.3	0.4	3.530	A
2 - Queensbury Way	571	143	559	1645	0.347	571	498	0.4	0.5	3.349	A
3 - Prescott Road (S)	573	143	340	1130	0.507	571	790	0.7	1.0	6.423	A
4 - Hough Green Road	517	129	470	1410	0.367	517	441	0.4	0.6	4.027	A

08:30 - 08:45

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 - Prescott Road (N)	396	99	662	1414	0.280	396	327	0.4	0.4	3.535	A
2 - Queensbury Way	571	143	559	1645	0.347	571	499	0.5	0.5	3.353	A
3 - Prescott Road (S)	573	143	340	1130	0.507	573	791	1.0	1.0	6.455	A
4 - Hough Green Road	517	129	471	1410	0.367	517	441	0.6	0.6	4.035	A

08:45 - 09:00

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 - Prescott Road (N)	324	81	541	1486	0.218	324	268	0.4	0.3	3.100	A
2 - Queensbury Way	467	117	457	1709	0.273	467	408	0.5	0.4	2.902	A
3 - Prescott Road (S)	467	117	278	1160	0.403	469	646	1.0	0.7	5.218	A
4 - Hough Green Road	423	106	386	1458	0.290	423	361	0.6	0.4	3.481	A

09:00 - 09:15

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 - Prescott Road (N)	271	68	453	1539	0.176	271	224	0.3	0.2	2.842	A
2 - Queensbury Way	391	98	383	1756	0.223	391	342	0.4	0.3	2.640	A
3 - Prescott Road (S)	391	98	233	1182	0.331	392	541	0.7	0.5	4.560	A
4 - Hough Green Road	354	88	323	1493	0.237	354	302	0.4	0.3	3.163	A

Accident Prediction

Accident Prediction Options

Accident prediction type	Junction Environment	Central Island Diameter (m)
Simple (M0)	Urban	5.00

Accident Parameters

Arm	Use geometries from capacity?	Entry path radius (m)	Approach radius (m)	Angle to next arm (Deg)	Yellow bars
1 - Prescott Road (N)	✓	0.00	0.00	40.00	
2 - Queensbury Way	✓	0.00	0.00	40.00	
3 - Prescott Road (S)	✓	0.00	0.00	40.00	
4 - Hough Green Road	✓	0.00	0.00	40.00	

Accident Flows

Arm	Total entry flow (AADT x 1000)	Total exit flow (AADT x 1000)	Total circulating flow (AADT x 1000)	Motorcycles entry flow (AADT x 1000)	Motorcycles exit flow (AADT x 1000)	Motorcycles circulating flow (AADT x 1000)	Pedestrian flow (peds x 1000)
1 - Prescott Road (N)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2 - Queensbury Way	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 - Prescott Road (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4 - Hough Green Road	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Accident Arm Results

Arm	Vehicle accidents index	Pedestrian accidents index
1 - Prescott Road (N)	0.000	0.000
2 - Queensbury Way	0.000	0.000
3 - Prescott Road (S)	0.000	0.000
4 - Hough Green Road	0.000	0.000

2025 + Com + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Safety	1 - Prescott Road (N) - Accident Parameters	Roundabout accident prediction: Angles between arms expected to sum to 360 degrees.
Info	Safety	Accident Prediction	Roundabout accident prediction: Accident frequencies are unavailable due to the roundabout type or shape. (Inscribed circle diameter on all arms must be bigger than Central island diameter)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Prescot Road / Queensbury Way	Standard Roundabout		1, 2, 3, 4	5.92	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.92	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
D6	2025 + Com + Dev	PM	ONE HOUR	16:15	17:45	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 - Prescott Road (N)		ONE HOUR	✓	250	100.000
2 - Queensbury Way		ONE HOUR	✓	550	100.000
3 - Prescott Road (S)		ONE HOUR	✓	714	100.000
4 - Hough Green Road		ONE HOUR	✓	423	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
From	1 - Prescott Road (N)	0	50	134	66
	2 - Queensbury Way	50	0	279	221
	3 - Prescott Road (S)	232	242	0	240
	4 - Hough Green Road	65	204	154	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
	1 - Prescott Road (N)	0	0	0	0
	2 - Queensbury Way	0	0	0	2
	3 - Prescott Road (S)	1	1	0	0
	4 - Hough Green Road	0	2	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 - Prescott Road (N)	0.19	3.08	0.2	A	229	344
2 - Queensbury Way	0.34	3.12	0.5	A	505	757
3 - Prescott Road (S)	0.69	10.23	2.2	B	655	983
4 - Hough Green Road	0.34	3.96	0.5	A	388	582

Main Results for each time segment

16:15 - 16:30

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 - Prescott Road (N)	188	47	450	1568	0.120	188	260	0.0	0.1	2.606	A
2 - Queensbury Way	414	104	266	1836	0.226	413	372	0.0	0.3	2.527	A
3 - Prescott Road (S)	538	134	253	1195	0.450	534	426	0.0	0.8	5.427	A
4 - Hough Green Road	318	80	392	1479	0.215	317	395	0.0	0.3	3.096	A

16:30 - 16:45

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 - Prescott Road (N)	225	56	539	1515	0.148	225	311	0.1	0.2	2.789	A
2 - Queensbury Way	494	124	318	1803	0.274	494	445	0.3	0.4	2.750	A
3 - Prescott Road (S)	642	160	303	1170	0.548	640	509	0.8	1.2	6.770	A
4 - Hough Green Road	380	95	470	1435	0.265	380	473	0.3	0.4	3.412	A

16:45 - 17:00

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 - Prescott Road (N)	275	69	659	1444	0.191	275	381	0.2	0.2	3.080	A
2 - Queensbury Way	606	151	389	1758	0.344	605	544	0.4	0.5	3.119	A
3 - Prescott Road (S)	786	197	371	1137	0.691	782	624	1.2	2.2	10.026	B
4 - Hough Green Road	466	116	574	1376	0.338	465	579	0.4	0.5	3.948	A

17:00 - 17:15

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 - Prescott Road (N)	275	69	661	1443	0.191	275	382	0.2	0.2	3.083	A
2 - Queensbury Way	606	151	390	1758	0.344	606	546	0.5	0.5	3.122	A
3 - Prescott Road (S)	786	197	371	1137	0.691	786	624	2.2	2.2	10.235	B
4 - Hough Green Road	466	116	577	1375	0.339	466	580	0.5	0.5	3.959	A

17:15 - 17:30

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 - Prescott Road (N)	225	56	541	1514	0.148	225	313	0.2	0.2	2.793	A
2 - Queensbury Way	494	124	319	1803	0.274	495	448	0.5	0.4	2.753	A
3 - Prescott Road (S)	642	160	303	1170	0.549	646	510	2.2	1.2	6.915	A
4 - Hough Green Road	380	95	474	1433	0.265	381	475	0.5	0.4	3.425	A

17:30 - 17:45

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 - Prescott Road (N)	188	47	453	1566	0.120	188	262	0.2	0.1	2.612	A
2 - Queensbury Way	414	104	267	1835	0.226	414	374	0.4	0.3	2.536	A
3 - Prescott Road (S)	538	134	254	1194	0.450	539	427	1.2	0.8	5.509	A
4 - Hough Green Road	318	80	396	1477	0.216	319	397	0.4	0.3	3.111	A

Accident Prediction

Accident Prediction Options

Accident prediction type	Junction Environment	Central Island Diameter (m)
Simple (M0)	Urban	5.00

Accident Parameters

Arm	Use geometries from capacity?	Entry path radius (m)	Approach radius (m)	Angle to next arm (Deg)	Yellow bars
1 - Prescott Road (N)	✓	0.00	0.00	40.00	
2 - Queensbury Way	✓	0.00	0.00	40.00	
3 - Prescott Road (S)	✓	0.00	0.00	40.00	
4 - Hough Green Road	✓	0.00	0.00	40.00	

Accident Flows

Arm	Total entry flow (AADT x 1000)	Total exit flow (AADT x 1000)	Total circulating flow (AADT x 1000)	Motorcycles entry flow (AADT x 1000)	Motorcycles exit flow (AADT x 1000)	Motorcycles circulating flow (AADT x 1000)	Pedestrian flow (peds x 1000)
1 - Prescott Road (N)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2 - Queensbury Way	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 - Prescott Road (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4 - Hough Green Road	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Accident Arm Results

Arm	Vehicle accidents index	Pedestrian accidents index
1 - Prescott Road (N)	0.000	0.000
2 - Queensbury Way	0.000	0.000
3 - Prescott Road (S)	0.000	0.000
4 - Hough Green Road	0.000	0.000

2028 + Com, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Safety	1 - Prescott Road (N) - Accident Parameters	Roundabout accident prediction: Angles between arms expected to sum to 360 degrees.
Info	Safety	Accident Prediction	Roundabout accident prediction: Accident frequencies are unavailable due to the roundabout type or shape. (Inscribed circle diameter on all arms must be bigger than Central island diameter)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Prescot Road / Queensbury Way	Standard Roundabout		1, 2, 3, 4	4.39	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.39	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	2028 + Com	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Prescott Road (N)		ONE HOUR	✓	312	100.000
2 - Queensbury Way		ONE HOUR	✓	526	100.000
3 - Prescott Road (S)		ONE HOUR	✓	515	100.000
4 - Hough Green Road		ONE HOUR	✓	477	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
From	1 - Prescott Road (N)	0	57	172	83
	2 - Queensbury Way	72	0	298	156
	3 - Prescott Road (S)	150	200	0	165
	4 - Hough Green Road	67	202	208	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
	1 - Prescott Road (N)	0	2	1	5
	2 - Queensbury Way	1	0	0	3
	3 - Prescott Road (S)	2	3	0	2
	4 - Hough Green Road	2	4	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 - Prescott Road (N)	0.25	3.41	0.3	A	286	429
2 - Queensbury Way	0.35	3.29	0.5	A	483	724
3 - Prescott Road (S)	0.50	6.41	1.0	A	473	709
4 - Hough Green Road	0.37	4.05	0.6	A	438	657

Main Results for each time segment

07:45 - 08:00

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 - Prescott Road (N)	235	59	457	1525	0.154	234	217	0.0	0.2	2.788	A
2 - Queensbury Way	396	99	347	1777	0.223	395	344	0.0	0.3	2.602	A
3 - Prescott Road (S)	388	97	233	1182	0.328	386	509	0.0	0.5	4.511	A
4 - Hough Green Road	359	90	316	1497	0.240	358	303	0.0	0.3	3.158	A

08:00 - 08:15

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 - Prescott Road (N)	280	70	548	1471	0.191	280	259	0.2	0.2	3.022	A
2 - Queensbury Way	473	118	416	1734	0.273	473	412	0.3	0.4	2.854	A
3 - Prescott Road (S)	463	116	279	1160	0.399	462	609	0.5	0.7	5.157	A
4 - Hough Green Road	429	107	379	1462	0.293	428	363	0.3	0.4	3.485	A

08:15 - 08:30

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 - Prescott Road (N)	344	86	671	1399	0.246	343	318	0.2	0.3	3.410	A
2 - Queensbury Way	579	145	509	1675	0.346	579	504	0.4	0.5	3.282	A
3 - Prescott Road (S)	567	142	342	1129	0.502	566	746	0.7	1.0	6.373	A
4 - Hough Green Road	525	131	464	1414	0.371	524	444	0.4	0.6	4.044	A

08:30 - 08:45

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 - Prescott Road (N)	344	86	672	1398	0.246	344	318	0.3	0.3	3.412	A
2 - Queensbury Way	579	145	510	1674	0.346	579	505	0.5	0.5	3.286	A
3 - Prescott Road (S)	567	142	342	1129	0.502	567	746	1.0	1.0	6.405	A
4 - Hough Green Road	525	131	465	1413	0.372	525	445	0.6	0.6	4.053	A

08:45 - 09:00

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 - Prescott Road (N)	280	70	549	1470	0.191	281	260	0.3	0.2	3.029	A
2 - Queensbury Way	473	118	417	1733	0.273	473	413	0.5	0.4	2.861	A
3 - Prescott Road (S)	463	116	280	1159	0.399	464	610	1.0	0.7	5.189	A
4 - Hough Green Road	429	107	380	1461	0.294	429	364	0.6	0.4	3.495	A

09:00 - 09:15

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 - Prescott Road (N)	235	59	460	1523	0.154	235	218	0.2	0.2	2.796	A
2 - Queensbury Way	396	99	349	1776	0.223	396	346	0.4	0.3	2.611	A
3 - Prescott Road (S)	388	97	234	1181	0.328	388	511	0.7	0.5	4.543	A
4 - Hough Green Road	359	90	318	1496	0.240	360	305	0.4	0.3	3.171	A

Accident Prediction

Accident Prediction Options

Accident prediction type	Junction Environment	Central Island Diameter (m)
Simple (M0)	Urban	5.00

Accident Parameters

Arm	Use geometries from capacity?	Entry path radius (m)	Approach radius (m)	Angle to next arm (Deg)	Yellow bars
1 - Prescott Road (N)	✓	0.00	0.00	40.00	
2 - Queensbury Way	✓	0.00	0.00	40.00	
3 - Prescott Road (S)	✓	0.00	0.00	40.00	
4 - Hough Green Road	✓	0.00	0.00	40.00	

Accident Flows

Arm	Total entry flow (AADT x 1000)	Total exit flow (AADT x 1000)	Total circulating flow (AADT x 1000)	Motorcycles entry flow (AADT x 1000)	Motorcycles exit flow (AADT x 1000)	Motorcycles circulating flow (AADT x 1000)	Pedestrian flow (peds x 1000)
1 - Prescott Road (N)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2 - Queensbury Way	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 - Prescott Road (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4 - Hough Green Road	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Accident Arm Results

Arm	Vehicle accidents index	Pedestrian accidents index
1 - Prescott Road (N)	0.000	0.000
2 - Queensbury Way	0.000	0.000
3 - Prescott Road (S)	0.000	0.000
4 - Hough Green Road	0.000	0.000

2028 + Com, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Safety	1 - Prescott Road (N) - Accident Parameters	Roundabout accident prediction: Angles between arms expected to sum to 360 degrees.
Info	Safety	Accident Prediction	Roundabout accident prediction: Accident frequencies are unavailable due to the roundabout type or shape. (Inscribed circle diameter on all arms must be bigger than Central island diameter)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Prescot Road / Queensbury Way	Standard Roundabout		1, 2, 3, 4	5.29	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.29	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
D8	2028 + Com	PM	ONE HOUR	16:15	17:45	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 - Prescott Road (N)		ONE HOUR	✓	225	100.000
2 - Queensbury Way		ONE HOUR	✓	554	100.000
3 - Prescott Road (S)		ONE HOUR	✓	663	100.000
4 - Hough Green Road		ONE HOUR	✓	426	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
From	1 - Prescott Road (N)	0	49	110	66
	2 - Queensbury Way	48	0	282	224
	3 - Prescott Road (S)	175	245	0	243
	4 - Hough Green Road	64	206	156	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
	1 - Prescott Road (N)	0	0	0	0
	2 - Queensbury Way	0	0	0	2
	3 - Prescott Road (S)	1	1	0	0
	4 - Hough Green Road	0	2	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 - Prescott Road (N)	0.17	3.02	0.2	A	206	310
2 - Queensbury Way	0.34	3.09	0.5	A	508	763
3 - Prescott Road (S)	0.64	8.84	1.8	A	608	913
4 - Hough Green Road	0.33	3.83	0.5	A	391	586

Main Results for each time segment

16:15 - 16:30

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 - Prescott Road (N)	169	42	455	1565	0.108	169	215	0.0	0.1	2.579	A
2 - Queensbury Way	417	104	249	1846	0.226	416	375	0.0	0.3	2.515	A
3 - Prescott Road (S)	499	125	254	1195	0.418	496	411	0.0	0.7	5.135	A
4 - Hough Green Road	321	80	350	1502	0.213	320	400	0.0	0.3	3.041	A

16:30 - 16:45

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 - Prescott Road (N)	202	51	545	1511	0.134	202	258	0.1	0.2	2.749	A
2 - Queensbury Way	498	125	298	1815	0.274	498	449	0.3	0.4	2.732	A
3 - Prescott Road (S)	596	149	304	1170	0.509	595	492	0.7	1.0	6.240	A
4 - Hough Green Road	383	96	420	1463	0.262	383	479	0.3	0.4	3.331	A

16:45 - 17:00

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 - Prescott Road (N)	248	62	667	1439	0.172	248	315	0.2	0.2	3.021	A
2 - Queensbury Way	610	152	365	1773	0.344	609	549	0.4	0.5	3.091	A
3 - Prescott Road (S)	730	182	372	1137	0.642	727	603	1.0	1.7	8.714	A
4 - Hough Green Road	469	117	513	1411	0.333	468	585	0.4	0.5	3.819	A

17:00 - 17:15

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 - Prescott Road (N)	248	62	668	1438	0.172	248	316	0.2	0.2	3.023	A
2 - Queensbury Way	610	152	366	1773	0.344	610	550	0.5	0.5	3.094	A
3 - Prescott Road (S)	730	182	372	1137	0.642	730	603	1.7	1.8	8.835	A
4 - Hough Green Road	469	117	515	1410	0.333	469	587	0.5	0.5	3.826	A

17:15 - 17:30

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 - Prescott Road (N)	202	51	547	1510	0.134	202	259	0.2	0.2	2.753	A
2 - Queensbury Way	498	125	299	1815	0.274	499	451	0.5	0.4	2.735	A
3 - Prescott Road (S)	596	149	304	1170	0.509	599	493	1.8	1.1	6.333	A
4 - Hough Green Road	383	96	423	1462	0.262	384	481	0.5	0.4	3.339	A

17:30 - 17:45

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 - Prescott Road (N)	169	42	458	1563	0.108	170	216	0.2	0.1	2.584	A
2 - Queensbury Way	417	104	250	1845	0.226	417	377	0.4	0.3	2.521	A
3 - Prescott Road (S)	499	125	255	1194	0.418	500	413	1.1	0.7	5.201	A
4 - Hough Green Road	321	80	353	1501	0.214	321	402	0.4	0.3	3.051	A

Accident Prediction

Accident Prediction Options

Accident prediction type	Junction Environment	Central Island Diameter (m)
Simple (M0)	Urban	5.00

Accident Parameters

Arm	Use geometries from capacity?	Entry path radius (m)	Approach radius (m)	Angle to next arm (Deg)	Yellow bars
1 - Prescott Road (N)	✓	0.00	0.00	40.00	
2 - Queensbury Way	✓	0.00	0.00	40.00	
3 - Prescott Road (S)	✓	0.00	0.00	40.00	
4 - Hough Green Road	✓	0.00	0.00	40.00	

Accident Flows

Arm	Total entry flow (AADT x 1000)	Total exit flow (AADT x 1000)	Total circulating flow (AADT x 1000)	Motorcycles entry flow (AADT x 1000)	Motorcycles exit flow (AADT x 1000)	Motorcycles circulating flow (AADT x 1000)	Pedestrian flow (peds x 1000)
1 - Prescott Road (N)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2 - Queensbury Way	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 - Prescott Road (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4 - Hough Green Road	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Accident Arm Results

Arm	Vehicle accidents index	Pedestrian accidents index
1 - Prescott Road (N)	0.000	0.000
2 - Queensbury Way	0.000	0.000
3 - Prescott Road (S)	0.000	0.000
4 - Hough Green Road	0.000	0.000

2028 + Com + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Safety	1 - Prescott Road (N) - Accident Parameters	Roundabout accident prediction: Angles between arms expected to sum to 360 degrees.
Info	Safety	Accident Prediction	Roundabout accident prediction: Accident frequencies are unavailable due to the roundabout type or shape. (Inscribed circle diameter on all arms must be bigger than Central island diameter)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Prescot Road / Queensbury Way	Standard Roundabout		1, 2, 3, 4	4.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.50	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
D9	2028 + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Prescott Road (N)		ONE HOUR	✓	364	100.000
2 - Queensbury Way		ONE HOUR	✓	526	100.000
3 - Prescott Road (S)		ONE HOUR	✓	528	100.000
4 - Hough Green Road		ONE HOUR	✓	477	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
From	1 - Prescott Road (N)	0	58	221	85
	2 - Queensbury Way	72	0	298	156
	3 - Prescott Road (S)	163	200	0	165
	4 - Hough Green Road	67	202	208	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
	1 - Prescott Road (N)	0	2	0	5
	2 - Queensbury Way	1	0	0	3
	3 - Prescott Road (S)	2	3	0	2
	4 - Hough Green Road	2	4	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 - Prescott Road (N)	0.28	3.57	0.4	A	334	501
2 - Queensbury Way	0.35	3.39	0.5	A	483	724
3 - Prescott Road (S)	0.52	6.58	1.1	A	485	727
4 - Hough Green Road	0.37	4.09	0.6	A	438	657

Main Results for each time segment

07:45 - 08:00

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 - Prescott Road (N)	274	69	457	1536	0.178	273	226	0.0	0.2	2.849	A
2 - Queensbury Way	396	99	386	1754	0.226	395	345	0.0	0.3	2.646	A
3 - Prescott Road (S)	398	99	235	1181	0.337	395	546	0.0	0.5	4.571	A
4 - Hough Green Road	359	90	326	1491	0.241	358	304	0.0	0.3	3.173	A

08:00 - 08:15

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 - Prescott Road (N)	327	82	548	1482	0.221	327	271	0.2	0.3	3.116	A
2 - Queensbury Way	473	118	462	1706	0.277	472	413	0.3	0.4	2.918	A
3 - Prescott Road (S)	475	119	281	1159	0.410	474	653	0.5	0.7	5.251	A
4 - Hough Green Road	429	107	391	1455	0.295	428	365	0.3	0.4	3.504	A

08:15 - 08:30

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 - Prescott Road (N)	401	100	670	1409	0.284	400	332	0.3	0.4	3.566	A
2 - Queensbury Way	579	145	565	1641	0.353	578	506	0.4	0.5	3.386	A
3 - Prescott Road (S)	581	145	344	1128	0.515	580	799	0.7	1.0	6.549	A
4 - Hough Green Road	525	131	478	1406	0.374	524	446	0.4	0.6	4.081	A

08:30 - 08:45

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 - Prescott Road (N)	401	100	672	1409	0.285	401	332	0.4	0.4	3.571	A
2 - Queensbury Way	579	145	566	1641	0.353	579	506	0.5	0.5	3.390	A
3 - Prescott Road (S)	581	145	345	1128	0.515	581	800	1.0	1.1	6.584	A
4 - Hough Green Road	525	131	479	1405	0.374	525	447	0.6	0.6	4.090	A

08:45 - 09:00

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 - Prescott Road (N)	327	82	550	1481	0.221	328	272	0.4	0.3	3.121	A
2 - Queensbury Way	473	118	463	1705	0.277	473	414	0.5	0.4	2.922	A
3 - Prescott Road (S)	475	119	282	1158	0.410	476	654	1.1	0.7	5.287	A
4 - Hough Green Road	429	107	392	1454	0.295	430	366	0.6	0.4	3.517	A

09:00 - 09:15

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 - Prescott Road (N)	274	69	460	1535	0.179	274	228	0.3	0.2	2.858	A
2 - Queensbury Way	396	99	387	1753	0.226	396	347	0.4	0.3	2.653	A
3 - Prescott Road (S)	398	99	236	1181	0.337	398	548	0.7	0.5	4.604	A
4 - Hough Green Road	359	90	328	1490	0.241	360	306	0.4	0.3	3.187	A

Accident Prediction

Accident Prediction Options

Accident prediction type	Junction Environment	Central Island Diameter (m)
Simple (M0)	Urban	5.00

Accident Parameters

Arm	Use geometries from capacity?	Entry path radius (m)	Approach radius (m)	Angle to next arm (Deg)	Yellow bars
1 - Prescott Road (N)	✓	0.00	0.00	40.00	
2 - Queensbury Way	✓	0.00	0.00	40.00	
3 - Prescott Road (S)	✓	0.00	0.00	40.00	
4 - Hough Green Road	✓	0.00	0.00	40.00	

Accident Flows

Arm	Total entry flow (AADT x 1000)	Total exit flow (AADT x 1000)	Total circulating flow (AADT x 1000)	Motorcycles entry flow (AADT x 1000)	Motorcycles exit flow (AADT x 1000)	Motorcycles circulating flow (AADT x 1000)	Pedestrian flow (peds x 1000)
1 - Prescott Road (N)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2 - Queensbury Way	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 - Prescott Road (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4 - Hough Green Road	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Accident Arm Results

Arm	Vehicle accidents index	Pedestrian accidents index
1 - Prescott Road (N)	0.000	0.000
2 - Queensbury Way	0.000	0.000
3 - Prescott Road (S)	0.000	0.000
4 - Hough Green Road	0.000	0.000

2028 + Com + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Safety	1 - Prescott Road (N) - Accident Parameters	Roundabout accident prediction: Angles between arms expected to sum to 360 degrees.
Info	Safety	Accident Prediction	Roundabout accident prediction: Accident frequencies are unavailable due to the roundabout type or shape. (Inscribed circle diameter on all arms must be bigger than Central island diameter)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Prescot Road / Queensbury Way	Standard Roundabout		1, 2, 3, 4	6.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.06	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
D10	2028 + Com + Dev	PM	ONE HOUR	16:15	17:45	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 - Prescott Road (N)		ONE HOUR	✓	252	100.000
2 - Queensbury Way		ONE HOUR	✓	556	100.000
3 - Prescott Road (S)		ONE HOUR	✓	722	100.000
4 - Hough Green Road		ONE HOUR	✓	428	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
From	1 - Prescott Road (N)	0	50	135	67
	2 - Queensbury Way	50	0	282	224
	3 - Prescott Road (S)	234	245	0	243
	4 - Hough Green Road	66	206	156	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
	1 - Prescott Road (N)	0	0	0	0
	2 - Queensbury Way	0	0	0	2
	3 - Prescott Road (S)	1	1	0	0
	4 - Hough Green Road	0	2	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 - Prescott Road (N)	0.19	3.10	0.2	A	231	347
2 - Queensbury Way	0.35	3.15	0.5	A	510	765
3 - Prescott Road (S)	0.70	10.56	2.3	B	663	994
4 - Hough Green Road	0.34	4.00	0.5	A	393	589

Main Results for each time segment

16:15 - 16:30

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 - Prescott Road (N)	190	47	455	1565	0.121	189	262	0.0	0.1	2.615	A
2 - Queensbury Way	419	105	269	1834	0.228	417	375	0.0	0.3	2.539	A
3 - Prescott Road (S)	544	136	256	1193	0.456	540	430	0.0	0.8	5.487	A
4 - Hough Green Road	322	81	396	1477	0.218	321	400	0.0	0.3	3.112	A

16:30 - 16:45

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 - Prescott Road (N)	227	57	545	1511	0.150	226	314	0.1	0.2	2.801	A
2 - Queensbury Way	500	125	322	1801	0.278	499	450	0.3	0.4	2.766	A
3 - Prescott Road (S)	649	162	306	1169	0.555	647	515	0.8	1.2	6.886	A
4 - Hough Green Road	385	96	474	1433	0.269	384	479	0.3	0.4	3.434	A

16:45 - 17:00

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 - Prescott Road (N)	277	69	666	1439	0.193	277	384	0.2	0.2	3.098	A
2 - Queensbury Way	612	153	394	1756	0.349	612	550	0.4	0.5	3.144	A
3 - Prescott Road (S)	795	199	375	1135	0.700	791	630	1.2	2.3	10.327	B
4 - Hough Green Road	471	118	580	1373	0.343	471	586	0.4	0.5	3.985	A

17:00 - 17:15

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 - Prescott Road (N)	277	69	668	1438	0.193	277	385	0.2	0.2	3.101	A
2 - Queensbury Way	612	153	394	1755	0.349	612	552	0.5	0.5	3.148	A
3 - Prescott Road (S)	795	199	375	1135	0.700	795	631	2.3	2.3	10.562	B
4 - Hough Green Road	471	118	582	1372	0.344	471	588	0.5	0.5	3.997	A

17:15 - 17:30

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 - Prescott Road (N)	227	57	548	1510	0.150	227	316	0.2	0.2	2.808	A
2 - Queensbury Way	500	125	322	1800	0.278	500	452	0.5	0.4	2.772	A
3 - Prescott Road (S)	649	162	307	1168	0.556	653	516	2.3	1.3	7.040	A
4 - Hough Green Road	385	96	478	1430	0.269	385	482	0.5	0.4	3.448	A

17:30 - 17:45

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 - Prescott Road (N)	190	47	458	1563	0.121	190	264	0.2	0.1	2.621	A
2 - Queensbury Way	419	105	270	1833	0.228	419	378	0.4	0.3	2.545	A
3 - Prescott Road (S)	544	136	257	1193	0.456	545	432	1.3	0.8	5.574	A
4 - Hough Green Road	322	81	399	1475	0.218	323	403	0.4	0.3	3.127	A

Accident Prediction

Accident Prediction Options

Accident prediction type	Junction Environment	Central Island Diameter (m)
Simple (M0)	Urban	5.00

Accident Parameters

Arm	Use geometries from capacity?	Entry path radius (m)	Approach radius (m)	Angle to next arm (Deg)	Yellow bars
1 - Prescott Road (N)	✓	0.00	0.00	40.00	
2 - Queensbury Way	✓	0.00	0.00	40.00	
3 - Prescott Road (S)	✓	0.00	0.00	40.00	
4 - Hough Green Road	✓	0.00	0.00	40.00	

Accident Flows

Arm	Total entry flow (AADT x 1000)	Total exit flow (AADT x 1000)	Total circulating flow (AADT x 1000)	Motorcycles entry flow (AADT x 1000)	Motorcycles exit flow (AADT x 1000)	Motorcycles circulating flow (AADT x 1000)	Pedestrian flow (peds x 1000)
1 - Prescott Road (N)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2 - Queensbury Way	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 - Prescott Road (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4 - Hough Green Road	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Accident Arm Results

Arm	Vehicle accidents index	Pedestrian accidents index
1 - Prescott Road (N)	0.000	0.000
2 - Queensbury Way	0.000	0.000
3 - Prescott Road (S)	0.000	0.000
4 - Hough Green Road	0.000	0.000

2033 + Com, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Safety	1 - Prescott Road (N) - Accident Parameters	Roundabout accident prediction: Angles between arms expected to sum to 360 degrees.
Info	Safety	Accident Prediction	Roundabout accident prediction: Accident frequencies are unavailable due to the roundabout type or shape. (Inscribed circle diameter on all arms must be bigger than Central island diameter)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Prescot Road / Queensbury Way	Standard Roundabout		1, 2, 3, 4	4.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.50	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
D11	2033 + Com	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Prescott Road (N)		ONE HOUR	✓	319	100.000
2 - Queensbury Way		ONE HOUR	✓	537	100.000
3 - Prescott Road (S)		ONE HOUR	✓	528	100.000
4 - Hough Green Road		ONE HOUR	✓	489	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
From	1 - Prescott Road (N)	0	58	176	85
	2 - Queensbury Way	74	0	304	159
	3 - Prescott Road (S)	154	205	0	169
	4 - Hough Green Road	69	207	213	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
	1 - Prescott Road (N)	0	2	1	5
	2 - Queensbury Way	1	0	0	3
	3 - Prescott Road (S)	2	3	0	2
	4 - Hough Green Road	2	4	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 - Prescott Road (N)	0.25	3.47	0.3	A	293	439
2 - Queensbury Way	0.35	3.35	0.5	A	493	739
3 - Prescott Road (S)	0.52	6.62	1.1	A	485	727
4 - Hough Green Road	0.38	4.15	0.6	A	449	673

Main Results for each time segment

07:45 - 08:00

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 - Prescott Road (N)	240	60	469	1518	0.158	239	223	0.0	0.2	2.814	A
2 - Queensbury Way	404	101	356	1772	0.228	403	352	0.0	0.3	2.627	A
3 - Prescott Road (S)	398	99	239	1179	0.337	395	520	0.0	0.5	4.581	A
4 - Hough Green Road	368	92	324	1492	0.247	367	310	0.0	0.3	3.197	A

08:00 - 08:15

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 - Prescott Road (N)	287	72	561	1463	0.196	287	267	0.2	0.2	3.059	A
2 - Queensbury Way	483	121	426	1727	0.279	482	422	0.3	0.4	2.891	A
3 - Prescott Road (S)	475	119	286	1157	0.410	474	622	0.5	0.7	5.268	A
4 - Hough Green Road	440	110	389	1456	0.302	439	371	0.3	0.4	3.538	A

08:15 - 08:30

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 - Prescott Road (N)	351	88	687	1389	0.253	351	326	0.2	0.3	3.468	A
2 - Queensbury Way	591	148	521	1667	0.355	591	517	0.4	0.5	3.343	A
3 - Prescott Road (S)	581	145	350	1125	0.517	580	762	0.7	1.1	6.582	A
4 - Hough Green Road	538	135	476	1407	0.383	538	454	0.4	0.6	4.137	A

08:30 - 08:45

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 - Prescott Road (N)	351	88	688	1388	0.253	351	327	0.3	0.3	3.470	A
2 - Queensbury Way	591	148	522	1667	0.355	591	517	0.5	0.5	3.347	A
3 - Prescott Road (S)	581	145	350	1125	0.517	581	763	1.1	1.1	6.618	A
4 - Hough Green Road	538	135	477	1406	0.383	538	455	0.6	0.6	4.146	A

08:45 - 09:00

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 - Prescott Road (N)	287	72	563	1462	0.196	287	268	0.3	0.2	3.066	A
2 - Queensbury Way	483	121	427	1727	0.280	483	423	0.5	0.4	2.898	A
3 - Prescott Road (S)	475	119	286	1156	0.411	476	624	1.1	0.7	5.305	A
4 - Hough Green Road	440	110	390	1455	0.302	440	372	0.6	0.4	3.552	A

09:00 - 09:15

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 - Prescott Road (N)	240	60	471	1516	0.158	240	224	0.2	0.2	2.820	A
2 - Queensbury Way	404	101	357	1771	0.228	405	354	0.4	0.3	2.635	A
3 - Prescott Road (S)	398	99	240	1179	0.337	398	522	0.7	0.5	4.617	A
4 - Hough Green Road	368	92	327	1491	0.247	369	311	0.4	0.3	3.207	A

Accident Prediction

Accident Prediction Options

Accident prediction type	Junction Environment	Central Island Diameter (m)
Simple (M0)	Urban	5.00

Accident Parameters

Arm	Use geometries from capacity?	Entry path radius (m)	Approach radius (m)	Angle to next arm (Deg)	Yellow bars
1 - Prescott Road (N)	✓	0.00	0.00	40.00	
2 - Queensbury Way	✓	0.00	0.00	40.00	
3 - Prescott Road (S)	✓	0.00	0.00	40.00	
4 - Hough Green Road	✓	0.00	0.00	40.00	

Accident Flows

Arm	Total entry flow (AADT x 1000)	Total exit flow (AADT x 1000)	Total circulating flow (AADT x 1000)	Motorcycles entry flow (AADT x 1000)	Motorcycles exit flow (AADT x 1000)	Motorcycles circulating flow (AADT x 1000)	Pedestrian flow (peds x 1000)
1 - Prescott Road (N)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2 - Queensbury Way	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 - Prescott Road (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4 - Hough Green Road	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Accident Arm Results

Arm	Vehicle accidents index	Pedestrian accidents index
1 - Prescott Road (N)	0.000	0.000
2 - Queensbury Way	0.000	0.000
3 - Prescott Road (S)	0.000	0.000
4 - Hough Green Road	0.000	0.000

2033 + Com, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Safety	1 - Prescott Road (N) - Accident Parameters	Roundabout accident prediction: Angles between arms expected to sum to 360 degrees.
Info	Safety	Accident Prediction	Roundabout accident prediction: Accident frequencies are unavailable due to the roundabout type or shape. (Inscribed circle diameter on all arms must be bigger than Central island diameter)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Prescot Road / Queensbury Way	Standard Roundabout		1, 2, 3, 4	5.45	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.45	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
D12	2033 + Com	PM	ONE HOUR	16:15	17:45	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 - Prescott Road (N)		ONE HOUR	✓	229	100.000
2 - Queensbury Way		ONE HOUR	✓	565	100.000
3 - Prescott Road (S)		ONE HOUR	✓	675	100.000
4 - Hough Green Road		ONE HOUR	✓	434	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
From	1 - Prescott Road (N)	0	50	112	67
	2 - Queensbury Way	49	0	288	228
	3 - Prescott Road (S)	178	249	0	248
	4 - Hough Green Road	65	210	159	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Prescot Road (N)	2 - Queensbury Way	3 - Prescot Road (S)	4 - Hough Green Road
	1 - Prescot Road (N)	0	0	0	0
	2 - Queensbury Way	0	0	0	2
	3 - Prescot Road (S)	1	1	0	0
	4 - Hough Green Road	0	2	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 - Prescot Road (N)	0.18	3.05	0.2	A	210	315
2 - Queensbury Way	0.35	3.14	0.5	A	518	778
3 - Prescot Road (S)	0.66	9.20	1.9	A	619	929
4 - Hough Green Road	0.34	3.88	0.5	A	398	597

Main Results for each time segment

16:15 - 16:30

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 - Prescot Road (N)	172	43	463	1560	0.111	172	219	0.0	0.1	2.594	A
2 - Queensbury Way	425	106	254	1843	0.231	424	381	0.0	0.3	2.534	A
3 - Prescot Road (S)	508	127	258	1192	0.426	505	420	0.0	0.7	5.217	A
4 - Hough Green Road	327	82	356	1499	0.218	326	407	0.0	0.3	3.065	A

16:30 - 16:45

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 - Prescot Road (N)	206	51	555	1505	0.137	206	262	0.1	0.2	2.769	A
2 - Queensbury Way	508	127	304	1812	0.280	508	457	0.3	0.4	2.760	A
3 - Prescot Road (S)	607	152	309	1168	0.520	605	502	0.7	1.1	6.387	A
4 - Hough Green Road	390	98	427	1459	0.267	390	487	0.3	0.4	3.366	A

16:45 - 17:00

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 - Prescot Road (N)	252	63	679	1432	0.176	252	321	0.2	0.2	3.051	A
2 - Queensbury Way	622	156	372	1769	0.352	621	559	0.4	0.5	3.134	A
3 - Prescot Road (S)	743	186	378	1134	0.655	740	615	1.1	1.8	9.064	A
4 - Hough Green Road	478	119	522	1406	0.340	477	596	0.4	0.5	3.875	A

17:00 - 17:15

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 - Prescot Road (N)	252	63	680	1431	0.176	252	321	0.2	0.2	3.053	A
2 - Queensbury Way	622	156	372	1769	0.352	622	560	0.5	0.5	3.137	A
3 - Prescot Road (S)	743	186	379	1134	0.655	743	615	1.8	1.9	9.205	A
4 - Hough Green Road	478	119	524	1405	0.340	478	598	0.5	0.5	3.884	A

17:15 - 17:30

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 - Prescott Road (N)	206	51	557	1504	0.137	206	263	0.2	0.2	2.773	A
2 - Queensbury Way	508	127	304	1811	0.280	509	459	0.5	0.4	2.765	A
3 - Prescott Road (S)	607	152	310	1167	0.520	610	503	1.9	1.1	6.494	A
4 - Hough Green Road	390	98	430	1458	0.268	391	490	0.5	0.4	3.375	A

17:30 - 17:45

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 - Prescott Road (N)	172	43	466	1558	0.111	173	220	0.2	0.1	2.597	A
2 - Queensbury Way	425	106	255	1842	0.231	426	384	0.4	0.3	2.543	A
3 - Prescott Road (S)	508	127	259	1192	0.426	510	421	1.1	0.8	5.286	A
4 - Hough Green Road	327	82	359	1497	0.218	327	409	0.4	0.3	3.078	A

Accident Prediction

Accident Prediction Options

Accident prediction type	Junction Environment	Central Island Diameter (m)
Simple (M0)	Urban	5.00

Accident Parameters

Arm	Use geometries from capacity?	Entry path radius (m)	Approach radius (m)	Angle to next arm (Deg)	Yellow bars
1 - Prescott Road (N)	✓	0.00	0.00	40.00	
2 - Queensbury Way	✓	0.00	0.00	40.00	
3 - Prescott Road (S)	✓	0.00	0.00	40.00	
4 - Hough Green Road	✓	0.00	0.00	40.00	

Accident Flows

Arm	Total entry flow (AADT x 1000)	Total exit flow (AADT x 1000)	Total circulating flow (AADT x 1000)	Motorcycles entry flow (AADT x 1000)	Motorcycles exit flow (AADT x 1000)	Motorcycles circulating flow (AADT x 1000)	Pedestrian flow (peds x 1000)
1 - Prescott Road (N)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2 - Queensbury Way	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 - Prescott Road (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4 - Hough Green Road	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Accident Arm Results

Arm	Vehicle accidents index	Pedestrian accidents index
1 - Prescott Road (N)	0.000	0.000
2 - Queensbury Way	0.000	0.000
3 - Prescott Road (S)	0.000	0.000
4 - Hough Green Road	0.000	0.000

2033 + Com + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Safety	1 - Prescott Road (N) - Accident Parameters	Roundabout accident prediction: Angles between arms expected to sum to 360 degrees.
Info	Safety	Accident Prediction	Roundabout accident prediction: Accident frequencies are unavailable due to the roundabout type or shape. (Inscribed circle diameter on all arms must be bigger than Central island diameter)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Prescot Road / Queensbury Way	Standard Roundabout		1, 2, 3, 4	4.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.61	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
D13	2033 + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Prescott Road (N)		ONE HOUR	✓	371	100.000
2 - Queensbury Way		ONE HOUR	✓	537	100.000
3 - Prescott Road (S)		ONE HOUR	✓	540	100.000
4 - Hough Green Road		ONE HOUR	✓	489	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
From	1 - Prescott Road (N)	0	59	225	87
	2 - Queensbury Way	74	0	304	159
	3 - Prescott Road (S)	166	205	0	169
	4 - Hough Green Road	69	207	213	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
	1 - Prescott Road (N)	0	2	0	5
	2 - Queensbury Way	1	0	0	3
	3 - Prescott Road (S)	2	3	0	2
	4 - Hough Green Road	2	4	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 - Prescott Road (N)	0.29	3.63	0.4	A	340	511
2 - Queensbury Way	0.36	3.45	0.6	A	493	739
3 - Prescott Road (S)	0.53	6.80	1.1	A	496	743
4 - Hough Green Road	0.38	4.18	0.6	A	449	673

Main Results for each time segment

07:45 - 08:00

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 - Prescott Road (N)	279	70	469	1529	0.183	278	232	0.0	0.2	2.877	A
2 - Queensbury Way	404	101	394	1749	0.231	403	353	0.0	0.3	2.672	A
3 - Prescott Road (S)	407	102	240	1179	0.345	404	557	0.0	0.5	4.638	A
4 - Hough Green Road	368	92	333	1487	0.248	367	311	0.0	0.3	3.211	A

08:00 - 08:15

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 - Prescott Road (N)	334	83	561	1474	0.226	333	277	0.2	0.3	3.155	A
2 - Queensbury Way	483	121	472	1700	0.284	482	423	0.3	0.4	2.956	A
3 - Prescott Road (S)	485	121	287	1156	0.420	485	666	0.5	0.7	5.356	A
4 - Hough Green Road	440	110	399	1450	0.303	439	373	0.3	0.4	3.559	A

08:15 - 08:30

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 - Prescott Road (N)	408	102	687	1399	0.292	408	340	0.3	0.4	3.629	A
2 - Queensbury Way	591	148	577	1633	0.362	591	518	0.4	0.6	3.451	A
3 - Prescott Road (S)	595	149	352	1124	0.529	593	816	0.7	1.1	6.753	A
4 - Hough Green Road	538	135	489	1400	0.385	538	456	0.4	0.6	4.172	A

08:30 - 08:45

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 - Prescott Road (N)	408	102	688	1399	0.292	408	340	0.4	0.4	3.634	A
2 - Queensbury Way	591	148	578	1633	0.362	591	519	0.6	0.6	3.455	A
3 - Prescott Road (S)	595	149	352	1124	0.529	595	817	1.1	1.1	6.795	A
4 - Hough Green Road	538	135	490	1399	0.385	538	457	0.6	0.6	4.182	A

08:45 - 09:00

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 - Prescott Road (N)	334	83	563	1473	0.226	334	278	0.4	0.3	3.160	A
2 - Queensbury Way	483	121	473	1699	0.284	483	424	0.6	0.4	2.964	A
3 - Prescott Road (S)	485	121	288	1155	0.420	487	668	1.1	0.7	5.397	A
4 - Hough Green Road	440	110	401	1449	0.303	440	374	0.6	0.4	3.573	A

09:00 - 09:15

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 - Prescott Road (N)	279	70	471	1528	0.183	280	233	0.3	0.2	2.886	A
2 - Queensbury Way	404	101	396	1748	0.231	405	355	0.4	0.3	2.682	A
3 - Prescott Road (S)	407	102	241	1178	0.345	407	559	0.7	0.5	4.676	A
4 - Hough Green Road	368	92	336	1486	0.248	369	313	0.4	0.3	3.225	A

Accident Prediction

Accident Prediction Options

Accident prediction type	Junction Environment	Central Island Diameter (m)
Simple (M0)	Urban	5.00

Accident Parameters

Arm	Use geometries from capacity?	Entry path radius (m)	Approach radius (m)	Angle to next arm (Deg)	Yellow bars
1 - Prescott Road (N)	✓	0.00	0.00	40.00	
2 - Queensbury Way	✓	0.00	0.00	40.00	
3 - Prescott Road (S)	✓	0.00	0.00	40.00	
4 - Hough Green Road	✓	0.00	0.00	40.00	

Accident Flows

Arm	Total entry flow (AADT x 1000)	Total exit flow (AADT x 1000)	Total circulating flow (AADT x 1000)	Motorcycles entry flow (AADT x 1000)	Motorcycles exit flow (AADT x 1000)	Motorcycles circulating flow (AADT x 1000)	Pedestrian flow (peds x 1000)
1 - Prescott Road (N)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2 - Queensbury Way	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 - Prescott Road (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4 - Hough Green Road	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Accident Arm Results

Arm	Vehicle accidents index	Pedestrian accidents index
1 - Prescott Road (N)	0.000	0.000
2 - Queensbury Way	0.000	0.000
3 - Prescott Road (S)	0.000	0.000
4 - Hough Green Road	0.000	0.000

2033 + Com + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Safety	1 - Prescott Road (N) - Accident Parameters	Roundabout accident prediction: Angles between arms expected to sum to 360 degrees.
Info	Safety	Accident Prediction	Roundabout accident prediction: Accident frequencies are unavailable due to the roundabout type or shape. (Inscribed circle diameter on all arms must be bigger than Central island diameter)

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Prescot Road / Queensbury Way	Standard Roundabout		1, 2, 3, 4	6.28	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.28	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
D14	2033 + Com + Dev	PM	ONE HOUR	16:15	17:45	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 - Prescott Road (N)		ONE HOUR	✓	256	100.000
2 - Queensbury Way		ONE HOUR	✓	567	100.000
3 - Prescott Road (S)		ONE HOUR	✓	734	100.000
4 - Hough Green Road		ONE HOUR	✓	436	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
From	1 - Prescott Road (N)	0	51	137	68
	2 - Queensbury Way	51	0	288	228
	3 - Prescott Road (S)	237	249	0	248
	4 - Hough Green Road	67	210	159	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Prescott Road (N)	2 - Queensbury Way	3 - Prescott Road (S)	4 - Hough Green Road
	1 - Prescott Road (N)	0	0	0	0
	2 - Queensbury Way	0	0	0	2
	3 - Prescott Road (S)	1	1	0	0
	4 - Hough Green Road	0	2	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 - Prescott Road (N)	0.20	3.13	0.2	A	235	352
2 - Queensbury Way	0.36	3.19	0.6	A	520	780
3 - Prescott Road (S)	0.71	11.09	2.4	B	674	1010
4 - Hough Green Road	0.35	4.06	0.5	A	400	600

Main Results for each time segment

16:15 - 16:30

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 - Prescott Road (N)	193	48	463	1560	0.124	192	266	0.0	0.1	2.630	A
2 - Queensbury Way	427	107	273	1831	0.233	426	382	0.0	0.3	2.559	A
3 - Prescott Road (S)	553	138	260	1191	0.464	549	438	0.0	0.9	5.581	A
4 - Hough Green Road	328	82	402	1473	0.223	327	408	0.0	0.3	3.138	A

16:30 - 16:45

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 - Prescott Road (N)	230	58	555	1506	0.153	230	319	0.1	0.2	2.822	A
2 - Queensbury Way	510	127	327	1797	0.284	509	458	0.3	0.4	2.795	A
3 - Prescott Road (S)	660	165	312	1166	0.566	658	525	0.9	1.3	7.063	A
4 - Hough Green Road	392	98	482	1429	0.274	392	488	0.3	0.4	3.472	A

16:45 - 17:00

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 - Prescott Road (N)	282	70	678	1432	0.197	282	389	0.2	0.2	3.129	A
2 - Queensbury Way	624	156	400	1752	0.356	624	560	0.4	0.6	3.190	A
3 - Prescott Road (S)	808	202	382	1132	0.714	804	642	1.3	2.4	10.813	B
4 - Hough Green Road	480	120	588	1368	0.351	479	597	0.4	0.5	4.047	A

17:00 - 17:15

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 - Prescott Road (N)	282	70	680	1431	0.197	282	391	0.2	0.2	3.132	A
2 - Queensbury Way	624	156	401	1751	0.356	624	561	0.6	0.6	3.193	A
3 - Prescott Road (S)	808	202	382	1132	0.714	808	643	2.4	2.4	11.092	B
4 - Hough Green Road	480	120	591	1367	0.351	480	599	0.5	0.5	4.059	A

17:15 - 17:30

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 - Prescott Road (N)	230	58	558	1504	0.153	230	321	0.2	0.2	2.827	A
2 - Queensbury Way	510	127	328	1797	0.284	510	460	0.6	0.4	2.798	A
3 - Prescott Road (S)	660	165	312	1166	0.566	664	526	2.4	1.3	7.243	A
4 - Hough Green Road	392	98	486	1426	0.275	393	491	0.5	0.4	3.487	A

17:30 - 17:45

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 - Prescott Road (N)	193	48	466	1558	0.124	193	268	0.2	0.1	2.636	A
2 - Queensbury Way	427	107	274	1830	0.233	427	385	0.4	0.3	2.568	A
3 - Prescott Road (S)	553	138	261	1190	0.464	554	440	1.3	0.9	5.675	A
4 - Hough Green Road	328	82	406	1471	0.223	329	410	0.4	0.3	3.150	A

Accident Prediction

Accident Prediction Options

Accident prediction type	Junction Environment	Central Island Diameter (m)
Simple (M0)	Urban	5.00

Accident Parameters

Arm	Use geometries from capacity?	Entry path radius (m)	Approach radius (m)	Angle to next arm (Deg)	Yellow bars
1 - Prescott Road (N)	✓	0.00	0.00	40.00	
2 - Queensbury Way	✓	0.00	0.00	40.00	
3 - Prescott Road (S)	✓	0.00	0.00	40.00	
4 - Hough Green Road	✓	0.00	0.00	40.00	

Accident Flows

Arm	Total entry flow (AADT x 1000)	Total exit flow (AADT x 1000)	Total circulating flow (AADT x 1000)	Motorcycles entry flow (AADT x 1000)	Motorcycles exit flow (AADT x 1000)	Motorcycles circulating flow (AADT x 1000)	Pedestrian flow (peds x 1000)
1 - Prescott Road (N)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2 - Queensbury Way	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 - Prescott Road (S)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4 - Hough Green Road	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Accident Arm Results

Arm	Vehicle accidents index	Pedestrian accidents index
1 - Prescott Road (N)	0.000	0.000
2 - Queensbury Way	0.000	0.000
3 - Prescott Road (S)	0.000	0.000
4 - Hough Green Road	0.000	0.000