

17:45 - 18:00

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-C	7	2	334	0.021	7	0.0	0.0	11.020	B
B-A	120	30	237	0.507	120	1.0	1.0	30.827	D
C-A	745	186			745				
C-B	14	4	467	0.030	14	0.0	0.0	7.941	A
A-B	123	31			123				
A-C	651	163			651				

18:00 - 18:15

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-C	7	2	334	0.021	7	0.0	0.0	11.021	B
B-A	120	30	237	0.507	120	1.0	1.0	30.837	D
C-A	745	186			745				
C-B	14	4	467	0.030	14	0.0	0.0	7.941	A
A-B	123	31			123				
A-C	651	163			651				

18:15 - 18:30

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-C	7	2	334	0.021	7	0.0	0.0	11.022	B
B-A	120	30	237	0.507	120	1.0	1.0	30.843	D
C-A	745	186			745				
C-B	14	4	467	0.030	14	0.0	0.0	7.941	A
A-B	123	31			123				
A-C	651	163			651				

2027 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Alexander Lane - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Alexander Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D3 - 2027 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Chelmsford Rd_Alexander Ln Priority Junction	T-Junction	Two-way	Two-way	Two-way		3.76	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.76	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2027 Base	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Alexander Lane	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	323	887
	B - Alexander Lane	100	0	10
	C - Chelmsford Road (S)	702	40	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Chelmsford Road (N)	B - Alexander Lane	C - Chelmsford Road (S)
	A - Chelmsford Road (N)	0	2	4
	B - Alexander Lane	2	0	10
	C - Chelmsford Road (S)	4	3	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-C	0.06	22.01	0.1	C	10	15
B-A	0.67	71.80	1.9	F	100	150
C-A					702	1053
C-B	0.11	11.12	0.1	B	40	60
AB					323	485
AC					887	1331

Main Results for each time segment

07:30 - 07:45

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-C	10	3	196	0.051	10	0.0	0.1	19.264	C
B-A	100	25	150	0.667	93	0.0	1.7	58.658	F
C-A	702	176			702				
C-B	40	10	364	0.110	40	0.0	0.1	11.090	B
AB	323	81			323				
AC	887	222			887				

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-C	10	3	177	0.057	10	0.1	0.1	21.567	C
B-A	100	25	150	0.668	99	1.7	1.8	69.747	F
C-A	702	176			702				
C-B	40	10	364	0.110	40	0.1	0.1	11.123	B
AB	323	81			323				
AC	887	222			887				

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-C	10	3	175	0.057	10	0.1	0.1	21.818	C
B-A	100	25	150	0.668	100	1.8	1.9	70.913	F
C-A	702	176			702				
C-B	40	10	364	0.110	40	0.1	0.1	11.123	B
AB	323	81			323				
AC	887	222			887				

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-C	10	3	174	0.057	10	0.1	0.1	21.919	C
B-A	100	25	150	0.668	100	1.9	1.9	71.386	F
C-A	702	176			702				
C-B	40	10	364	0.110	40	0.1	0.1	11.123	B
A-B	323	81			323				
A-C	887	222			887				

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-C	10	3	174	0.058	10	0.1	0.1	21.973	C
B-A	100	25	150	0.668	100	1.9	1.9	71.641	F
C-A	702	176			702				
C-B	40	10	364	0.110	40	0.1	0.1	11.123	B
A-B	323	81			323				
A-C	887	222			887				

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-C	10	3	174	0.058	10	0.1	0.1	22.008	C
B-A	100	25	150	0.668	100	1.9	1.9	71.802	F
C-A	702	176			702				
C-B	40	10	364	0.110	40	0.1	0.1	11.123	B
A-B	323	81			323				
A-C	887	222			887				

2027 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Alexander Lane - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Alexander Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D4 - 2027 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Chelmsford Rd_Alexander Ln Priority Junction	T-Junction	Two-way	Two-way	Two-way		2.33	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.33	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2027 Base	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Alexander Lane	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	123	651
	B - Alexander Lane	120	0	7
	C - Chelmsford Road (S)	745	14	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Chelmsford Road (N)	B - Alexander Lane	C - Chelmsford Road (S)
	A - Chelmsford Road (N)	0	2	2
	B - Alexander Lane	1	0	0
	C - Chelmsford Road (S)	1	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.02	11.02	0.0	B	7	11
B-A	0.51	30.84	1.0	D	120	180
C-A					745	1118
C-B	0.03	7.94	0.0	A	14	21
AB					123	185
AC					651	977

Main Results for each time segment

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-C	7	2	340	0.021	7	0.0	0.0	10.791	B
B-A	120	30	237	0.507	116	0.0	1.0	29.045	D
C-A	745	186			745				
C-B	14	4	467	0.030	14	0.0	0.0	7.938	A
AB	123	31			123				
AC	651	163			651				

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-C	7	2	334	0.021	7	0.0	0.0	11.010	B
B-A	120	30	237	0.507	120	1.0	1.0	30.748	D
C-A	745	186			745				
C-B	14	4	467	0.030	14	0.0	0.0	7.941	A
AB	123	31			123				
AC	651	163			651				

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-C	7	2	334	0.021	7	0.0	0.0	11.017	B
B-A	120	30	237	0.507	120	1.0	1.0	30.805	D
C-A	745	186			745				
C-B	14	4	467	0.030	14	0.0	0.0	7.941	A
AB	123	31			123				
AC	651	163			651				

17:45 - 18:00

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-C	7	2	334	0.021	7	0.0	0.0	11.020	B
B-A	120	30	237	0.507	120	1.0	1.0	30.827	D
C-A	745	186			745				
C-B	14	4	467	0.030	14	0.0	0.0	7.941	A
A-B	123	31			123				
A-C	651	163			651				

18:00 - 18:15

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-C	7	2	334	0.021	7	0.0	0.0	11.021	B
B-A	120	30	237	0.507	120	1.0	1.0	30.837	D
C-A	745	186			745				
C-B	14	4	467	0.030	14	0.0	0.0	7.941	A
A-B	123	31			123				
A-C	651	163			651				

18:15 - 18:30

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-C	7	2	334	0.021	7	0.0	0.0	11.022	B
B-A	120	30	237	0.507	120	1.0	1.0	30.843	D
C-A	745	186			745				
C-B	14	4	467	0.030	14	0.0	0.0	7.941	A
A-B	123	31			123				
A-C	651	163			651				

2027 Base + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Alexander Lane - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Alexander Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D5 - 2027 Base + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Chelmsford Rd_Alexander Ln Priority Junction	T-Junction	Two-way	Two-way	Two-way		4.18	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.18	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2027 Base + Dev	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Alexander Lane	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	323	908
	B - Alexander Lane	100	0	10
	C - Chelmsford Road (S)	708	40	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Chelmsford Road (N)	B - Alexander Lane	C - Chelmsford Road (S)
	A - Chelmsford Road (N)	0	2	4
	B - Alexander Lane	2	0	10
	C - Chelmsford Road (S)	4	3	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-C	0.06	25.01	0.1	D	10	15
B-A	0.70	81.33	2.2	F	100	150
C-A					708	1062
C-B	0.11	11.32	0.1	B	40	60
AB					323	485
AC					908	1362

Main Results for each time segment

07:30 - 07:45

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-C	10	3	182	0.055	10	0.0	0.1	20.876	C
B-A	100	25	144	0.695	93	0.0	1.8	63.963	F
C-A	708	177			708				
C-B	40	10	358	0.112	40	0.0	0.1	11.291	B
AB	323	81			323				
AC	908	227			908				

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-C	10	3	159	0.063	10	0.1	0.1	24.212	C
B-A	100	25	144	0.696	99	1.8	2.0	78.150	F
C-A	708	177			708				
C-B	40	10	358	0.112	40	0.1	0.1	11.324	B
AB	323	81			323				
AC	908	227			908				

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-C	10	3	156	0.064	10	0.1	0.1	24.656	C
B-A	100	25	144	0.696	100	2.0	2.1	79.911	F
C-A	708	177			708				
C-B	40	10	358	0.112	40	0.1	0.1	11.324	B
AB	323	81			323				
AC	908	227			908				

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-C	10	3	155	0.065	10	0.1	0.1	24.845	C
B-A	100	25	144	0.696	100	2.1	2.1	80.653	F
C-A	708	177			708				
C-B	40	10	358	0.112	40	0.1	0.1	11.324	B
A-B	323	81			323				
A-C	908	227			908				

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-C	10	3	154	0.065	10	0.1	0.1	24.949	C
B-A	100	25	144	0.696	100	2.1	2.2	81.064	F
C-A	708	177			708				
C-B	40	10	358	0.112	40	0.1	0.1	11.324	B
A-B	323	81			323				
A-C	908	227			908				

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-C	10	3	154	0.065	10	0.1	0.1	25.015	D
B-A	100	25	144	0.696	100	2.2	2.2	81.326	F
C-A	708	177			708				
C-B	40	10	358	0.112	40	0.1	0.1	11.324	B
A-B	323	81			323				
A-C	908	227			908				

2027 Base + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Alexander Lane - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Alexander Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D6 - 2027 Base + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Chelmsford Rd_Alexander Ln Priority Junction	T-Junction	Two-way	Two-way	Two-way		2.40	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.40	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2027 Base + Dev	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Alexander Lane	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	123	660
	B - Alexander Lane	120	0	7
	C - Chelmsford Road (S)	768	14	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Chelmsford Road (N)	B - Alexander Lane	C - Chelmsford Road (S)
	A - Chelmsford Road (N)	0	2	2
	B - Alexander Lane	1	0	0
	C - Chelmsford Road (S)	1	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.02	11.27	0.0	B	7	11
B-A	0.52	32.39	1.1	D	120	180
C-A					768	1152
C-B	0.03	7.98	0.0	A	14	21
AB					123	185
AC					660	990

Main Results for each time segment

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-C	7	2	334	0.021	7	0.0	0.0	11.004	B
B-A	120	30	231	0.519	116	0.0	1.0	30.340	D
C-A	768	192			768				
C-B	14	4	465	0.030	14	0.0	0.0	7.979	A
AB	123	31			123				
AC	660	165			660				

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-C	7	2	327	0.021	7	0.0	0.0	11.255	B
B-A	120	30	231	0.519	120	1.0	1.0	32.277	D
C-A	768	192			768				
C-B	14	4	465	0.030	14	0.0	0.0	7.982	A
AB	123	31			123				
AC	660	165			660				

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-C	7	2	327	0.021	7	0.0	0.0	11.264	B
B-A	120	30	231	0.519	120	1.0	1.1	32.347	D
C-A	768	192			768				
C-B	14	4	465	0.030	14	0.0	0.0	7.982	A
AB	123	31			123				
AC	660	165			660				

17:45 - 18:00

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-C	7	2	326	0.021	7	0.0	0.0	11.267	B
B-A	120	30	231	0.519	120	1.1	1.1	32.372	D
C-A	768	192			768				
C-B	14	4	465	0.030	14	0.0	0.0	7.982	A
A-B	123	31			123				
A-C	660	165			660				

18:00 - 18:15

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-C	7	2	326	0.021	7	0.0	0.0	11.269	B
B-A	120	30	231	0.519	120	1.1	1.1	32.385	D
C-A	768	192			768				
C-B	14	4	465	0.030	14	0.0	0.0	7.982	A
A-B	123	31			123				
A-C	660	165			660				

18:15 - 18:30

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-C	7	2	326	0.021	7	0.0	0.0	11.270	B
B-A	120	30	231	0.519	120	1.1	1.1	32.393	D
C-A	768	192			768				
C-B	14	4	465	0.030	14	0.0	0.0	7.982	A
A-B	123	31			123				
A-C	660	165			660				

Junctions 10									
PICADY 10 - Priority Intersection Module									
Version: 10.0.3.1598 © Copyright TRL Software Limited, 2021									
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Filename: Import of Chelmsford Rd.Oliver Rd (J4).j10

Path: P:\JNY10935 - Shenfield\Transport\Picady

Report generation date: 26/07/2022 17:34:55

- »2022 Base, AM
- »2022 Base, PM
- »2027 Base, AM
- »2027 Base, PM
- »2027 Base + Dev, AM
- »2027 Base + Dev, PM
- »2027 Base + Comm, AM
- »2027 Base + Comm, PM
- »2027 Base + Comm + Dev, AM
- »2027 Base + Comm + Dev, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2022 Base									
Stream B-C	D1	0.3	13.07	0.20	B	D2	0.1	8.74	0.13	A
Stream B-A		1.0	37.58	0.51	E		0.3	17.35	0.26	C
Stream C-B		0.5	12.41	0.32	B		0.1	8.17	0.13	A
	2027 Base									
Stream B-C	D3	0.3	13.07	0.20	B	D4	0.1	8.74	0.13	A
Stream B-A		1.0	37.58	0.51	E		0.3	17.35	0.26	C
Stream C-B		0.5	12.41	0.32	B		0.1	8.17	0.13	A
	2027 Base + Dev									
Stream B-C	D5	0.3	13.72	0.21	B	D6	0.2	8.92	0.13	A
Stream B-A		1.1	40.49	0.53	E		0.4	17.93	0.27	C
Stream C-B		0.5	12.66	0.32	B		0.1	8.22	0.13	A
	2027 Base + Comm									
Stream B-C	D7	0.3	15.92	0.24	C	D8	0.2	9.47	0.14	A
Stream B-A		1.4	50.14	0.59	F		0.4	19.78	0.31	C
Stream C-B		0.5	13.20	0.33	B		0.1	8.38	0.13	A
	2027 Base + Comm + Dev									
Stream B-C	D9	0.3	17.08	0.25	C	D10	0.2	9.66	0.14	A
Stream B-A		1.5	54.71	0.61	F		0.5	20.71	0.33	C
Stream C-B		0.5	13.45	0.33	B		0.1	8.43	0.13	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	22/07/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\George.Magnisalis
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 period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	07:30	09:00	90	15	✓
D2	2022 Base	PM	DIRECT	17:00	18:30	90	15	✓
D3	2027 Base	AM	DIRECT	07:30	09:00	90	15	✓
D4	2027 Base	PM	DIRECT	17:00	18:30	90	15	✓
D5	2027 Base + Dev	AM	DIRECT	07:30	09:00	90	15	✓
D6	2027 Base + Dev	PM	DIRECT	17:00	18:30	90	15	✓
D7	2027 Base + Comm	AM	DIRECT	07:30	09:00	90	15	✓
D8	2027 Base + Comm	PM	DIRECT	17:00	18:30	90	15	✓
D9	2027 Base + Comm + Dev	AM	DIRECT	07:30	09:00	90	15	✓
D10	2027 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	15	✓

Analysis Set Details

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

2022 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D1 - 2022 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		3.43	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.43	A

Arms

Arms

Arm	Name	Description	Arm type
A	Chelmsford Road (N)		Major
B	Oliver Road		Minor
C	Chelmsford Road (S)		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 - Chelmsford Road (S)	6.35		✓	2.98	117.1		-

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Oliver Road	One lane plus flare	8.80	5.70	3.30	3.00	3.00	✓	1.00	68	66

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	561	0.101	0.254	0.160	0.363
B-C	671	0.101	0.256	-	-
C-B	696	0.266	0.266	-	-

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 period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	186	738
	B - Oliver Road	99	0	70
	C - Chelmsford Road (S)	568	134	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	4	4
	B - Oliver Road	1	0	0
	C - Chelmsford Road (S)	5	4	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-C	0.20	13.07	0.3	B	70	105
B-A	0.51	37.58	1.0	E	99	149
C-A					568	852
C-B	0.32	12.41	0.5	B	134	201
A-B					186	279
A-C					738	1107

Main Results for each time segment

07:30 - 07:45

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-C	70	18	354	0.198	69	0.0	0.2	12.582	B
B-A	99	25	196	0.506	95	0.0	0.9	34.743	D
C-A	568	142			568				
C-B	134	34	424	0.316	132	0.0	0.5	12.265	B
A-B	186	47			186				
A-C	738	185			738				

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-C	70	18	346	0.202	70	0.2	0.3	13.042	B
B-A	99	25	195	0.508	99	0.9	1.0	37.373	E
C-A	568	142			568				
C-B	134	34	424	0.316	134	0.5	0.5	12.410	B
A-B	186	47			186				
A-C	738	185			738				

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-C	70	18	346	0.203	70	0.3	0.3	13.061	B
B-A	99	25	195	0.508	99	1.0	1.0	37.488	E
C-A	568	142			568				
C-B	134	34	424	0.316	134	0.5	0.5	12.412	B
A-B	186	47			186				
A-C	738	185			738				

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-C	70	18	345	0.203	70	0.3	0.3	13.067	B
B-A	99	25	195	0.508	99	1.0	1.0	37.527	E
C-A	568	142			568				
C-B	134	34	424	0.316	134	0.5	0.5	12.412	B
A-B	186	47			186				
A-C	738	185			738				

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-C	70	18	345	0.203	70	0.3	0.3	13.070	B
B-A	99	25	195	0.508	99	1.0	1.0	37.576	E
C-A	568	142			568				
C-B	134	34	424	0.316	134	0.5	0.5	12.412	B
A-B	186	47			186				
A-C	738	185			738				

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-C	70	18	345	0.203	70	0.3	0.3	13.072	B
B-A	99	25	195	0.508	99	1.0	1.0	37.559	E
C-A	568	142			568				
C-B	134	34	424	0.316	134	0.5	0.5	12.412	B
A-B	186	47			186				
A-C	738	185			738				

2022 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D2 - 2022 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		1.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.50	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2022 Base	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	98	556
	B - Oliver Road	72	0	61
	C - Chelmsford Road (S)	688	64	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
	A - Chelmsford Road (N)	0	0	2
	B - Oliver Road	0	0	3
	C - Chelmsford Road (S)	1	3	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-C	0.13	8.74	0.1	A	61	92
B-A	0.26	17.35	0.3	C	72	108
C-A					688	1032
C-B	0.13	8.17	0.1	A	64	96
AB					98	147
AC					556	834

Main Results for each time segment

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-C	61	15	475	0.128	60	0.0	0.1	8.674	A
B-A	72	18	279	0.258	71	0.0	0.3	17.142	C
C-A	688	172			688				
C-B	64	16	504	0.127	63	0.0	0.1	8.152	A
AB	98	25			98				
AC	556	139			556				

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-C	61	15	473	0.129	61	0.1	0.1	8.735	A
B-A	72	18	280	0.258	72	0.3	0.3	17.341	C
C-A	688	172			688				
C-B	64	16	504	0.127	64	0.1	0.1	8.173	A
AB	98	25			98				
AC	556	139			556				

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-C	61	15	473	0.129	61	0.1	0.1	8.736	A
B-A	72	18	280	0.258	72	0.3	0.3	17.344	C
C-A	688	172			688				
C-B	64	16	504	0.127	64	0.1	0.1	8.173	A
AB	98	25			98				
AC	556	139			556				

17:45 - 18:00

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-C	61	15	473	0.129	61	0.1	0.1	8.736	A
B-A	72	18	280	0.258	72	0.3	0.3	17.344	C
C-A	688	172			688				
C-B	64	16	504	0.127	64	0.1	0.1	8.173	A
A-B	98	25			98				
A-C	556	139			556				

18:00 - 18:15

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-C	61	15	473	0.129	61	0.1	0.1	8.736	A
B-A	72	18	280	0.258	72	0.3	0.3	17.346	C
C-A	688	172			688				
C-B	64	16	504	0.127	64	0.1	0.1	8.173	A
A-B	98	25			98				
A-C	556	139			556				

18:15 - 18:30

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-C	61	15	473	0.129	61	0.1	0.1	8.736	A
B-A	72	18	280	0.258	72	0.3	0.3	17.346	C
C-A	688	172			688				
C-B	64	16	504	0.127	64	0.1	0.1	8.173	A
A-B	98	25			98				
A-C	556	139			556				

2027 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D3 - 2027 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		3.43	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.43	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2027 Base	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	186	738
	B - Oliver Road	99	0	70
	C - Chelmsford Road (S)	568	134	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
	A - Chelmsford Road (N)	0	4	4
	B - Oliver Road	1	0	0
	C - Chelmsford Road (S)	5	4	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-C	0.20	13.07	0.3	B	70	105
B-A	0.51	37.58	1.0	E	99	149
C-A					568	852
C-B	0.32	12.41	0.5	B	134	201
AB					186	279
AC					738	1107

Main Results for each time segment

07:30 - 07:45

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-C	70	18	354	0.198	69	0.0	0.2	12.582	B
B-A	99	25	196	0.506	95	0.0	0.9	34.743	D
C-A	568	142			568				
C-B	134	34	424	0.316	132	0.0	0.5	12.265	B
AB	186	47			186				
AC	738	185			738				

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-C	70	18	346	0.202	70	0.2	0.3	13.042	B
B-A	99	25	195	0.508	99	0.9	1.0	37.373	E
C-A	568	142			568				
C-B	134	34	424	0.316	134	0.5	0.5	12.410	B
AB	186	47			186				
AC	738	185			738				

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-C	70	18	346	0.203	70	0.3	0.3	13.061	B
B-A	99	25	195	0.508	99	1.0	1.0	37.488	E
C-A	568	142			568				
C-B	134	34	424	0.316	134	0.5	0.5	12.412	B
AB	186	47			186				
AC	738	185			738				

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-C	70	18	345	0.203	70	0.3	0.3	13.067	B
B-A	99	25	195	0.508	99	1.0	1.0	37.527	E
C-A	568	142			568				
C-B	134	34	424	0.316	134	0.5	0.5	12.412	B
A-B	186	47			186				
A-C	738	185			738				

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-C	70	18	345	0.203	70	0.3	0.3	13.070	B
B-A	99	25	195	0.508	99	1.0	1.0	37.576	E
C-A	568	142			568				
C-B	134	34	424	0.316	134	0.5	0.5	12.412	B
A-B	186	47			186				
A-C	738	185			738				

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-C	70	18	345	0.203	70	0.3	0.3	13.072	B
B-A	99	25	195	0.508	99	1.0	1.0	37.559	E
C-A	568	142			568				
C-B	134	34	424	0.316	134	0.5	0.5	12.412	B
A-B	186	47			186				
A-C	738	185			738				

2027 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D4 - 2027 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		1.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.50	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2027 Base	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	98	556
	B - Oliver Road	72	0	61
	C - Chelmsford Road (S)	688	64	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
	A - Chelmsford Road (N)	0	0	2
	B - Oliver Road	0	0	3
	C - Chelmsford Road (S)	1	3	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-C	0.13	8.74	0.1	A	61	92
B-A	0.26	17.35	0.3	C	72	108
C-A					688	1032
C-B	0.13	8.17	0.1	A	64	96
AB					98	147
AC					556	834

Main Results for each time segment

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-C	61	15	475	0.128	60	0.0	0.1	8.674	A
B-A	72	18	279	0.258	71	0.0	0.3	17.142	C
C-A	688	172			688				
C-B	64	16	504	0.127	63	0.0	0.1	8.152	A
AB	98	25			98				
AC	556	139			556				

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-C	61	15	473	0.129	61	0.1	0.1	8.735	A
B-A	72	18	280	0.258	72	0.3	0.3	17.341	C
C-A	688	172			688				
C-B	64	16	504	0.127	64	0.1	0.1	8.173	A
AB	98	25			98				
AC	556	139			556				

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-C	61	15	473	0.129	61	0.1	0.1	8.736	A
B-A	72	18	280	0.258	72	0.3	0.3	17.344	C
C-A	688	172			688				
C-B	64	16	504	0.127	64	0.1	0.1	8.173	A
AB	98	25			98				
AC	556	139			556				

17:45 - 18:00

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-C	61	15	473	0.129	61	0.1	0.1	8.736	A
B-A	72	18	280	0.258	72	0.3	0.3	17.344	C
C-A	688	172			688				
C-B	64	16	504	0.127	64	0.1	0.1	8.173	A
A-B	98	25			98				
A-C	556	139			556				

18:00 - 18:15

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-C	61	15	473	0.129	61	0.1	0.1	8.736	A
B-A	72	18	280	0.258	72	0.3	0.3	17.346	C
C-A	688	172			688				
C-B	64	16	504	0.127	64	0.1	0.1	8.173	A
A-B	98	25			98				
A-C	556	139			556				

18:15 - 18:30

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-C	61	15	473	0.129	61	0.1	0.1	8.736	A
B-A	72	18	280	0.258	72	0.3	0.3	17.346	C
C-A	688	172			688				
C-B	64	16	504	0.127	64	0.1	0.1	8.173	A
A-B	98	25			98				
A-C	556	139			556				

2027 Base + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D5 - 2027 Base + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		3.60	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.60	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2027 Base + Dev	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
A - Chelmsford Road (N)		0	189	756
B - Oliver Road		100	0	70
C - Chelmsford Road (S)		573	134	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
	A - Chelmsford Road (N)	0	4	4
	B - Oliver Road	1	0	0
	C - Chelmsford Road (S)	5	4	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-C	0.21	13.72	0.3	B	70	105
B-A	0.53	40.49	1.1	E	100	150
C-A					573	860
C-B	0.32	12.66	0.5	B	134	201
AB					189	284
AC					756	1134

Main Results for each time segment

07:30 - 07:45

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-C	70	18	343	0.204	69	0.0	0.3	13.116	B
B-A	100	25	190	0.527	96	0.0	1.0	37.037	E
C-A	573	143			573				
C-B	134	34	418	0.320	132	0.0	0.5	12.497	B
AB	189	47			189				
AC	756	189			756				

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-C	70	18	333	0.210	70	0.3	0.3	13.676	B
B-A	100	25	189	0.530	100	1.0	1.1	40.234	E
C-A	573	143			573				
C-B	134	34	418	0.320	134	0.5	0.5	12.653	B
AB	189	47			189				
AC	756	189			756				

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-C	70	18	333	0.210	70	0.3	0.3	13.706	B
B-A	100	25	189	0.530	100	1.1	1.1	40.393	E
C-A	573	143			573				
C-B	134	34	418	0.320	134	0.5	0.5	12.656	B
AB	189	47			189				
AC	756	189			756				

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-C	70	18	332	0.211	70	0.3	0.3	13.714	B
B-A	100	25	189	0.530	100	1.1	1.1	40.448	E
C-A	573	143			573				
C-B	134	34	418	0.320	134	0.5	0.5	12.656	B
A-B	189	47			189				
A-C	756	189			756				

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-C	70	18	332	0.211	70	0.3	0.3	13.718	B
B-A	100	25	189	0.530	100	1.1	1.1	40.474	E
C-A	573	143			573				
C-B	134	34	418	0.320	134	0.5	0.5	12.656	B
A-B	189	47			189				
A-C	756	189			756				

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-C	70	18	332	0.211	70	0.3	0.3	13.720	B
B-A	100	25	189	0.530	100	1.1	1.1	40.491	E
C-A	573	143			573				
C-B	134	34	418	0.320	134	0.5	0.5	12.656	B
A-B	189	47			189				
A-C	756	189			756				

2027 Base + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D6 - 2027 Base + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		1.54	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.54	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2027 Base + Dev	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	99	564
	B - Oliver Road	75	0	61
	C - Chelmsford Road (S)	708	64	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
	A - Chelmsford Road (N)	0	0	2
	B - Oliver Road	0	0	3
	C - Chelmsford Road (S)	1	3	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-C	0.13	8.92	0.2	A	61	92
B-A	0.27	17.93	0.4	C	75	113
C-A					708	1062
C-B	0.13	8.22	0.1	A	64	96
AB					99	149
AC					564	846

Main Results for each time segment

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-C	61	15	466	0.131	60	0.0	0.1	8.855	A
B-A	75	19	276	0.272	74	0.0	0.4	17.699	C
C-A	708	177			708				
C-B	64	16	502	0.127	63	0.0	0.1	8.196	A
AB	99	25			99				
AC	564	141			564				

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-C	61	15	464	0.131	61	0.1	0.2	8.921	A
B-A	75	19	276	0.272	75	0.4	0.4	17.928	C
C-A	708	177			708				
C-B	64	16	502	0.127	64	0.1	0.1	8.217	A
AB	99	25			99				
AC	564	141			564				

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-C	61	15	464	0.131	61	0.2	0.2	8.922	A
B-A	75	19	276	0.272	75	0.4	0.4	17.932	C
C-A	708	177			708				
C-B	64	16	502	0.127	64	0.1	0.1	8.217	A
AB	99	25			99				
AC	564	141			564				

17:45 - 18:00

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-C	61	15	464	0.131	61	0.2	0.2	8.922	A
B-A	75	19	276	0.272	75	0.4	0.4	17.931	C
C-A	708	177			708				
C-B	64	16	502	0.127	64	0.1	0.1	8.217	A
A-B	99	25			99				
A-C	564	141			564				

18:00 - 18:15

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-C	61	15	464	0.131	61	0.2	0.2	8.922	A
B-A	75	19	276	0.272	75	0.4	0.4	17.933	C
C-A	708	177			708				
C-B	64	16	502	0.127	64	0.1	0.1	8.217	A
A-B	99	25			99				
A-C	564	141			564				

18:15 - 18:30

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-C	61	15	464	0.131	61	0.2	0.2	8.922	A
B-A	75	19	276	0.272	75	0.4	0.4	17.933	C
C-A	708	177			708				
C-B	64	16	502	0.127	64	0.1	0.1	8.217	A
A-B	99	25			99				
A-C	564	141			564				

2027 Base + Comm, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D7 - 2027 Base + Comm, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		4.16	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.16	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2027 Base + Comm	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	195	794
	B - Oliver Road	103	0	70
	C - Chelmsford Road (S)	593	134	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
	A - Chelmsford Road (N)	0	4	4
	B - Oliver Road	1	0	0
	C - Chelmsford Road (S)	5	4	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-C	0.24	15.92	0.3	C	70	105
B-A	0.59	50.14	1.4	F	103	155
C-A					593	890
C-B	0.33	13.20	0.5	B	134	201
A-B					195	293
A-C					794	1191

Main Results for each time segment

07:30 - 07:45

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-C	70	18	311	0.225	69	0.0	0.3	14.779	B
B-A	103	26	175	0.587	98	0.0	1.3	44.075	E
C-A	593	148			593				
C-B	134	34	407	0.329	132	0.0	0.5	13.020	B
A-B	195	49			195				
A-C	794	199			794				

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-C	70	18	298	0.235	70	0.3	0.3	15.797	C
B-A	103	26	175	0.590	103	1.3	1.3	49.527	E
C-A	593	148			593				
C-B	134	34	407	0.329	134	0.5	0.5	13.195	B
A-B	195	49			195				
A-C	794	199			794				

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-C	70	18	297	0.236	70	0.3	0.3	15.872	C
B-A	103	26	175	0.590	103	1.3	1.4	49.900	E
C-A	593	148			593				
C-B	134	34	407	0.329	134	0.5	0.5	13.198	B
A-B	195	49			195				
A-C	794	199			794				

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-C	70	18	296	0.236	70	0.3	0.3	15.896	C
B-A	103	26	175	0.590	103	1.4	1.4	50.034	F
C-A	593	148			593				
C-B	134	34	407	0.329	134	0.5	0.5	13.198	B
A-B	195	49			195				
A-C	794	199			794				

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-C	70	18	296	0.236	70	0.3	0.3	15.909	C
B-A	103	26	175	0.590	103	1.4	1.4	50.106	F
C-A	593	148			593				
C-B	134	34	407	0.329	134	0.5	0.5	13.198	B
A-B	195	49			195				
A-C	794	199			794				

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-C	70	18	296	0.236	70	0.3	0.3	15.916	C
B-A	103	26	175	0.590	103	1.4	1.4	50.145	F
C-A	593	148			593				
C-B	134	34	407	0.329	134	0.5	0.5	13.198	B
A-B	195	49			195				
A-C	794	199			794				

2027 Base + Comm, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D8 - 2027 Base + Comm, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		1.65	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.65	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2027 Base + Comm	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	104	592
	B - Oliver Road	82	0	61
	C - Chelmsford Road (S)	751	64	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
	A - Chelmsford Road (N)	0	0	2
	B - Oliver Road	0	0	3
	C - Chelmsford Road (S)	1	3	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-C	0.14	9.47	0.2	A	61	92
B-A	0.31	19.78	0.4	C	82	123
C-A					751	1127
C-B	0.13	8.38	0.1	A	64	96
AB					104	156
AC					592	888

Main Results for each time segment

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-C	61	15	444	0.138	60	0.0	0.2	9.380	A
B-A	82	21	264	0.311	80	0.0	0.4	19.429	C
C-A	751	188			751				
C-B	64	16	493	0.130	63	0.0	0.1	8.361	A
AB	104	26			104				
AC	592	148			592				

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-C	61	15	441	0.138	61	0.2	0.2	9.465	A
B-A	82	21	264	0.311	82	0.4	0.4	19.771	C
C-A	751	188			751				
C-B	64	16	493	0.130	64	0.1	0.1	8.383	A
AB	104	26			104				
AC	592	148			592				

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-C	61	15	441	0.138	61	0.2	0.2	9.466	A
B-A	82	21	264	0.311	82	0.4	0.4	19.777	C
C-A	751	188			751				
C-B	64	16	493	0.130	64	0.1	0.1	8.383	A
AB	104	26			104				
AC	592	148			592				

17:45 - 18:00

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-C	61	15	441	0.138	61	0.2	0.2	9.466	A
B-A	82	21	264	0.311	82	0.4	0.4	19.779	C
C-A	751	188			751				
C-B	64	16	493	0.130	64	0.1	0.1	8.383	A
A-B	104	26			104				
A-C	592	148			592				

18:00 - 18:15

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-C	61	15	441	0.138	61	0.2	0.2	9.466	A
B-A	82	21	264	0.311	82	0.4	0.4	19.778	C
C-A	751	188			751				
C-B	64	16	493	0.130	64	0.1	0.1	8.383	A
A-B	104	26			104				
A-C	592	148			592				

18:15 - 18:30

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-C	61	15	441	0.138	61	0.2	0.2	9.466	A
B-A	82	21	264	0.311	82	0.4	0.4	19.778	C
C-A	751	188			751				
C-B	64	16	493	0.130	64	0.1	0.1	8.383	A
A-B	104	26			104				
A-C	592	148			592				

2027 Base + Comm + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D9 - 2027 Base + Comm + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		4.44	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.44	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	2027 Base + Comm + Dev	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
From	A - Chelmsford Road (N)	0	198	812
	B - Oliver Road	104	0	70
	C - Chelmsford Road (S)	599	134	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
	A - Chelmsford Road (N)	0	3	4
	B - Oliver Road	1	0	0
	C - Chelmsford Road (S)	4	4	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-C	0.25	17.08	0.3	C	70	105
B-A	0.61	54.71	1.5	F	104	156
C-A					599	899
C-B	0.33	13.45	0.5	B	134	201
AB					198	297
AC					812	1218

Main Results for each time segment

07:30 - 07:45

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-C	70	18	298	0.235	69	0.0	0.3	15.592	C
B-A	104	26	171	0.610	99	0.0	1.4	47.141	E
C-A	599	150			599				
C-B	134	34	402	0.334	132	0.0	0.5	13.259	B
AB	198	50			198				
AC	812	203			812				

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-C	70	18	283	0.248	70	0.3	0.3	16.913	C
B-A	104	26	170	0.613	104	1.4	1.5	53.821	F
C-A	599	150			599				
C-B	134	34	402	0.334	134	0.5	0.5	13.446	B
AB	198	50			198				
AC	812	203			812				

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-C	70	18	281	0.249	70	0.3	0.3	17.016	C
B-A	104	26	170	0.614	104	1.5	1.5	54.358	F
C-A	599	150			599				
C-B	134	34	402	0.334	134	0.5	0.5	13.448	B
AB	198	50			198				
AC	812	203			812				

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-C	70	18	281	0.249	70	0.3	0.3	17.053	C
B-A	104	26	170	0.614	104	1.5	1.5	54.548	F
C-A	599	150			599				
C-B	134	34	402	0.334	134	0.5	0.5	13.448	B
A-B	198	50			198				
A-C	812	203			812				

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-C	70	18	281	0.249	70	0.3	0.3	17.071	C
B-A	104	26	170	0.614	104	1.5	1.5	54.650	F
C-A	599	150			599				
C-B	134	34	402	0.334	134	0.5	0.5	13.448	B
A-B	198	50			198				
A-C	812	203			812				

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-C	70	18	281	0.249	70	0.3	0.3	17.083	C
B-A	104	26	170	0.614	104	1.5	1.5	54.711	F
C-A	599	150			599				
C-B	134	34	402	0.334	134	0.5	0.5	13.448	B
A-B	198	50			198				
A-C	812	203			812				

2027 Base + Comm + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D10 - 2027 Base + Comm + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Chelmsford Rd_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		1.71	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.71	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	2027 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - Chelmsford Road (N)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Chelmsford Road (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
A - Chelmsford Road (N)		0	105	600
B - Oliver Road		85	0	61
C - Chelmsford Road (S)		771	64	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Chelmsford Road (N)	B - Oliver Road	C - Chelmsford Road (S)
	A - Chelmsford Road (N)	0	0	2
	B - Oliver Road	0	0	3
	C - Chelmsford Road (S)	1	3	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-C	0.14	9.66	0.2	A	61	92
B-A	0.33	20.71	0.5	C	85	128
C-A					771	1157
C-B	0.13	8.43	0.1	A	64	96
AB					105	158
AC					600	900

Main Results for each time segment

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-C	61	15	436	0.140	60	0.0	0.2	9.568	A
B-A	85	21	259	0.328	83	0.0	0.5	20.273	C
C-A	771	193			771				
C-B	64	16	491	0.130	63	0.0	0.1	8.405	A
AB	105	26			105				
AC	600	150			600				

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-C	61	15	434	0.141	61	0.2	0.2	9.656	A
B-A	85	21	259	0.328	85	0.5	0.5	20.700	C
C-A	771	193			771				
C-B	64	16	491	0.130	64	0.1	0.1	8.429	A
AB	105	26			105				
AC	600	150			600				

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-C	61	15	434	0.141	61	0.2	0.2	9.657	A
B-A	85	21	259	0.328	85	0.5	0.5	20.708	C
C-A	771	193			771				
C-B	64	16	491	0.130	64	0.1	0.1	8.429	A
AB	105	26			105				
AC	600	150			600				

17:45 - 18:00

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-C	61	15	434	0.141	61	0.2	0.2	9.657	A
B-A	85	21	259	0.328	85	0.5	0.5	20.710	C
C-A	771	193			771				
C-B	64	16	491	0.130	64	0.1	0.1	8.429	A
A-B	105	26			105				
A-C	600	150			600				

18:00 - 18:15

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-C	61	15	434	0.141	61	0.2	0.2	9.658	A
B-A	85	21	259	0.328	85	0.5	0.5	20.712	C
C-A	771	193			771				
C-B	64	16	491	0.130	64	0.1	0.1	8.429	A
A-B	105	26			105				
A-C	600	150			600				

18:15 - 18:30

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-C	61	15	434	0.141	61	0.2	0.2	9.658	A
B-A	85	21	259	0.328	85	0.5	0.5	20.712	C
C-A	771	193			771				
C-B	64	16	491	0.130	64	0.1	0.1	8.429	A
A-B	105	26			105				
A-C	600	150			600				

Junctions 10				
ARCADY 10 - Roundabout Module				
Version: 10.0.3.1598				
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Filename: Import of Rayleigh Rd.Alexander Lane miniroundabout (J6).j10

Path: P:\JNY10935 - Shenfield\Transport\Arcady

Report generation date: 27/07/2022 09:47:28

- »2022 Base, AM
- »2022 Base, PM
- »2027 Base, AM
- »2027 Base, PM
- »2027 Base + Dev, AM
- »2027 Base + Dev, PM
- »2027 Base + Comm, AM
- »2027 Base + Comm, PM
- »2027 Base + Comm + Dev, AM
- »2027 Base + Comm + Dev, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2022 Base									
C - Rayleigh Road (E)	D1	6.7	44.45	0.88	E	D2	1.6	13.60	0.62	B
A - Rayleigh Road (W)		1.4	9.63	0.58	A		1.7	10.78	0.64	B
B - Alexander Lane		1.4	12.95	0.58	B		0.7	9.97	0.42	A
	2027 Base									
C - Rayleigh Road (E)	D3	6.7	44.45	0.88	E	D4	1.6	13.60	0.62	B
A - Rayleigh Road (W)		1.4	9.63	0.58	A		1.7	10.78	0.64	B
B - Alexander Lane		1.4	12.95	0.58	B		0.7	9.97	0.42	A
	2027 Base + Dev									
C - Rayleigh Road (E)	D5	6.7	44.78	0.88	E	D6	1.7	13.81	0.63	B
A - Rayleigh Road (W)		1.4	9.70	0.58	A		1.8	10.86	0.64	B
B - Alexander Lane		1.4	13.13	0.58	B		0.7	9.99	0.42	A
	2027 Base + Comm									
C - Rayleigh Road (E)	D7	7.1	47.34	0.88	E	D8	1.8	14.28	0.64	B
A - Rayleigh Road (W)		1.4	9.91	0.59	A		1.8	11.12	0.65	B
B - Alexander Lane		1.4	13.41	0.59	B		0.7	10.13	0.42	B
	2027 Base + Comm + Dev									
C - Rayleigh Road (E)	D9	7.2	47.71	0.89	E	D10	1.8	14.55	0.65	B
A - Rayleigh Road (W)		1.4	9.99	0.59	A		1.8	11.18	0.65	B
B - Alexander Lane		1.5	13.61	0.59	B		0.7	10.20	0.43	B

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

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

File summary

File Description

Title	
Location	
Site number	
Date	22/07/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\George.Magnisalis
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	07:30	09:00	90	15	✓
D2	2022 Base	PM	DIRECT	17:00	18:30	90	15	✓
D3	2027 Base	AM	DIRECT	07:30	09:00	90	15	✓
D4	2027 Base	PM	DIRECT	17:00	18:30	90	15	✓
D5	2027 Base + Dev	AM	DIRECT	07:30	09:00	90	15	✓
D6	2027 Base + Dev	PM	DIRECT	17:00	18:30	90	15	✓
D7	2027 Base + Comm	AM	DIRECT	07:30	09:00	90	15	✓
D8	2027 Base + Comm	PM	DIRECT	17:00	18:30	90	15	✓
D9	2027 Base + Comm + Dev	AM	DIRECT	07:30	09:00	90	15	✓
D10	2027 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	15	✓

Analysis Set Details

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

2022 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D1 - 2022 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	24.05	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		24.05	C

Arms

Arms

Arm	Name	Description
C	Rayleigh Road (E)	
A	Rayleigh Road (W)	
B	Alexander Lane	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
C - Rayleigh Road (E)	3.90	3.90	3.90	0.0	16.70	15.50	0.0	
A - Rayleigh Road (W)	3.70	3.70	6.00	2.0	13.10	10.50	0.0	
B - Alexander Lane	2.60	2.60	5.00	4.6	13.30	10.00	0.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Percentage intercept adjustment (%)
C - Rayleigh Road (E)	Percentage		84.00
A - Rayleigh Road (W)	None		
B - Alexander Lane	Percentage		108.00

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
C - Rayleigh Road (E)	0.656	818
A - Rayleigh Road (W)	0.638	987
B - Alexander Lane	0.611	910

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 period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	440	119
	A - Rayleigh Road (W)	380	0	130
	B - Alexander Lane	147	234	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	3
	A - Rayleigh Road (W)	3	0	2
	B - Alexander Lane	3	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)
C - Rayleigh Road (E)	0.88	44.45	6.7	E	560	840
A - Rayleigh Road (W)	0.58	9.63	1.4	A	510	765
B - Alexander Lane	0.58	12.95	1.4	B	381	571

Main Results for each time segment

07:30 - 07:45

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
C - Rayleigh Road (E)	560	140	231	641	0.874	539	522	0.0	5.3	30.852	D
A - Rayleigh Road (W)	510	128	115	887	0.575	505	654	0.0	1.3	9.299	A
B - Alexander Lane	381	95	377	661	0.576	376	243	0.0	1.3	12.391	B

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
C - Rayleigh Road (E)	560	140	234	639	0.877	557	528	5.3	6.0	41.331	E
A - Rayleigh Road (W)	510	128	119	884	0.577	510	672	1.3	1.3	9.609	A
B - Alexander Lane	381	95	381	659	0.578	381	248	1.3	1.3	12.934	B

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
C - Rayleigh Road (E)	560	140	234	639	0.877	559	528	6.0	6.3	43.004	E
A - Rayleigh Road (W)	510	128	120	884	0.577	510	673	1.3	1.4	9.619	A
B - Alexander Lane	381	95	381	659	0.578	381	249	1.3	1.4	12.946	B

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
C - Rayleigh Road (E)	560	140	234	639	0.877	559	528	6.3	6.5	43.747	E
A - Rayleigh Road (W)	510	128	120	884	0.577	510	673	1.4	1.4	9.622	A
B - Alexander Lane	381	95	381	659	0.578	381	249	1.4	1.4	12.948	B

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
C - Rayleigh Road (E)	560	140	234	639	0.877	560	528	6.5	6.6	44.173	E
A - Rayleigh Road (W)	510	128	120	884	0.577	510	674	1.4	1.4	9.625	A
B - Alexander Lane	381	95	381	659	0.578	381	249	1.4	1.4	12.951	B

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
C - Rayleigh Road (E)	560	140	234	639	0.877	560	528	6.6	6.7	44.448	E
A - Rayleigh Road (W)	510	128	120	884	0.577	510	674	1.4	1.4	9.626	A
B - Alexander Lane	381	95	381	659	0.578	381	249	1.4	1.4	12.951	B

2022 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D2 - 2022 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	11.59	B

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		11.59	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2022 Base	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	364	74
	A - Rayleigh Road (W)	452	1	132
	B - Alexander Lane	122	132	3

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	0
	A - Rayleigh Road (W)	2	0	2
	B - Alexander Lane	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
C - Rayleigh Road (E)	0.62	13.60	1.6	B	439	658
A - Rayleigh Road (W)	0.64	10.78	1.7	B	585	877
B - Alexander Lane	0.42	9.97	0.7	A	257	385

Main Results for each time segment

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
C - Rayleigh Road (E)	439	110	135	705	0.623	433	568	0.0	1.6	12.956	B
A - Rayleigh Road (W)	585	146	77	920	0.636	578	490	0.0	1.7	10.352	B
B - Alexander Lane	257	64	449	621	0.414	254	206	0.0	0.7	9.735	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
C - Rayleigh Road (E)	439	110	136	704	0.624	439	575	1.6	1.6	13.579	B
A - Rayleigh Road (W)	585	146	78	919	0.637	585	497	1.7	1.7	10.767	B
B - Alexander Lane	257	64	454	618	0.416	257	209	0.7	0.7	9.963	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
C - Rayleigh Road (E)	439	110	136	704	0.624	439	575	1.6	1.6	13.593	B
A - Rayleigh Road (W)	585	146	78	919	0.637	585	497	1.7	1.7	10.774	B
B - Alexander Lane	257	64	454	618	0.416	257	209	0.7	0.7	9.968	A

17:45 - 18:00

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
C - Rayleigh Road (E)	439	110	136	704	0.624	439	575	1.6	1.6	13.595	B
A - Rayleigh Road (W)	585	146	78	919	0.637	585	497	1.7	1.7	10.776	B
B - Alexander Lane	257	64	454	618	0.416	257	209	0.7	0.7	9.968	A

18:00 - 18:15

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
C - Rayleigh Road (E)	439	110	136	704	0.624	439	575	1.6	1.6	13.598	B
A - Rayleigh Road (W)	585	146	78	919	0.637	585	497	1.7	1.7	10.778	B
B - Alexander Lane	257	64	454	618	0.416	257	209	0.7	0.7	9.968	A

18:15 - 18:30

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
C - Rayleigh Road (E)	439	110	136	704	0.624	439	575	1.6	1.6	13.601	B
A - Rayleigh Road (W)	585	146	78	919	0.637	585	497	1.7	1.7	10.778	B
B - Alexander Lane	257	64	454	618	0.416	257	209	0.7	0.7	9.968	A

2027 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D3 - 2027 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	24.05	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		24.05	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2027 Base	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	440	119
	A - Rayleigh Road (W)	380	0	130
	B - Alexander Lane	147	234	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	3
	A - Rayleigh Road (W)	3	0	2
	B - Alexander Lane	3	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)
C - Rayleigh Road (E)	0.88	44.45	6.7	E	560	840
A - Rayleigh Road (W)	0.58	9.63	1.4	A	510	765
B - Alexander Lane	0.58	12.95	1.4	B	381	571

Main Results for each time segment

07:30 - 07:45

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
C - Rayleigh Road (E)	560	140	231	641	0.874	539	522	0.0	5.3	30.852	D
A - Rayleigh Road (W)	510	128	115	887	0.575	505	654	0.0	1.3	9.299	A
B - Alexander Lane	381	95	377	661	0.576	376	243	0.0	1.3	12.391	B

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
C - Rayleigh Road (E)	560	140	234	639	0.877	557	528	5.3	6.0	41.331	E
A - Rayleigh Road (W)	510	128	119	884	0.577	510	672	1.3	1.3	9.609	A
B - Alexander Lane	381	95	381	659	0.578	381	248	1.3	1.3	12.934	B

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
C - Rayleigh Road (E)	560	140	234	639	0.877	559	528	6.0	6.3	43.004	E
A - Rayleigh Road (W)	510	128	120	884	0.577	510	673	1.3	1.4	9.619	A
B - Alexander Lane	381	95	381	659	0.578	381	249	1.3	1.4	12.946	B

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
C - Rayleigh Road (E)	560	140	234	639	0.877	559	528	6.3	6.5	43.747	E
A - Rayleigh Road (W)	510	128	120	884	0.577	510	673	1.4	1.4	9.622	A
B - Alexander Lane	381	95	381	659	0.578	381	249	1.4	1.4	12.948	B

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
C - Rayleigh Road (E)	560	140	234	639	0.877	560	528	6.5	6.6	44.173	E
A - Rayleigh Road (W)	510	128	120	884	0.577	510	674	1.4	1.4	9.625	A
B - Alexander Lane	381	95	381	659	0.578	381	249	1.4	1.4	12.951	B

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
C - Rayleigh Road (E)	560	140	234	639	0.877	560	528	6.6	6.7	44.448	E
A - Rayleigh Road (W)	510	128	120	884	0.577	510	674	1.4	1.4	9.626	A
B - Alexander Lane	381	95	381	659	0.578	381	249	1.4	1.4	12.951	B

2027 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D4 - 2027 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	11.59	B

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		11.59	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2027 Base	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	364	74
	A - Rayleigh Road (W)	452	1	132
	B - Alexander Lane	122	132	3

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	0
	A - Rayleigh Road (W)	2	0	2
	B - Alexander Lane	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
C - Rayleigh Road (E)	0.62	13.60	1.6	B	439	658
A - Rayleigh Road (W)	0.64	10.78	1.7	B	585	877
B - Alexander Lane	0.42	9.97	0.7	A	257	385

Main Results for each time segment

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
C - Rayleigh Road (E)	439	110	135	705	0.623	433	568	0.0	1.6	12.956	B
A - Rayleigh Road (W)	585	146	77	920	0.636	578	490	0.0	1.7	10.352	B
B - Alexander Lane	257	64	449	621	0.414	254	206	0.0	0.7	9.735	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
C - Rayleigh Road (E)	439	110	136	704	0.624	439	575	1.6	1.6	13.579	B
A - Rayleigh Road (W)	585	146	78	919	0.637	585	497	1.7	1.7	10.767	B
B - Alexander Lane	257	64	454	618	0.416	257	209	0.7	0.7	9.963	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
C - Rayleigh Road (E)	439	110	136	704	0.624	439	575	1.6	1.6	13.593	B
A - Rayleigh Road (W)	585	146	78	919	0.637	585	497	1.7	1.7	10.774	B
B - Alexander Lane	257	64	454	618	0.416	257	209	0.7	0.7	9.968	A

17:45 - 18:00

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
C - Rayleigh Road (E)	439	110	136	704	0.624	439	575	1.6	1.6	13.595	B
A - Rayleigh Road (W)	585	146	78	919	0.637	585	497	1.7	1.7	10.776	B
B - Alexander Lane	257	64	454	618	0.416	257	209	0.7	0.7	9.968	A

18:00 - 18:15

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
C - Rayleigh Road (E)	439	110	136	704	0.624	439	575	1.6	1.6	13.598	B
A - Rayleigh Road (W)	585	146	78	919	0.637	585	497	1.7	1.7	10.778	B
B - Alexander Lane	257	64	454	618	0.416	257	209	0.7	0.7	9.968	A

18:15 - 18:30

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
C - Rayleigh Road (E)	439	110	136	704	0.624	439	575	1.6	1.6	13.601	B
A - Rayleigh Road (W)	585	146	78	919	0.637	585	497	1.7	1.7	10.778	B
B - Alexander Lane	257	64	454	618	0.416	257	209	0.7	0.7	9.968	A

2027 Base + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D5 - 2027 Base + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	24.20	C

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		24.20	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2027 Base + Dev	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	440	119
	A - Rayleigh Road (W)	383	0	130
	B - Alexander Lane	148	235	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	3
	A - Rayleigh Road (W)	3	0	2
	B - Alexander Lane	3	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)
C - Rayleigh Road (E)	0.88	44.78	6.7	E	560	840
A - Rayleigh Road (W)	0.58	9.70	1.4	A	513	769
B - Alexander Lane	0.58	13.13	1.4	B	383	574

Main Results for each time segment

07:30 - 07:45

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
C - Rayleigh Road (E)	560	140	232	640	0.875	539	526	0.0	5.3	30.976	D
A - Rayleigh Road (W)	513	128	115	887	0.578	508	655	0.0	1.3	9.368	A
B - Alexander Lane	383	96	380	660	0.581	378	243	0.0	1.3	12.547	B

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
C - Rayleigh Road (E)	560	140	235	638	0.878	557	532	5.3	6.0	41.587	E
A - Rayleigh Road (W)	513	128	119	884	0.580	513	673	1.3	1.4	9.687	A
B - Alexander Lane	383	96	384	657	0.583	383	248	1.3	1.4	13.114	B

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
C - Rayleigh Road (E)	560	140	235	638	0.878	559	532	6.0	6.4	43.296	E
A - Rayleigh Road (W)	513	128	120	884	0.580	513	674	1.4	1.4	9.697	A
B - Alexander Lane	383	96	384	657	0.583	383	249	1.4	1.4	13.128	B

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
C - Rayleigh Road (E)	560	140	235	638	0.878	559	532	6.4	6.5	44.062	E
A - Rayleigh Road (W)	513	128	120	884	0.580	513	674	1.4	1.4	9.700	A
B - Alexander Lane	383	96	384	657	0.583	383	249	1.4	1.4	13.131	B

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
C - Rayleigh Road (E)	560	140	235	638	0.878	560	532	6.5	6.6	44.498	E
A - Rayleigh Road (W)	513	128	120	884	0.580	513	675	1.4	1.4	9.701	A
B - Alexander Lane	383	96	384	657	0.583	383	249	1.4	1.4	13.134	B

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
C - Rayleigh Road (E)	560	140	235	638	0.878	560	532	6.6	6.7	44.780	E
A - Rayleigh Road (W)	513	128	120	884	0.580	513	675	1.4	1.4	9.704	A
B - Alexander Lane	383	96	384	657	0.583	383	249	1.4	1.4	13.134	B

2027 Base + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D6 - 2027 Base + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	11.71	B

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		11.71	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2027 Base + Dev	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	367	75
	A - Rayleigh Road (W)	453	1	133
	B - Alexander Lane	122	132	3

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	0
	A - Rayleigh Road (W)	2	0	2
	B - Alexander Lane	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
C - Rayleigh Road (E)	0.63	13.81	1.7	B	443	664
A - Rayleigh Road (W)	0.64	10.86	1.8	B	587	880
B - Alexander Lane	0.42	9.99	0.7	A	257	385

Main Results for each time segment

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
C - Rayleigh Road (E)	443	111	135	705	0.629	436	569	0.0	1.6	13.132	B
A - Rayleigh Road (W)	587	147	78	919	0.639	580	493	0.0	1.7	10.425	B
B - Alexander Lane	257	64	450	621	0.414	254	208	0.0	0.7	9.751	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
C - Rayleigh Road (E)	443	111	136	704	0.630	443	576	1.6	1.7	13.783	B
A - Rayleigh Road (W)	587	147	79	918	0.639	587	500	1.7	1.7	10.852	B
B - Alexander Lane	257	64	455	618	0.416	257	211	0.7	0.7	9.980	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
C - Rayleigh Road (E)	443	111	136	704	0.630	443	576	1.7	1.7	13.797	B
A - Rayleigh Road (W)	587	147	79	918	0.639	587	500	1.7	1.8	10.859	B
B - Alexander Lane	257	64	455	618	0.416	257	211	0.7	0.7	9.985	A

17:45 - 18:00

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
C - Rayleigh Road (E)	443	111	136	704	0.630	443	576	1.7	1.7	13.803	B
A - Rayleigh Road (W)	587	147	79	918	0.639	587	500	1.8	1.8	10.861	B
B - Alexander Lane	257	64	455	618	0.416	257	211	0.7	0.7	9.985	A

18:00 - 18:15

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
C - Rayleigh Road (E)	443	111	136	704	0.630	443	576	1.7	1.7	13.806	B
A - Rayleigh Road (W)	587	147	79	918	0.639	587	500	1.8	1.8	10.863	B
B - Alexander Lane	257	64	455	618	0.416	257	211	0.7	0.7	9.985	A

18:15 - 18:30

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
C - Rayleigh Road (E)	443	111	136	704	0.630	443	576	1.7	1.7	13.806	B
A - Rayleigh Road (W)	587	147	79	918	0.639	587	500	1.8	1.8	10.863	B
B - Alexander Lane	257	64	455	618	0.416	257	211	0.7	0.7	9.985	A

2027 Base + Comm, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D7 - 2027 Base + Comm, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	25.31	D

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		25.31	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2027 Base + Comm	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	443	120
	A - Rayleigh Road (W)	389	0	131
	B - Alexander Lane	149	236	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	3
	A - Rayleigh Road (W)	3	0	2
	B - Alexander Lane	3	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)
C - Rayleigh Road (E)	0.88	47.34	7.1	E	564	846
A - Rayleigh Road (W)	0.59	9.91	1.4	A	520	780
B - Alexander Lane	0.59	13.41	1.4	B	385	578

Main Results for each time segment

07:30 - 07:45

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
C - Rayleigh Road (E)	564	141	233	640	0.882	542	533	0.0	5.5	31.889	D
A - Rayleigh Road (W)	520	130	116	886	0.587	514	658	0.0	1.4	9.547	A
B - Alexander Lane	385	96	386	656	0.587	380	245	0.0	1.4	12.787	B

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
C - Rayleigh Road (E)	564	141	236	637	0.885	561	539	5.5	6.4	43.505	E
A - Rayleigh Road (W)	520	130	120	884	0.588	520	676	1.4	1.4	9.889	A
B - Alexander Lane	385	96	390	653	0.589	385	250	1.4	1.4	13.393	B

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
C - Rayleigh Road (E)	564	141	236	637	0.885	563	539	6.4	6.7	45.525	E
A - Rayleigh Road (W)	520	130	121	883	0.589	520	678	1.4	1.4	9.900	A
B - Alexander Lane	385	96	390	653	0.589	385	251	1.4	1.4	13.401	B

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
C - Rayleigh Road (E)	564	141	236	637	0.885	563	539	6.7	6.9	46.452	E
A - Rayleigh Road (W)	520	130	121	883	0.589	520	678	1.4	1.4	9.904	A
B - Alexander Lane	385	96	390	653	0.589	385	251	1.4	1.4	13.411	B

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
C - Rayleigh Road (E)	564	141	236	637	0.885	563	539	6.9	7.1	46.988	E
A - Rayleigh Road (W)	520	130	121	883	0.589	520	679	1.4	1.4	9.905	A
B - Alexander Lane	385	96	390	653	0.589	385	251	1.4	1.4	13.414	B

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
C - Rayleigh Road (E)	564	141	236	637	0.885	564	539	7.1	7.1	47.338	E
A - Rayleigh Road (W)	520	130	121	883	0.589	520	679	1.4	1.4	9.908	A
B - Alexander Lane	385	96	390	653	0.589	385	251	1.4	1.4	13.414	B

2027 Base + Comm, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D8 - 2027 Base + Comm, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	12.03	B

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		12.03	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2027 Base + Comm	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	374	76
	A - Rayleigh Road (W)	458	1	135
	B - Alexander Lane	123	133	3

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	0
	A - Rayleigh Road (W)	2	0	2
	B - Alexander Lane	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
C - Rayleigh Road (E)	0.64	14.28	1.8	B	451	677
A - Rayleigh Road (W)	0.65	11.12	1.8	B	594	891
B - Alexander Lane	0.42	10.13	0.7	B	259	388

Main Results for each time segment

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
C - Rayleigh Road (E)	451	113	135	704	0.641	444	575	0.0	1.7	13.528	B
A - Rayleigh Road (W)	594	148	79	918	0.647	587	501	0.0	1.8	10.647	B
B - Alexander Lane	259	65	455	618	0.419	256	211	0.0	0.7	9.880	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
C - Rayleigh Road (E)	451	113	137	703	0.642	451	582	1.7	1.8	14.255	B
A - Rayleigh Road (W)	594	148	80	918	0.647	594	508	1.8	1.8	11.106	B
B - Alexander Lane	259	65	460	614	0.421	259	214	0.7	0.7	10.122	B

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
C - Rayleigh Road (E)	451	113	137	703	0.642	451	582	1.8	1.8	14.272	B
A - Rayleigh Road (W)	594	148	80	918	0.647	594	508	1.8	1.8	11.115	B
B - Alexander Lane	259	65	460	614	0.422	259	214	0.7	0.7	10.127	B

17:45 - 18:00

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
C - Rayleigh Road (E)	451	113	137	703	0.642	451	582	1.8	1.8	14.282	B
A - Rayleigh Road (W)	594	148	80	918	0.647	594	508	1.8	1.8	11.117	B
B - Alexander Lane	259	65	460	614	0.422	259	214	0.7	0.7	10.127	B

18:00 - 18:15

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
C - Rayleigh Road (E)	451	113	137	703	0.642	451	582	1.8	1.8	14.281	B
A - Rayleigh Road (W)	594	148	80	918	0.647	594	508	1.8	1.8	11.119	B
B - Alexander Lane	259	65	460	614	0.422	259	214	0.7	0.7	10.127	B

18:15 - 18:30

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
C - Rayleigh Road (E)	451	113	137	703	0.642	451	582	1.8	1.8	14.281	B
A - Rayleigh Road (W)	594	148	80	918	0.647	594	508	1.8	1.8	11.119	B
B - Alexander Lane	259	65	460	614	0.422	259	214	0.7	0.7	10.128	B

2027 Base + Comm + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D9 - 2027 Base + Comm + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	25.49	D

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		25.49	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	2027 Base + Comm + Dev	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	443	120
	A - Rayleigh Road (W)	392	0	131
	B - Alexander Lane	150	237	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	3
	A - Rayleigh Road (W)	3	0	2
	B - Alexander Lane	3	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)
C - Rayleigh Road (E)	0.89	47.71	7.2	E	564	846
A - Rayleigh Road (W)	0.59	9.99	1.4	A	523	784
B - Alexander Lane	0.59	13.61	1.5	B	387	581

Main Results for each time segment

07:30 - 07:45

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
C - Rayleigh Road (E)	564	141	234	639	0.883	542	537	0.0	5.6	32.020	D
A - Rayleigh Road (W)	523	131	116	886	0.590	517	659	0.0	1.4	9.620	A
B - Alexander Lane	387	97	389	654	0.592	381	245	0.0	1.4	12.955	B

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
C - Rayleigh Road (E)	564	141	237	637	0.886	561	543	5.6	6.4	43.777	E
A - Rayleigh Road (W)	523	131	120	884	0.592	523	677	1.4	1.4	9.970	A
B - Alexander Lane	387	97	393	651	0.594	387	250	1.4	1.4	13.586	B

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
C - Rayleigh Road (E)	564	141	237	637	0.886	563	543	6.4	6.8	45.849	E
A - Rayleigh Road (W)	523	131	121	883	0.592	523	679	1.4	1.4	9.983	A
B - Alexander Lane	387	97	393	651	0.594	387	251	1.4	1.4	13.601	B

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
C - Rayleigh Road (E)	564	141	237	637	0.886	563	543	6.8	7.0	46.799	E
A - Rayleigh Road (W)	523	131	121	883	0.592	523	679	1.4	1.4	9.987	A
B - Alexander Lane	387	97	393	651	0.594	387	251	1.4	1.4	13.607	B

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
C - Rayleigh Road (E)	564	141	237	637	0.886	563	543	7.0	7.1	47.352	E
A - Rayleigh Road (W)	523	131	121	883	0.592	523	680	1.4	1.4	9.988	A
B - Alexander Lane	387	97	393	651	0.594	387	251	1.4	1.5	13.607	B

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
C - Rayleigh Road (E)	564	141	237	637	0.886	564	543	7.1	7.2	47.713	E
A - Rayleigh Road (W)	523	131	121	883	0.592	523	680	1.4	1.4	9.991	A
B - Alexander Lane	387	97	393	651	0.594	387	251	1.5	1.5	13.610	B

2027 Base + Comm + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Profile Type	D10 - 2027 Base + Comm + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Rayleigh Rd_Alexander Ln Mini Rbt	Mini-roundabout		C, A, B	12.16	B

Junction Network

Driving side	Lighting	Road surface	In London	Network delay (s)	Network LOS
Left	Normal/unknown	Normal/unknown		12.16	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	2027 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
C - Rayleigh Road (E)		DIRECT	✓	100.000
A - Rayleigh Road (W)		DIRECT	✓	100.000
B - Alexander Lane		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	1	377	77
	A - Rayleigh Road (W)	459	1	135
	B - Alexander Lane	124	134	3

Vehicle Mix

Heavy Vehicle Percentages

	To			
		C - Rayleigh Road (E)	A - Rayleigh Road (W)	B - Alexander Lane
From	C - Rayleigh Road (E)	0	4	0
	A - Rayleigh Road (W)	2	0	2
	B - Alexander Lane	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
C - Rayleigh Road (E)	0.65	14.55	1.8	B	455	683
A - Rayleigh Road (W)	0.65	11.18	1.8	B	595	892
B - Alexander Lane	0.43	10.20	0.7	B	261	391

Main Results for each time segment

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
C - Rayleigh Road (E)	455	114	136	703	0.647	448	577	0.0	1.8	13.751	B
A - Rayleigh Road (W)	595	149	80	918	0.648	588	505	0.0	1.8	10.694	B
B - Alexander Lane	261	65	455	617	0.423	258	212	0.0	0.7	9.950	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
C - Rayleigh Road (E)	455	114	138	702	0.648	455	584	1.8	1.8	14.519	B
A - Rayleigh Road (W)	595	149	81	917	0.649	595	512	1.8	1.8	11.162	B
B - Alexander Lane	261	65	461	614	0.425	261	215	0.7	0.7	10.197	B

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
C - Rayleigh Road (E)	455	114	138	702	0.648	455	584	1.8	1.8	14.536	B
A - Rayleigh Road (W)	595	149	81	917	0.649	595	512	1.8	1.8	11.171	B
B - Alexander Lane	261	65	461	614	0.425	261	215	0.7	0.7	10.202	B

17:45 - 18:00

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
C - Rayleigh Road (E)	455	114	138	702	0.648	455	584	1.8	1.8	14.542	B
A - Rayleigh Road (W)	595	149	81	917	0.649	595	512	1.8	1.8	11.173	B
B - Alexander Lane	261	65	461	614	0.425	261	215	0.7	0.7	10.202	B

18:00 - 18:15

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
C - Rayleigh Road (E)	455	114	138	702	0.648	455	584	1.8	1.8	14.545	B
A - Rayleigh Road (W)	595	149	81	917	0.649	595	512	1.8	1.8	11.175	B
B - Alexander Lane	261	65	461	614	0.425	261	215	0.7	0.7	10.203	B

18:15 - 18:30

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
C - Rayleigh Road (E)	455	114	138	702	0.648	455	584	1.8	1.8	14.548	B
A - Rayleigh Road (W)	595	149	81	917	0.649	595	512	1.8	1.8	11.176	B
B - Alexander Lane	261	65	461	614	0.425	261	215	0.7	0.7	10.203	B

Junctions 10									
PICADY 10 - Priority Intersection Module									
Version: 10.0.3.1598									
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Filename: Import of Alexander Lane.Long Ridings Avenue (J7).j10

Path: P:\JNY10935 - Shenfield\Transport\Picady

Report generation date: 26/07/2022 17:27:50

- »2022 Base, AM
- »2022 Base, PM
- »2027 Base, AM
- »2027 Base, PM
- »2027 Base + Dev, AM
- »2027 Base + Dev, PM
- »2027 Base + Comm, AM
- »2027 Base + Comm, PM
- »2027 Base + Comm + Dev, AM
- »2027 Base + Comm + Dev, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2022 Base									
Stream B-C	D1	0.2	9.17	0.18	A	D2	0.1	7.44	0.12	A
Stream B-A		0.5	13.01	0.31	B		0.2	10.66	0.18	B
Stream C-AB		0.1	7.39	0.10	A		0.1	7.26	0.09	A
	2027 Base									
Stream B-C	D3	0.2	9.17	0.18	A	D4	0.1	7.44	0.12	A
Stream B-A		0.5	13.01	0.31	B		0.2	10.66	0.18	B
Stream C-AB		0.1	7.39	0.10	A		0.1	7.26	0.09	A
	2027 Base + Dev									
Stream B-C	D5	0.2	9.21	0.19	A	D6	0.1	7.49	0.13	A
Stream B-A		0.5	13.06	0.32	B		0.2	10.69	0.18	B
Stream C-AB		0.1	7.40	0.10	A		0.1	7.26	0.09	A
	2027 Base + Comm									
Stream B-C	D7	0.2	9.27	0.19	A	D8	0.1	7.57	0.13	A
Stream B-A		0.5	13.15	0.32	B		0.2	10.75	0.19	B
Stream C-AB		0.1	7.41	0.10	A		0.1	7.27	0.09	A
	2027 Base + Comm + Dev									
Stream B-C	D9	0.2	9.31	0.19	A	D10	0.1	7.62	0.13	A
Stream B-A		0.5	13.21	0.32	B		0.2	10.78	0.19	B
Stream C-AB		0.1	7.43	0.10	A		0.1	7.27	0.09	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	22/07/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\George.Magnisalis
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 period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	07:30	09:00	90	15	✓
D2	2022 Base	PM	DIRECT	17:00	18:30	90	15	✓
D3	2027 Base	AM	DIRECT	07:30	09:00	90	15	✓
D4	2027 Base	PM	DIRECT	17:00	18:30	90	15	✓
D5	2027 Base + Dev	AM	DIRECT	07:30	09:00	90	15	✓
D6	2027 Base + Dev	PM	DIRECT	17:00	18:30	90	15	✓
D7	2027 Base + Comm	AM	DIRECT	07:30	09:00	90	15	✓
D8	2027 Base + Comm	PM	DIRECT	17:00	18:30	90	15	✓
D9	2027 Base + Comm + Dev	AM	DIRECT	07:30	09:00	90	15	✓
D10	2027 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	15	✓

Analysis Set Details

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

2022 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Long Ridings Avenue - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D1 - 2022 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way	Two-way	Two-way		3.38	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.38	A

Arms

Arms

Arm	Name	Description	Arm type
A	Alexander Lane (N)		Major
B	Long Ridings Avenue		Minor
C	Alexander Lane (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Alexander Lane (S)	6.15			108.8	✓	1.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Long Ridings Avenue	One lane plus flare	7.30	4.70	4.20	3.90	3.60	✓	1.00	32	52

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	539	0.098	0.247	0.155	0.352
B-C	624	0.095	0.240	-	-
C-B	637	0.245	0.245	-	-

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 period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	87	292
	B - Long Ridings Avenue	126	0	89
	C - Alexander Lane (S)	195	54	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	1	2
	B - Long Ridings Avenue	0	0	1
	C - Alexander Lane (S)	2	4	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-C	0.18	9.17	0.2	A	89	134
B-A	0.31	13.01	0.5	B	126	189
C-AB	0.10	7.39	0.1	A	56	84
C-A					193	289
A-B					87	131
A-C					292	438

Main Results for each time segment

07:30 - 07:45

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-C	89	22	483	0.184	88	0.0	0.2	9.100	A
B-A	126	32	403	0.313	124	0.0	0.4	12.846	B
C-AB	56	14	544	0.104	56	0.0	0.1	7.375	A
C-A	193	48			193				
A-B	87	22			87				
A-C	292	73			292				

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-C	89	22	481	0.185	89	0.2	0.2	9.173	A
B-A	126	32	403	0.313	126	0.4	0.5	13.008	B
C-AB	56	14	544	0.104	56	0.1	0.1	7.390	A
C-A	193	48			193				
A-B	87	22			87				
A-C	292	73			292				

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-C	89	22	481	0.185	89	0.2	0.2	9.174	A
B-A	126	32	403	0.313	126	0.5	0.5	13.010	B
C-AB	56	14	544	0.104	56	0.1	0.1	7.390	A
C-A	193	48			193				
A-B	87	22			87				
A-C	292	73			292				

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-C	89	22	481	0.185	89	0.2	0.2	9.174	A
B-A	126	32	403	0.313	126	0.5	0.5	13.010	B
C-AB	56	14	544	0.104	56	0.1	0.1	7.387	A
C-A	193	48			193				
A-B	87	22			87				
A-C	292	73			292				

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-C	89	22	481	0.185	89	0.2	0.2	9.174	A
B-A	126	32	403	0.313	126	0.5	0.5	13.010	B
C-AB	56	14	544	0.104	56	0.1	0.1	7.387	A
C-A	193	48			193				
A-B	87	22			87				
A-C	292	73			292				

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-C	89	22	481	0.185	89	0.2	0.2	9.174	A
B-A	126	32	403	0.313	126	0.5	0.5	13.010	B
C-AB	56	14	544	0.104	56	0.1	0.1	7.390	A
C-A	193	48			193				
A-B	87	22			87				
A-C	292	73			292				

2022 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Long Ridings Avenue - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D2 - 2022 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way	Two-way	Two-way		2.40	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.40	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2022 Base	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	92	214
	B - Long Ridings Avenue	73	0	69
	C - Alexander Lane (S)	191	46	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
	A - Alexander Lane (N)	0	3	1
	B - Long Ridings Avenue	0	0	1
	C - Alexander Lane (S)	1	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.12	7.44	0.1	A	69	104
B-A	0.18	10.66	0.2	B	73	110
C-AB	0.09	7.26	0.1	A	48	72
C-A					189	284
A-B					92	138
A-C					214	321

Main Results for each time segment

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-C	69	17	554	0.125	68	0.0	0.1	7.410	A
B-A	73	18	411	0.178	72	0.0	0.2	10.609	B
C-AB	48	12	544	0.088	47	0.0	0.1	7.248	A
C-A	189	47			189				
A-B	92	23			92				
A-C	214	54			214				

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-C	69	17	553	0.125	69	0.1	0.1	7.435	A
B-A	73	18	411	0.178	73	0.2	0.2	10.660	B
C-AB	48	12	544	0.088	48	0.1	0.1	7.260	A
C-A	189	47			189				
A-B	92	23			92				
A-C	214	54			214				

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-C	69	17	553	0.125	69	0.1	0.1	7.435	A
B-A	73	18	411	0.178	73	0.2	0.2	10.660	B
C-AB	48	12	544	0.088	48	0.1	0.1	7.257	A
C-A	189	47			189				
A-B	92	23			92				
A-C	214	54			214				

17:45 - 18:00

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-C	69	17	553	0.125	69	0.1	0.1	7.435	A
B-A	73	18	411	0.178	73	0.2	0.2	10.660	B
C-AB	48	12	544	0.088	48	0.1	0.1	7.257	A
C-A	189	47			189				
A-B	92	23			92				
A-C	214	54			214				

18:00 - 18:15

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-C	69	17	553	0.125	69	0.1	0.1	7.435	A
B-A	73	18	411	0.178	73	0.2	0.2	10.660	B
C-AB	48	12	544	0.088	48	0.1	0.1	7.257	A
C-A	189	47			189				
A-B	92	23			92				
A-C	214	54			214				

18:15 - 18:30

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-C	69	17	553	0.125	69	0.1	0.1	7.435	A
B-A	73	18	411	0.178	73	0.2	0.2	10.660	B
C-AB	48	12	544	0.088	48	0.1	0.1	7.260	A
C-A	189	47			189				
A-B	92	23			92				
A-C	214	54			214				

2027 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Long Ridings Avenue - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D3 - 2027 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way	Two-way	Two-way		3.38	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.38	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2027 Base	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	87	292
	B - Long Ridings Avenue	126	0	89
	C - Alexander Lane (S)	195	54	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
	A - Alexander Lane (N)	0	1	2
	B - Long Ridings Avenue	0	0	1
	C - Alexander Lane (S)	2	4	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-C	0.18	9.17	0.2	A	89	134
B-A	0.31	13.01	0.5	B	126	189
C-AB	0.10	7.39	0.1	A	56	84
C-A					193	289
A-B					87	131
A-C					292	438

Main Results for each time segment

07:30 - 07:45

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-C	89	22	483	0.184	88	0.0	0.2	9.100	A
B-A	126	32	403	0.313	124	0.0	0.4	12.846	B
C-AB	56	14	544	0.104	56	0.0	0.1	7.375	A
C-A	193	48			193				
A-B	87	22			87				
A-C	292	73			292				

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-C	89	22	481	0.185	89	0.2	0.2	9.173	A
B-A	126	32	403	0.313	126	0.4	0.5	13.008	B
C-AB	56	14	544	0.104	56	0.1	0.1	7.390	A
C-A	193	48			193				
A-B	87	22			87				
A-C	292	73			292				

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-C	89	22	481	0.185	89	0.2	0.2	9.174	A
B-A	126	32	403	0.313	126	0.5	0.5	13.010	B
C-AB	56	14	544	0.104	56	0.1	0.1	7.390	A
C-A	193	48			193				
A-B	87	22			87				
A-C	292	73			292				

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-C	89	22	481	0.185	89	0.2	0.2	9.174	A
B-A	126	32	403	0.313	126	0.5	0.5	13.010	B
C-AB	56	14	544	0.104	56	0.1	0.1	7.387	A
C-A	193	48			193				
A-B	87	22			87				
A-C	292	73			292				

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-C	89	22	481	0.185	89	0.2	0.2	9.174	A
B-A	126	32	403	0.313	126	0.5	0.5	13.010	B
C-AB	56	14	544	0.104	56	0.1	0.1	7.387	A
C-A	193	48			193				
A-B	87	22			87				
A-C	292	73			292				

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-C	89	22	481	0.185	89	0.2	0.2	9.174	A
B-A	126	32	403	0.313	126	0.5	0.5	13.010	B
C-AB	56	14	544	0.104	56	0.1	0.1	7.390	A
C-A	193	48			193				
A-B	87	22			87				
A-C	292	73			292				

2027 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Long Ridings Avenue - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D4 - 2027 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way	Two-way	Two-way		2.40	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.40	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2027 Base	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	92	214
	B - Long Ridings Avenue	73	0	69
	C - Alexander Lane (S)	191	46	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
	A - Alexander Lane (N)	0	3	1
	B - Long Ridings Avenue	0	0	1
	C - Alexander Lane (S)	1	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.12	7.44	0.1	A	69	104
B-A	0.18	10.66	0.2	B	73	110
C-AB	0.09	7.26	0.1	A	48	72
C-A					189	284
A-B					92	138
A-C					214	321

Main Results for each time segment

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-C	69	17	554	0.125	68	0.0	0.1	7.410	A
B-A	73	18	411	0.178	72	0.0	0.2	10.609	B
C-AB	48	12	544	0.088	47	0.0	0.1	7.248	A
C-A	189	47			189				
A-B	92	23			92				
A-C	214	54			214				

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-C	69	17	553	0.125	69	0.1	0.1	7.435	A
B-A	73	18	411	0.178	73	0.2	0.2	10.660	B
C-AB	48	12	544	0.088	48	0.1	0.1	7.260	A
C-A	189	47			189				
A-B	92	23			92				
A-C	214	54			214				

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-C	69	17	553	0.125	69	0.1	0.1	7.435	A
B-A	73	18	411	0.178	73	0.2	0.2	10.660	B
C-AB	48	12	544	0.088	48	0.1	0.1	7.257	A
C-A	189	47			189				
A-B	92	23			92				
A-C	214	54			214				

17:45 - 18:00

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-C	69	17	553	0.125	69	0.1	0.1	7.435	A
B-A	73	18	411	0.178	73	0.2	0.2	10.660	B
C-AB	48	12	544	0.088	48	0.1	0.1	7.257	A
C-A	189	47			189				
A-B	92	23			92				
A-C	214	54			214				

18:00 - 18:15

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-C	69	17	553	0.125	69	0.1	0.1	7.435	A
B-A	73	18	411	0.178	73	0.2	0.2	10.660	B
C-AB	48	12	544	0.088	48	0.1	0.1	7.257	A
C-A	189	47			189				
A-B	92	23			92				
A-C	214	54			214				

18:15 - 18:30

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-C	69	17	553	0.125	69	0.1	0.1	7.435	A
B-A	73	18	411	0.178	73	0.2	0.2	10.660	B
C-AB	48	12	544	0.088	48	0.1	0.1	7.260	A
C-A	189	47			189				
A-B	92	23			92				
A-C	214	54			214				

2027 Base + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Long Ridings Avenue - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D5 - 2027 Base + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way	Two-way	Two-way		3.39	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.39	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2027 Base + Dev	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	88	293
	B - Long Ridings Avenue	127	0	89
	C - Alexander Lane (S)	195	54	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
	A - Alexander Lane (N)	0	1	2
	B - Long Ridings Avenue	0	0	1
	C - Alexander Lane (S)	2	4	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-C	0.19	9.21	0.2	A	89	134
B-A	0.32	13.06	0.5	B	127	191
C-AB	0.10	7.40	0.1	A	56	84
C-A					193	289
A-B					88	132
A-C					293	440

Main Results for each time segment

07:30 - 07:45

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-C	89	22	481	0.185	88	0.0	0.2	9.133	A
B-A	127	32	403	0.315	125	0.0	0.5	12.888	B
C-AB	56	14	543	0.104	56	0.0	0.1	7.382	A
C-A	193	48			193				
A-B	88	22			88				
A-C	293	73			293				

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-C	89	22	480	0.185	89	0.2	0.2	9.209	A
B-A	127	32	403	0.315	127	0.5	0.5	13.053	B
C-AB	56	14	543	0.104	56	0.1	0.1	7.397	A
C-A	193	48			193				
A-B	88	22			88				
A-C	293	73			293				

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-C	89	22	480	0.185	89	0.2	0.2	9.209	A
B-A	127	32	403	0.315	127	0.5	0.5	13.055	B
C-AB	56	14	543	0.104	56	0.1	0.1	7.397	A
C-A	193	48			193				
A-B	88	22			88				
A-C	293	73			293				

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-C	89	22	480	0.185	89	0.2	0.2	9.210	A
B-A	127	32	403	0.315	127	0.5	0.5	13.055	B
C-AB	56	14	543	0.104	56	0.1	0.1	7.397	A
C-A	193	48			193				
A-B	88	22			88				
A-C	293	73			293				

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-C	89	22	480	0.185	89	0.2	0.2	9.210	A
B-A	127	32	403	0.315	127	0.5	0.5	13.055	B
C-AB	56	14	543	0.104	56	0.1	0.1	7.394	A
C-A	193	48			193				
A-B	88	22			88				
A-C	293	73			293				

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-C	89	22	480	0.185	89	0.2	0.2	9.210	A
B-A	127	32	403	0.315	127	0.5	0.5	13.055	B
C-AB	56	14	543	0.104	56	0.1	0.1	7.394	A
C-A	193	48			193				
A-B	88	22			88				
A-C	293	73			293				

2027 Base + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Long Ridings Avenue - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D6 - 2027 Base + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way	Two-way	Two-way		2.41	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.41	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2027 Base + Dev	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	93	215
	B - Long Ridings Avenue	75	0	69
	C - Alexander Lane (S)	193	46	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
	A - Alexander Lane (N)	0	3	1
	B - Long Ridings Avenue	0	0	1
	C - Alexander Lane (S)	1	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.13	7.49	0.1	A	69	104
B-A	0.18	10.69	0.2	B	75	113
C-AB	0.09	7.26	0.1	A	48	72
C-A					191	287
A-B					93	140
A-C					215	323

Main Results for each time segment

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-C	69	17	550	0.125	68	0.0	0.1	7.464	A
B-A	75	19	412	0.182	74	0.0	0.2	10.639	B
C-AB	48	12	543	0.088	47	0.0	0.1	7.252	A
C-A	191	48			191				
A-B	93	23			93				
A-C	215	54			215				

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-C	69	17	550	0.126	69	0.1	0.1	7.488	A
B-A	75	19	412	0.182	75	0.2	0.2	10.692	B
C-AB	48	12	543	0.088	48	0.1	0.1	7.264	A
C-A	191	48			191				
A-B	93	23			93				
A-C	215	54			215				

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-C	69	17	550	0.126	69	0.1	0.1	7.488	A
B-A	75	19	412	0.182	75	0.2	0.2	10.692	B
C-AB	48	12	543	0.088	48	0.1	0.1	7.264	A
C-A	191	48			191				
A-B	93	23			93				
A-C	215	54			215				

17:45 - 18:00

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-C	69	17	550	0.126	69	0.1	0.1	7.488	A
B-A	75	19	412	0.182	75	0.2	0.2	10.692	B
C-AB	48	12	543	0.088	48	0.1	0.1	7.264	A
C-A	191	48			191				
A-B	93	23			93				
A-C	215	54			215				

18:00 - 18:15

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-C	69	17	550	0.126	69	0.1	0.1	7.489	A
B-A	75	19	412	0.182	75	0.2	0.2	10.692	B
C-AB	48	12	543	0.088	48	0.1	0.1	7.264	A
C-A	191	48			191				
A-B	93	23			93				
A-C	215	54			215				

18:15 - 18:30

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-C	69	17	550	0.126	69	0.1	0.1	7.489	A
B-A	75	19	412	0.182	75	0.2	0.2	10.692	B
C-AB	48	12	543	0.088	48	0.1	0.1	7.264	A
C-A	191	48			191				
A-B	93	23			93				
A-C	215	54			215				

2027 Base + Comm, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Long Ridings Avenue - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D7 - 2027 Base + Comm, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way	Two-way	Two-way		3.40	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.40	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2027 Base + Comm	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	91	296
	B - Long Ridings Avenue	128	0	89
	C - Alexander Lane (S)	197	54	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
	A - Alexander Lane (N)	0	1	2
	B - Long Ridings Avenue	0	0	1
	C - Alexander Lane (S)	2	4	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-C	0.19	9.27	0.2	A	89	134
B-A	0.32	13.15	0.5	B	128	192
C-AB	0.10	7.41	0.1	A	56	84
C-A					195	292
A-B					91	137
A-C					296	444

Main Results for each time segment

07:30 - 07:45

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-C	89	22	479	0.186	88	0.0	0.2	9.187	A
B-A	128	32	402	0.319	126	0.0	0.5	12.976	B
C-AB	56	14	542	0.104	56	0.0	0.1	7.400	A
C-A	195	49			195				
A-B	91	23			91				
A-C	296	74			296				

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-C	89	22	478	0.186	89	0.2	0.2	9.265	A
B-A	128	32	402	0.319	128	0.5	0.5	13.147	B
C-AB	56	14	542	0.104	56	0.1	0.1	7.412	A
C-A	195	49			195				
A-B	91	23			91				
A-C	296	74			296				

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-C	89	22	478	0.186	89	0.2	0.2	9.265	A
B-A	128	32	402	0.319	128	0.5	0.5	13.150	B
C-AB	56	14	542	0.104	56	0.1	0.1	7.415	A
C-A	195	49			195				
A-B	91	23			91				
A-C	296	74			296				

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-C	89	22	478	0.186	89	0.2	0.2	9.265	A
B-A	128	32	402	0.319	128	0.5	0.5	13.150	B
C-AB	56	14	542	0.104	56	0.1	0.1	7.415	A
C-A	195	49			195				
A-B	91	23			91				
A-C	296	74			296				

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-C	89	22	478	0.186	89	0.2	0.2	9.265	A
B-A	128	32	402	0.319	128	0.5	0.5	13.150	B
C-AB	56	14	542	0.104	56	0.1	0.1	7.415	A
C-A	195	49			195				
A-B	91	23			91				
A-C	296	74			296				

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-C	89	22	478	0.186	89	0.2	0.2	9.265	A
B-A	128	32	402	0.319	128	0.5	0.5	13.150	B
C-AB	56	14	542	0.104	56	0.1	0.1	7.412	A
C-A	195	49			195				
A-B	91	23			91				
A-C	296	74			296				

2027 Base + Comm, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Long Ridings Avenue - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D8 - 2027 Base + Comm, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way	Two-way	Two-way		2.44	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.44	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2027 Base + Comm	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	95	217
	B - Long Ridings Avenue	78	0	69
	C - Alexander Lane (S)	196	46	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
	A - Alexander Lane (N)	0	3	1
	B - Long Ridings Avenue	0	0	1
	C - Alexander Lane (S)	1	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.13	7.57	0.1	A	69	104
B-A	0.19	10.75	0.2	B	78	117
C-AB	0.09	7.27	0.1	A	48	72
C-A					194	291
A-B					95	143
A-C					217	326

Main Results for each time segment

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-C	69	17	545	0.127	68	0.0	0.1	7.542	A
B-A	78	20	413	0.189	77	0.0	0.2	10.694	B
C-AB	48	12	543	0.088	47	0.0	0.1	7.261	A
C-A	194	49			194				
A-B	95	24			95				
A-C	217	54			217				

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-C	69	17	544	0.127	69	0.1	0.1	7.571	A
B-A	78	20	413	0.189	78	0.2	0.2	10.750	B
C-AB	48	12	543	0.088	48	0.1	0.1	7.270	A
C-A	194	49			194				
A-B	95	24			95				
A-C	217	54			217				

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-C	69	17	544	0.127	69	0.1	0.1	7.571	A
B-A	78	20	413	0.189	78	0.2	0.2	10.750	B
C-AB	48	12	543	0.088	48	0.1	0.1	7.270	A
C-A	194	49			194				
A-B	95	24			95				
A-C	217	54			217				

17:45 - 18:00

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-C	69	17	544	0.127	69	0.1	0.1	7.571	A
B-A	78	20	413	0.189	78	0.2	0.2	10.749	B
C-AB	48	12	543	0.088	48	0.1	0.1	7.270	A
C-A	194	49			194				
A-B	95	24			95				
A-C	217	54			217				

18:00 - 18:15

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-C	69	17	544	0.127	69	0.1	0.1	7.571	A
B-A	78	20	413	0.189	78	0.2	0.2	10.749	B
C-AB	48	12	543	0.088	48	0.1	0.1	7.270	A
C-A	194	49			194				
A-B	95	24			95				
A-C	217	54			217				

18:15 - 18:30

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-C	69	17	544	0.127	69	0.1	0.1	7.571	A
B-A	78	20	413	0.189	78	0.2	0.2	10.749	B
C-AB	48	12	543	0.088	48	0.1	0.1	7.273	A
C-A	194	49			194				
A-B	95	24			95				
A-C	217	54			217				

2027 Base + Comm + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Long Ridings Avenue - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D9 - 2027 Base + Comm + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way	Two-way	Two-way		3.41	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.41	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	2027 Base + Comm + Dev	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	93	298
	B - Long Ridings Avenue	129	0	89
	C - Alexander Lane (S)	197	54	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
	A - Alexander Lane (N)	0	1	2
	B - Long Ridings Avenue	0	0	1
	C - Alexander Lane (S)	2	4	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-C	0.19	9.31	0.2	A	89	134
B-A	0.32	13.21	0.5	B	129	194
C-AB	0.10	7.43	0.1	A	56	84
C-A					195	292
A-B					93	140
A-C					298	447

Main Results for each time segment

07:30 - 07:45

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-C	89	22	477	0.187	88	0.0	0.2	9.232	A
B-A	129	32	402	0.321	127	0.0	0.5	13.036	B
C-AB	56	14	541	0.104	56	0.0	0.1	7.414	A
C-A	195	49			195				
A-B	93	23			93				
A-C	298	75			298				

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-C	89	22	476	0.187	89	0.2	0.2	9.310	A
B-A	129	32	401	0.321	129	0.5	0.5	13.211	B
C-AB	56	14	541	0.104	56	0.1	0.1	7.429	A
C-A	195	49			195				
A-B	93	23			93				
A-C	298	75			298				

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-C	89	22	476	0.187	89	0.2	0.2	9.311	A
B-A	129	32	401	0.321	129	0.5	0.5	13.214	B
C-AB	56	14	541	0.104	56	0.1	0.1	7.426	A
C-A	195	49			195				
A-B	93	23			93				
A-C	298	75			298				

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-C	89	22	476	0.187	89	0.2	0.2	9.311	A
B-A	129	32	401	0.321	129	0.5	0.5	13.214	B
C-AB	56	14	541	0.104	56	0.1	0.1	7.429	A
C-A	195	49			195				
A-B	93	23			93				
A-C	298	75			298				

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-C	89	22	476	0.187	89	0.2	0.2	9.311	A
B-A	129	32	401	0.321	129	0.5	0.5	13.214	B
C-AB	56	14	541	0.104	56	0.1	0.1	7.429	A
C-A	195	49			195				
A-B	93	23			93				
A-C	298	75			298				

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-C	89	22	476	0.187	89	0.2	0.2	9.311	A
B-A	129	32	401	0.321	129	0.5	0.5	13.214	B
C-AB	56	14	541	0.104	56	0.1	0.1	7.426	A
C-A	195	49			195				
A-B	93	23			93				
A-C	298	75			298				

2027 Base + Comm + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Long Ridings Avenue - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D10 - 2027 Base + Comm + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Long Ridings Ave Priority Junction	T-Junction	Two-way	Two-way	Two-way		2.46	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.46	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	2027 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - Alexander Lane (N)		DIRECT	✓	100.000
B - Long Ridings Avenue		DIRECT	✓	100.000
C - Alexander Lane (S)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
From	A - Alexander Lane (N)	0	96	217
	B - Long Ridings Avenue	80	0	69
	C - Alexander Lane (S)	198	46	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (N)	B - Long Ridings Avenue	C - Alexander Lane (S)
	A - Alexander Lane (N)	0	3	1
	B - Long Ridings Avenue	0	0	1
	C - Alexander Lane (S)	1	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.13	7.62	0.1	A	69	104
B-A	0.19	10.78	0.2	B	80	120
C-AB	0.09	7.27	0.1	A	48	72
C-A					196	294
A-B					96	144
A-C					217	326

Main Results for each time segment

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-C	69	17	542	0.127	68	0.0	0.1	7.590	A
B-A	80	20	414	0.193	79	0.0	0.2	10.720	B
C-AB	48	12	543	0.088	47	0.0	0.1	7.262	A
C-A	196	49			196				
A-B	96	24			96				
A-C	217	54			217				

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-C	69	17	541	0.127	69	0.1	0.1	7.620	A
B-A	80	20	414	0.193	80	0.2	0.2	10.779	B
C-AB	48	12	543	0.088	48	0.1	0.1	7.274	A
C-A	196	49			196				
A-B	96	24			96				
A-C	217	54			217				

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-C	69	17	541	0.127	69	0.1	0.1	7.620	A
B-A	80	20	414	0.193	80	0.2	0.2	10.779	B
C-AB	48	12	543	0.088	48	0.1	0.1	7.271	A
C-A	196	49			196				
A-B	96	24			96				
A-C	217	54			217				

17:45 - 18:00

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-C	69	17	541	0.127	69	0.1	0.1	7.620	A
B-A	80	20	414	0.193	80	0.2	0.2	10.779	B
C-AB	48	12	543	0.088	48	0.1	0.1	7.274	A
C-A	196	49			196				
A-B	96	24			96				
A-C	217	54			217				

18:00 - 18:15

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-C	69	17	541	0.127	69	0.1	0.1	7.620	A
B-A	80	20	414	0.193	80	0.2	0.2	10.779	B
C-AB	48	12	543	0.088	48	0.1	0.1	7.274	A
C-A	196	49			196				
A-B	96	24			96				
A-C	217	54			217				

18:15 - 18:30

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-C	69	17	541	0.127	69	0.1	0.1	7.620	A
B-A	80	20	414	0.193	80	0.2	0.2	10.779	B
C-AB	48	12	543	0.088	48	0.1	0.1	7.274	A
C-A	196	49			196				
A-B	96	24			96				
A-C	217	54			217				

Junctions 10	
ARCADY 10 - Roundabout Module	
Version: 10.0.3.1598	
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Filename: Import of Roman Rd.A12.Chelmsford Road Roundabout (J1).j10

Path: P:\JNY10935 - Shenfield\Transport\Arcady

Report generation date: 27/07/2022 10:09:38

-
- »2022 Base, AM
 - »2022 Base, PM
 - »2022 Base + Dev, AM
 - »2022 Base + Dev, PM
 - »2032 Base , AM
 - »2032 Base, PM
 - »2032 Base + Dev, AM
 - »2032 Base + Dev, PM
 - »2032 Base + Comm, AM
 - »2032 Base + Comm, PM
 - »2032 Base + Comm + Dev, AM
 - »2032 Base + Comm + Dev, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2022 Base									
A - A12 (E)	D1	14.1	64.64	0.95	F	D2	0.8	5.05	0.46	A
B - Chelmsford Road		2.4	9.71	0.70	A		2.0	7.51	0.67	A
C - A12 (W)		1.7	9.39	0.63	A		3.0	14.70	0.75	B
D - Roman Road		1.3	4.43	0.57	A		0.6	3.07	0.37	A
	2022 Base + Dev									
A - A12 (E)	D3	18.6	84.48	0.96	F	D4	0.9	5.51	0.48	A
B - Chelmsford Road		2.9	11.15	0.74	B		2.1	7.87	0.68	A
C - A12 (W)		1.9	10.37	0.66	B		3.8	17.89	0.79	C
D - Roman Road		1.3	4.55	0.57	A		0.6	3.20	0.39	A
	2032 Base									
A - A12 (E)	D5	15.8	72.26	0.95	F	D6	0.9	5.10	0.46	A
B - Chelmsford Road		2.4	9.84	0.71	A		2.0	7.64	0.67	A
C - A12 (W)		1.7	9.52	0.64	A		3.1	15.35	0.76	C
D - Roman Road		1.3	4.46	0.57	A		0.6	3.09	0.38	A
	2032 Base + Dev									
A - A12 (E)	D7	20.8	94.28	0.97	F					
B - Chelmsford Road		2.9	11.35	0.75	B					
C - A12 (W)		2.0	10.58	0.66	B					
D - Roman Road		1.4	4.59	0.58	A					
	2032 Base + Dev									
A - A12 (E)						D8	1.0	5.56	0.49	A
B - Chelmsford Road							2.2	7.99	0.69	A
C - A12 (W)							4.0	18.73	0.80	C
D - Roman Road							0.6	3.21	0.39	A
	2032 Base + Comm									
A - A12 (E)	D9	65.5	281.46	1.04	F					
B - Chelmsford Road		4.7	16.64	0.83	C					
C - A12 (W)		2.7	13.85	0.73	B					
D - Roman Road		1.5	4.97	0.60	A					
	2032 Base + Comm									
A - A12 (E)						D10	1.2	6.98	0.55	A
B - Chelmsford Road							2.8	9.66	0.74	A
C - A12 (W)							9.4	41.80	0.91	E
D - Roman Road							0.7	3.55	0.42	A
	2032 Base + Comm + Dev									
A - A12 (E)	D11	85.7	368.26	1.06	F					
B - Chelmsford Road		6.4	21.41	0.87	C					
C - A12 (W)		3.1	15.99	0.76	C					
D - Roman Road		1.5	5.12	0.61	A					
	2032 Base + Comm + Dev									
A - A12 (E)						D12	1.4	7.92	0.59	A
B - Chelmsford Road							3.1	10.32	0.76	B
C - A12 (W)							18.0	77.48	0.96	F
D - Roman Road							0.8	3.73	0.44	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	22/07/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\George.Magnisalis
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 period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	07:30	09:00	90	15	✓
D2	2022 Base	PM	DIRECT	17:00	18:30	90	15	✓
D3	2022 Base + Dev	AM	DIRECT	07:30	09:00	90	15	✓
D4	2022 Base + Dev	PM	DIRECT	17:00	18:30	90	15	✓
D5	2032 Base	AM	DIRECT	07:30	09:00	90	15	✓
D6	2032 Base	PM	DIRECT	17:00	18:30	90	15	✓
D7	2032 Base + Dev	AM	DIRECT	07:30	09:00	90	15	✓
D8	2032 Base + Dev	PM	DIRECT	17:00	18:30	90	15	✓
D9	2032 Base + Comm	AM	DIRECT	07:30	09:00	90	15	✓
D10	2032 Base + Comm	PM	DIRECT	17:00	18:30	90	15	✓
D11	2032 Base + Comm + Dev	AM	DIRECT	07:30	09:00	90	15	✓
D12	2032 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	15	✓

Analysis Set Details

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

2022 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Chelmsford Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	D - Roman Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Profile Type	D1 - 2022 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?
Warning	Large Roundabout	A - A12 (E) - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Mountnessing Roundabout	Large Roundabout		A, B, C, D	21.31	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	21.31	C

Arms

Arms

Arm	Name	Description	No give-way line
A	A12 (E)		
B	Chelmsford Road		
C	A12 (W)		
D	Roman 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
A - A12 (E)	6.10	6.60	2.1	47.0	112.0	23.0		
B - Chelmsford Road	3.20	7.20	20.5	17.1	112.0	27.0		
C - A12 (W)	6.70	8.50	16.4	95.9	112.0	7.5		
D - Roman Road	3.40	9.40	11.4	17.8	112.0	37.0		

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A12 (E)	0	✓	88.10
B - Chelmsford Road	0	✓	0.00
C - A12 (W)	0	✓	86.00
D - Roman Road	0	✓	0.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Percentage intercept adjustment (%)
A - A12 (E)	Percentage		79.00
B - Chelmsford Road	Percentage		75.00
C - A12 (W)	Percentage		67.00
D - Roman Road	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A12 (E)	1.080	2144
B - Chelmsford Road	0.963	1940
C - A12 (W)	1.312	2281
D - Roman Road	0.929	2523

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 period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - A12 (E)		DIRECT	✓	100.000
B - Chelmsford Road		DIRECT	✓	100.000
C - A12 (W)		DIRECT	✓	100.000
D - Roman Road		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
From	A - A12 (E)	1	674	11	139
	B - Chelmsford Road	395	1	167	318
	C - A12 (W)	3	191	1	463
	D - Roman Road	157	429	474	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
From	A - A12 (E)	0	4	18	9
	B - Chelmsford Road	5	0	3	3
	C - A12 (W)	0	4	0	7
	D - Roman Road	6	2	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 (E)	0.95	64.64	14.1	F	825	1238
B - Chelmsford Road	0.70	9.71	2.4	A	881	1322
C - A12 (W)	0.63	9.39	1.7	A	658	987
D - Roman Road	0.57	4.43	1.3	A	1061	1592

Main Results for each time segment

07:30 - 07:45

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
A - A12 (E)	825	206	1091	880	0.938	790	551	0.0	8.8	32.607	D
B - Chelmsford Road	881	220	618	1260	0.699	872	1262	0.0	2.2	9.082	A
C - A12 (W)	658	164	842	1058	0.622	652	649	0.0	1.6	8.717	A
D - Roman Road	1061	265	586	1880	0.564	1056	907	0.0	1.3	4.344	A

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
A - A12 (E)	825	206	1097	873	0.945	816	556	8.8	11.1	51.551	F
B - Chelmsford Road	881	220	625	1253	0.703	881	1287	2.2	2.3	9.657	A
C - A12 (W)	658	164	853	1043	0.631	658	653	1.6	1.7	9.321	A
D - Roman Road	1061	265	592	1874	0.566	1061	919	1.3	1.3	4.426	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
A - A12 (E)	825	206	1097	873	0.945	820	556	11.1	12.4	57.477	F
B - Chelmsford Road	881	220	626	1252	0.704	881	1291	2.3	2.3	9.692	A
C - A12 (W)	658	164	854	1042	0.631	658	653	1.7	1.7	9.363	A
D - Roman Road	1061	265	592	1874	0.566	1061	920	1.3	1.3	4.427	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
A - A12 (E)	825	206	1097	873	0.945	822	556	12.4	13.2	60.824	F
B - Chelmsford Road	881	220	626	1252	0.704	881	1292	2.3	2.4	9.704	A
C - A12 (W)	658	164	854	1042	0.632	658	653	1.7	1.7	9.376	A
D - Roman Road	1061	265	592	1874	0.566	1061	920	1.3	1.3	4.427	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
A - A12 (E)	825	206	1097	873	0.945	823	556	13.2	13.7	63.042	F
B - Chelmsford Road	881	220	627	1252	0.704	881	1293	2.4	2.4	9.710	A
C - A12 (W)	658	164	855	1042	0.632	658	653	1.7	1.7	9.383	A
D - Roman Road	1061	265	592	1874	0.566	1061	921	1.3	1.3	4.427	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
A - A12 (E)	825	206	1097	873	0.945	823	556	13.7	14.1	64.638	F
B - Chelmsford Road	881	220	627	1251	0.704	881	1294	2.4	2.4	9.713	A
C - A12 (W)	658	164	855	1041	0.632	658	653	1.7	1.7	9.386	A
D - Roman Road	1061	265	592	1874	0.566	1061	921	1.3	1.3	4.427	A

2022 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Chelmsford Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	D - Roman Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Profile Type	D2 - 2022 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?
Warning	Large Roundabout	A - A12 (E) - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Mountnessing Roundabout	Large Roundabout		A, B, C, D	7.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.80	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A12 (E)	0	✓	88.10
B - Chelmsford Road	0	✓	0.00
C - A12 (W)	0	✓	86.00
D - Roman Road	0	✓	0.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2022 Base	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - A12 (E)		DIRECT	✓	100.000
B - Chelmsford Road		DIRECT	✓	100.000
C - A12 (W)		DIRECT	✓	100.000
D - Roman Road		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
From	A - A12 (E)	0	490	2	110
	B - Chelmsford Road	477	1	123	360
	C - A12 (W)	2	171	0	563
	D - Roman Road	130	186	379	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
From	A - A12 (E)	0	1	0	1
	B - Chelmsford Road	2	0	2	0
	C - A12 (W)	0	5	0	4
	D - Roman Road	2	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 (E)	0.46	5.05	0.8	A	602	903
B - Chelmsford Road	0.67	7.51	2.0	A	961	1441
C - A12 (W)	0.75	14.70	3.0	B	736	1104
D - Roman Road	0.37	3.07	0.6	A	696	1044

Main Results for each time segment

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
A - A12 (E)	602	150	734	1320	0.456	599	605	0.0	0.8	4.968	A
B - Chelmsford Road	961	240	490	1442	0.666	953	842	0.0	1.9	7.253	A
C - A12 (W)	736	184	942	990	0.743	725	502	0.0	2.7	13.101	B
D - Roman Road	696	174	645	1875	0.371	694	1022	0.0	0.6	3.040	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
A - A12 (E)	602	150	738	1315	0.458	602	609	0.8	0.8	5.046	A
B - Chelmsford Road	961	240	492	1440	0.667	961	848	1.9	2.0	7.504	A
C - A12 (W)	736	184	949	981	0.750	735	504	2.7	2.9	14.599	B
D - Roman Road	696	174	651	1869	0.372	696	1033	0.6	0.6	3.067	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
A - A12 (E)	602	150	738	1315	0.458	602	609	0.8	0.8	5.047	A
B - Chelmsford Road	961	240	492	1440	0.667	961	848	2.0	2.0	7.507	A
C - A12 (W)	736	184	949	981	0.751	736	504	2.9	2.9	14.670	B
D - Roman Road	696	174	651	1869	0.372	696	1034	0.6	0.6	3.067	A

17:45 - 18:00

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
A - A12 (E)	602	150	738	1315	0.458	602	609	0.8	0.8	5.048	A
B - Chelmsford Road	961	240	492	1440	0.667	961	848	2.0	2.0	7.510	A
C - A12 (W)	736	184	949	981	0.751	736	504	2.9	3.0	14.689	B
D - Roman Road	696	174	651	1869	0.372	696	1034	0.6	0.6	3.068	A

18:00 - 18:15

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
A - A12 (E)	602	150	738	1315	0.458	602	609	0.8	0.8	5.048	A
B - Chelmsford Road	961	240	492	1440	0.667	961	848	2.0	2.0	7.510	A
C - A12 (W)	736	184	949	981	0.751	736	504	3.0	3.0	14.698	B
D - Roman Road	696	174	651	1869	0.372	696	1034	0.6	0.6	3.068	A

18:15 - 18:30

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
A - A12 (E)	602	150	738	1315	0.458	602	609	0.8	0.8	5.048	A
B - Chelmsford Road	961	240	492	1440	0.667	961	848	2.0	2.0	7.510	A
C - A12 (W)	736	184	949	981	0.751	736	504	3.0	3.0	14.701	B
D - Roman Road	696	174	651	1869	0.372	696	1034	0.6	0.6	3.068	A

2022 Base + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Chelmsford Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	D - Roman Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Profile Type	D3 - 2022 Base + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?
Warning	Large Roundabout	A - A12 (E) - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Mountnessing Roundabout	Large Roundabout		A, B, C, D	26.47	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	26.47	D

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A12 (E)	0	✓	88.10
B - Chelmsford Road	0	✓	0.00
C - A12 (W)	0	✓	86.00
D - Roman Road	0	✓	0.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2022 Base + Dev	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - A12 (E)		DIRECT	✓	100.000
B - Chelmsford Road		DIRECT	✓	100.000
C - A12 (W)		DIRECT	✓	100.000
D - Roman Road		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
	A - A12 (E)	1	677	11	139
	B - Chelmsford Road	405	1	196	330
	C - A12 (W)	3	200	1	463
	D - Roman Road	157	433	474	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
	A - A12 (E)	0	4	18	9
	B - Chelmsford Road	5	0	2	3
	C - A12 (W)	0	4	0	7
	D - Roman Road	6	2	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 (E)	0.96	84.48	18.6	F	828	1242
B - Chelmsford Road	0.74	11.15	2.9	B	932	1398
C - A12 (W)	0.66	10.37	1.9	B	667	1001
D - Roman Road	0.57	4.55	1.3	A	1065	1598

Main Results for each time segment

07:30 - 07:45

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
A - A12 (E)	828	207	1103	866	0.956	788	560	0.0	10.0	36.085	E
B - Chelmsford Road	932	233	617	1264	0.737	921	1274	0.0	2.7	10.214	B
C - A12 (W)	667	167	862	1033	0.646	660	677	0.0	1.8	9.477	A
D - Roman Road	1065	266	604	1863	0.572	1060	918	0.0	1.3	4.453	A

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
A - A12 (E)	828	207	1110	859	0.963	815	566	10.0	13.3	60.810	F
B - Chelmsford Road	932	233	625	1256	0.742	932	1300	2.7	2.8	11.051	B
C - A12 (W)	667	167	874	1016	0.656	667	682	1.8	1.9	10.271	B
D - Roman Road	1065	266	611	1857	0.574	1065	930	1.3	1.3	4.547	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
A - A12 (E)	828	207	1110	859	0.964	820	566	13.3	15.3	70.427	F
B - Chelmsford Road	932	233	626	1255	0.742	932	1304	2.8	2.8	11.106	B
C - A12 (W)	667	167	876	1015	0.657	667	682	1.9	1.9	10.335	B
D - Roman Road	1065	266	611	1856	0.574	1065	932	1.3	1.3	4.548	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
A - A12 (E)	828	207	1110	859	0.964	822	566	15.3	16.7	76.583	F
B - Chelmsford Road	932	233	626	1255	0.743	932	1306	2.8	2.8	11.130	B
C - A12 (W)	667	167	876	1014	0.658	667	682	1.9	1.9	10.357	B
D - Roman Road	1065	266	611	1856	0.574	1065	932	1.3	1.3	4.548	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
A - A12 (E)	828	207	1110	859	0.964	824	566	16.7	17.7	81.043	F
B - Chelmsford Road	932	233	626	1255	0.743	932	1308	2.8	2.9	11.143	B
C - A12 (W)	667	167	876	1014	0.658	667	682	1.9	1.9	10.369	B
D - Roman Road	1065	266	611	1856	0.574	1065	932	1.3	1.3	4.548	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
A - A12 (E)	828	207	1110	859	0.964	825	566	17.7	18.6	84.481	F
B - Chelmsford Road	932	233	626	1255	0.743	932	1308	2.9	2.9	11.151	B
C - A12 (W)	667	167	876	1014	0.658	667	682	1.9	1.9	10.374	B
D - Roman Road	1065	266	611	1856	0.574	1065	932	1.3	1.3	4.548	A

2022 Base + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Chelmsford Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	D - Roman Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Profile Type	D4 - 2022 Base + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?
Warning	Large Roundabout	A - A12 (E) - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Mountnessing Roundabout	Large Roundabout		A, B, C, D	8.88	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.88	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A12 (E)	0	✓	88.10
B - Chelmsford Road	0	✓	0.00
C - A12 (W)	0	✓	86.00
D - Roman Road	0	✓	0.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2022 Base + Dev	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - A12 (E)		DIRECT	✓	100.000
B - Chelmsford Road		DIRECT	✓	100.000
C - A12 (W)		DIRECT	✓	100.000
D - Roman Road		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
From	A - A12 (E)	0	501	2	110
	B - Chelmsford Road	482	1	136	366
	C - A12 (W)	2	203	0	563
	D - Roman Road	130	200	379	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
From	A - A12 (E)	0	1	0	1
	B - Chelmsford Road	2	0	1	0
	C - A12 (W)	0	4	0	4
	D - Roman Road	2	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 (E)	0.48	5.51	0.9	A	613	919
B - Chelmsford Road	0.68	7.87	2.1	A	985	1477
C - A12 (W)	0.79	17.89	3.8	C	768	1152
D - Roman Road	0.39	3.20	0.6	A	710	1065

Main Results for each time segment

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
A - A12 (E)	613	153	778	1272	0.482	609	609	0.0	0.9	5.401	A
B - Chelmsford Road	985	246	490	1444	0.682	977	898	0.0	2.1	7.573	A
C - A12 (W)	768	192	952	979	0.785	755	515	0.0	3.4	15.257	C
D - Roman Road	710	178	680	1843	0.385	708	1026	0.0	0.6	3.164	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
A - A12 (E)	613	153	784	1267	0.484	613	614	0.9	0.9	5.508	A
B - Chelmsford Road	985	246	492	1442	0.683	985	905	2.1	2.1	7.866	A
C - A12 (W)	768	192	960	969	0.793	767	517	3.4	3.6	17.648	C
D - Roman Road	710	178	688	1836	0.387	710	1039	0.6	0.6	3.195	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
A - A12 (E)	613	153	784	1266	0.484	613	614	0.9	0.9	5.510	A
B - Chelmsford Road	985	246	492	1442	0.683	985	905	2.1	2.1	7.871	A
C - A12 (W)	768	192	960	969	0.793	768	517	3.6	3.7	17.807	C
D - Roman Road	710	178	688	1836	0.387	710	1040	0.6	0.6	3.196	A

17:45 - 18:00

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
A - A12 (E)	613	153	784	1266	0.484	613	614	0.9	0.9	5.510	A
B - Chelmsford Road	985	246	492	1442	0.683	985	905	2.1	2.1	7.872	A
C - A12 (W)	768	192	960	969	0.793	768	517	3.7	3.7	17.851	C
D - Roman Road	710	178	688	1836	0.387	710	1040	0.6	0.6	3.196	A

18:00 - 18:15

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
A - A12 (E)	613	153	784	1266	0.484	613	614	0.9	0.9	5.510	A
B - Chelmsford Road	985	246	492	1442	0.683	985	905	2.1	2.1	7.872	A
C - A12 (W)	768	192	960	969	0.793	768	517	3.7	3.7	17.873	C
D - Roman Road	710	178	688	1836	0.387	710	1040	0.6	0.6	3.196	A

18:15 - 18:30

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
A - A12 (E)	613	153	784	1266	0.484	613	614	0.9	0.9	5.510	A
B - Chelmsford Road	985	246	492	1442	0.683	985	905	2.1	2.1	7.872	A
C - A12 (W)	768	192	960	969	0.793	768	517	3.7	3.8	17.886	C
D - Roman Road	710	178	688	1836	0.387	710	1040	0.6	0.6	3.196	A

2032 Base , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Chelmsford Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	D - Roman Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Profile Type	D5 - 2032 Base , AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?
Warning	Large Roundabout	A - A12 (E) - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Mountnessing Roundabout	Large Roundabout		A, B, C, D	23.20	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	23.20	C

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A12 (E)	0	✓	88.10
B - Chelmsford Road	0	✓	0.00
C - A12 (W)	0	✓	86.00
D - Roman Road	0	✓	0.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2032 Base	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - A12 (E)		DIRECT	✓	100.000
B - Chelmsford Road		DIRECT	✓	100.000
C - A12 (W)		DIRECT	✓	100.000
D - Roman Road		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
	A - A12 (E)	1	676	11	139
	B - Chelmsford Road	396	1	168	319
	C - A12 (W)	3	192	1	465
	D - Roman Road	158	431	476	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
	A - A12 (E)	0	4	18	9
	B - Chelmsford Road	5	0	3	3
	C - A12 (W)	0	4	0	7
	D - Roman Road	6	2	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 (E)	0.95	72.26	15.8	F	827	1240
B - Chelmsford Road	0.71	9.84	2.4	A	884	1326
C - A12 (W)	0.64	9.52	1.7	A	661	992
D - Roman Road	0.57	4.46	1.3	A	1066	1599

Main Results for each time segment

07:30 - 07:45

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
A - A12 (E)	827	207	1096	874	0.946	790	553	0.0	9.3	34.071	D
B - Chelmsford Road	884	221	620	1258	0.702	875	1266	0.0	2.3	9.183	A
C - A12 (W)	661	165	843	1056	0.626	654	651	0.0	1.6	8.819	A
D - Roman Road	1066	266	588	1878	0.568	1061	910	0.0	1.3	4.407	A

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
A - A12 (E)	827	207	1102	868	0.953	816	558	9.3	12.0	55.355	F
B - Chelmsford Road	884	221	627	1251	0.707	884	1291	2.3	2.4	9.777	A
C - A12 (W)	661	165	855	1041	0.635	661	656	1.6	1.7	9.447	A
D - Roman Road	1066	266	594	1872	0.569	1066	922	1.3	1.3	4.464	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
A - A12 (E)	827	207	1102	868	0.953	821	558	12.0	13.5	62.674	F
B - Chelmsford Road	884	221	628	1250	0.707	884	1295	2.4	2.4	9.815	A
C - A12 (W)	661	165	856	1040	0.636	661	656	1.7	1.7	9.492	A
D - Roman Road	1066	266	594	1872	0.569	1066	923	1.3	1.3	4.465	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
A - A12 (E)	827	207	1102	868	0.953	823	558	13.5	14.5	67.039	F
B - Chelmsford Road	884	221	628	1250	0.707	884	1297	2.4	2.4	9.831	A
C - A12 (W)	661	165	856	1039	0.636	661	656	1.7	1.7	9.509	A
D - Roman Road	1066	266	594	1872	0.569	1066	923	1.3	1.3	4.465	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
A - A12 (E)	827	207	1102	868	0.953	824	558	14.5	15.3	70.042	F
B - Chelmsford Road	884	221	628	1250	0.707	884	1298	2.4	2.4	9.838	A
C - A12 (W)	661	165	856	1039	0.636	661	656	1.7	1.7	9.517	A
D - Roman Road	1066	266	594	1872	0.569	1066	923	1.3	1.3	4.465	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
A - A12 (E)	827	207	1102	868	0.953	825	558	15.3	15.8	72.263	F
B - Chelmsford Road	884	221	629	1250	0.707	884	1298	2.4	2.4	9.842	A
C - A12 (W)	661	165	857	1039	0.636	661	656	1.7	1.7	9.522	A
D - Roman Road	1066	266	594	1872	0.569	1066	924	1.3	1.3	4.465	A

2032 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Chelmsford Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	D - Roman Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Profile Type	D6 - 2032 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?
Warning	Large Roundabout	A - A12 (E) - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Mountnessing Roundabout	Large Roundabout		A, B, C, D	8.01	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.01	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A12 (E)	0	✓	88.10
B - Chelmsford Road	0	✓	0.00
C - A12 (W)	0	✓	86.00
D - Roman Road	0	✓	0.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2032 Base	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - A12 (E)		DIRECT	✓	100.000
B - Chelmsford Road		DIRECT	✓	100.000
C - A12 (W)		DIRECT	✓	100.000
D - Roman Road		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
	A - A12 (E)	0	492	2	111
	B - Chelmsford Road	479	1	124	362
	C - A12 (W)	2	172	0	566
	D - Roman Road	131	187	381	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
	A - A12 (E)	0	1	0	1
	B - Chelmsford Road	2	0	2	0
	C - A12 (W)	0	5	0	4
	D - Roman Road	2	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 (E)	0.46	5.10	0.9	A	605	907
B - Chelmsford Road	0.67	7.64	2.0	A	966	1449
C - A12 (W)	0.76	15.35	3.1	C	740	1110
D - Roman Road	0.38	3.09	0.6	A	700	1050

Main Results for each time segment

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
A - A12 (E)	605	151	737	1316	0.460	602	608	0.0	0.8	5.019	A
B - Chelmsford Road	966	242	493	1439	0.671	958	846	0.0	2.0	7.365	A
C - A12 (W)	740	185	946	984	0.752	729	505	0.0	2.9	13.561	B
D - Roman Road	700	175	647	1873	0.374	698	1028	0.0	0.6	3.057	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
A - A12 (E)	605	151	742	1311	0.462	605	612	0.8	0.9	5.099	A
B - Chelmsford Road	966	242	495	1437	0.672	966	852	2.0	2.0	7.629	A
C - A12 (W)	740	185	954	974	0.759	739	507	2.9	3.0	15.223	C
D - Roman Road	700	175	654	1866	0.375	700	1039	0.6	0.6	3.085	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
A - A12 (E)	605	151	742	1311	0.462	605	612	0.9	0.9	5.100	A
B - Chelmsford Road	966	242	495	1437	0.672	966	852	2.0	2.0	7.633	A
C - A12 (W)	740	185	954	974	0.760	740	507	3.0	3.1	15.309	C
D - Roman Road	700	175	654	1866	0.375	700	1040	0.6	0.6	3.085	A

17:45 - 18:00

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
A - A12 (E)	605	151	742	1311	0.462	605	612	0.9	0.9	5.100	A
B - Chelmsford Road	966	242	495	1437	0.672	966	852	2.0	2.0	7.636	A
C - A12 (W)	740	185	954	974	0.760	740	507	3.1	3.1	15.332	C
D - Roman Road	700	175	654	1866	0.375	700	1040	0.6	0.6	3.085	A

18:00 - 18:15

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
A - A12 (E)	605	151	742	1311	0.462	605	612	0.9	0.9	5.100	A
B - Chelmsford Road	966	242	495	1437	0.672	966	852	2.0	2.0	7.636	A
C - A12 (W)	740	185	954	974	0.760	740	507	3.1	3.1	15.343	C
D - Roman Road	700	175	654	1866	0.375	700	1040	0.6	0.6	3.085	A

18:15 - 18:30

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
A - A12 (E)	605	151	742	1311	0.462	605	612	0.9	0.9	5.100	A
B - Chelmsford Road	966	242	495	1437	0.672	966	852	2.0	2.0	7.636	A
C - A12 (W)	740	185	954	974	0.760	740	507	3.1	3.1	15.349	C
D - Roman Road	700	175	654	1866	0.375	700	1040	0.6	0.6	3.086	A

2032 Base + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Chelmsford Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	D - Roman Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Profile Type	D7 - 2032 Base + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?
Warning	Large Roundabout	A - A12 (E) - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Mountnessing Roundabout	Large Roundabout		A, B, C, D	28.88	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	28.88	D

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A12 (E)	0	✓	88.10
B - Chelmsford Road	0	✓	0.00
C - A12 (W)	0	✓	86.00
D - Roman Road	0	✓	0.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2032 Base + Dev	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - A12 (E)		DIRECT	✓	100.000
B - Chelmsford Road		DIRECT	✓	100.000
C - A12 (W)		DIRECT	✓	100.000
D - Roman Road		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
From	A - A12 (E)	1	679	11	139
	B - Chelmsford Road	407	1	197	331
	C - A12 (W)	3	201	1	465
	D - Roman Road	158	434	476	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
From	A - A12 (E)	0	4	18	9
	B - Chelmsford Road	5	0	2	3
	C - A12 (W)	0	4	0	7
	D - Roman Road	6	2	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 (E)	0.97	94.28	20.8	F	830	1245
B - Chelmsford Road	0.75	11.35	2.9	B	936	1404
C - A12 (W)	0.66	10.58	2.0	B	670	1005
D - Roman Road	0.58	4.59	1.4	A	1069	1604

Main Results for each time segment

07:30 - 07:45

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
A - A12 (E)	830	208	1107	862	0.963	788	563	0.0	10.6	37.501	E
B - Chelmsford Road	936	234	619	1262	0.742	925	1276	0.0	2.7	10.366	B
C - A12 (W)	670	168	864	1030	0.651	663	680	0.0	1.8	9.626	A
D - Roman Road	1069	267	607	1860	0.575	1064	920	0.0	1.3	4.491	A

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
A - A12 (E)	830	208	1114	855	0.971	815	569	10.6	14.3	64.762	F
B - Chelmsford Road	936	234	626	1255	0.746	936	1303	2.7	2.9	11.241	B
C - A12 (W)	670	168	877	1013	0.661	670	685	1.8	1.9	10.462	B
D - Roman Road	1069	267	614	1854	0.577	1069	933	1.3	1.4	4.586	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
A - A12 (E)	830	208	1114	855	0.971	821	569	14.3	16.7	76.218	F
B - Chelmsford Road	936	234	627	1254	0.747	936	1307	2.9	2.9	11.304	B
C - A12 (W)	670	168	878	1011	0.662	670	685	1.9	1.9	10.530	B
D - Roman Road	1069	267	614	1854	0.577	1069	934	1.4	1.4	4.587	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
A - A12 (E)	830	208	1114	855	0.971	823	569	16.7	18.4	83.910	F
B - Chelmsford Road	936	234	628	1253	0.747	936	1309	2.9	2.9	11.328	B
C - A12 (W)	670	168	879	1011	0.663	670	685	1.9	1.9	10.557	B
D - Roman Road	1069	267	614	1854	0.577	1069	935	1.4	1.4	4.588	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
A - A12 (E)	830	208	1114	855	0.971	825	569	18.4	19.7	89.688	F
B - Chelmsford Road	936	234	628	1253	0.747	936	1311	2.9	2.9	11.343	B
C - A12 (W)	670	168	879	1010	0.663	670	685	1.9	1.9	10.570	B
D - Roman Road	1069	267	614	1854	0.577	1069	935	1.4	1.4	4.588	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
A - A12 (E)	830	208	1114	855	0.971	826	569	19.7	20.8	94.276	F
B - Chelmsford Road	936	234	628	1253	0.747	936	1311	2.9	2.9	11.352	B
C - A12 (W)	670	168	879	1010	0.663	670	685	1.9	2.0	10.578	B
D - Roman Road	1069	267	614	1854	0.577	1069	935	1.4	1.4	4.588	A

2032 Base + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Chelmsford Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	D - Roman Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Profile Type	D8 - 2032 Base + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?
Warning	Large Roundabout	A - A12 (E) - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Mountnessing Roundabout	Large Roundabout		A, B, C, D	9.15	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.15	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A12 (E)	0	✓	88.10
B - Chelmsford Road	0	✓	0.00
C - A12 (W)	0	✓	86.00
D - Roman Road	0	✓	0.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2032 Base + Dev	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - A12 (E)		DIRECT	✓	100.000
B - Chelmsford Road		DIRECT	✓	100.000
C - A12 (W)		DIRECT	✓	100.000
D - Roman Road		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
From A - A12 (E)	0	503	2	111
From B - Chelmsford Road	484	1	137	367
From C - A12 (W)	2	204	0	566
From D - Roman Road	131	200	381	1

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
From A - A12 (E)	0	1	0	1
From B - Chelmsford Road	2	0	1	0
From C - A12 (W)	0	4	0	4
From D - Roman Road	2	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 (E)	0.49	5.56	1.0	A	616	924
B - Chelmsford Road	0.69	7.99	2.2	A	989	1484
C - A12 (W)	0.80	18.73	4.0	C	772	1158
D - Roman Road	0.39	3.21	0.6	A	713	1069

Main Results for each time segment

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
A - A12 (E)	616	154	781	1269	0.485	612	612	0.0	0.9	5.449	A
B - Chelmsford Road	989	247	493	1441	0.686	980	901	0.0	2.1	7.679	A
C - A12 (W)	772	193	956	974	0.793	758	517	0.0	3.5	15.788	C
D - Roman Road	713	178	683	1840	0.387	710	1031	0.0	0.6	3.179	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
A - A12 (E)	616	154	787	1263	0.488	616	617	0.9	0.9	5.561	A
B - Chelmsford Road	989	247	495	1439	0.687	989	908	2.1	2.2	7.987	A
C - A12 (W)	772	193	964	964	0.801	771	520	3.5	3.8	18.442	C
D - Roman Road	713	178	691	1833	0.389	713	1044	0.6	0.6	3.212	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
A - A12 (E)	616	154	787	1263	0.488	616	617	0.9	0.9	5.563	A
B - Chelmsford Road	989	247	495	1439	0.687	989	908	2.2	2.2	7.992	A
C - A12 (W)	772	193	964	964	0.801	772	520	3.8	3.9	18.631	C
D - Roman Road	713	178	691	1833	0.389	713	1045	0.6	0.6	3.213	A

17:45 - 18:00

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
A - A12 (E)	616	154	787	1263	0.488	616	617	0.9	0.9	5.564	A
B - Chelmsford Road	989	247	495	1439	0.687	989	908	2.2	2.2	7.993	A
C - A12 (W)	772	193	964	964	0.801	772	520	3.9	3.9	18.685	C
D - Roman Road	713	178	691	1833	0.389	713	1045	0.6	0.6	3.213	A

18:00 - 18:15

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
A - A12 (E)	616	154	787	1263	0.488	616	617	0.9	0.9	5.564	A
B - Chelmsford Road	989	247	495	1439	0.687	989	908	2.2	2.2	7.993	A
C - A12 (W)	772	193	964	964	0.801	772	520	3.9	3.9	18.712	C
D - Roman Road	713	178	691	1833	0.389	713	1045	0.6	0.6	3.213	A

18:15 - 18:30

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
A - A12 (E)	616	154	787	1263	0.488	616	617	0.9	1.0	5.564	A
B - Chelmsford Road	989	247	495	1439	0.687	989	908	2.2	2.2	7.993	A
C - A12 (W)	772	193	964	964	0.801	772	520	3.9	4.0	18.727	C
D - Roman Road	713	178	691	1833	0.389	713	1045	0.6	0.6	3.213	A

2032 Base + Comm, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Chelmsford Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	D - Roman Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Profile Type	D9 - 2032 Base + Comm, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?
Warning	Large Roundabout	A - A12 (E) - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Mountnessing Roundabout	Large Roundabout		A, B, C, D	73.79	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	73.79	F

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A12 (E)	0	✓	88.10
B - Chelmsford Road	0	✓	0.00
C - A12 (W)	0	✓	86.00
D - Roman Road	0	✓	0.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	2032 Base + Comm	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - A12 (E)		DIRECT	✓	100.000
B - Chelmsford Road		DIRECT	✓	100.000
C - A12 (W)		DIRECT	✓	100.000
D - Roman Road		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
	A - A12 (E)	1	691	11	139
	B - Chelmsford Road	428	1	258	357
	C - A12 (W)	3	232	1	465
	D - Roman Road	158	448	476	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
	A - A12 (E)	0	4	18	9
	B - Chelmsford Road	5	0	2	3
	C - A12 (W)	0	3	0	7
	D - Roman Road	6	2	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 (E)	1.04	281.46	65.5	F	842	1263
B - Chelmsford Road	0.83	16.64	4.7	C	1044	1566
C - A12 (W)	0.73	13.85	2.7	B	701	1052
D - Roman Road	0.60	4.97	1.5	A	1083	1625

Main Results for each time segment

07:30 - 07:45

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
A - A12 (E)	842	210	1151	818	1.029	773	582	0.0	17.2	54.103	F
B - Chelmsford Road	1044	261	614	1268	0.823	1027	1310	0.0	4.3	14.072	B
C - A12 (W)	701	175	903	985	0.712	692	738	0.0	2.4	11.932	B
D - Roman Road	1083	271	656	1817	0.596	1077	939	0.0	1.5	4.829	A

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
A - A12 (E)	842	210	1159	810	1.039	798	589	17.2	28.3	115.858	F
B - Chelmsford Road	1044	261	621	1261	0.828	1043	1335	4.3	4.5	16.299	C
C - A12 (W)	701	175	919	964	0.727	700	745	2.4	2.6	13.592	B
D - Roman Road	1083	271	665	1808	0.599	1083	954	1.5	1.5	4.961	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
A - A12 (E)	842	210	1159	810	1.040	802	590	28.3	38.2	160.657	F
B - Chelmsford Road	1044	261	622	1260	0.828	1044	1339	4.5	4.6	16.497	C
C - A12 (W)	701	175	920	962	0.729	701	745	2.6	2.6	13.755	B
D - Roman Road	1083	271	666	1808	0.599	1083	955	1.5	1.5	4.967	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
A - A12 (E)	842	210	1159	810	1.040	804	590	38.2	47.6	202.272	F
B - Chelmsford Road	1044	261	622	1260	0.829	1044	1341	4.6	4.7	16.574	C
C - A12 (W)	701	175	921	961	0.729	701	745	2.6	2.6	13.808	B
D - Roman Road	1083	271	666	1808	0.599	1083	956	1.5	1.5	4.967	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
A - A12 (E)	842	210	1159	810	1.040	806	590	47.6	56.7	242.333	F
B - Chelmsford Road	1044	261	622	1260	0.829	1044	1342	4.7	4.7	16.615	C
C - A12 (W)	701	175	921	961	0.730	701	745	2.6	2.7	13.835	B
D - Roman Road	1083	271	666	1808	0.599	1083	956	1.5	1.5	4.968	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
A - A12 (E)	842	210	1159	810	1.040	807	590	56.7	65.5	281.460	F
B - Chelmsford Road	1044	261	623	1260	0.829	1044	1343	4.7	4.7	16.641	C
C - A12 (W)	701	175	921	961	0.730	701	746	2.7	2.7	13.853	B
D - Roman Road	1083	271	666	1808	0.599	1083	956	1.5	1.5	4.968	A

2032 Base + Comm, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Chelmsford Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	D - Roman Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Profile Type	D10 - 2032 Base + Comm, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?
Warning	Large Roundabout	A - A12 (E) - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Mountnessing Roundabout	Large Roundabout		A, B, C, D	16.12	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	16.12	C

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A12 (E)	0	✓	88.10
B - Chelmsford Road	0	✓	0.00
C - A12 (W)	0	✓	86.00
D - Roman Road	0	✓	0.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	2032 Base + Comm	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - A12 (E)		DIRECT	✓	100.000
B - Chelmsford Road		DIRECT	✓	100.000
C - A12 (W)		DIRECT	✓	100.000
D - Roman Road		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
	A - A12 (E)	0	528	2	111
	B - Chelmsford Road	499	1	181	386
	C - A12 (W)	2	273	0	566
	D - Roman Road	131	230	381	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
	A - A12 (E)	0	1	0	1
	B - Chelmsford Road	2	0	1	0
	C - A12 (W)	0	3	0	4
	D - Roman Road	2	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 (E)	0.55	6.98	1.2	A	641	961
B - Chelmsford Road	0.74	9.66	2.8	A	1067	1600
C - A12 (W)	0.91	41.80	9.4	E	841	1261
D - Roman Road	0.42	3.55	0.7	A	743	1114

Main Results for each time segment

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
A - A12 (E)	641	160	875	1169	0.548	636	626	0.0	1.2	6.702	A
B - Chelmsford Road	1067	267	493	1442	0.740	1056	1018	0.0	2.7	9.095	A
C - A12 (W)	841	210	988	936	0.899	814	561	0.0	6.7	25.657	D
D - Roman Road	743	186	761	1769	0.420	740	1041	0.0	0.7	3.487	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
A - A12 (E)	641	160	884	1159	0.553	641	632	1.2	1.2	6.949	A
B - Chelmsford Road	1067	267	495	1439	0.741	1067	1030	2.7	2.8	9.642	A
C - A12 (W)	841	210	998	924	0.911	835	564	6.7	8.1	37.070	E
D - Roman Road	743	186	773	1758	0.423	743	1060	0.7	0.7	3.544	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
A - A12 (E)	641	160	885	1158	0.554	641	632	1.2	1.2	6.968	A
B - Chelmsford Road	1067	267	495	1439	0.741	1067	1031	2.8	2.8	9.654	A
C - A12 (W)	841	210	998	923	0.911	839	564	8.1	8.7	39.629	E
D - Roman Road	743	186	774	1757	0.423	743	1062	0.7	0.7	3.548	A

17:45 - 18:00

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
A - A12 (E)	641	160	886	1157	0.554	641	632	1.2	1.2	6.973	A
B - Chelmsford Road	1067	267	495	1439	0.741	1067	1032	2.8	2.8	9.658	A
C - A12 (W)	841	210	998	923	0.911	840	564	8.7	9.0	40.750	E
D - Roman Road	743	186	775	1757	0.423	743	1063	0.7	0.7	3.549	A

18:00 - 18:15

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
A - A12 (E)	641	160	886	1157	0.554	641	632	1.2	1.2	6.975	A
B - Chelmsford Road	1067	267	495	1439	0.741	1067	1032	2.8	2.8	9.660	A
C - A12 (W)	841	210	998	923	0.911	840	564	9.0	9.2	41.388	E
D - Roman Road	743	186	775	1757	0.423	743	1063	0.7	0.7	3.550	A

18:15 - 18:30

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
A - A12 (E)	641	160	886	1157	0.554	641	632	1.2	1.2	6.977	A
B - Chelmsford Road	1067	267	495	1439	0.741	1067	1032	2.8	2.8	9.662	A
C - A12 (W)	841	210	998	923	0.911	840	564	9.2	9.4	41.803	E
D - Roman Road	743	186	775	1757	0.423	743	1064	0.7	0.7	3.550	A

2032 Base + Comm + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Chelmsford Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	D - Roman Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Profile Type	D11 - 2032 Base + Comm + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?
Warning	Large Roundabout	A - A12 (E) - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Mountnessing Roundabout	Large Roundabout		A, B, C, D	94.54	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	94.54	F

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A12 (E)	0	✓	88.10
B - Chelmsford Road	0	✓	0.00
C - A12 (W)	0	✓	86.00
D - Roman Road	0	✓	0.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D11	2032 Base + Comm + Dev	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - A12 (E)		DIRECT	✓	100.000
B - Chelmsford Road		DIRECT	✓	100.000
C - A12 (W)		DIRECT	✓	100.000
D - Roman Road		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
	A - A12 (E)	1	694	11	139
	B - Chelmsford Road	438	1	287	370
	C - A12 (W)	3	241	1	465
	D - Roman Road	158	452	476	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
	A - A12 (E)	0	4	18	9
	B - Chelmsford Road	5	0	2	3
	C - A12 (W)	0	3	0	7
	D - Roman Road	6	2	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 (E)	1.06	368.26	85.7	F	845	1268
B - Chelmsford Road	0.87	21.41	6.4	C	1096	1644
C - A12 (W)	0.76	15.99	3.1	C	710	1065
D - Roman Road	0.61	5.12	1.5	A	1087	1631

Main Results for each time segment

07:30 - 07:45

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
A - A12 (E)	845	211	1163	805	1.049	766	590	0.0	19.7	60.159	F
B - Chelmsford Road	1096	274	612	1270	0.863	1074	1317	0.0	5.5	16.828	C
C - A12 (W)	710	177	921	962	0.738	699	766	0.0	2.7	13.236	B
D - Roman Road	1087	272	672	1802	0.603	1081	948	0.0	1.5	4.956	A

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
A - A12 (E)	845	211	1171	796	1.061	788	599	19.7	33.9	135.847	F
B - Chelmsford Road	1096	274	619	1264	0.867	1094	1341	5.5	6.0	20.662	C
C - A12 (W)	710	177	939	938	0.757	709	774	2.7	3.0	15.581	C
D - Roman Road	1087	272	684	1791	0.607	1087	964	1.5	1.5	5.110	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
A - A12 (E)	845	211	1172	796	1.061	792	600	33.9	47.3	196.091	F
B - Chelmsford Road	1096	274	619	1263	0.868	1095	1344	6.0	6.2	21.091	C
C - A12 (W)	710	177	941	936	0.759	710	774	3.0	3.0	15.850	C
D - Roman Road	1087	272	685	1790	0.607	1087	966	1.5	1.5	5.118	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
A - A12 (E)	845	211	1172	796	1.062	793	600	47.3	60.3	254.241	F
B - Chelmsford Road	1096	274	620	1263	0.868	1096	1345	6.2	6.3	21.260	C
C - A12 (W)	710	177	941	935	0.759	710	774	3.0	3.1	15.932	C
D - Roman Road	1087	272	685	1790	0.607	1087	966	1.5	1.5	5.119	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
A - A12 (E)	845	211	1172	796	1.062	794	600	60.3	73.1	311.495	F
B - Chelmsford Road	1096	274	620	1263	0.868	1096	1346	6.3	6.3	21.351	C
C - A12 (W)	710	177	941	935	0.759	710	774	3.1	3.1	15.970	C
D - Roman Road	1087	272	685	1790	0.607	1087	966	1.5	1.5	5.119	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
A - A12 (E)	845	211	1172	796	1.062	794	600	73.1	85.7	368.257	F
B - Chelmsford Road	1096	274	620	1263	0.868	1096	1346	6.3	6.4	21.406	C
C - A12 (W)	710	177	941	935	0.760	710	774	3.1	3.1	15.992	C
D - Roman Road	1087	272	685	1790	0.607	1087	967	1.5	1.5	5.120	A

2032 Base + Comm + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - Chelmsford Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Geometry	D - Roman Road - Large roundabout data	Large roundabout: if arm has an entry-exit separation, a non-zero value should be entered.
Warning	Profile Type	D12 - 2032 Base + Comm + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?
Warning	Large Roundabout	A - A12 (E) - Large roundabout data	Large Roundabout Circulating Flow is zero for one or more arms.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Mountnessing Roundabout	Large Roundabout		A, B, C, D	26.08	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	26.08	D

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
A - A12 (E)	0	✓	88.10
B - Chelmsford Road	0	✓	0.00
C - A12 (W)	0	✓	86.00
D - Roman Road	0	✓	0.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D12	2032 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - A12 (E)		DIRECT	✓	100.000
B - Chelmsford Road		DIRECT	✓	100.000
C - A12 (W)		DIRECT	✓	100.000
D - Roman Road		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
From A - A12 (E)	0	539	2	111
From B - Chelmsford Road	504	1	194	392
From C - A12 (W)	2	306	0	566
From D - Roman Road	131	244	381	1

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A - A12 (E)	B - Chelmsford Road	C - A12 (W)	D - Roman Road
From A - A12 (E)	0	1	0	1
From B - Chelmsford Road	2	0	1	0
From C - A12 (W)	0	3	0	4
From D - Roman Road	2	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A12 (E)	0.59	7.92	1.4	A	652	978
B - Chelmsford Road	0.76	10.32	3.1	B	1091	1636
C - A12 (W)	0.96	77.48	18.0	F	874	1311
D - Roman Road	0.44	3.73	0.8	A	757	1136

Main Results for each time segment

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
A - A12 (E)	652	163	917	1123	0.581	647	631	0.0	1.4	7.478	A
B - Chelmsford Road	1091	273	493	1442	0.757	1079	1071	0.0	3.0	9.632	A
C - A12 (W)	874	218	998	923	0.947	836	573	0.0	9.6	33.049	D
D - Roman Road	757	189	794	1739	0.435	754	1040	0.0	0.8	3.645	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
A - A12 (E)	652	163	928	1111	0.587	652	637	1.4	1.4	7.843	A
B - Chelmsford Road	1091	273	495	1440	0.758	1091	1085	3.0	3.1	10.296	B
C - A12 (W)	874	218	1009	910	0.961	860	577	9.6	12.9	55.932	F
D - Roman Road	757	189	808	1726	0.439	757	1061	0.8	0.8	3.715	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
A - A12 (E)	652	163	930	1108	0.588	652	637	1.4	1.4	7.886	A
B - Chelmsford Road	1091	273	495	1439	0.758	1091	1087	3.1	3.1	10.313	B
C - A12 (W)	874	218	1009	910	0.961	866	577	12.9	14.9	65.020	F
D - Roman Road	757	189	810	1724	0.439	757	1065	0.8	0.8	3.723	A

17:45 - 18:00

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
A - A12 (E)	652	163	931	1107	0.589	652	637	1.4	1.4	7.905	A
B - Chelmsford Road	1091	273	495	1439	0.758	1091	1088	3.1	3.1	10.320	B
C - A12 (W)	874	218	1009	909	0.961	869	577	14.9	16.2	70.585	F
D - Roman Road	757	189	811	1723	0.439	757	1067	0.8	0.8	3.726	A

18:00 - 18:15

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
A - A12 (E)	652	163	932	1107	0.589	652	637	1.4	1.4	7.914	A
B - Chelmsford Road	1091	273	495	1439	0.758	1091	1089	3.1	3.1	10.322	B
C - A12 (W)	874	218	1009	909	0.961	870	577	16.2	17.2	74.510	F
D - Roman Road	757	189	812	1722	0.440	757	1067	0.8	0.8	3.728	A

18:15 - 18:30

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
A - A12 (E)	652	163	932	1106	0.589	652	637	1.4	1.4	7.921	A
B - Chelmsford Road	1091	273	495	1439	0.758	1091	1089	3.1	3.1	10.324	B
C - A12 (W)	874	218	1009	909	0.961	871	577	17.2	18.0	77.476	F
D - Roman Road	757	189	812	1722	0.440	757	1068	0.8	0.8	3.729	A

Junctions 10									
PICADY 10 - Priority Intersection Module									
Version: 10.0.3.1598									
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Filename: Import of Alexander Lane.Oliver Road (J8).j10

Path: P:\JNY10935 - Shenfield\Transport\Picady

Report generation date: 26/07/2022 17:21:12

- »2022 Base, AM
- »2022 Base, PM
- »2027 Base, AM
- »2027 Base, PM
- »2027 Base + Dev, AM
- »2027 Base + Dev, PM
- »2027 Base + Comm, AM
- »2027 Base + Comm, PM
- »2027 Base + Comm + Dev, AM
- »2027 Base + Comm + Dev, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2022 Base									
Stream B-C	D1	0.0	9.88	0.03	A	D2	0.0	17.37	0.04	C
Stream B-A		1.0	17.36	0.50	C		0.8	15.32	0.45	C
Stream C-AB		0.0	6.75	0.03	A		0.0	6.61	0.01	A
	2027 Base									
Stream B-C	D3	0.0	9.88	0.03	A	D4	0.0	17.37	0.04	C
Stream B-A		1.0	17.36	0.50	C		0.8	15.32	0.45	C
Stream C-AB		0.0	6.75	0.03	A		0.0	6.61	0.01	A
	2027 Base + Dev									
Stream B-C	D5	0.0	9.97	0.03	A	D6	0.0	17.43	0.04	C
Stream B-A		1.0	17.62	0.51	C		0.8	15.40	0.45	C
Stream C-AB		0.0	6.75	0.03	A		0.0	6.62	0.01	A
	2027 Base + Comm									
Stream B-C	D7	0.0	10.17	0.04	B	D8	0.0	17.72	0.04	C
Stream B-A		1.1	18.18	0.53	C		0.9	15.78	0.46	C
Stream C-AB		0.0	6.76	0.03	A		0.0	6.64	0.01	A
	2027 Base + Comm + Dev									
Stream B-C	D9	0.0	10.28	0.04	B	D10	0.0	17.79	0.04	C
Stream B-A		1.1	18.47	0.53	C		0.9	15.87	0.46	C
Stream C-AB		0.0	6.76	0.03	A		0.0	6.65	0.01	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	22/07/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR\George.Magnisalis
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 period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	07:30	09:00	90	15	✓
D2	2022 Base	PM	DIRECT	17:00	18:30	90	15	✓
D3	2027 Base	AM	DIRECT	07:30	09:00	90	15	✓
D4	2027 Base	PM	DIRECT	17:00	18:30	90	15	✓
D5	2027 Base + Dev	AM	DIRECT	07:30	09:00	90	15	✓
D6	2027 Base + Dev	PM	DIRECT	17:00	18:30	90	15	✓
D7	2027 Base + Comm	AM	DIRECT	07:30	09:00	90	15	✓
D8	2027 Base + Comm	PM	DIRECT	17:00	18:30	90	15	✓
D9	2027 Base + Comm + Dev	AM	DIRECT	07:30	09:00	90	15	✓
D10	2027 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	15	✓

Analysis Set Details

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

2022 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Oliver Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D1 - 2022 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		5.30	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.30	A

Arms

Arms

Arm	Name	Description	Arm type
A	Alexander Lane (S)		Major
B	Oliver Road		Minor
C	Alexander Lane (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Alexander Lane (N)	6.10			79.5	✓	1.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Oliver Road	One lane plus flare	6.40	2.60	2.60	2.60	2.60	✓	1.00	16	26

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	499	0.091	0.229	0.144	0.327
B-C	538	0.082	0.207	-	-
C-B	620	0.239	0.239	-	-

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 period length (min)	Time segment length (min)	Run automatically
D1	2022 Base	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	198	114
	B - Oliver Road	211	0	13
	C - Alexander Lane (N)	181	16	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	1	2
	B - Oliver Road	1	0	0
	C - Alexander Lane (N)	2	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-C	0.03	9.88	0.0	A	13	20
B-A	0.50	17.36	1.0	C	211	317
C-AB	0.03	6.75	0.0	A	16	24
C-A					181	271
A-B					198	297
A-C					114	171

Main Results for each time segment

07:30 - 07:45

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-C	13	3	382	0.034	13	0.0	0.0	9.763	A
B-A	211	53	418	0.504	207	0.0	1.0	16.746	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.744	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

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-C	13	3	377	0.034	13	0.0	0.0	9.877	A
B-A	211	53	418	0.504	211	1.0	1.0	17.339	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.749	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

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-C	13	3	377	0.034	13	0.0	0.0	9.879	A
B-A	211	53	418	0.504	211	1.0	1.0	17.349	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.749	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

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-C	13	3	377	0.034	13	0.0	0.0	9.880	A
B-A	211	53	418	0.504	211	1.0	1.0	17.354	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.749	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

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-C	13	3	377	0.034	13	0.0	0.0	9.880	A
B-A	211	53	418	0.504	211	1.0	1.0	17.356	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.746	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

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-C	13	3	377	0.034	13	0.0	0.0	9.880	A
B-A	211	53	418	0.504	211	1.0	1.0	17.357	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.746	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

2022 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Oliver Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D2 - 2022 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		5.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.24	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2022 Base	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	156	131
	B - Oliver Road	190	0	9
	C - Alexander Lane (N)	120	8	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
	A - Alexander Lane (S)	0	1	0
	B - Oliver Road	2	0	78
	C - Alexander Lane (N)	3	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-C	0.04	17.37	0.0	C	9	14
B-A	0.45	15.32	0.8	C	190	285
C-AB	0.01	6.61	0.0	A	8	12
C-A					120	180
A-B					156	234
A-C					131	197

Main Results for each time segment

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-C	9	2	218	0.041	9	0.0	0.0	17.180	C
B-A	190	48	425	0.447	187	0.0	0.8	14.926	B
C-AB	8	2	553	0.015	8	0.0	0.0	6.608	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

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-C	9	2	216	0.042	9	0.0	0.0	17.365	C
B-A	190	48	425	0.447	190	0.8	0.8	15.312	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.608	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

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-C	9	2	216	0.042	9	0.0	0.0	17.367	C
B-A	190	48	425	0.447	190	0.8	0.8	15.309	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.608	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

17:45 - 18:00

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-C	9	2	216	0.042	9	0.0	0.0	17.368	C
B-A	190	48	425	0.447	190	0.8	0.8	15.313	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.610	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

18:00 - 18:15

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-C	9	2	216	0.042	9	0.0	0.0	17.368	C
B-A	190	48	425	0.447	190	0.8	0.8	15.313	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.608	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

18:15 - 18:30

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-C	9	2	216	0.042	9	0.0	0.0	17.368	C
B-A	190	48	425	0.447	190	0.8	0.8	15.316	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.610	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

2027 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Oliver Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D3 - 2027 Base, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		5.30	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.30	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2027 Base	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	198	114
	B - Oliver Road	211	0	13
	C - Alexander Lane (N)	181	16	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
	A - Alexander Lane (S)	0	1	2
	B - Oliver Road	1	0	0
	C - Alexander Lane (N)	2	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-C	0.03	9.88	0.0	A	13	20
B-A	0.50	17.36	1.0	C	211	317
C-AB	0.03	6.75	0.0	A	16	24
C-A					181	271
A-B					198	297
A-C					114	171

Main Results for each time segment

07:30 - 07:45

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-C	13	3	382	0.034	13	0.0	0.0	9.763	A
B-A	211	53	418	0.504	207	0.0	1.0	16.746	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.744	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

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-C	13	3	377	0.034	13	0.0	0.0	9.877	A
B-A	211	53	418	0.504	211	1.0	1.0	17.339	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.749	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

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-C	13	3	377	0.034	13	0.0	0.0	9.879	A
B-A	211	53	418	0.504	211	1.0	1.0	17.349	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.749	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

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-C	13	3	377	0.034	13	0.0	0.0	9.880	A
B-A	211	53	418	0.504	211	1.0	1.0	17.354	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.749	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

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-C	13	3	377	0.034	13	0.0	0.0	9.880	A
B-A	211	53	418	0.504	211	1.0	1.0	17.356	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.746	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

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-C	13	3	377	0.034	13	0.0	0.0	9.880	A
B-A	211	53	418	0.504	211	1.0	1.0	17.357	C
C-AB	16	4	550	0.029	16	0.0	0.0	6.746	A
C-A	181	45			181				
A-B	198	50			198				
A-C	114	29			114				

2027 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Oliver Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D4 - 2027 Base, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		5.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.24	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2027 Base	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	156	131
	B - Oliver Road	190	0	9
	C - Alexander Lane (N)	120	8	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
	A - Alexander Lane (S)	0	1	0
	B - Oliver Road	2	0	78
	C - Alexander Lane (N)	3	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-C	0.04	17.37	0.0	C	9	14
B-A	0.45	15.32	0.8	C	190	285
C-AB	0.01	6.61	0.0	A	8	12
C-A					120	180
A-B					156	234
A-C					131	197

Main Results for each time segment

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-C	9	2	218	0.041	9	0.0	0.0	17.180	C
B-A	190	48	425	0.447	187	0.0	0.8	14.926	B
C-AB	8	2	553	0.015	8	0.0	0.0	6.608	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

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-C	9	2	216	0.042	9	0.0	0.0	17.365	C
B-A	190	48	425	0.447	190	0.8	0.8	15.312	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.608	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

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-C	9	2	216	0.042	9	0.0	0.0	17.367	C
B-A	190	48	425	0.447	190	0.8	0.8	15.309	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.608	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

17:45 - 18:00

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-C	9	2	216	0.042	9	0.0	0.0	17.368	C
B-A	190	48	425	0.447	190	0.8	0.8	15.313	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.610	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

18:00 - 18:15

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-C	9	2	216	0.042	9	0.0	0.0	17.368	C
B-A	190	48	425	0.447	190	0.8	0.8	15.313	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.608	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

18:15 - 18:30

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-C	9	2	216	0.042	9	0.0	0.0	17.368	C
B-A	190	48	425	0.447	190	0.8	0.8	15.316	C
C-AB	8	2	553	0.015	8	0.0	0.0	6.610	A
C-A	120	30			120				
A-B	156	39			156				
A-C	131	33			131				

2027 Base + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Oliver Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D5 - 2027 Base + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		5.42	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.42	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2027 Base + Dev	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	199	114
	B - Oliver Road	214	0	13
	C - Alexander Lane (N)	181	16	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
	A - Alexander Lane (S)	0	1	2
	B - Oliver Road	1	0	0
	C - Alexander Lane (N)	2	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-C	0.03	9.97	0.0	A	13	20
B-A	0.51	17.62	1.0	C	214	321
C-AB	0.03	6.75	0.0	A	16	24
C-A					181	271
A-B					199	299
A-C					114	171

Main Results for each time segment

07:30 - 07:45

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-C	13	3	378	0.034	13	0.0	0.0	9.851	A
B-A	214	54	418	0.512	210	0.0	1.0	16.974	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.747	A
C-A	181	45			181				
A-B	199	50			199				
A-C	114	29			114				

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-C	13	3	374	0.035	13	0.0	0.0	9.970	A
B-A	214	54	418	0.512	214	1.0	1.0	17.599	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.752	A
C-A	181	45			181				
A-B	199	50			199				
A-C	114	29			114				

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-C	13	3	374	0.035	13	0.0	0.0	9.972	A
B-A	214	54	418	0.512	214	1.0	1.0	17.612	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.749	A
C-A	181	45			181				
A-B	199	50			199				
A-C	114	29			114				

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-C	13	3	374	0.035	13	0.0	0.0	9.973	A
B-A	214	54	418	0.512	214	1.0	1.0	17.615	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.752	A
C-A	181	45			181				
A-B	199	50			199				
A-C	114	29			114				

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-C	13	3	374	0.035	13	0.0	0.0	9.973	A
B-A	214	54	418	0.512	214	1.0	1.0	17.618	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.749	A
C-A	181	45			181				
A-B	199	50			199				
A-C	114	29			114				

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-C	13	3	374	0.035	13	0.0	0.0	9.973	A
B-A	214	54	418	0.512	214	1.0	1.0	17.618	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.749	A
C-A	181	45			181				
A-B	199	50			199				
A-C	114	29			114				

2027 Base + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Oliver Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D6 - 2027 Base + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		5.26	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.26	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2027 Base + Dev	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	159	131
	B - Oliver Road	191	0	9
	C - Alexander Lane (N)	120	8	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
	A - Alexander Lane (S)	0	1	0
	B - Oliver Road	2	0	78
	C - Alexander Lane (N)	3	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-C	0.04	17.43	0.0	C	9	14
B-A	0.45	15.40	0.8	C	191	287
C-AB	0.01	6.62	0.0	A	8	12
C-A					120	180
A-B					159	239
A-C					131	197

Main Results for each time segment

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-C	9	2	217	0.041	9	0.0	0.0	17.253	C
B-A	191	48	425	0.450	188	0.0	0.8	15.002	C
C-AB	8	2	552	0.015	8	0.0	0.0	6.617	A
C-A	120	30			120				
A-B	159	40			159				
A-C	131	33			131				

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-C	9	2	216	0.042	9	0.0	0.0	17.429	C
B-A	191	48	425	0.450	191	0.8	0.8	15.384	C
C-AB	8	2	552	0.015	8	0.0	0.0	6.617	A
C-A	120	30			120				
A-B	159	40			159				
A-C	131	33			131				

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-C	9	2	216	0.042	9	0.0	0.0	17.431	C
B-A	191	48	425	0.450	191	0.8	0.8	15.395	C
C-AB	8	2	552	0.015	8	0.0	0.0	6.617	A
C-A	120	30			120				
A-B	159	40			159				
A-C	131	33			131				

17:45 - 18:00

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-C	9	2	216	0.042	9	0.0	0.0	17.432	C
B-A	191	48	425	0.450	191	0.8	0.8	15.398	C
C-AB	8	2	552	0.015	8	0.0	0.0	6.619	A
C-A	120	30			120				
A-B	159	40			159				
A-C	131	33			131				

18:00 - 18:15

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-C	9	2	216	0.042	9	0.0	0.0	17.432	C
B-A	191	48	425	0.450	191	0.8	0.8	15.397	C
C-AB	8	2	552	0.015	8	0.0	0.0	6.617	A
C-A	120	30			120				
A-B	159	40			159				
A-C	131	33			131				

18:15 - 18:30

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-C	9	2	216	0.042	9	0.0	0.0	17.432	C
B-A	191	48	425	0.450	191	0.8	0.8	15.399	C
C-AB	8	2	552	0.015	8	0.0	0.0	6.619	A
C-A	120	30			120				
A-B	159	40			159				
A-C	131	33			131				

2027 Base + Comm, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Oliver Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D7 - 2027 Base + Comm, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		5.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.66	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	2027 Base + Comm	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	202	114
	B - Oliver Road	220	0	13
	C - Alexander Lane (N)	181	16	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
	A - Alexander Lane (S)	0	1	2
	B - Oliver Road	1	0	0
	C - Alexander Lane (N)	2	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-C	0.04	10.17	0.0	B	13	20
B-A	0.53	18.18	1.1	C	220	330
C-AB	0.03	6.76	0.0	A	16	24
C-A					181	271
A-B					202	303
A-C					114	171

Main Results for each time segment

07:30 - 07:45

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-C	13	3	372	0.035	13	0.0	0.0	10.027	B
B-A	220	55	418	0.526	216	0.0	1.1	17.456	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.756	A
C-A	181	45			181				
A-B	202	51			202				
A-C	114	29			114				

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-C	13	3	367	0.035	13	0.0	0.0	10.170	B
B-A	220	55	418	0.526	220	1.1	1.1	18.152	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.761	A
C-A	181	45			181				
A-B	202	51			202				
A-C	114	29			114				

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-C	13	3	367	0.035	13	0.0	0.0	10.173	B
B-A	220	55	418	0.526	220	1.1	1.1	18.168	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.758	A
C-A	181	45			181				
A-B	202	51			202				
A-C	114	29			114				

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-C	13	3	367	0.035	13	0.0	0.0	10.174	B
B-A	220	55	418	0.526	220	1.1	1.1	18.175	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.761	A
C-A	181	45			181				
A-B	202	51			202				
A-C	114	29			114				

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-C	13	3	367	0.035	13	0.0	0.0	10.174	B
B-A	220	55	418	0.526	220	1.1	1.1	18.175	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.758	A
C-A	181	45			181				
A-B	202	51			202				
A-C	114	29			114				

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-C	13	3	367	0.035	13	0.0	0.0	10.175	B
B-A	220	55	418	0.526	220	1.1	1.1	18.177	C
C-AB	16	4	549	0.029	16	0.0	0.0	6.758	A
C-A	181	45			181				
A-B	202	51			202				
A-C	114	29			114				

2027 Base + Comm, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Oliver Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D8 - 2027 Base + Comm, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		5.40	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.40	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2027 Base + Comm	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	166	131
	B - Oliver Road	196	0	9
	C - Alexander Lane (N)	120	8	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
	A - Alexander Lane (S)	0	1	0
	B - Oliver Road	2	0	78
	C - Alexander Lane (N)	3	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-C	0.04	17.72	0.0	C	9	14
B-A	0.46	15.78	0.9	C	196	294
C-AB	0.01	6.64	0.0	A	8	12
C-A					120	180
A-B					166	249
A-C					131	197

Main Results for each time segment

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-C	9	2	214	0.042	9	0.0	0.0	17.525	C
B-A	196	49	424	0.462	193	0.0	0.8	15.343	C
C-AB	8	2	550	0.015	8	0.0	0.0	6.637	A
C-A	120	30			120				
A-B	166	42			166				
A-C	131	33			131				

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-C	9	2	212	0.042	9	0.0	0.0	17.718	C
B-A	196	49	424	0.462	196	0.8	0.8	15.770	C
C-AB	8	2	550	0.015	8	0.0	0.0	6.637	A
C-A	120	30			120				
A-B	166	42			166				
A-C	131	33			131				

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-C	9	2	212	0.042	9	0.0	0.0	17.721	C
B-A	196	49	424	0.462	196	0.8	0.9	15.777	C
C-AB	8	2	550	0.015	8	0.0	0.0	6.637	A
C-A	120	30			120				
A-B	166	42			166				
A-C	131	33			131				

17:45 - 18:00

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-C	9	2	212	0.042	9	0.0	0.0	17.722	C
B-A	196	49	424	0.462	196	0.9	0.9	15.779	C
C-AB	8	2	550	0.015	8	0.0	0.0	6.640	A
C-A	120	30			120				
A-B	166	42			166				
A-C	131	33			131				

18:00 - 18:15

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-C	9	2	212	0.042	9	0.0	0.0	17.722	C
B-A	196	49	424	0.462	196	0.9	0.9	15.780	C
C-AB	8	2	550	0.015	8	0.0	0.0	6.640	A
C-A	120	30			120				
A-B	166	42			166				
A-C	131	33			131				

18:15 - 18:30

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-C	9	2	212	0.042	9	0.0	0.0	17.723	C
B-A	196	49	424	0.462	196	0.9	0.9	15.783	C
C-AB	8	2	550	0.015	8	0.0	0.0	6.640	A
C-A	120	30			120				
A-B	166	42			166				
A-C	131	33			131				

2027 Base + Comm + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Oliver Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D9 - 2027 Base + Comm + Dev, AM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		5.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.79	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	2027 Base + Comm + Dev	AM	DIRECT	07:30	09:00	90	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	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	203	114
	B - Oliver Road	223	0	13
	C - Alexander Lane (N)	181	16	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
	A - Alexander Lane (S)	0	1	2
	B - Oliver Road	1	0	0
	C - Alexander Lane (N)	2	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-C	0.04	10.28	0.0	B	13	20
B-A	0.53	18.47	1.1	C	223	335
C-AB	0.03	6.76	0.0	A	16	24
C-A					181	271
A-B					203	305
A-C					114	171

Main Results for each time segment

07:30 - 07:45

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-C	13	3	368	0.035	13	0.0	0.0	10.126	B
B-A	223	56	418	0.534	219	0.0	1.1	17.702	C
C-AB	16	4	548	0.029	16	0.0	0.0	6.759	A
C-A	181	45			181				
A-B	203	51			203				
A-C	114	29			114				

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-C	13	3	363	0.036	13	0.0	0.0	10.275	B
B-A	223	56	418	0.534	223	1.1	1.1	18.439	C
C-AB	16	4	548	0.029	16	0.0	0.0	6.764	A
C-A	181	45			181				
A-B	203	51			203				
A-C	114	29			114				

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-C	13	3	363	0.036	13	0.0	0.0	10.278	B
B-A	223	56	418	0.534	223	1.1	1.1	18.455	C
C-AB	16	4	548	0.029	16	0.0	0.0	6.764	A
C-A	181	45			181				
A-B	203	51			203				
A-C	114	29			114				

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-C	13	3	363	0.036	13	0.0	0.0	10.279	B
B-A	223	56	418	0.534	223	1.1	1.1	18.460	C
C-AB	16	4	548	0.029	16	0.0	0.0	6.764	A
C-A	181	45			181				
A-B	203	51			203				
A-C	114	29			114				

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-C	13	3	363	0.036	13	0.0	0.0	10.280	B
B-A	223	56	418	0.534	223	1.1	1.1	18.464	C
C-AB	16	4	548	0.029	16	0.0	0.0	6.764	A
C-A	181	45			181				
A-B	203	51			203				
A-C	114	29			114				

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-C	13	3	363	0.036	13	0.0	0.0	10.280	B
B-A	223	56	418	0.534	223	1.1	1.1	18.466	C
C-AB	16	4	548	0.029	16	0.0	0.0	6.761	A
C-A	181	45			181				
A-B	203	51			203				
A-C	114	29			114				

2027 Base + Comm + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Oliver Road - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	B - Oliver Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Profile Type	D10 - 2027 Base + Comm + Dev, PM	The DIRECT profile type is intended to be used for demand that varies over time. You are using it with the 'Use O-D data' option, but your O-D data does not vary over time. Are you sure this is correct?

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	Alexander Ln_Oliver Rd Priority Junction	T-Junction	Two-way	Two-way	Two-way		5.43	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.43	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	2027 Base + Comm + Dev	PM	DIRECT	17:00	18:30	90	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	Scaling Factor (%)
A - Alexander Lane (S)		DIRECT	✓	100.000
B - Oliver Road		DIRECT	✓	100.000
C - Alexander Lane (N)		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
From	A - Alexander Lane (S)	0	169	131
	B - Oliver Road	197	0	9
	C - Alexander Lane (N)	120	8	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Alexander Lane (S)	B - Oliver Road	C - Alexander Lane (N)
	A - Alexander Lane (S)	0	1	0
	B - Oliver Road	2	0	78
	C - Alexander Lane (N)	3	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-C	0.04	17.79	0.0	C	9	14
B-A	0.46	15.87	0.9	C	197	296
C-AB	0.01	6.65	0.0	A	8	12
C-A					120	180
A-B					169	254
A-C					131	197

Main Results for each time segment

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-C	9	2	213	0.042	9	0.0	0.0	17.590	C
B-A	197	49	424	0.465	194	0.0	0.8	15.424	C
C-AB	8	2	550	0.015	8	0.0	0.0	6.646	A
C-A	120	30			120				
A-B	169	42			169				
A-C	131	33			131				

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-C	9	2	211	0.043	9	0.0	0.0	17.787	C
B-A	197	49	424	0.465	197	0.8	0.9	15.858	C
C-AB	8	2	550	0.015	8	0.0	0.0	6.646	A
C-A	120	30			120				
A-B	169	42			169				
A-C	131	33			131				

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-C	9	2	211	0.043	9	0.0	0.0	17.790	C
B-A	197	49	424	0.465	197	0.9	0.9	15.866	C
C-AB	8	2	550	0.015	8	0.0	0.0	6.646	A
C-A	120	30			120				
A-B	169	42			169				
A-C	131	33			131				

17:45 - 18:00

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-C	9	2	211	0.043	9	0.0	0.0	17.791	C
B-A	197	49	424	0.465	197	0.9	0.9	15.868	C
C-AB	8	2	550	0.015	8	0.0	0.0	6.646	A
C-A	120	30			120				
A-B	169	42			169				
A-C	131	33			131				

18:00 - 18:15

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-C	9	2	211	0.043	9	0.0	0.0	17.791	C
B-A	197	49	424	0.465	197	0.9	0.9	15.869	C
C-AB	8	2	550	0.015	8	0.0	0.0	6.649	A
C-A	120	30			120				
A-B	169	42			169				
A-C	131	33			131				

18:15 - 18:30

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-C	9	2	211	0.043	9	0.0	0.0	17.791	C
B-A	197	49	424	0.465	197	0.9	0.9	15.872	C
C-AB	8	2	550	0.015	8	0.0	0.0	6.649	A
C-A	120	30			120				
A-B	169	42			169				
A-C	131	33			131				

Appendix 14 – LinSig Outputs

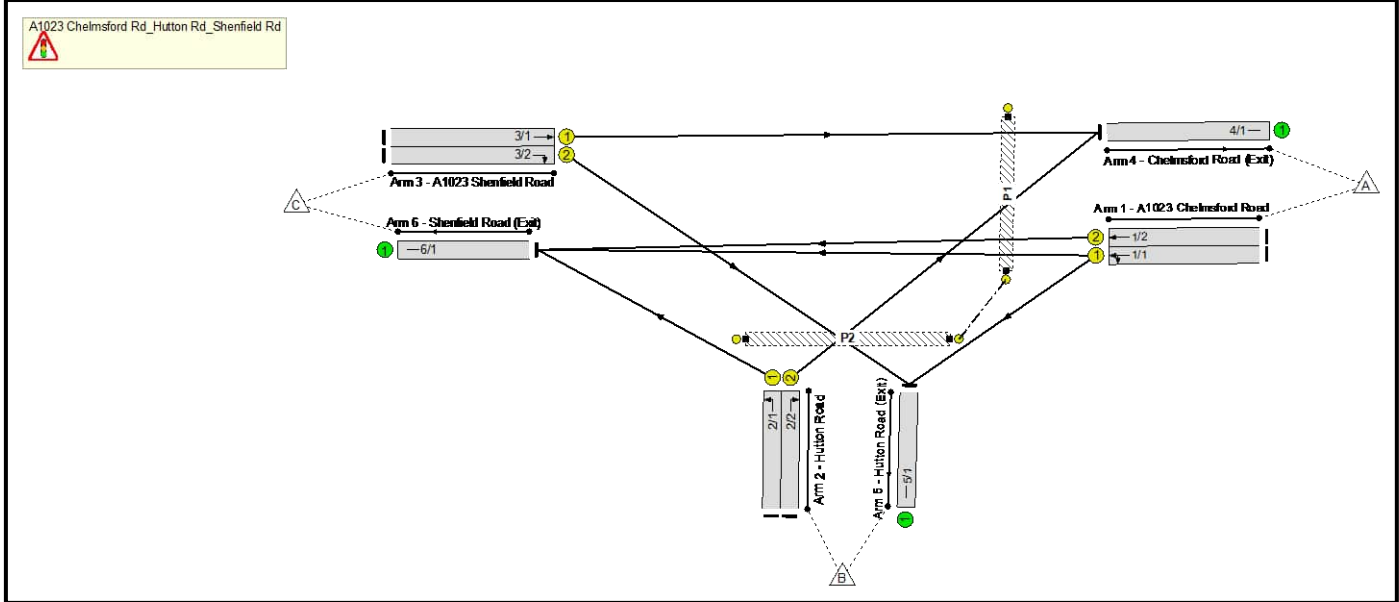
Full Input Data And Results

Full Input Data And Results

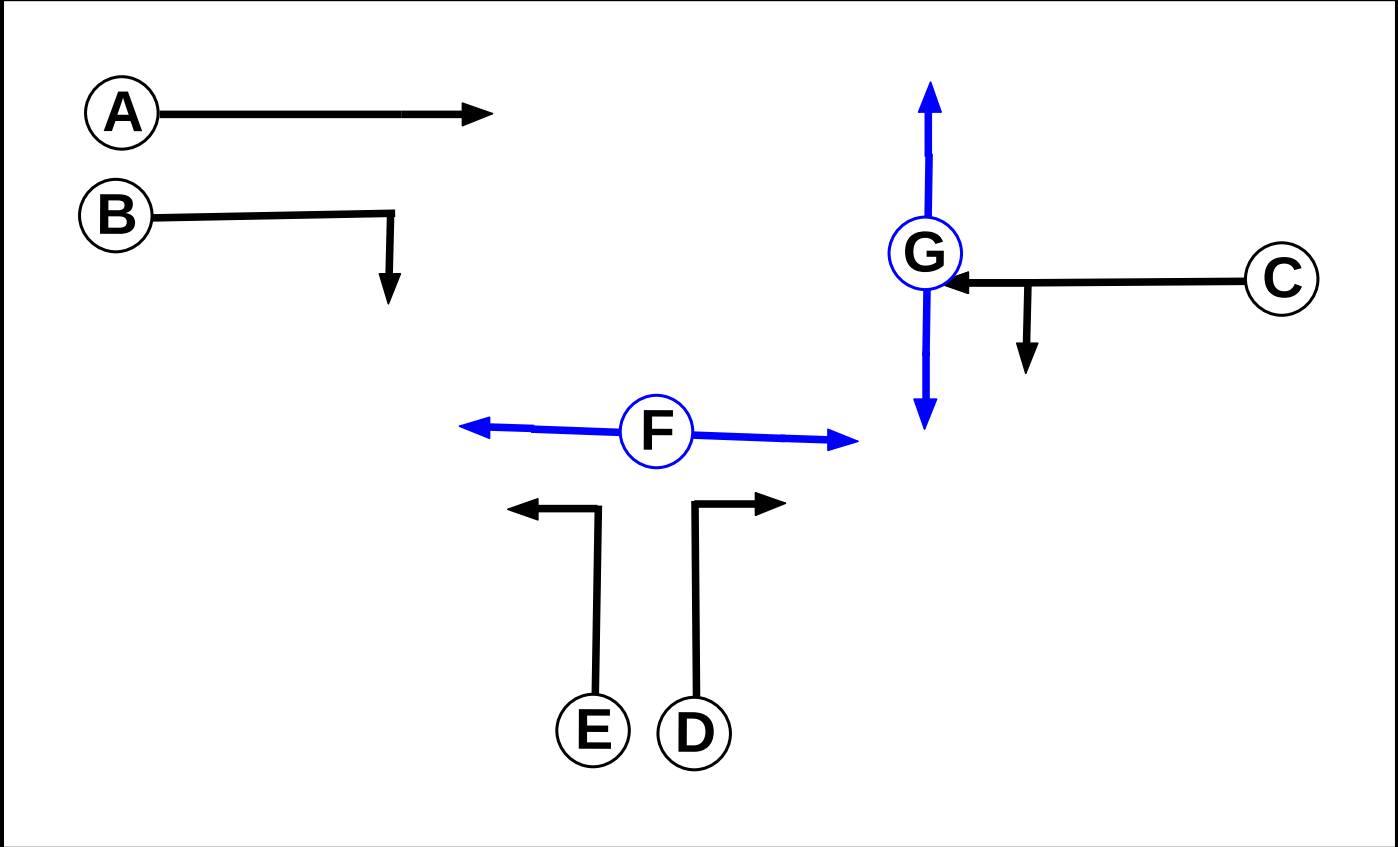
User and Project Details

Project:	JNY10935
Title:	Shenfield
Location:	
Additional detail:	
File name:	A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd Junction.lsg3x
Author:	Danesh Aryan
Company:	RPS Group
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		1	1
F	Pedestrian		12	12
G	Pedestrian		11	11

Full Input Data And Results

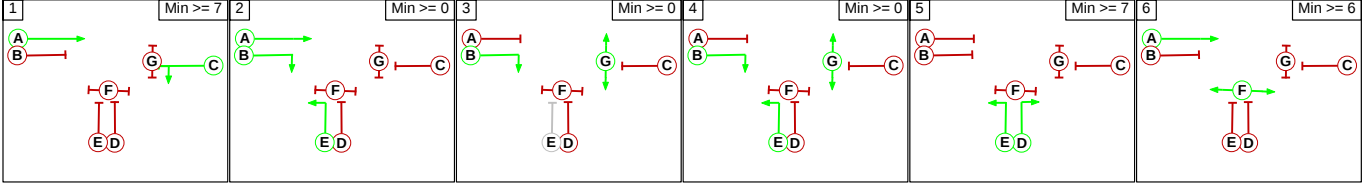
Phase Intergreens Matrix

Terminating Phase	Starting Phase							
		A	B	C	D	E	F	G
	A		-	-	5	-	-	8
	B	-		6	5	-	7	-
	C	-	5		6	6	7	5
	D	5	5	5		-	5	8
	E	-	-	-	-		-	-
	F	-	15	15	15	15		-
	G	13	-	13	13	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A C
2	A B E
3	B G
4	B E G
5	D E
6	A 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	5	6
	1		6	8	8	6	7
	2	6		8	8	5	7
	3	13	13		2	13	13
	4	13	13	0		13	13
	5	5	5	8	8		5
	6	15	15	15	15	15	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd												
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 (A1023 Chelmsford Road)	U	C	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 5 Left Arm 6 Ahead	Inf Inf
1/2 (A1023 Chelmsford Road)	U	C	2	3	12.0	Geom	-	3.25	0.00	Y	Arm 6 Ahead	Inf
2/1 (Hutton Road)	U	E	2	3	2.1	Geom	-	3.25	0.00	Y	Arm 6 Left	Inf
2/2 (Hutton Road)	U	D	2	3	31.3	Geom	-	3.25	0.00	Y	Arm 4 Right	Inf
3/1 (A1023 Shenfield Road)	U	A	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 4 Ahead	Inf
3/2 (A1023 Shenfield Road)	U	B	2	3	8.7	Geom	-	3.25	0.00	Y	Arm 5 Right	Inf
4/1 (Chelmsford Road (Exit))	U		2	3	60.0	Geom	-	3.25	0.00	Y		
5/1 (Hutton Road (Exit))	U		2	3	31.3	Geom	-	3.25	0.00	Y		
6/1 (Shenfield Road (Exit))	U		2	3	60.0	Geom	-	3.25	0.00	Y		

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 Base AM Peak'	07:30	08:30	01:00	
2: '2022 Base PM Peak'	17:00	18:00	01:00	
3: '2027 Base AM Peak'	07:30	08:30	01:00	
4: '2027 Base PM Peak'	17:00	18:00	01:00	
5: '2027 Base + Committed AM Peak'	07:30	08:30	01:00	
6: '2027 Base + Committed PM Peak'	17:00	18:00	01:00	
7: '2027 Base + Development AM Peak'	07:30	08:30	01:00	
8: '2027 Base + Development PM Peak'	17:00	18:00	01:00	
9: '2027 Base + Comm + Dev AM Peak'	07:30	08:30	01:00	
10: '2027 Base + Comm + Dev PM Peak'	17:00	18:00	01:00	

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

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	95	668	763
	B	85	0	244	329
	C	680	292	0	972
	Tot.	765	387	912	2064

Traffic Lane Flows

Lane	Scenario 1: 2022 Base AM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1	381
1/2	382
2/1	244
2/2	85
3/1	680
3/2	292
4/1	765
5/1	387
6/1	912

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
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 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left	Inf	24.9 %	1940	1940
				Arm 6 Ahead	Inf	75.1 %		
1/2 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1940	1940
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	Inf	100.0 %	1940	1940
2/2 (Hutton Road)	3.25	0.00	Y	Arm 4 Right	Inf	100.0 %	1940	1940
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	Inf	100.0 %	1940	1940
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940

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

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	63	591	654
	B	84	0	302	386
	C	692	273	0	965
	Tot.	776	336	893	2005

Traffic Lane Flows

Lane	Scenario 2: 2022 Base PM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1	327
1/2	327
2/1	302
2/2	84
3/1	692
3/2	273
4/1	776
5/1	336
6/1	893

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
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 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left	Inf	19.3 %	1940	1940
				Arm 6 Ahead	Inf	80.7 %		
1/2 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1940	1940
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	Inf	100.0 %	1940	1940
2/2 (Hutton Road)	3.25	0.00	Y	Arm 4 Right	Inf	100.0 %	1940	1940
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	Inf	100.0 %	1940	1940
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940

Scenario 3: '2027 Base AM Peak' (FG3: '2027 Base AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	95	668	763
	B	85	0	244	329
	C	680	292	0	972
	Tot.	765	387	912	2064

Traffic Lane Flows

Lane	Scenario 3: 2027 Base AM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1	381
1/2	382
2/1	244
2/2	85
3/1	680
3/2	292
4/1	765
5/1	387
6/1	912

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
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 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left	Inf	24.9 %	1940	1940
				Arm 6 Ahead	Inf	75.1 %		
1/2 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1940	1940
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	Inf	100.0 %	1940	1940
2/2 (Hutton Road)	3.25	0.00	Y	Arm 4 Right	Inf	100.0 %	1940	1940
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	Inf	100.0 %	1940	1940
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940

Scenario 4: '2027 Base PM Peak' (FG4: '2027 Base PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	63	591	654
	B	84	0	302	386
	C	692	273	0	965
	Tot.	776	336	893	2005

Traffic Lane Flows

Lane	Scenario 4: 2027 Base PM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1	327
1/2	327
2/1	302
2/2	84
3/1	692
3/2	273
4/1	776
5/1	336
6/1	893

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
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 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left	Inf	19.3 %	1940	1940
				Arm 6 Ahead	Inf	80.7 %		
1/2 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1940	1940
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	Inf	100.0 %	1940	1940
2/2 (Hutton Road)	3.25	0.00	Y	Arm 4 Right	Inf	100.0 %	1940	1940
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	Inf	100.0 %	1940	1940
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940

Scenario 5: '2027 Base + Committed AM Peak' (FG5: '2027 Base + Committed AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	104	715	819
	B	89	0	244	333
	C	701	292	0	993
	Tot.	790	396	959	2145

Traffic Lane Flows

Lane	Scenario 5: 2027 Base + Committed AM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1	409
1/2	410
2/1	244
2/2	89
3/1	701
3/2	292
4/1	790
5/1	396
6/1	959

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
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 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left	Inf	25.4 %	1940	1940
				Arm 6 Ahead	Inf	74.6 %		
1/2 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1940	1940
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	Inf	100.0 %	1940	1940
2/2 (Hutton Road)	3.25	0.00	Y	Arm 4 Right	Inf	100.0 %	1940	1940
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	Inf	100.0 %	1940	1940
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940

Scenario 6: '2027 Base + Committed PM Peak' (FG6: '2027 Base + Committed PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	69	621	690
	B	94	0	302	396
	C	745	273	0	1018
Tot.	839	342	923	2104	

Traffic Lane Flows

Lane	Scenario 6: 2027 Base + Committed PM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1	345
1/2	345
2/1	302
2/2	94
3/1	745
3/2	273
4/1	839
5/1	342
6/1	923

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
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 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left	Inf	20.0 %	1940	1940
				Arm 6 Ahead	Inf	80.0 %		
1/2 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1940	1940
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	Inf	100.0 %	1940	1940
2/2 (Hutton Road)	3.25	0.00	Y	Arm 4 Right	Inf	100.0 %	1940	1940
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	Inf	100.0 %	1940	1940
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940

Scenario 7: '2027 Base + Development AM Peak' (FG7: '2027 Base + Development AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	98	683	781
	B	86	0	244	330
	C	684	292	0	976
	Tot.	770	390	927	2087

Traffic Lane Flows

Lane	Scenario 7: 2027 Base + Development AM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1	390
1/2	391
2/1	244
2/2	86
3/1	684
3/2	292
4/1	770
5/1	390
6/1	927

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
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 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left	Inf	25.1 %	1940	1940
				Arm 6 Ahead	Inf	74.9 %		
1/2 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1940	1940
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	Inf	100.0 %	1940	1940
2/2 (Hutton Road)	3.25	0.00	Y	Arm 4 Right	Inf	100.0 %	1940	1940
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	Inf	100.0 %	1940	1940
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940

Scenario 8: '2027 Base + Development PM Peak' (FG8: '2027 Base + Development PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	64	598	662
	B	87	0	302	389
	C	709	273	0	982
Tot.	796	337	900	2033	

Traffic Lane Flows

Lane	Scenario 8: 2027 Base + Development PM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1	331
1/2	331
2/1	302
2/2	87
3/1	709
3/2	273
4/1	796
5/1	337
6/1	900

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
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 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left	Inf	19.3 %	1940	1940
				Arm 6 Ahead	Inf	80.7 %		
1/2 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1940	1940
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	Inf	100.0 %	1940	1940
2/2 (Hutton Road)	3.25	0.00	Y	Arm 4 Right	Inf	100.0 %	1940	1940
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	Inf	100.0 %	1940	1940
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940

Scenario 9: '2027 Base + Comm + Dev AM Peak' (FG9: '2027 Base + Comm + Dev AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	107	730	837
	B	90	0	244	334
	C	706	292	0	998
	Tot.	796	399	974	2169

Traffic Lane Flows

Lane	Scenario 9: 2027 Base + Comm + Dev AM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1	419
1/2	418
2/1	244
2/2	90
3/1	706
3/2	292
4/1	796
5/1	399
6/1	974

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
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 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left	Inf	25.5 %	1940	1940
				Arm 6 Ahead	Inf	74.5 %		
1/2 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1940	1940
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	Inf	100.0 %	1940	1940
2/2 (Hutton Road)	3.25	0.00	Y	Arm 4 Right	Inf	100.0 %	1940	1940
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	Inf	100.0 %	1940	1940
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940

Scenario 10: '2027 Base + Comm + Dev PM Peak' (FG10: '2027 Base + Comm + Dev PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	70	628	698
	B	97	0	302	399
	C	762	273	0	1035
	Tot.	859	343	930	2132

Traffic Lane Flows

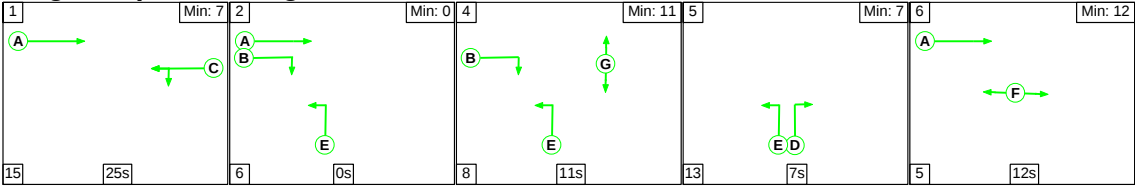
Lane	Scenario 10: 2027 Base + Comm + Dev PM Peak
Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	
1/1	349
1/2	349
2/1	302
2/2	97
3/1	762
3/2	273
4/1	859
5/1	343
6/1	930

Lane Saturation Flows

Junction: A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd								
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 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 5 Left	Inf	20.1 %	1940	1940
				Arm 6 Ahead	Inf	79.9 %		
1/2 (A1023 Chelmsford Road)	3.25	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1940	1940
2/1 (Hutton Road)	3.25	0.00	Y	Arm 6 Left	Inf	100.0 %	1940	1940
2/2 (Hutton Road)	3.25	0.00	Y	Arm 4 Right	Inf	100.0 %	1940	1940
3/1 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (A1023 Shenfield Road)	3.25	0.00	Y	Arm 5 Right	Inf	100.0 %	1940	1940
4/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
5/1 (Hutton Road (Exit))	3.25	0.00	Y				1940	1940
6/1 (Shenfield Road (Exit))	3.25	0.00	Y				1940	1940

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

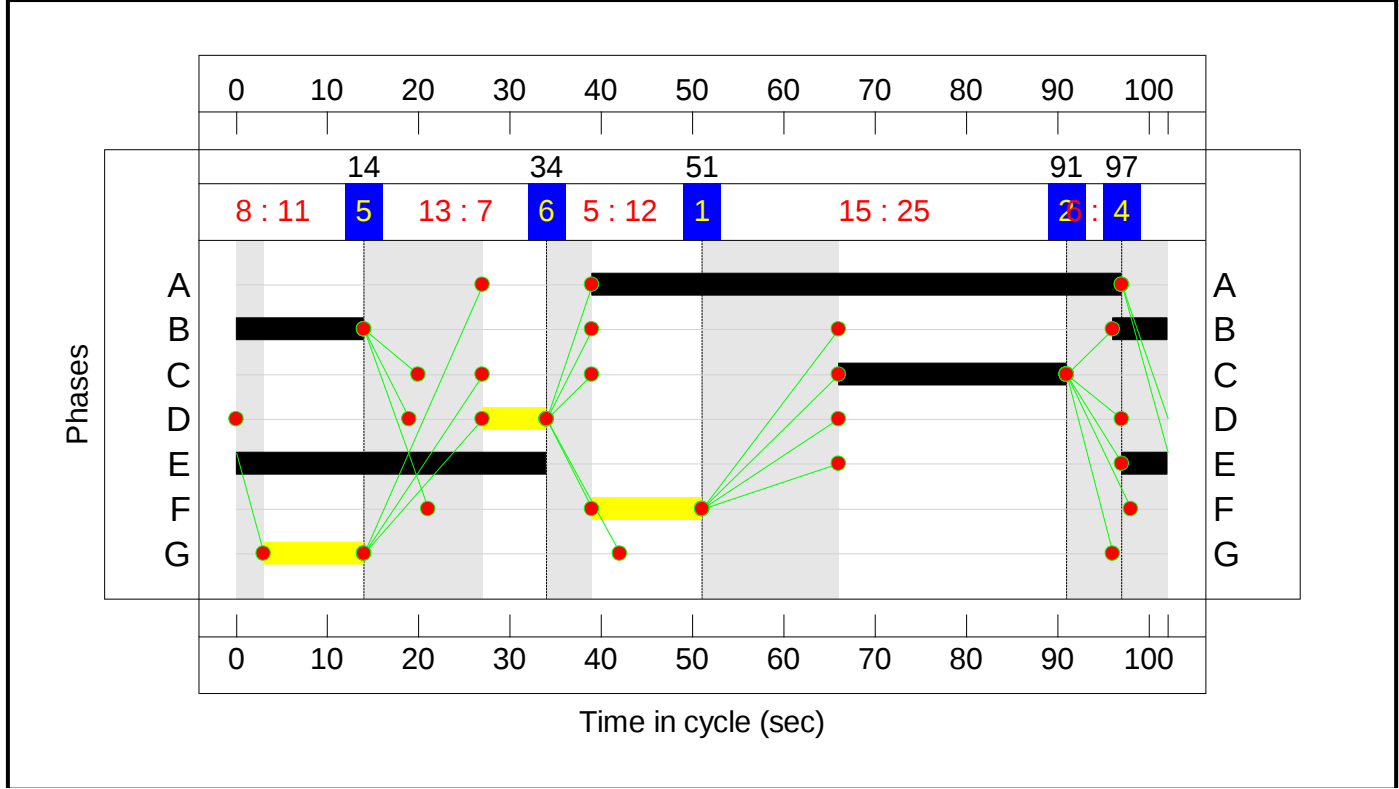
Stage Sequence Diagram



Stage Timings

Stage	1	2	4	5	6
Duration	25	0	11	7	12
Change Point	51	91	97	14	34

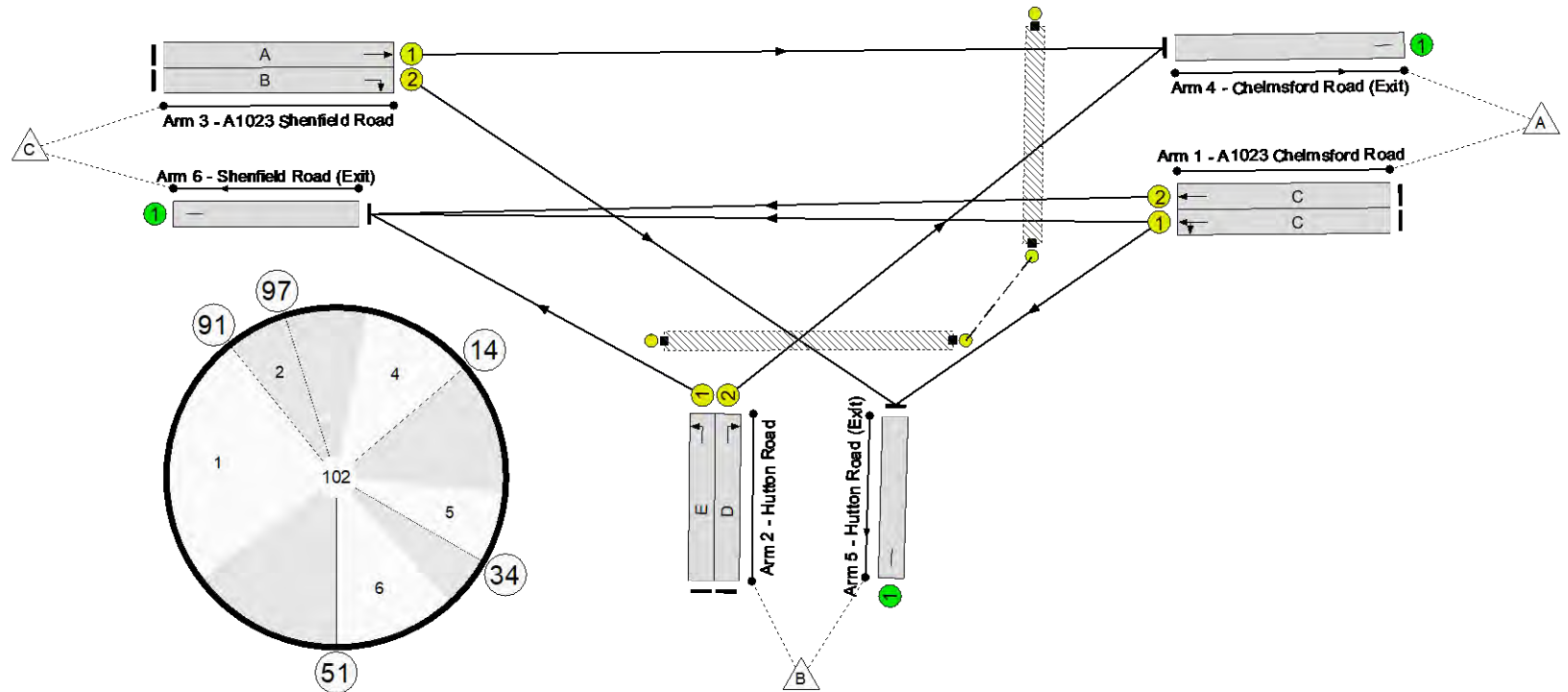
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A 1023 Chelmsford Rd_Hutton Rd_Shenfield Rd
PRC: 16.5 %
Total Traffic Delay: 24.1 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



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: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	77.2%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	77.2%
1/1	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		1	25	-	381	1940	495	77.0%
1/2	A1023 Chelmsford Road Ahead	U	N/A	N/A	C		1	25	-	382	1940	495	77.2%
2/1	Hutton Road Left	U	N/A	N/A	E		1	39	-	244	1940	761	32.1%
2/2	Hutton Road Right	U	N/A	N/A	D		1	7	-	85	1940	152	55.9%
3/1	A1023 Shenfield Road Ahead	U	N/A	N/A	A		1	58	-	680	1940	1122	60.6%
3/2	A1023 Shenfield Road Right	U	N/A	N/A	B		1	20	-	292	1940	399	73.1%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	765	1940	1940	39.4%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	387	1940	1940	19.9%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	912	1940	1940	47.0%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

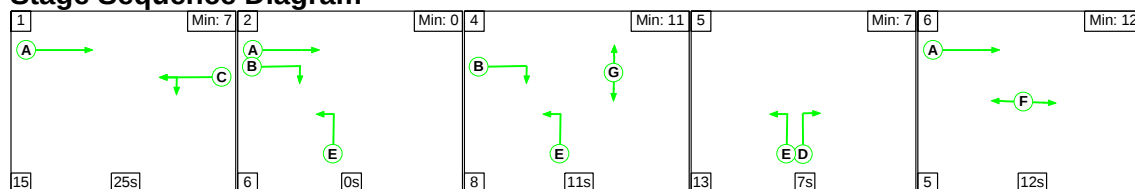
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Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shenfield	-	-	0	0	0	17.0	7.1	0.0	24.1	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	17.0	7.1	0.0	24.1	-	-	-	-
1/1	381	381	-	-	-	3.7	1.6	-	5.4	50.7	9.9	1.6	11.6
1/2	382	382	-	-	-	3.7	1.6	-	5.4	50.8	10.0	1.6	11.6
2/1	244	244	-	-	-	1.5	0.2	-	1.7	25.0	4.7	0.2	5.0
2/2	85	85	-	-	-	1.1	0.6	-	1.7	71.6	2.3	0.6	2.9
3/1	680	680	-	-	-	2.6	0.8	-	3.4	18.0	12.5	0.8	13.2
3/2	292	292	-	-	-	3.1	1.3	-	4.4	54.2	7.7	1.3	9.0
4/1	765	765	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
5/1	387	387	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
6/1	912	912	-	-	-	1.3	0.4	-	1.7	6.9	23.4	0.4	23.9
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 16.5 Total Delay for Signalled Lanes (pcuHr): 21.94 Cycle Time (s): 102 PRC Over All Lanes (%): 16.5 Total Delay Over All Lanes(pcuHr): 24.13													

Full Input Data And Results

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

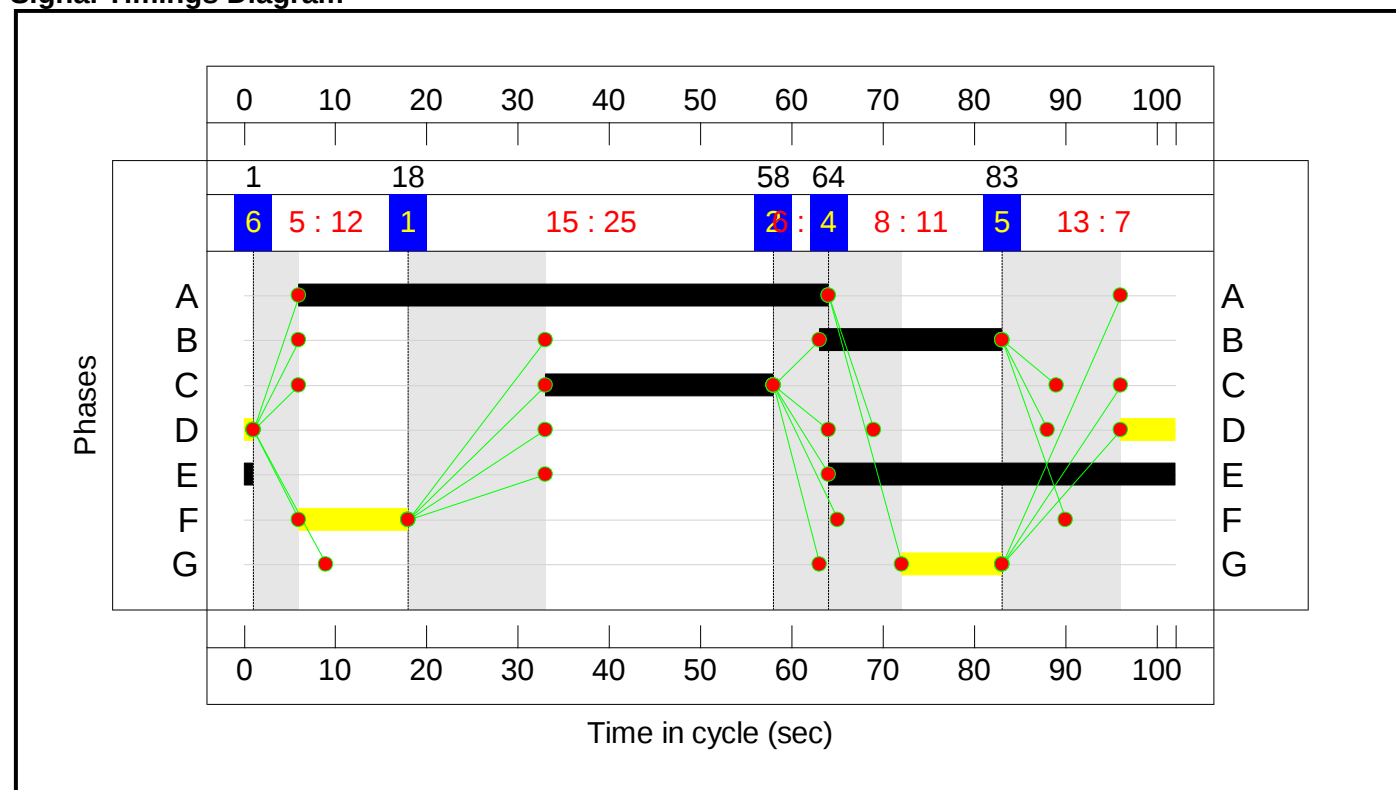
Stage Sequence Diagram



Stage Timings

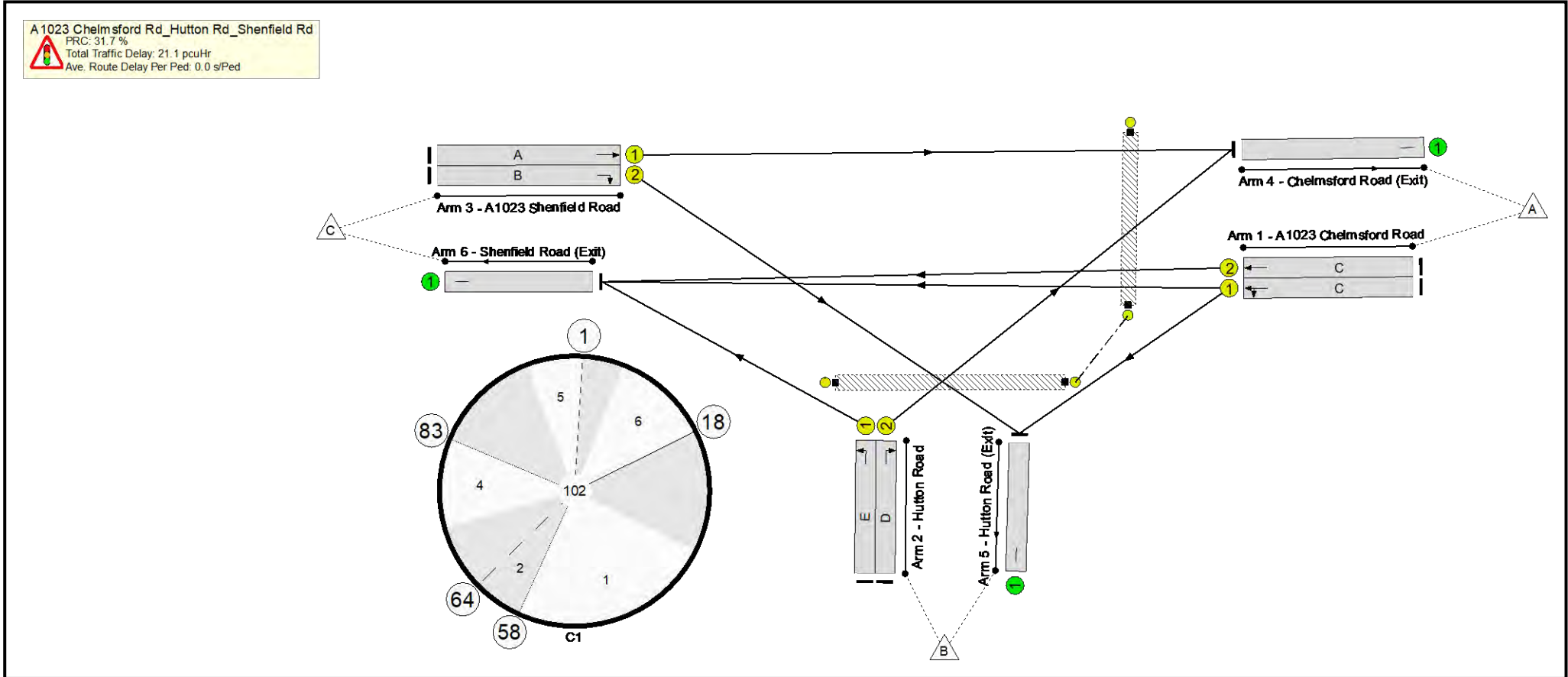
Stage	1	2	4	5	6
Duration	25	0	11	7	12
Change Point	18	58	64	83	1

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: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	68.4%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	68.4%
1/1	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		1	25	-	327	1940	495	66.1%
1/2	A1023 Chelmsford Road Ahead	U	N/A	N/A	C		1	25	-	327	1940	495	66.1%
2/1	Hutton Road Left	U	N/A	N/A	E		1	39	-	302	1940	761	39.7%
2/2	Hutton Road Right	U	N/A	N/A	D		1	7	-	84	1940	152	55.2%
3/1	A1023 Shenfield Road Ahead	U	N/A	N/A	A		1	58	-	692	1940	1122	61.7%
3/2	A1023 Shenfield Road Right	U	N/A	N/A	B		1	20	-	273	1940	399	68.4%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	776	1940	1940	40.0%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	336	1940	1940	17.3%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	893	1940	1940	46.0%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

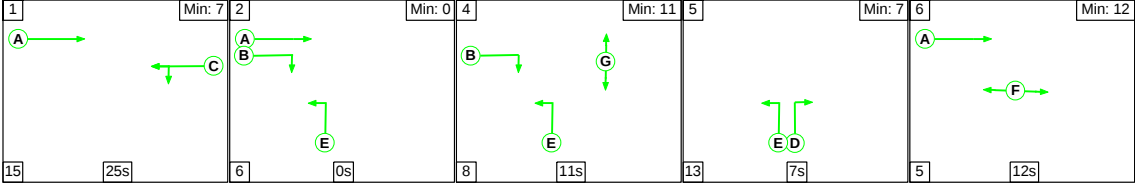
[illegible]

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shenfield	-	-	0	0	0	15.5	5.6	0.0	21.1	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	15.5	5.6	0.0	21.1	-	-	-	-
1/1	327	327	-	-	-	3.1	1.0	-	4.1	44.7	8.3	1.0	9.2
1/2	327	327	-	-	-	3.1	1.0	-	4.1	44.7	8.3	1.0	9.2
2/1	302	302	-	-	-	1.9	0.3	-	2.2	26.2	6.1	0.3	6.5
2/2	84	84	-	-	-	1.1	0.6	-	1.7	71.2	2.3	0.6	2.9
3/1	692	692	-	-	-	2.7	0.8	-	3.5	18.3	12.7	0.8	13.5
3/2	273	273	-	-	-	2.8	1.1	-	3.9	51.4	7.1	1.1	8.2
4/1	776	776	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
5/1	336	336	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	893	893	-	-	-	0.9	0.4	-	1.3	5.2	16.3	0.4	16.7
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 31.7 Total Delay for Signalled Lanes (pcuHr): 19.39 Cycle Time (s): 102 PRC Over All Lanes (%): 31.7 Total Delay Over All Lanes(pcuHr): 21.13													

Full Input Data And Results

Scenario 3: '2027 Base AM Peak' (FG3: '2027 Base AM Peak', Plan 1: 'Network Control Plan 1')

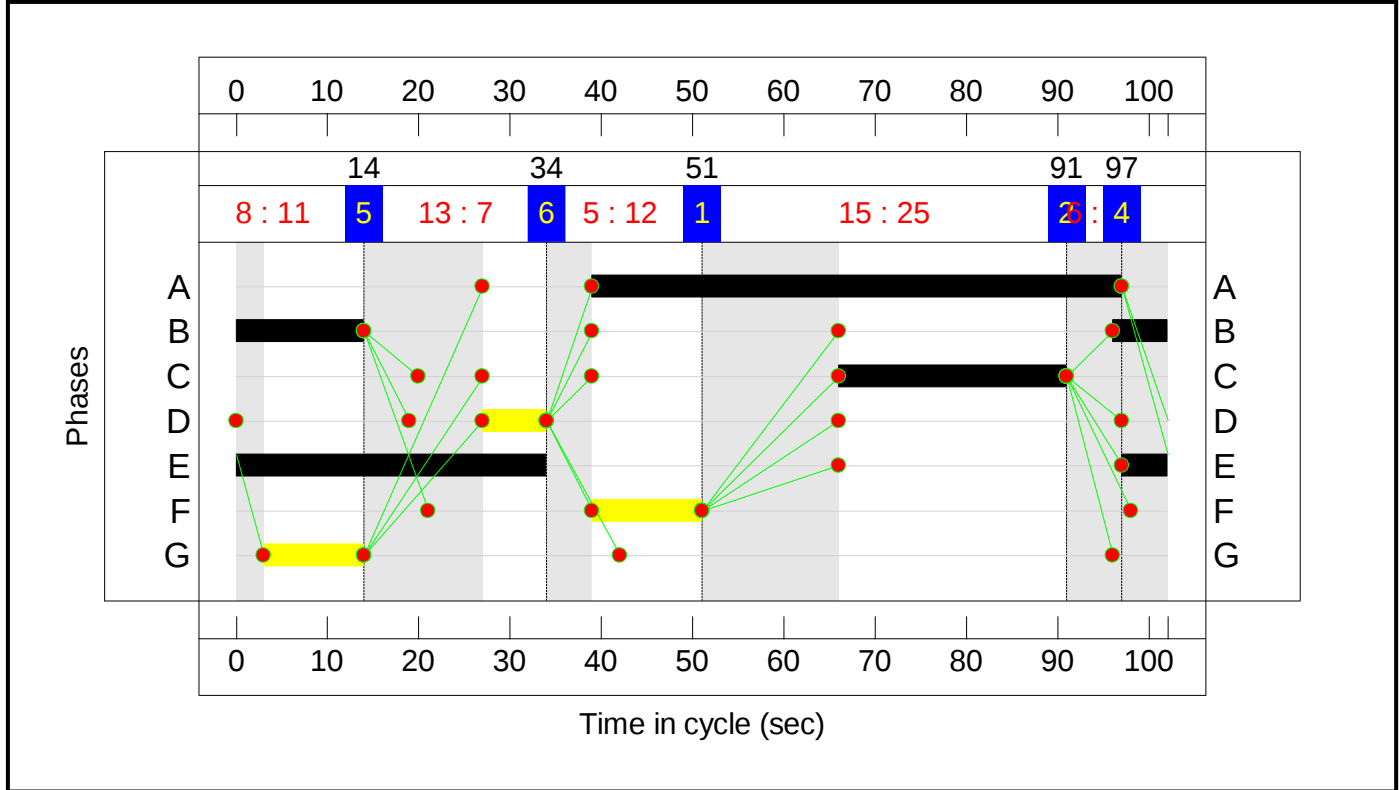
Stage Sequence Diagram



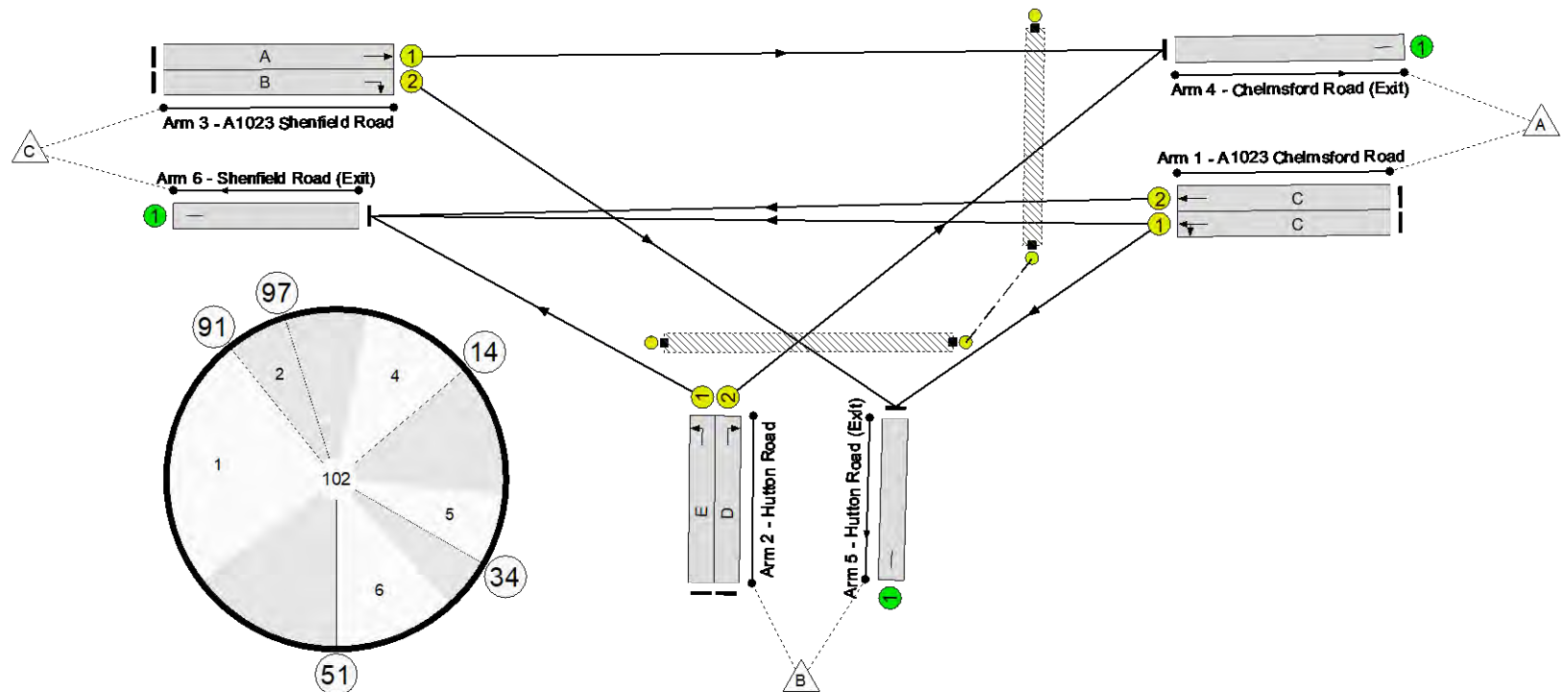
Stage Timings

Stage	1	2	4	5	6
Duration	25	0	11	7	12
Change Point	51	91	97	14	34

Signal Timings Diagram



Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	77.2%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	77.2%
1/1	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		1	25	-	381	1940	495	77.0%
1/2	A1023 Chelmsford Road Ahead	U	N/A	N/A	C		1	25	-	382	1940	495	77.2%
2/1	Hutton Road Left	U	N/A	N/A	E		1	39	-	244	1940	761	32.1%
2/2	Hutton Road Right	U	N/A	N/A	D		1	7	-	85	1940	152	55.9%
3/1	A1023 Shenfield Road Ahead	U	N/A	N/A	A		1	58	-	680	1940	1122	60.6%
3/2	A1023 Shenfield Road Right	U	N/A	N/A	B		1	20	-	292	1940	399	73.1%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	765	1940	1940	39.4%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	387	1940	1940	19.9%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	912	1940	1940	47.0%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

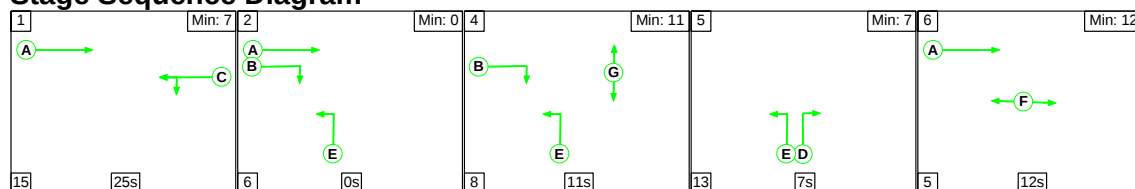
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shenfield	-	-	0	0	0	17.0	7.1	0.0	24.1	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	17.0	7.1	0.0	24.1	-	-	-	-
1/1	381	381	-	-	-	3.7	1.6	-	5.4	50.7	9.9	1.6	11.6
1/2	382	382	-	-	-	3.7	1.6	-	5.4	50.8	10.0	1.6	11.6
2/1	244	244	-	-	-	1.5	0.2	-	1.7	25.0	4.7	0.2	5.0
2/2	85	85	-	-	-	1.1	0.6	-	1.7	71.6	2.3	0.6	2.9
3/1	680	680	-	-	-	2.6	0.8	-	3.4	18.0	12.5	0.8	13.2
3/2	292	292	-	-	-	3.1	1.3	-	4.4	54.2	7.7	1.3	9.0
4/1	765	765	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
5/1	387	387	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
6/1	912	912	-	-	-	1.3	0.4	-	1.7	6.9	23.4	0.4	23.9
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1	PRC for Signalled Lanes (%): PRC Over All Lanes (%):				16.5 16.5	Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):			21.94 24.13	Cycle Time (s): 102			

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: Shenfield	-	-	0	0	0	17.0	7.1	0.0	24.1	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	17.0	7.1	0.0	24.1	-	-	-	-
1/1	381	381	-	-	-	3.7	1.6	-	5.4	50.7	9.9	1.6	11.6
1/2	382	382	-	-	-	3.7	1.6	-	5.4	50.8	10.0	1.6	11.6
2/1	244	244	-	-	-	1.5	0.2	-	1.7	25.0	4.7	0.2	5.0
2/2	85	85	-	-	-	1.1	0.6	-	1.7	71.6	2.3	0.6	2.9
3/1	680	680	-	-	-	2.6	0.8	-	3.4	18.0	12.5	0.8	13.2
3/2	292	292	-	-	-	3.1	1.3	-	4.4	54.2	7.7	1.3	9.0
4/1	765	765	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
5/1	387	387	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
6/1	912	912	-	-	-	1.3	0.4	-	1.7	6.9	23.4	0.4	23.9
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 16.5 Total Delay for Signalled Lanes (pcuHr): 21.94 Cycle Time (s): 102 PRC Over All Lanes (%): 16.5 Total Delay Over All Lanes(pcuHr): 24.13													

Full Input Data And Results

Scenario 4: '2027 Base PM Peak' (FG4: '2027 Base PM Peak', Plan 1: 'Network Control Plan 1')

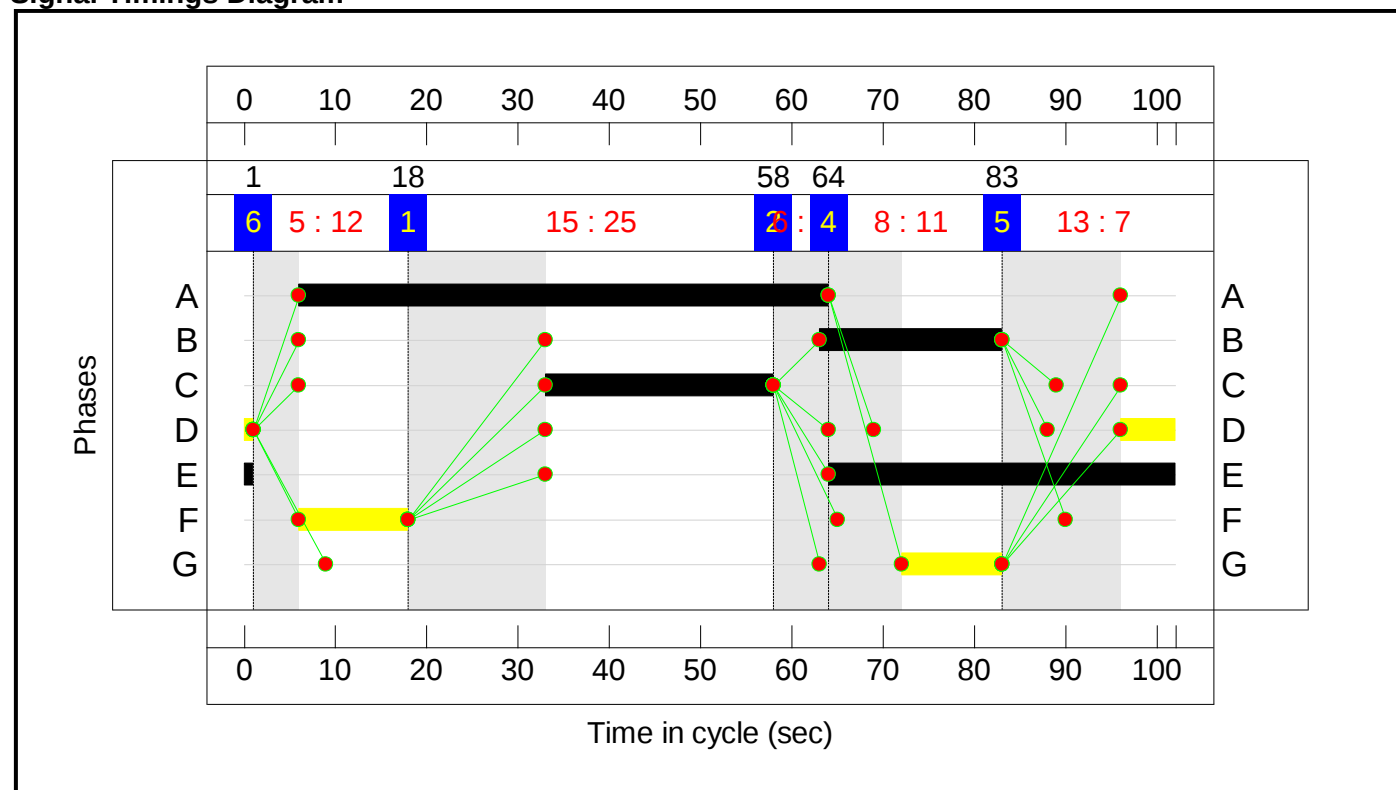
Stage Sequence Diagram



Stage Timings

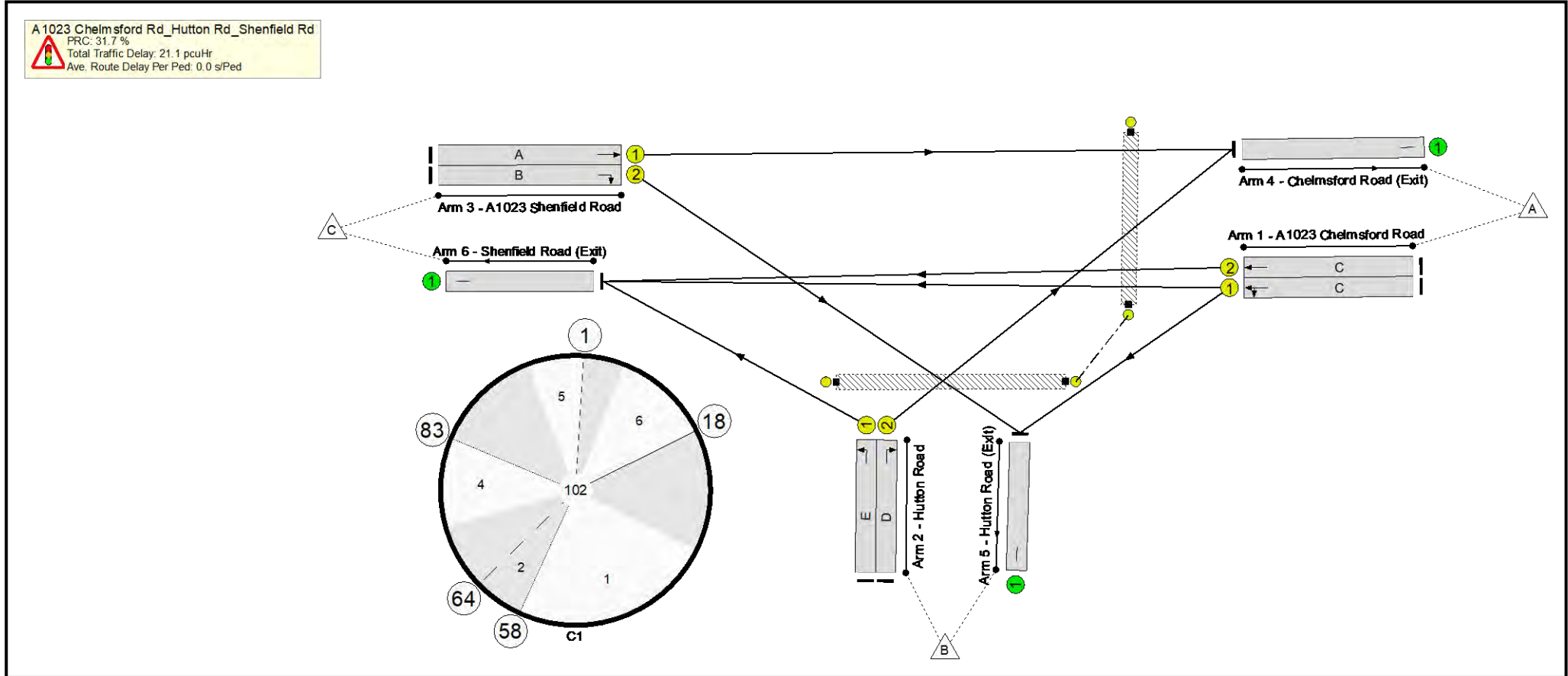
Stage	1	2	4	5	6
Duration	25	0	11	7	12
Change Point	18	58	64	83	1

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: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	68.4%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	68.4%
1/1	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		1	25	-	327	1940	495	66.1%
1/2	A1023 Chelmsford Road Ahead	U	N/A	N/A	C		1	25	-	327	1940	495	66.1%
2/1	Hutton Road Left	U	N/A	N/A	E		1	39	-	302	1940	761	39.7%
2/2	Hutton Road Right	U	N/A	N/A	D		1	7	-	84	1940	152	55.2%
3/1	A1023 Shenfield Road Ahead	U	N/A	N/A	A		1	58	-	692	1940	1122	61.7%
3/2	A1023 Shenfield Road Right	U	N/A	N/A	B		1	20	-	273	1940	399	68.4%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	776	1940	1940	40.0%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	336	1940	1940	17.3%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	893	1940	1940	46.0%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

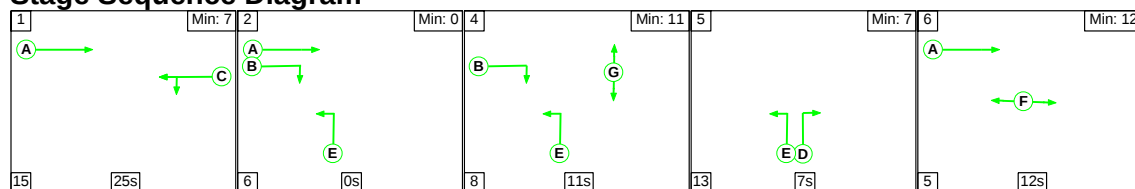
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shenfield	-	-	0	0	0	15.5	5.6	0.0	21.1	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	15.5	5.6	0.0	21.1	-	-	-	-
1/1	327	327	-	-	-	3.1	1.0	-	4.1	44.7	8.3	1.0	9.2
1/2	327	327	-	-	-	3.1	1.0	-	4.1	44.7	8.3	1.0	9.2
2/1	302	302	-	-	-	1.9	0.3	-	2.2	26.2	6.1	0.3	6.5
2/2	84	84	-	-	-	1.1	0.6	-	1.7	71.2	2.3	0.6	2.9
3/1	692	692	-	-	-	2.7	0.8	-	3.5	18.3	12.7	0.8	13.5
3/2	273	273	-	-	-	2.8	1.1	-	3.9	51.4	7.1	1.1	8.2
4/1	776	776	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
5/1	336	336	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	893	893	-	-	-	0.9	0.4	-	1.3	5.2	16.3	0.4	16.7
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 31.7 Total Delay for Signalled Lanes (pcuHr): 19.39 Cycle Time (s): 102 PRC Over All Lanes (%): 31.7 Total Delay Over All Lanes(pcuHr): 21.13													

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: Shenfield	-	-	0	0	0	15.5	5.6	0.0	21.1	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	15.5	5.6	0.0	21.1	-	-	-	-
1/1	327	327	-	-	-	3.1	1.0	-	4.1	44.7	8.3	1.0	9.2
1/2	327	327	-	-	-	3.1	1.0	-	4.1	44.7	8.3	1.0	9.2
2/1	302	302	-	-	-	1.9	0.3	-	2.2	26.2	6.1	0.3	6.5
2/2	84	84	-	-	-	1.1	0.6	-	1.7	71.2	2.3	0.6	2.9
3/1	692	692	-	-	-	2.7	0.8	-	3.5	18.3	12.7	0.8	13.5
3/2	273	273	-	-	-	2.8	1.1	-	3.9	51.4	7.1	1.1	8.2
4/1	776	776	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
5/1	336	336	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	893	893	-	-	-	0.9	0.4	-	1.3	5.2	16.3	0.4	16.7
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 31.7 Total Delay for Signalled Lanes (pcuHr): 19.39 Cycle Time (s): 102 PRC Over All Lanes (%): 31.7 Total Delay Over All Lanes(pcuHr): 21.13													

Full Input Data And Results

Scenario 5: '2027 Base + Committed AM Peak' (FG5: '2027 Base + Committed AM Peak', Plan 1: 'Network Control Plan 1')

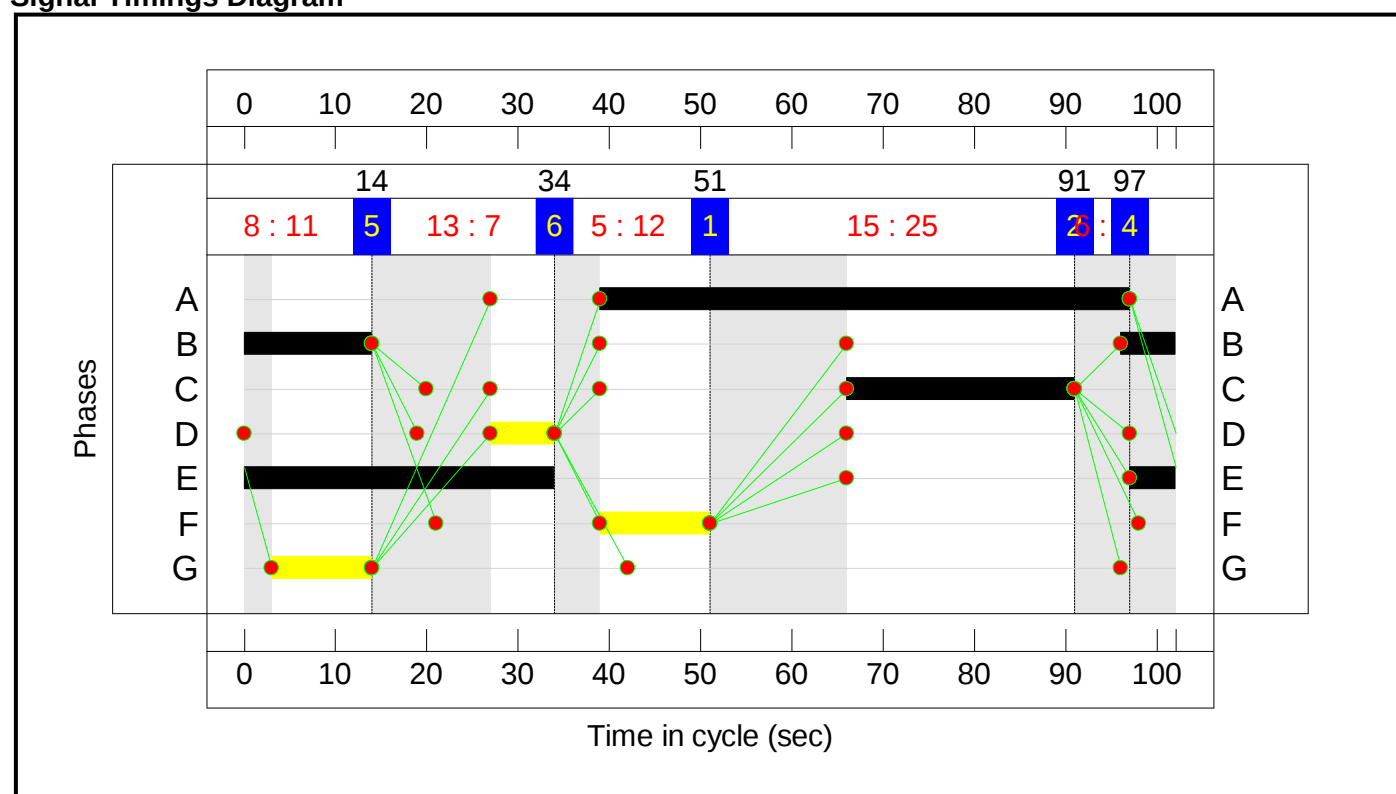
Stage Sequence Diagram



Stage Timings

Stage	1	2	4	5	6
Duration	25	0	11	7	12
Change Point	51	91	97	14	34

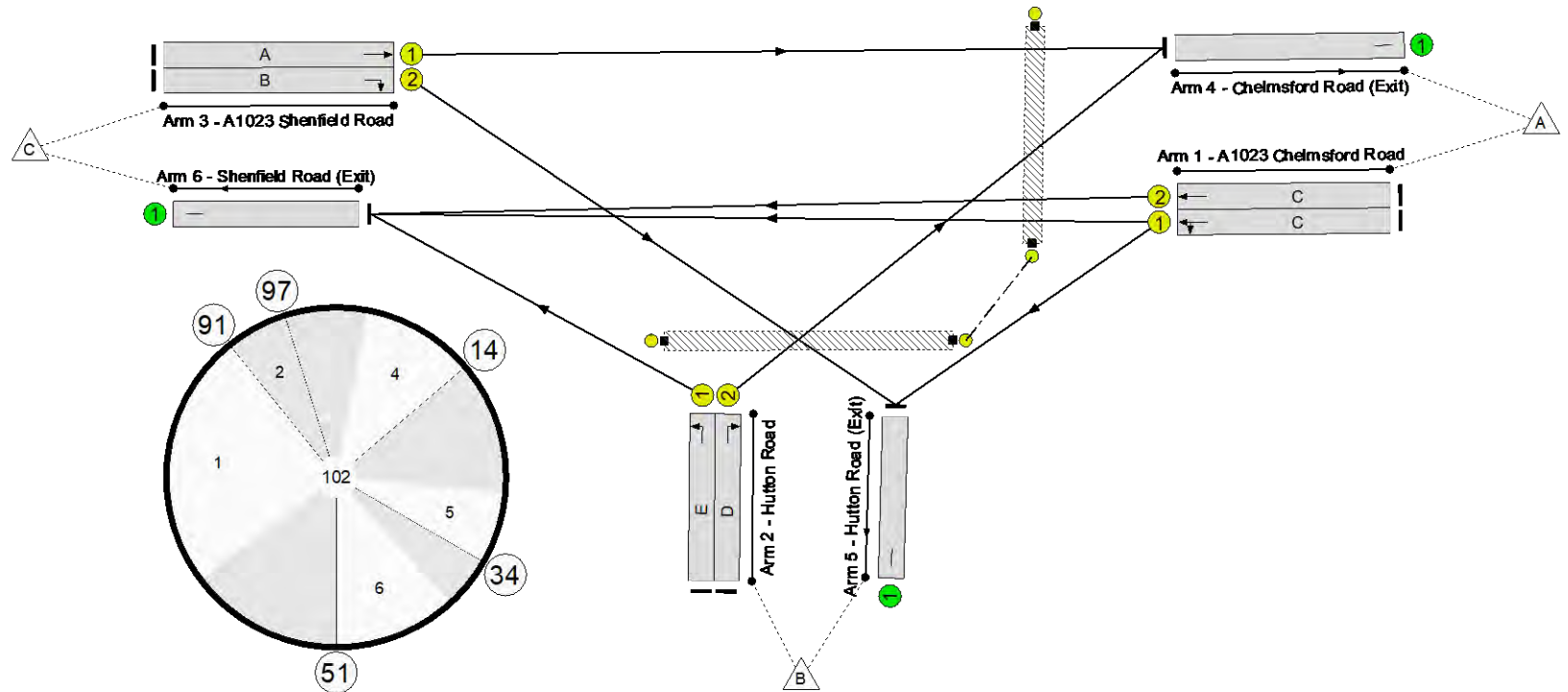
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A 1023 Chelmsford Rd_Hutton Rd_Shenfield Rd
PRC: 8.6 %
Total Traffic Delay: 26.8 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



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: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	82.9%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	82.9%
1/1	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		1	25	-	409	1940	495	82.7%
1/2	A1023 Chelmsford Road Ahead	U	N/A	N/A	C		1	25	-	410	1940	495	82.9%
2/1	Hutton Road Left	U	N/A	N/A	E		1	39	-	244	1940	761	32.1%
2/2	Hutton Road Right	U	N/A	N/A	D		1	7	-	89	1940	152	58.5%
3/1	A1023 Shenfield Road Ahead	U	N/A	N/A	A		1	58	-	701	1940	1122	62.5%
3/2	A1023 Shenfield Road Right	U	N/A	N/A	B		1	20	-	292	1940	399	73.1%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	790	1940	1940	40.7%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	396	1940	1940	20.4%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	959	1940	1940	49.4%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

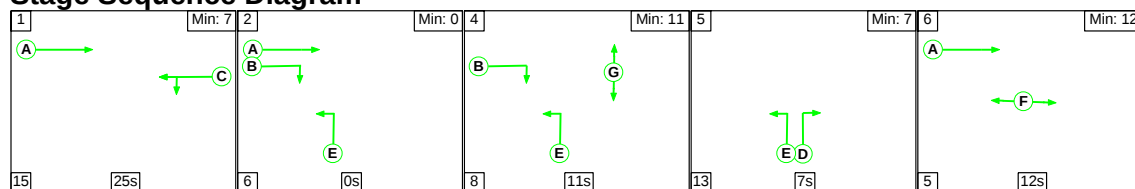
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shenfield	-	-	0	0	0	18.2	8.6	0.0	26.8	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	18.2	8.6	0.0	26.8	-	-	-	-
1/1	409	409	-	-	-	4.1	2.3	-	6.3	55.9	10.9	2.3	13.2
1/2	410	410	-	-	-	4.1	2.3	-	6.4	56.1	10.9	2.3	13.2
2/1	244	244	-	-	-	1.5	0.2	-	1.7	25.0	4.7	0.2	5.0
2/2	89	89	-	-	-	1.1	0.7	-	1.8	73.3	2.4	0.7	3.1
3/1	701	701	-	-	-	2.8	0.8	-	3.6	18.5	13.0	0.8	13.9
3/2	292	292	-	-	-	3.1	1.3	-	4.4	54.2	7.7	1.3	9.0
4/1	790	790	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
5/1	396	396	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
6/1	959	959	-	-	-	1.6	0.5	-	2.1	7.9	25.0	0.5	25.5
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 8.6 Total Delay for Signalled Lanes (pcuHr): 24.24 Cycle Time (s): 102 PRC Over All Lanes (%): 8.6 Total Delay Over All Lanes(pcuHr): 26.81													

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: Shenfield	-	-	0	0	0	18.2	8.6	0.0	26.8	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	18.2	8.6	0.0	26.8	-	-	-	-
1/1	409	409	-	-	-	4.1	2.3	-	6.3	55.9	10.9	2.3	13.2
1/2	410	410	-	-	-	4.1	2.3	-	6.4	56.1	10.9	2.3	13.2
2/1	244	244	-	-	-	1.5	0.2	-	1.7	25.0	4.7	0.2	5.0
2/2	89	89	-	-	-	1.1	0.7	-	1.8	73.3	2.4	0.7	3.1
3/1	701	701	-	-	-	2.8	0.8	-	3.6	18.5	13.0	0.8	13.9
3/2	292	292	-	-	-	3.1	1.3	-	4.4	54.2	7.7	1.3	9.0
4/1	790	790	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
5/1	396	396	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
6/1	959	959	-	-	-	1.6	0.5	-	2.1	7.9	25.0	0.5	25.5
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 8.6 Total Delay for Signalled Lanes (pcuHr): 24.24 Cycle Time (s): 102 PRC Over All Lanes (%): 8.6 Total Delay Over All Lanes(pcuHr): 26.81													

Full Input Data And Results

Scenario 6: '2027 Base + Committed PM Peak' (FG6: '2027 Base + Committed PM Peak', Plan 1: 'Network Control Plan 1')

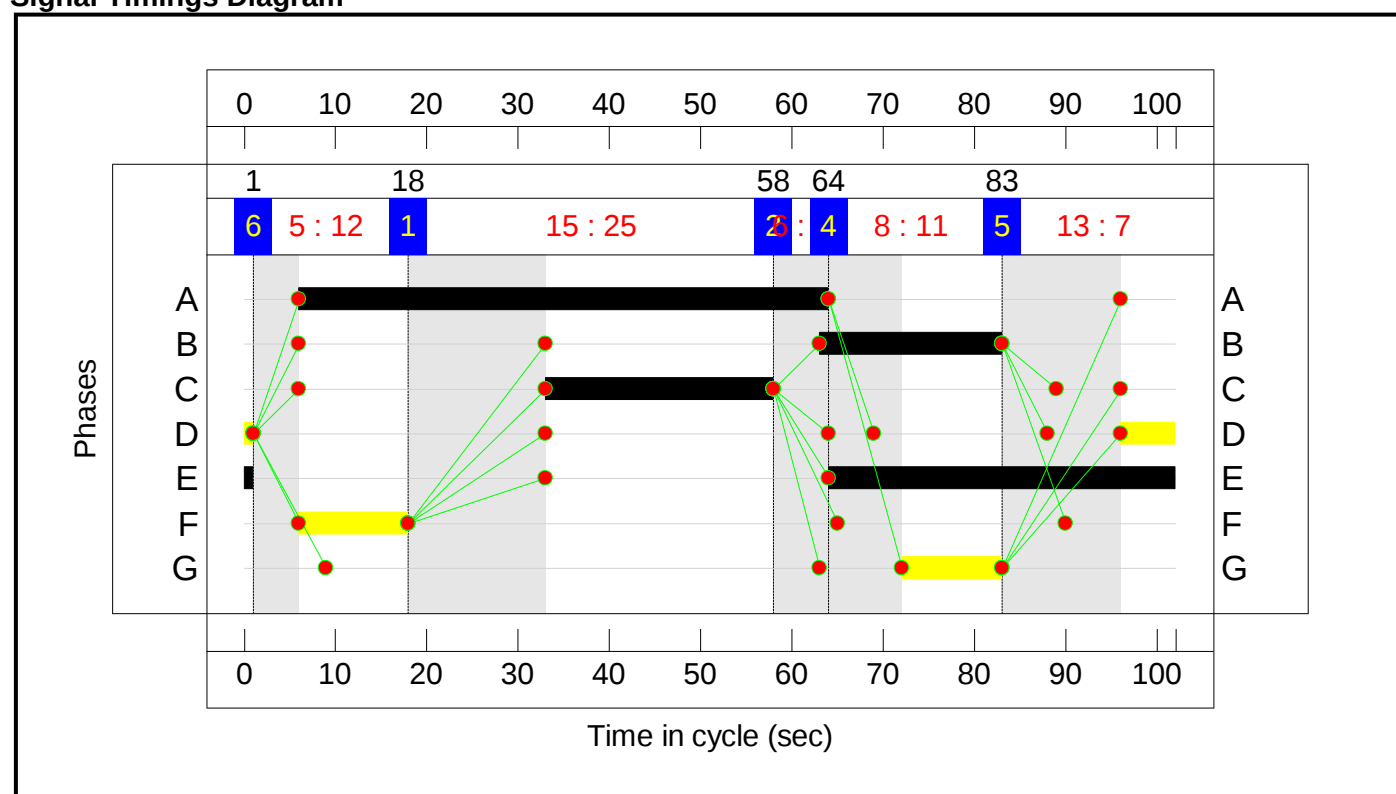
Stage Sequence Diagram



Stage Timings

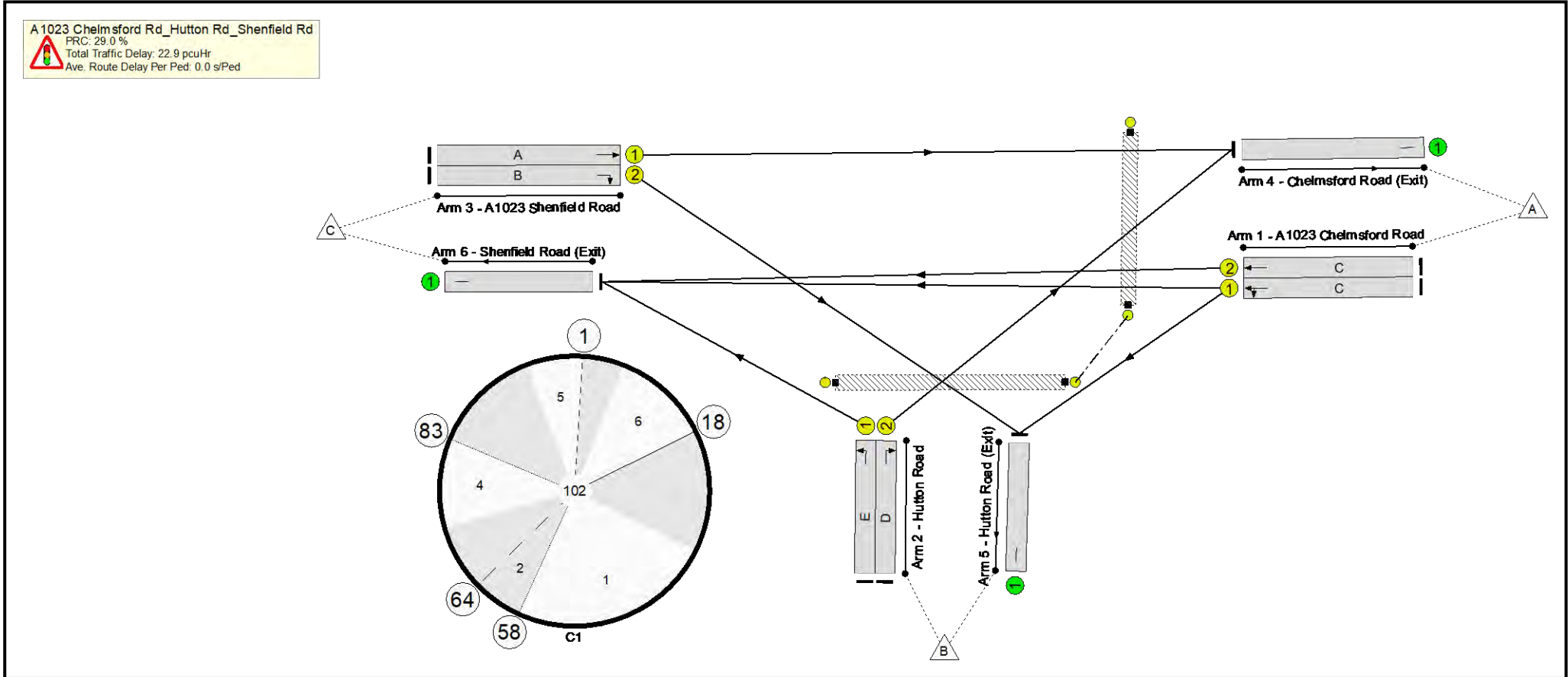
Stage	1	2	4	5	6
Duration	25	0	11	7	12
Change Point	18	58	64	83	1

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

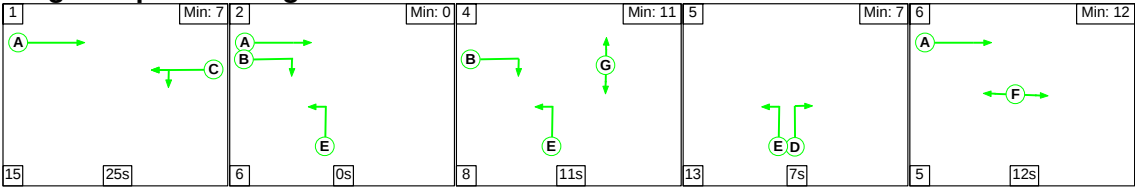
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	69.8%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	69.8%
1/1	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		1	25	-	345	1940	495	69.8%
1/2	A1023 Chelmsford Road Ahead	U	N/A	N/A	C		1	25	-	345	1940	495	69.8%
2/1	Hutton Road Left	U	N/A	N/A	E		1	39	-	302	1940	761	39.7%
2/2	Hutton Road Right	U	N/A	N/A	D		1	7	-	94	1940	152	61.8%
3/1	A1023 Shenfield Road Ahead	U	N/A	N/A	A		1	58	-	745	1940	1122	66.4%
3/2	A1023 Shenfield Road Right	U	N/A	N/A	B		1	20	-	273	1940	399	68.4%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	839	1940	1940	43.2%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	342	1940	1940	17.6%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	923	1940	1940	47.6%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shenfield	-	-	0	0	0	16.6	6.4	0.0	22.9	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	16.6	6.4	0.0	22.9	-	-	-	-
1/1	345	345	-	-	-	3.3	1.1	-	4.4	46.3	8.8	1.1	10.0
1/2	345	345	-	-	-	3.3	1.1	-	4.4	46.3	8.8	1.1	10.0
2/1	302	302	-	-	-	1.9	0.3	-	2.2	26.2	6.1	0.3	6.5
2/2	94	94	-	-	-	1.2	0.8	-	2.0	75.7	2.6	0.8	3.3
3/1	745	745	-	-	-	3.0	1.0	-	4.0	19.5	14.3	1.0	15.3
3/2	273	273	-	-	-	2.8	1.1	-	3.9	51.4	7.1	1.1	8.2
4/1	839	839	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
5/1	342	342	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	923	923	-	-	-	1.0	0.5	-	1.5	5.8	22.8	0.5	23.2
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 29.0 Total Delay for Signalled Lanes (pcuHr): 20.98 Cycle Time (s): 102 PRC Over All Lanes (%): 29.0 Total Delay Over All Lanes(pcuHr): 22.95													

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: Shenfield	-	-	0	0	0	16.6	6.4	0.0	22.9	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	16.6	6.4	0.0	22.9	-	-	-	-
1/1	345	345	-	-	-	3.3	1.1	-	4.4	46.3	8.8	1.1	10.0
1/2	345	345	-	-	-	3.3	1.1	-	4.4	46.3	8.8	1.1	10.0
2/1	302	302	-	-	-	1.9	0.3	-	2.2	26.2	6.1	0.3	6.5
2/2	94	94	-	-	-	1.2	0.8	-	2.0	75.7	2.6	0.8	3.3
3/1	745	745	-	-	-	3.0	1.0	-	4.0	19.5	14.3	1.0	15.3
3/2	273	273	-	-	-	2.8	1.1	-	3.9	51.4	7.1	1.1	8.2
4/1	839	839	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
5/1	342	342	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	923	923	-	-	-	1.0	0.5	-	1.5	5.8	22.8	0.5	23.2
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 29.0 Total Delay for Signalled Lanes (pcuHr): 20.98 Cycle Time (s): 102 PRC Over All Lanes (%): 29.0 Total Delay Over All Lanes(pcuHr): 22.95													

Full Input Data And Results
Scenario 7: '2027 Base + Development AM Peak' (FG7: '2027 Base + Development AM Peak', Plan 1: 'Network Control Plan 1')

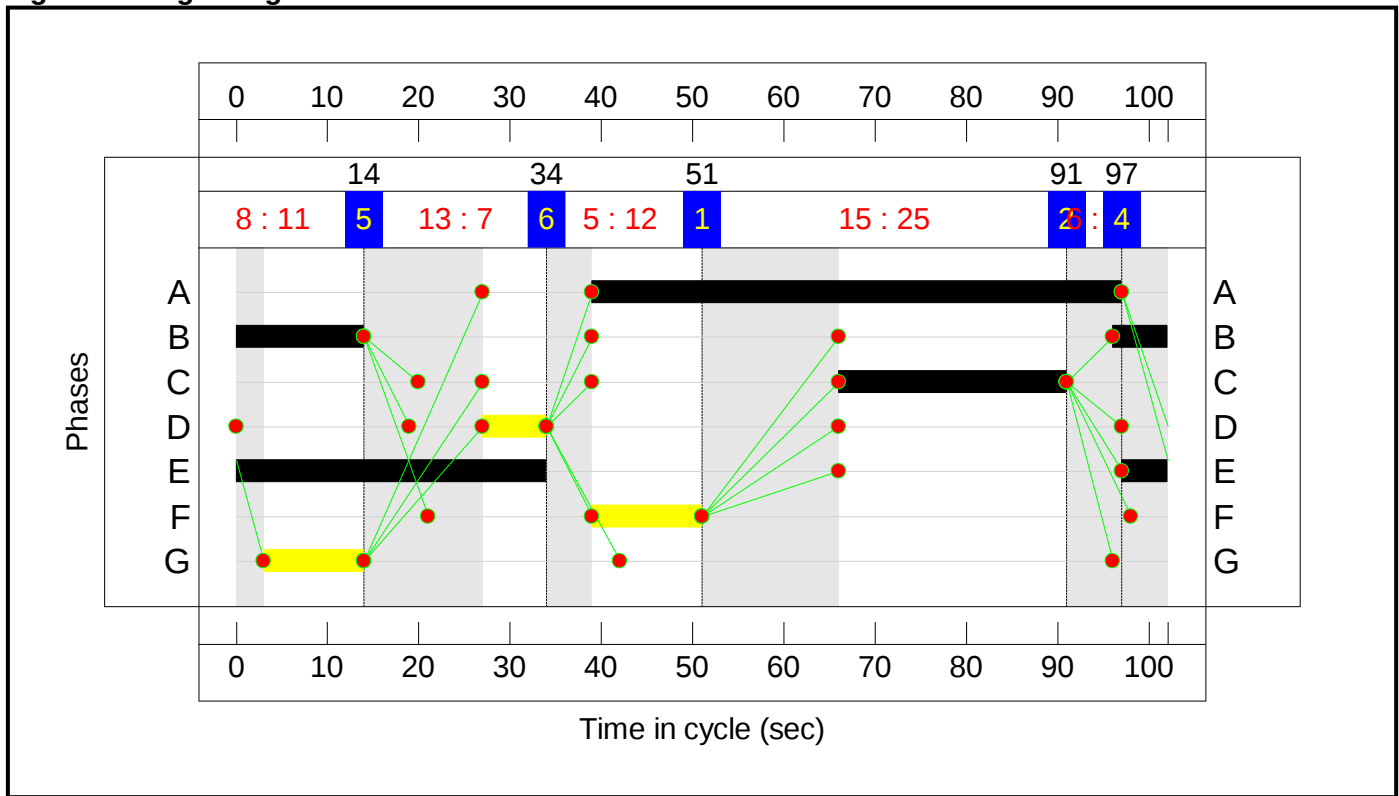
Stage Sequence Diagram



Stage Timings

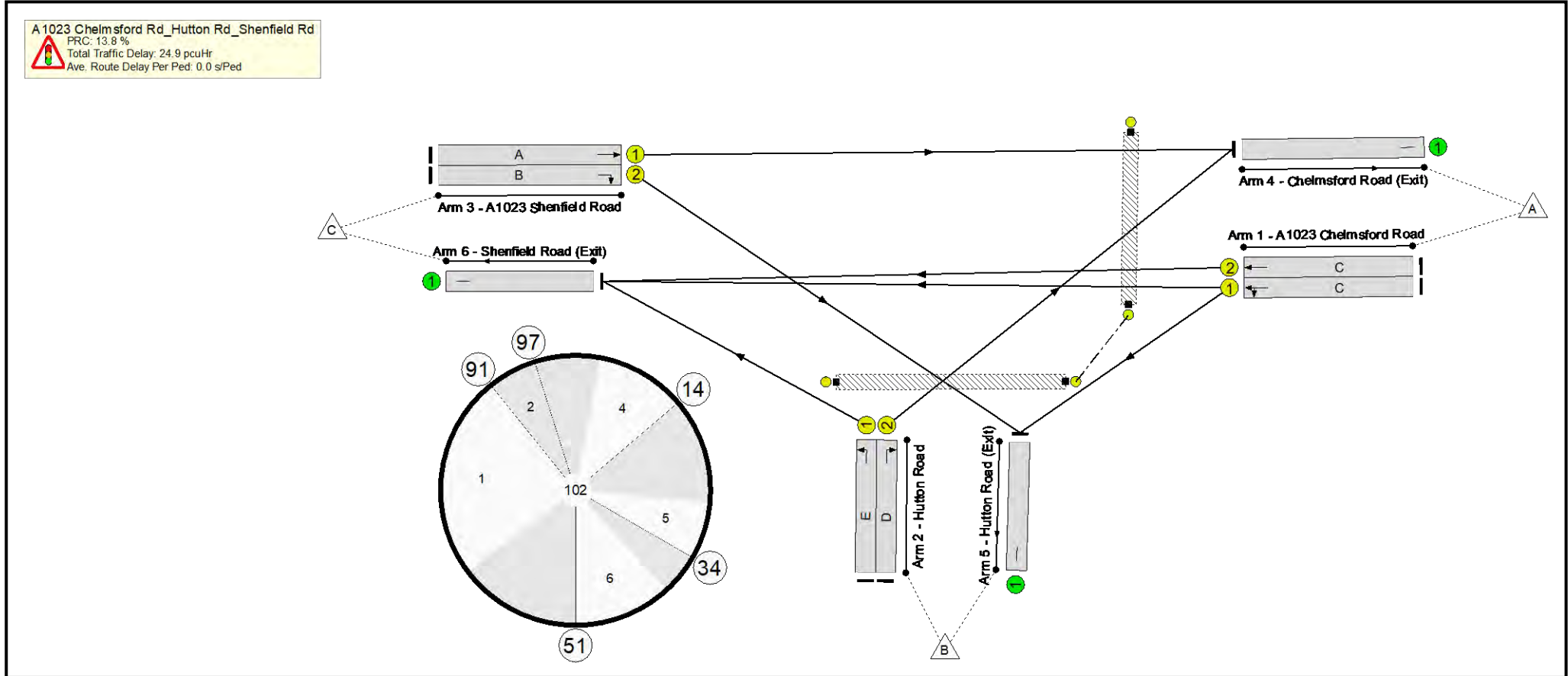
Stage	1	2	4	5	6
Duration	25	0	11	7	12
Change Point	51	91	97	14	34

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: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	79.1%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	79.1%
1/1	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		1	25	-	390	1940	495	78.9%
1/2	A1023 Chelmsford Road Ahead	U	N/A	N/A	C		1	25	-	391	1940	495	79.1%
2/1	Hutton Road Left	U	N/A	N/A	E		1	39	-	244	1940	761	32.1%
2/2	Hutton Road Right	U	N/A	N/A	D		1	7	-	86	1940	152	56.5%
3/1	A1023 Shenfield Road Ahead	U	N/A	N/A	A		1	58	-	684	1940	1122	61.0%
3/2	A1023 Shenfield Road Right	U	N/A	N/A	B		1	20	-	292	1940	399	73.1%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	770	1940	1940	39.7%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	390	1940	1940	20.1%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	927	1940	1940	47.8%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

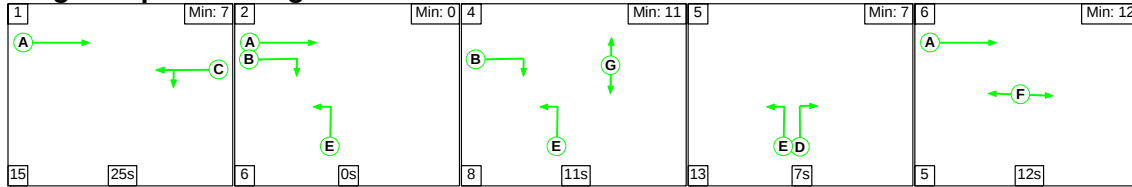
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Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shenfield	-	-	0	0	0	17.4	7.5	0.0	24.9	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	17.4	7.5	0.0	24.9	-	-	-	-
1/1	390	390	-	-	-	3.8	1.8	-	5.6	52.1	10.3	1.8	12.1
1/2	391	391	-	-	-	3.9	1.8	-	5.7	52.3	10.3	1.8	12.1
2/1	244	244	-	-	-	1.5	0.2	-	1.7	25.0	4.7	0.2	5.0
2/2	86	86	-	-	-	1.1	0.6	-	1.7	72.0	2.3	0.6	3.0
3/1	684	684	-	-	-	2.7	0.8	-	3.4	18.1	12.5	0.8	13.3
3/2	292	292	-	-	-	3.1	1.3	-	4.4	54.2	7.7	1.3	9.0
4/1	770	770	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
5/1	390	390	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
6/1	927	927	-	-	-	1.4	0.5	-	1.9	7.2	24.0	0.5	24.4
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 13.8 Total Delay for Signalled Lanes (pcuHr): 22.57 Cycle Time (s): 102 PRC Over All Lanes (%): 13.8 Total Delay Over All Lanes(pcuHr): 24.88													

Full Input Data And Results

Scenario 8: '2027 Base + Development PM Peak' (FG8: '2027 Base + Development PM Peak', Plan 1: 'Network Control Plan 1')

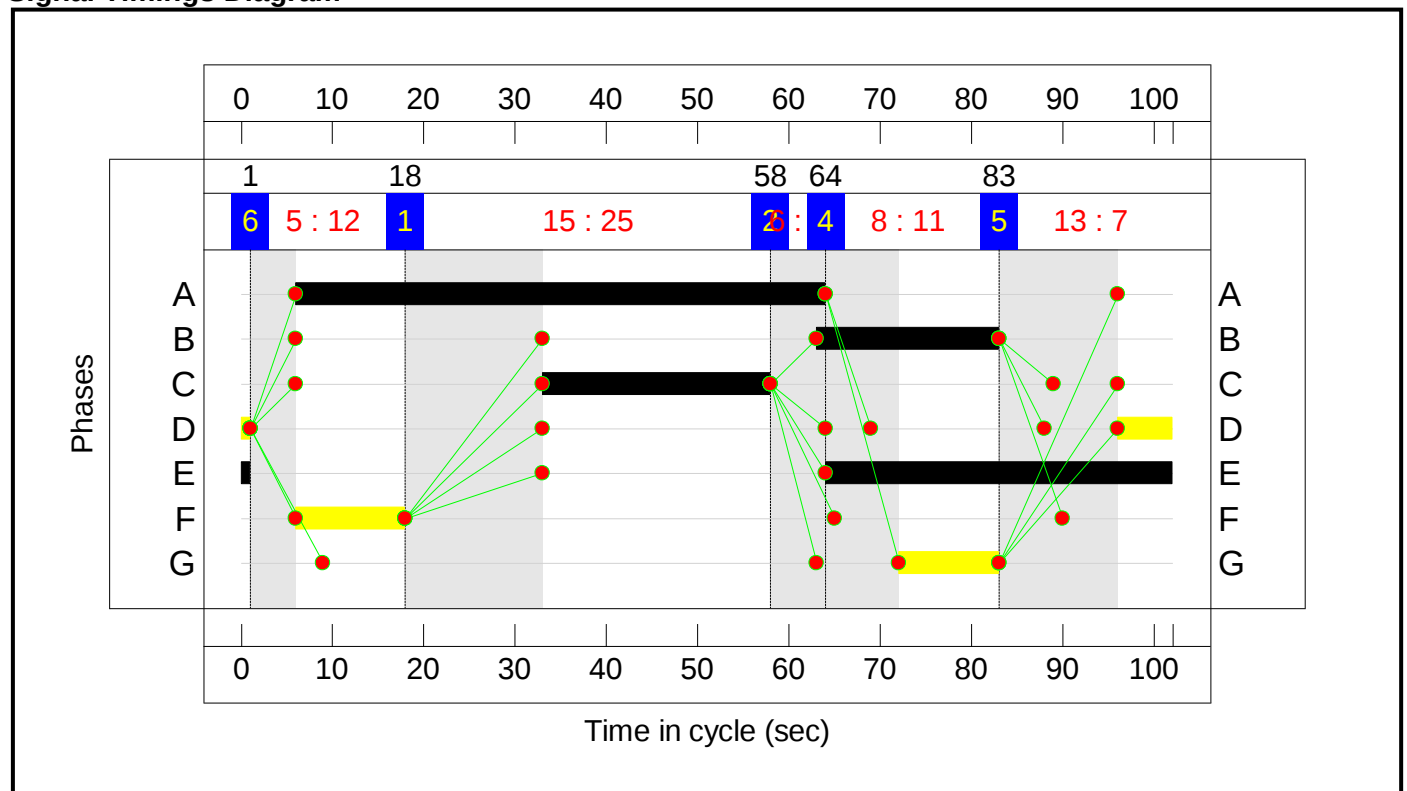
Stage Sequence Diagram



Stage Timings

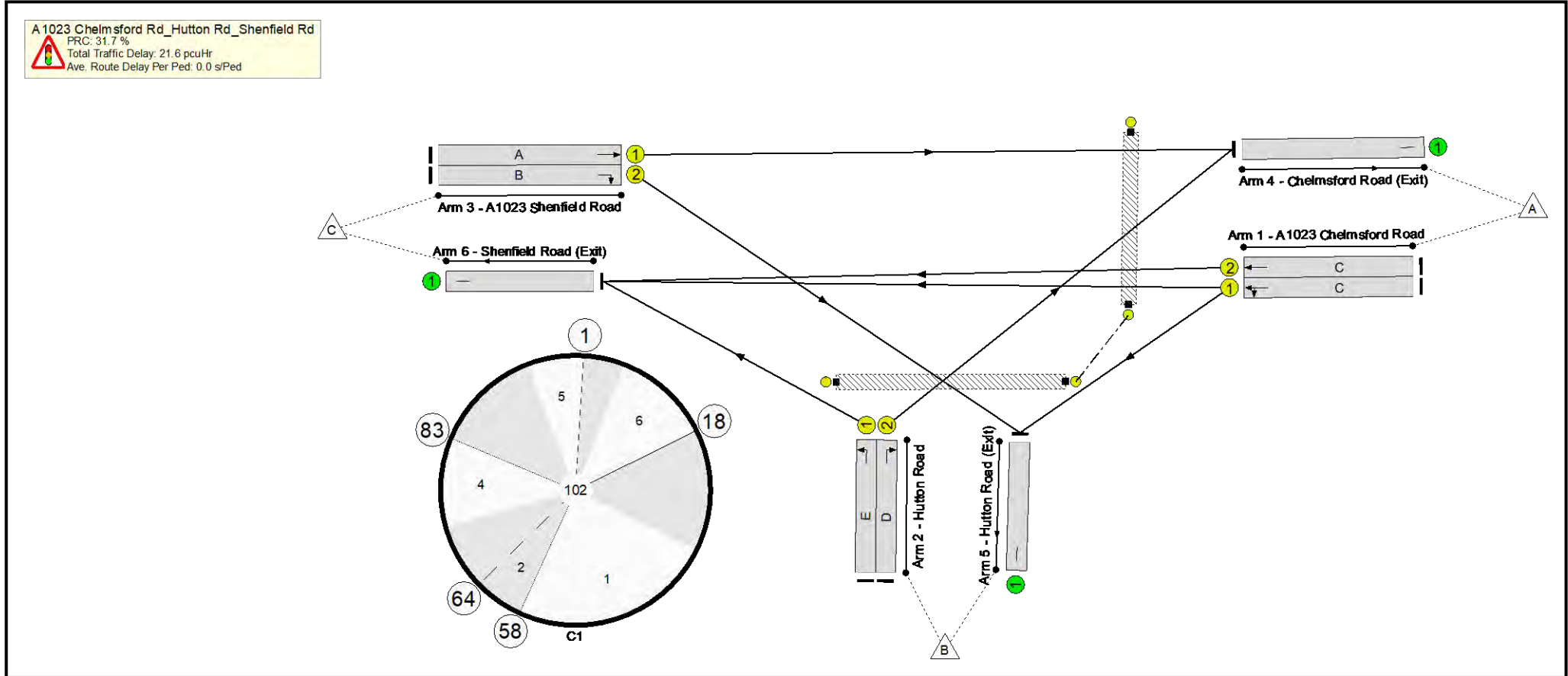
Stage	1	2	4	5	6
Duration	25	0	11	7	12
Change Point	18	58	64	83	1

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: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	68.4%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	68.4%
1/1	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		1	25	-	331	1940	495	66.9%
1/2	A1023 Chelmsford Road Ahead	U	N/A	N/A	C		1	25	-	331	1940	495	66.9%
2/1	Hutton Road Left	U	N/A	N/A	E		1	39	-	302	1940	761	39.7%
2/2	Hutton Road Right	U	N/A	N/A	D		1	7	-	87	1940	152	57.2%
3/1	A1023 Shenfield Road Ahead	U	N/A	N/A	A		1	58	-	709	1940	1122	63.2%
3/2	A1023 Shenfield Road Right	U	N/A	N/A	B		1	20	-	273	1940	399	68.4%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	796	1940	1940	41.0%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	337	1940	1940	17.4%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	900	1940	1940	46.4%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

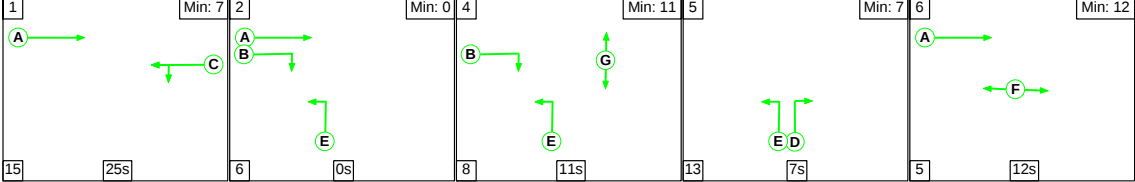
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Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shenfield	-	-	0	0	0	15.8	5.8	0.0	21.6	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	15.8	5.8	0.0	21.6	-	-	-	-
1/1	331	331	-	-	-	3.1	1.0	-	4.1	45.0	8.4	1.0	9.4
1/2	331	331	-	-	-	3.1	1.0	-	4.1	45.0	8.4	1.0	9.4
2/1	302	302	-	-	-	1.9	0.3	-	2.2	26.2	6.1	0.3	6.5
2/2	87	87	-	-	-	1.1	0.7	-	1.8	72.5	2.4	0.7	3.0
3/1	709	709	-	-	-	2.8	0.9	-	3.7	18.6	13.2	0.9	14.0
3/2	273	273	-	-	-	2.8	1.1	-	3.9	51.4	7.1	1.1	8.2
4/1	796	796	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
5/1	337	337	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	900	900	-	-	-	0.9	0.4	-	1.3	5.3	16.8	0.4	17.2
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 31.7 Total Delay for Signalled Lanes (pcuHr): 19.80 Cycle Time (s): 102 PRC Over All Lanes (%): 31.7 Total Delay Over All Lanes(pcuHr): 21.59													

Full Input Data And Results

Scenario 9: '2027 Base + Comm + Dev AM Peak' (FG9: '2027 Base + Comm + Dev AM Peak', Plan 1: 'Network Control Plan 1')

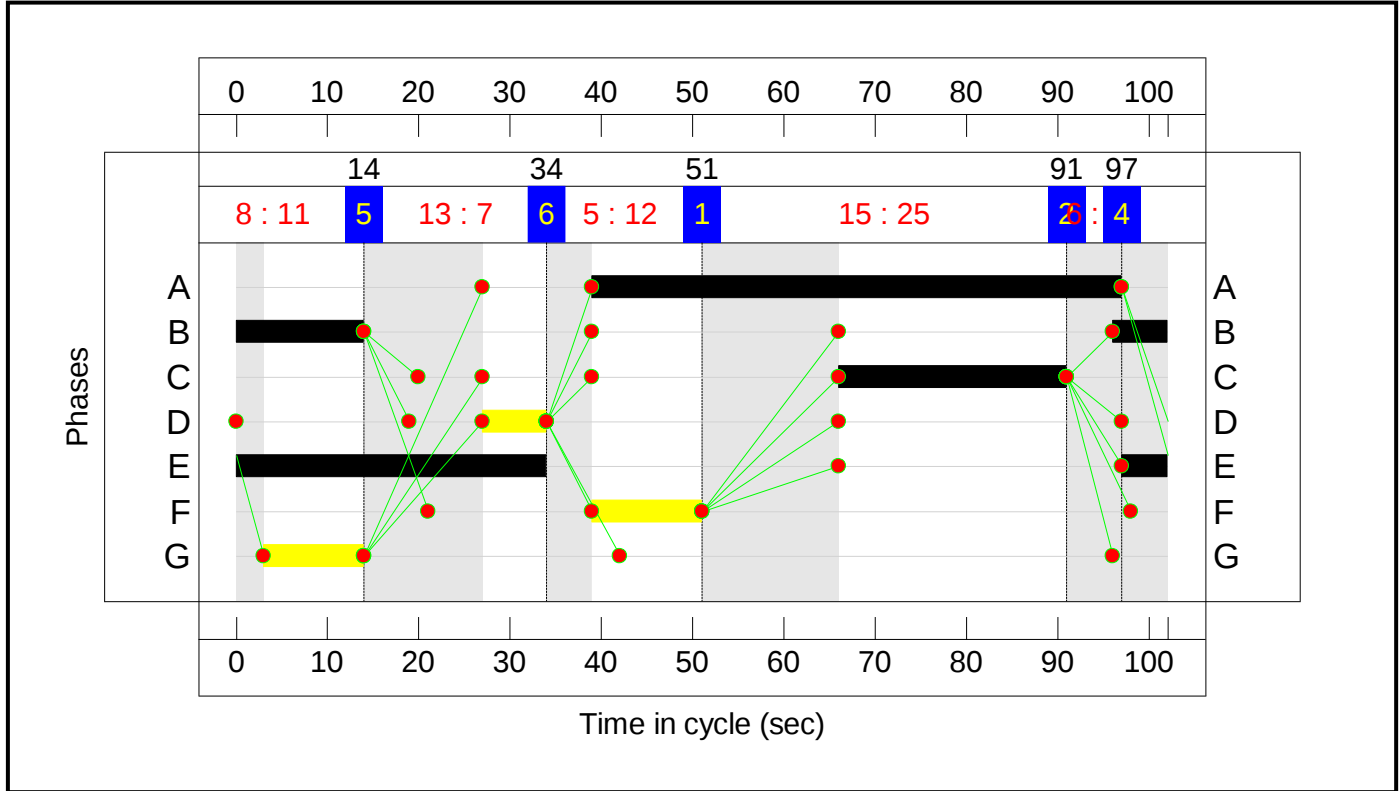
Stage Sequence Diagram



Stage Timings

Stage	1	2	4	5	6
Duration	25	0	11	7	12
Change Point	51	91	97	14	34

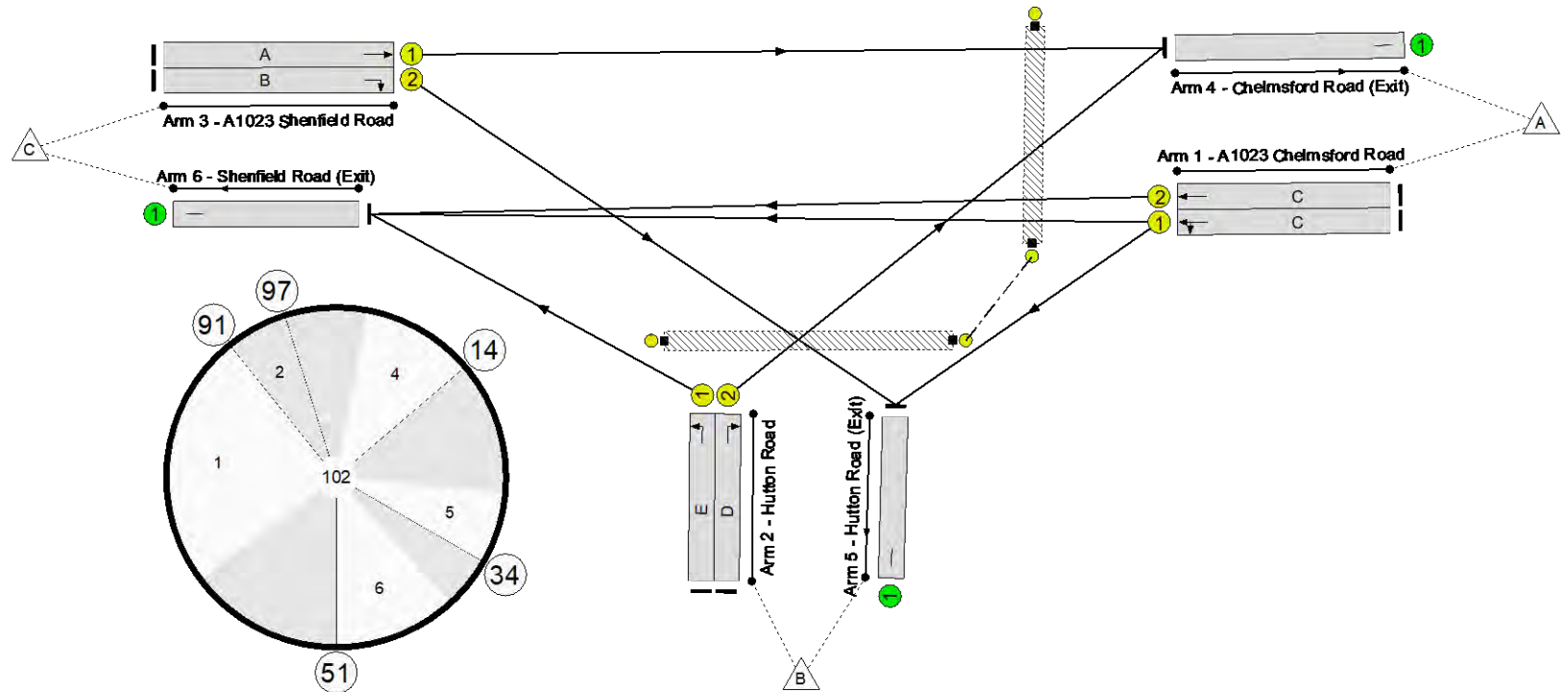
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

A 1023 Chelmsford Rd_Hutton Rd_Shenfield Rd
PRC: 6.2 %
Total Traffic Delay: 27.8 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



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: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	84.7%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	84.7%
1/1	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		1	25	-	419	1940	495	84.7%
1/2	A1023 Chelmsford Road Ahead	U	N/A	N/A	C		1	25	-	418	1940	495	84.5%
2/1	Hutton Road Left	U	N/A	N/A	E		1	39	-	244	1940	761	32.1%
2/2	Hutton Road Right	U	N/A	N/A	D		1	7	-	90	1940	152	59.1%
3/1	A1023 Shenfield Road Ahead	U	N/A	N/A	A		1	58	-	706	1940	1122	62.9%
3/2	A1023 Shenfield Road Right	U	N/A	N/A	B		1	20	-	292	1940	399	73.1%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	796	1940	1940	41.0%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	399	1940	1940	20.6%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	974	1940	1940	50.2%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shenfield	-	-	0	0	0	18.6	9.3	0.0	27.8	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	18.6	9.3	0.0	27.8	-	-	-	-
1/1	419	419	-	-	-	4.2	2.6	-	6.8	58.4	11.2	2.6	13.8
1/2	418	418	-	-	-	4.2	2.6	-	6.8	58.1	11.1	2.6	13.7
2/1	244	244	-	-	-	1.5	0.2	-	1.7	25.0	4.7	0.2	5.0
2/2	90	90	-	-	-	1.1	0.7	-	1.8	73.8	2.4	0.7	3.2
3/1	706	706	-	-	-	2.8	0.8	-	3.6	18.6	13.1	0.8	14.0
3/2	292	292	-	-	-	3.1	1.3	-	4.4	54.2	7.7	1.3	9.0
4/1	796	796	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
5/1	399	399	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
6/1	974	974	-	-	-	1.7	0.5	-	2.2	8.2	25.5	0.5	26.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 6.2 Total Delay for Signalled Lanes (pcuHr): 25.13 Cycle Time (s): 102 PRC Over All Lanes (%): 6.2 Total Delay Over All Lanes(pcuHr): 27.83													

[illegible]

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

6.2
6.2

Total Delay for Signalled Lanes (pcuHr):
Total Delay Over All Lanes(pcuHr):

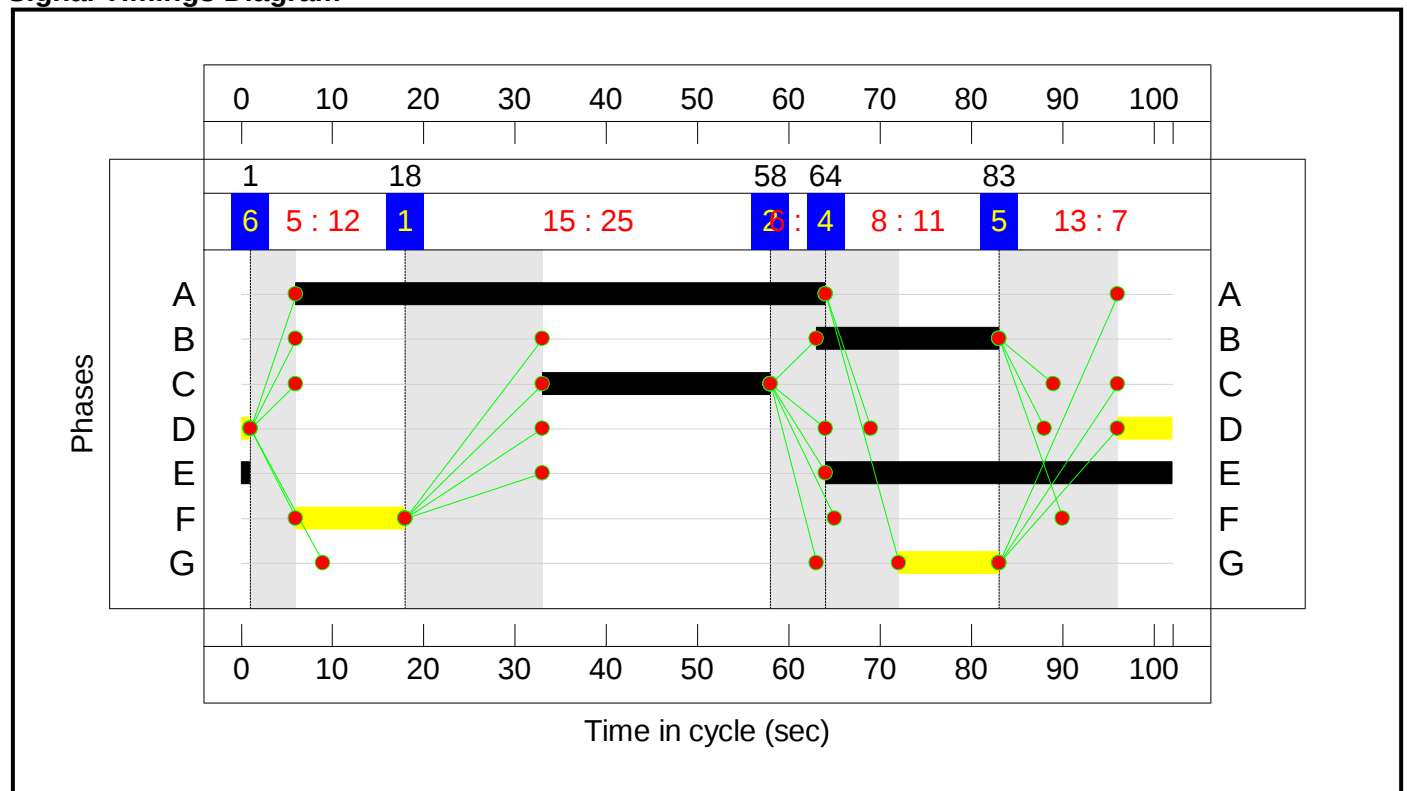
25.13
27.83

Cycle Time (s): 102

Stage Sequence Diagram

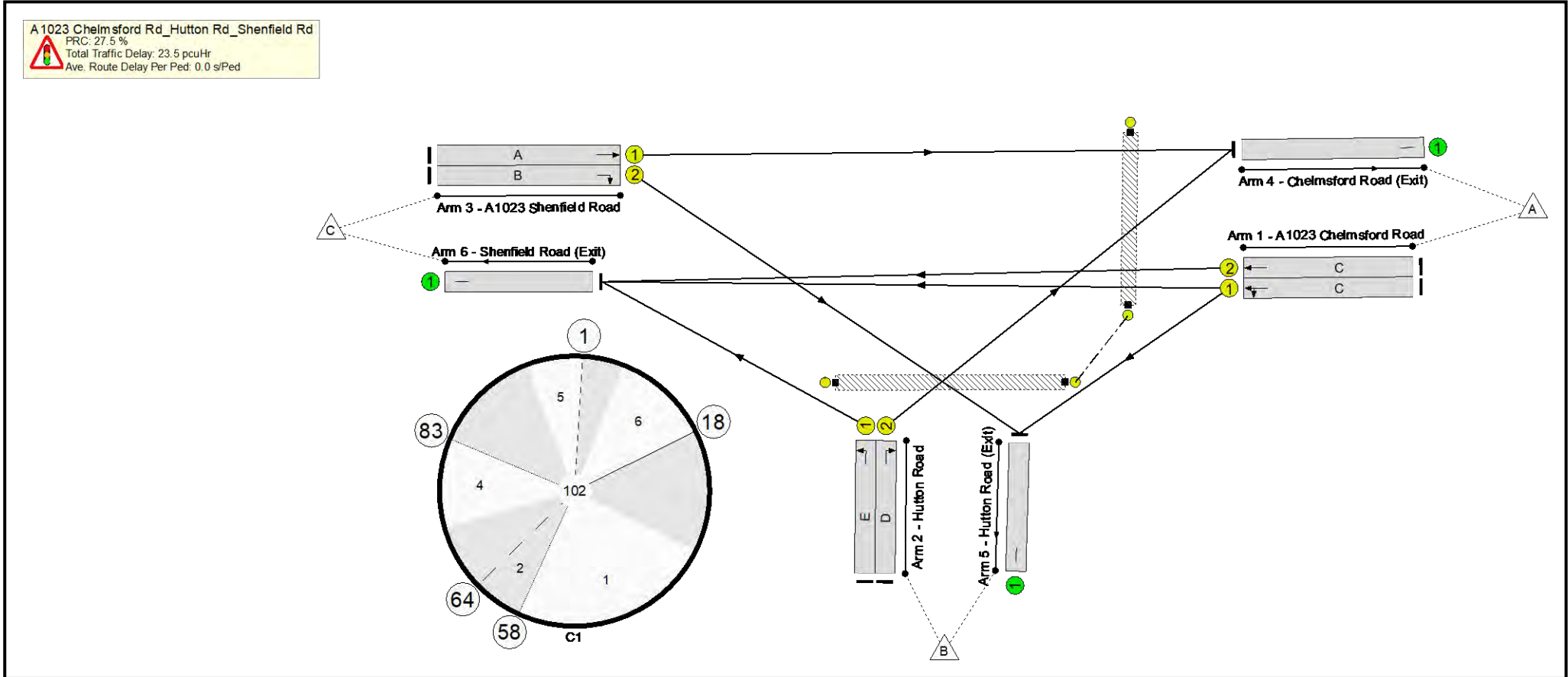


Signal Timings Diagram



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: Shenfield	-	-	N/A	-	-		-	-	-	-	-	-	70.6%
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	N/A	-	-		-	-	-	-	-	-	70.6%
1/1	A1023 Chelmsford Road Left Ahead	U	N/A	N/A	C		1	25	-	349	1940	495	70.6%
1/2	A1023 Chelmsford Road Ahead	U	N/A	N/A	C		1	25	-	349	1940	495	70.6%
2/1	Hutton Road Left	U	N/A	N/A	E		1	39	-	302	1940	761	39.7%
2/2	Hutton Road Right	U	N/A	N/A	D		1	7	-	97	1940	152	63.8%
3/1	A1023 Shenfield Road Ahead	U	N/A	N/A	A		1	58	-	762	1940	1122	67.9%
3/2	A1023 Shenfield Road Right	U	N/A	N/A	B		1	20	-	273	1940	399	68.4%
4/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	859	1940	1940	44.3%
5/1	Hutton Road (Exit)	U	N/A	N/A	-		-	-	-	343	1940	1940	17.7%
6/1	Shenfield Road (Exit)	U	N/A	N/A	-		-	-	-	930	1940	1940	47.9%
Ped Link: P1	Chelmsford Road	-	N/A	-	G		1	11	-	0	-	0	0.0%
Ped Link: P2	Hutton Road	-	N/A	-	F		1	12	-	0	-	0	0.0%

[illegible]

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Shenfield	-	-	0	0	0	16.9	6.6	0.0	23.5	-	-	-	-
A1023 Chelmsford Rd_Hutton Rd_Shenfield Rd	-	-	0	0	0	16.9	6.6	0.0	23.5	-	-	-	-
1/1	349	349	-	-	-	3.3	1.2	-	4.5	46.7	8.9	1.2	10.1
1/2	349	349	-	-	-	3.3	1.2	-	4.5	46.7	8.9	1.2	10.1
2/1	302	302	-	-	-	1.9	0.3	-	2.2	26.2	6.1	0.3	6.5
2/2	97	97	-	-	-	1.2	0.9	-	2.1	77.3	2.6	0.9	3.5
3/1	762	762	-	-	-	3.2	1.1	-	4.2	19.9	14.8	1.1	15.9
3/2	273	273	-	-	-	2.8	1.1	-	3.9	51.4	7.1	1.1	8.2
4/1	859	859	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
5/1	343	343	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
6/1	930	930	-	-	-	1.1	0.5	-	1.5	5.9	23.3	0.5	23.7
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 27.5 Total Delay for Signalled Lanes (pcuHr): 21.45 Cycle Time (s): 102 PRC Over All Lanes (%): 27.5 Total Delay Over All Lanes(pcuHr): 23.49													

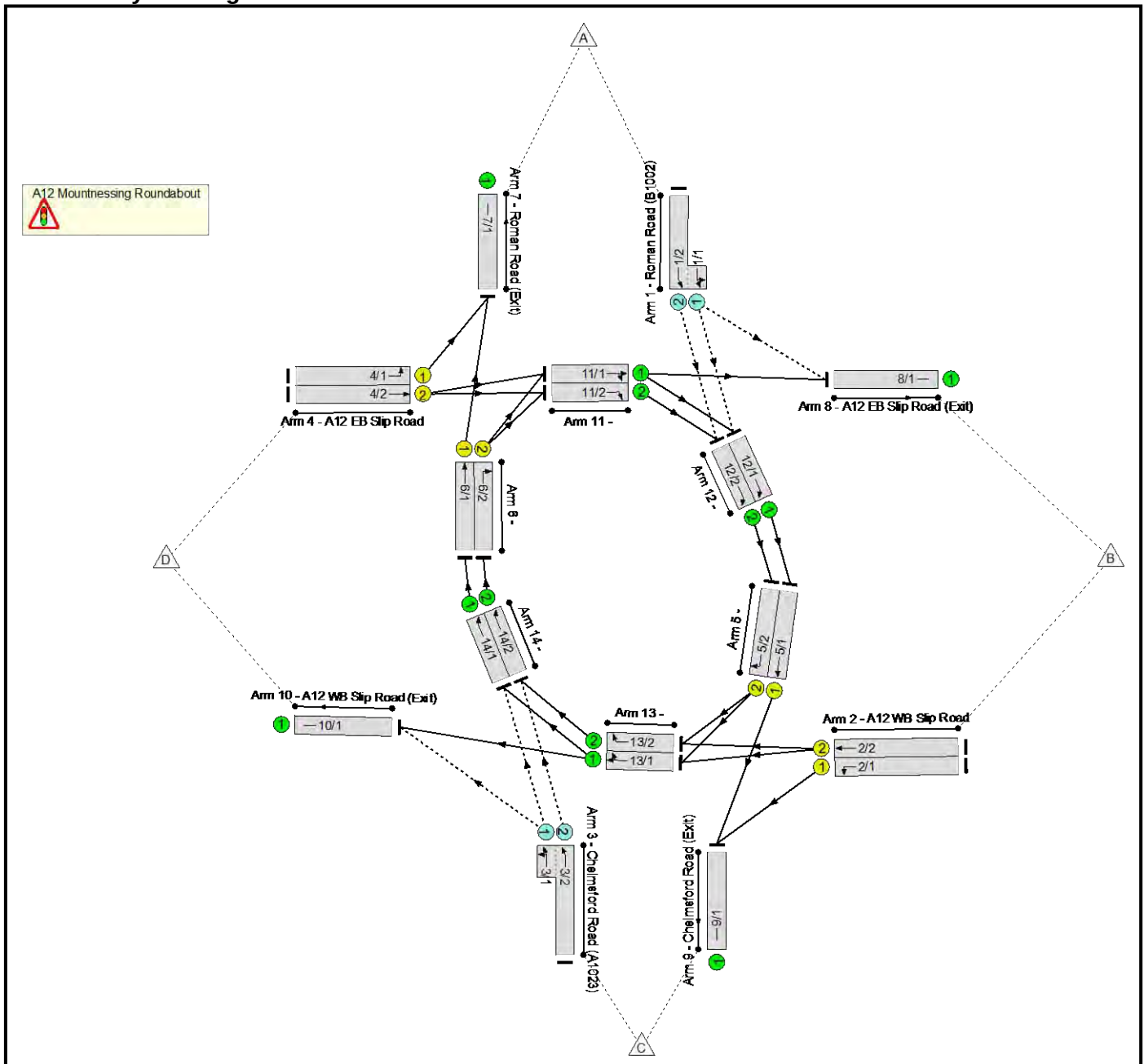
Full Input Data And Results

Full Input Data And Results

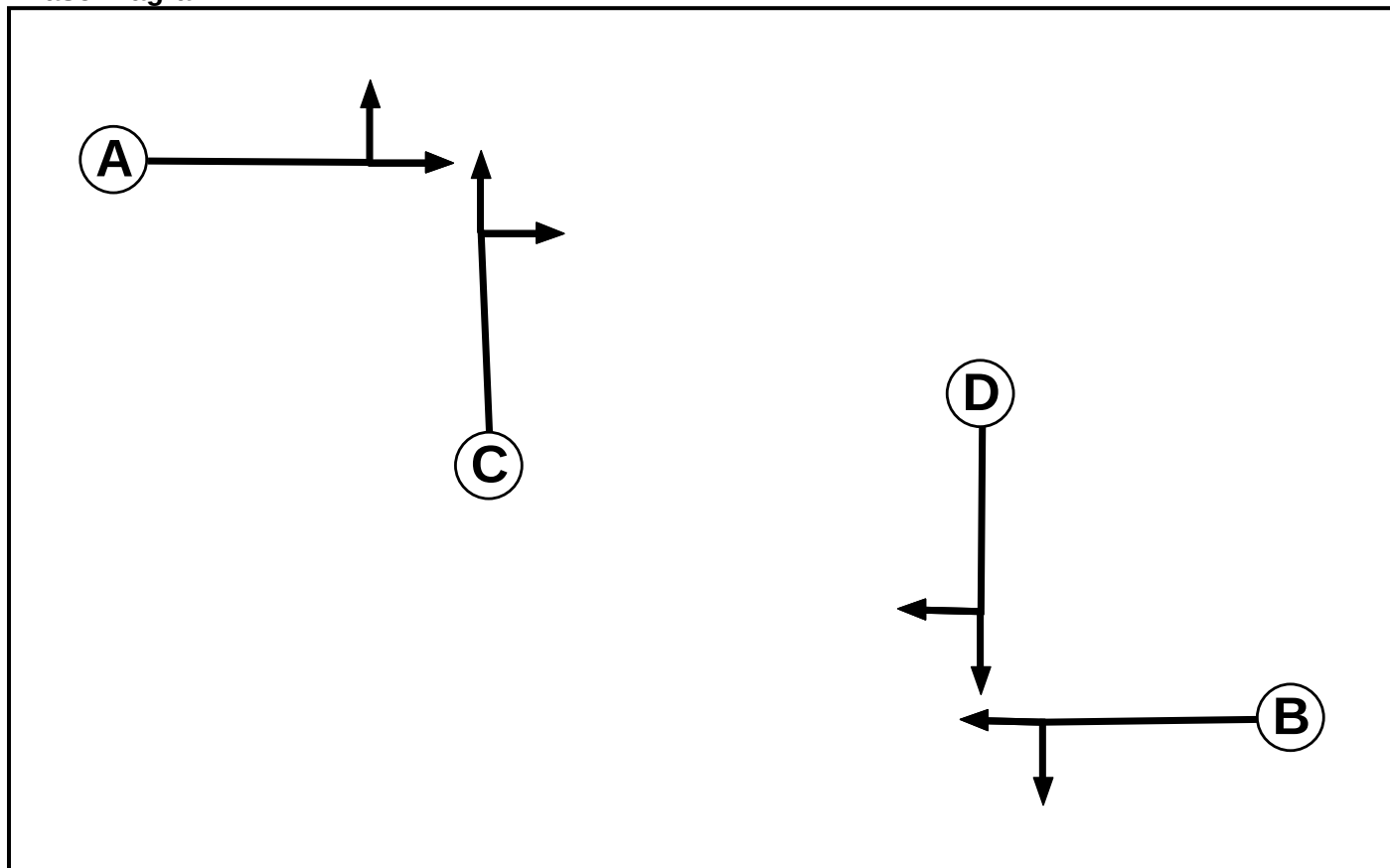
User and Project Details

Project:	Shenfield
Title:	A12 Mountnessing Roundabout
Location:	
Client:	Redrow Homes
Additional detail:	
File name:	A12 Mountnessing Rbt - Proposed Signalised Gyratory.lsg3x
Author:	George Magnisalis
Company:	RPS Group
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

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

Phase Intergreens Matrix

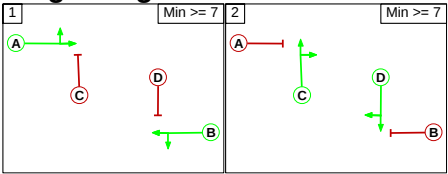
Terminating Phase	Starting Phase				
		A	B	C	D
	A		-	7	7
	B	-		7	7
	C	7	7		-
	D	7	7	-	

Phases in Stage

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

Full Input Data And Results

Stage Diagram



Phase Delays

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

Prohibited Stage Change

		To Stage	
From Stage		1	2
	1		7
	2	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A12 Mountnessing Roundabout											
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 (Roman Road (B1002))	8/1 (Left)	1439	0	11/1	1.09	All	-	-	-	-	-
	12/1 (Ahead)	1439	0	11/1	1.09	All					
1/2 (Roman Road (B1002))	12/2 (Ahead)	1439	0	11/2	1.09	All	-	-	-	-	-
3/1 (Chelmsford Road (A1023))	10/1 (Left)	1439	0	13/1	1.09	All	-	-	-	-	-
	14/1 (Ahead)	1439	0	13/1	1.09	All					
3/2 (Chelmsford Road (A1023))	14/2 (Ahead)	1439	0	13/2	1.09	All	-	-	-	-	-

Full Input Data And Results

Junction: A12 Mounthnessing Roundabout												
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 (Roman Road (B1002))	O		2	3	1.9	Geom	-	2.83	0.00	Y	Arm 8 Left	Inf
1/2 (Roman Road (B1002))	O		2	3	24.3	Geom	-	4.79	0.00	Y	Arm 12 Ahead	Inf
2/1 (A12 WB Slip Road)	U	B	2	3	60.0	Geom	-	2.71	0.00	Y	Arm 9 Left	Inf
2/2 (A12 WB Slip Road)	U	B	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 13 Ahead	Inf
3/1 (Chelmsford Road (A1023))	O		2	3	2.6	Geom	-	2.80	0.00	Y	Arm 10 Left Arm 14 Ahead	Inf
3/2 (Chelmsford Road (A1023))	O		2	3	60.0	Geom	-	3.65	0.00	Y	Arm 14 Ahead	Inf
4/1 (A12 EB Slip Road)	U	A	2	3	60.0	Geom	-	3.74	0.00	Y	Arm 7 Left	Inf
4/2 (A12 EB Slip Road)	U	A	2	3	60.0	Geom	-	3.97	0.00	Y	Arm 11 Ahead	Inf
5/1	U	D	2	3	13.6	Geom	-	4.20	0.00	Y	Arm 9 Ahead	Inf
5/2	U	D	2	3	13.6	Geom	-	4.20	0.00	Y	Arm 13 Right	Inf
6/1	U	C	2	3	11.3	Geom	-	4.20	0.00	Y	Arm 7 Ahead	Inf
6/2	U	C	2	3	11.3	Geom	-	4.20	0.00	Y	Arm 11 Right	Inf
7/1 (Roman Road (Exit))	U		2	3	60.0	Geom	-	3.25	0.00	Y		
8/1 (A12 EB Slip Road (Exit))	U		2	3	60.0	Geom	-	3.25	0.00	Y		
9/1 (Chelmsford Road (Exit))	U		2	3	60.0	Geom	-	3.25	0.00	Y		
10/1 (A12 WB Slip Road (Exit))	U		2	3	60.0	Geom	-	3.25	0.00	Y		

Full Input Data And Results

11/1	U		2	3	7.0	Geom	-	4.20	0.00	Y	Arm 8 Ahead	Inf
											Arm 12 Right	Inf
11/2	U		2	3	7.0	Geom	-	4.20	0.00	Y	Arm 12 Right	Inf
12/1	U		2	3	2.1	Geom	-	4.20	0.00	Y	Arm 5 Ahead	Inf
12/2	U		2	3	2.1	Geom	-	4.20	0.00	Y	Arm 5 Ahead	Inf
13/1	U		2	3	11.3	Geom	-	4.20	0.00	Y	Arm 10 Ahead	Inf
											Arm 14 Right	Inf
13/2	U		2	3	11.3	Geom	-	4.20	0.00	Y	Arm 14 Right	Inf
14/1	U		2	3	2.6	Geom	-	4.20	0.00	Y	Arm 6 Ahead	Inf
14/2	U		2	3	2.6	Geom	-	4.20	0.00	Y	Arm 6 Ahead	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2032 Base + Comm + Dev (AM Peak)'	07:30	08:30	01:00	
2: '2032 Base + Comm + Dev (PM Peak)'	17:00	18:00	01:00	
3: '2032 Base + Comm (AM Peak)'	07:30	08:30	01:00	
4: '2032 Base + Comm (PM Peak)'	17:00	18:00	01:00	
5: '2032 Base + Dev (AM Peak)'	07:30	08:30	01:00	
6: '2032 Base + Dev (PM Peak)'	17:00	18:00	01:00	
7: '2032 Base (AM Peak)'	07:30	08:30	01:00	
8: '2032 Base (PM Peak)'	17:00	18:00	01:00	
9: '2022 Base (AM Peak)'	07:30	08:30	01:00	
10: '2022 Base (PM Peak)'	17:00	18:00	01:00	
11: '2022 Base + Dev (AM Peak)'	07:30	08:30	01:00	
12: '2022 Base + Dev (PM Peak)'	17:00	18:00	01:00	

Scenario 1: '2032 Base + Comm + Dev (AM Peak)' (FG1: '2032 Base + Comm + Dev (AM Peak)', Plan 1: 'Network

Full Input Data And Results
Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	1	168	462	500	1131
	B	152	1	721	13	887
	C	380	459	1	292	1132
	D	496	3	249	1	749
	Tot.	1029	631	1433	806	3899

Traffic Lane Flows

Lane	Scenario 1: 2032 Base + Comm + Dev (AM Peak)
Junction: A12 Mountnessing Roundabout	
1/1 (short)	630
1/2 (with short)	1131(In) 501(Out)
2/1	721
2/2	166
3/1 (short)	672
3/2 (with short)	1132(In) 460(Out)
4/1	496
4/2	253
5/1	712
5/2	502
6/1	533
6/2	461
7/1	1029
8/1	631
9/1	1433
10/1	806
11/1	713
11/2	1
12/1	712
12/2	502
13/1	667
13/2	1
14/1	533
14/2	461

Lane Saturation Flows

Junction: A12 Mountnessing Roundabout								
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 (Roman Road (B1002))	2.83	0.00	Y	Arm 8 Left	Inf	26.7 %	1898	1898
				Arm 12 Ahead	Inf	73.3 %		
1/2 (Roman Road (B1002))	4.79	0.00	Y	Arm 12 Ahead	Inf	100.0 %	2094	2094
2/1 (A12 WB Slip Road)	2.71	0.00	Y	Arm 9 Left	Inf	100.0 %	1886	1886
2/2 (A12 WB Slip Road)	3.10	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1925	1925
3/1 (Chelmsford Road (A1023))	2.80	0.00	Y	Arm 10 Left	Inf	43.5 %	1895	1895
				Arm 14 Ahead	Inf	56.5 %		
3/2 (Chelmsford Road (A1023))	3.65	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1980	1980
4/1 (A12 EB Slip Road)	3.74	0.00	Y	Arm 7 Left	Inf	100.0 %	1989	1989
4/2 (A12 EB Slip Road)	3.97	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2012	2012
5/1	4.20	0.00	Y	Arm 9 Ahead	Inf	100.0 %	2035	2035
5/2	4.20	0.00	Y	Arm 13 Right	Inf	100.0 %	2035	2035
6/1	4.20	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2035	2035
6/2	4.20	0.00	Y	Arm 11 Right	Inf	100.0 %	2035	2035
7/1 (Roman Road (Exit))	3.25	0.00	Y				1940	1940
8/1 (A12 EB Slip Road (Exit))	3.25	0.00	Y				1940	1940
9/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
10/1 (A12 WB Slip Road (Exit))	3.25	0.00	Y				1940	1940
11/1	4.20	0.00	Y	Arm 8 Ahead	Inf	64.9 %	2035	2035
				Arm 12 Right	Inf	35.1 %		
11/2	4.20	0.00	Y	Arm 12 Right	Inf	100.0 %	2035	2035
12/1	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
12/2	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
13/1	4.20	0.00	Y	Arm 10 Ahead	Inf	77.1 %	2035	2035
				Arm 14 Right	Inf	22.9 %		
13/2	4.20	0.00	Y	Arm 14 Right	Inf	100.0 %	2035	2035
14/1	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035
14/2	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035

Full Input Data And Results
Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	1	134	246	390	771
	B	112	0	546	2	660
	C	393	512	1	196	1102
	D	586	2	315	0	903
	Tot.	1092	648	1108	588	3436

Traffic Lane Flows

Lane	Scenario 2: 2032 Base + Comm + Dev (PM Peak)
Junction: A12 Mountnessing Roundabout	
1/1 (short)	380
1/2 (with short)	771(In) 391(Out)
2/1	546
2/2	114
3/1 (short)	589
3/2 (with short)	1102(In) 513(Out)
4/1	586
4/2	317
5/1	562
5/2	391
6/1	506
6/2	513
7/1	1092
8/1	648
9/1	1108
10/1	588
11/1	830
11/2	0
12/1	562
12/2	391
13/1	505
13/2	0
14/1	506
14/2	513

Lane Saturation Flows

Junction: A12 Mountnessing Roundabout								
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 (Roman Road (B1002))	2.83	0.00	Y	Arm 8 Left	Inf	35.3 %	1898	1898
				Arm 12 Ahead	Inf	64.7 %		
1/2 (Roman Road (B1002))	4.79	0.00	Y	Arm 12 Ahead	Inf	100.0 %	2094	2094
2/1 (A12 WB Slip Road)	2.71	0.00	Y	Arm 9 Left	Inf	100.0 %	1886	1886
2/2 (A12 WB Slip Road)	3.10	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1925	1925
3/1 (Chelmsford Road (A1023))	2.80	0.00	Y	Arm 10 Left	Inf	33.3 %	1895	1895
				Arm 14 Ahead	Inf	66.7 %		
3/2 (Chelmsford Road (A1023))	3.65	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1980	1980
4/1 (A12 EB Slip Road)	3.74	0.00	Y	Arm 7 Left	Inf	100.0 %	1989	1989
4/2 (A12 EB Slip Road)	3.97	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2012	2012
5/1	4.20	0.00	Y	Arm 9 Ahead	Inf	100.0 %	2035	2035
5/2	4.20	0.00	Y	Arm 13 Right	Inf	100.0 %	2035	2035
6/1	4.20	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2035	2035
6/2	4.20	0.00	Y	Arm 11 Right	Inf	100.0 %	2035	2035
7/1 (Roman Road (Exit))	3.25	0.00	Y				1940	1940
8/1 (A12 EB Slip Road (Exit))	3.25	0.00	Y				1940	1940
9/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
10/1 (A12 WB Slip Road (Exit))	3.25	0.00	Y				1940	1940
11/1	4.20	0.00	Y	Arm 8 Ahead	Inf	61.9 %	2035	2035
				Arm 12 Right	Inf	38.1 %		
11/2	4.20	0.00	Y	Arm 12 Right	Inf	0.0 %	2035	2035
12/1	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
12/2	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
13/1	4.20	0.00	Y	Arm 10 Ahead	Inf	77.6 %	2035	2035
				Arm 14 Right	Inf	22.4 %		
13/2	4.20	0.00	Y	Arm 14 Right	Inf	0.0 %	2035	2035
14/1	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035
14/2	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035

Full Input Data And Results

1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	1	168	458	500	1127
	B	152	1	718	13	884
	C	367	449	1	263	1080
	D	496	3	240	1	740
	Tot.	1016	621	1417	777	3831

Traffic Lane Flows

Lane	Scenario 3: 2032 Base + Comm (AM Peak)
Junction: A12 Mountnessing Roundabout	
1/1 (short)	626
1/2 (with short)	1127(In) 501(Out)
2/1	718
2/2	166
3/1 (short)	630
3/2 (with short)	1080(In) 450(Out)
4/1	496
4/2	244
5/1	699
5/2	502
6/1	520
6/2	451
7/1	1016
8/1	621
9/1	1417
10/1	777
11/1	694
11/2	1
12/1	699
12/2	502
13/1	667
13/2	1
14/1	520
14/2	451

Lane Saturation Flows

Junction: A12 Mountnessing Roundabout								
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 (Roman Road (B1002))	2.83	0.00	Y	Arm 8 Left	Inf	26.8 %	1898	1898
				Arm 12 Ahead	Inf	73.2 %		
1/2 (Roman Road (B1002))	4.79	0.00	Y	Arm 12 Ahead	Inf	100.0 %	2094	2094
2/1 (A12 WB Slip Road)	2.71	0.00	Y	Arm 9 Left	Inf	100.0 %	1886	1886
2/2 (A12 WB Slip Road)	3.10	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1925	1925
3/1 (Chelmsford Road (A1023))	2.80	0.00	Y	Arm 10 Left	Inf	41.7 %	1895	1895
				Arm 14 Ahead	Inf	58.3 %		
3/2 (Chelmsford Road (A1023))	3.65	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1980	1980
4/1 (A12 EB Slip Road)	3.74	0.00	Y	Arm 7 Left	Inf	100.0 %	1989	1989
4/2 (A12 EB Slip Road)	3.97	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2012	2012
5/1	4.20	0.00	Y	Arm 9 Ahead	Inf	100.0 %	2035	2035
5/2	4.20	0.00	Y	Arm 13 Right	Inf	100.0 %	2035	2035
6/1	4.20	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2035	2035
6/2	4.20	0.00	Y	Arm 11 Right	Inf	100.0 %	2035	2035
7/1 (Roman Road (Exit))	3.25	0.00	Y				1940	1940
8/1 (A12 EB Slip Road (Exit))	3.25	0.00	Y				1940	1940
9/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
10/1 (A12 WB Slip Road (Exit))	3.25	0.00	Y				1940	1940
11/1	4.20	0.00	Y	Arm 8 Ahead	Inf	65.3 %	2035	2035
				Arm 12 Right	Inf	34.7 %		
11/2	4.20	0.00	Y	Arm 12 Right	Inf	100.0 %	2035	2035
12/1	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
12/2	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
13/1	4.20	0.00	Y	Arm 10 Ahead	Inf	77.1 %	2035	2035
				Arm 14 Right	Inf	22.9 %		
13/2	4.20	0.00	Y	Arm 14 Right	Inf	100.0 %	2035	2035
14/1	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035
14/2	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035

Full Input Data And Results

1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	1	134	232	390	757
	B	112	0	535	2	649
	C	387	507	1	183	1078
	D	586	2	282	0	870
	Tot.	1086	643	1050	575	3354

Traffic Lane Flows

Lane	Scenario 4: 2032 Base + Comm (PM Peak)
Junction: A12 Mountnessing Roundabout	
1/1 (short)	366
1/2 (with short)	757(In) 391(Out)
2/1	535
2/2	114
3/1 (short)	570
3/2 (with short)	1078(In) 508(Out)
4/1	586
4/2	284
5/1	515
5/2	391
6/1	500
6/2	508
7/1	1086
8/1	643
9/1	1050
10/1	575
11/1	792
11/2	0
12/1	515
12/2	391
13/1	505
13/2	0
14/1	500
14/2	508

Lane Saturation Flows

Junction: A12 Mountnessing Roundabout								
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 (Roman Road (B1002))	2.83	0.00	Y	Arm 8 Left	Inf	36.6 %	1898	1898
				Arm 12 Ahead	Inf	63.4 %		
1/2 (Roman Road (B1002))	4.79	0.00	Y	Arm 12 Ahead	Inf	100.0 %	2094	2094
2/1 (A12 WB Slip Road)	2.71	0.00	Y	Arm 9 Left	Inf	100.0 %	1886	1886
2/2 (A12 WB Slip Road)	3.10	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1925	1925
3/1 (Chelmsford Road (A1023))	2.80	0.00	Y	Arm 10 Left	Inf	32.1 %	1895	1895
				Arm 14 Ahead	Inf	67.9 %		
3/2 (Chelmsford Road (A1023))	3.65	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1980	1980
4/1 (A12 EB Slip Road)	3.74	0.00	Y	Arm 7 Left	Inf	100.0 %	1989	1989
4/2 (A12 EB Slip Road)	3.97	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2012	2012
5/1	4.20	0.00	Y	Arm 9 Ahead	Inf	100.0 %	2035	2035
5/2	4.20	0.00	Y	Arm 13 Right	Inf	100.0 %	2035	2035
6/1	4.20	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2035	2035
6/2	4.20	0.00	Y	Arm 11 Right	Inf	100.0 %	2035	2035
7/1 (Roman Road (Exit))	3.25	0.00	Y				1940	1940
8/1 (A12 EB Slip Road (Exit))	3.25	0.00	Y				1940	1940
9/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
10/1 (A12 WB Slip Road (Exit))	3.25	0.00	Y				1940	1940
11/1	4.20	0.00	Y	Arm 8 Ahead	Inf	64.3 %	2035	2035
				Arm 12 Right	Inf	35.7 %		
11/2	4.20	0.00	Y	Arm 12 Right	Inf	0.0 %	2035	2035
12/1	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
12/2	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
13/1	4.20	0.00	Y	Arm 10 Ahead	Inf	77.6 %	2035	2035
				Arm 14 Right	Inf	22.4 %		
13/2	4.20	0.00	Y	Arm 14 Right	Inf	0.0 %	2035	2035
14/1	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035
14/2	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035

Full Input Data And Results

Scenario 5: '2032 Base + Dev (AM Peak)' (FG5: '2032 Base + Dev (AM Peak)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	1	168	444	500	1113
	B	152	1	707	13	873
	C	341	428	1	202	972
	D	496	3	209	1	709
	Tot.	990	600	1361	716	3667

Traffic Lane Flows

Lane	Scenario 5: 2032 Base + Dev (AM Peak)
Junction: A12 Mountnessing Roundabout	
1/1 (short)	612
1/2 (with short)	1113(In) 501(Out)
2/1	707
2/2	166
3/1 (short)	543
3/2 (with short)	972(In) 429(Out)
4/1	496
4/2	213
5/1	654
5/2	502
6/1	494
6/2	430
7/1	990
8/1	600
9/1	1361
10/1	716
11/1	642
11/2	1
12/1	654
12/2	502
13/1	667
13/2	1
14/1	494
14/2	430

Lane Saturation Flows

Junction: A12 Mountnessing Roundabout								
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 (Roman Road (B1002))	2.83	0.00	Y	Arm 8 Left	Inf	27.5 %	1898	1898
				Arm 12 Ahead	Inf	72.5 %		
1/2 (Roman Road (B1002))	4.79	0.00	Y	Arm 12 Ahead	Inf	100.0 %	2094	2094
2/1 (A12 WB Slip Road)	2.71	0.00	Y	Arm 9 Left	Inf	100.0 %	1886	1886
2/2 (A12 WB Slip Road)	3.10	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1925	1925
3/1 (Chelmsford Road (A1023))	2.80	0.00	Y	Arm 10 Left	Inf	37.2 %	1895	1895
				Arm 14 Ahead	Inf	62.8 %		
3/2 (Chelmsford Road (A1023))	3.65	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1980	1980
4/1 (A12 EB Slip Road)	3.74	0.00	Y	Arm 7 Left	Inf	100.0 %	1989	1989
4/2 (A12 EB Slip Road)	3.97	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2012	2012
5/1	4.20	0.00	Y	Arm 9 Ahead	Inf	100.0 %	2035	2035
5/2	4.20	0.00	Y	Arm 13 Right	Inf	100.0 %	2035	2035
6/1	4.20	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2035	2035
6/2	4.20	0.00	Y	Arm 11 Right	Inf	100.0 %	2035	2035
7/1 (Roman Road (Exit))	3.25	0.00	Y				1940	1940
8/1 (A12 EB Slip Road (Exit))	3.25	0.00	Y				1940	1940
9/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
10/1 (A12 WB Slip Road (Exit))	3.25	0.00	Y				1940	1940
11/1	4.20	0.00	Y	Arm 8 Ahead	Inf	67.3 %	2035	2035
				Arm 12 Right	Inf	32.7 %		
11/2	4.20	0.00	Y	Arm 12 Right	Inf	100.0 %	2035	2035
12/1	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
12/2	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
13/1	4.20	0.00	Y	Arm 10 Ahead	Inf	77.1 %	2035	2035
				Arm 14 Right	Inf	22.9 %		
13/2	4.20	0.00	Y	Arm 14 Right	Inf	100.0 %	2035	2035
14/1	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035
14/2	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035

Full Input Data And Results

Scenario 6: '2032 Base + Dev (PM Peak)' (FG6: '2032 Base + Dev (PM Peak)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	1	134	202	390	727
	B	112	0	510	2	624
	C	368	492	1	139	1000
	D	586	2	213	0	801
	Tot.	1067	628	926	531	3152

Traffic Lane Flows

Lane	Scenario 6: 2032 Base + Dev (PM Peak)
Junction: A12 Mountnessing Roundabout	
1/1 (short)	336
1/2 (with short)	727(In) 391(Out)
2/1	510
2/2	114
3/1 (short)	507
3/2 (with short)	1000(In) 493(Out)
4/1	586
4/2	215
5/1	416
5/2	391
6/1	481
6/2	493
7/1	1067
8/1	628
9/1	926
10/1	531
11/1	708
11/2	0
12/1	416
12/2	391
13/1	505
13/2	0
14/1	481
14/2	493

Lane Saturation Flows

Junction: A12 Mountnessing Roundabout								
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 (Roman Road (B1002))	2.83	0.00	Y	Arm 8 Left	Inf	39.9 %	1898	1898
				Arm 12 Ahead	Inf	60.1 %		
1/2 (Roman Road (B1002))	4.79	0.00	Y	Arm 12 Ahead	Inf	100.0 %	2094	2094
2/1 (A12 WB Slip Road)	2.71	0.00	Y	Arm 9 Left	Inf	100.0 %	1886	1886
2/2 (A12 WB Slip Road)	3.10	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1925	1925
3/1 (Chelmsford Road (A1023))	2.80	0.00	Y	Arm 10 Left	Inf	27.4 %	1895	1895
				Arm 14 Ahead	Inf	72.6 %		
3/2 (Chelmsford Road (A1023))	3.65	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1980	1980
4/1 (A12 EB Slip Road)	3.74	0.00	Y	Arm 7 Left	Inf	100.0 %	1989	1989
4/2 (A12 EB Slip Road)	3.97	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2012	2012
5/1	4.20	0.00	Y	Arm 9 Ahead	Inf	100.0 %	2035	2035
5/2	4.20	0.00	Y	Arm 13 Right	Inf	100.0 %	2035	2035
6/1	4.20	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2035	2035
6/2	4.20	0.00	Y	Arm 11 Right	Inf	100.0 %	2035	2035
7/1 (Roman Road (Exit))	3.25	0.00	Y				1940	1940
8/1 (A12 EB Slip Road (Exit))	3.25	0.00	Y				1940	1940
9/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
10/1 (A12 WB Slip Road (Exit))	3.25	0.00	Y				1940	1940
11/1	4.20	0.00	Y	Arm 8 Ahead	Inf	69.8 %	2035	2035
				Arm 12 Right	Inf	30.2 %		
11/2	4.20	0.00	Y	Arm 12 Right	Inf	0.0 %	2035	2035
12/1	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
12/2	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
13/1	4.20	0.00	Y	Arm 10 Ahead	Inf	77.6 %	2035	2035
				Arm 14 Right	Inf	22.4 %		
13/2	4.20	0.00	Y	Arm 14 Right	Inf	0.0 %	2035	2035
14/1	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035
14/2	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035

Full Input Data And Results

Scenario 7: '2032 Base (AM Peak)' (FG7: '2032 Base (AM Peak)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	1	168	441	500	1110
	B	152	1	703	13	869
	C	329	417	1	173	920
	D	496	3	200	1	700
	Tot.	978	589	1345	687	3599

Traffic Lane Flows

Lane	Scenario 7: 2032 Base (AM Peak)
Junction: A12 Mountnessing Roundabout	
1/1 (short)	609
1/2 (with short)	1110(In) 501(Out)
2/1	703
2/2	166
3/1 (short)	502
3/2 (with short)	920(In) 418(Out)
4/1	496
4/2	204
5/1	642
5/2	502
6/1	482
6/2	419
7/1	978
8/1	589
9/1	1345
10/1	687
11/1	622
11/2	1
12/1	642
12/2	502
13/1	667
13/2	1
14/1	482
14/2	419

Lane Saturation Flows

Junction: A12 Mountnessing Roundabout								
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 (Roman Road (B1002))	2.83	0.00	Y	Arm 8 Left	Inf	27.6 %	1898	1898
				Arm 12 Ahead	Inf	72.4 %		
1/2 (Roman Road (B1002))	4.79	0.00	Y	Arm 12 Ahead	Inf	100.0 %	2094	2094
2/1 (A12 WB Slip Road)	2.71	0.00	Y	Arm 9 Left	Inf	100.0 %	1886	1886
2/2 (A12 WB Slip Road)	3.10	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1925	1925
3/1 (Chelmsford Road (A1023))	2.80	0.00	Y	Arm 10 Left	Inf	34.5 %	1895	1895
				Arm 14 Ahead	Inf	65.5 %		
3/2 (Chelmsford Road (A1023))	3.65	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1980	1980
4/1 (A12 EB Slip Road)	3.74	0.00	Y	Arm 7 Left	Inf	100.0 %	1989	1989
4/2 (A12 EB Slip Road)	3.97	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2012	2012
5/1	4.20	0.00	Y	Arm 9 Ahead	Inf	100.0 %	2035	2035
5/2	4.20	0.00	Y	Arm 13 Right	Inf	100.0 %	2035	2035
6/1	4.20	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2035	2035
6/2	4.20	0.00	Y	Arm 11 Right	Inf	100.0 %	2035	2035
7/1 (Roman Road (Exit))	3.25	0.00	Y				1940	1940
8/1 (A12 EB Slip Road (Exit))	3.25	0.00	Y				1940	1940
9/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
10/1 (A12 WB Slip Road (Exit))	3.25	0.00	Y				1940	1940
11/1	4.20	0.00	Y	Arm 8 Ahead	Inf	67.7 %	2035	2035
				Arm 12 Right	Inf	32.3 %		
11/2	4.20	0.00	Y	Arm 12 Right	Inf	100.0 %	2035	2035
12/1	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
12/2	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
13/1	4.20	0.00	Y	Arm 10 Ahead	Inf	77.1 %	2035	2035
				Arm 14 Right	Inf	22.9 %		
13/2	4.20	0.00	Y	Arm 14 Right	Inf	100.0 %	2035	2035
14/1	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035
14/2	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035

Scenario 8: '2032 Base (PM Peak)' (FG8: '2032 Base (PM Peak)', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	1	134	189	390	714
	B	112	0	499	2	613
	C	363	487	1	126	977
	D	586	2	181	0	769
	Tot.	1062	623	870	518	3073

Traffic Lane Flows

Lane	Scenario 8: 2032 Base (PM Peak)
Junction: A12 Mountnessing Roundabout	
1/1 (short)	323
1/2 (with short)	714(In) 391(Out)
2/1	499
2/2	114
3/1 (short)	489
3/2 (with short)	977(In) 488(Out)
4/1	586
4/2	183
5/1	371
5/2	391
6/1	476
6/2	488
7/1	1062
8/1	623
9/1	870
10/1	518
11/1	671
11/2	0
12/1	371
12/2	391
13/1	505
13/2	0
14/1	476
14/2	488

Lane Saturation Flows

Junction: A12 Mountnessing Roundabout								
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 (Roman Road (B1002))	2.83	0.00	Y	Arm 8 Left	Inf	41.5 %	1898	1898
				Arm 12 Ahead	Inf	58.5 %		
1/2 (Roman Road (B1002))	4.79	0.00	Y	Arm 12 Ahead	Inf	100.0 %	2094	2094
2/1 (A12 WB Slip Road)	2.71	0.00	Y	Arm 9 Left	Inf	100.0 %	1886	1886
2/2 (A12 WB Slip Road)	3.10	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1925	1925
3/1 (Chelmsford Road (A1023))	2.80	0.00	Y	Arm 10 Left	Inf	25.8 %	1895	1895
				Arm 14 Ahead	Inf	74.2 %		
3/2 (Chelmsford Road (A1023))	3.65	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1980	1980
4/1 (A12 EB Slip Road)	3.74	0.00	Y	Arm 7 Left	Inf	100.0 %	1989	1989
4/2 (A12 EB Slip Road)	3.97	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2012	2012
5/1	4.20	0.00	Y	Arm 9 Ahead	Inf	100.0 %	2035	2035
5/2	4.20	0.00	Y	Arm 13 Right	Inf	100.0 %	2035	2035
6/1	4.20	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2035	2035
6/2	4.20	0.00	Y	Arm 11 Right	Inf	100.0 %	2035	2035
7/1 (Roman Road (Exit))	3.25	0.00	Y				1940	1940
8/1 (A12 EB Slip Road (Exit))	3.25	0.00	Y				1940	1940
9/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
10/1 (A12 WB Slip Road (Exit))	3.25	0.00	Y				1940	1940
11/1	4.20	0.00	Y	Arm 8 Ahead	Inf	72.9 %	2035	2035
				Arm 12 Right	Inf	27.1 %		
11/2	4.20	0.00	Y	Arm 12 Right	Inf	0.0 %	2035	2035
12/1	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
12/2	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
13/1	4.20	0.00	Y	Arm 10 Ahead	Inf	77.6 %	2035	2035
				Arm 14 Right	Inf	22.4 %		
13/2	4.20	0.00	Y	Arm 14 Right	Inf	0.0 %	2035	2035
14/1	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035
14/2	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035

Full Input Data And Results

Scenario 9: '2022 Base (AM Peak)' (FG9: '2022 Base (AM Peak)', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	1	167	439	498	1105
	B	151	1	701	13	866
	C	328	416	1	172	917
	D	494	3	199	1	697
	Tot.	974	587	1340	684	3585

Traffic Lane Flows

Lane	Scenario 9: 2022 Base (AM Peak)
Junction: A12 Mountnessing Roundabout	
1/1 (short)	606
1/2 (with short)	1105(In) 499(Out)
2/1	701
2/2	165
3/1 (short)	500
3/2 (with short)	917(In) 417(Out)
4/1	494
4/2	203
5/1	639
5/2	500
6/1	480
6/2	418
7/1	974
8/1	587
9/1	1340
10/1	684
11/1	620
11/2	1
12/1	639
12/2	500
13/1	664
13/2	1
14/1	480
14/2	418

Lane Saturation Flows

Junction: A12 Mountnessing Roundabout								
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 (Roman Road (B1002))	2.83	0.00	Y	Arm 8 Left	Inf	27.6 %	1898	1898
				Arm 12 Ahead	Inf	72.4 %		
1/2 (Roman Road (B1002))	4.79	0.00	Y	Arm 12 Ahead	Inf	100.0 %	2094	2094
2/1 (A12 WB Slip Road)	2.71	0.00	Y	Arm 9 Left	Inf	100.0 %	1886	1886
2/2 (A12 WB Slip Road)	3.10	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1925	1925
3/1 (Chelmsford Road (A1023))	2.80	0.00	Y	Arm 10 Left	Inf	34.4 %	1895	1895
				Arm 14 Ahead	Inf	65.6 %		
3/2 (Chelmsford Road (A1023))	3.65	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1980	1980
4/1 (A12 EB Slip Road)	3.74	0.00	Y	Arm 7 Left	Inf	100.0 %	1989	1989
4/2 (A12 EB Slip Road)	3.97	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2012	2012
5/1	4.20	0.00	Y	Arm 9 Ahead	Inf	100.0 %	2035	2035
5/2	4.20	0.00	Y	Arm 13 Right	Inf	100.0 %	2035	2035
6/1	4.20	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2035	2035
6/2	4.20	0.00	Y	Arm 11 Right	Inf	100.0 %	2035	2035
7/1 (Roman Road (Exit))	3.25	0.00	Y				1940	1940
8/1 (A12 EB Slip Road (Exit))	3.25	0.00	Y				1940	1940
9/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
10/1 (A12 WB Slip Road (Exit))	3.25	0.00	Y				1940	1940
11/1	4.20	0.00	Y	Arm 8 Ahead	Inf	67.7 %	2035	2035
				Arm 12 Right	Inf	32.3 %		
11/2	4.20	0.00	Y	Arm 12 Right	Inf	100.0 %	2035	2035
12/1	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
12/2	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
13/1	4.20	0.00	Y	Arm 10 Ahead	Inf	77.1 %	2035	2035
				Arm 14 Right	Inf	22.9 %		
13/2	4.20	0.00	Y	Arm 14 Right	Inf	100.0 %	2035	2035
14/1	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035
14/2	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035

Full Input Data And Results

Scenario 10: '2022 Base (PM Peak)' (FG10: '2022 Base (PM Peak)', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	1	133	188	388	710
	B	111	0	497	2	610
	C	361	485	1	125	972
	D	583	2	180	0	765
	Tot.	1056	620	866	515	3057

Traffic Lane Flows

Lane	Scenario 10: 2022 Base (PM Peak)
Junction: A12 Mountnessing Roundabout	
1/1 (short)	321
1/2 (with short)	710(In) 389(Out)
2/1	497
2/2	113
3/1 (short)	486
3/2 (with short)	972(In) 486(Out)
4/1	583
4/2	182
5/1	369
5/2	389
6/1	473
6/2	486
7/1	1056
8/1	620
9/1	866
10/1	515
11/1	668
11/2	0
12/1	369
12/2	389
13/1	502
13/2	0
14/1	473
14/2	486

Lane Saturation Flows

Junction: A12 Mountnessing Roundabout								
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 (Roman Road (B1002))	2.83	0.00	Y	Arm 8 Left	Inf	41.4 %	1898	1898
				Arm 12 Ahead	Inf	58.6 %		
1/2 (Roman Road (B1002))	4.79	0.00	Y	Arm 12 Ahead	Inf	100.0 %	2094	2094
2/1 (A12 WB Slip Road)	2.71	0.00	Y	Arm 9 Left	Inf	100.0 %	1886	1886
2/2 (A12 WB Slip Road)	3.10	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1925	1925
3/1 (Chelmsford Road (A1023))	2.80	0.00	Y	Arm 10 Left	Inf	25.7 %	1895	1895
				Arm 14 Ahead	Inf	74.3 %		
3/2 (Chelmsford Road (A1023))	3.65	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1980	1980
4/1 (A12 EB Slip Road)	3.74	0.00	Y	Arm 7 Left	Inf	100.0 %	1989	1989
4/2 (A12 EB Slip Road)	3.97	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2012	2012
5/1	4.20	0.00	Y	Arm 9 Ahead	Inf	100.0 %	2035	2035
5/2	4.20	0.00	Y	Arm 13 Right	Inf	100.0 %	2035	2035
6/1	4.20	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2035	2035
6/2	4.20	0.00	Y	Arm 11 Right	Inf	100.0 %	2035	2035
7/1 (Roman Road (Exit))	3.25	0.00	Y				1940	1940
8/1 (A12 EB Slip Road (Exit))	3.25	0.00	Y				1940	1940
9/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
10/1 (A12 WB Slip Road (Exit))	3.25	0.00	Y				1940	1940
11/1	4.20	0.00	Y	Arm 8 Ahead	Inf	72.9 %	2035	2035
				Arm 12 Right	Inf	27.1 %		
11/2	4.20	0.00	Y	Arm 12 Right	Inf	0.0 %	2035	2035
12/1	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
12/2	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
13/1	4.20	0.00	Y	Arm 10 Ahead	Inf	77.7 %	2035	2035
				Arm 14 Right	Inf	22.3 %		
13/2	4.20	0.00	Y	Arm 14 Right	Inf	0.0 %	2035	2035
14/1	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035
14/2	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035

Full Input Data And Results

Scenario 11: '2022 Base + Dev (AM Peak)' (FG11: '2022 Base + Dev (AM Peak)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	1	167	443	498	1109
	B	151	1	704	13	869
	C	340	426	1	201	968
	D	494	3	208	1	706
	Tot.	986	597	1356	713	3652

Traffic Lane Flows

Lane	Scenario 11: 2022 Base + Dev (AM Peak)
Junction: A12 Mountnessing Roundabout	
1/1 (short)	610
1/2 (with short)	1109(In) 499(Out)
2/1	704
2/2	165
3/1 (short)	541
3/2 (with short)	968(In) 427(Out)
4/1	494
4/2	212
5/1	652
5/2	500
6/1	492
6/2	428
7/1	986
8/1	597
9/1	1356
10/1	713
11/1	639
11/2	1
12/1	652
12/2	500
13/1	664
13/2	1
14/1	492
14/2	428

Lane Saturation Flows

Junction: A12 Mountnessing Roundabout								
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 (Roman Road (B1002))	2.83	0.00	Y	Arm 8 Left	Inf	27.4 %	1898	1898
				Arm 12 Ahead	Inf	72.6 %		
1/2 (Roman Road (B1002))	4.79	0.00	Y	Arm 12 Ahead	Inf	100.0 %	2094	2094
2/1 (A12 WB Slip Road)	2.71	0.00	Y	Arm 9 Left	Inf	100.0 %	1886	1886
2/2 (A12 WB Slip Road)	3.10	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1925	1925
3/1 (Chelmsford Road (A1023))	2.80	0.00	Y	Arm 10 Left	Inf	37.2 %	1895	1895
				Arm 14 Ahead	Inf	62.8 %		
3/2 (Chelmsford Road (A1023))	3.65	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1980	1980
4/1 (A12 EB Slip Road)	3.74	0.00	Y	Arm 7 Left	Inf	100.0 %	1989	1989
4/2 (A12 EB Slip Road)	3.97	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2012	2012
5/1	4.20	0.00	Y	Arm 9 Ahead	Inf	100.0 %	2035	2035
5/2	4.20	0.00	Y	Arm 13 Right	Inf	100.0 %	2035	2035
6/1	4.20	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2035	2035
6/2	4.20	0.00	Y	Arm 11 Right	Inf	100.0 %	2035	2035
7/1 (Roman Road (Exit))	3.25	0.00	Y				1940	1940
8/1 (A12 EB Slip Road (Exit))	3.25	0.00	Y				1940	1940
9/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
10/1 (A12 WB Slip Road (Exit))	3.25	0.00	Y				1940	1940
11/1	4.20	0.00	Y	Arm 8 Ahead	Inf	67.3 %	2035	2035
				Arm 12 Right	Inf	32.7 %		
11/2	4.20	0.00	Y	Arm 12 Right	Inf	100.0 %	2035	2035
12/1	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
12/2	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
13/1	4.20	0.00	Y	Arm 10 Ahead	Inf	77.1 %	2035	2035
				Arm 14 Right	Inf	22.9 %		
13/2	4.20	0.00	Y	Arm 14 Right	Inf	100.0 %	2035	2035
14/1	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035
14/2	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035

Full Input Data And Results

Scenario 12: '2022 Base + Dev (PM Peak)' (FG12: '2022 Base + Dev (PM Peak)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	1	133	202	388	724
	B	111	0	508	2	621
	C	367	490	1	138	996
	D	583	2	212	0	797
	Tot.	1062	625	923	528	3138

Traffic Lane Flows

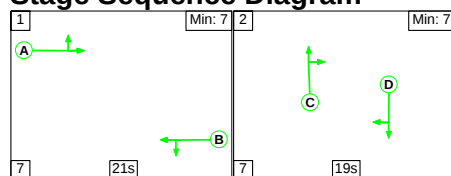
Lane	Scenario 12: 2022 Base + Dev (PM Peak)
Junction: A12 Mountnessing Roundabout	
1/1 (short)	335
1/2 (with short)	724(In) 389(Out)
2/1	508
2/2	113
3/1 (short)	505
3/2 (with short)	996(In) 491(Out)
4/1	583
4/2	214
5/1	415
5/2	389
6/1	479
6/2	491
7/1	1062
8/1	625
9/1	923
10/1	528
11/1	705
11/2	0
12/1	415
12/2	389
13/1	502
13/2	0
14/1	479
14/2	491

Lane Saturation Flows

Junction: A12 Mountnessing Roundabout								
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 (Roman Road (B1002))	2.83	0.00	Y	Arm 8 Left	Inf	39.7 %	1898	1898
				Arm 12 Ahead	Inf	60.3 %		
1/2 (Roman Road (B1002))	4.79	0.00	Y	Arm 12 Ahead	Inf	100.0 %	2094	2094
2/1 (A12 WB Slip Road)	2.71	0.00	Y	Arm 9 Left	Inf	100.0 %	1886	1886
2/2 (A12 WB Slip Road)	3.10	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1925	1925
3/1 (Chelmsford Road (A1023))	2.80	0.00	Y	Arm 10 Left	Inf	27.3 %	1895	1895
				Arm 14 Ahead	Inf	72.7 %		
3/2 (Chelmsford Road (A1023))	3.65	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1980	1980
4/1 (A12 EB Slip Road)	3.74	0.00	Y	Arm 7 Left	Inf	100.0 %	1989	1989
4/2 (A12 EB Slip Road)	3.97	0.00	Y	Arm 11 Ahead	Inf	100.0 %	2012	2012
5/1	4.20	0.00	Y	Arm 9 Ahead	Inf	100.0 %	2035	2035
5/2	4.20	0.00	Y	Arm 13 Right	Inf	100.0 %	2035	2035
6/1	4.20	0.00	Y	Arm 7 Ahead	Inf	100.0 %	2035	2035
6/2	4.20	0.00	Y	Arm 11 Right	Inf	100.0 %	2035	2035
7/1 (Roman Road (Exit))	3.25	0.00	Y				1940	1940
8/1 (A12 EB Slip Road (Exit))	3.25	0.00	Y				1940	1940
9/1 (Chelmsford Road (Exit))	3.25	0.00	Y				1940	1940
10/1 (A12 WB Slip Road (Exit))	3.25	0.00	Y				1940	1940
11/1	4.20	0.00	Y	Arm 8 Ahead	Inf	69.8 %	2035	2035
				Arm 12 Right	Inf	30.2 %		
11/2	4.20	0.00	Y	Arm 12 Right	Inf	0.0 %	2035	2035
12/1	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
12/2	4.20	0.00	Y	Arm 5 Ahead	Inf	100.0 %	2035	2035
13/1	4.20	0.00	Y	Arm 10 Ahead	Inf	77.7 %	2035	2035
				Arm 14 Right	Inf	22.3 %		
13/2	4.20	0.00	Y	Arm 14 Right	Inf	0.0 %	2035	2035
14/1	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035
14/2	4.20	0.00	Y	Arm 6 Ahead	Inf	100.0 %	2035	2035

Full Input Data And Results
Control Plan 1')

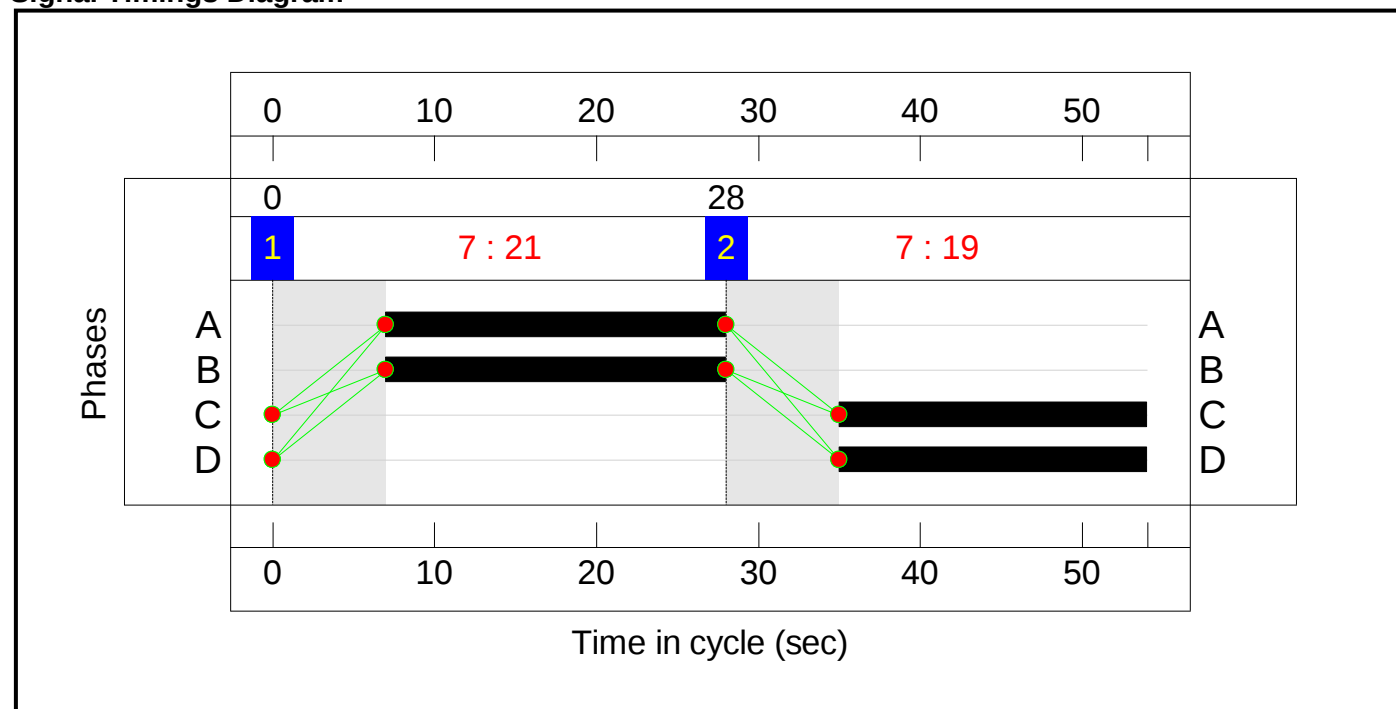
Stage Sequence Diagram



Stage Timings

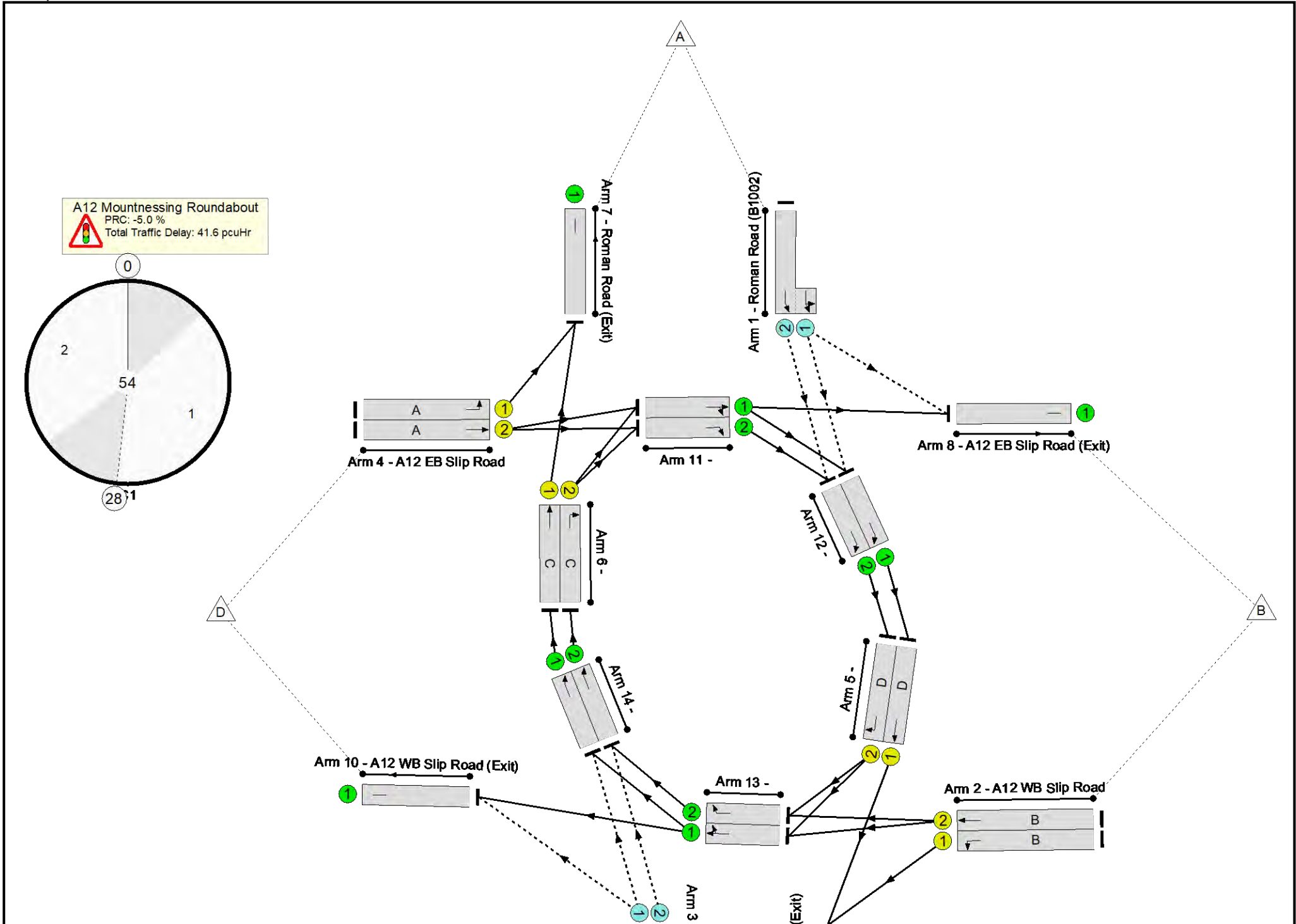
Stage	1	2
Duration	21	19
Change Point	0	28

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And 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: A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	94.5%
A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	94.5%
1/2+1/1	Roman Road (B1002) Left Ahead	O	N/A	N/A	-		-	-	-	1131	2094:1898	634+797	79.0 : 79.0%
2/1	A12 WB Slip Road Left	U	N/A	N/A	B		1	21	-	721	1886	768	93.8%
2/2	A12 WB Slip Road Ahead	U	N/A	N/A	B		1	21	-	166	1925	784	21.2%
3/2+3/1	Chelmsford Road (A1023) Left Ahead	O	N/A	N/A	-		-	-	-	1132	1980:1895	561+820	81.9 : 81.9%
4/1	A12 EB Slip Road Left	U	N/A	N/A	A		1	21	-	496	1989	810	61.2%
4/2	A12 EB Slip Road Ahead	U	N/A	N/A	A		1	21	-	253	2012	820	30.9%
5/1	Ahead	U	N/A	N/A	D		1	19	-	712	2035	754	94.5%
5/2	Right	U	N/A	N/A	D		1	19	-	502	2035	754	66.6%
6/1	Ahead	U	N/A	N/A	C		1	19	-	533	2035	754	70.7%
6/2	Right	U	N/A	N/A	C		1	19	-	461	2035	754	61.2%
7/1	Roman Road (Exit)	U	N/A	N/A	-		-	-	-	1029	1940	1940	53.0%
8/1	A12 EB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	631	1940	1940	32.5%
9/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	1433	1940	1940	73.9%
10/1	A12 WB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	806	1940	1940	41.5%
11/1	Ahead Right	U	N/A	N/A	-		-	-	-	713	2035	2035	35.0%
11/2	Right	U	N/A	N/A	-		-	-	-	1	2035	2035	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	712	2035	2035	35.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	502	2035	2035	24.7%

Full Input Data And Results

13/1	Ahead Right	U	N/A	N/A	-		-	-	-	667	2035	2035	32.8%
13/2	Right	U	N/A	N/A	-		-	-	-	1	2035	2035	0.0%
14/1	Ahead	U	N/A	N/A	-		-	-	-	533	2035	2035	26.2%
14/2	Ahead	U	N/A	N/A	-		-	-	-	461	2035	2035	22.7%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A12 Mountnessing Roundabout	-	-	4526	0	0	17.0	24.6	0.0	41.6	-	-	-	-
A12 Mountnessing Roundabout	-	-	4526	0	0	17.0	24.6	0.0	41.6	-	-	-	-
1/2+1/1	1131	1131	2262	0	0	0.7	1.9	-	2.5	8.1	6.8	1.9	8.7
2/1	721	721	-	-	-	3.1	6.1	-	9.1	45.6	10.2	6.1	16.3
2/2	166	166	-	-	-	0.5	0.1	-	0.6	13.3	1.6	0.1	1.7
3/2+3/1	1132	1132	2264	0	0	1.0	2.2	-	3.2	10.3	7.7	2.2	9.9
4/1	496	496	-	-	-	1.7	0.8	-	2.5	18.3	5.8	0.8	6.6
4/2	253	253	-	-	-	0.8	0.2	-	1.0	14.0	2.5	0.2	2.8
5/1	712	712	-	-	-	3.5	6.5	-	10.0	50.8	10.7	6.5	17.2
5/2	502	502	-	-	-	2.0	1.0	-	3.0	21.2	6.3	1.0	7.3
6/1	533	533	-	-	-	2.0	1.2	-	3.2	21.5	7.7	1.2	8.9
6/2	461	461	-	-	-	1.8	0.8	-	2.5	19.9	5.5	0.8	6.3
7/1	1029	1029	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
8/1	631	631	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
9/1	1433	1433	-	-	-	0.0	1.4	-	1.4	3.5	0.0	1.4	1.4
10/1	806	806	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
11/1	713	713	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
11/2	1	1	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
12/1	712	712	-	-	-	0.0	0.3	-	0.3	1.4	1.7	0.3	2.0
12/2	502	502	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
13/1	667	667	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
13/2	1	1	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
14/1	533	533	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
14/2	461	461	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1

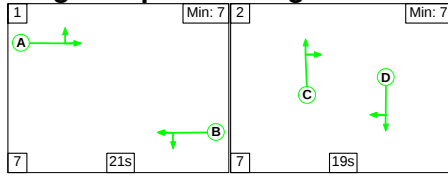
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	-5.0	Total Delay for Signalled Lanes (pcuHr):	31.99	Cycle Time (s):	54
	PRC Over All Lanes (%):	-5.0	Total Delay Over All Lanes(pcuHr):	41.59		

Full Input Data And Results

Scenario 2: '2032 Base + Comm + Dev (PM Peak)' (FG2: '2032 Base + Comm + Dev (PM Peak)', Plan 1: 'Network Control Plan 1')

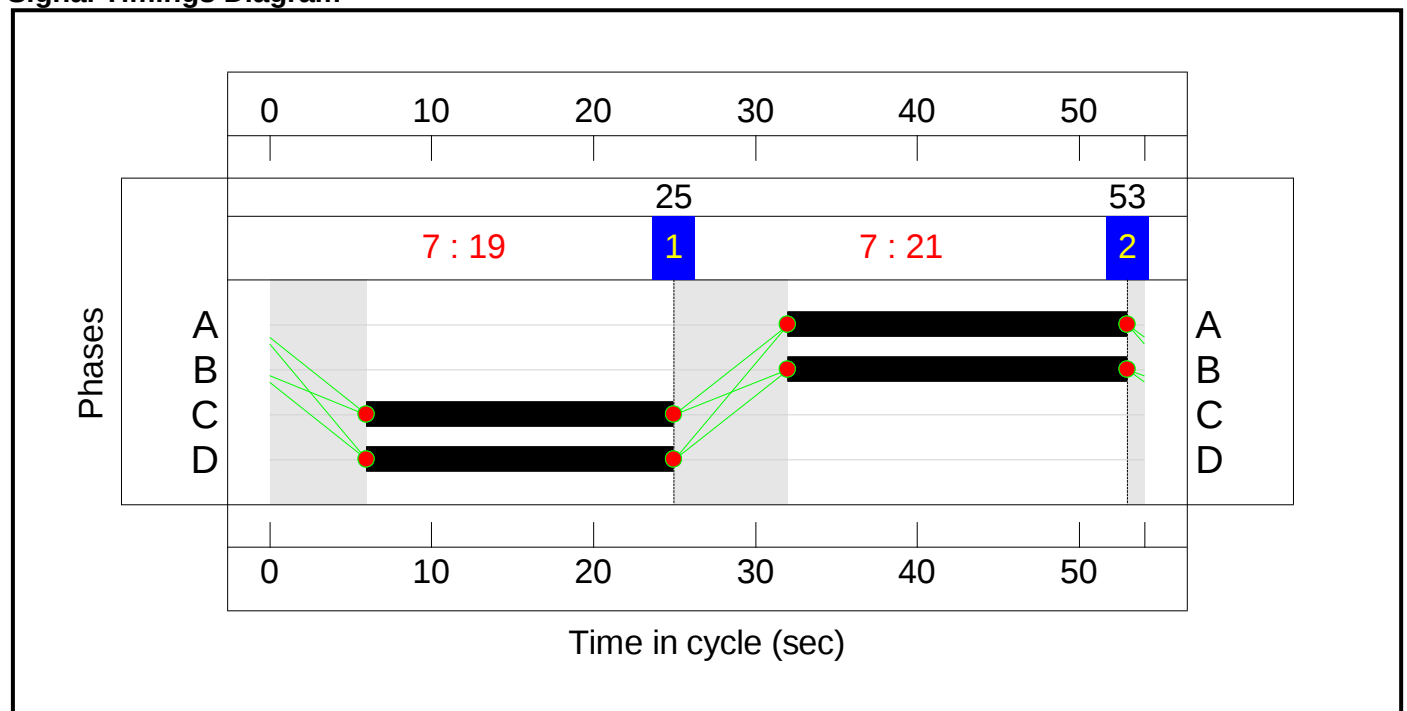
Stage Sequence Diagram



Stage Timings

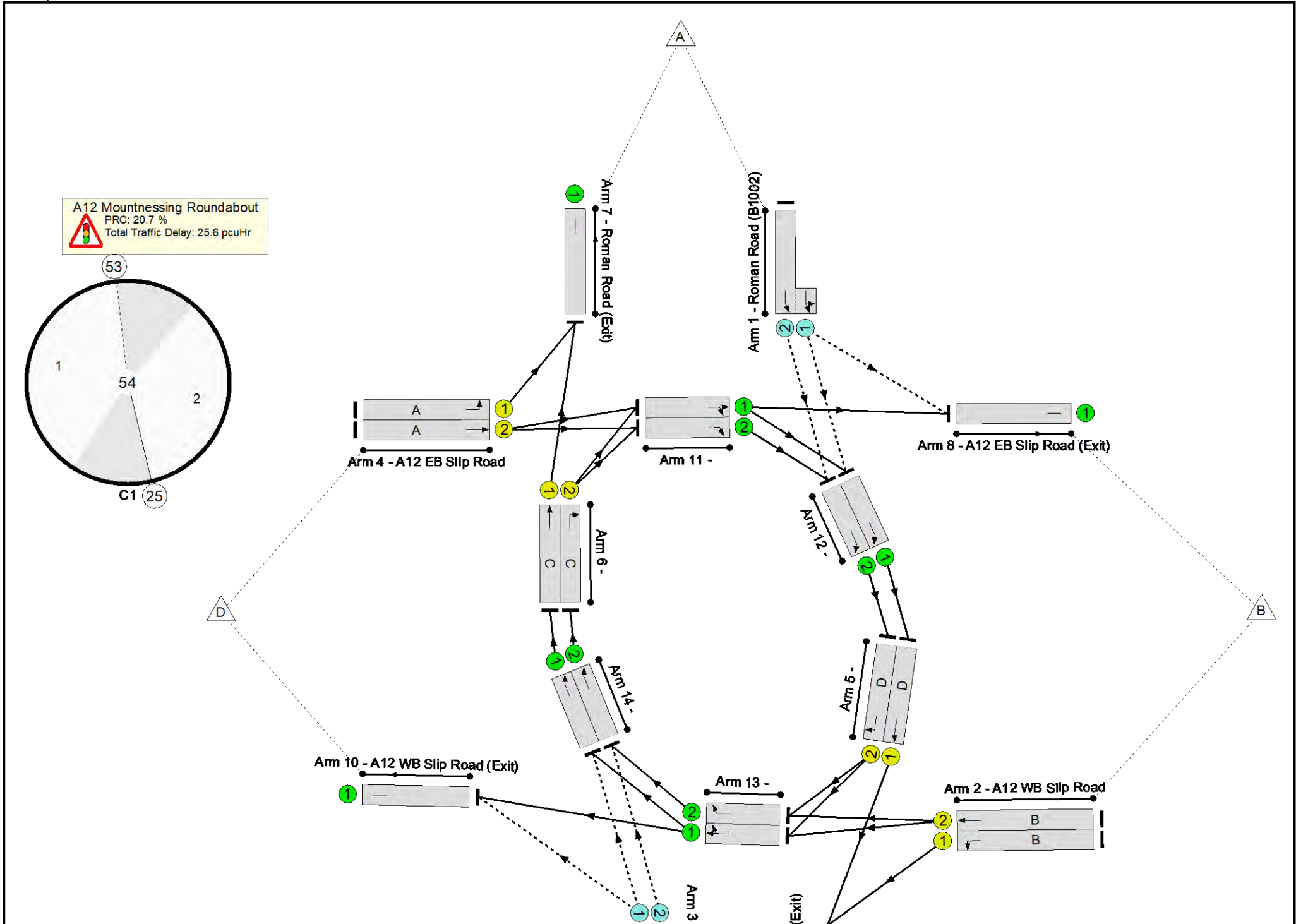
Stage	1	2
Duration	21	19
Change Point	25	53

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And 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: A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	74.6%
A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	74.6%
1/2+1/1	Roman Road (B1002) Left Ahead	O	N/A	N/A	-		-	-	-	771	2094:1898	732+711	53.4 : 53.4%
2/1	A12 WB Slip Road Left	U	N/A	N/A	B		1	21	-	546	1886	768	71.1%
2/2	A12 WB Slip Road Ahead	U	N/A	N/A	B		1	21	-	114	1925	784	14.5%
3/2+3/1	Chelmsford Road (A1023) Left Ahead	O	N/A	N/A	-		-	-	-	1102	1980:1895	828+951	62.0 : 62.0%
4/1	A12 EB Slip Road Left	U	N/A	N/A	A		1	21	-	586	1989	810	72.3%
4/2	A12 EB Slip Road Ahead	U	N/A	N/A	A		1	21	-	317	2012	820	38.7%
5/1	Ahead	U	N/A	N/A	D		1	19	-	562	2035	754	74.6%
5/2	Right	U	N/A	N/A	D		1	19	-	391	2035	754	51.9%
6/1	Ahead	U	N/A	N/A	C		1	19	-	506	2035	754	67.1%
6/2	Right	U	N/A	N/A	C		1	19	-	513	2035	754	68.1%
7/1	Roman Road (Exit)	U	N/A	N/A	-		-	-	-	1092	1940	1940	56.3%
8/1	A12 EB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	648	1940	1940	33.4%
9/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	1108	1940	1940	57.1%
10/1	A12 WB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	588	1940	1940	30.3%
11/1	Ahead Right	U	N/A	N/A	-		-	-	-	830	2035	2035	40.8%
11/2	Right	U	N/A	N/A	-		-	-	-	0	2035	2035	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	562	2035	2035	27.6%
12/2	Ahead	U	N/A	N/A	-		-	-	-	391	2035	2035	19.2%

Full Input Data And Results

13/1	Ahead Right	U	N/A	N/A	-		-	-	-	505	2035	2035	24.8%
13/2	Right	U	N/A	N/A	-		-	-	-	0	2035	2035	0.0%
14/1	Ahead	U	N/A	N/A	-		-	-	-	506	2035	2035	24.9%
14/2	Ahead	U	N/A	N/A	-		-	-	-	513	2035	2035	25.2%

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: A12 Mountnessing Roundabout	-	-	3746	0	0	14.3	11.3	0.0	25.6	-	-	-	-
A12 Mountnessing Roundabout	-	-	3746	0	0	14.3	11.3	0.0	25.6	-	-	-	-
1/2+1/1	771	771	1542	0	0	0.3	0.6	-	0.9	4.2	2.2	0.6	2.8
2/1	546	546	-	-	-	2.0	1.2	-	3.2	21.4	6.8	1.2	8.0
2/2	114	114	-	-	-	0.3	0.1	-	0.4	12.8	1.1	0.1	1.2
3/2+3/1	1102	1102	2204	0	0	0.3	0.8	-	1.1	3.7	3.4	0.8	4.2
4/1	586	586	-	-	-	2.2	1.3	-	3.5	21.4	7.3	1.3	8.6
4/2	317	317	-	-	-	1.0	0.3	-	1.3	14.8	3.3	0.3	3.6
5/1	562	562	-	-	-	2.5	1.4	-	3.9	25.2	8.3	1.4	9.8
5/2	391	391	-	-	-	1.4	0.5	-	2.0	18.2	4.6	0.5	5.1
6/1	506	506	-	-	-	2.2	1.0	-	3.2	22.7	7.1	1.0	8.1
6/2	513	513	-	-	-	2.0	1.1	-	3.1	21.7	6.4	1.1	7.5
7/1	1092	1092	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
8/1	648	648	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
9/1	1108	1108	-	-	-	0.0	0.7	-	0.7	2.2	0.0	0.7	0.7
10/1	588	588	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/1	830	830	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
11/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	562	562	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
12/2	391	391	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
13/1	505	505	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
13/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	506	506	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
14/2	513	513	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2

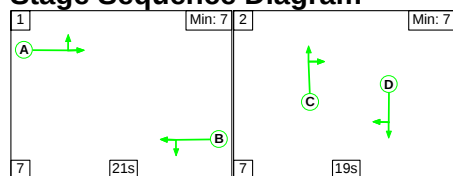
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	20.7	Total Delay for Signalled Lanes (pcuHr):	20.62	Cycle Time (s):	54
	PRC Over All Lanes (%):	20.7	Total Delay Over All Lanes(pcuHr):	25.59		

Full Input Data And Results

Scenario 3: '2032 Base + Comm (AM Peak)' (FG3: '2032 Base + Comm (AM Peak)', Plan 1: 'Network Control Plan 1')

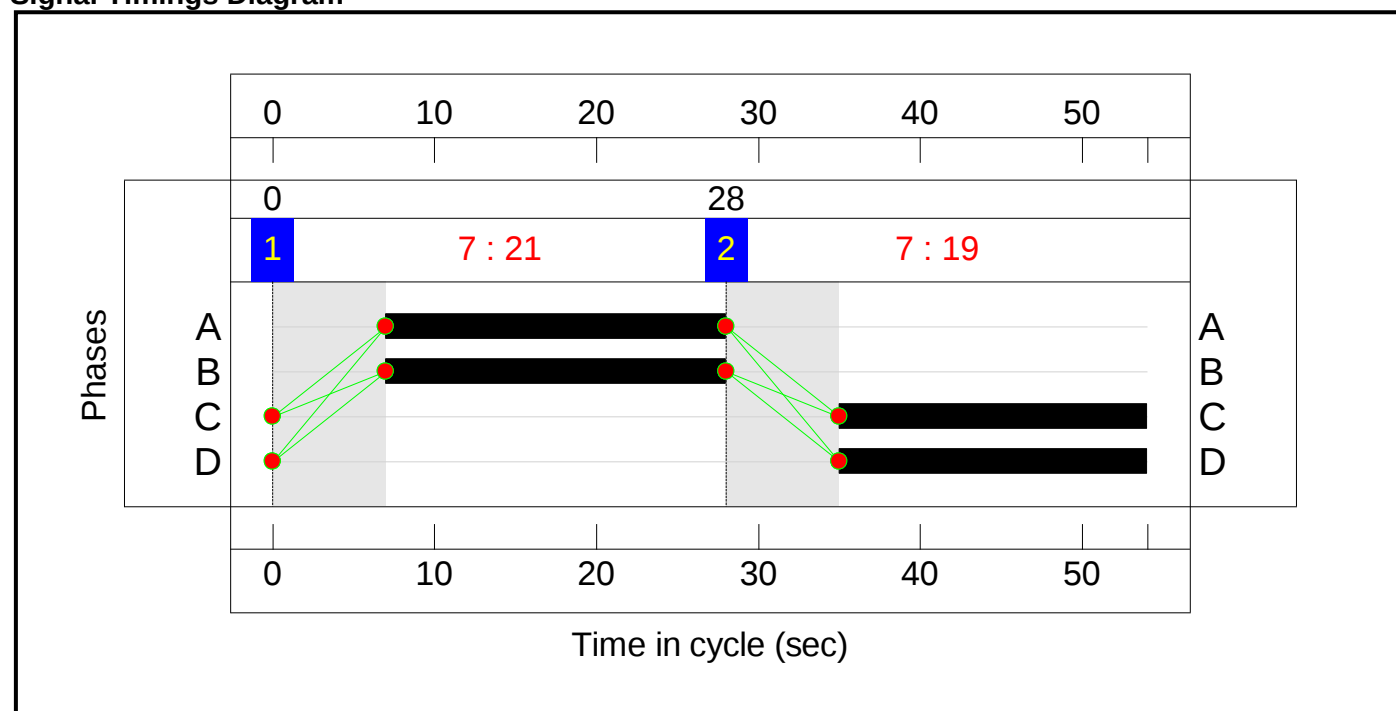
Stage Sequence Diagram



Stage Timings

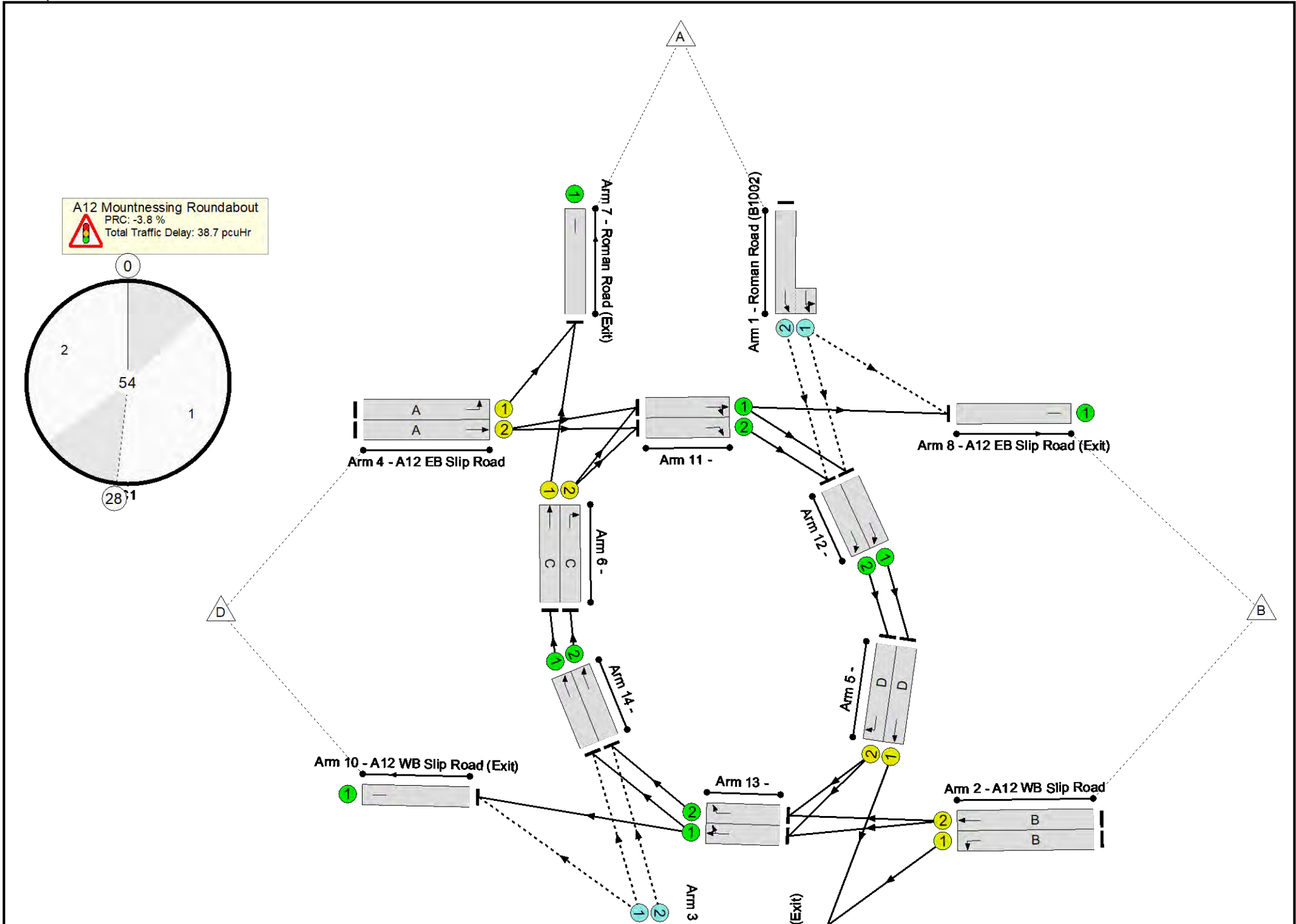
Stage	1	2
Duration	21	19
Change Point	0	28

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And 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: A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	93.4%
A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	93.4%
1/2+1/1	Roman Road (B1002) Left Ahead	O	N/A	N/A	-		-	-	-	1127	2094:1898	649+810	77.3 : 77.3%
2/1	A12 WB Slip Road Left	U	N/A	N/A	B		1	21	-	718	1886	768	93.4%
2/2	A12 WB Slip Road Ahead	U	N/A	N/A	B		1	21	-	166	1925	784	21.2%
3/2+3/1	Chelmsford Road (A1023) Left Ahead	O	N/A	N/A	-		-	-	-	1080	1980:1895	586+820	76.8 : 76.8%
4/1	A12 EB Slip Road Left	U	N/A	N/A	A		1	21	-	496	1989	810	61.2%
4/2	A12 EB Slip Road Ahead	U	N/A	N/A	A		1	21	-	244	2012	820	29.8%
5/1	Ahead	U	N/A	N/A	D		1	19	-	699	2035	754	92.7%
5/2	Right	U	N/A	N/A	D		1	19	-	502	2035	754	66.6%
6/1	Ahead	U	N/A	N/A	C		1	19	-	520	2035	754	69.0%
6/2	Right	U	N/A	N/A	C		1	19	-	451	2035	754	59.8%
7/1	Roman Road (Exit)	U	N/A	N/A	-		-	-	-	1016	1940	1940	52.4%
8/1	A12 EB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	621	1940	1940	32.0%
9/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	1417	1940	1940	73.0%
10/1	A12 WB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	777	1940	1940	40.1%
11/1	Ahead Right	U	N/A	N/A	-		-	-	-	694	2035	2035	34.1%
11/2	Right	U	N/A	N/A	-		-	-	-	1	2035	2035	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	699	2035	2035	34.3%
12/2	Ahead	U	N/A	N/A	-		-	-	-	502	2035	2035	24.7%

Full Input Data And Results

13/1	Ahead Right	U	N/A	N/A	-		-	-	-	667	2035	2035	32.8%
13/2	Right	U	N/A	N/A	-		-	-	-	1	2035	2035	0.0%
14/1	Ahead	U	N/A	N/A	-		-	-	-	520	2035	2035	25.6%
14/2	Ahead	U	N/A	N/A	-		-	-	-	451	2035	2035	22.2%

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: A12 Mountnessing Roundabout	-	-	4414	0	0	16.6	22.1	0.0	38.7	-	-	-	-
A12 Mountnessing Roundabout	-	-	4414	0	0	16.6	22.1	0.0	38.7	-	-	-	-
1/2+1/1	1127	1127	2254	0	0	0.6	1.7	-	2.3	7.3	4.3	1.7	6.0
2/1	718	718	-	-	-	3.1	5.8	-	8.8	44.4	10.2	5.8	16.0
2/2	166	166	-	-	-	0.5	0.1	-	0.6	13.3	1.6	0.1	1.7
3/2+3/1	1080	1080	2160	0	0	0.8	1.6	-	2.5	8.2	6.7	1.6	8.3
4/1	496	496	-	-	-	1.7	0.8	-	2.5	18.3	5.8	0.8	6.6
4/2	244	244	-	-	-	0.7	0.2	-	0.9	13.9	2.4	0.2	2.7
5/1	699	699	-	-	-	3.5	5.3	-	8.8	45.5	10.5	5.3	15.8
5/2	502	502	-	-	-	2.0	1.0	-	3.0	21.2	6.3	1.0	7.3
6/1	520	520	-	-	-	2.0	1.1	-	3.1	21.3	7.5	1.1	8.6
6/2	451	451	-	-	-	1.7	0.7	-	2.5	19.7	5.4	0.7	6.1
7/1	1016	1016	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
8/1	621	621	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
9/1	1417	1417	-	-	-	0.0	1.3	-	1.3	3.4	0.0	1.3	1.3
10/1	777	777	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
11/1	694	694	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
11/2	1	1	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
12/1	699	699	-	-	-	0.0	0.3	-	0.3	1.4	1.7	0.3	2.0
12/2	502	502	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
13/1	667	667	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
13/2	1	1	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
14/1	520	520	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
14/2	451	451	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1

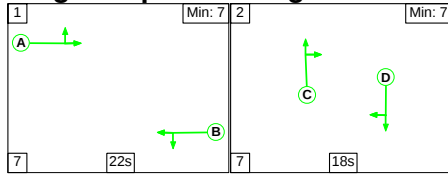
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	-3.8	Total Delay for Signalled Lanes (pcuHr):	30.26	Cycle Time (s):	54
	PRC Over All Lanes (%):	-3.8	Total Delay Over All Lanes(pcuHr):	38.72		

Full Input Data And Results

Scenario 4: '2032 Base + Comm (PM Peak)' (FG4: '2032 Base + Comm (PM Peak)', Plan 1: 'Network Control Plan 1')

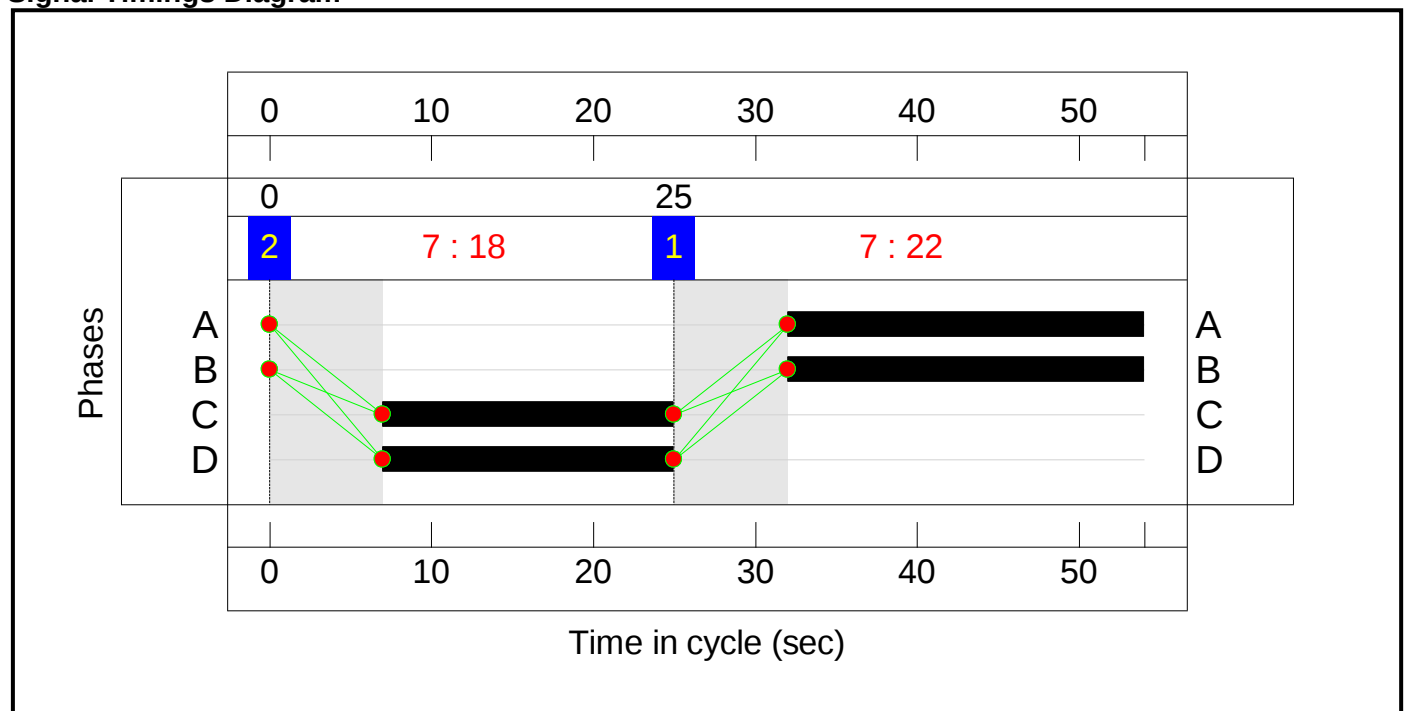
Stage Sequence Diagram



Stage Timings

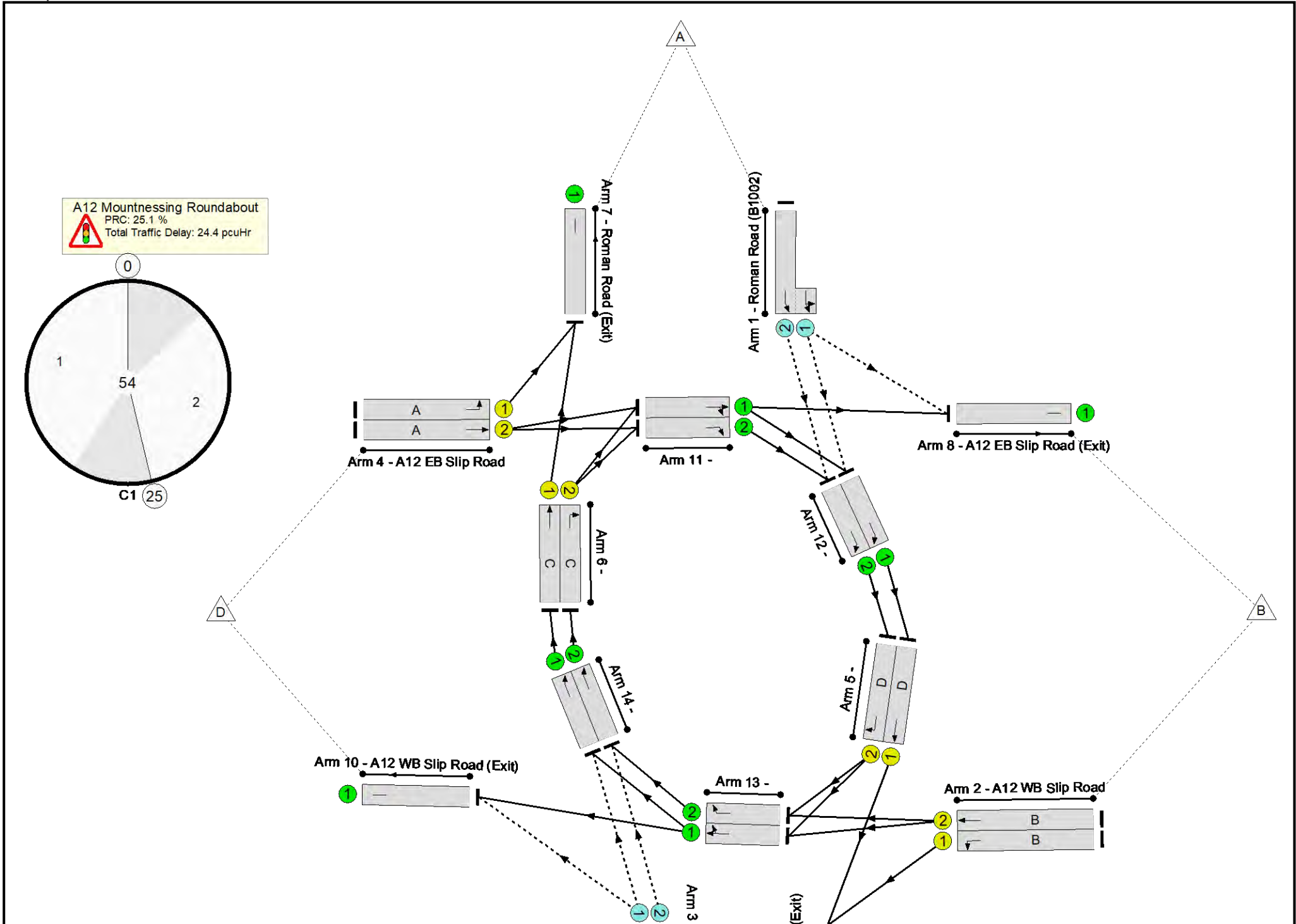
Stage	1	2
Duration	22	18
Change Point	25	0

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And 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: A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	71.9%
A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	71.9%
1/2+1/1	Roman Road (B1002) Left Ahead	O	N/A	N/A	-		-	-	-	757	2094:1898	793+743	49.3 : 49.3%
2/1	A12 WB Slip Road Left	U	N/A	N/A	B		1	22	-	535	1886	803	66.6%
2/2	A12 WB Slip Road Ahead	U	N/A	N/A	B		1	22	-	114	1925	820	13.9%
3/2+3/1	Chelmsford Road (A1023) Left Ahead	O	N/A	N/A	-		-	-	-	1078	1980:1895	840+943	60.5 : 60.5%
4/1	A12 EB Slip Road Left	U	N/A	N/A	A		1	22	-	586	1989	847	69.2%
4/2	A12 EB Slip Road Ahead	U	N/A	N/A	A		1	22	-	284	2012	857	33.1%
5/1	Ahead	U	N/A	N/A	D		1	18	-	515	2035	716	71.9%
5/2	Right	U	N/A	N/A	D		1	18	-	391	2035	716	54.6%
6/1	Ahead	U	N/A	N/A	C		1	18	-	500	2035	716	69.8%
6/2	Right	U	N/A	N/A	C		1	18	-	508	2035	716	70.9%
7/1	Roman Road (Exit)	U	N/A	N/A	-		-	-	-	1086	1940	1940	56.0%
8/1	A12 EB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	643	1940	1940	33.1%
9/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	1050	1940	1940	54.1%
10/1	A12 WB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	575	1940	1940	29.6%
11/1	Ahead Right	U	N/A	N/A	-		-	-	-	792	2035	2035	38.9%
11/2	Right	U	N/A	N/A	-		-	-	-	0	2035	2035	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	515	2035	2035	25.3%
12/2	Ahead	U	N/A	N/A	-		-	-	-	391	2035	2035	19.2%

Full Input Data And Results

13/1	Ahead Right	U	N/A	N/A	-		-	-	-	505	2035	2035	24.8%
13/2	Right	U	N/A	N/A	-		-	-	-	0	2035	2035	0.0%
14/1	Ahead	U	N/A	N/A	-		-	-	-	500	2035	2035	24.6%
14/2	Ahead	U	N/A	N/A	-		-	-	-	508	2035	2035	25.0%

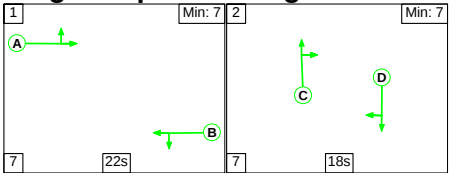
Full Input Data And Results

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: A12 Mountnessing Roundabout	-	-	3670	0	0	13.7	10.7	0.0	24.4	-	-	-	-
A12 Mountnessing Roundabout	-	-	3670	0	0	13.7	10.7	0.0	24.4	-	-	-	-
1/2+1/1	757	757	1514	0	0	0.3	0.5	-	0.8	3.7	2.1	0.5	2.6
2/1	535	535	-	-	-	1.8	1.0	-	2.8	19.1	6.4	1.0	7.4
2/2	114	114	-	-	-	0.3	0.1	-	0.4	12.0	1.0	0.1	1.1
3/2+3/1	1078	1078	2156	0	0	0.3	0.8	-	1.1	3.6	3.3	0.8	4.1
4/1	586	586	-	-	-	2.1	1.1	-	3.2	19.4	7.0	1.1	8.1
4/2	284	284	-	-	-	0.8	0.2	-	1.1	13.5	2.8	0.2	3.1
5/1	515	515	-	-	-	2.3	1.3	-	3.5	24.8	7.6	1.3	8.8
5/2	391	391	-	-	-	1.5	0.6	-	2.1	19.6	4.7	0.6	5.3
6/1	500	500	-	-	-	2.2	1.1	-	3.3	23.9	7.0	1.1	8.2
6/2	508	508	-	-	-	2.1	1.2	-	3.3	23.7	6.5	1.2	7.7
7/1	1086	1086	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
8/1	643	643	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
9/1	1050	1050	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
10/1	575	575	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/1	792	792	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
11/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	515	515	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
12/2	391	391	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
13/1	505	505	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
13/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	500	500	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
14/2	508	508	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	25.1	Total Delay for Signalled Lanes (pcuHr):	19.78	Cycle Time (s):	54
	PRC Over All Lanes (%):	25.1	Total Delay Over All Lanes(pcuHr):	24.42		

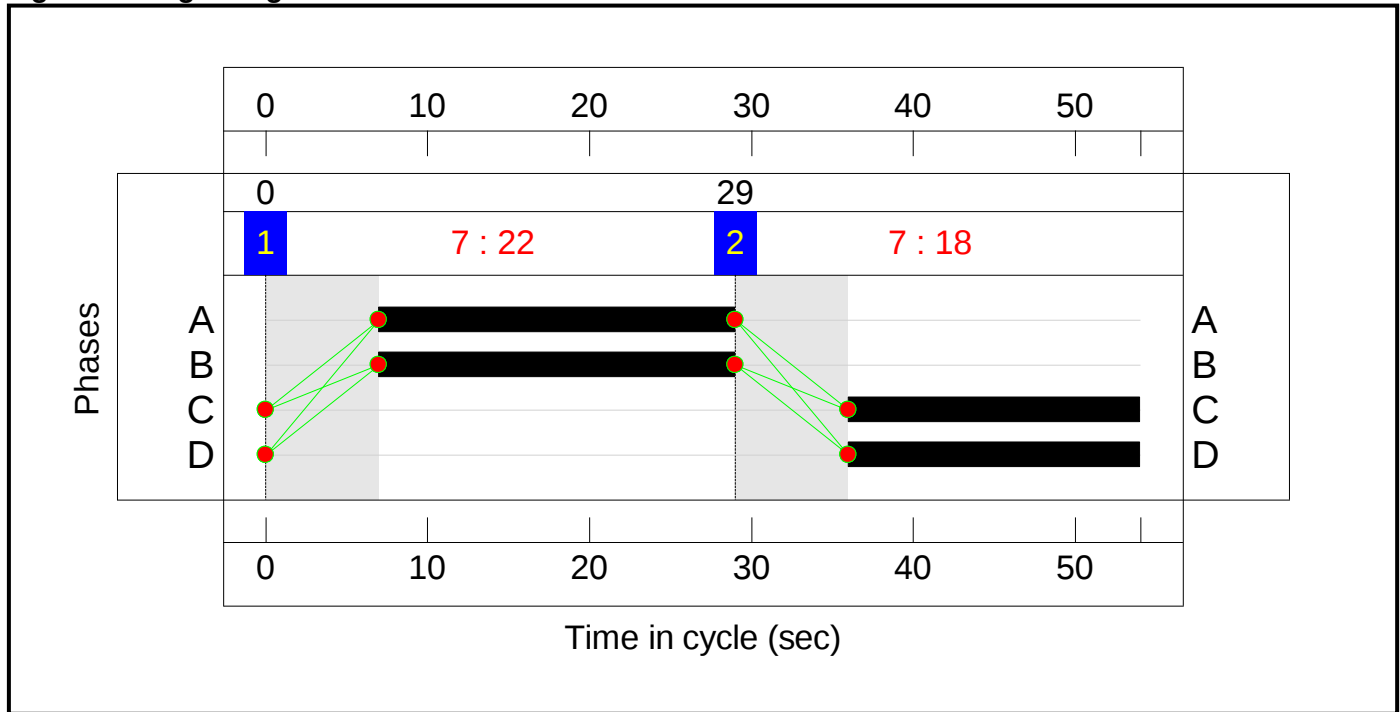
Stage Sequence Diagram



Stage Timings

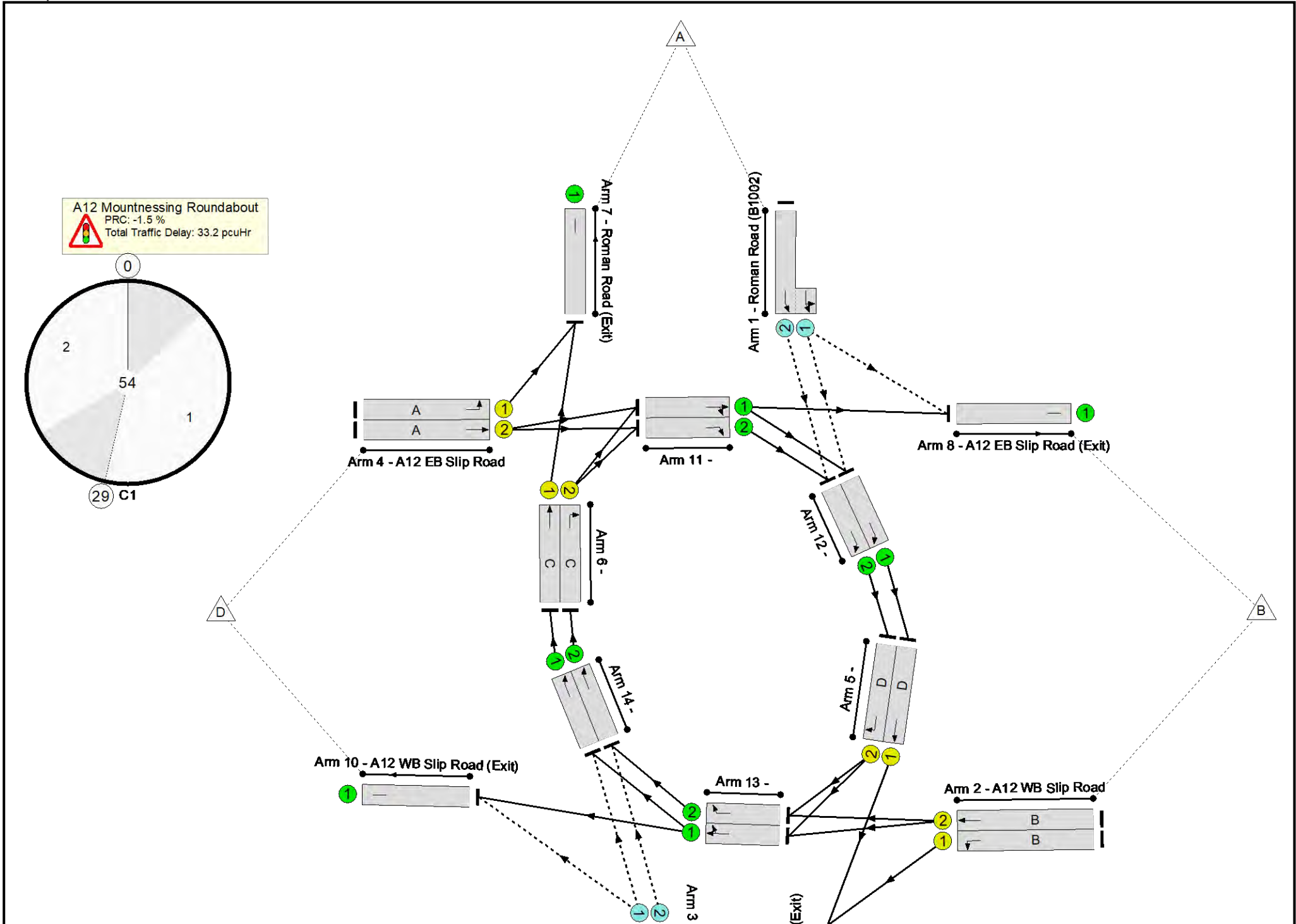
Stage	1	2
Duration	22	18
Change Point	0	29

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And 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: A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	91.3%
A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	91.3%
1/2+1/1	Roman Road (B1002) Left Ahead	O	N/A	N/A	-		-	-	-	1113	2094:1898	699+854	71.7 : 71.7%
2/1	A12 WB Slip Road Left	U	N/A	N/A	B		1	22	-	707	1886	803	88.0%
2/2	A12 WB Slip Road Ahead	U	N/A	N/A	B		1	22	-	166	1925	820	20.2%
3/2+3/1	Chelmsford Road (A1023) Left Ahead	O	N/A	N/A	-		-	-	-	972	1980:1895	650+823	66.0 : 66.0%
4/1	A12 EB Slip Road Left	U	N/A	N/A	A		1	22	-	496	1989	847	58.5%
4/2	A12 EB Slip Road Ahead	U	N/A	N/A	A		1	22	-	213	2012	857	24.9%
5/1	Ahead	U	N/A	N/A	D		1	18	-	654	2035	716	91.3%
5/2	Right	U	N/A	N/A	D		1	18	-	502	2035	716	70.1%
6/1	Ahead	U	N/A	N/A	C		1	18	-	494	2035	716	69.0%
6/2	Right	U	N/A	N/A	C		1	18	-	430	2035	716	60.1%
7/1	Roman Road (Exit)	U	N/A	N/A	-		-	-	-	990	1940	1940	51.0%
8/1	A12 EB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	600	1940	1940	30.9%
9/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	1361	1940	1940	70.2%
10/1	A12 WB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	716	1940	1940	36.9%
11/1	Ahead Right	U	N/A	N/A	-		-	-	-	642	2035	2035	31.5%
11/2	Right	U	N/A	N/A	-		-	-	-	1	2035	2035	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	654	2035	2035	32.1%
12/2	Ahead	U	N/A	N/A	-		-	-	-	502	2035	2035	24.7%

Full Input Data And Results

13/1	Ahead Right	U	N/A	N/A	-		-	-	-	667	2035	2035	32.8%
13/2	Right	U	N/A	N/A	-		-	-	-	1	2035	2035	0.0%
14/1	Ahead	U	N/A	N/A	-		-	-	-	494	2035	2035	24.3%
14/2	Ahead	U	N/A	N/A	-		-	-	-	430	2035	2035	21.1%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A12 Mountnessing Roundabout	-	-	4170	0	0	15.6	17.6	0.0	33.2	-	-	-	-
A12 Mountnessing Roundabout	-	-	4170	0	0	15.6	17.6	0.0	33.2	-	-	-	-
1/2+1/1	1113	1113	2226	0	0	0.5	1.3	-	1.8	5.7	4.1	1.3	5.3
2/1	707	707	-	-	-	2.8	3.4	-	6.2	31.7	9.6	3.4	13.1
2/2	166	166	-	-	-	0.4	0.1	-	0.6	12.5	1.5	0.1	1.6
3/2+3/1	972	972	1944	0	0	0.6	1.0	-	1.5	5.7	4.8	1.0	5.8
4/1	496	496	-	-	-	1.6	0.7	-	2.3	17.0	5.6	0.7	6.4
4/2	213	213	-	-	-	0.6	0.2	-	0.8	12.8	2.0	0.2	2.2
5/1	654	654	-	-	-	3.3	4.6	-	7.9	43.3	9.8	4.6	14.4
5/2	502	502	-	-	-	2.1	1.2	-	3.3	23.4	6.4	1.2	7.6
6/1	494	494	-	-	-	2.0	1.1	-	3.1	22.3	7.0	1.1	8.1
6/2	430	430	-	-	-	1.7	0.7	-	2.5	20.6	5.3	0.7	6.0
7/1	990	990	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
8/1	600	600	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/1	1361	1361	-	-	-	0.0	1.2	-	1.2	3.1	0.0	1.2	1.2
10/1	716	716	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
11/1	642	642	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/2	1	1	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
12/1	654	654	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/2	502	502	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
13/1	667	667	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
13/2	1	1	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
14/1	494	494	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
14/2	430	430	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1

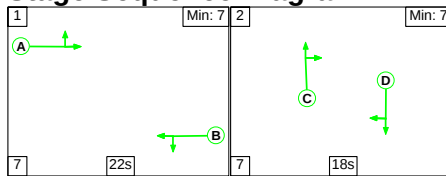
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	-1.5	Total Delay for Signalled Lanes (pcuHr):	26.54	Cycle Time (s):	54
	PRC Over All Lanes (%):	-1.5	Total Delay Over All Lanes(pcuHr):	33.21		

Full Input Data And Results

Scenario 6: '2032 Base + Dev (PM Peak)' (FG6: '2032 Base + Dev (PM Peak)', Plan 1: 'Network Control Plan 1')

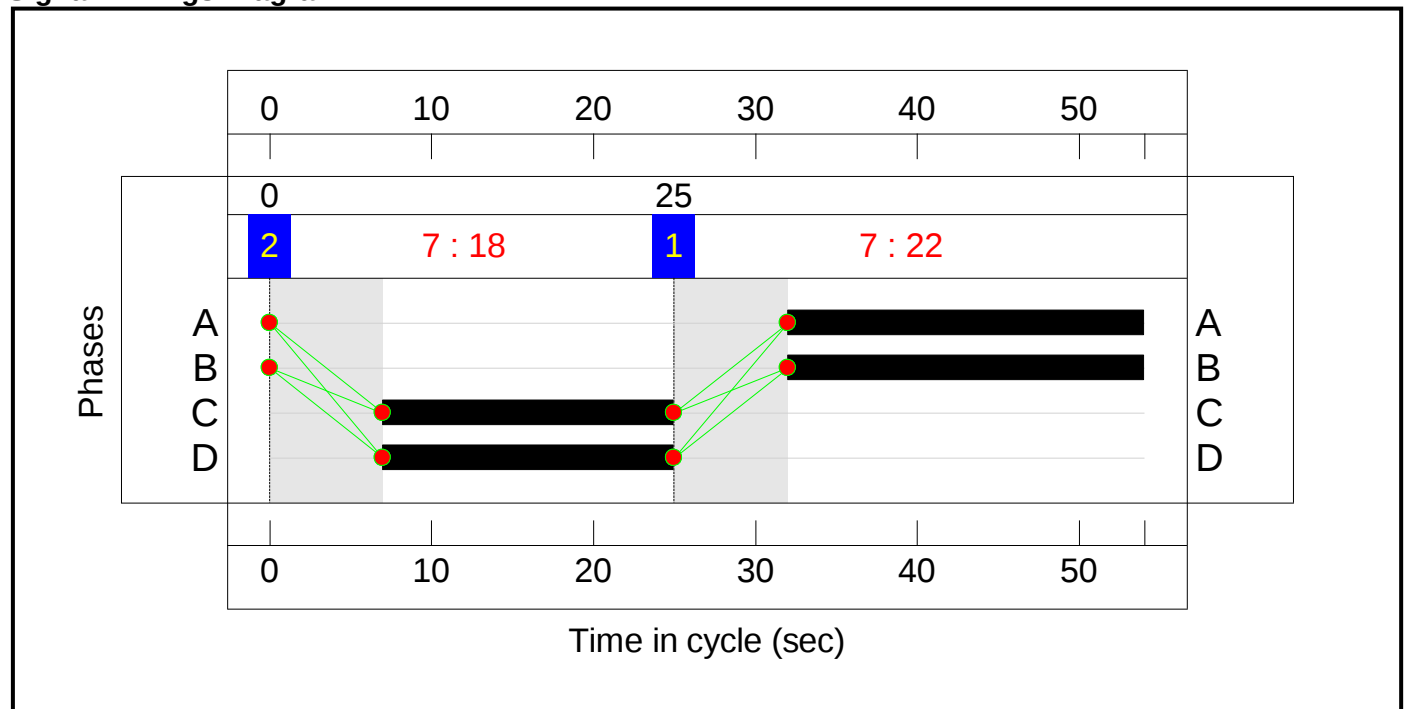
Stage Sequence Diagram



Stage Timings

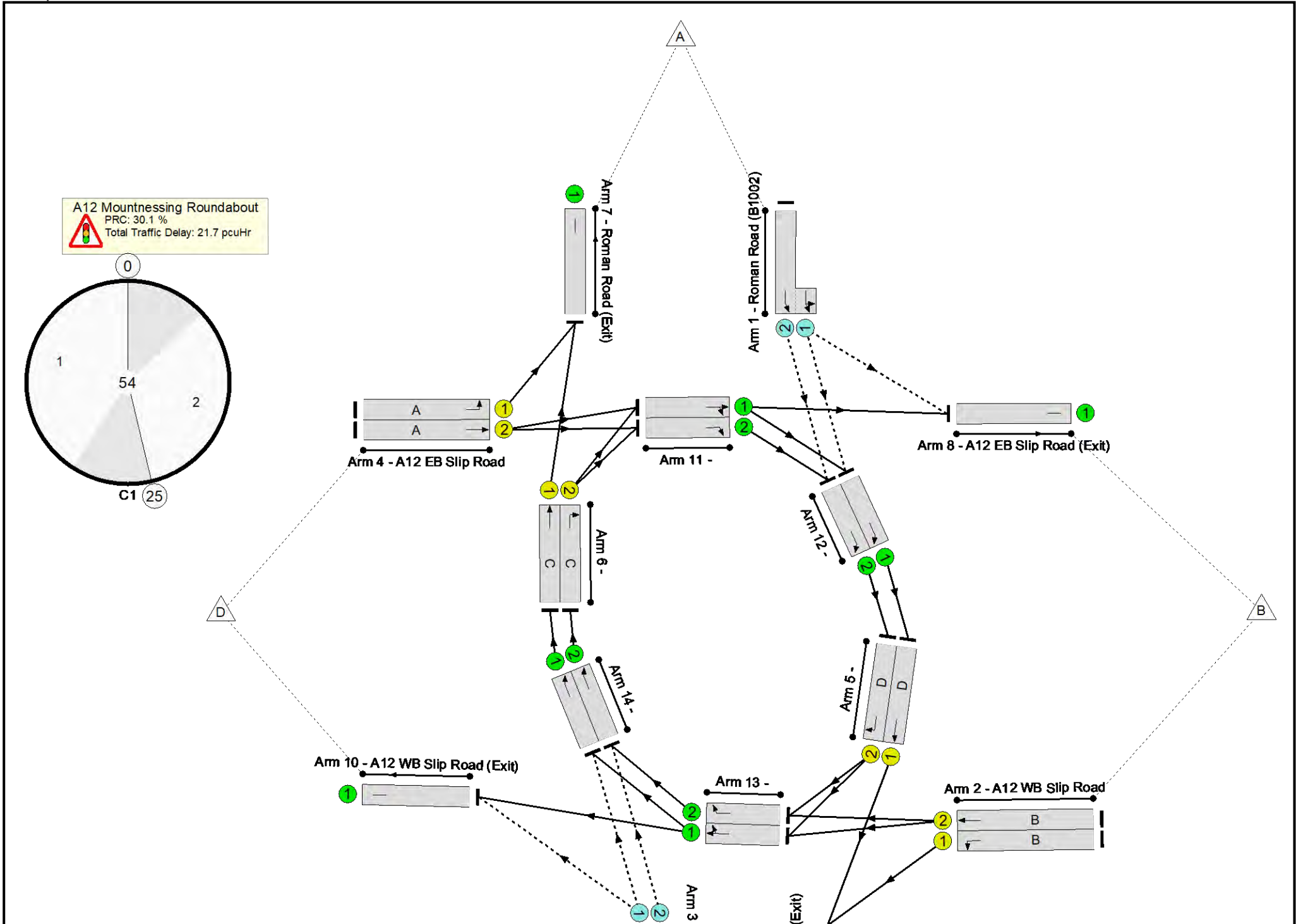
Stage	1	2
Duration	22	18
Change Point	25	0

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And 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: A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	69.2%
A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	69.2%
1/2+1/1	Roman Road (B1002) Left Ahead	O	N/A	N/A	-		-	-	-	727	2094:1898	891+765	43.9 : 43.9%
2/1	A12 WB Slip Road Left	U	N/A	N/A	B		1	22	-	510	1886	803	63.5%
2/2	A12 WB Slip Road Ahead	U	N/A	N/A	B		1	22	-	114	1925	820	13.9%
3/2+3/1	Chelmsford Road (A1023) Left Ahead	O	N/A	N/A	-		-	-	-	1000	1980:1895	891+916	55.3 : 55.3%
4/1	A12 EB Slip Road Left	U	N/A	N/A	A		1	22	-	586	1989	847	69.2%
4/2	A12 EB Slip Road Ahead	U	N/A	N/A	A		1	22	-	215	2012	857	25.1%
5/1	Ahead	U	N/A	N/A	D		1	18	-	416	2035	716	58.1%
5/2	Right	U	N/A	N/A	D		1	18	-	391	2035	716	54.6%
6/1	Ahead	U	N/A	N/A	C		1	18	-	481	2035	716	67.2%
6/2	Right	U	N/A	N/A	C		1	18	-	493	2035	716	68.9%
7/1	Roman Road (Exit)	U	N/A	N/A	-		-	-	-	1067	1940	1940	55.0%
8/1	A12 EB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	628	1940	1940	32.4%
9/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	926	1940	1940	47.7%
10/1	A12 WB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	531	1940	1940	27.4%
11/1	Ahead Right	U	N/A	N/A	-		-	-	-	708	2035	2035	34.8%
11/2	Right	U	N/A	N/A	-		-	-	-	0	2035	2035	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	416	2035	2035	20.4%
12/2	Ahead	U	N/A	N/A	-		-	-	-	391	2035	2035	19.2%

Full Input Data And Results

13/1	Ahead Right	U	N/A	N/A	-		-	-	-	505	2035	2035	24.8%
13/2	Right	U	N/A	N/A	-		-	-	-	0	2035	2035	0.0%
14/1	Ahead	U	N/A	N/A	-		-	-	-	481	2035	2035	23.6%
14/2	Ahead	U	N/A	N/A	-		-	-	-	493	2035	2035	24.2%

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: A12 Mountnessing Roundabout	-	-	3454	0	0	12.6	9.1	0.0	21.7	-	-	-	-
A12 Mountnessing Roundabout	-	-	3454	0	0	12.6	9.1	0.0	21.7	-	-	-	-
1/2+1/1	727	727	1454	0	0	0.2	0.4	-	0.6	3.0	1.7	0.4	2.1
2/1	510	510	-	-	-	1.7	0.9	-	2.6	18.3	6.0	0.9	6.8
2/2	114	114	-	-	-	0.3	0.1	-	0.4	12.0	1.0	0.1	1.1
3/2+3/1	1000	1000	2000	0	0	0.3	0.6	-	0.9	3.1	2.7	0.6	3.3
4/1	586	586	-	-	-	2.1	1.1	-	3.2	19.4	7.0	1.1	8.1
4/2	215	215	-	-	-	0.6	0.2	-	0.8	12.8	2.0	0.2	2.2
5/1	416	416	-	-	-	1.8	0.7	-	2.4	21.1	5.9	0.7	6.6
5/2	391	391	-	-	-	1.5	0.6	-	2.1	19.6	4.7	0.6	5.3
6/1	481	481	-	-	-	2.1	1.0	-	3.1	23.1	6.7	1.0	7.7
6/2	493	493	-	-	-	2.1	1.1	-	3.1	23.0	6.3	1.1	7.4
7/1	1067	1067	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
8/1	628	628	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
9/1	926	926	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
10/1	531	531	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/1	708	708	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
11/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	416	416	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
12/2	391	391	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
13/1	505	505	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
13/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	481	481	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
14/2	493	493	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2

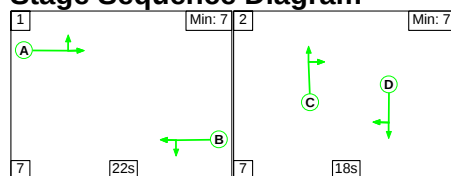
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	30.1	Total Delay for Signalled Lanes (pcuHr):	17.71	Cycle Time (s):	54
	PRC Over All Lanes (%):	30.1	Total Delay Over All Lanes(pcuHr):	21.67		

Full Input Data And Results

Scenario 7: '2032 Base (AM Peak)' (FG7: '2032 Base (AM Peak)', Plan 1: 'Network Control Plan 1')

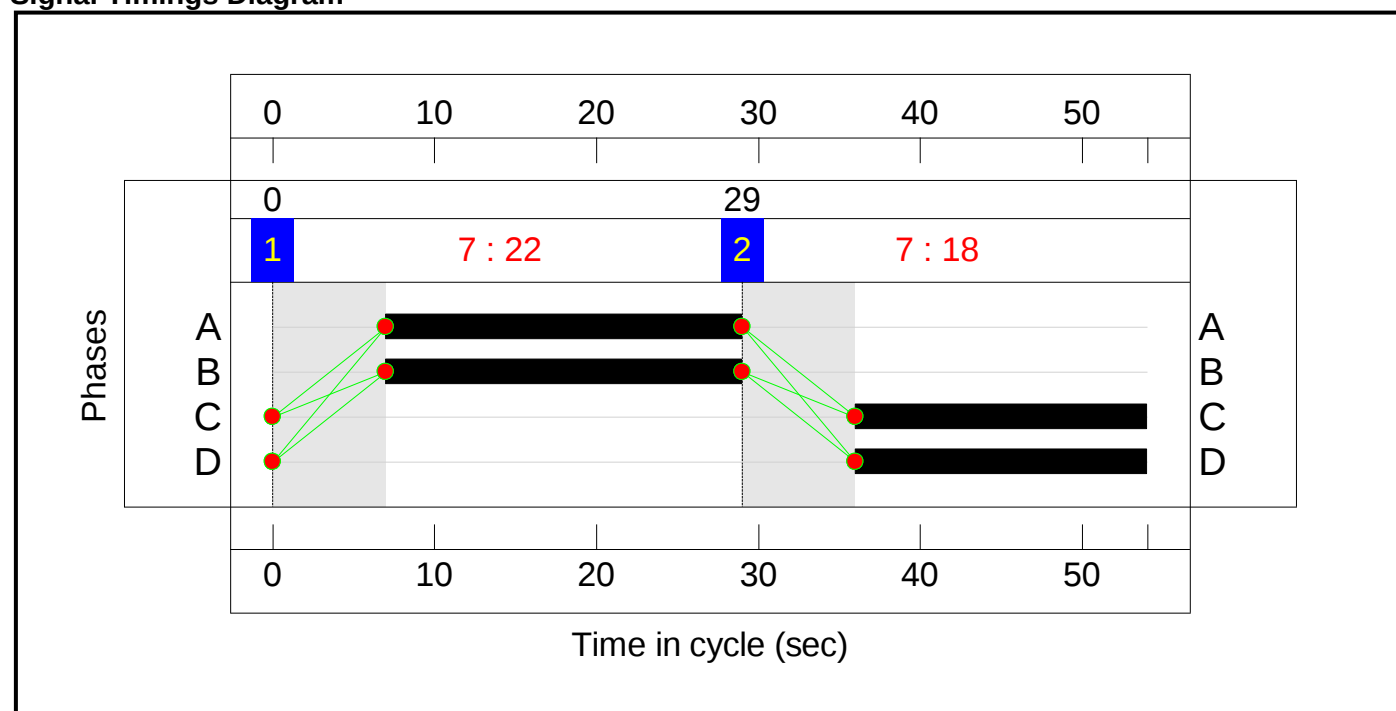
Stage Sequence Diagram



Stage Timings

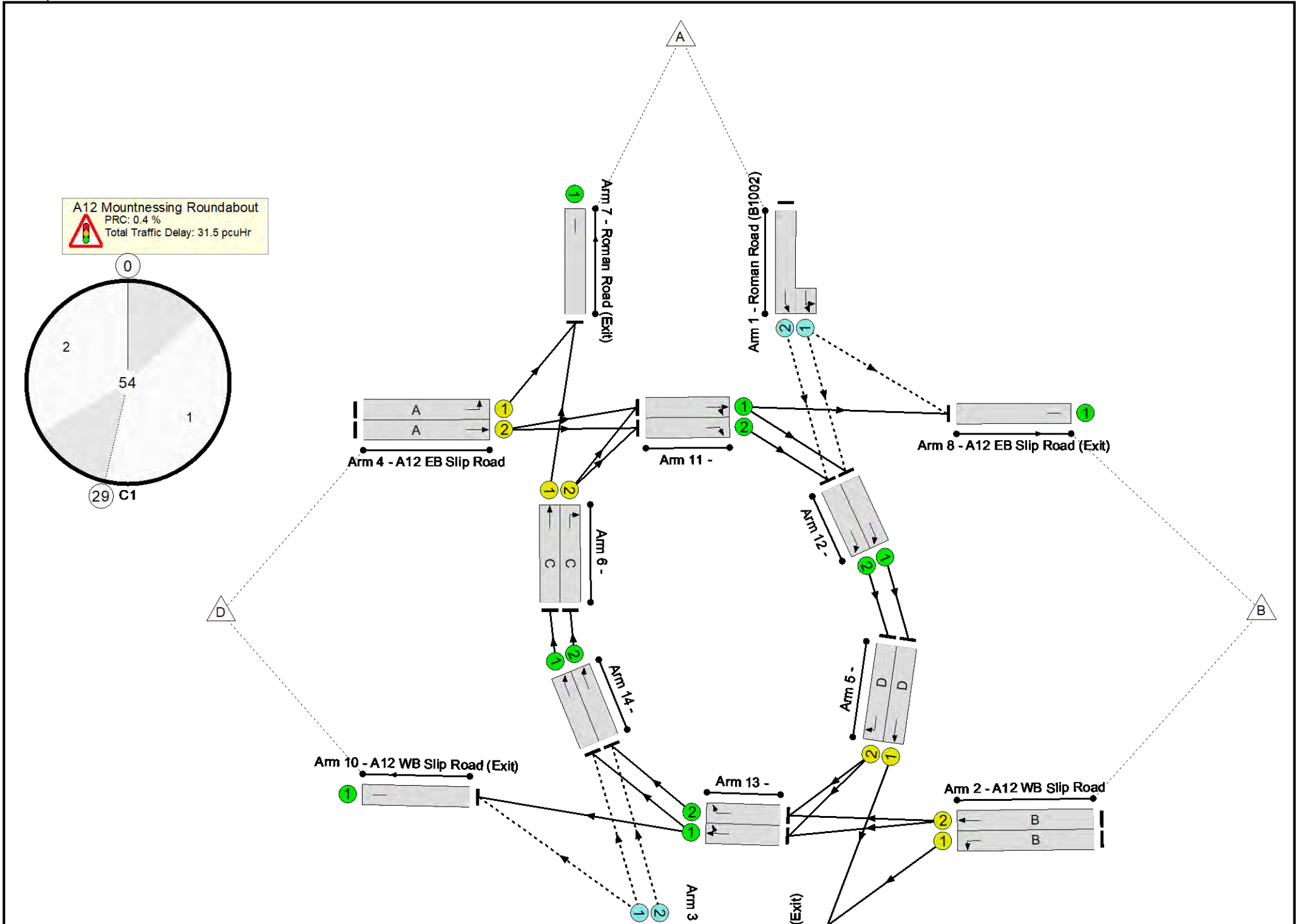
Stage	1	2
Duration	22	18
Change Point	0	29

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And 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: A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	89.7%
A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	89.7%
1/2+1/1	Roman Road (B1002) Left Ahead	O	N/A	N/A	-		-	-	-	1110	2094:1898	714+868	70.2 : 70.2%
2/1	A12 WB Slip Road Left	U	N/A	N/A	B		1	22	-	703	1886	803	87.5%
2/2	A12 WB Slip Road Ahead	U	N/A	N/A	B		1	22	-	166	1925	820	20.2%
3/2+3/1	Chelmsford Road (A1023) Left Ahead	O	N/A	N/A	-		-	-	-	920	1980:1895	685+823	61.0 : 61.0%
4/1	A12 EB Slip Road Left	U	N/A	N/A	A		1	22	-	496	1989	847	58.5%
4/2	A12 EB Slip Road Ahead	U	N/A	N/A	A		1	22	-	204	2012	857	23.8%
5/1	Ahead	U	N/A	N/A	D		1	18	-	642	2035	716	89.7%
5/2	Right	U	N/A	N/A	D		1	18	-	502	2035	716	70.1%
6/1	Ahead	U	N/A	N/A	C		1	18	-	482	2035	716	67.3%
6/2	Right	U	N/A	N/A	C		1	18	-	419	2035	716	58.5%
7/1	Roman Road (Exit)	U	N/A	N/A	-		-	-	-	978	1940	1940	50.4%
8/1	A12 EB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	589	1940	1940	30.4%
9/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	1345	1940	1940	69.3%
10/1	A12 WB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	687	1940	1940	35.4%
11/1	Ahead Right	U	N/A	N/A	-		-	-	-	622	2035	2035	30.6%
11/2	Right	U	N/A	N/A	-		-	-	-	1	2035	2035	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	642	2035	2035	31.5%
12/2	Ahead	U	N/A	N/A	-		-	-	-	502	2035	2035	24.7%

Full Input Data And Results

13/1	Ahead Right	U	N/A	N/A	-		-	-	-	667	2035	2035	32.8%
13/2	Right	U	N/A	N/A	-		-	-	-	1	2035	2035	0.0%
14/1	Ahead	U	N/A	N/A	-		-	-	-	482	2035	2035	23.7%
14/2	Ahead	U	N/A	N/A	-		-	-	-	419	2035	2035	20.6%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A12 Mountnessing Roundabout	-	-	4060	0	0	15.2	16.3	0.0	31.5	-	-	-	-
A12 Mountnessing Roundabout	-	-	4060	0	0	15.2	16.3	0.0	31.5	-	-	-	-
1/2+1/1	1110	1110	2220	0	0	0.5	1.2	-	1.6	5.3	3.9	1.2	5.1
2/1	703	703	-	-	-	2.8	3.3	-	6.1	31.0	9.6	3.3	12.9
2/2	166	166	-	-	-	0.4	0.1	-	0.6	12.5	1.5	0.1	1.6
3/2+3/1	920	920	1840	0	0	0.5	0.8	-	1.2	4.9	4.2	0.8	5.0
4/1	496	496	-	-	-	1.6	0.7	-	2.3	17.0	5.6	0.7	6.4
4/2	204	204	-	-	-	0.6	0.2	-	0.7	12.7	1.9	0.2	2.1
5/1	642	642	-	-	-	3.2	3.9	-	7.1	40.0	9.6	3.9	13.5
5/2	502	502	-	-	-	2.1	1.2	-	3.3	23.4	6.4	1.2	7.6
6/1	482	482	-	-	-	1.9	1.0	-	2.9	22.0	6.8	1.0	7.9
6/2	419	419	-	-	-	1.7	0.7	-	2.4	20.3	5.1	0.7	5.8
7/1	978	978	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
8/1	589	589	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/1	1345	1345	-	-	-	0.0	1.1	-	1.1	3.0	0.0	1.1	1.1
10/1	687	687	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
11/1	622	622	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/2	1	1	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
12/1	642	642	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/2	502	502	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
13/1	667	667	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
13/2	1	1	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
14/1	482	482	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
14/2	419	419	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1

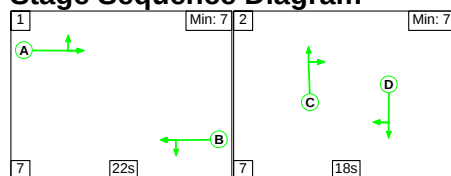
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	0.4	Total Delay for Signalled Lanes (pcuHr):	25.40	Cycle Time (s):	54
	PRC Over All Lanes (%):	0.4	Total Delay Over All Lanes(pcuHr):	31.54		

Full Input Data And Results

Scenario 8: '2032 Base (PM Peak)' (FG8: '2032 Base (PM Peak)', Plan 1: 'Network Control Plan 1')

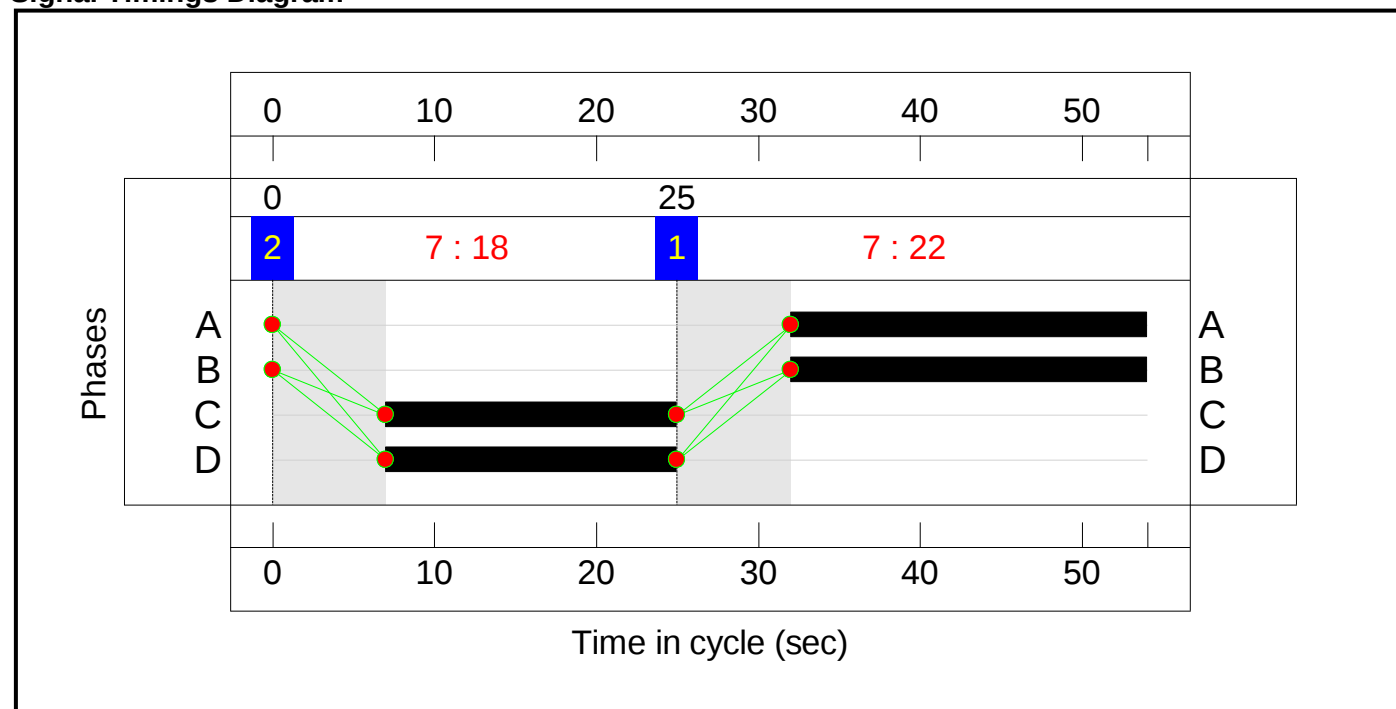
Stage Sequence Diagram

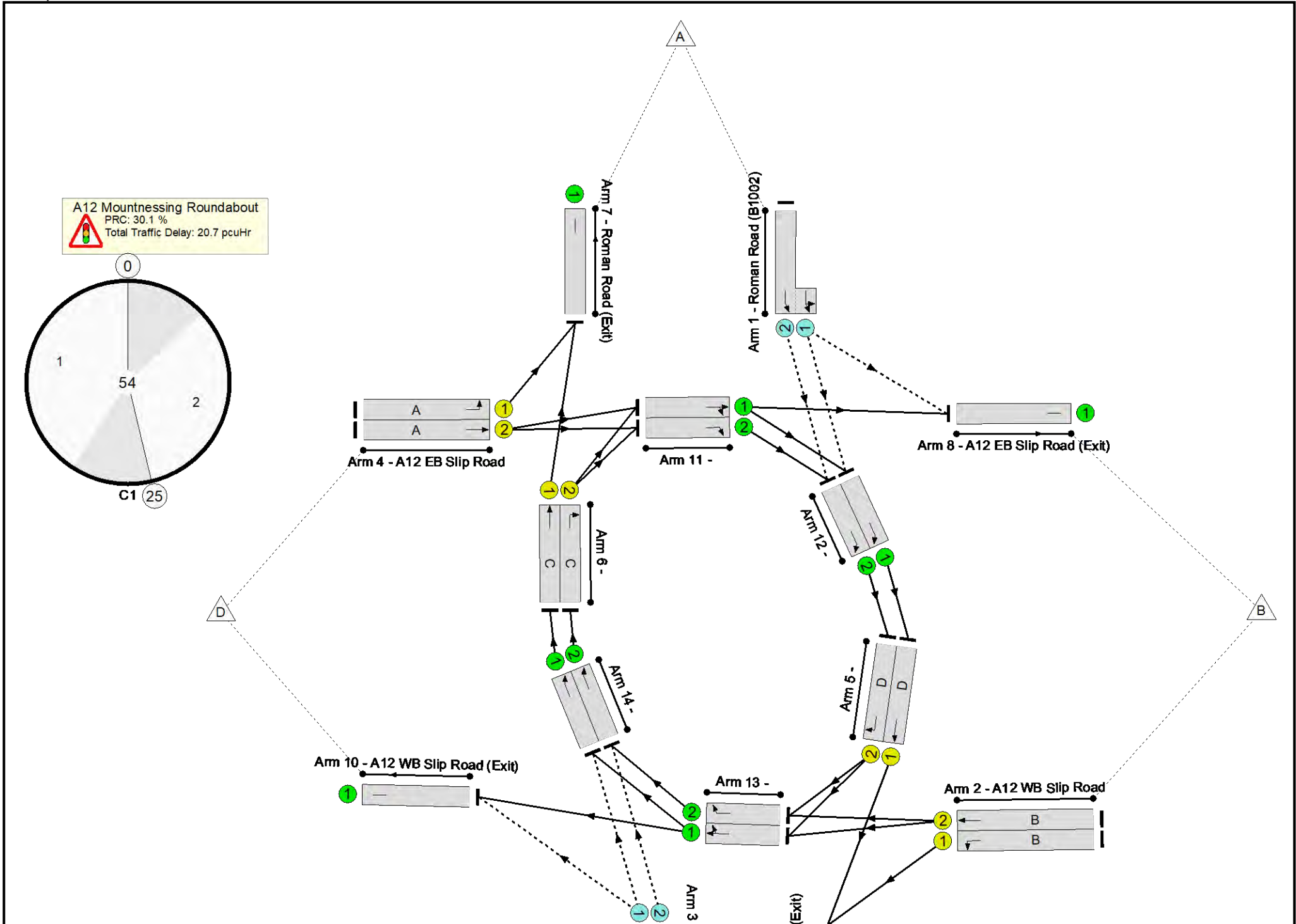


Stage Timings

Stage	1	2
Duration	22	18
Change Point	25	0

Signal Timings Diagram





Full Input Data And Results

Network Results

Full Input Data And 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: A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	69.2%
A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	69.2%
1/2+1/1	Roman Road (B1002) Left Ahead	O	N/A	N/A	-		-	-	-	714	2094:1898	941+777	41.6 : 41.6%
2/1	A12 WB Slip Road Left	U	N/A	N/A	B		1	22	-	499	1886	803	62.1%
2/2	A12 WB Slip Road Ahead	U	N/A	N/A	B		1	22	-	114	1925	820	13.9%
3/2+3/1	Chelmsford Road (A1023) Left Ahead	O	N/A	N/A	-		-	-	-	977	1980:1895	906+908	53.9 : 53.9%
4/1	A12 EB Slip Road Left	U	N/A	N/A	A		1	22	-	586	1989	847	69.2%
4/2	A12 EB Slip Road Ahead	U	N/A	N/A	A		1	22	-	183	2012	857	21.4%
5/1	Ahead	U	N/A	N/A	D		1	18	-	371	2035	716	51.8%
5/2	Right	U	N/A	N/A	D		1	18	-	391	2035	716	54.6%
6/1	Ahead	U	N/A	N/A	C		1	18	-	476	2035	716	66.5%
6/2	Right	U	N/A	N/A	C		1	18	-	488	2035	716	68.2%
7/1	Roman Road (Exit)	U	N/A	N/A	-		-	-	-	1062	1940	1940	54.7%
8/1	A12 EB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	623	1940	1940	32.1%
9/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	870	1940	1940	44.8%
10/1	A12 WB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	518	1940	1940	26.7%
11/1	Ahead Right	U	N/A	N/A	-		-	-	-	671	2035	2035	33.0%
11/2	Right	U	N/A	N/A	-		-	-	-	0	2035	2035	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	371	2035	2035	18.2%
12/2	Ahead	U	N/A	N/A	-		-	-	-	391	2035	2035	19.2%

Full Input Data And Results

13/1	Ahead Right	U	N/A	N/A	-		-	-	-	505	2035	2035	24.8%
13/2	Right	U	N/A	N/A	-		-	-	-	0	2035	2035	0.0%
14/1	Ahead	U	N/A	N/A	-		-	-	-	476	2035	2035	23.4%
14/2	Ahead	U	N/A	N/A	-		-	-	-	488	2035	2035	24.0%

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: A12 Mountnessing Roundabout	-	-	3382	0	0	12.1	8.6	0.0	20.7	-	-	-	-
A12 Mountnessing Roundabout	-	-	3382	0	0	12.1	8.6	0.0	20.7	-	-	-	-
1/2+1/1	714	714	1428	0	0	0.2	0.4	-	0.5	2.8	1.6	0.4	2.0
2/1	499	499	-	-	-	1.7	0.8	-	2.5	18.0	5.8	0.8	6.6
2/2	114	114	-	-	-	0.3	0.1	-	0.4	12.0	1.0	0.1	1.1
3/2+3/1	977	977	1954	0	0	0.2	0.6	-	0.8	3.0	2.6	0.6	3.2
4/1	586	586	-	-	-	2.1	1.1	-	3.2	19.4	7.0	1.1	8.1
4/2	183	183	-	-	-	0.5	0.1	-	0.6	12.5	1.7	0.1	1.9
5/1	371	371	-	-	-	1.5	0.5	-	2.1	20.0	5.2	0.5	5.7
5/2	391	391	-	-	-	1.5	0.6	-	2.1	19.6	4.7	0.6	5.3
6/1	476	476	-	-	-	2.1	1.0	-	3.0	23.0	6.6	1.0	7.6
6/2	488	488	-	-	-	2.0	1.1	-	3.1	22.7	6.2	1.1	7.3
7/1	1062	1062	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
8/1	623	623	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
9/1	870	870	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
10/1	518	518	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/1	671	671	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	371	371	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
12/2	391	391	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
13/1	505	505	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
13/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	476	476	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
14/2	488	488	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2

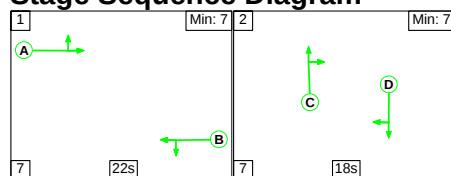
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	30.1	Total Delay for Signalled Lanes (pcuHr):	16.98	Cycle Time (s):	54
	PRC Over All Lanes (%):	30.1	Total Delay Over All Lanes(pcuHr):	20.73		

Full Input Data And Results

Scenario 9: '2022 Base (AM Peak)' (FG9: '2022 Base (AM Peak)', Plan 1: 'Network Control Plan 1')

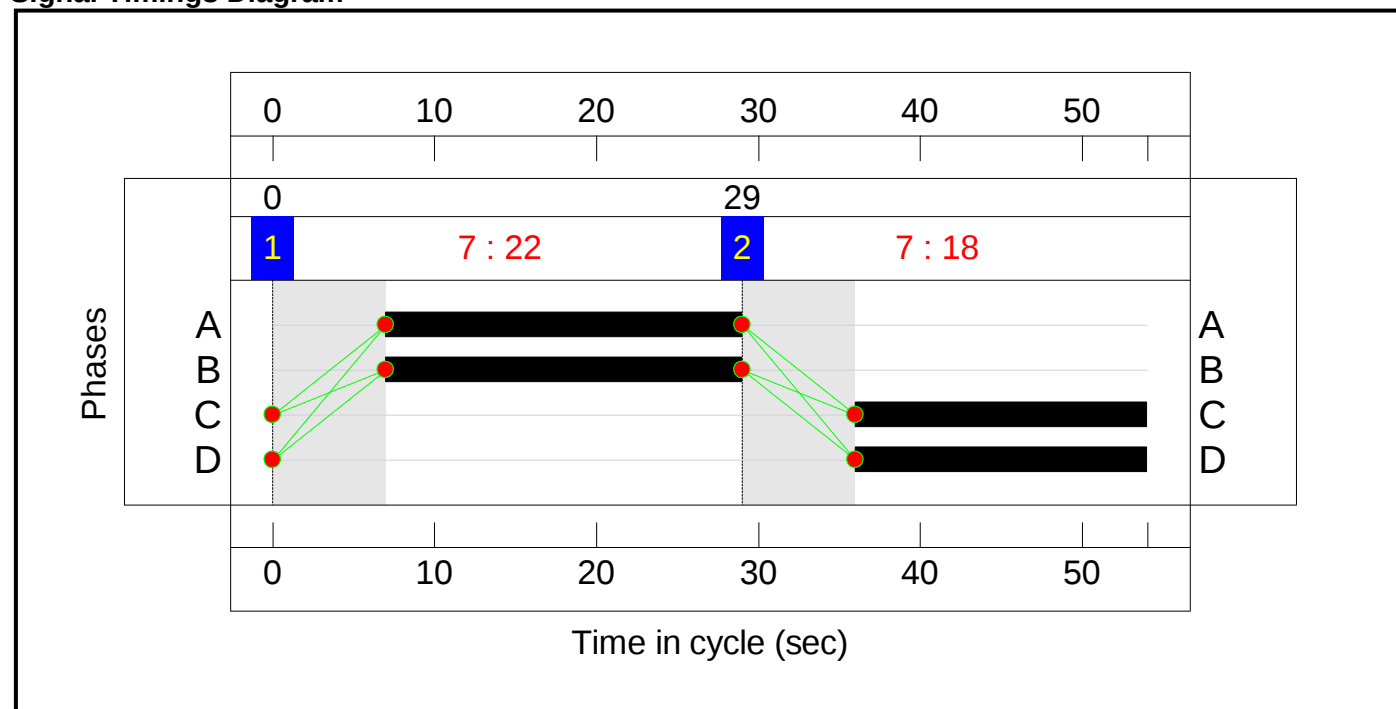
Stage Sequence Diagram

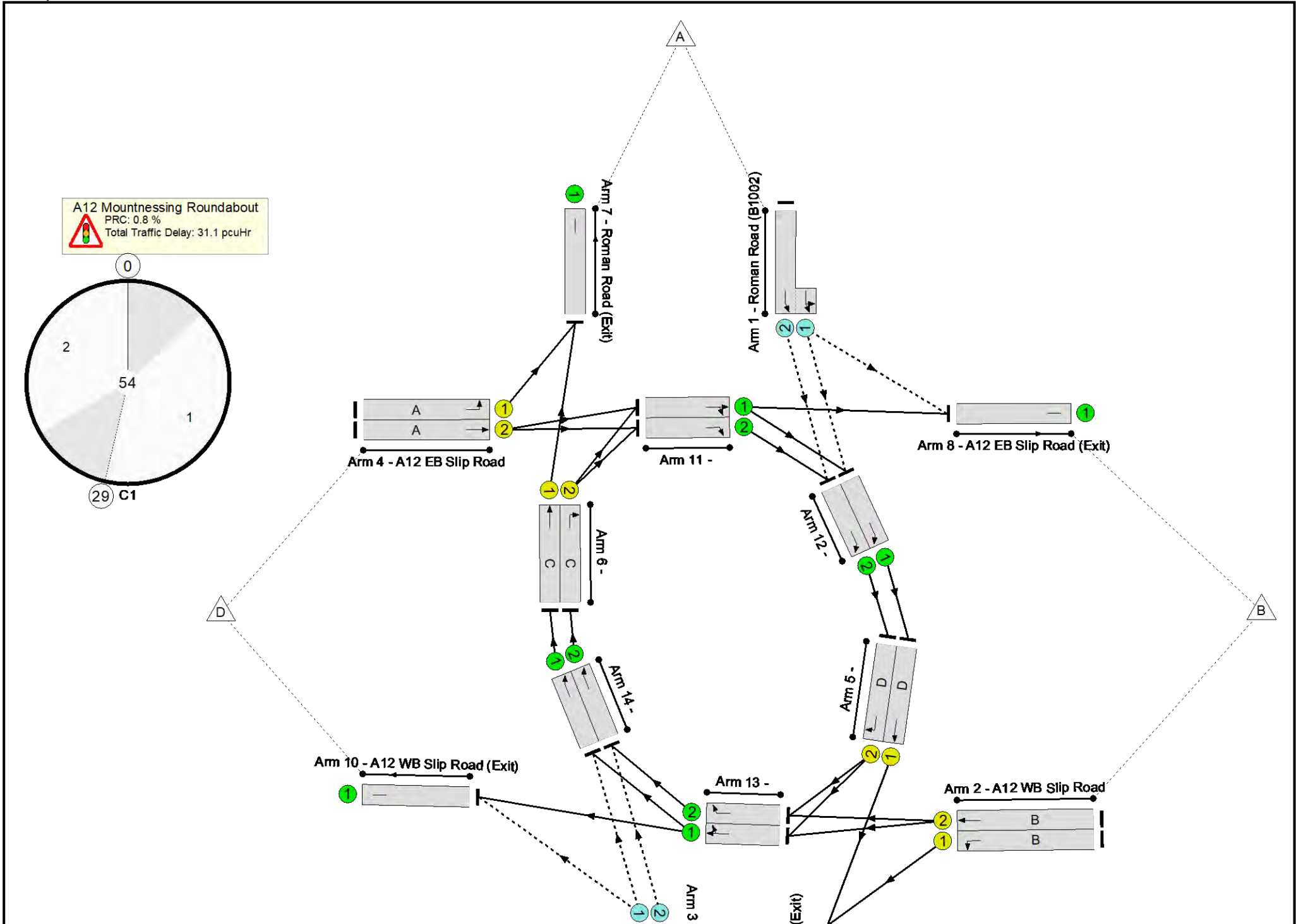


Stage Timings

Stage	1	2
Duration	22	18
Change Point	0	29

Signal Timings Diagram





Full Input Data And Results

Network Results

Full Input Data And 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: A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	89.2%
A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	89.2%
1/2+1/1	Roman Road (B1002) Left Ahead	O	N/A	N/A	-		-	-	-	1105	2094:1898	716+870	69.7 : 69.7%
2/1	A12 WB Slip Road Left	U	N/A	N/A	B		1	22	-	701	1886	803	87.3%
2/2	A12 WB Slip Road Ahead	U	N/A	N/A	B		1	22	-	165	1925	820	20.1%
3/2+3/1	Chelmsford Road (A1023) Left Ahead	O	N/A	N/A	-		-	-	-	917	1980:1895	688+825	60.6 : 60.6%
4/1	A12 EB Slip Road Left	U	N/A	N/A	A		1	22	-	494	1989	847	58.3%
4/2	A12 EB Slip Road Ahead	U	N/A	N/A	A		1	22	-	203	2012	857	23.7%
5/1	Ahead	U	N/A	N/A	D		1	18	-	639	2035	716	89.2%
5/2	Right	U	N/A	N/A	D		1	18	-	500	2035	716	69.8%
6/1	Ahead	U	N/A	N/A	C		1	18	-	480	2035	716	67.0%
6/2	Right	U	N/A	N/A	C		1	18	-	418	2035	716	58.4%
7/1	Roman Road (Exit)	U	N/A	N/A	-		-	-	-	974	1940	1940	50.2%
8/1	A12 EB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	587	1940	1940	30.3%
9/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	1340	1940	1940	69.1%
10/1	A12 WB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	684	1940	1940	35.3%
11/1	Ahead Right	U	N/A	N/A	-		-	-	-	620	2035	2035	30.5%
11/2	Right	U	N/A	N/A	-		-	-	-	1	2035	2035	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	639	2035	2035	31.4%
12/2	Ahead	U	N/A	N/A	-		-	-	-	500	2035	2035	24.6%

Full Input Data And Results

13/1	Ahead Right	U	N/A	N/A	-		-	-	-	664	2035	2035	32.6%
13/2	Right	U	N/A	N/A	-		-	-	-	1	2035	2035	0.0%
14/1	Ahead	U	N/A	N/A	-		-	-	-	480	2035	2035	23.6%
14/2	Ahead	U	N/A	N/A	-		-	-	-	418	2035	2035	20.5%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A12 Mountnessing Roundabout	-	-	4044	0	0	15.2	16.0	0.0	31.1	-	-	-	-
A12 Mountnessing Roundabout	-	-	4044	0	0	15.2	16.0	0.0	31.1	-	-	-	-
1/2+1/1	1105	1105	2210	0	0	0.5	1.1	-	1.6	5.2	3.9	1.1	5.0
2/1	701	701	-	-	-	2.8	3.2	-	6.0	30.7	9.5	3.2	12.8
2/2	165	165	-	-	-	0.4	0.1	-	0.6	12.5	1.5	0.1	1.6
3/2+3/1	917	917	1834	0	0	0.4	0.8	-	1.2	4.8	3.3	0.8	4.1
4/1	494	494	-	-	-	1.6	0.7	-	2.3	16.9	5.6	0.7	6.3
4/2	203	203	-	-	-	0.6	0.2	-	0.7	12.7	1.9	0.2	2.1
5/1	639	639	-	-	-	3.2	3.8	-	7.0	39.3	9.5	3.8	13.3
5/2	500	500	-	-	-	2.1	1.1	-	3.2	23.3	6.4	1.1	7.5
6/1	480	480	-	-	-	1.9	1.0	-	2.9	22.0	6.8	1.0	7.8
6/2	418	418	-	-	-	1.7	0.7	-	2.4	20.3	5.1	0.7	5.8
7/1	974	974	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
8/1	587	587	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/1	1340	1340	-	-	-	0.0	1.1	-	1.1	3.0	0.0	1.1	1.1
10/1	684	684	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
11/1	620	620	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/2	1	1	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
12/1	639	639	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/2	500	500	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
13/1	664	664	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
13/2	1	1	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
14/1	480	480	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
14/2	418	418	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1

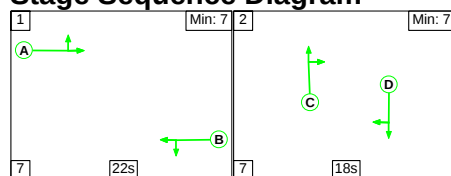
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	0.8	Total Delay for Signalled Lanes (pcuHr):	25.08	Cycle Time (s):	54
	PRC Over All Lanes (%):	0.8	Total Delay Over All Lanes(pcuHr):	31.14		

Full Input Data And Results

Scenario 10: '2022 Base (PM Peak)' (FG10: '2022 Base (PM Peak)', Plan 1: 'Network Control Plan 1')

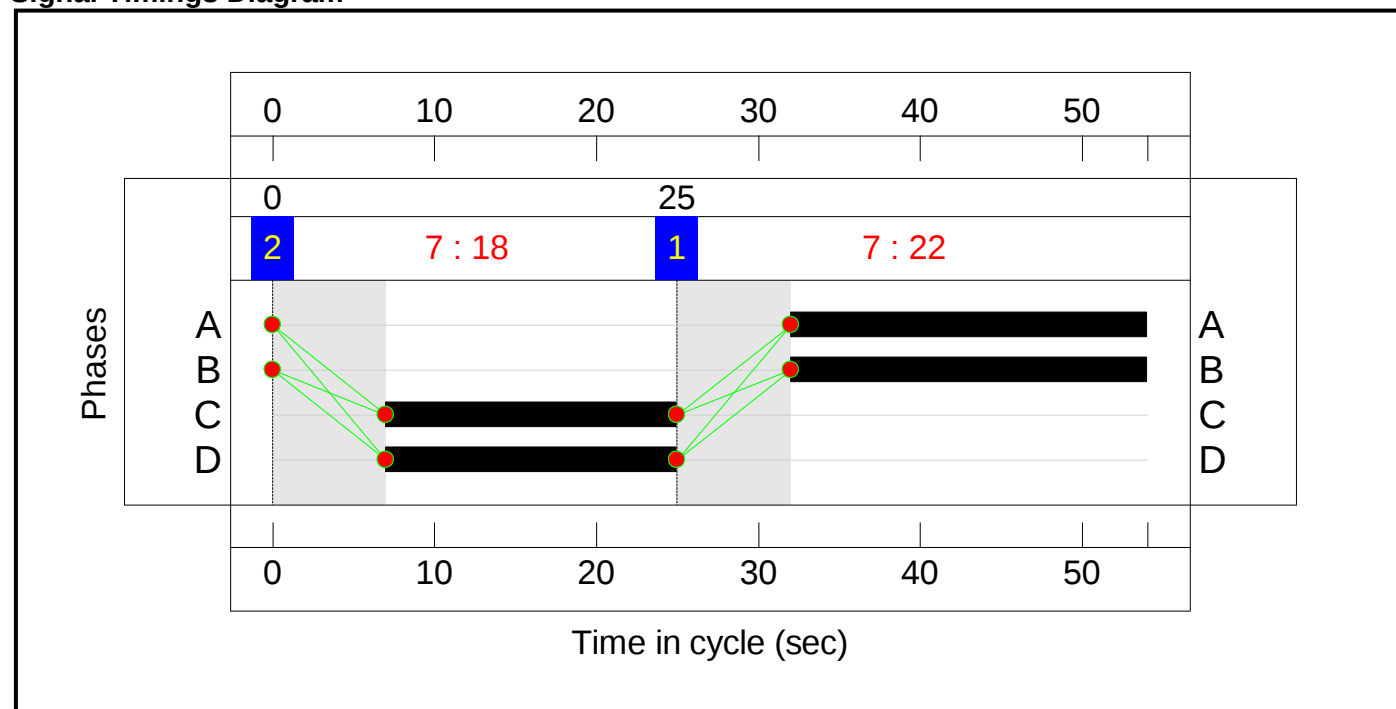
Stage Sequence Diagram



Stage Timings

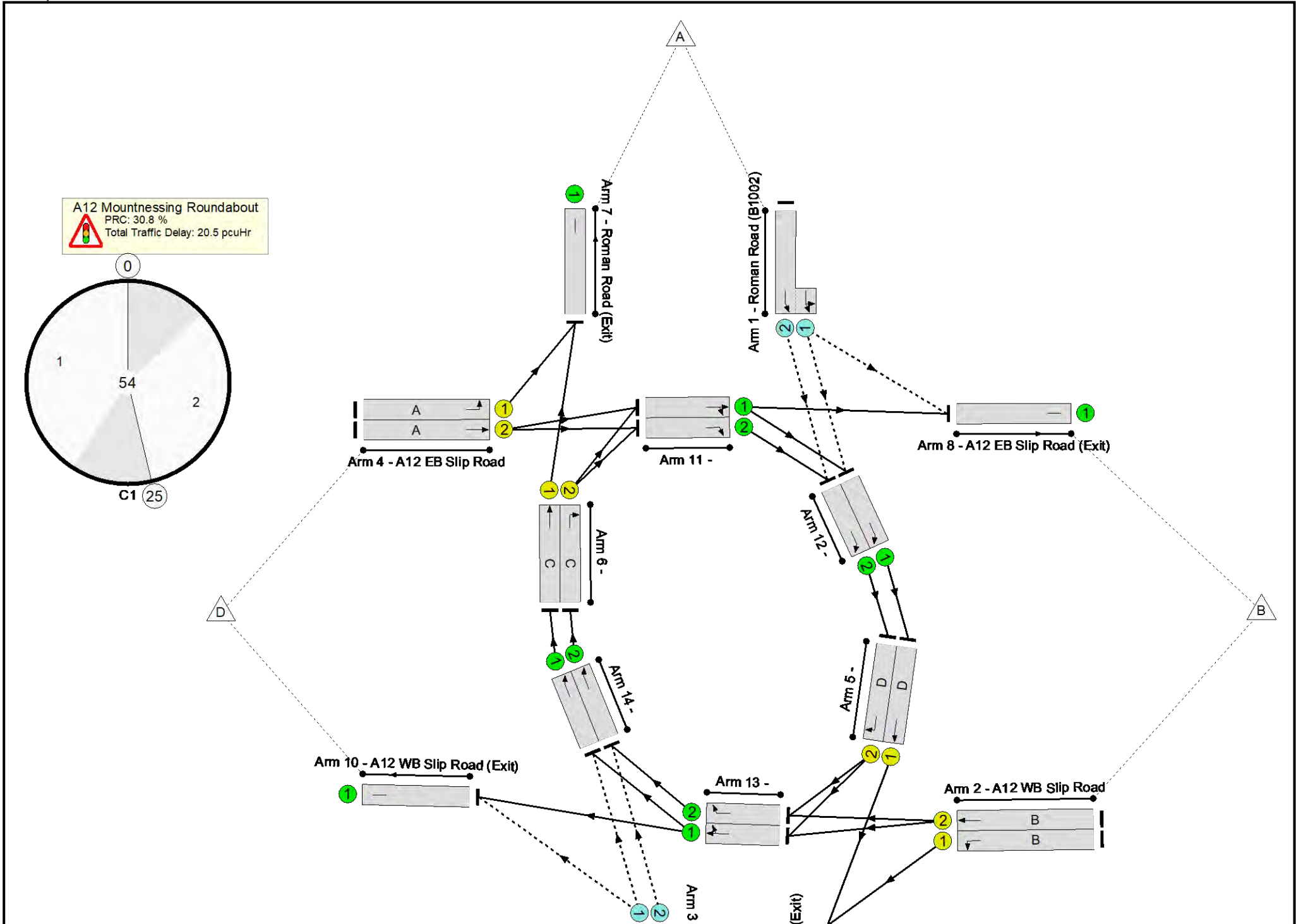
Stage	1	2
Duration	22	18
Change Point	25	0

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And 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: A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	68.8%
A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	68.8%
1/2+1/1	Roman Road (B1002) Left Ahead	O	N/A	N/A	-		-	-	-	710	2094:1898	944+779	41.2 : 41.2%
2/1	A12 WB Slip Road Left	U	N/A	N/A	B		1	22	-	497	1886	803	61.9%
2/2	A12 WB Slip Road Ahead	U	N/A	N/A	B		1	22	-	113	1925	820	13.8%
3/2+3/1	Chelmsford Road (A1023) Left Ahead	O	N/A	N/A	-		-	-	-	972	1980:1895	908+908	53.5 : 53.5%
4/1	A12 EB Slip Road Left	U	N/A	N/A	A		1	22	-	583	1989	847	68.8%
4/2	A12 EB Slip Road Ahead	U	N/A	N/A	A		1	22	-	182	2012	857	21.2%
5/1	Ahead	U	N/A	N/A	D		1	18	-	369	2035	716	51.5%
5/2	Right	U	N/A	N/A	D		1	18	-	389	2035	716	54.3%
6/1	Ahead	U	N/A	N/A	C		1	18	-	473	2035	716	66.1%
6/2	Right	U	N/A	N/A	C		1	18	-	486	2035	716	67.9%
7/1	Roman Road (Exit)	U	N/A	N/A	-		-	-	-	1056	1940	1940	54.4%
8/1	A12 EB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	620	1940	1940	32.0%
9/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	866	1940	1940	44.6%
10/1	A12 WB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	515	1940	1940	26.5%
11/1	Ahead Right	U	N/A	N/A	-		-	-	-	668	2035	2035	32.8%
11/2	Right	U	N/A	N/A	-		-	-	-	0	2035	2035	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	369	2035	2035	18.1%
12/2	Ahead	U	N/A	N/A	-		-	-	-	389	2035	2035	19.1%

Full Input Data And Results

13/1	Ahead Right	U	N/A	N/A	-		-	-	-	502	2035	2035	24.7%
13/2	Right	U	N/A	N/A	-		-	-	-	0	2035	2035	0.0%
14/1	Ahead	U	N/A	N/A	-		-	-	-	473	2035	2035	23.2%
14/2	Ahead	U	N/A	N/A	-		-	-	-	486	2035	2035	23.9%

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: A12 Mountnessing Roundabout	-	-	3364	0	0	12.0	8.5	0.0	20.5	-	-	-	-
A12 Mountnessing Roundabout	-	-	3364	0	0	12.0	8.5	0.0	20.5	-	-	-	-
1/2+1/1	710	710	1420	0	0	0.2	0.4	-	0.5	2.7	1.6	0.4	2.0
2/1	497	497	-	-	-	1.7	0.8	-	2.5	17.9	5.8	0.8	6.6
2/2	113	113	-	-	-	0.3	0.1	-	0.4	12.0	1.0	0.1	1.1
3/2+3/1	972	972	1944	0	0	0.2	0.6	-	0.8	3.0	2.6	0.6	3.1
4/1	583	583	-	-	-	2.0	1.1	-	3.1	19.3	7.0	1.1	8.1
4/2	182	182	-	-	-	0.5	0.1	-	0.6	12.5	1.7	0.1	1.9
5/1	369	369	-	-	-	1.5	0.5	-	2.0	20.0	5.2	0.5	5.7
5/2	389	389	-	-	-	1.5	0.6	-	2.1	19.5	4.6	0.6	5.2
6/1	473	473	-	-	-	2.0	1.0	-	3.0	22.9	6.6	1.0	7.5
6/2	486	486	-	-	-	2.0	1.0	-	3.1	22.7	6.1	1.0	7.1
7/1	1056	1056	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
8/1	620	620	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
9/1	866	866	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
10/1	515	515	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/1	668	668	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	369	369	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
12/2	389	389	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
13/1	502	502	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
13/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	473	473	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
14/2	486	486	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2

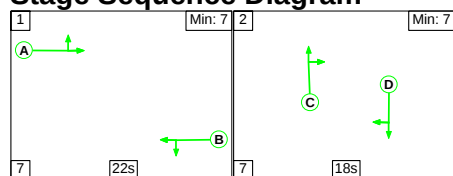
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	30.8	Total Delay for Signalled Lanes (pcuHr):	16.84	Cycle Time (s):	54
	PRC Over All Lanes (%):	30.8	Total Delay Over All Lanes(pcuHr):	20.54		

Full Input Data And Results

Scenario 11: '2022 Base + Dev (AM Peak)' (FG11: '2022 Base + Dev (AM Peak)', Plan 1: 'Network Control Plan 1')

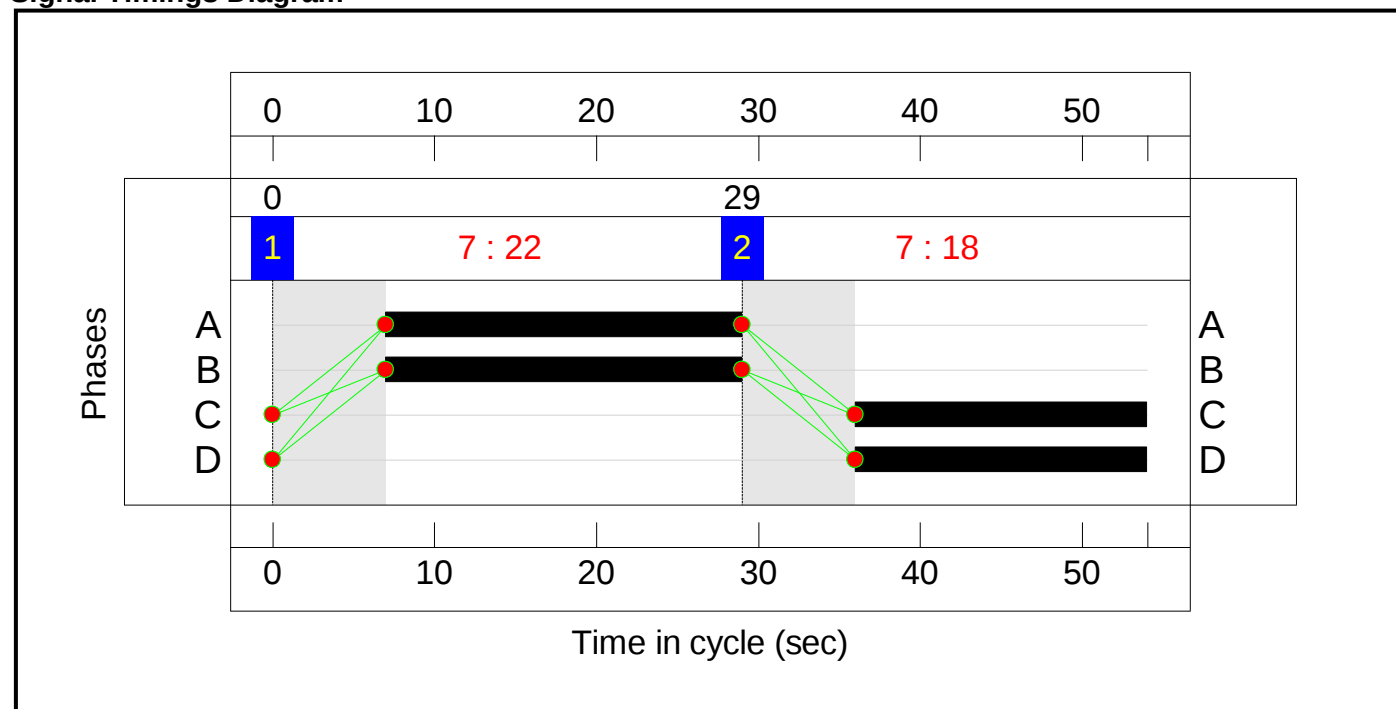
Stage Sequence Diagram



Stage Timings

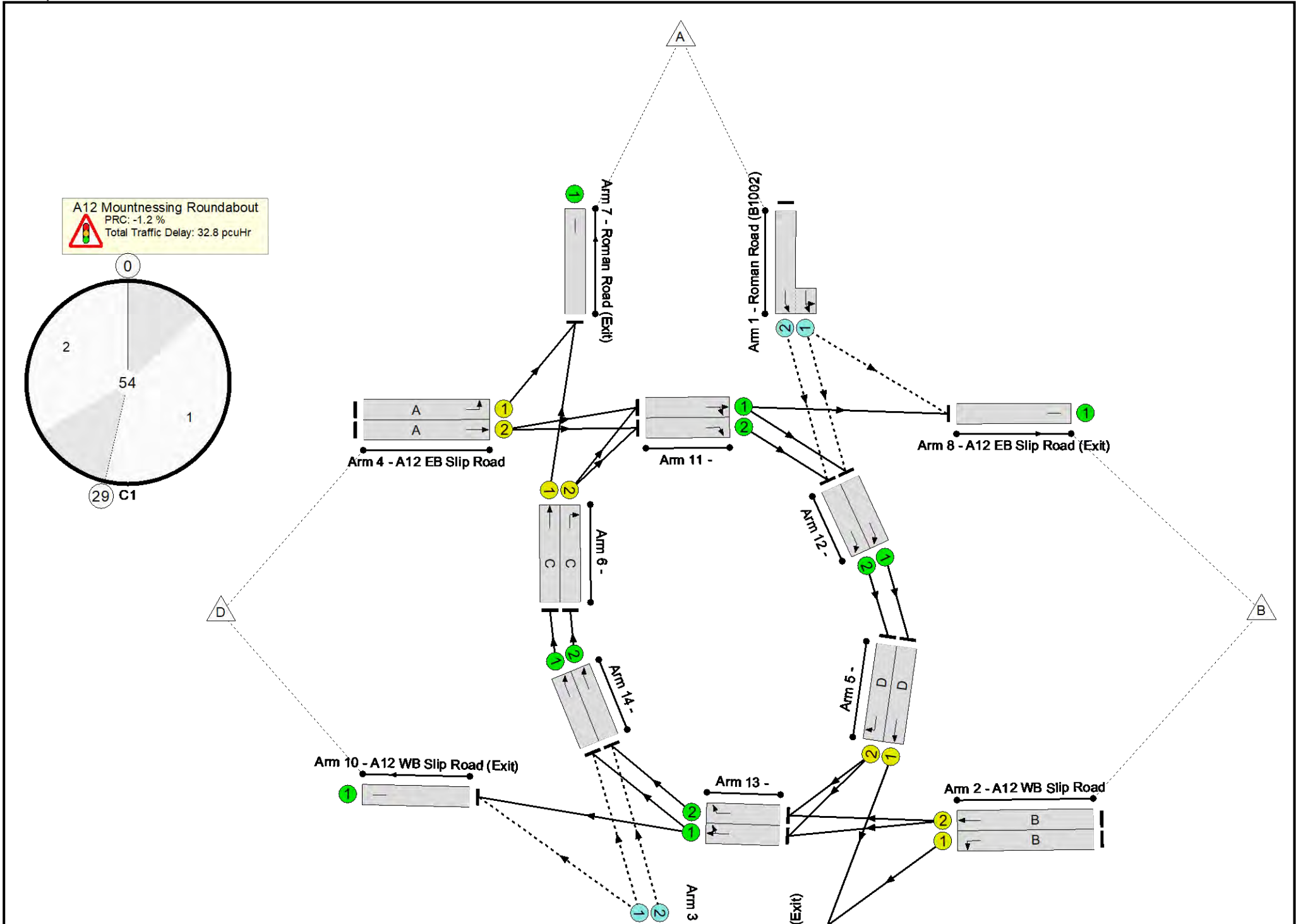
Stage	1	2
Duration	22	18
Change Point	0	29

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And 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: A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	91.1%
A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	91.1%
1/2+1/1	Roman Road (B1002) Left Ahead	O	N/A	N/A	-		-	-	-	1109	2094:1898	700+856	71.3 : 71.3%
2/1	A12 WB Slip Road Left	U	N/A	N/A	B		1	22	-	704	1886	803	87.6%
2/2	A12 WB Slip Road Ahead	U	N/A	N/A	B		1	22	-	165	1925	820	20.1%
3/2+3/1	Chelmsford Road (A1023) Left Ahead	O	N/A	N/A	-		-	-	-	968	1980:1895	651+825	65.6 : 65.6%
4/1	A12 EB Slip Road Left	U	N/A	N/A	A		1	22	-	494	1989	847	58.3%
4/2	A12 EB Slip Road Ahead	U	N/A	N/A	A		1	22	-	212	2012	857	24.7%
5/1	Ahead	U	N/A	N/A	D		1	18	-	652	2035	716	91.1%
5/2	Right	U	N/A	N/A	D		1	18	-	500	2035	716	69.8%
6/1	Ahead	U	N/A	N/A	C		1	18	-	492	2035	716	68.7%
6/2	Right	U	N/A	N/A	C		1	18	-	428	2035	716	59.8%
7/1	Roman Road (Exit)	U	N/A	N/A	-		-	-	-	986	1940	1940	50.8%
8/1	A12 EB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	597	1940	1940	30.8%
9/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	1356	1940	1940	69.9%
10/1	A12 WB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	713	1940	1940	36.8%
11/1	Ahead Right	U	N/A	N/A	-		-	-	-	639	2035	2035	31.4%
11/2	Right	U	N/A	N/A	-		-	-	-	1	2035	2035	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	652	2035	2035	32.0%
12/2	Ahead	U	N/A	N/A	-		-	-	-	500	2035	2035	24.6%

Full Input Data And Results

13/1	Ahead Right	U	N/A	N/A	-		-	-	-	664	2035	2035	32.6%
13/2	Right	U	N/A	N/A	-		-	-	-	1	2035	2035	0.0%
14/1	Ahead	U	N/A	N/A	-		-	-	-	492	2035	2035	24.2%
14/2	Ahead	U	N/A	N/A	-		-	-	-	428	2035	2035	21.0%

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: A12 Mountnessing Roundabout	-	-	4154	0	0	15.5	17.3	0.0	32.8	-	-	-	-
A12 Mountnessing Roundabout	-	-	4154	0	0	15.5	17.3	0.0	32.8	-	-	-	-
1/2+1/1	1109	1109	2218	0	0	0.5	1.2	-	1.7	5.6	4.1	1.2	5.3
2/1	704	704	-	-	-	2.8	3.3	-	6.1	31.2	9.6	3.3	12.9
2/2	165	165	-	-	-	0.4	0.1	-	0.6	12.5	1.5	0.1	1.6
3/2+3/1	968	968	1936	0	0	0.6	0.9	-	1.5	5.6	4.8	0.9	5.8
4/1	494	494	-	-	-	1.6	0.7	-	2.3	16.9	5.6	0.7	6.3
4/2	212	212	-	-	-	0.6	0.2	-	0.8	12.8	2.0	0.2	2.2
5/1	652	652	-	-	-	3.3	4.5	-	7.7	42.7	9.7	4.5	14.2
5/2	500	500	-	-	-	2.1	1.1	-	3.2	23.3	6.4	1.1	7.5
6/1	492	492	-	-	-	1.9	1.1	-	3.0	22.2	7.0	1.1	8.1
6/2	428	428	-	-	-	1.7	0.7	-	2.4	20.6	5.2	0.7	6.0
7/1	986	986	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
8/1	597	597	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/1	1356	1356	-	-	-	0.0	1.2	-	1.2	3.1	0.0	1.2	1.2
10/1	713	713	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
11/1	639	639	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/2	1	1	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
12/1	652	652	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/2	500	500	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
13/1	664	664	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
13/2	1	1	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
14/1	492	492	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
14/2	428	428	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1

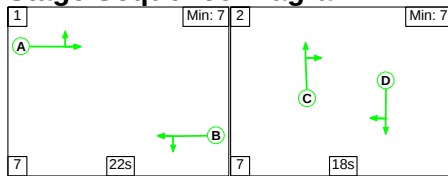
Full Input Data And Results

C1	PRC for Signalled Lanes (%):	-1.2	Total Delay for Signalled Lanes (pcuHr):	26.19	Cycle Time (s):	54
	PRC Over All Lanes (%):	-1.2	Total Delay Over All Lanes(pcuHr):	32.77		

Full Input Data And Results

Scenario 12: '2022 Base + Dev (PM Peak)' (FG12: '2022 Base + Dev (PM Peak)', Plan 1: 'Network Control Plan 1')

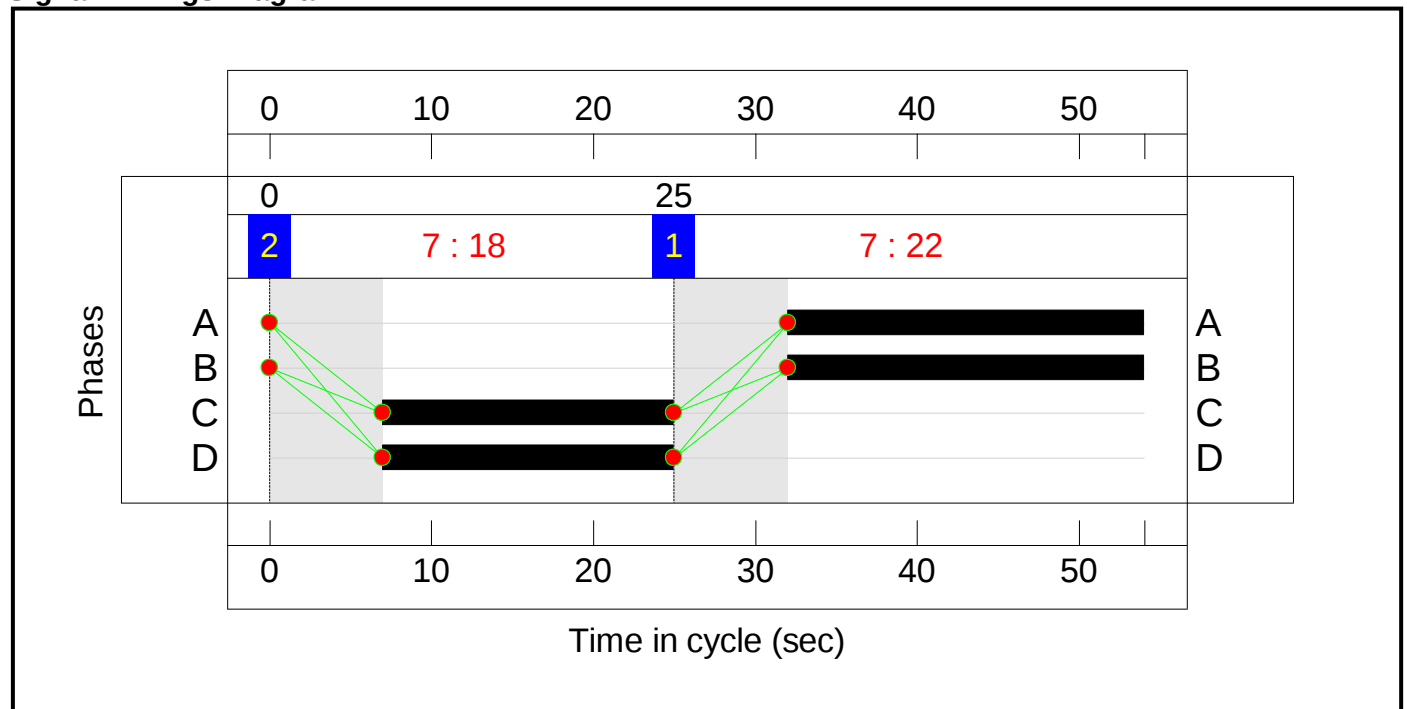
Stage Sequence Diagram



Stage Timings

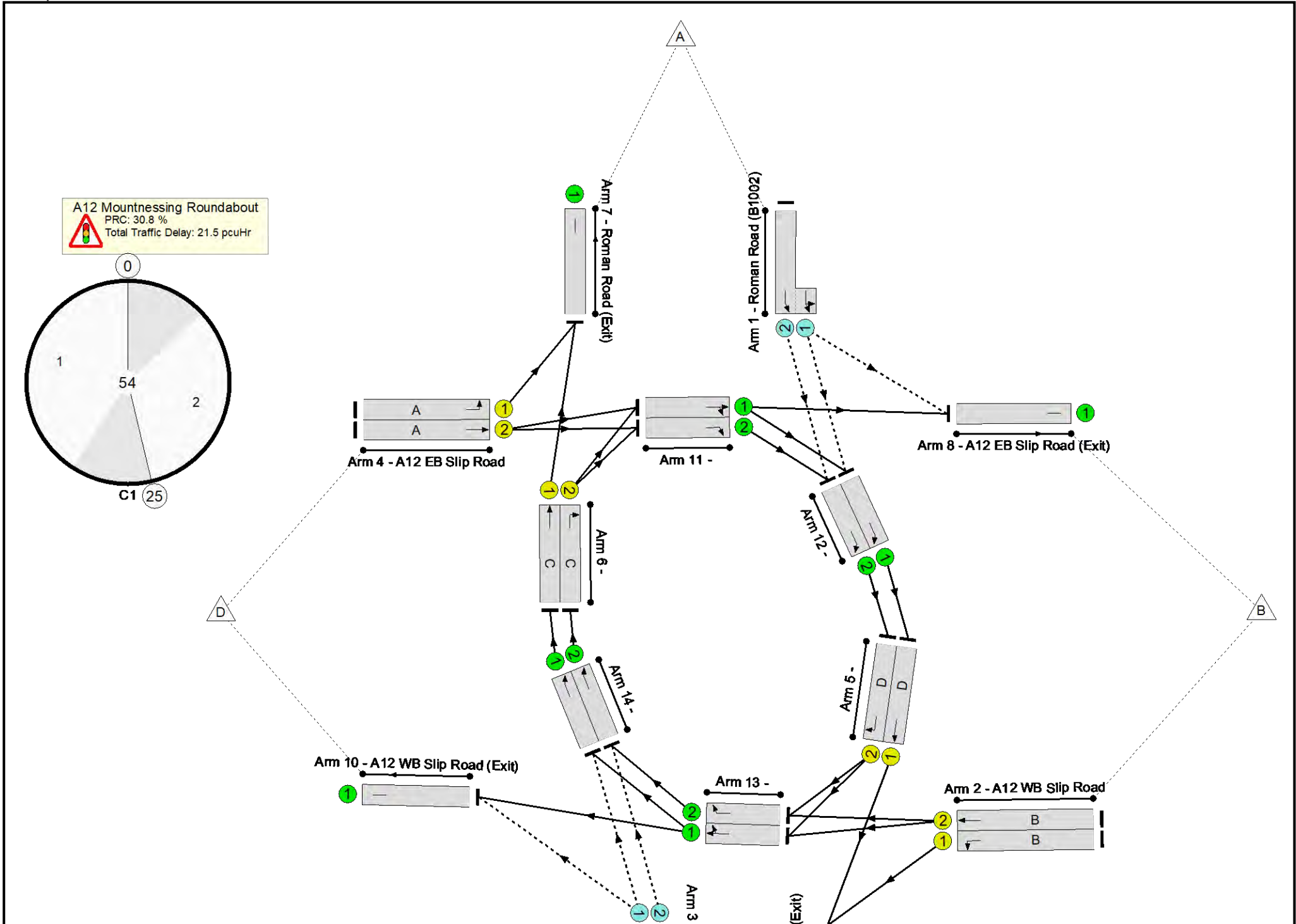
Stage	1	2
Duration	22	18
Change Point	25	0

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And 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: A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	68.8%
A12 Mountnessing Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	68.8%
1/2+1/1	Roman Road (B1002) Left Ahead	O	N/A	N/A	-		-	-	-	724	2094:1898	891+767	43.7 : 43.7%
2/1	A12 WB Slip Road Left	U	N/A	N/A	B		1	22	-	508	1886	803	63.2%
2/2	A12 WB Slip Road Ahead	U	N/A	N/A	B		1	22	-	113	1925	820	13.8%
3/2+3/1	Chelmsford Road (A1023) Left Ahead	O	N/A	N/A	-		-	-	-	996	1980:1895	892+917	55.0 : 55.0%
4/1	A12 EB Slip Road Left	U	N/A	N/A	A		1	22	-	583	1989	847	68.8%
4/2	A12 EB Slip Road Ahead	U	N/A	N/A	A		1	22	-	214	2012	857	25.0%
5/1	Ahead	U	N/A	N/A	D		1	18	-	415	2035	716	58.0%
5/2	Right	U	N/A	N/A	D		1	18	-	389	2035	716	54.3%
6/1	Ahead	U	N/A	N/A	C		1	18	-	479	2035	716	66.9%
6/2	Right	U	N/A	N/A	C		1	18	-	491	2035	716	68.6%
7/1	Roman Road (Exit)	U	N/A	N/A	-		-	-	-	1062	1940	1940	54.7%
8/1	A12 EB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	625	1940	1940	32.2%
9/1	Chelmsford Road (Exit)	U	N/A	N/A	-		-	-	-	923	1940	1940	47.6%
10/1	A12 WB Slip Road (Exit)	U	N/A	N/A	-		-	-	-	528	1940	1940	27.2%
11/1	Ahead Right	U	N/A	N/A	-		-	-	-	705	2035	2035	34.6%
11/2	Right	U	N/A	N/A	-		-	-	-	0	2035	2035	0.0%
12/1	Ahead	U	N/A	N/A	-		-	-	-	415	2035	2035	20.4%
12/2	Ahead	U	N/A	N/A	-		-	-	-	389	2035	2035	19.1%

Full Input Data And Results

13/1	Ahead Right	U	N/A	N/A	-		-	-	-	502	2035	2035	24.7%
13/2	Right	U	N/A	N/A	-		-	-	-	0	2035	2035	0.0%
14/1	Ahead	U	N/A	N/A	-		-	-	-	479	2035	2035	23.5%
14/2	Ahead	U	N/A	N/A	-		-	-	-	491	2035	2035	24.1%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A12 Mountnessing Roundabout	-	-	3440	0	0	12.5	9.0	0.0	21.5	-	-	-	-
A12 Mountnessing Roundabout	-	-	3440	0	0	12.5	9.0	0.0	21.5	-	-	-	-
1/2+1/1	724	724	1448	0	0	0.2	0.4	-	0.6	3.0	1.7	0.4	2.1
2/1	508	508	-	-	-	1.7	0.9	-	2.6	18.2	5.9	0.9	6.8
2/2	113	113	-	-	-	0.3	0.1	-	0.4	12.0	1.0	0.1	1.1
3/2+3/1	996	996	1992	0	0	0.2	0.6	-	0.9	3.1	2.7	0.6	3.3
4/1	583	583	-	-	-	2.0	1.1	-	3.1	19.3	7.0	1.1	8.1
4/2	214	214	-	-	-	0.6	0.2	-	0.8	12.8	2.0	0.2	2.2
5/1	415	415	-	-	-	1.7	0.7	-	2.4	21.1	5.9	0.7	6.6
5/2	389	389	-	-	-	1.5	0.6	-	2.1	19.5	4.6	0.6	5.2
6/1	479	479	-	-	-	2.1	1.0	-	3.1	23.1	6.6	1.0	7.6
6/2	491	491	-	-	-	2.0	1.1	-	3.1	22.9	6.3	1.1	7.4
7/1	1062	1062	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
8/1	625	625	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
9/1	923	923	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
10/1	528	528	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/1	705	705	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
11/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	415	415	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
12/2	389	389	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
13/1	502	502	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
13/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	479	479	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
14/2	491	491	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	30.8	Total Delay for Signalled Lanes (pcuHr):	17.58	Cycle Time (s):	54
	PRC Over All Lanes (%):	30.8	Total Delay Over All Lanes(pcuHr):	21.51		

Contact

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