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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	678.00	100.000
B	ONE HOUR	✓	219.00	100.000
C	ONE HOUR	✓	517.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	230.000	448.000
	B	90.000	0.000	129.000
	C	352.000	165.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.34	0.66
	B	0.41	0.00	0.59
	C	0.68	0.32	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.57	20.01	1.31	C	200.96	301.44	73.49	14.63	0.82	73.50	14.63
C-AB	0.44	11.42	0.88	B	187.36	281.05	53.32	11.38	0.59	53.33	11.38
C-A	-	-	-	-	287.04	430.57	-	-	-	-	-
A-B	-	-	-	-	211.05	316.58	-	-	-	-	-
A-C	-	-	-	-	411.09	616.64	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	164.87	41.22	162.97	0.00	505.31	0.326	0.00	0.48	10.460	B
C-AB	140.09	35.02	138.65	0.00	552.59	0.254	0.00	0.36	8.672	A
C-A	249.14	62.28	249.14	0.00	-	-	-	-	-	-
A-B	173.16	43.29	173.16	0.00	-	-	-	-	-	-
A-C	337.28	84.32	337.28	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	196.88	49.22	195.97	0.00	470.58	0.418	0.48	0.70	13.064	B
C-AB	177.97	44.49	177.34	0.00	551.82	0.323	0.36	0.52	9.606	A
C-A	286.80	71.70	286.80	0.00	-	-	-	-	-	-
A-B	206.77	51.69	206.77	0.00	-	-	-	-	-	-
A-C	402.74	100.69	402.74	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	241.12	60.28	238.82	0.00	420.91	0.573	0.70	1.28	19.520	C
C-AB	244.03	61.01	242.64	0.00	559.98	0.436	0.52	0.86	11.324	B
C-A	325.20	81.30	325.20	0.00	-	-	-	-	-	-
A-B	253.23	63.31	253.23	0.00	-	-	-	-	-	-
A-C	493.26	123.31	493.26	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	241.12	60.28	241.00	0.00	420.59	0.573	1.28	1.31	20.008	C
C-AB	244.03	61.01	243.97	0.00	559.98	0.436	0.86	0.88	11.421	B
C-A	325.20	81.30	325.20	0.00	-	-	-	-	-	-
A-B	253.23	63.31	253.23	0.00	-	-	-	-	-	-
A-C	493.26	123.31	493.26	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	196.88	49.22	199.16	0.00	470.13	0.419	1.31	0.74	13.396	B
C-AB	177.97	44.49	179.33	0.00	551.82	0.323	0.88	0.54	9.712	A
C-A	286.80	71.70	286.80	0.00	-	-	-	-	-	-
A-B	206.77	51.69	206.77	0.00	-	-	-	-	-	-
A-C	402.74	100.69	402.74	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	164.87	41.22	165.85	0.00	504.81	0.327	0.74	0.49	10.650	B
C-AB	140.09	35.02	140.77	0.00	552.59	0.254	0.54	0.37	8.762	A
C-A	249.14	62.28	249.14	0.00	-	-	-	-	-	-
A-B	173.16	43.29	173.16	0.00	-	-	-	-	-	-
A-C	337.28	84.32	337.28	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	6.77	0.45	10.460	B	B
C-AB	5.29	0.35	8.672	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	10.07	0.67	13.064	B	B
C-AB	7.73	0.52	9.606	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	17.75	1.18	19.520	C	B
C-AB	12.96	0.86	11.324	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	19.47	1.30	20.008	C	C
C-AB	13.47	0.90	11.421	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	11.73	0.78	13.396	B	B
C-AB	8.26	0.55	9.712	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	7.71	0.51	10.650	B	B
C-AB	5.61	0.37	8.762	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Base 2020 + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
Base 2020 + Committed + Development, AM	Base 2020 + Committed + Development	AM		ONE HOUR	07:45	09:15	90	15				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		19.55	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Penistone Road (W)		Major
B	B	Huddersfield Road (N)		Minor
C	C	Penistone Road (E)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.00		0.00	✓	2.20	90.00	✓	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	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane	4.45										23	48

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	582.424	0.101	0.256	0.161	0.366
1	B-C	749.118	0.110	0.278	-	-
1	C-B	626.083	0.232	0.232	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	805.00	100.000
B	ONE HOUR	✓	241.00	100.000
C	ONE HOUR	✓	517.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	324.000	481.000
	B	93.000	0.000	148.000
	C	354.000	163.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.40	0.60
	B	0.39	0.00	0.61
	C	0.68	0.32	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.65	25.52	1.82	D	221.15	331.72	95.03	17.19	1.06	95.05	17.19
C-AB	0.47	12.60	1.01	B	189.77	284.66	59.30	12.50	0.66	59.31	12.50
C-A	-	-	-	-	284.64	426.96	-	-	-	-	-
A-B	-	-	-	-	297.31	445.96	-	-	-	-	-
A-C	-	-	-	-	441.37	662.06	-	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	181.44	45.36	179.18	0.00	497.10	0.365	0.00	0.56	11.247	B
C-AB	139.74	34.94	138.23	0.00	532.89	0.262	0.00	0.38	9.093	A
C-A	249.48	62.37	249.48	0.00	-	-	-	-	-	-
A-B	243.92	60.98	243.92	0.00	-	-	-	-	-	-
A-C	362.12	90.53	362.12	0.00	-	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	216.65	54.16	215.44	0.00	459.65	0.471	0.56	0.87	14.666	B
C-AB	179.09	44.77	178.36	0.00	529.98	0.338	0.38	0.56	10.230	B
C-A	285.69	71.42	285.69	0.00	-	-	-	-	-	-
A-B	291.27	72.82	291.27	0.00	-	-	-	-	-	-
A-C	432.41	108.10	432.41	0.00	-	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	265.35	66.34	261.78	0.00	405.83	0.654	0.87	1.76	24.398	C
C-AB	250.48	62.62	248.76	0.00	537.16	0.466	0.56	0.99	12.454	B
C-A	318.74	79.69	318.74	0.00	-	-	-	-	-	-
A-B	356.73	89.18	356.73	0.00	-	-	-	-	-	-
A-C	529.59	132.40	529.59	0.00	-	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	265.35	66.34	265.09	0.00	405.44	0.654	1.76	1.82	25.525	D
C-AB	250.48	62.62	250.39	0.00	537.16	0.466	0.99	1.01	12.598	B
C-A	318.74	79.69	318.74	0.00	-	-	-	-	-	-
A-B	356.73	89.18	356.73	0.00	-	-	-	-	-	-
A-C	529.59	132.40	529.59	0.00	-	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	216.65	54.16	220.26	0.00	459.12	0.472	1.82	0.92	15.288	C
C-AB	179.09	44.77	180.78	0.00	529.98	0.338	1.01	0.59	10.375	B
C-A	285.69	71.42	285.69	0.00	-	-	-	-	-	-
A-B	291.27	72.82	291.27	0.00	-	-	-	-	-	-
A-C	432.41	108.10	432.41	0.00	-	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	181.44	45.36	182.77	0.00	496.58	0.365	0.92	0.59	11.519	B
C-AB	139.74	34.94	140.54	0.00	532.89	0.262	0.59	0.39	9.199	A
C-A	249.48	62.37	249.48	0.00	-	-	-	-	-	-
A-B	243.92	60.98	243.92	0.00	-	-	-	-	-	-
A-C	362.12	90.53	362.12	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (07:45-08:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	7.97	0.53	11.247	B	B
C-AB	5.56	0.37	9.093	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:00-08:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	12.32	0.82	14.666	B	B
C-AB	8.36	0.56	10.230	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:15-08:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	23.78	1.59	24.398	C	C
C-AB	14.86	0.99	12.454	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:30-08:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	26.93	1.80	25.525	D	C
C-AB	15.55	1.04	12.598	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (08:45-09:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	14.80	0.99	15.288	C	B
C-AB	9.03	0.60	10.375	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (09:00-09:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	9.22	0.61	11.519	B	B
C-AB	5.94	0.40	9.199	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

(Default Analysis Set) - Base 2020 + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship
Base 2020 + Committed + Development, PM	Base 2020 + Committed + Development	PM		ONE HOUR	16:45	18:15	90	15				✓	

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		17.76	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Penistone Road (W)		Major
B	B	Huddersfield Road (N)		Minor
C	C	Penistone Road (E)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	7.00		0.00	✓	2.20	90.00	✓	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	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane	4.45										23	48

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	582.424	0.101	0.256	0.161	0.366
1	B-C	749.118	0.110	0.278	-	-
1	C-B	626.083	0.232	0.232	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	713.00	100.000
B	ONE HOUR	✓	229.00	100.000
C	ONE HOUR	✓	541.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	242.000	471.000
	B	94.000	0.000	135.000
	C	368.000	173.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.34	0.66
	B	0.41	0.00	0.59
	C	0.68	0.32	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.62	23.19	1.58	C	210.13	315.20	84.86	16.15	0.94	84.88	16.16
C-AB	0.47	12.10	1.02	B	201.54	302.32	60.54	12.01	0.67	60.55	12.02
C-A	-	-	-	-	294.89	442.33	-	-	-	-	-
A-B	-	-	-	-	222.06	333.10	-	-	-	-	-
A-C	-	-	-	-	432.20	648.30	-	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	172.40	43.10	170.32	0.00	496.69	0.347	0.00	0.52	10.964	B
C-AB	148.93	37.23	147.35	0.00	551.44	0.270	0.00	0.39	8.880	A
C-A	258.37	64.59	258.37	0.00	-	-	-	-	-	-
A-B	182.19	45.55	182.19	0.00	-	-	-	-	-	-
A-C	354.59	88.65	354.59	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	205.87	51.47	204.80	0.00	459.91	0.448	0.52	0.79	14.051	B
C-AB	190.64	47.66	189.90	0.00	552.09	0.345	0.39	0.58	9.932	A
C-A	295.71	73.93	295.71	0.00	-	-	-	-	-	-
A-B	217.55	54.39	217.55	0.00	-	-	-	-	-	-
A-C	423.42	105.85	423.42	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	252.13	63.03	249.16	0.00	407.08	0.619	0.79	1.53	22.378	C
C-AB	265.07	66.27	263.38	0.00	563.37	0.471	0.58	1.00	11.973	B
C-A	330.59	82.65	330.59	0.00	-	-	-	-	-	-
A-B	266.45	66.61	266.45	0.00	-	-	-	-	-	-
A-C	518.58	129.65	518.58	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	252.13	63.03	251.94	0.00	406.68	0.620	1.53	1.58	23.188	C
C-AB	265.07	66.27	264.98	0.00	563.37	0.471	1.00	1.02	12.101	B
C-A	330.59	82.65	330.59	0.00	-	-	-	-	-	-
A-B	266.45	66.61	266.45	0.00	-	-	-	-	-	-
A-C	518.58	129.65	518.58	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	205.87	51.47	208.84	0.00	459.36	0.448	1.58	0.83	14.535	B
C-AB	190.64	47.66	192.29	0.00	552.09	0.345	1.02	0.61	10.067	B
C-A	295.71	73.93	295.71	0.00	-	-	-	-	-	-
A-B	217.55	54.39	217.55	0.00	-	-	-	-	-	-
A-C	423.42	105.85	423.42	0.00	-	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-AC	172.40	43.10	173.57	0.00	496.13	0.348	0.83	0.54	11.202	B
C-AB	148.93	37.23	149.73	0.00	551.44	0.270	0.61	0.41	8.986	A
C-A	258.37	64.59	258.37	0.00	-	-	-	-	-	-
A-B	182.19	45.55	182.19	0.00	-	-	-	-	-	-
A-C	354.59	88.65	354.59	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	7.40	0.49	10.964	B	B
C-AB	5.79	0.39	8.880	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	11.26	0.75	14.051	B	B
C-AB	8.63	0.58	9.932	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	20.95	1.40	22.378	C	C
C-AB	15.00	1.00	11.973	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	23.40	1.56	23.188	C	C
C-AB	15.65	1.04	12.101	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	13.34	0.89	14.535	B	B
C-AB	9.29	0.62	10.067	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (18:00-18:15)

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	8.50	0.57	11.202	B	B
C-AB	6.18	0.41	8.986	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.4.487 [15039,24/03/2014]
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Filename: Holmfirth Road.Penistone Road.arc8
Path: Z:\70006562 - Brockholes\D Design and Analysis\Development\PICADY
Report generation date: 01/10/2015 09:34:40

» (Default Analysis Set) - Base 2015, AM
» (Default Analysis Set) - Base 2015, PM
» (Default Analysis Set) - Base 2015 + Committed, AM
» (Default Analysis Set) - Base 2015 + Committed, PM
» (Default Analysis Set) - Base 2020 + Committed, AM
» (Default Analysis Set) - Base 2020 + Committed, PM
» (Default Analysis Set) - Base 2015 + Committed + Development, AM
» (Default Analysis Set) - Base 2015 + Committed + Development, PM
» (Default Analysis Set) - Base 2020 + Committed + Development, AM
» (Default Analysis Set) - Base 2020 + Committed + Development, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - Base 2015							
Stream B-C	0.39	18.16	0.28	C	1.07	59.57	0.55	F
Stream B-A	4.27	43.25	0.83	E	7.37	70.56	0.91	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.68	12.74	0.41	B	0.62	12.23	0.38	B
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Base 2015 + Committed							
Stream B-C	0.44	20.59	0.31	C	3.51	172.25	0.96	F
Stream B-A	4.69	47.33	0.84	E	9.11	84.43	0.94	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.69	12.95	0.41	B	0.62	12.33	0.39	B
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Base 2015 + Committed + Development							
Stream B-C	0.48	21.81	0.33	C	3.66	177.22	0.96	F
Stream B-A	4.86	48.95	0.85	E	9.85	90.42	0.95	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.70	13.05	0.42	B	0.64	12.50	0.39	B
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Base 2020 + Committed							
Stream B-C	1.78	82.23	0.69	F	4.75	240.76	1.03	F
Stream B-A	7.85	74.83	0.92	F	15.98	133.84	1.01	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.80	14.04	0.45	B	0.70	13.11	0.41	B
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Base 2020 + Committed + Development							
Stream B-C	2.28	100.89	0.77	F	4.92	246.26	1.03	F
Stream B-A	8.12	77.31	0.93	F	16.98	140.87	1.02	F
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.82	14.22	0.45	B	0.72	13.30	0.42	B
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-

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

"D1 - Base 2015, AM " model duration: 07:45 - 09:15
"D2 - Base 2015, PM" model duration: 16:45 - 18:15
"D3 - Base 2015 + Committed, AM" model duration: 07:45 - 09:15
"D4 - Base 2015 + Committed, PM" model duration: 16:45 - 18:15
"D5 - Base 2020 + Committed, AM" model duration: 07:45 - 09:15
"D6 - Base 2020 + Committed, PM" model duration: 16:45 - 18:15
"D7 - Base 2015 + Committed + Development, AM" model duration: 07:45 - 09:15
"D8 - Base 2015 + Committed + Development, PM" model duration: 16:45 - 18:15
"D9 - Base 2020 + Committed + Development, AM" model duration: 07:45 - 09:15
"D10 - Base 2020 + Committed + Development, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.4.487 at 01/10/2015 09:34:36

File summary

Title	(untitled)
Location	
Site Number	
Date	10/09/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

(Default Analysis Set) - Base 2015, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Base 2015, AM	Base 2015	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	31.12	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Homlefirth Road (NW)		Major
B	B	Penstone Road (SE)		Minor
C	C	Sheffield Road (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.40		0.00		2.20	90.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				9.30	7.60	6.70	5.00	4.00	✓	3.00	52	102

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	633.995	0.093	0.236	0.148	0.337
1	B-C	644.321	0.080	0.202	-	-
1	C-B	626.083	0.196	0.196	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	689.00	100.000
B	ONE HOUR	✓	415.00	100.000
C	ONE HOUR	✓	300.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	568.000	121.000
	B	344.000	0.000	71.000
	C	123.000	177.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.82	0.18
	B	0.83	0.00	0.17
	C	0.41	0.59	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.28	18.16	0.39	C
B-A	0.83	43.25	4.27	E
C-A	-	-	-	-
C-B	0.41	12.74	0.68	B
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	53.45	52.98	0.00	503.76	0.106	0.12	7.978	A
B-A	258.98	255.04	0.00	513.87	0.504	0.99	13.711	B
C-A	92.60	92.60	0.00	-	-	-	-	-
C-B	133.25	131.91	0.00	524.34	0.254	0.34	9.143	A
A-B	427.62	427.62	0.00	-	-	-	-	-
A-C	91.10	91.10	0.00	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	63.83	63.64	0.00	447.01	0.143	0.16	9.385	A
B-A	309.25	306.70	0.00	490.09	0.631	1.62	19.352	C
C-A	110.57	110.57	0.00	-	-	-	-	-
C-B	159.12	158.65	0.00	504.59	0.315	0.45	10.391	B
A-B	510.62	510.62	0.00	-	-	-	-	-
A-C	108.78	108.78	0.00	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	78.17	77.44	0.00	297.31	0.263	0.35	16.322	C
B-A	378.75	369.64	0.00	457.50	0.828	3.90	37.526	E
C-A	135.43	135.43	0.00	-	-	-	-	-
C-B	194.88	194.00	0.00	477.29	0.408	0.67	12.667	B
A-B	625.38	625.38	0.00	-	-	-	-	-
A-C	133.22	133.22	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	78.17	78.02	0.00	276.03	0.283	0.39	18.162	C
B-A	378.75	377.28	0.00	457.25	0.828	4.27	43.248	E
C-A	135.43	135.43	0.00	-	-	-	-	-
C-B	194.88	194.85	0.00	477.29	0.408	0.68	12.741	B
A-B	625.38	625.38	0.00	-	-	-	-	-
A-C	133.22	133.22	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	63.83	64.67	0.00	433.42	0.147	0.17	9.786	A
B-A	309.25	319.07	0.00	489.76	0.631	1.81	22.157	C
C-A	110.57	110.57	0.00	-	-	-	-	-
C-B	159.12	159.98	0.00	504.59	0.315	0.47	10.473	B
A-B	510.62	510.62	0.00	-	-	-	-	-
A-C	108.78	108.78	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	53.45	53.67	0.00	499.41	0.107	0.12	8.081	A
B-A	258.98	262.03	0.00	513.33	0.505	1.05	14.494	B
C-A	92.60	92.60	0.00	-	-	-	-	-
C-B	133.25	133.75	0.00	524.34	0.254	0.35	9.229	A
A-B	427.62	427.62	0.00	-	-	-	-	-
A-C	91.10	91.10	0.00	-	-	-	-	-

(Default Analysis Set) - Base 2015, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Base 2015, PM	Base 2015	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	53.10	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Homlefirth Road (NW)		Major
B	B	Penstone Road (SE)		Minor
C	C	Sheffield Road (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.40		0.00		2.20	90.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				9.30	7.60	6.70	5.00	4.00	✓	3.00	52	102

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	635.463	0.094	0.237	0.149	0.338
1	B-C	642.005	0.080	0.201	-	-
1	C-B	626.083	0.196	0.196	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	685.00	100.000
B	ONE HOUR	✓	430.00	100.000
C	ONE HOUR	✓	344.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	502.000	183.000
	B	368.000	0.000	62.000
	C	177.000	167.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.73	0.27
	B	0.86	0.00	0.14
	C	0.51	0.49	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.55	59.57	1.07	F
B-A	0.91	70.56	7.37	F
C-A	-	-	-	-
C-B	0.38	12.23	0.62	B
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	46.68	46.25	0.00	483.27	0.097	0.11	8.230	A
B-A	277.05	272.37	0.00	505.17	0.548	1.17	15.179	C
C-A	133.25	133.25	0.00	-	-	-	-	-
C-B	125.73	124.48	0.00	524.93	0.240	0.31	8.962	A
A-B	377.93	377.93	0.00	-	-	-	-	-
A-C	137.77	137.77	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	55.74	55.53	0.00	406.69	0.137	0.16	10.244	B
B-A	330.82	327.24	0.00	479.46	0.690	2.07	23.089	C
C-A	159.12	159.12	0.00	-	-	-	-	-
C-B	150.13	149.71	0.00	505.30	0.297	0.42	10.111	B
A-B	451.29	451.29	0.00	-	-	-	-	-
A-C	164.51	164.51	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	68.26	66.58	0.00	180.39	0.378	0.58	31.200	D
B-A	405.18	388.75	0.00	444.20	0.912	6.17	53.490	F
C-A	194.88	194.88	0.00	-	-	-	-	-
C-B	183.87	183.09	0.00	478.15	0.385	0.61	12.167	B
A-B	552.71	552.71	0.00	-	-	-	-	-
A-C	201.49	201.49	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	68.26	66.31	0.00	124.79	0.547	1.07	59.572	F
B-A	405.18	400.38	0.00	443.96	0.913	7.37	70.562	F
C-A	194.88	194.88	0.00	-	-	-	-	-
C-B	183.87	183.85	0.00	478.15	0.385	0.62	12.230	B
A-B	552.71	552.71	0.00	-	-	-	-	-
A-C	201.49	201.49	0.00	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	55.74	59.29	0.00	372.16	0.150	0.18	11.630	B
B-A	330.82	350.61	0.00	479.05	0.691	2.42	31.394	D
C-A	159.12	159.12	0.00	-	-	-	-	-
C-B	150.13	150.89	0.00	505.30	0.297	0.43	10.178	B
A-B	451.29	451.29	0.00	-	-	-	-	-
A-C	164.51	164.51	0.00	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	46.68	46.95	0.00	476.28	0.098	0.11	8.391	A
B-A	277.05	281.70	0.00	504.69	0.549	1.26	16.459	C
C-A	133.25	133.25	0.00	-	-	-	-	-
C-B	125.73	126.17	0.00	524.93	0.240	0.32	9.037	A
A-B	377.93	377.93	0.00	-	-	-	-	-
A-C	137.77	137.77	0.00	-	-	-	-	-

(Default Analysis Set) - Base 2015 + Committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Base 2015 + Committed, AM	Base 2015 + Committed	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	33.91	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Homlefirth Road (NW)		Major
B	B	Penstone Road (SE)		Minor
C	C	Sheffield Road (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.40		0.00		2.20	90.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				9.30	7.60	6.70	5.00	4.00	✓	3.00	52	102

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	634.062	0.093	0.236	0.148	0.337
1	B-C	644.216	0.080	0.202	-	-
1	C-B	626.083	0.196	0.196	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	710.00	100.000
B	ONE HOUR	✓	418.00	100.000
C	ONE HOUR	✓	305.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	577.000	133.000
	B	347.000	0.000	71.000
	C	128.000	177.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.81	0.19
	B	0.83	0.00	0.17
	C	0.42	0.58	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.31	20.59	0.44	C
B-A	0.84	47.33	4.69	E
C-A	-	-	-	-
C-B	0.41	12.95	0.69	B
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	53.45	52.98	0.00	499.49	0.107	0.12	8.054	A
B-A	261.24	257.18	0.00	510.60	0.512	1.01	13.995	B
C-A	96.37	96.37	0.00	-	-	-	-	-
C-B	133.25	131.90	0.00	521.24	0.256	0.34	9.214	A
A-B	434.40	434.40	0.00	-	-	-	-	-
A-C	100.13	100.13	0.00	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	63.83	63.63	0.00	439.57	0.145	0.17	9.571	A
B-A	311.95	309.24	0.00	486.17	0.642	1.69	20.029	C
C-A	115.07	115.07	0.00	-	-	-	-	-
C-B	159.12	158.64	0.00	500.89	0.318	0.46	10.504	B
A-B	518.71	518.71	0.00	-	-	-	-	-
A-C	119.56	119.56	0.00	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	78.17	77.32	0.00	278.02	0.281	0.38	17.861	C
B-A	382.05	371.88	0.00	452.66	0.844	4.24	40.211	E
C-A	140.93	140.93	0.00	-	-	-	-	-
C-B	194.88	193.97	0.00	472.75	0.412	0.69	12.872	B
A-B	635.29	635.29	0.00	-	-	-	-	-
A-C	146.44	146.44	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	78.17	77.95	0.00	252.55	0.310	0.44	20.585	C
B-A	382.05	380.23	0.00	452.41	0.844	4.69	47.334	E
C-A	140.93	140.93	0.00	-	-	-	-	-
C-B	194.88	194.85	0.00	472.75	0.412	0.69	12.949	B
A-B	635.29	635.29	0.00	-	-	-	-	-
A-C	146.44	146.44	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	63.83	64.85	0.00	423.53	0.151	0.18	10.066	B
B-A	311.95	323.10	0.00	485.83	0.642	1.90	23.432	C
C-A	115.07	115.07	0.00	-	-	-	-	-
C-B	159.12	160.00	0.00	500.89	0.318	0.47	10.589	B
A-B	518.71	518.71	0.00	-	-	-	-	-
A-C	119.56	119.56	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	53.45	53.68	0.00	494.78	0.108	0.12	8.165	A
B-A	261.24	264.52	0.00	510.06	0.512	1.08	14.849	B
C-A	96.37	96.37	0.00	-	-	-	-	-
C-B	133.25	133.76	0.00	521.24	0.256	0.35	9.304	A
A-B	434.40	434.40	0.00	-	-	-	-	-
A-C	100.13	100.13	0.00	-	-	-	-	-

(Default Analysis Set) - Base 2015 + Committed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Base 2015 + Committed, PM	Base 2015 + Committed	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	73.53	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Homlefirth Road (NW)		Major
B	B	Penstone Road (SE)		Minor
C	C	Sheffield Road (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.40		0.00		2.20	90.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				9.30	7.60	6.70	5.00	4.00	✓	3.00	52	102

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	635.607	0.094	0.237	0.149	0.338
1	B-C	641.778	0.080	0.201	-	-
1	C-B	626.083	0.196	0.196	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	696.00	100.000
B	ONE HOUR	✓	438.00	100.000
C	ONE HOUR	✓	356.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	507.000	189.000
	B	376.000	0.000	62.000
	C	189.000	167.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.73	0.27
	B	0.86	0.00	0.14
	C	0.53	0.47	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.96	172.25	3.51	F
B-A	0.94	84.43	9.11	F
C-A	-	-	-	-
C-B	0.39	12.33	0.62	B
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	46.68	46.25	0.00	476.96	0.098	0.11	8.349	A
B-A	283.07	278.12	0.00	502.52	0.563	1.24	15.720	C
C-A	142.29	142.29	0.00	-	-	-	-	-
C-B	125.73	124.48	0.00	523.31	0.240	0.31	8.999	A
A-B	381.70	381.70	0.00	-	-	-	-	-
A-C	142.29	142.29	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	55.74	55.51	0.00	392.63	0.142	0.16	10.672	B
B-A	338.02	333.99	0.00	476.26	0.710	2.25	24.597	C
C-A	169.91	169.91	0.00	-	-	-	-	-
C-B	150.13	149.70	0.00	503.36	0.298	0.42	10.167	B
A-B	455.78	455.78	0.00	-	-	-	-	-
A-C	169.91	169.91	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	68.26	65.24	0.00	135.07	0.505	0.92	49.716	E
B-A	413.98	393.85	0.00	440.24	0.940	7.28	60.520	F
C-A	208.09	208.09	0.00	-	-	-	-	-
C-B	183.87	183.08	0.00	475.78	0.386	0.62	12.264	B
A-B	558.22	558.22	0.00	-	-	-	-	-
A-C	208.09	208.09	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	68.26	57.89	0.00	71.42	0.956	3.51	172.247	F
B-A	413.98	406.68	0.00	439.92	0.941	9.11	84.433	F
C-A	208.09	208.09	0.00	-	-	-	-	-
C-B	183.87	183.84	0.00	475.78	0.386	0.62	12.329	B
A-B	558.22	558.22	0.00	-	-	-	-	-
A-C	208.09	208.09	0.00	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	55.74	69.00	0.00	346.39	0.161	0.20	13.582	B
B-A	338.02	363.56	0.00	475.07	0.712	2.72	37.558	E
C-A	169.91	169.91	0.00	-	-	-	-	-
C-B	150.13	150.90	0.00	503.36	0.298	0.43	10.237	B
A-B	455.78	455.78	0.00	-	-	-	-	-
A-C	169.91	169.91	0.00	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	46.68	47.01	0.00	468.60	0.100	0.11	8.547	A
B-A	283.07	288.58	0.00	502.04	0.564	1.34	17.269	C
C-A	142.29	142.29	0.00	-	-	-	-	-
C-B	125.73	126.17	0.00	523.31	0.240	0.32	9.074	A
A-B	381.70	381.70	0.00	-	-	-	-	-
A-C	142.29	142.29	0.00	-	-	-	-	-

(Default Analysis Set) - Base 2020 + Committed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Base 2020 + Committed, AM	Base 2020 + Committed	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	57.62	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Homlefirth Road (NW)		Major
B	B	Penstone Road (SE)		Minor
C	C	Sheffield Road (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.40		0.00		2.20	90.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				9.30	7.60	6.70	5.00	4.00	✓	3.00	52	102

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	634.114	0.093	0.236	0.149	0.337
1	B-C	644.135	0.080	0.202	-	-
1	C-B	626.083	0.196	0.196	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	754.00	100.000
B	ONE HOUR	✓	444.00	100.000
C	ONE HOUR	✓	324.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	613.000	141.000
	B	369.000	0.000	75.000
	C	136.000	188.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.81	0.19
	B	0.83	0.00	0.17
	C	0.42	0.58	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.69	82.23	1.78	F
B-A	0.92	74.83	7.85	F
C-A	-	-	-	-
C-B	0.45	14.04	0.80	B
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	56.46	55.94	0.00	484.15	0.117	0.13	8.397	A
B-A	277.80	273.05	0.00	503.00	0.552	1.19	15.361	C
C-A	102.39	102.39	0.00	-	-	-	-	-
C-B	141.54	140.04	0.00	514.74	0.275	0.37	9.570	A
A-B	461.50	461.50	0.00	-	-	-	-	-
A-C	106.15	106.15	0.00	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	67.42	67.16	0.00	407.00	0.166	0.20	10.593	B
B-A	331.72	328.02	0.00	477.01	0.695	2.11	23.566	C
C-A	122.26	122.26	0.00	-	-	-	-	-
C-B	169.01	168.45	0.00	493.13	0.343	0.51	11.069	B
A-B	551.07	551.07	0.00	-	-	-	-	-
A-C	126.76	126.76	0.00	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	82.58	80.16	0.00	178.66	0.462	0.80	35.747	E
B-A	406.28	388.82	0.00	441.30	0.921	6.48	55.650	F
C-A	149.74	149.74	0.00	-	-	-	-	-
C-B	206.99	205.89	0.00	463.25	0.447	0.79	13.926	B
A-B	674.93	674.93	0.00	-	-	-	-	-
A-C	155.24	155.24	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	82.58	78.67	0.00	119.01	0.694	1.78	82.226	F
B-A	406.28	400.79	0.00	440.88	0.922	7.85	74.829	F
C-A	149.74	149.74	0.00	-	-	-	-	-
C-B	206.99	206.95	0.00	463.25	0.447	0.80	14.039	B
A-B	674.93	674.93	0.00	-	-	-	-	-
A-C	155.24	155.24	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	67.42	73.63	0.00	369.95	0.182	0.23	12.392	B
B-A	331.72	353.11	0.00	476.27	0.697	2.50	33.094	D
C-A	122.26	122.26	0.00	-	-	-	-	-
C-B	169.01	170.07	0.00	493.13	0.343	0.53	11.179	B
A-B	551.07	551.07	0.00	-	-	-	-	-
A-C	126.76	126.76	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	56.46	56.83	0.00	476.84	0.118	0.14	8.578	A
B-A	277.80	282.68	0.00	502.39	0.553	1.28	16.727	C
C-A	102.39	102.39	0.00	-	-	-	-	-
C-B	141.54	142.12	0.00	514.74	0.275	0.38	9.678	A
A-B	461.50	461.50	0.00	-	-	-	-	-
A-C	106.15	106.15	0.00	-	-	-	-	-

(Default Analysis Set) - Base 2020 + Committed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Base 2020 + Committed, PM	Base 2020 + Committed	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	111.36	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Homlefirth Road (NW)		Major
B	B	Penstone Road (SE)		Minor
C	C	Sheffield Road (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.40		0.00		2.20	90.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				9.30	7.60	6.70	5.00	4.00	✓	3.00	52	102

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	635.621	0.094	0.237	0.149	0.338
1	B-C	641.757	0.080	0.201	-	-
1	C-B	626.083	0.196	0.196	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	731.00	100.000
B	ONE HOUR	✓	460.00	100.000
C	ONE HOUR	✓	374.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	533.000	198.000
	B	395.000	0.000	65.000
	C	198.000	176.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.73	0.27
	B	0.86	0.00	0.14
	C	0.53	0.47	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	1.03	240.76	4.75	F
B-A	1.01	133.84	15.98	F
C-A	-	-	-	-
C-B	0.41	13.11	0.70	B
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	48.94	48.47	0.00	460.89	0.106	0.12	8.719	A
B-A	297.38	291.66	0.00	495.79	0.600	1.43	17.195	C
C-A	149.06	149.06	0.00	-	-	-	-	-
C-B	132.50	131.15	0.00	518.14	0.256	0.34	9.270	A
A-B	401.27	401.27	0.00	-	-	-	-	-
A-C	149.06	149.06	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	58.43	58.13	0.00	354.31	0.165	0.19	12.142	B
B-A	355.10	349.65	0.00	468.18	0.758	2.79	29.060	D
C-A	178.00	178.00	0.00	-	-	-	-	-
C-B	158.22	157.74	0.00	497.19	0.318	0.46	10.590	B
A-B	479.16	479.16	0.00	-	-	-	-	-
A-C	178.00	178.00	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	71.57	56.38	0.00	69.79	1.025	3.99	190.085	F
B-A	434.90	401.92	0.00	430.31	1.011	11.04	82.287	F
C-A	218.00	218.00	0.00	-	-	-	-	-
C-B	193.78	192.86	0.00	468.22	0.414	0.69	13.029	B
A-B	586.84	586.84	0.00	-	-	-	-	-
A-C	218.00	218.00	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	71.57	68.53	0.00	78.44	0.912	4.75	240.761	F
B-A	434.90	415.12	0.00	429.29	1.013	15.98	133.838	F
C-A	218.00	218.00	0.00	-	-	-	-	-
C-B	193.78	193.75	0.00	468.22	0.414	0.70	13.111	B
A-B	586.84	586.84	0.00	-	-	-	-	-
A-C	218.00	218.00	0.00	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	58.43	76.05	0.00	233.92	0.250	0.34	25.241	D
B-A	355.10	403.89	0.00	466.83	0.761	3.78	71.679	F
C-A	178.00	178.00	0.00	-	-	-	-	-
C-B	158.22	159.11	0.00	497.19	0.318	0.47	10.676	B
A-B	479.16	479.16	0.00	-	-	-	-	-
A-C	178.00	178.00	0.00	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	48.94	49.81	0.00	447.25	0.109	0.12	9.077	A
B-A	297.38	306.21	0.00	495.26	0.600	1.58	19.840	C
C-A	149.06	149.06	0.00	-	-	-	-	-
C-B	132.50	133.01	0.00	518.14	0.256	0.35	9.361	A
A-B	401.27	401.27	0.00	-	-	-	-	-
A-C	149.06	149.06	0.00	-	-	-	-	-

(Default Analysis Set) - Base 2015 + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Base 2015 + Committed + Development, AM	Base 2015 + Committed + Development	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	34.95	D

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Homlefirth Road (NW)		Major
B	B	Penstone Road (SE)		Minor
C	C	Sheffield Road (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.40		0.00		2.20	90.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				9.30	7.60	6.70	5.00	4.00	✓	3.00	52	102

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	633.762	0.093	0.236	0.148	0.337
1	B-C	644.689	0.080	0.202	-	-
1	C-B	626.083	0.196	0.196	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	715.00	100.000
B	ONE HOUR	✓	422.00	100.000
C	ONE HOUR	✓	307.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	579.000	136.000
	B	348.000	0.000	74.000
	C	129.000	178.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.81	0.19
	B	0.82	0.00	0.18
	C	0.42	0.58	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.33	21.81	0.48	C
B-A	0.85	48.95	4.86	E
C-A	-	-	-	-
C-B	0.42	13.05	0.70	B
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	55.71	55.21	0.00	498.71	0.112	0.12	8.108	A
B-A	261.99	257.89	0.00	509.32	0.514	1.03	14.102	B
C-A	97.12	97.12	0.00	-	-	-	-	-
C-B	134.01	132.64	0.00	520.50	0.257	0.34	9.250	A
A-B	435.90	435.90	0.00	-	-	-	-	-
A-C	102.39	102.39	0.00	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	66.52	66.31	0.00	437.88	0.152	0.18	9.684	A
B-A	312.84	310.08	0.00	484.68	0.645	1.72	20.284	C
C-A	115.97	115.97	0.00	-	-	-	-	-
C-B	160.02	159.53	0.00	500.01	0.320	0.46	10.559	B
A-B	520.51	520.51	0.00	-	-	-	-	-
A-C	122.26	122.26	0.00	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	81.48	80.53	0.00	272.96	0.298	0.41	18.618	C
B-A	383.16	372.57	0.00	450.87	0.850	4.37	41.241	E
C-A	142.03	142.03	0.00	-	-	-	-	-
C-B	195.98	195.06	0.00	471.67	0.416	0.69	12.970	B
A-B	637.49	637.49	0.00	-	-	-	-	-
A-C	149.74	149.74	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	81.48	81.21	0.00	245.97	0.331	0.48	21.805	C
B-A	383.16	381.18	0.00	450.60	0.850	4.86	48.953	E
C-A	142.03	142.03	0.00	-	-	-	-	-
C-B	195.98	195.95	0.00	471.67	0.416	0.70	13.052	B
A-B	637.49	637.49	0.00	-	-	-	-	-
A-C	149.74	149.74	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	66.52	67.69	0.00	420.92	0.158	0.19	10.223	B
B-A	312.84	324.53	0.00	484.33	0.646	1.94	23.941	C
C-A	115.97	115.97	0.00	-	-	-	-	-
C-B	160.02	160.91	0.00	500.01	0.320	0.48	10.646	B
A-B	520.51	520.51	0.00	-	-	-	-	-
A-C	122.26	122.26	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	55.71	55.96	0.00	493.86	0.113	0.13	8.225	A
B-A	261.99	265.37	0.00	508.77	0.515	1.10	14.985	B
C-A	97.12	97.12	0.00	-	-	-	-	-
C-B	134.01	134.52	0.00	520.50	0.257	0.35	9.338	A
A-B	435.90	435.90	0.00	-	-	-	-	-
A-C	102.39	102.39	0.00	-	-	-	-	-

(Default Analysis Set) - Base 2015 + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Base 2015 + Committed + Development, PM	Base 2015 + Committed + Development	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	77.85	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Homlefirth Road (NW)		Major
B	B	Penstone Road (SE)		Minor
C	C	Sheffield Road (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.40		0.00		2.20	90.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				9.30	7.60	6.70	5.00	4.00	✓	3.00	52	102

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	635.430	0.094	0.237	0.149	0.338
1	B-C	642.058	0.080	0.201	-	-
1	C-B	626.083	0.196	0.196	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	699.00	100.000
B	ONE HOUR	✓	442.00	100.000
C	ONE HOUR	✓	362.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	508.000	191.000
	B	378.000	0.000	64.000
	C	192.000	170.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.73	0.27
	B	0.86	0.00	0.14
	C	0.53	0.47	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.96	177.22	3.66	F
B-A	0.95	90.42	9.85	F
C-A	-	-	-	-
C-B	0.39	12.50	0.64	B
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	48.18	47.74	0.00	475.27	0.101	0.11	8.412	A
B-A	284.58	279.53	0.00	500.85	0.568	1.26	15.929	C
C-A	144.55	144.55	0.00	-	-	-	-	-
C-B	127.98	126.71	0.00	522.86	0.245	0.32	9.059	A
A-B	382.45	382.45	0.00	-	-	-	-	-
A-C	143.79	143.79	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	57.53	57.30	0.00	388.31	0.148	0.17	10.868	B
B-A	339.81	335.61	0.00	474.29	0.716	2.31	25.187	D
C-A	172.60	172.60	0.00	-	-	-	-	-
C-B	152.83	152.39	0.00	502.83	0.304	0.43	10.258	B
A-B	456.68	456.68	0.00	-	-	-	-	-
A-C	171.71	171.71	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	70.47	66.27	0.00	119.49	0.590	1.22	63.654	F
B-A	416.19	394.53	0.00	437.83	0.951	7.73	63.377	F
C-A	211.40	211.40	0.00	-	-	-	-	-
C-B	187.17	186.35	0.00	475.13	0.394	0.64	12.430	B
A-B	559.32	559.32	0.00	-	-	-	-	-
A-C	210.29	210.29	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	70.47	60.72	0.00	73.72	0.956	3.66	177.224	F
B-A	416.19	407.68	0.00	437.45	0.951	9.85	90.416	F
C-A	211.40	211.40	0.00	-	-	-	-	-
C-B	187.17	187.15	0.00	475.13	0.394	0.64	12.498	B
A-B	559.32	559.32	0.00	-	-	-	-	-
A-C	210.29	210.29	0.00	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	57.53	71.32	0.00	335.47	0.172	0.21	14.321	B
B-A	339.81	367.91	0.00	473.08	0.718	2.83	40.462	E
C-A	172.60	172.60	0.00	-	-	-	-	-
C-B	152.83	153.62	0.00	502.83	0.304	0.44	10.332	B
A-B	456.68	456.68	0.00	-	-	-	-	-
A-C	171.71	171.71	0.00	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	48.18	48.56	0.00	466.38	0.103	0.12	8.623	A
B-A	284.58	290.42	0.00	500.36	0.569	1.37	17.589	C
C-A	144.55	144.55	0.00	-	-	-	-	-
C-B	127.98	128.45	0.00	522.86	0.245	0.33	9.137	A
A-B	382.45	382.45	0.00	-	-	-	-	-
A-C	143.79	143.79	0.00	-	-	-	-	-

(Default Analysis Set) - Base 2020 + Committed + Development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Base 2020 + Committed + Development, AM	Base 2020 + Committed + Development	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	61.38	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Homlefirth Road (NW)		Major
B	B	Penstone Road (SE)		Minor
C	C	Sheffield Road (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.40		0.00		2.20	90.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				9.30	7.60	6.70	5.00	4.00	✓	3.00	52	102

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	633.809	0.093	0.236	0.148	0.337
1	B-C	644.615	0.080	0.202	-	-
1	C-B	626.083	0.196	0.196	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	759.00	100.000
B	ONE HOUR	✓	447.00	100.000
C	ONE HOUR	✓	327.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	615.000	144.000
	B	369.000	0.000	78.000
	C	137.000	190.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.81	0.19
	B	0.83	0.00	0.17
	C	0.42	0.58	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.77	100.89	2.28	F
B-A	0.93	77.31	8.12	F
C-A	-	-	-	-
C-B	0.45	14.22	0.82	B
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	58.72	58.18	0.00	483.65	0.121	0.14	8.450	A
B-A	277.80	273.02	0.00	501.46	0.554	1.20	15.459	C
C-A	103.14	103.14	0.00	-	-	-	-	-
C-B	143.04	141.52	0.00	514.00	0.278	0.38	9.626	A
A-B	463.00	463.00	0.00	-	-	-	-	-
A-C	108.41	108.41	0.00	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	70.12	69.84	0.00	405.77	0.173	0.21	10.708	B
B-A	331.72	327.96	0.00	475.21	0.698	2.14	23.827	C
C-A	123.16	123.16	0.00	-	-	-	-	-
C-B	170.81	170.24	0.00	492.25	0.347	0.52	11.159	B
A-B	552.87	552.87	0.00	-	-	-	-	-
A-C	129.45	129.45	0.00	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	85.88	83.12	0.00	174.13	0.493	0.90	38.501	E
B-A	406.28	388.25	0.00	439.10	0.925	6.64	56.906	F
C-A	150.84	150.84	0.00	-	-	-	-	-
C-B	209.19	208.06	0.00	462.17	0.453	0.80	14.101	B
A-B	677.13	677.13	0.00	-	-	-	-	-
A-C	158.55	158.55	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	85.88	80.35	0.00	111.70	0.769	2.28	100.885	F
B-A	406.28	400.38	0.00	438.64	0.926	8.12	77.307	F
C-A	150.84	150.84	0.00	-	-	-	-	-
C-B	209.19	209.15	0.00	462.17	0.453	0.82	14.221	B
A-B	677.13	677.13	0.00	-	-	-	-	-
A-C	158.55	158.55	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	70.12	78.28	0.00	367.25	0.191	0.24	12.795	B
B-A	331.72	354.02	0.00	474.30	0.699	2.54	34.099	D
C-A	123.16	123.16	0.00	-	-	-	-	-
C-B	170.81	171.90	0.00	492.25	0.347	0.54	11.277	B
A-B	552.87	552.87	0.00	-	-	-	-	-
A-C	129.45	129.45	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	58.72	59.11	0.00	476.19	0.123	0.14	8.639	A
B-A	277.80	282.81	0.00	500.84	0.555	1.29	16.866	C
C-A	103.14	103.14	0.00	-	-	-	-	-
C-B	143.04	143.64	0.00	514.00	0.278	0.39	9.737	A
A-B	463.00	463.00	0.00	-	-	-	-	-
A-C	108.41	108.41	0.00	-	-	-	-	-

(Default Analysis Set) - Base 2020 + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Base 2020 + Committed + Development, PM	Base 2020 + Committed + Development	PM		ONE HOUR	16:45	18:15	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	116.10	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Homlefirth Road (NW)		Major
B	B	Penstone Road (SE)		Minor
C	C	Sheffield Road (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.40		0.00		2.20	90.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	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	One lane plus flare				9.30	7.60	6.70	5.00	4.00	✓	3.00	52	102

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	635.536	0.094	0.237	0.149	0.338
1	B-C	641.891	0.080	0.201	-	-
1	C-B	626.083	0.196	0.196	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	734.00	100.000
B	ONE HOUR	✓	462.00	100.000
C	ONE HOUR	✓	380.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	534.000	200.000
	B	396.000	0.000	66.000
	C	201.000	179.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.73	0.27
	B	0.86	0.00	0.14
	C	0.53	0.47	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	1.03	246.26	4.92	F
B-A	1.02	140.87	16.98	F
C-A	-	-	-	-
C-B	0.42	13.30	0.72	B
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	49.69	49.21	0.00	459.37	0.108	0.12	8.768	A
B-A	298.13	292.34	0.00	494.20	0.603	1.45	17.382	C
C-A	151.32	151.32	0.00	-	-	-	-	-
C-B	134.76	133.37	0.00	517.70	0.260	0.35	9.334	A
A-B	402.02	402.02	0.00	-	-	-	-	-
A-C	150.57	150.57	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	59.33	59.01	0.00	350.19	0.169	0.20	12.350	B
B-A	356.00	350.37	0.00	466.28	0.763	2.86	29.650	D
C-A	180.69	180.69	0.00	-	-	-	-	-
C-B	160.92	160.42	0.00	496.66	0.324	0.47	10.690	B
A-B	480.06	480.06	0.00	-	-	-	-	-
A-C	179.80	179.80	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	72.67	57.08	0.00	70.28	1.034	4.10	191.821	F
B-A	436.00	401.26	0.00	428.00	1.019	11.54	85.261	F
C-A	221.31	221.31	0.00	-	-	-	-	-
C-B	197.08	196.12	0.00	467.57	0.422	0.71	13.214	B
A-B	587.94	587.94	0.00	-	-	-	-	-
A-C	220.20	220.20	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	72.67	69.36	0.00	78.86	0.921	4.92	246.264	F
B-A	436.00	414.26	0.00	426.97	1.021	16.98	140.867	F
C-A	221.31	221.31	0.00	-	-	-	-	-
C-B	197.08	197.05	0.00	467.57	0.422	0.72	13.303	B
A-B	587.94	587.94	0.00	-	-	-	-	-
A-C	220.20	220.20	0.00	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	59.33	77.46	0.00	216.40	0.274	0.39	29.107	D
B-A	356.00	408.10	0.00	464.89	0.766	3.95	78.313	F
C-A	180.69	180.69	0.00	-	-	-	-	-
C-B	160.92	161.85	0.00	496.66	0.324	0.49	10.781	B
A-B	480.06	480.06	0.00	-	-	-	-	-
A-C	179.80	179.80	0.00	-	-	-	-	-

Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	49.69	50.75	0.00	444.87	0.112	0.13	9.157	A
B-A	298.13	307.54	0.00	493.64	0.604	1.60	20.217	C
C-A	151.32	151.32	0.00	-	-	-	-	-
C-B	134.76	135.28	0.00	517.70	0.260	0.36	9.428	A
A-B	402.02	402.02	0.00	-	-	-	-	-
A-C	150.57	150.57	0.00	-	-	-	-	-

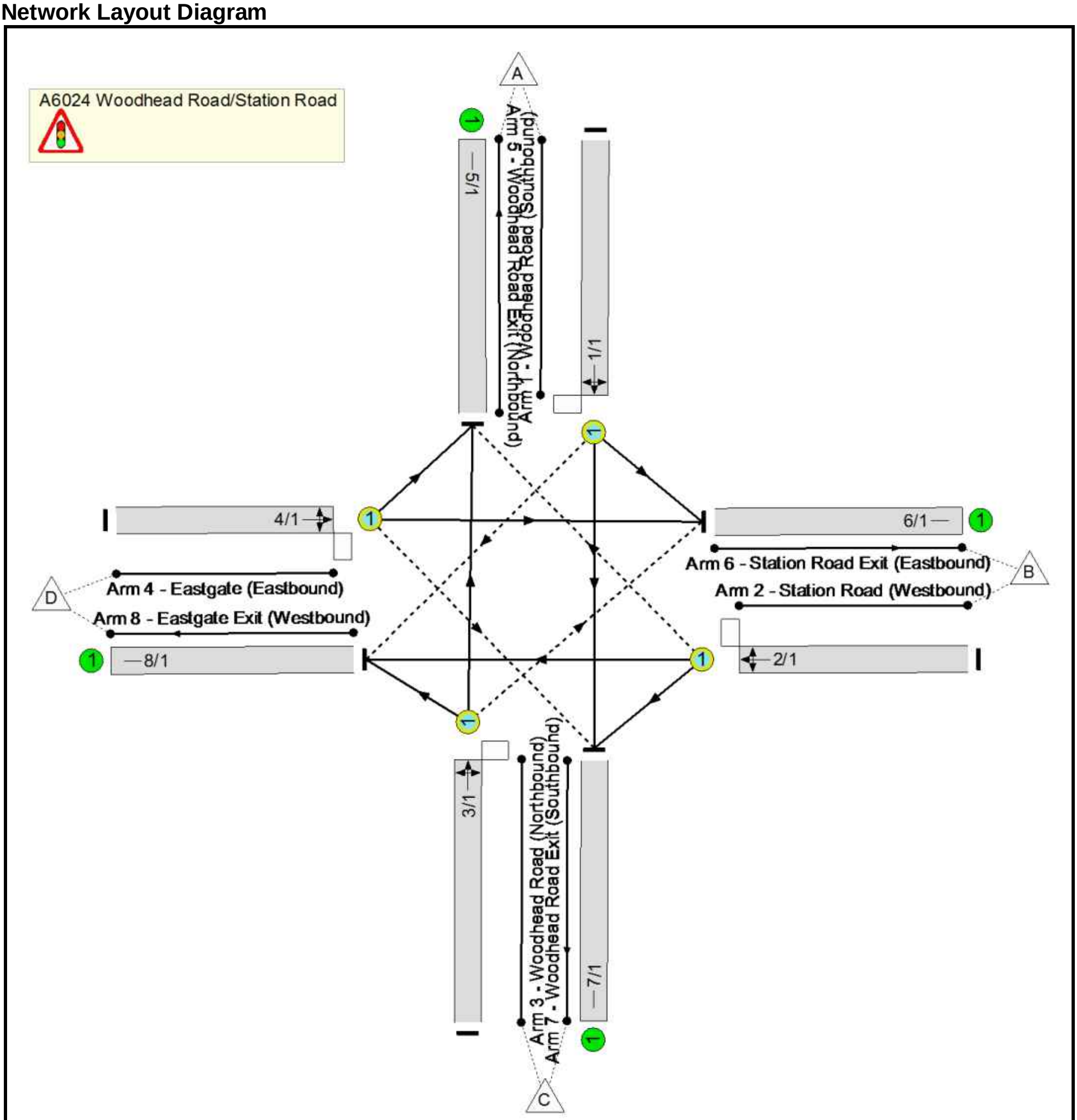
Full Input Data And Results

User and Project Details

Project:	**Brockholes**
Title:	**A6024 Woodhead Road/Station Road**
Location:	
File name:	A6024 Woodhead Road_Station Road LinSig Model.lsg3x
Author:	Emma Robshaw
Company:	WSP | Parsons Brinckerhoff
Address:	Leeds
Notes:	

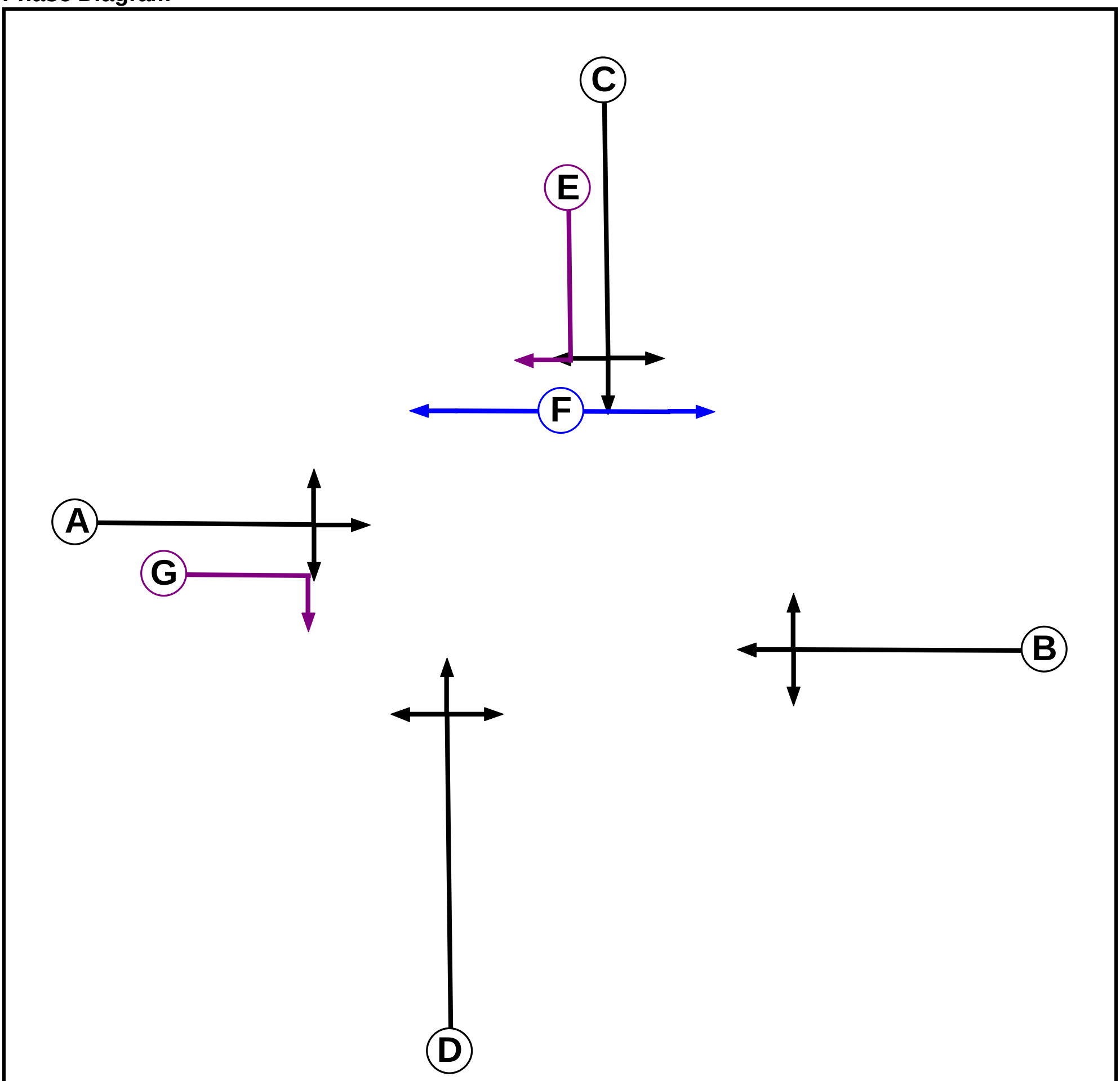
Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

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	Ind. Arrow	C	4	4
F	Pedestrian		7	7
G	Ind. Arrow	A	4	4

Full Input Data And Results

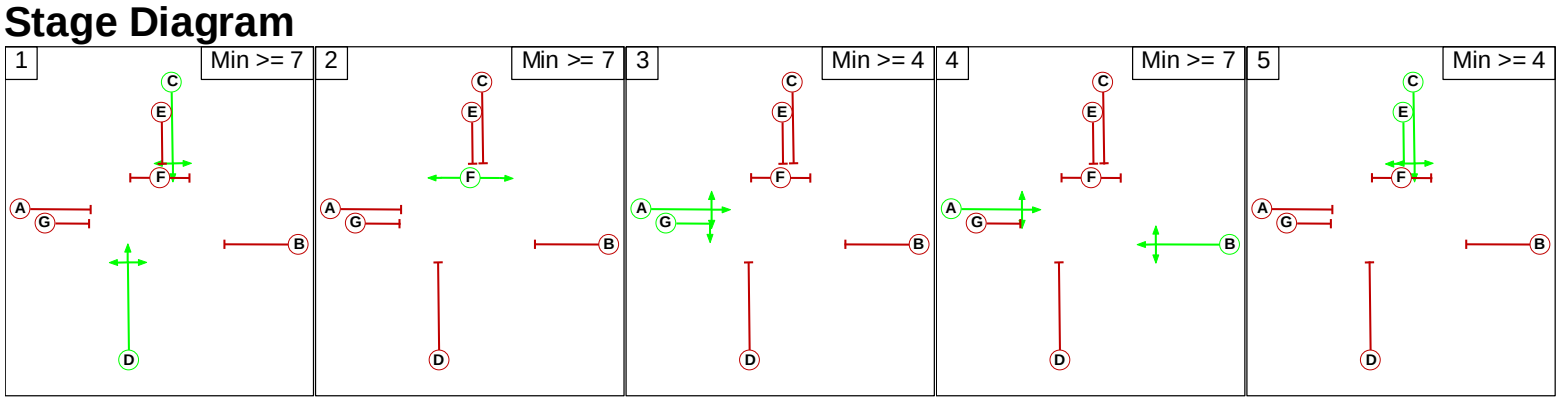
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G
A		-	4	4	4	5	-
B	-		4	4	4	5	4
C	4	4		-	-	3	4
D	4	4	-		4	5	4
E	4	4	-	3		3	4
F	5	5	5	5	5		5
G	-	4	4	4	4	7	

Phases in Stage

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

Stage Diagram



Phase Delays

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

Prohibited Stage Change

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

Full Input Data And Results

Give-Way Lane Input Data

Junction: A6024 Woodhead Road/Station Road											
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Min Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
1/1 (Woodhead Road (Southbound))	8/1 (Right)	1439	0	3/1	1.09	All	1.00	1.00	0.50	1	1.00
2/1 (Station Road (Westbound))	5/1 (Right)	1439	0	4/1	1.09	All	1.00	1.00	0.50	1	1.00
3/1 (Woodhead Road (Northbound))	6/1 (Right)	1439	0	1/1	1.09	All	1.00	1.00	0.50	1	1.00
4/1 (Eastgate (Eastbound))	7/1 (Right)	1439	0	2/1	1.09	All	1.00	1.00	0.50	1	1.00

Full Input Data And Results

Lane Input Data

Junction: A6024 Woodhead Road/Station Road

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Woodhead Road (Southbound))	O	C E	2	3	60.0	User	1800	-	-	-	-	-
2/1 (Station Road (Westbound))	O	B	2	3	60.0	User	1800	-	-	-	-	-
3/1 (Woodhead Road (Northbound))	O	D	2	3	60.0	User	1800	-	-	-	-	-
4/1 (Eastgate (Eastbound))	O	A G	2	3	60.0	User	1800	-	-	-	-	-
5/1 (Woodhead Road Exit (Northbound))	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Station Road Exit (Eastbound))	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (Woodhead Road Exit (Southbound))	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (Eastgate Exit (Westbound))	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Base 2015 AM'	08:00	09:00	01:00	
2: 'Base 2015 PM'	17:00	18:00	01:00	
3: 'Base 2020 AM'	08:00	09:00	01:00	
4: 'Base 2020 PM '	17:00	18:00	01:00	
5: 'Base 2015 AM + Com'	08:00	09:00	01:00	
6: 'Base 2015 PM + Com'	17:00	18:00	01:00	
7: 'Base 2020 AM + Com'	08:00	09:00	01:00	
8: 'Base 2020 PM + Com'	17:00	18:00	01:00	
9: 'Base 2015 AM + Dev + Com'	08:00	09:00	01:00	
10: 'Base 2015 PM + Dev + Com'	17:00	18:00	01:00	
11: 'Base 2020 AM + Dev + Com'	08:00	09:00	01:00	
12: 'Base 2020 PM + Dev + Com'	08:00	09:00	01:00	

Full Input Data And Results

Scenario 1: 'Base 2015 AM' (FG1: 'Base 2015 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	207	110	317
	B	3	0	50	221	274
	C	295	37	0	17	349
	D	173	223	44	0	440
	Tot.	471	260	301	348	1380

Traffic Lane Flows

Lane	Scenario 1: Base 2015 AM
Junction: A6024 Woodhead Road/Station Road	
1/1	317
2/1	274
3/1	349
4/1	440
5/1	471
6/1	260
7/1	301
8/1	348

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/Station Road								
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 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Station Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Eastgate (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Eastgate Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Base 2015 PM' (FG2: 'Base 2015 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
	A	B	C	D	Tot.
A	0	2	359	232	593
B	2	0	55	286	343
C	240	45	0	28	313
D	136	188	44	0	368
Tot.	378	235	458	546	1617

Traffic Lane Flows

Lane	Scenario 2: Base 2015 PM
Junction: A6024 Woodhead Road/Station Road	
1/1	593
2/1	343
3/1	313
4/1	368
5/1	378
6/1	235
7/1	458
8/1	546

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/Station Road								
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 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Station Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Eastgate (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Eastgate Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'Base 2020 AM' (FG3: 'Base 2020 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
	A	B	C	D	Tot.
A	0	0	220	117	337
B	3	0	53	235	291
C	313	39	0	18	370
D	184	237	47	0	468
Tot.	500	276	320	370	1466

Traffic Lane Flows

Lane	Scenario 3: Base 2020 AM
Junction: A6024 Woodhead Road/Station Road	
1/1	337
2/1	291
3/1	370
4/1	468
5/1	500
6/1	276
7/1	320
8/1	370

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/Station Road								
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 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Station Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Eastgate (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Eastgate Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'Base 2020 PM' (FG4: 'Base 2020 PM ', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
	A	B	C	D	Tot.
A	0	2	377	244	623
B	2	0	58	300	360
C	252	47	0	29	328
D	143	197	46	0	386
Tot.	397	246	481	573	1697

Traffic Lane Flows

Lane	Scenario 4: Base 2020 PM
Junction: A6024 Woodhead Road/Station Road	
1/1	623
2/1	360
3/1	328
4/1	386
5/1	397
6/1	246
7/1	481
8/1	573

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/Station Road								
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 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Station Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Eastgate (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Eastgate Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'Base 2015 AM + Com' (FG5: 'Base 2015 AM + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
	A	B	C	D	Tot.
A	0	0	213	110	323
B	3	0	51	221	275
C	316	40	0	24	380
D	173	223	46	0	442
Tot.	492	263	310	355	1420

Traffic Lane Flows

Lane	Scenario 5: Base 2015 AM + Com
Junction: A6024 Woodhead Road/Station Road	
1/1	323
2/1	275
3/1	380
4/1	442
5/1	492
6/1	263
7/1	310
8/1	355

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/Station Road								
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 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Station Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Eastgate (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Eastgate Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Base 2015 PM + Com' (FG6: 'Base 2015 PM + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
	A	B	C	D	Tot.
A	0	2	375	232	609
B	2	0	57	286	345
C	248	46	0	30	324
D	136	188	50	0	374
Tot.	386	236	482	548	1652

Traffic Lane Flows

Lane	Scenario 6: Base 2015 PM + Com
Junction: A6024 Woodhead Road/Station Road	
1/1	609
2/1	345
3/1	324
4/1	374
5/1	386
6/1	236
7/1	482
8/1	548

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/Station Road								
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 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Station Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Eastgate (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Eastgate Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 7: 'Base 2020 AM + Com' (FG7: 'Base 2020 AM + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	0	226	117	343
	B	3	0	54	235	292
	C	334	42	0	25	401
	D	184	237	49	0	470
	Tot.	521	279	329	377	1506

Traffic Lane Flows

Lane	Scenario 7: Base 2020 AM + Com
Junction: A6024 Woodhead Road/Station Road	
1/1	343
2/1	292
3/1	401
4/1	470
5/1	521
6/1	279
7/1	329
8/1	377

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/Station Road								
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 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Station Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Eastgate (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Eastgate Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Base 2020 PM + Com' (FG8: 'Base 2020 PM + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
	A	B	C	D	Tot.
A	0	2	393	244	639
B	2	0	60	300	362
C	260	48	0	31	339
D	143	197	52	0	392
Tot.	405	247	505	575	1732

Traffic Lane Flows

Lane	Scenario 8: Base 2020 PM + Com
Junction: A6024 Woodhead Road/Station Road	
1/1	639
2/1	362
3/1	339
4/1	392
5/1	405
6/1	247
7/1	505
8/1	575

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/Station Road								
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 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Station Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Eastgate (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Eastgate Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 9: 'Base 2015 AM + Dev + Com' (FG9: 'Base 2015 AM + Dev + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
	A	B	C	D	Tot.
A	0	0	232	110	342
B	3	0	54	221	278
C	354	47	0	36	437
D	173	223	52	0	448
Tot.	530	270	338	367	1505

Traffic Lane Flows

Lane	Scenario 9: Base 2015 AM + Dev + Com
Junction: A6024 Woodhead Road/Station Road	
1/1	342
2/1	278
3/1	437
4/1	448
5/1	530
6/1	270
7/1	338
8/1	367

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/Station Road								
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 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Station Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Eastgate (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Eastgate Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 10: 'Base 2015 PM + Dev + Com' (FG10: 'Base 2015 PM + Dev + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
	A	B	C	D	Tot.
A	0	2	412	232	646
B	2	0	64	286	352
C	272	50	0	38	360
D	136	188	62	0	386
Tot.	410	240	538	556	1744

Traffic Lane Flows

Lane	Scenario 10: Base 2015 PM + Dev + Com
Junction: A6024 Woodhead Road/Station Road	
1/1	646
2/1	352
3/1	360
4/1	386
5/1	410
6/1	240
7/1	538
8/1	556

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/Station Road								
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 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Station Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Eastgate (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Eastgate Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 11: 'Base 2020 AM + Dev + Com' (FG11: 'Base 2020 AM + Dev + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
	A	B	C	D	Tot.
A	0	0	244	117	361
B	3	0	57	235	295
C	373	49	0	38	460
D	184	237	55	0	476
Tot.	560	286	356	390	1592

Traffic Lane Flows

Lane	Scenario 11: Base 2020 AM + Dev + Com
Junction: A6024 Woodhead Road/Station Road	
1/1	361
2/1	295
3/1	460
4/1	476
5/1	560
6/1	286
7/1	356
8/1	390

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/Station Road								
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 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Station Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Eastgate (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Eastgate Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 12: 'Base 2020 PM + Dev + Com' (FG12: 'Base 2020 PM + Dev + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
	A	B	C	D	Tot.
A	0	2	430	244	676
B	2	0	300	67	369
C	284	53	0	39	376
D	143	197	64	0	404
Tot.	429	252	794	350	1825

Traffic Lane Flows

Lane	Scenario 12: Base 2020 PM + Dev + Com
Junction: A6024 Woodhead Road/Station Road	
1/1	676
2/1	369
3/1	376
4/1	404
5/1	429
6/1	252
7/1	794
8/1	350

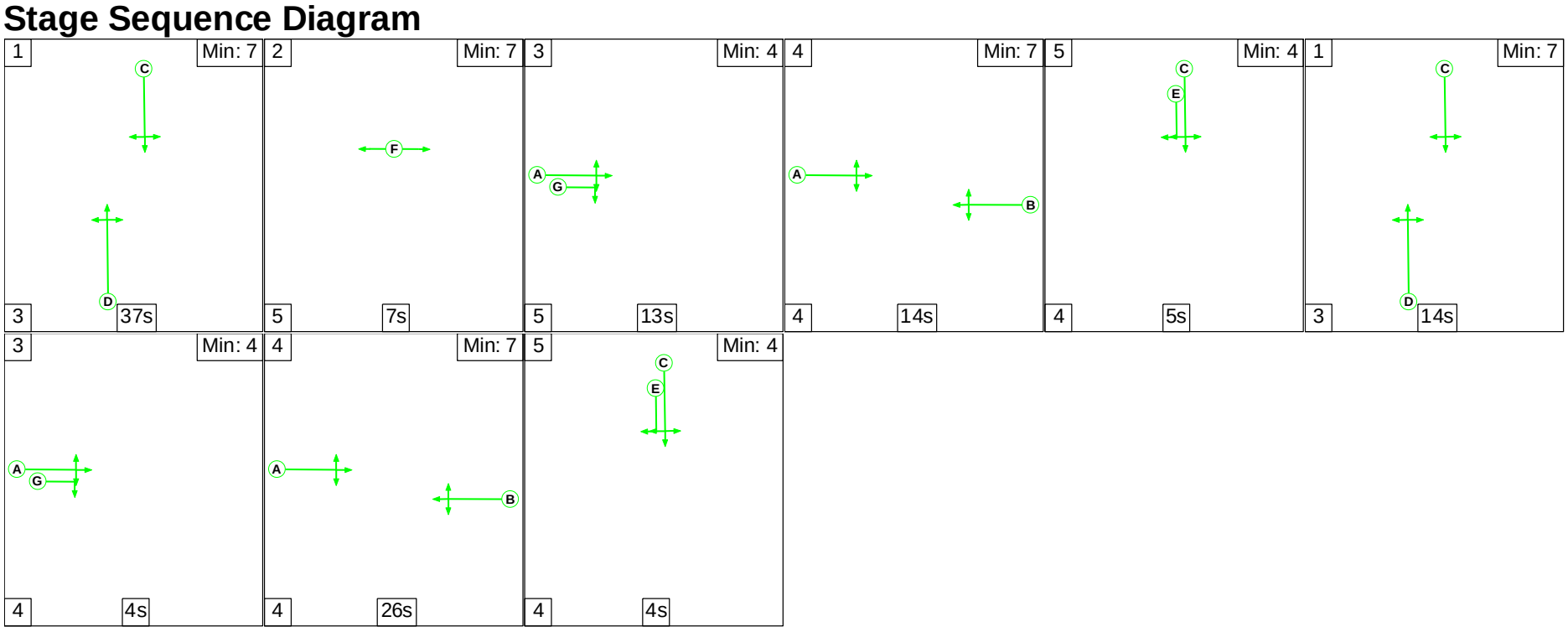
Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/Station Road								
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 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Station Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Eastgate (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Station Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Eastgate Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'Base 2015 AM' (FG1: 'Base 2015 AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

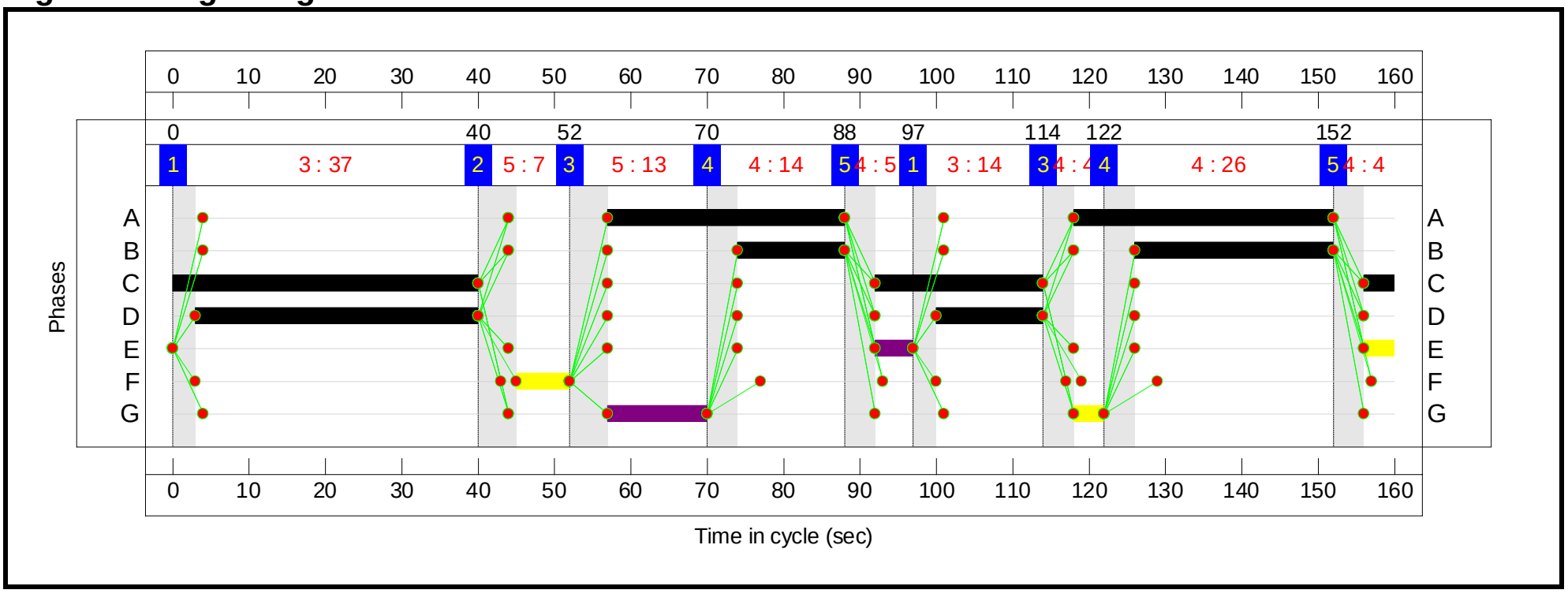


Stage Timings

Stage	1	2	3	4	5	1	3	4	5
Duration	37	7	13	14	5	14	4	26	4
Change Point	0	40	52	70	88	97	114	122	152

Full Input Data And Results

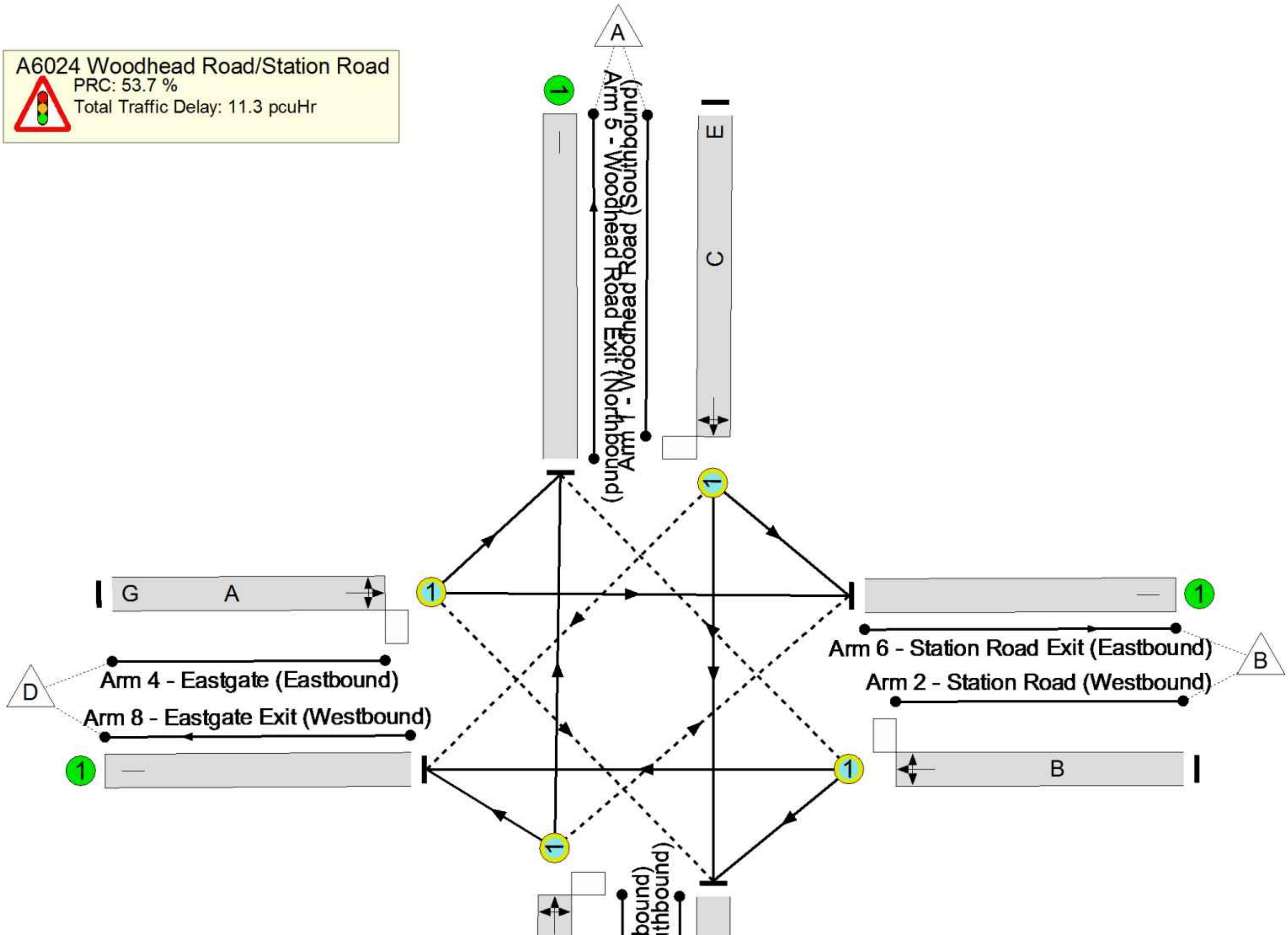
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**58.6%**
A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**58.6%**
1/1	Woodhead Road (Southbound) Left Ahead Right	O	N/A	N/A	C	E	2	66	9	317	1800	543	58.3%
2/1	Station Road (Westbound) Right Left Ahead	O	N/A	N/A	B		2	40	-	274	1800	473	58.0%
3/1	Woodhead Road (Northbound) Ahead Right Left	O	N/A	N/A	D		2	51	-	349	1800	596	58.5%
4/1	Eastgate (Eastbound) Left Ahead Right	O	N/A	N/A	A	G	2	65	17	440	1800	751	58.6%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	471	Inf	Inf	0.0%
6/1	Station Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	260	Inf	Inf	0.0%
7/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	301	Inf	Inf	0.0%
8/1	Eastgate Exit (Westbound)	U	N/A	N/A	-		-	-	-	348	Inf	Inf	0.0%

Full Input Data And Results

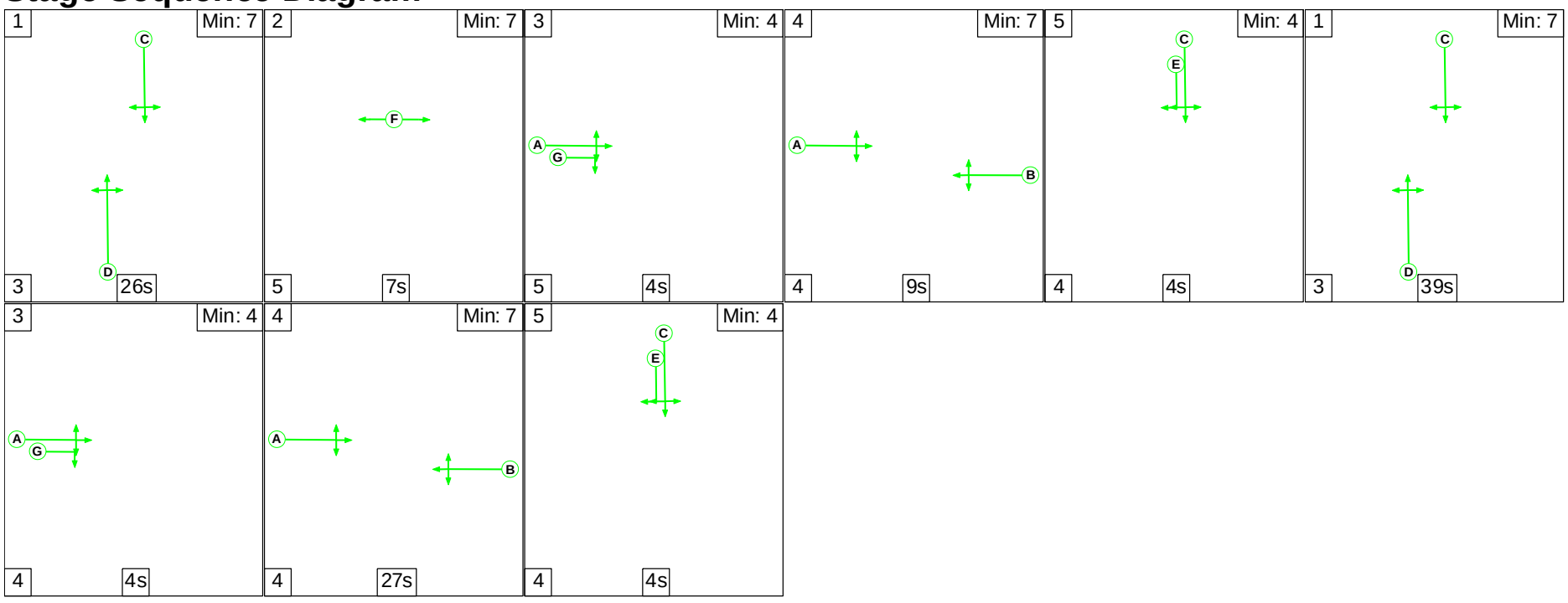
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/Station Road	**-**	**-**	**92**	**77**	**26**	**8.4**	**2.8**	**0.2**	**11.3**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/Station Road	**-**	**-**	**92**	**77**	**26**	**8.4**	**2.8**	**0.2**	**11.3**	**-**	**-**	**-**	**-**
1/1	317	317	41	51	19	1.5	0.7	0.1	2.3	26.3	5.4	0.7	6.1
2/1	274	274	3	0	0	2.2	0.7	0.0	2.9	38.3	7.2	0.7	7.9
3/1	349	349	37	0	0	2.2	0.7	0.0	2.9	29.7	7.1	0.7	7.8
4/1	440	440	11	26	7	2.5	0.7	0.0	3.2	26.5	10.3	0.7	11.0
5/1	471	471	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	260	260	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	348	348	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 53.7 Total Delay for Signalled Lanes (pcuHr): 11.34 Cycle Time (s): 160
PRC Over All Lanes (%): 53.7 Total Delay Over All Lanes(pcuHr): 11.34

Full Input Data And Results

Scenario 2: 'Base 2015 PM' (FG2: 'Base 2015 PM', Plan 1: 'Network Control Plan 1')

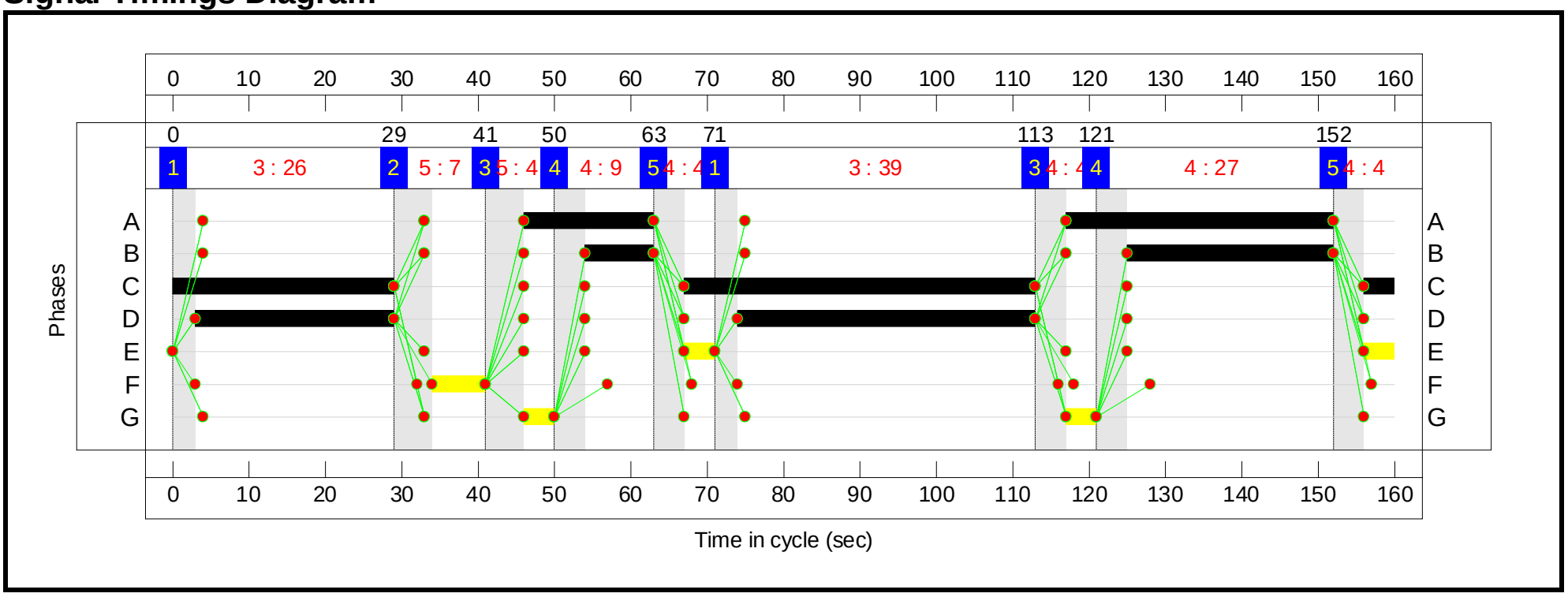
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5	1	3	4	5
Duration	26	7	4	9	4	39	4	27	4
Change Point	0	29	41	50	63	71	113	121	152

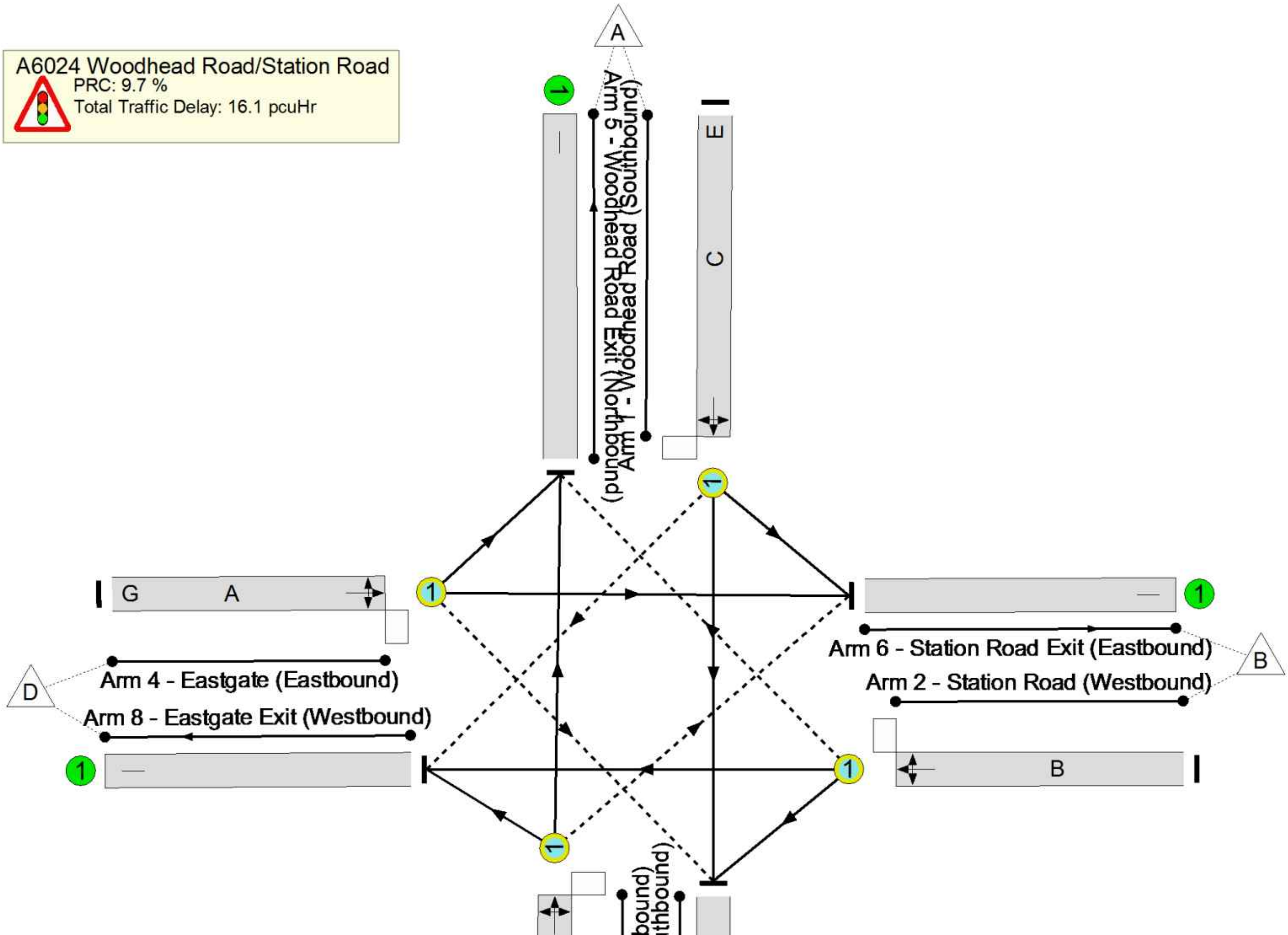
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**82.1%**
A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**82.1%**
1/1	Woodhead Road (Southbound) Left Ahead Right	O	N/A	N/A	C	E	2	79	8	593	1800	723	82.1%
2/1	Station Road (Westbound) Right Left Ahead	O	N/A	N/A	B		2	36	-	343	1800	428	80.2%
3/1	Woodhead Road (Northbound) Ahead Right Left	O	N/A	N/A	D		2	65	-	313	1800	737	42.4%
4/1	Eastgate (Eastbound) Left Ahead Right	O	N/A	N/A	A	G	2	52	8	368	1800	537	68.6%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	378	Inf	Inf	0.0%
6/1	Station Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	235	Inf	Inf	0.0%
7/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	458	Inf	Inf	0.0%
8/1	Eastgate Exit (Westbound)	U	N/A	N/A	-		-	-	-	546	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/Station Road	**-**	**-**	**238**	**72**	**14**	**10.2**	**5.6**	**0.3**	**16.1**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/Station Road	**-**	**-**	**238**	**72**	**14**	**10.2**	**5.6**	**0.3**	**16.1**	**-**	**-**	**-**	**-**
1/1	593	593	179	53	0	3.0	2.2	0.2	5.3	32.3	12.4	2.2	14.6
2/1	343	343	2	0	0	3.6	1.9	0.0	5.5	57.8	9.3	1.9	11.2
3/1	313	313	41	0	4	1.4	0.4	0.0	1.8	20.8	5.1	0.4	5.5
4/1	368	368	15	19	10	2.3	1.1	0.1	3.4	33.4	6.7	1.1	7.8
5/1	378	378	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	235	235	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	458	458	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	546	546	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

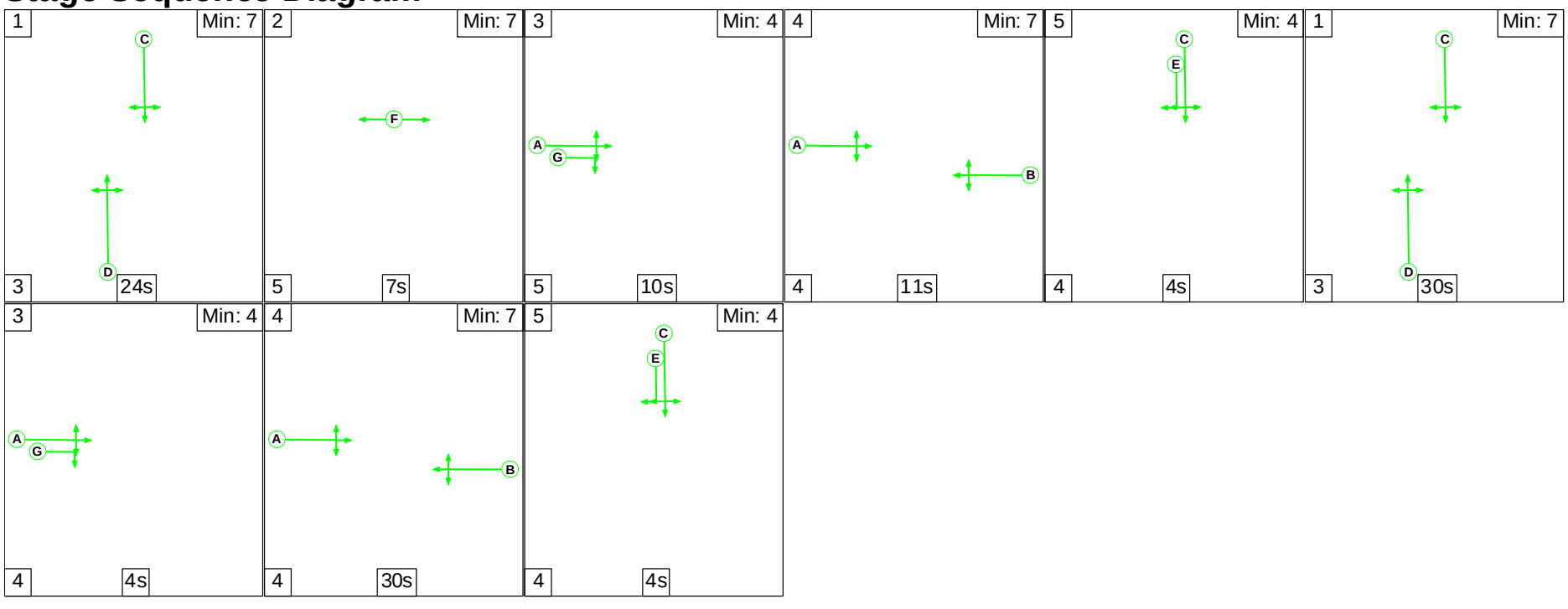
C1 PRC for Signalled Lanes (%): 9.7 Total Delay for Signalled Lanes (pcuHr): 16.06 Cycle Time (s): 160

PRC Over All Lanes (%): 9.7 Total Delay Over All Lanes(pcuHr): 16.06

Full Input Data And Results

Scenario 3: 'Base 2020 AM' (FG3: 'Base 2020 AM', Plan 1: 'Network Control Plan 1')

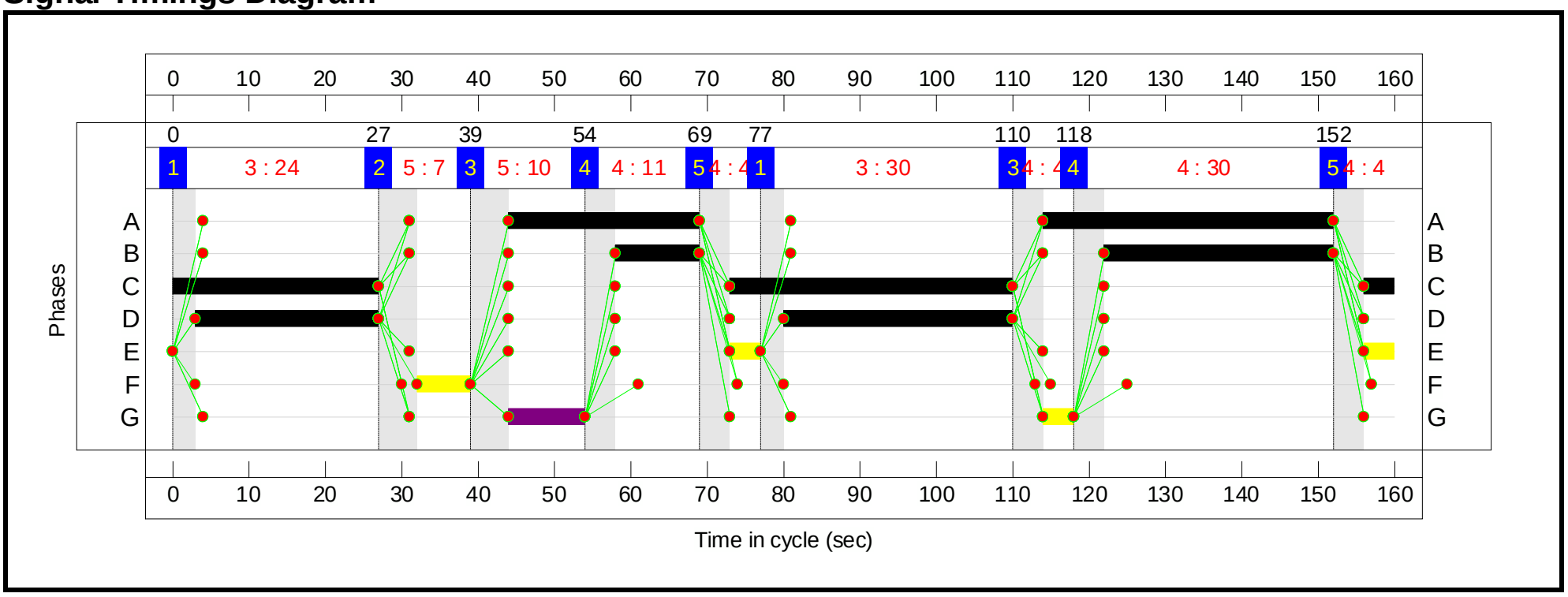
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5	1	3	4	5
Duration	24	7	10	11	4	30	4	30	4
Change Point	0	27	39	54	69	77	110	118	152

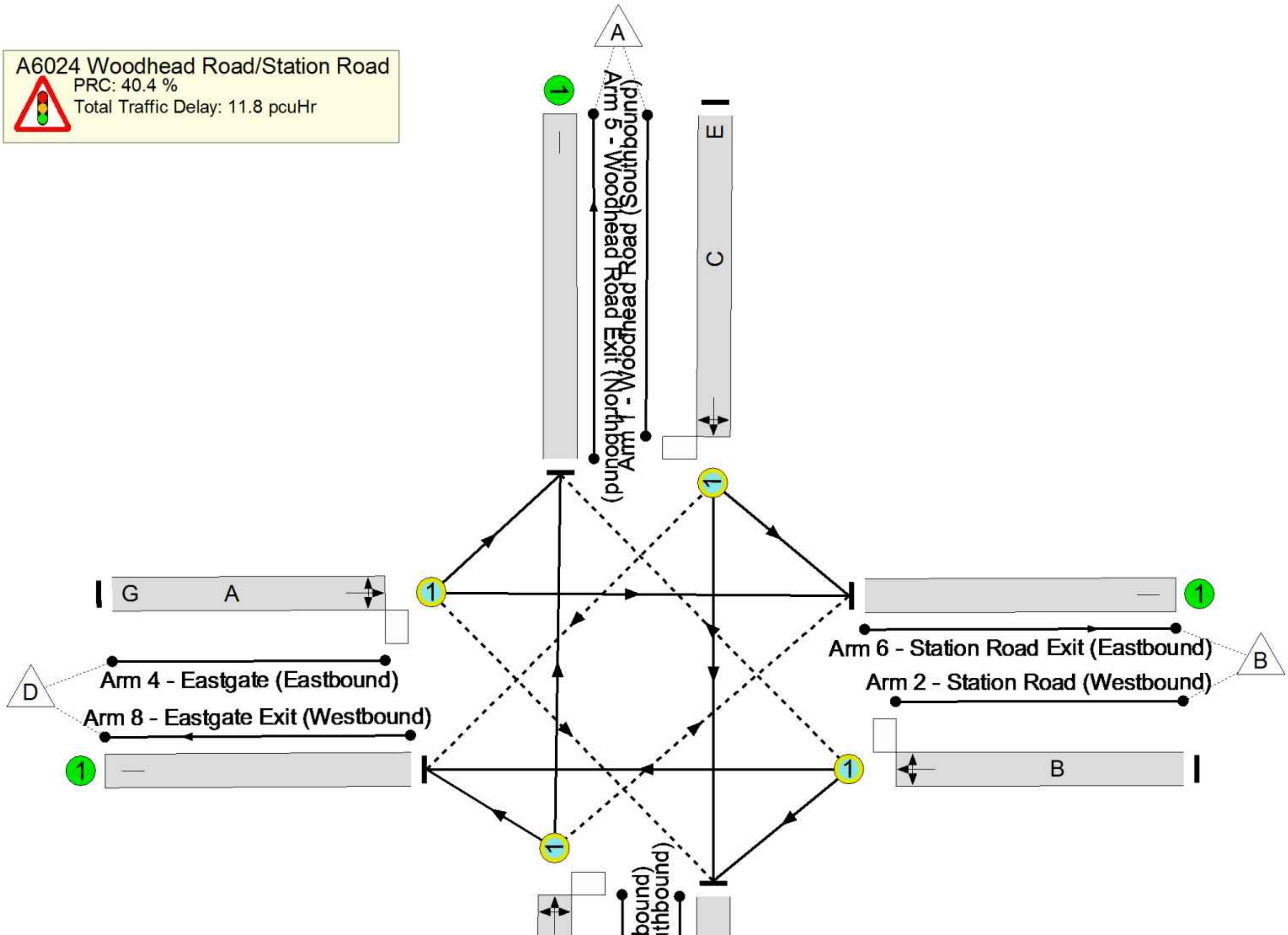
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**64.1%**
A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**64.1%**
1/1	Woodhead Road (Southbound) Left Ahead Right	O	N/A	N/A	C	E	2	68	8	337	1800	531	63.5%
2/1	Station Road (Westbound) Right Left Ahead	O	N/A	N/A	B		2	41	-	291	1800	484	60.2%
3/1	Woodhead Road (Northbound) Ahead Right Left	O	N/A	N/A	D		2	54	-	370	1800	630	58.7%
4/1	Eastgate (Eastbound) Left Ahead Right	O	N/A	N/A	A	G	2	63	14	468	1800	730	64.1%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	500	Inf	Inf	0.0%
6/1	Station Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	276	Inf	Inf	0.0%
7/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	320	Inf	Inf	0.0%
8/1	Eastgate Exit (Westbound)	U	N/A	N/A	-		-	-	-	370	Inf	Inf	0.0%

Full Input Data And Results

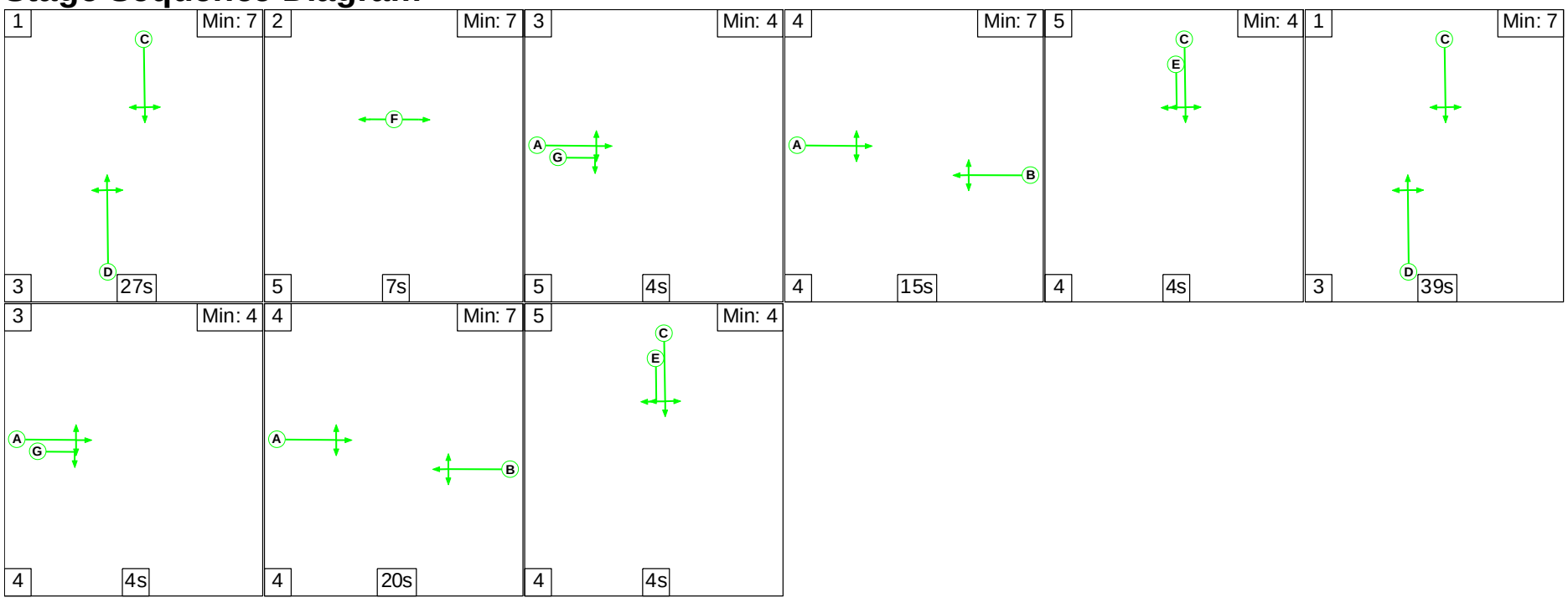
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/Station Road	**-**	**-**	**129**	**69**	**8**	**8.3**	**3.2**	**0.2**	**11.8**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/Station Road	**-**	**-**	**129**	**69**	**8**	**8.3**	**3.2**	**0.2**	**11.8**	**-**	**-**	**-**	**-**
1/1	337	337	70	47	0	1.5	0.9	0.2	2.5	26.9	5.1	0.9	6.0
2/1	291	291	3	0	0	2.2	0.7	0.0	2.9	36.2	6.2	0.7	7.0
3/1	370	370	39	0	0	2.2	0.7	0.0	2.9	28.2	6.7	0.7	7.4
4/1	468	468	16	23	8	2.5	0.9	0.0	3.4	26.4	8.8	0.9	9.7
5/1	500	500	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	276	276	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	320	320	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	370	370	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 40.4 Total Delay for Signalled Lanes (pcuHr): 11.77 Cycle Time (s): 160
PRC Over All Lanes (%): 40.4 Total Delay Over All Lanes(pcuHr): 11.77

Full Input Data And Results

Scenario 4: 'Base 2020 PM' (FG4: 'Base 2020 PM ', Plan 1: 'Network Control Plan 1')

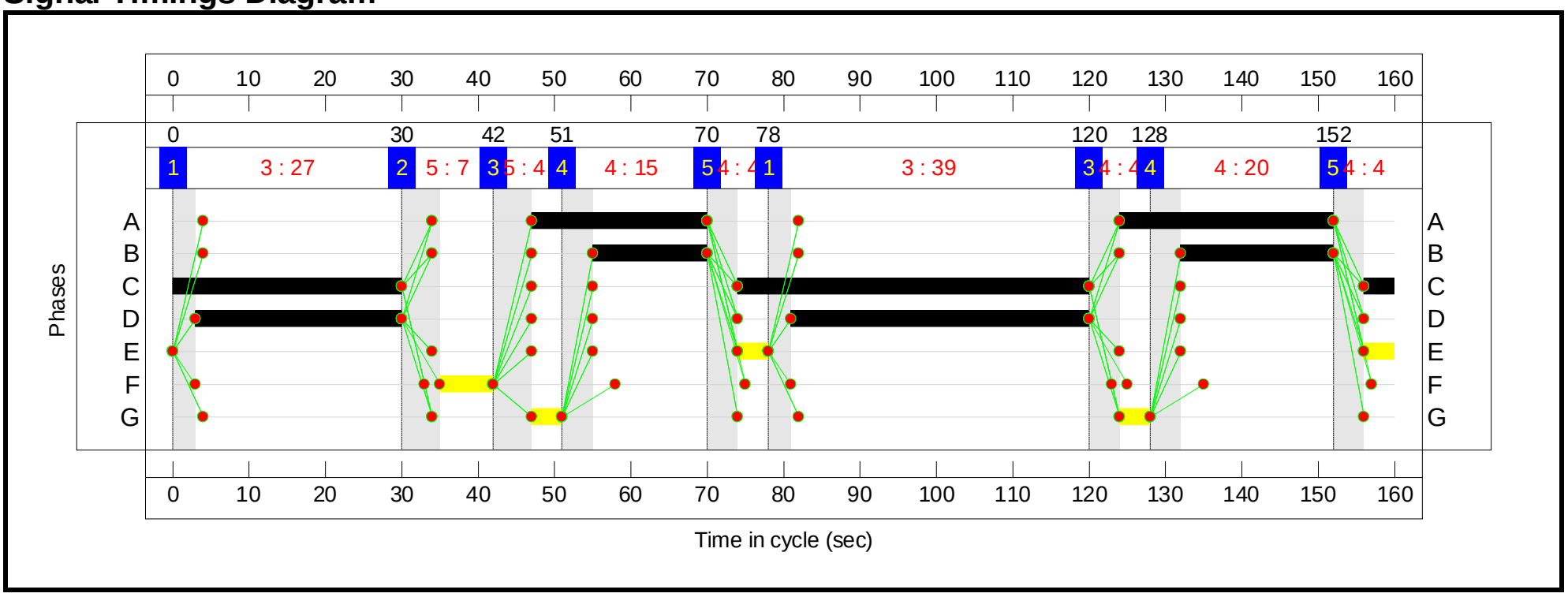
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5	1	3	4	5
Duration	27	7	4	15	4	39	4	20	4
Change Point	0	30	42	51	70	78	120	128	152

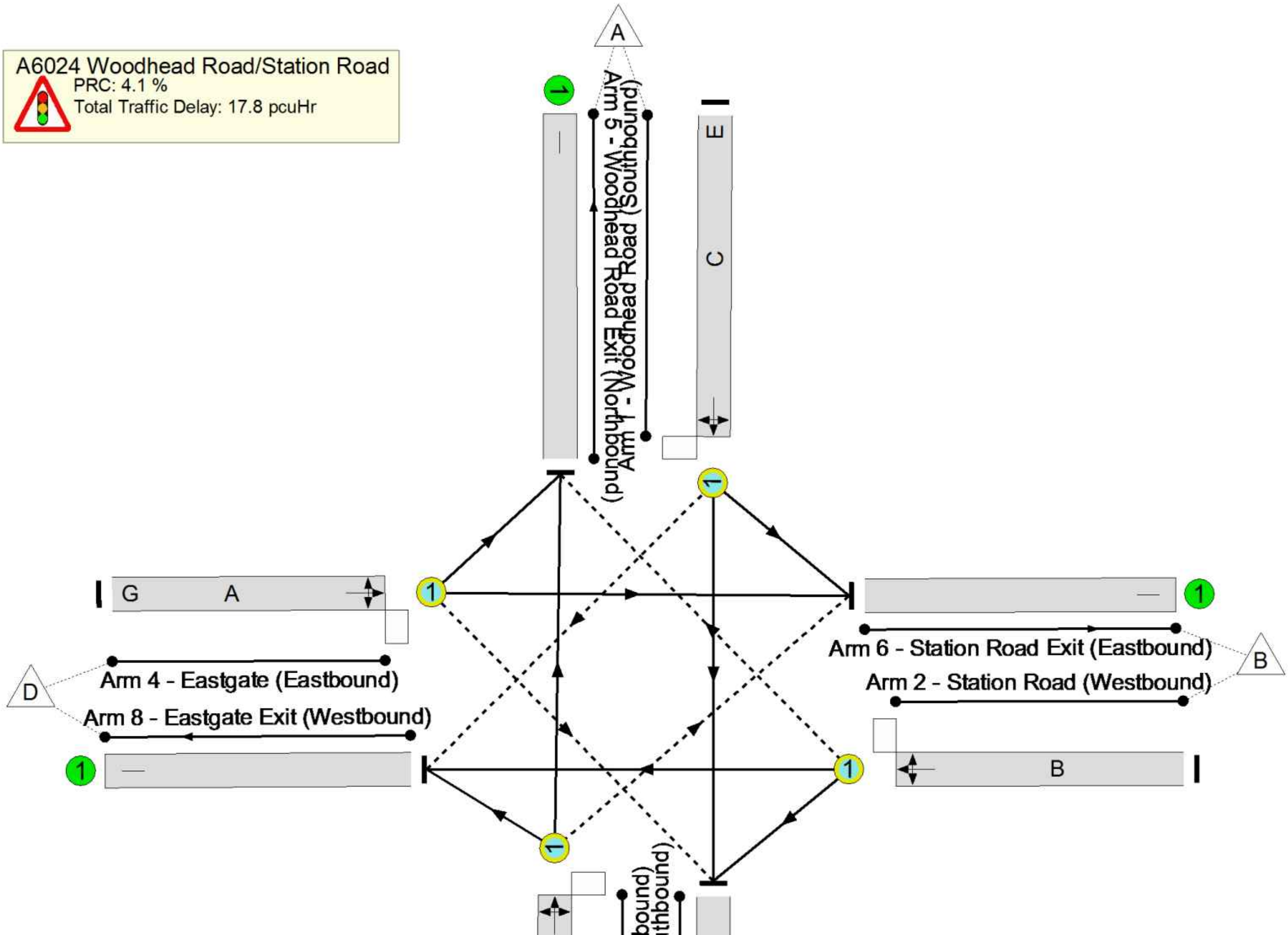
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**86.5%**
A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**86.5%**
1/1	Woodhead Road (Southbound) Left Ahead Right	O	N/A	N/A	C	E	2	80	8	623	1800	722	86.2%
2/1	Station Road (Westbound) Right Left Ahead	O	N/A	N/A	B		2	35	-	360	1800	416	86.5%
3/1	Woodhead Road (Northbound) Ahead Right Left	O	N/A	N/A	D		2	66	-	328	1800	693	47.3%
4/1	Eastgate (Eastbound) Left Ahead Right	O	N/A	N/A	A	G	2	51	8	386	1800	556	69.4%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	397	Inf	Inf	0.0%
6/1	Station Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	246	Inf	Inf	0.0%
7/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	481	Inf	Inf	0.0%
8/1	Eastgate Exit (Westbound)	U	N/A	N/A	-		-	-	-	573	Inf	Inf	0.0%

Full Input Data And Results

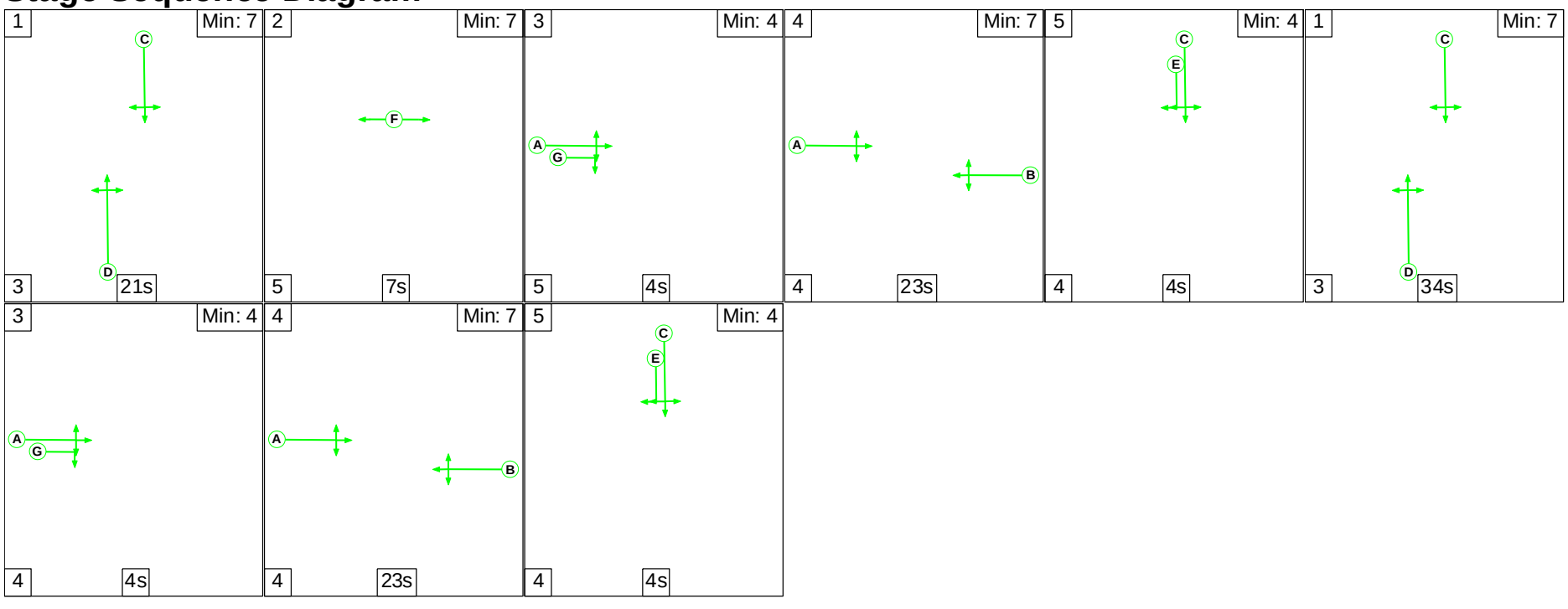
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/Station Road	**-**	**-**	**256**	**72**	**11**	**10.1**	**7.4**	**0.3**	**17.8**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/Station Road	**-**	**-**	**256**	**72**	**11**	**10.1**	**7.4**	**0.3**	**17.8**	**-**	**-**	**-**	**-**
1/1	623	623	191	53	0	3.2	3.0	0.2	6.3	36.7	13.8	3.0	16.8
2/1	360	360	2	0	0	3.0	2.9	0.0	5.9	58.6	7.7	2.9	10.6
3/1	328	328	47	0	0	1.5	0.4	0.0	2.0	21.5	5.6	0.4	6.0
4/1	386	386	16	19	11	2.4	1.1	0.1	3.7	34.1	7.3	1.1	8.4
5/1	397	397	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	246	246	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	481	481	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	573	573	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	PRC for Signalled Lanes (%):	4.1	Total Delay for Signalled Lanes (pcuHr):	17.82	Cycle Time (s): 160
	PRC Over All Lanes (%):	4.1	Total Delay Over All Lanes(pcuHr):	17.82	

Full Input Data And Results

Scenario 5: 'Base 2015 AM + Com' (FG5: 'Base 2015 AM + Com', Plan 1: 'Network Control Plan 1')

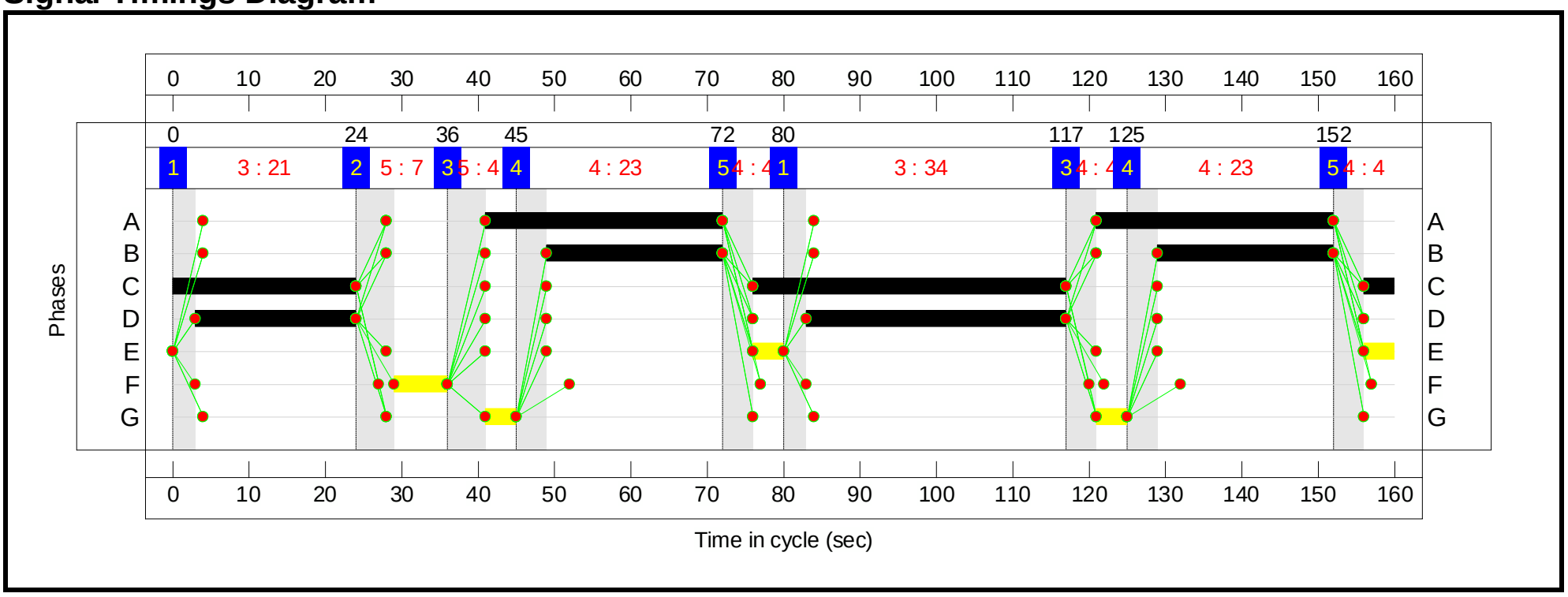
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5	1	3	4	5
Duration	21	7	4	23	4	34	4	23	4
Change Point	0	24	36	45	72	80	117	125	152

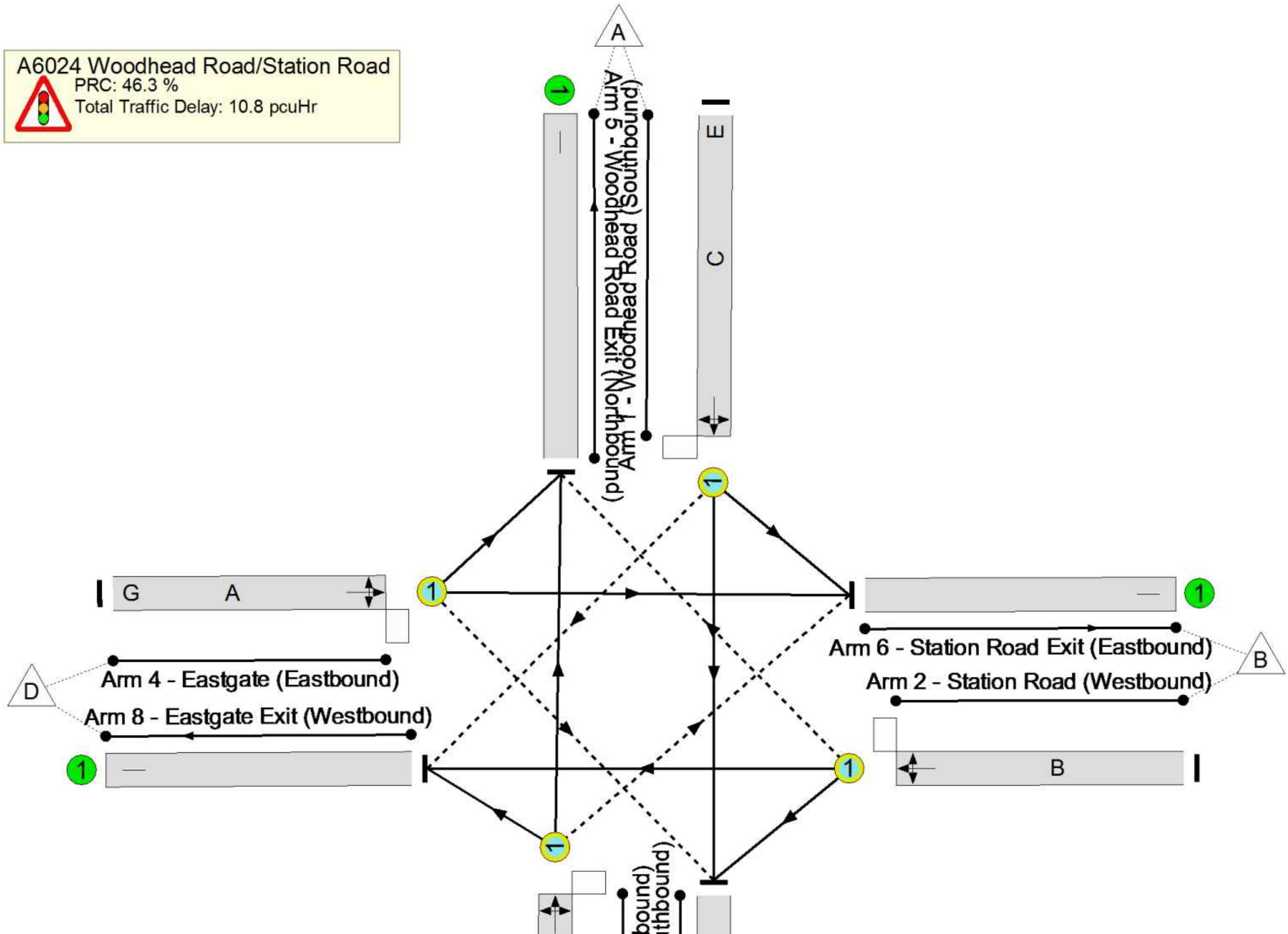
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**61.5%**
A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**61.5%**
1/1	Woodhead Road (Southbound) Left Ahead Right	O	N/A	N/A	C	E	2	69	8	323	1800	535	60.4%
2/1	Station Road (Westbound) Right Left Ahead	O	N/A	N/A	B		2	46	-	275	1800	540	50.9%
3/1	Woodhead Road (Northbound) Ahead Right Left	O	N/A	N/A	D		2	55	-	380	1800	641	59.3%
4/1	Eastgate (Eastbound) Left Ahead Right	O	N/A	N/A	A	G	2	62	8	442	1800	718	61.5%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	492	Inf	Inf	0.0%
6/1	Station Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	263	Inf	Inf	0.0%
7/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	310	Inf	Inf	0.0%
8/1	Eastgate Exit (Westbound)	U	N/A	N/A	-		-	-	-	355	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/Station Road	**-**	**-**	**137**	**62**	**0**	**7.8**	**2.8**	**0.2**	**10.8**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/Station Road	**-**	**-**	**137**	**62**	**0**	**7.8**	**2.8**	**0.2**	**10.8**	**-**	**-**	**-**	**-**
1/1	323	323	64	46	0	1.4	0.8	0.2	2.3	26.0	5.6	0.8	6.3
2/1	275	275	3	0	0	1.8	0.5	0.0	2.3	29.9	5.0	0.5	5.6
3/1	380	380	40	0	0	2.3	0.7	0.0	3.0	28.2	7.7	0.7	8.4
4/1	442	442	30	16	0	2.3	0.8	0.1	3.2	26.0	7.7	0.8	8.5
5/1	492	492	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	263	263	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	310	310	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	355	355	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

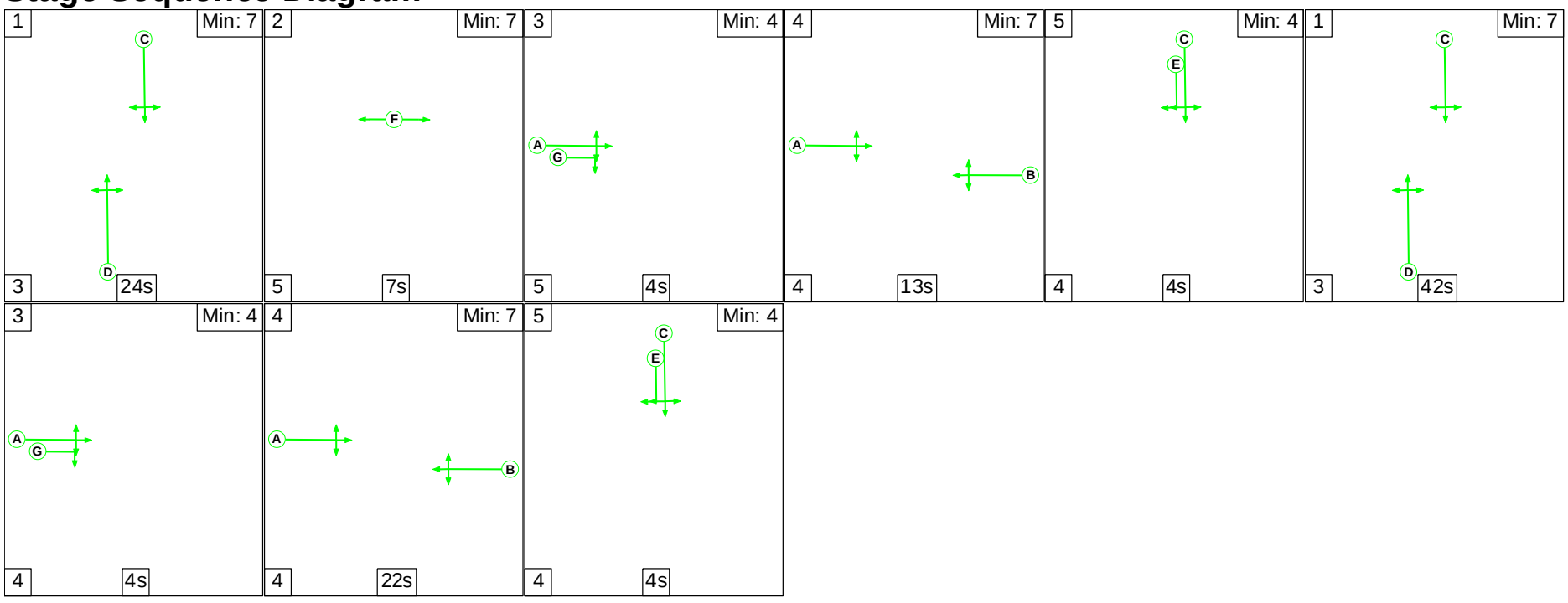
C1 PRC for Signalled Lanes (%): 46.3 Total Delay for Signalled Lanes (pcuHr): 10.79 Cycle Time (s): 160

PRC Over All Lanes (%): 46.3 Total Delay Over All Lanes(pcuHr): 10.79

Full Input Data And Results

Scenario 6: 'Base 2015 PM + Com' (FG6: 'Base 2015 PM + Com', Plan 1: 'Network Control Plan 1')

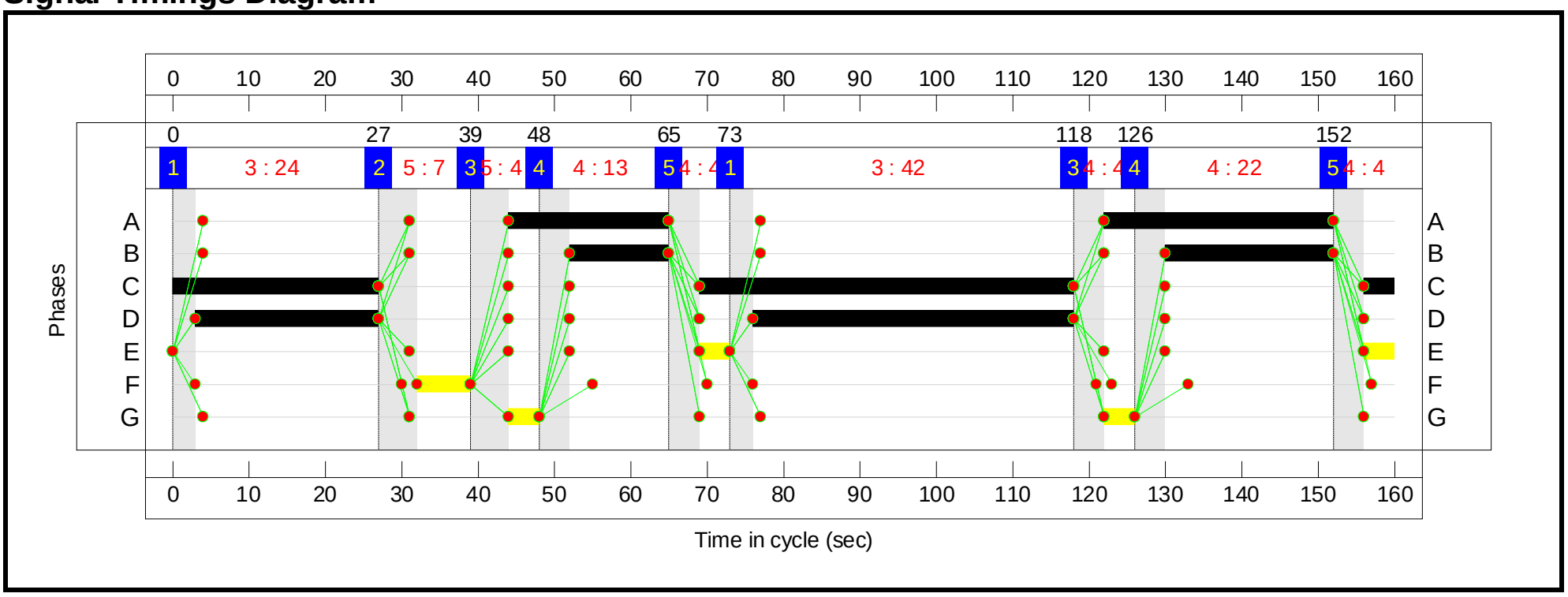
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5	1	3	4	5
Duration	24	7	4	13	4	42	4	22	4
Change Point	0	27	39	48	65	73	118	126	152

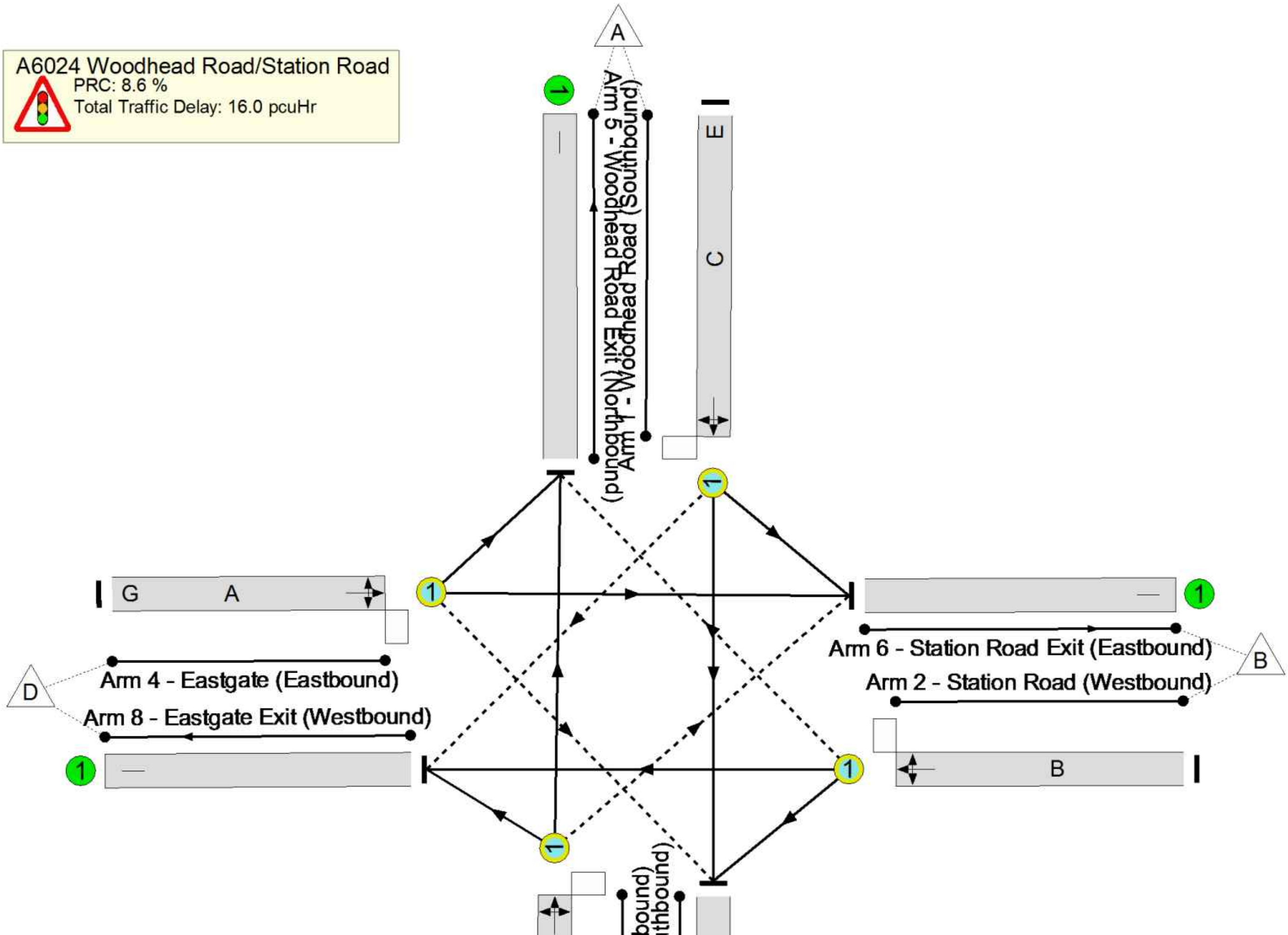
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**82.9%**
A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**82.9%**
1/1	Woodhead Road (Southbound) Left Ahead Right	O	N/A	N/A	C	E	2	80	8	609	1800	735	82.9%
2/1	Station Road (Westbound) Right Left Ahead	O	N/A	N/A	B		2	35	-	345	1800	416	82.9%
3/1	Woodhead Road (Northbound) Ahead Right Left	O	N/A	N/A	D		2	66	-	324	1800	734	44.2%
4/1	Eastgate (Eastbound) Left Ahead Right	O	N/A	N/A	A	G	2	51	8	374	1800	540	69.2%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	386	Inf	Inf	0.0%
6/1	Station Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	236	Inf	Inf	0.0%
7/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	482	Inf	Inf	0.0%
8/1	Eastgate Exit (Westbound)	U	N/A	N/A	-		-	-	-	548	Inf	Inf	0.0%

Full Input Data And Results

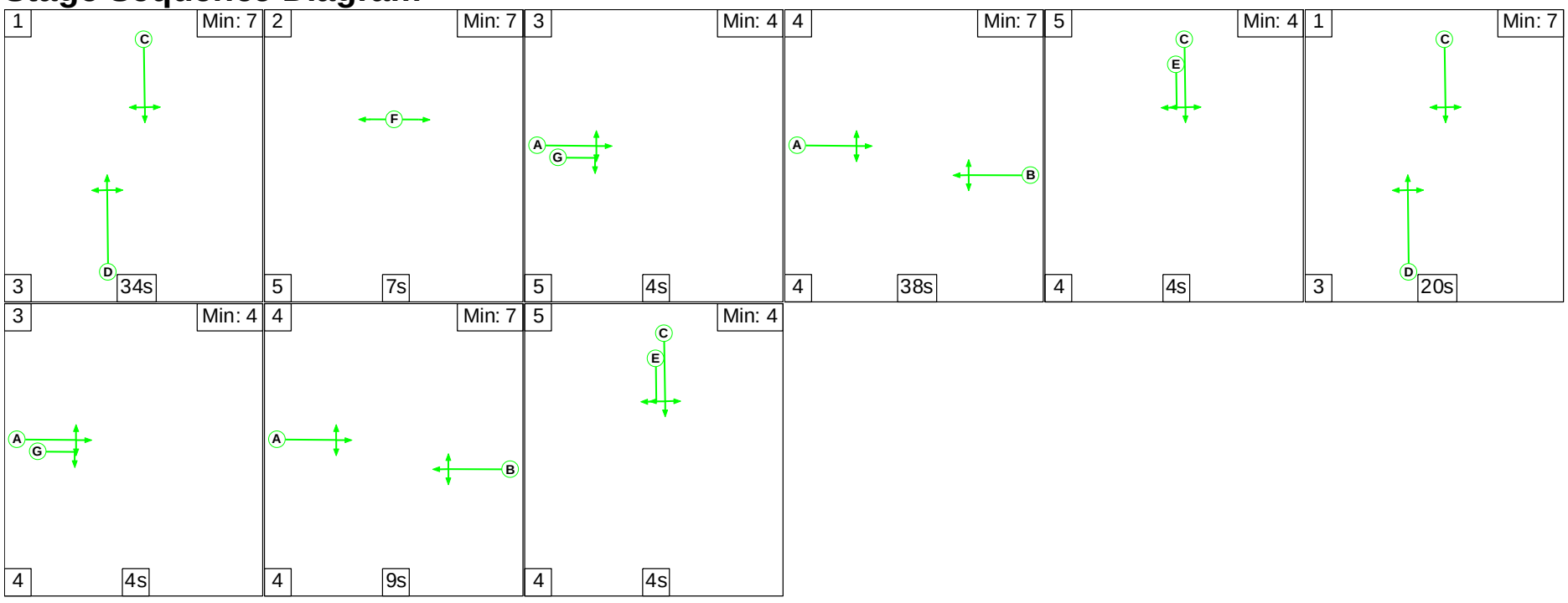
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/Station Road	**-**	**-**	**244**	**72**	**13**	**9.6**	**6.1**	**0.3**	**16.0**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/Station Road	**-**	**-**	**244**	**72**	**13**	**9.6**	**6.1**	**0.3**	**16.0**	**-**	**-**	**-**	**-**
1/1	609	609	181	51	0	3.0	2.3	0.2	5.5	32.6	12.7	2.3	15.0
2/1	345	345	2	0	0	2.8	2.3	0.0	5.1	53.1	7.6	2.3	9.8
3/1	324	324	45	0	1	1.5	0.4	0.0	1.9	20.8	5.2	0.4	5.6
4/1	374	374	17	21	12	2.4	1.1	0.1	3.6	34.2	7.3	1.1	8.4
5/1	386	386	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	236	236	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	482	482	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	548	548	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	PRC for Signalled Lanes (%):	8.6	Total Delay for Signalled Lanes (pcuHr):	16.01	Cycle Time (s): 160
	PRC Over All Lanes (%):	8.6	Total Delay Over All Lanes(pcuHr):	16.01	

Full Input Data And Results

Scenario 7: 'Base 2020 AM + Com' (FG7: 'Base 2020 AM + Com', Plan 1: 'Network Control Plan 1')

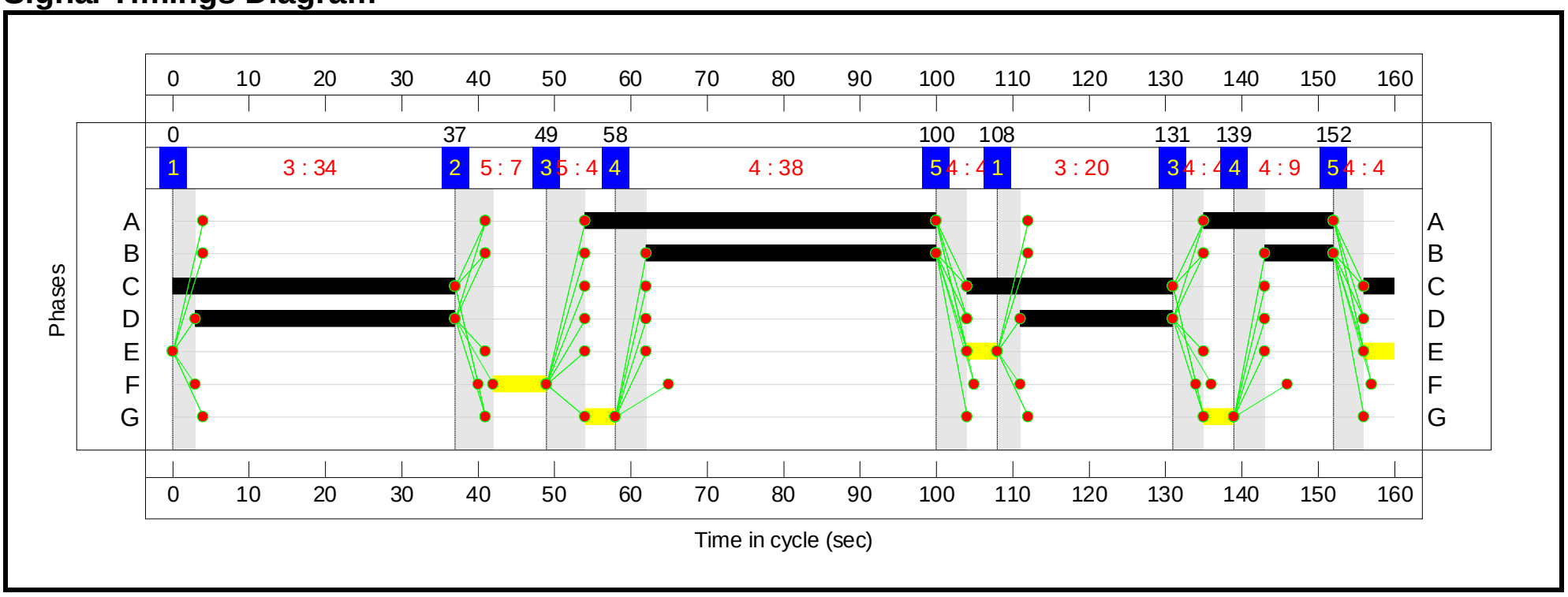
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5	1	3	4	5
Duration	34	7	4	38	4	20	4	9	4
Change Point	0	37	49	58	100	108	131	139	152

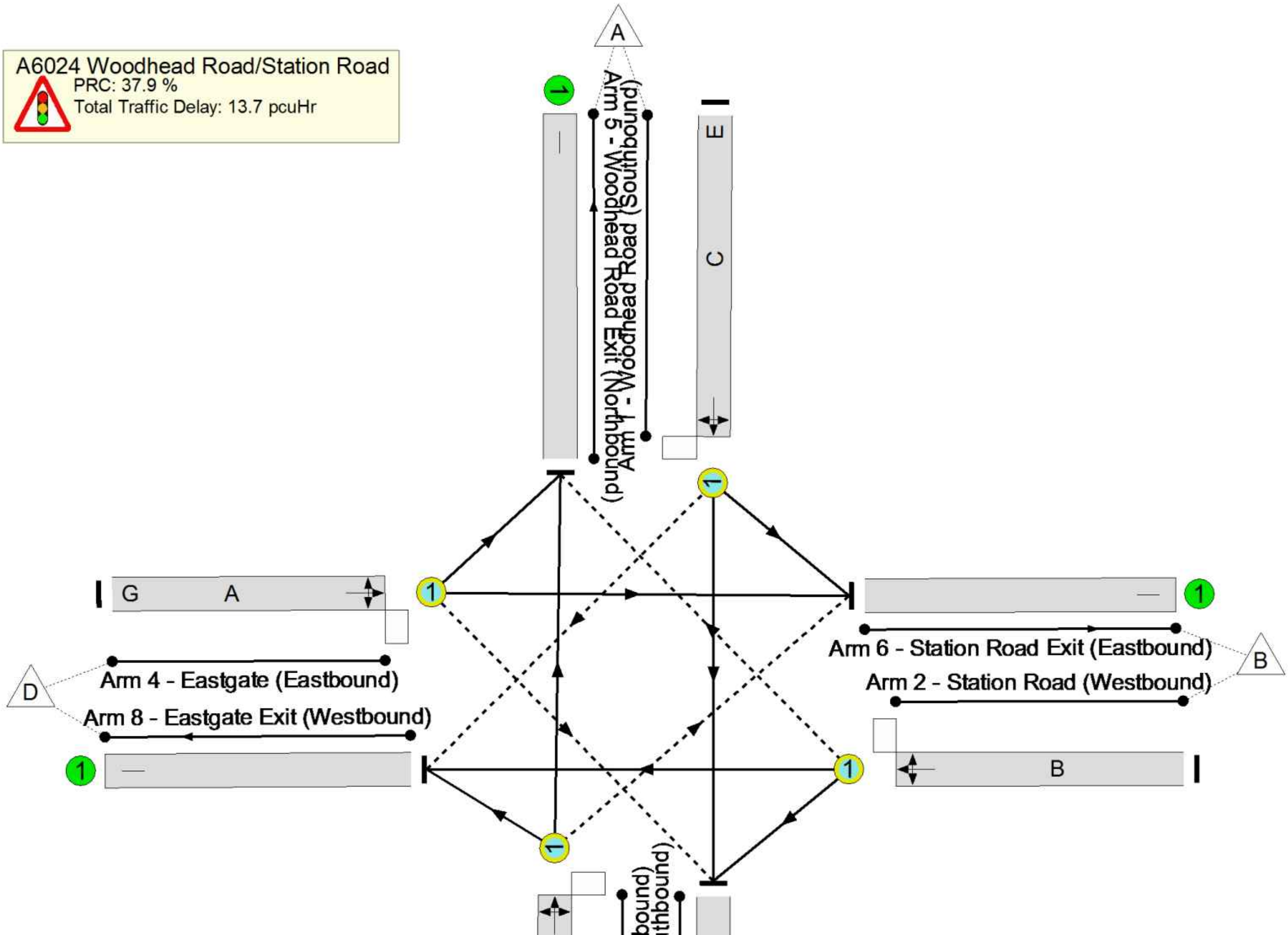
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**65.2%**
A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**65.2%**
1/1	Woodhead Road (Southbound) Left Ahead Right	O	N/A	N/A	C	E	2	68	8	343	1800	526	65.2%
2/1	Station Road (Westbound) Right Left Ahead	O	N/A	N/A	B		2	47	-	292	1800	551	53.0%
3/1	Woodhead Road (Northbound) Ahead Right Left	O	N/A	N/A	D		2	54	-	401	1800	630	63.7%
4/1	Eastgate (Eastbound) Left Ahead Right	O	N/A	N/A	A	G	2	63	8	470	1800	723	65.0%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	521	Inf	Inf	0.0%
6/1	Station Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	279	Inf	Inf	0.0%
7/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	329	Inf	Inf	0.0%
8/1	Eastgate Exit (Westbound)	U	N/A	N/A	-		-	-	-	377	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/Station Road	**-**	**-**	**126**	**62**	**23**	**10.2**	**3.3**	**0.3**	**13.7**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/Station Road	**-**	**-**	**126**	**62**	**23**	**10.2**	**3.3**	**0.3**	**13.7**	**-**	**-**	**-**	**-**
1/1	343	343	48	46	23	2.7	0.9	0.2	3.8	40.2	9.0	0.9	9.9
2/1	292	292	3	0	0	2.0	0.6	0.0	2.5	31.3	6.7	0.6	7.2
3/1	401	401	42	0	0	2.8	0.9	0.0	3.7	33.1	10.4	0.9	11.2
4/1	470	470	33	16	0	2.7	0.9	0.1	3.7	28.2	10.7	0.9	11.6
5/1	521	521	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	279	279	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	329	329	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	377	377	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

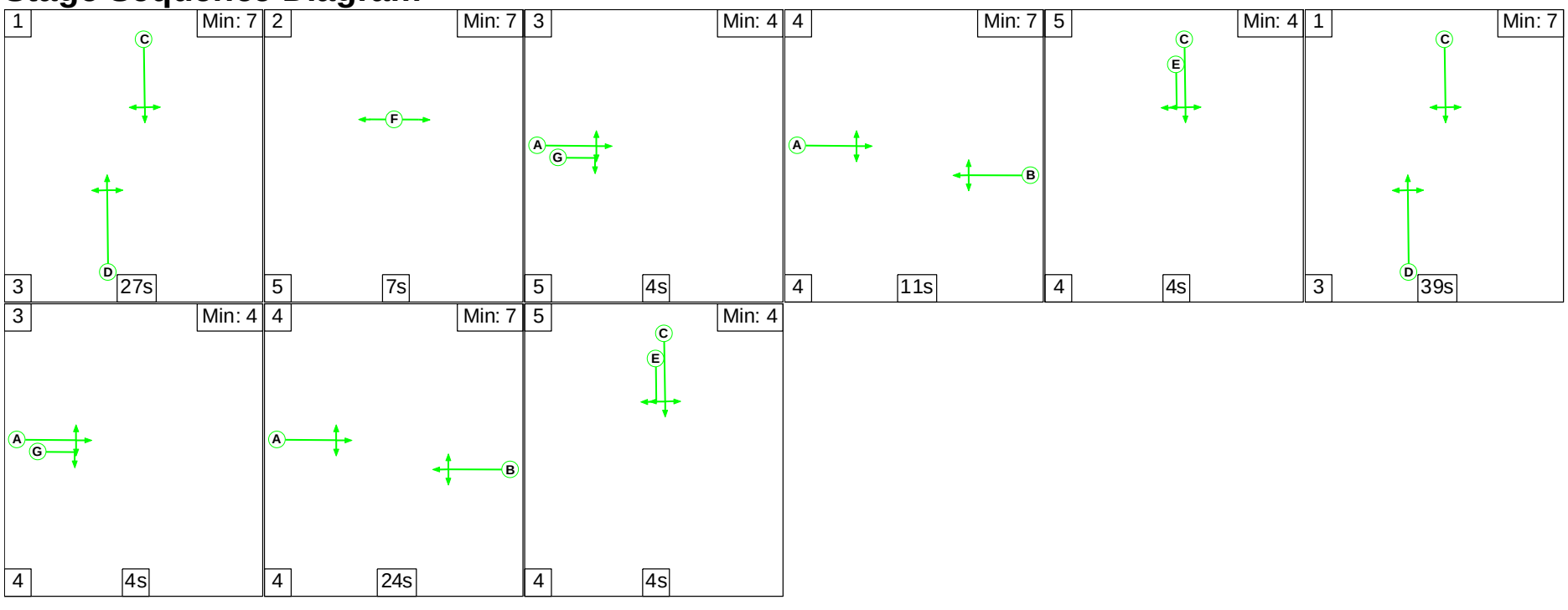
C1 PRC for Signalled Lanes (%): 37.9 Total Delay for Signalled Lanes (pcuHr): 13.74 Cycle Time (s): 160

PRC Over All Lanes (%): 37.9 Total Delay Over All Lanes(pcuHr): 13.74

Full Input Data And Results

Scenario 8: 'Base 2020 PM + Com' (FG8: 'Base 2020 PM + Com', Plan 1: 'Network Control Plan 1')

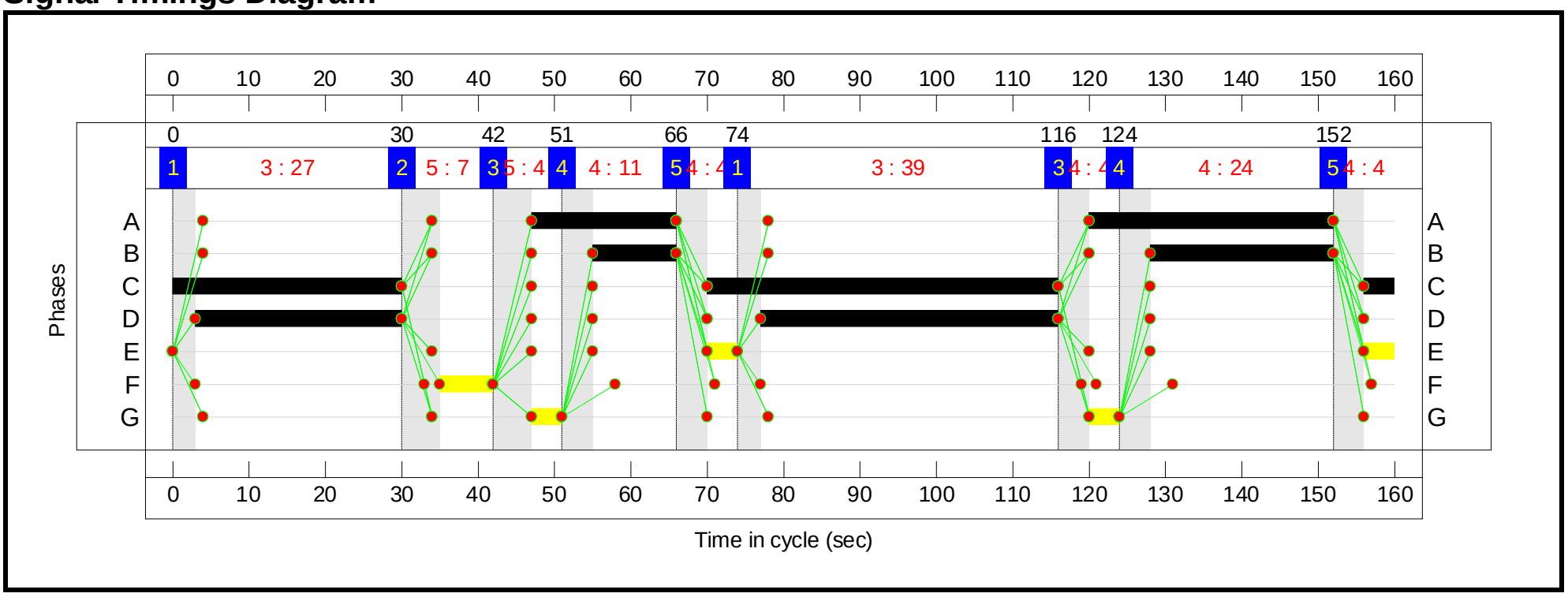
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5	1	3	4	5
Duration	27	7	4	11	4	39	4	24	4
Change Point	0	30	42	51	66	74	116	124	152

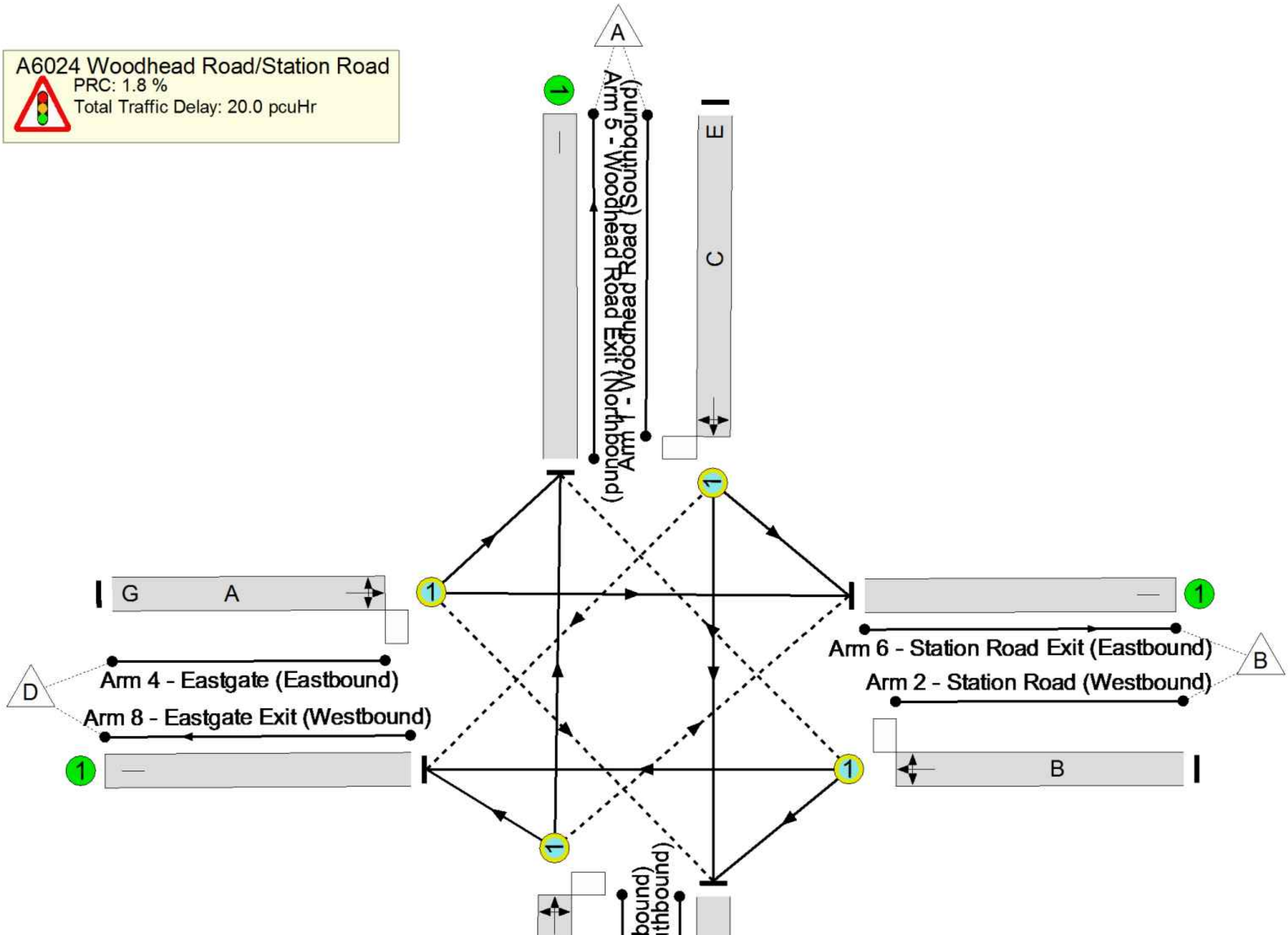
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.4%**
A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.4%**
1/1	Woodhead Road (Southbound) Left Ahead Right	O	N/A	N/A	C	E	2	80	8	639	1800	723	88.4%
2/1	Station Road (Westbound) Right Left Ahead	O	N/A	N/A	B		2	35	-	362	1800	416	87.0%
3/1	Woodhead Road (Northbound) Ahead Right Left	O	N/A	N/A	D		2	66	-	339	1800	711	47.7%
4/1	Eastgate (Eastbound) Left Ahead Right	O	N/A	N/A	A	G	2	51	8	392	1800	503	77.9%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	405	Inf	Inf	0.0%
6/1	Station Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	247	Inf	Inf	0.0%
7/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	505	Inf	Inf	0.0%
8/1	Eastgate Exit (Westbound)	U	N/A	N/A	-		-	-	-	575	Inf	Inf	0.0%

Full Input Data And Results

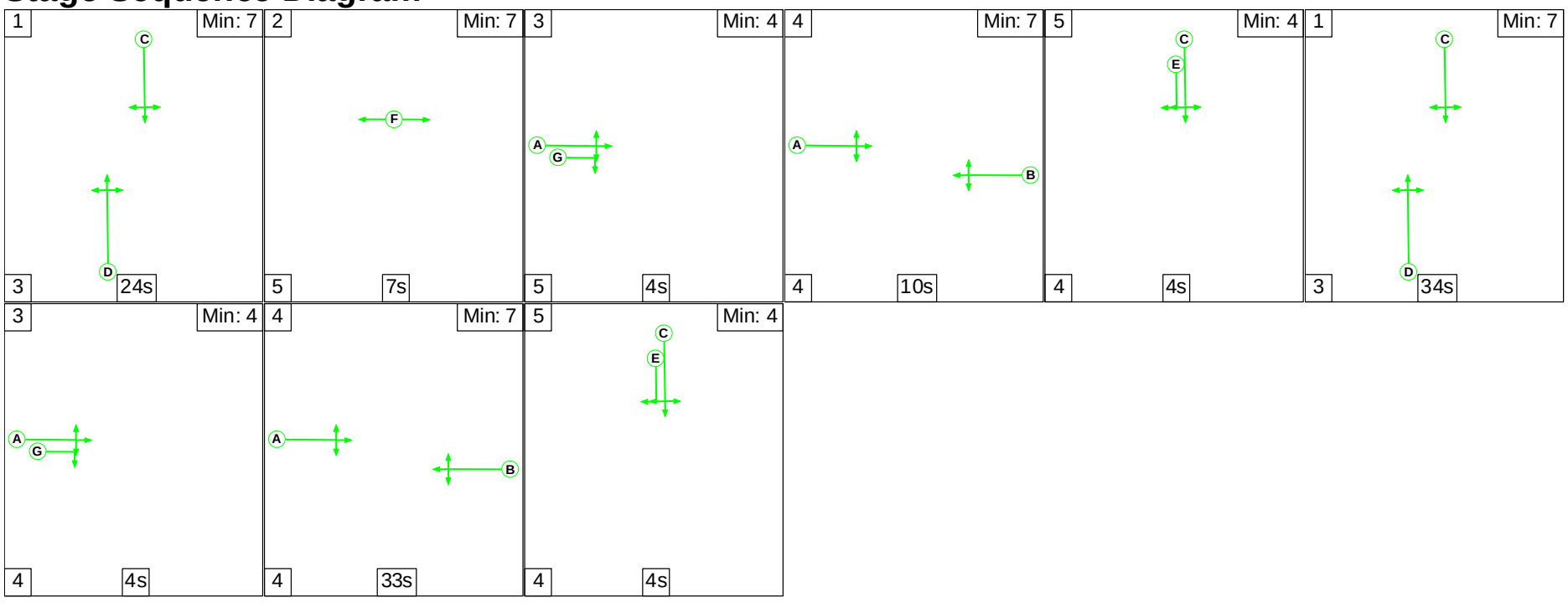
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/Station Road	**-**	**-**	**256**	**72**	**18**	**11.0**	**8.7**	**0.3**	**20.0**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/Station Road	**-**	**-**	**256**	**72**	**18**	**11.0**	**8.7**	**0.3**	**20.0**	**-**	**-**	**-**	**-**
1/1	639	639	192	52	0	3.4	3.5	0.2	7.1	39.8	13.2	3.5	16.7
2/1	362	362	2	0	0	3.7	3.0	0.0	6.7	66.3	9.4	3.0	12.4
3/1	339	339	44	0	4	1.5	0.5	0.0	2.0	21.4	5.3	0.5	5.7
4/1	392	392	18	21	14	2.5	1.7	0.1	4.3	39.5	7.5	1.7	9.2
5/1	405	405	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	247	247	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	505	505	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	575	575	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1
PRC for Signalled Lanes (%): 1.8
PRC Over All Lanes (%): 1.8
Total Delay for Signalled Lanes (pcuHr): 20.05
Total Delay Over All Lanes(pcuHr): 20.05
Cycle Time (s): 160

Full Input Data And Results

Scenario 9: 'Base 2015 AM + Dev + Com' (FG9: 'Base 2015 AM + Dev + Com', Plan 1: 'Network Control Plan 1')

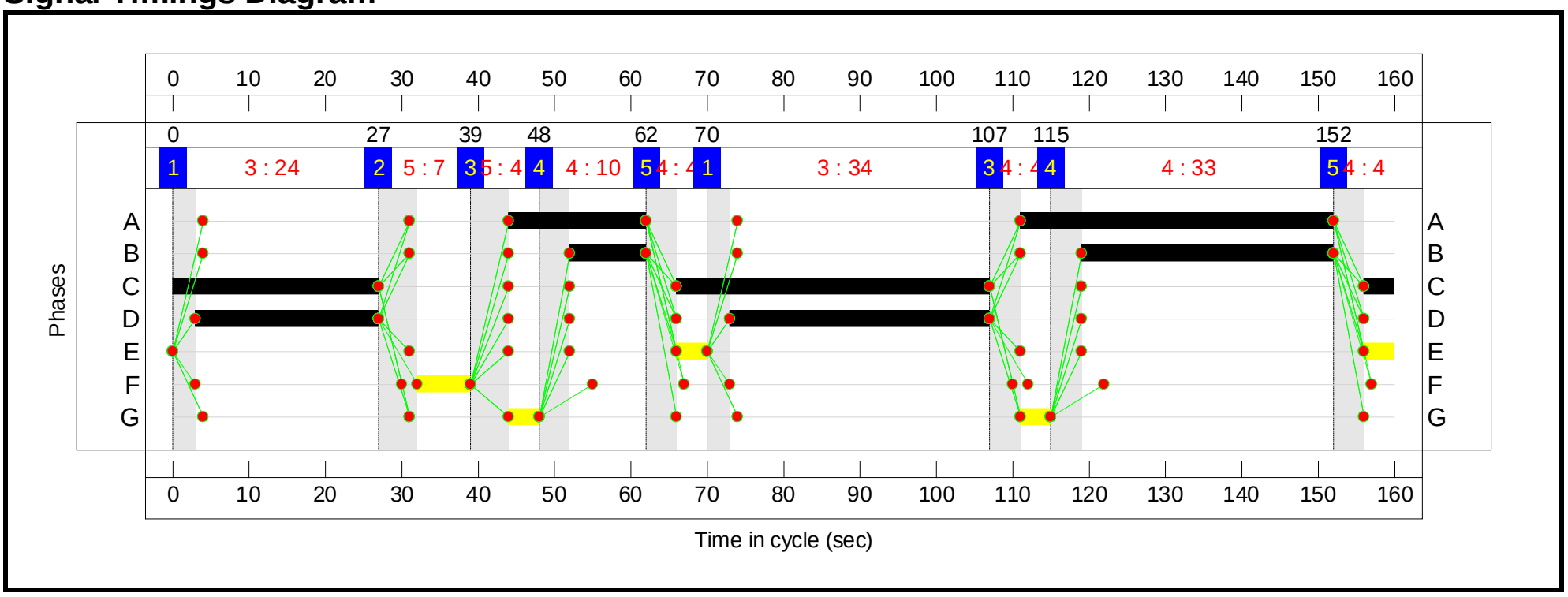
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5	1	3	4	5
Duration	24	7	4	10	4	34	4	33	4
Change Point	0	27	39	48	62	70	107	115	152

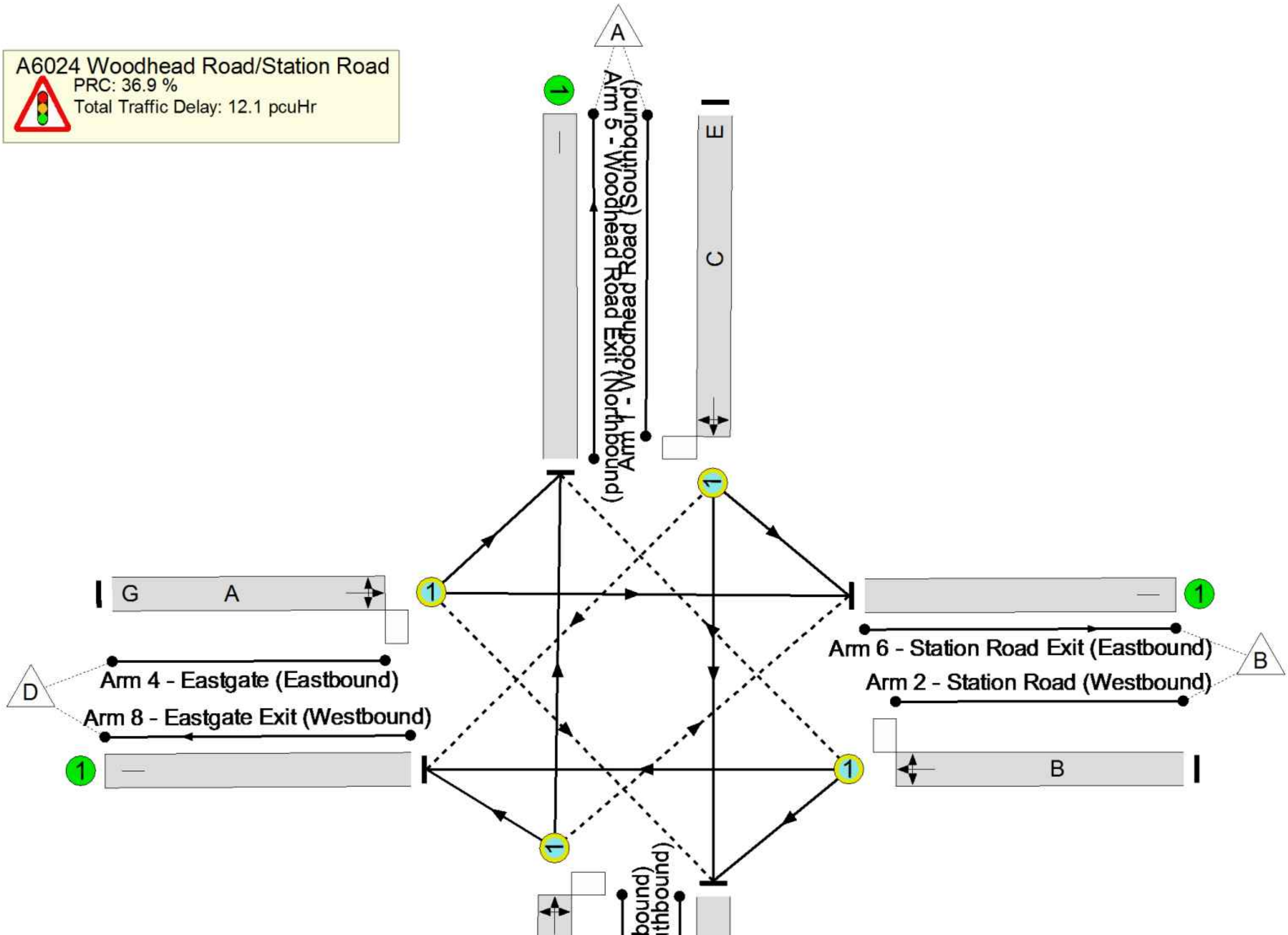
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**65.7%**
A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**65.7%**
1/1	Woodhead Road (Southbound) Left Ahead Right	O	N/A	N/A	C	E	2	72	8	342	1800	520	65.7%
2/1	Station Road (Westbound) Right Left Ahead	O	N/A	N/A	B		2	43	-	278	1800	506	54.9%
3/1	Woodhead Road (Northbound) Ahead Right Left	O	N/A	N/A	D		2	58	-	437	1800	675	64.7%
4/1	Eastgate (Eastbound) Left Ahead Right	O	N/A	N/A	A	G	2	59	8	448	1800	682	65.7%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	530	Inf	Inf	0.0%
6/1	Station Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	270	Inf	Inf	0.0%
7/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%
8/1	Eastgate Exit (Westbound)	U	N/A	N/A	-		-	-	-	367	Inf	Inf	0.0%

Full Input Data And Results

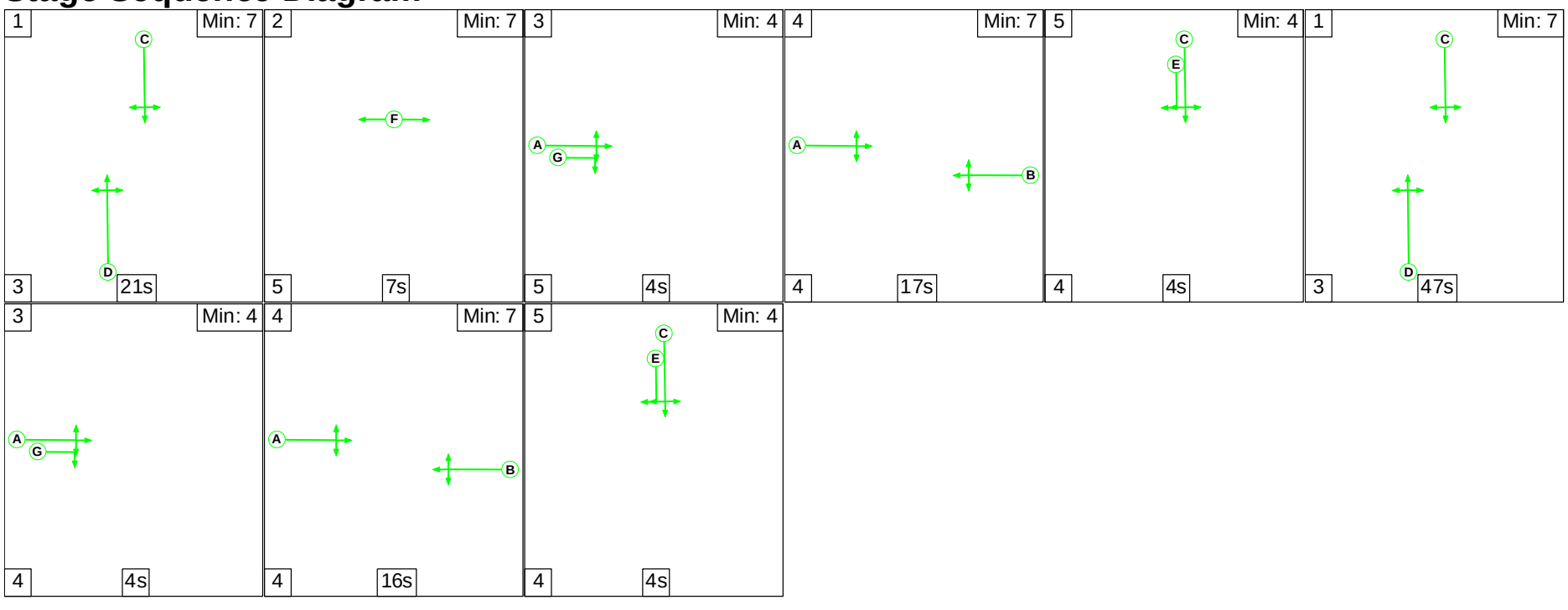
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/Station Road	**-**	**-**	**137**	**62**	**14**	**8.4**	**3.4**	**0.3**	**12.1**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/Station Road	**-**	**-**	**137**	**62**	**14**	**8.4**	**3.4**	**0.3**	**12.1**	**-**	**-**	**-**	**-**
1/1	342	342	67	43	0	1.4	0.9	0.2	2.6	27.0	5.6	0.9	6.6
2/1	278	278	3	0	0	1.9	0.6	0.0	2.5	32.3	5.3	0.6	5.9
3/1	437	437	47	0	0	2.5	0.9	0.0	3.4	28.4	8.7	0.9	9.7
4/1	448	448	20	18	14	2.5	1.0	0.1	3.6	28.5	8.3	1.0	9.3
5/1	530	530	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	270	270	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	338	338	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	367	367	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	PRC for Signalled Lanes (%):	36.9	Total Delay for Signalled Lanes (pcuHr):	12.06	Cycle Time (s): 160
	PRC Over All Lanes (%):	36.9	Total Delay Over All Lanes(pcuHr):	12.06	

Full Input Data And Results

Scenario 10: 'Base 2015 PM + Dev + Com' (FG10: 'Base 2015 PM + Dev + Com', Plan 1: 'Network Control Plan 1')

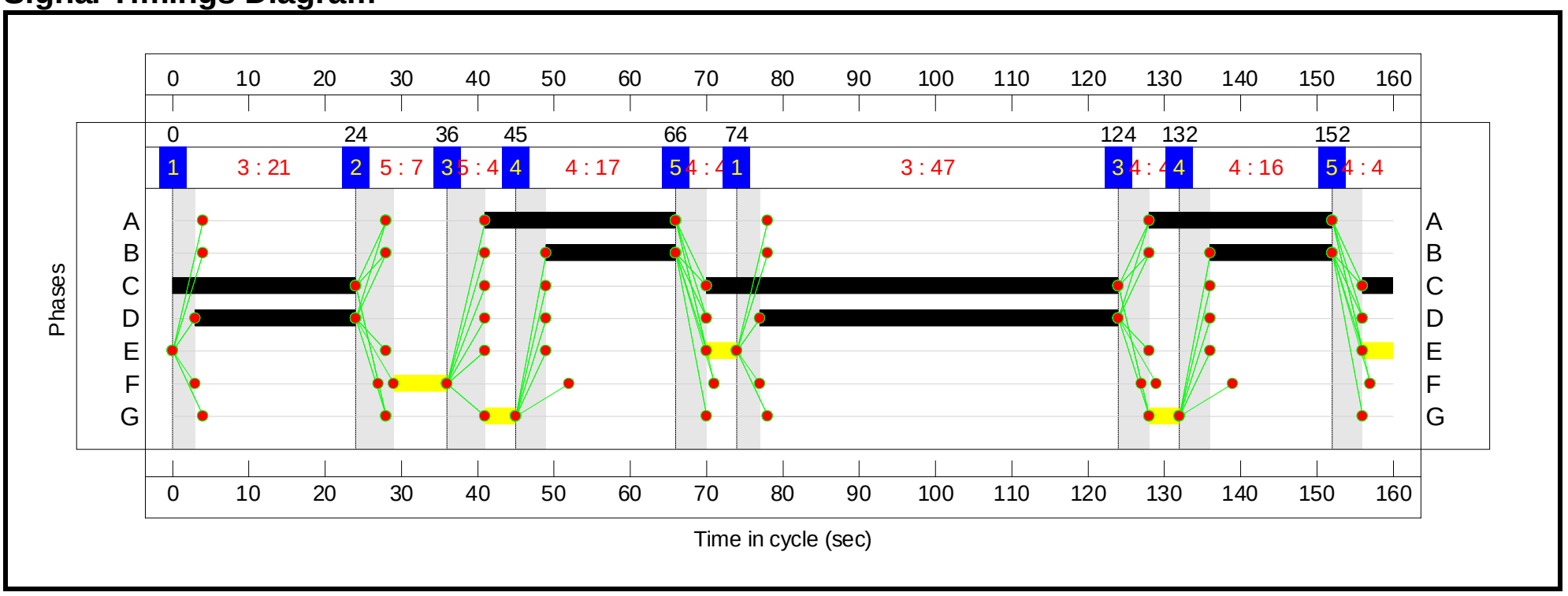
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5	1	3	4	5
Duration	21	7	4	17	4	47	4	16	4
Change Point	0	24	36	45	66	74	124	132	152

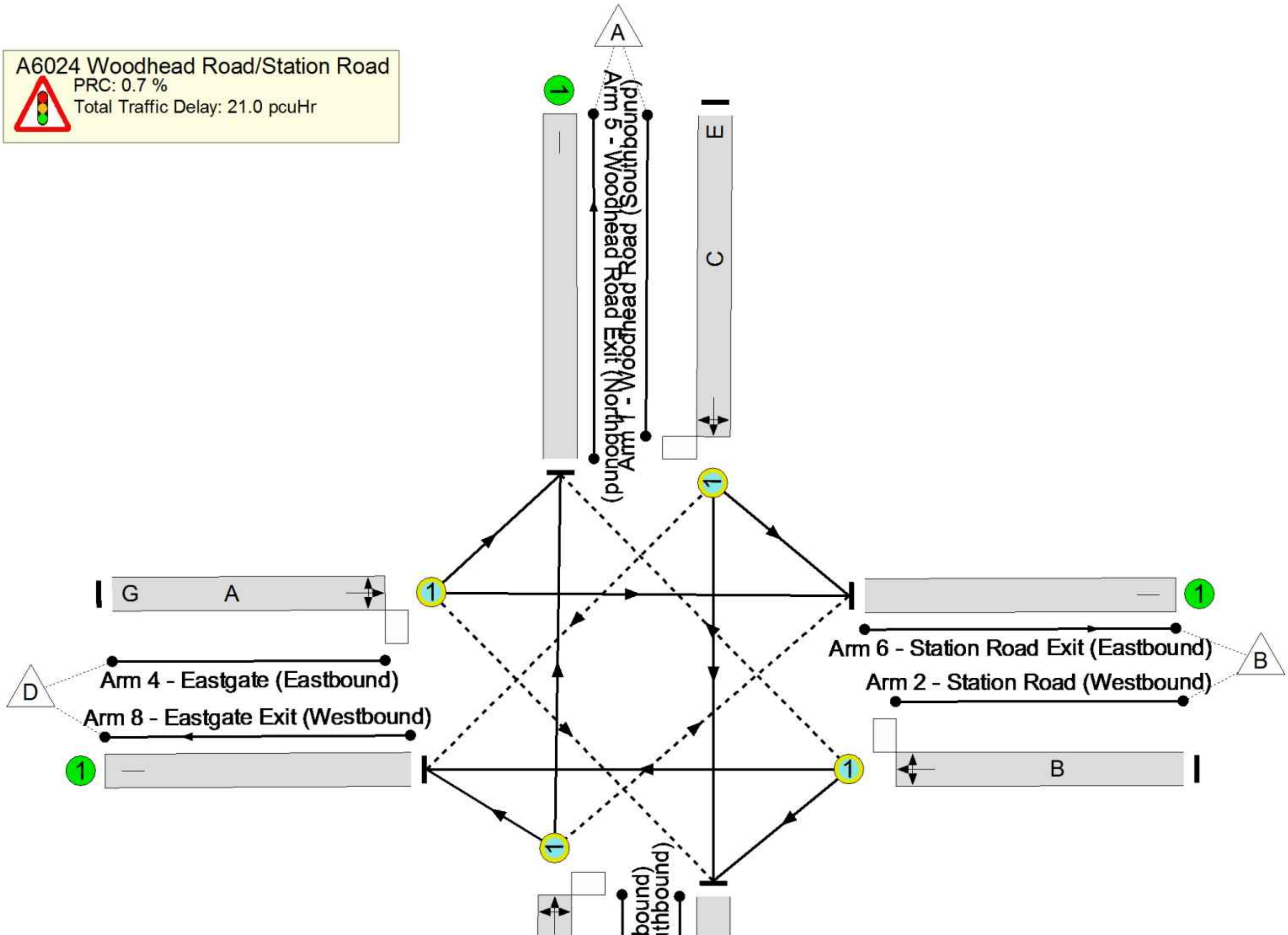
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**89.4%**
A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**89.4%**
1/1	Woodhead Road (Southbound) Left Ahead Right	O	N/A	N/A	C	E	2	82	8	646	1800	732	88.3%
2/1	Station Road (Westbound) Right Left Ahead	O	N/A	N/A	B		2	33	-	352	1800	394	89.4%
3/1	Woodhead Road (Northbound) Ahead Right Left	O	N/A	N/A	D		2	68	-	360	1800	700	51.4%
4/1	Eastgate (Eastbound) Left Ahead Right	O	N/A	N/A	A	G	2	49	8	386	1800	459	84.1%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	410	Inf	Inf	0.0%
6/1	Station Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	240	Inf	Inf	0.0%
7/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	538	Inf	Inf	0.0%
8/1	Eastgate Exit (Westbound)	U	N/A	N/A	-		-	-	-	556	Inf	Inf	0.0%

Full Input Data And Results

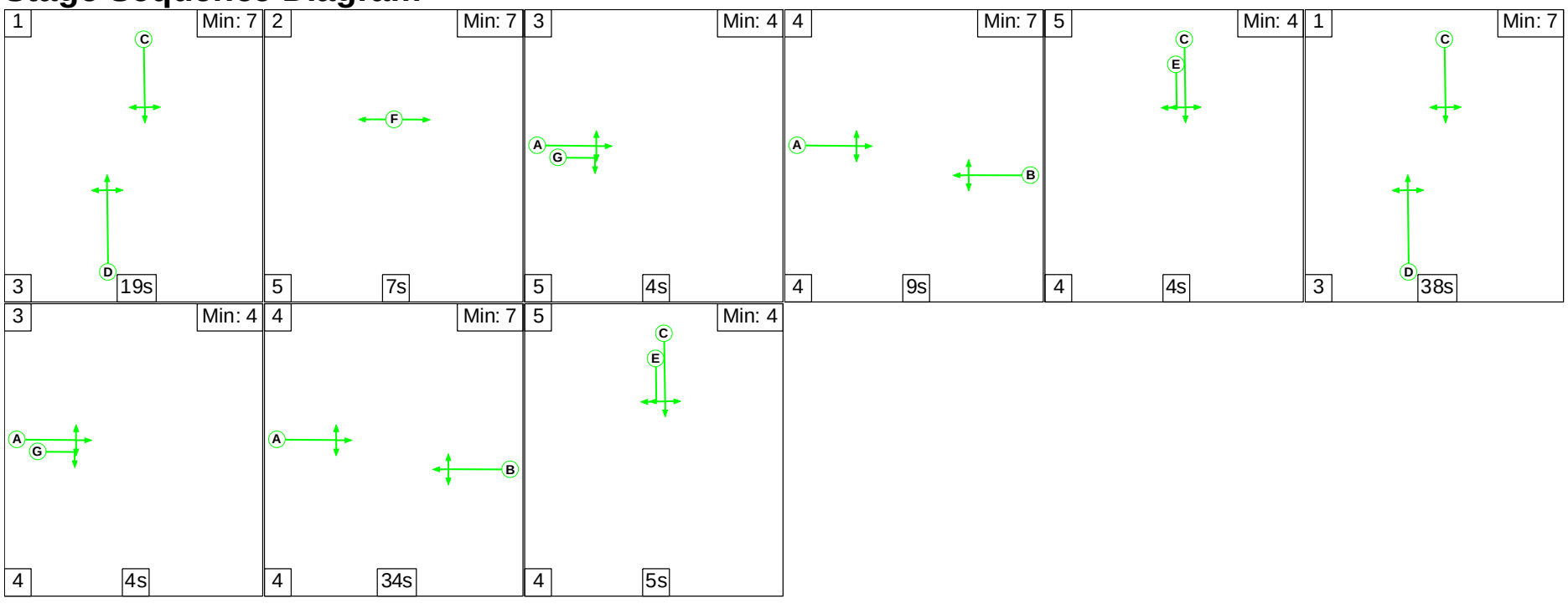
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/Station Road	**-**	**-**	**249**	**74**	**24**	**10.6**	**10.1**	**0.3**	**21.0**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/Station Road	**-**	**-**	**249**	**74**	**24**	**10.6**	**10.1**	**0.3**	**21.0**	**-**	**-**	**-**	**-**
1/1	646	646	184	48	0	3.4	3.5	0.2	7.1	39.6	15.8	3.5	19.3
2/1	352	352	2	0	0	3.0	3.6	0.0	6.6	67.5	8.3	3.6	11.9
3/1	360	360	47	0	3	1.6	0.5	0.0	2.2	21.8	6.5	0.5	7.0
4/1	386	386	16	25	21	2.6	2.5	0.1	5.2	48.2	8.3	2.5	10.7
5/1	410	410	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	240	240	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	538	538	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	556	556	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	PRC for Signalled Lanes (%):	0.7	Total Delay for Signalled Lanes (pcuHr):	21.04	Cycle Time (s): 160
	PRC Over All Lanes (%):	0.7	Total Delay Over All Lanes(pcuHr):	21.04	

Full Input Data And Results

Scenario 11: 'Base 2020 AM + Dev + Com' (FG11: 'Base 2020 AM + Dev + Com', Plan 1: 'Network Control Plan 1')

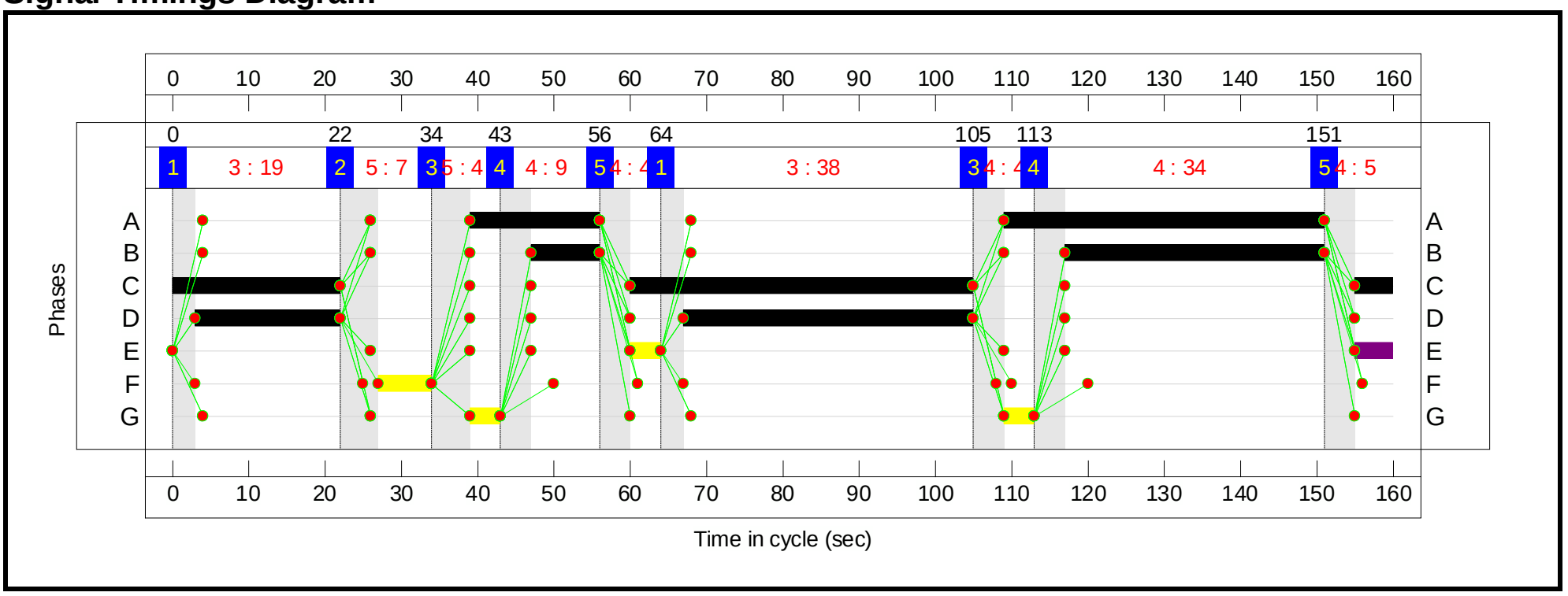
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5	1	3	4	5
Duration	19	7	4	9	4	38	4	34	5
Change Point	0	22	34	43	56	64	105	113	151

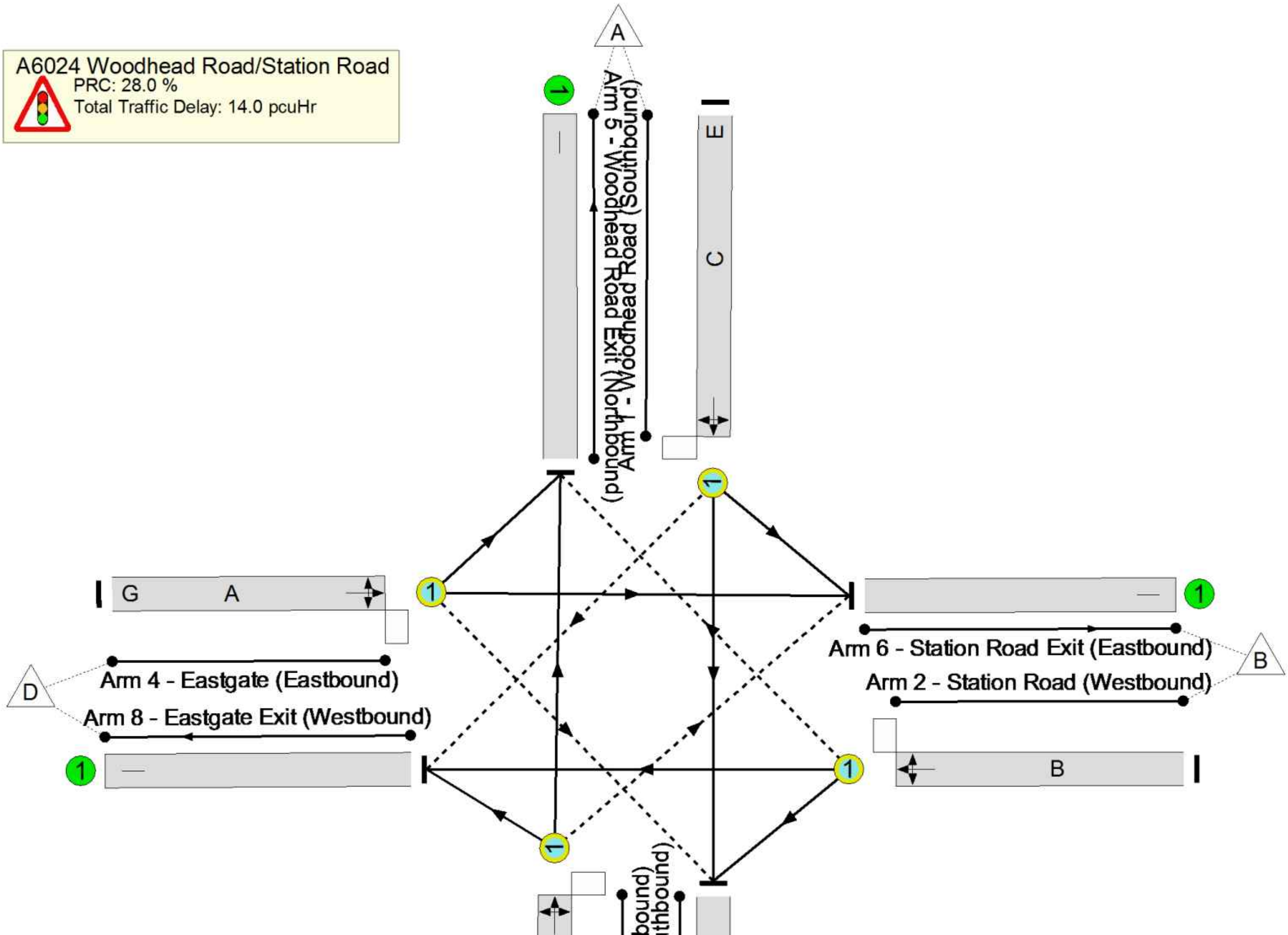
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**70.3%**
A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**70.3%**
1/1	Woodhead Road (Southbound) Left Ahead Right	O	N/A	N/A	C	E	2	72	9	361	1800	521	69.3%
2/1	Station Road (Westbound) Right Left Ahead	O	N/A	N/A	B		2	43	-	295	1800	506	58.3%
3/1	Woodhead Road (Northbound) Ahead Right Left	O	N/A	N/A	D		2	57	-	460	1800	664	69.3%
4/1	Eastgate (Eastbound) Left Ahead Right	O	N/A	N/A	A	G	2	59	8	476	1800	677	70.3%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	560	Inf	Inf	0.0%
6/1	Station Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	286	Inf	Inf	0.0%
7/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	356	Inf	Inf	0.0%
8/1	Eastgate Exit (Westbound)	U	N/A	N/A	-		-	-	-	390	Inf	Inf	0.0%

Full Input Data And Results

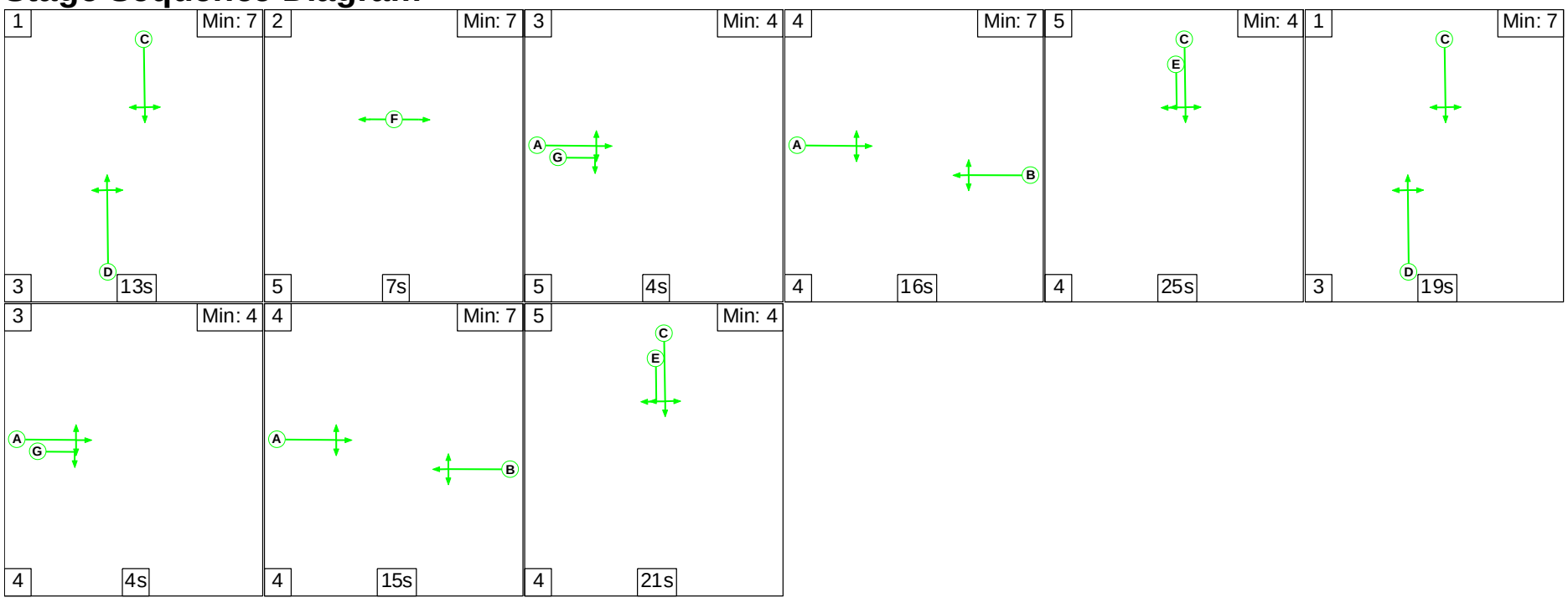
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/Station Road	**-**	**-**	**123**	**66**	**35**	**9.6**	**4.1**	**0.3**	**14.0**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/Station Road	**-**	**-**	**123**	**66**	**35**	**9.6**	**4.1**	**0.3**	**14.0**	**-**	**-**	**-**	**-**
1/1	361	361	47	47	22	1.9	1.1	0.2	3.3	32.6	7.7	1.1	8.8
2/1	295	295	3	0	0	2.2	0.7	0.0	2.9	35.1	6.2	0.7	6.9
3/1	460	460	49	0	0	2.8	1.1	0.0	3.9	30.6	9.7	1.1	10.8
4/1	476	476	24	18	13	2.8	1.2	0.1	4.0	30.3	9.3	1.2	10.4
5/1	560	560	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	286	286	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	356	356	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	390	390	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 28.0 Total Delay for Signalled Lanes (pcuHr): 14.05 Cycle Time (s): 160
PRC Over All Lanes (%): 28.0 Total Delay Over All Lanes(pcuHr): 14.05

Full Input Data And Results

Scenario 12: 'Base 2020 PM + Dev + Com' (FG12: 'Base 2020 PM + Dev + Com', Plan 1: 'Network Control Plan 1')

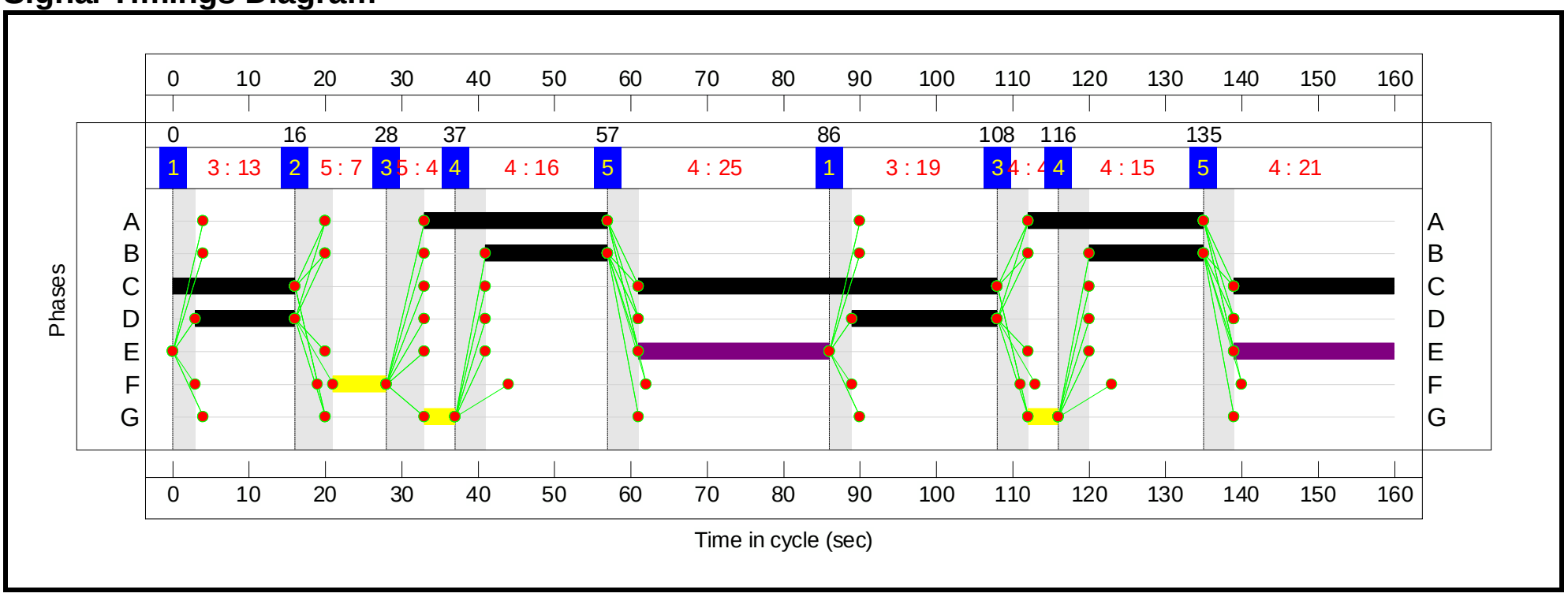
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5	1	3	4	5
Duration	13	7	4	16	25	19	4	15	21
Change Point	0	16	28	37	57	86	108	116	135

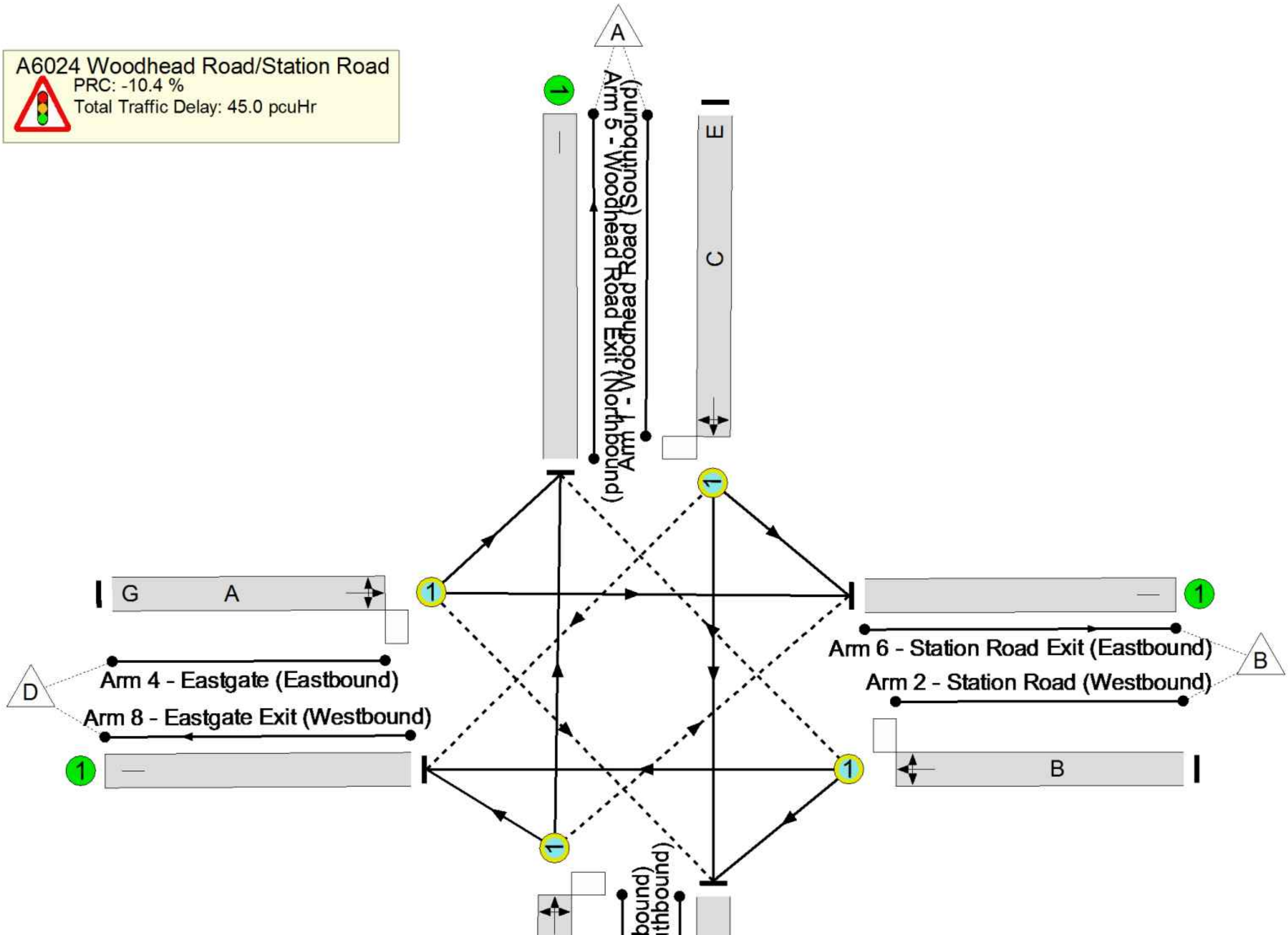
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**99.4%**
A6024 Woodhead Road/Station Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**99.4%**
1/1	Woodhead Road (Southbound) Left Ahead Right	O	N/A	N/A	C	E	2	84	46	676	1800	687	98.4%
2/1	Station Road (Westbound) Right Left Ahead	O	N/A	N/A	B		2	31	-	369	1800	371	99.4%
3/1	Woodhead Road (Northbound) Ahead Right Left	O	N/A	N/A	D		2	32	-	376	1800	383	98.3%
4/1	Eastgate (Eastbound) Left Ahead Right	O	N/A	N/A	A	G	2	47	8	404	1800	442	91.5%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	429	Inf	Inf	0.0%
6/1	Station Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
7/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	794	Inf	Inf	0.0%
8/1	Eastgate Exit (Westbound)	U	N/A	N/A	-		-	-	-	350	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/Station Road	**-**	**-**	**58**	**224**	**81**	**12.5**	**32.1**	**0.3**	**45.0**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/Station Road	**-**	**-**	**58**	**224**	**81**	**12.5**	**32.1**	**0.3**	**45.0**	**-**	**-**	**-**	**-**
1/1	676	676	3	199	42	3.1	10.5	0.2	13.7	73.2	13.2	10.5	23.7
2/1	369	369	2	0	0	3.3	9.1	0.0	12.3	120.1	8.3	9.1	17.4
3/1	376	376	53	0	0	3.4	8.2	0.0	11.6	111.1	9.6	8.2	17.8
4/1	404	404	0	25	39	2.8	4.4	0.1	7.3	65.0	8.2	4.4	12.6
5/1	429	429	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	794	794	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	350	350	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -10.4 Total Delay for Signalled Lanes (pcuHr): 44.96 Cycle Time (s): 160
PRC Over All Lanes (%): -10.4 Total Delay Over All Lanes(pcuHr): 44.96

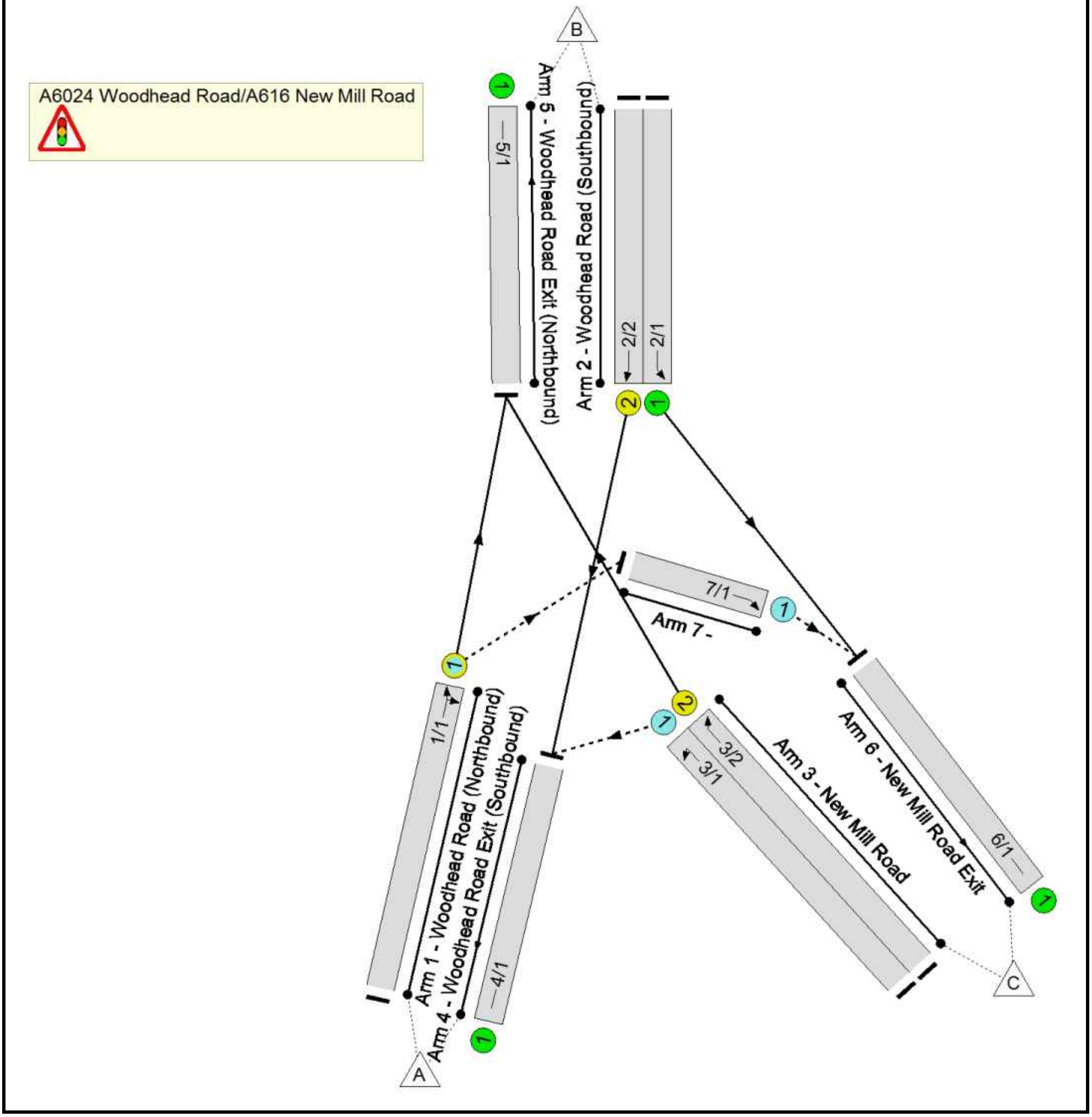
Full Input Data And Results

User and Project Details

Project:	**Brockholes**
Title:	**A6024 Woodhead Road/New Mill Road**
Location:	
File name:	A6024 Woodhead Road_New Mill Road LinSig Model.lsg3x
Author:	Emma Robshaw
Company:	WSP | Parsons Brinckerhoff
Address:	Leeds
Notes:	

Full Input Data And Results

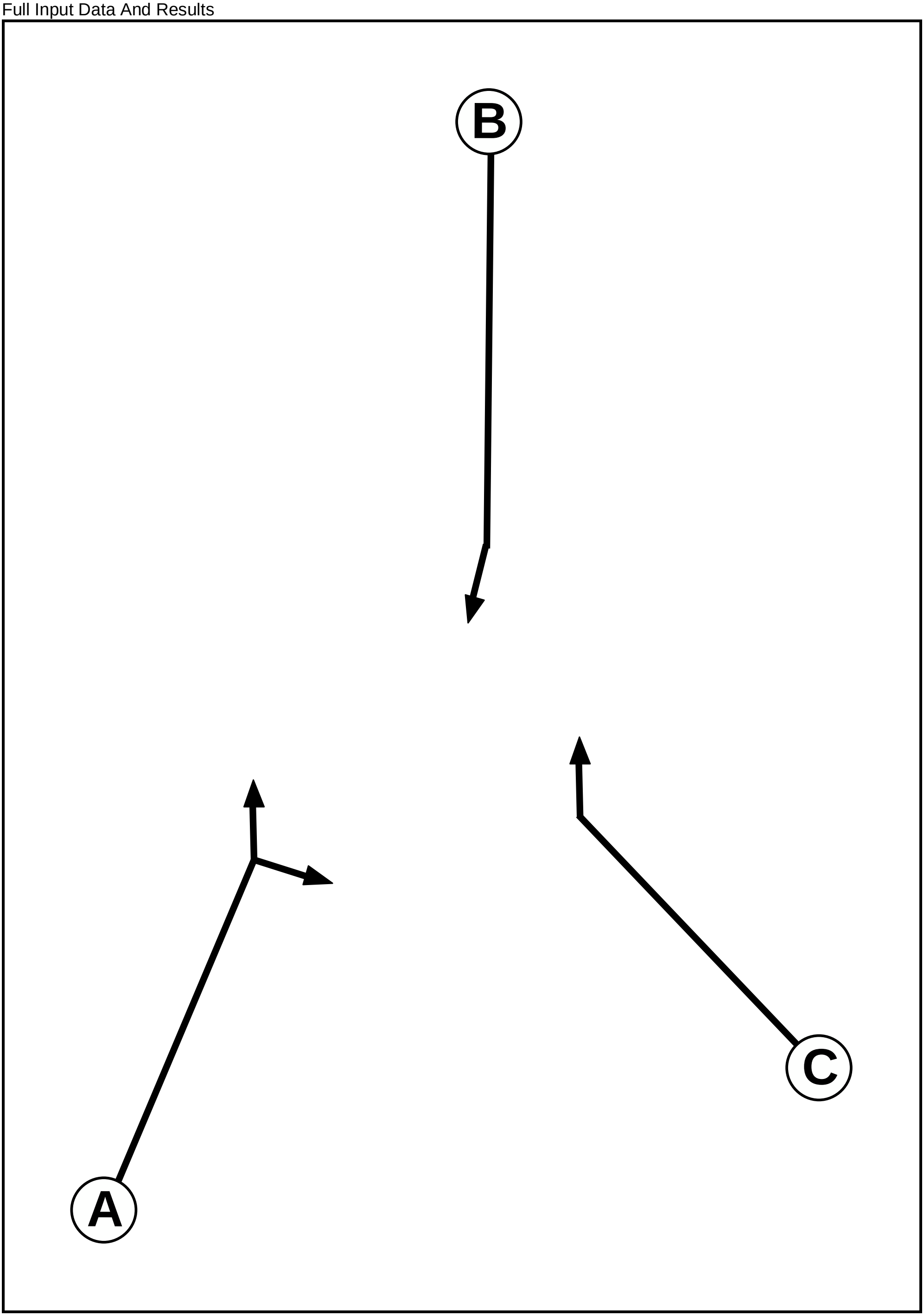
Network Layout Diagram



Full Input Data And Results

Phase Diagram

Full Input Data And Results



Full Input Data And Results

Phase Input Data

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

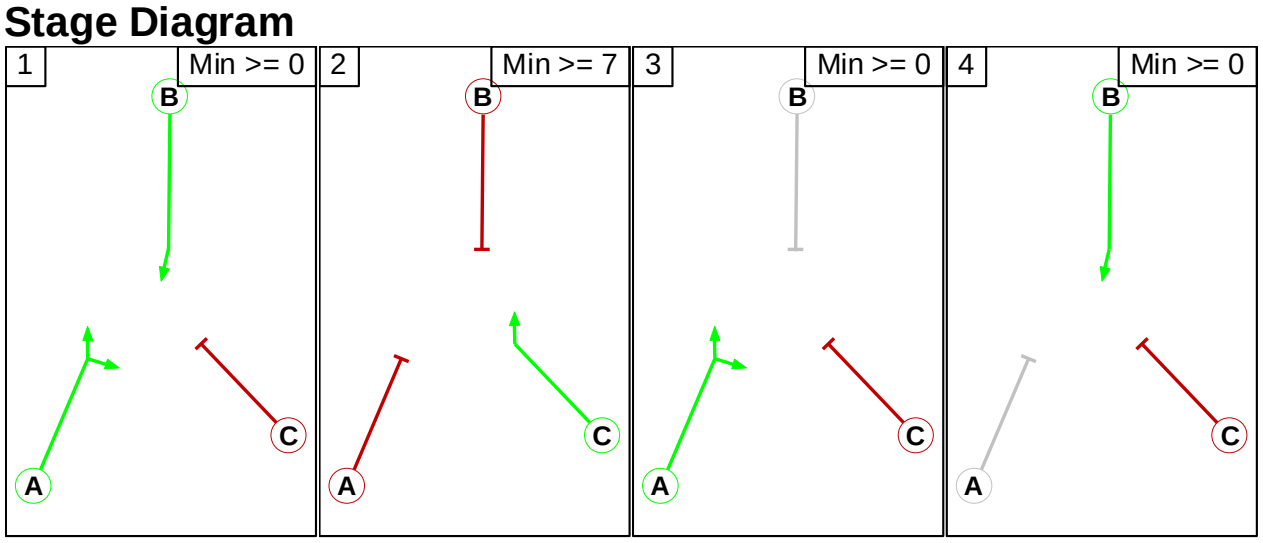
Phase Intergreens Matrix

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

Phases in Stage

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

Stage Diagram



Phase Delays

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

Prohibited Stage Change

From Stage	To Stage				
		1	2	3	4
	1		5	0	0
	2	5		5	5
	3	2	5		2
	4	2	5	2	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A6024 Woodhead Road/A616 New Mill Road											
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Min Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
1/1 (Woodhead Road (Northbound))	7/1 (Right)	850	0	2/1	0.35	All	-	-	-	-	-
3/1 (New Mill Road)	4/1 (Left)	715	0	2/2	0.22	All	-	-	-	-	-
7/1	6/1 (Ahead)	600	0	2/1	0.19	All	-	-	-	-	-

Full Input Data And Results

Lane Input Data

Junction: A6024 Woodhead Road/A616 New Mill Road

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Woodhead Road (Northbound))	O	A	2	3	60.0	User	1800	-	-	-	-	-
2/1 (Woodhead Road (Southbound))	U		2	3	60.0	User	1800	-	-	-	-	-
2/2 (Woodhead Road (Southbound))	U	B	2	3	60.0	User	1800	-	-	-	-	-
3/1 (New Mill Road)	O		2	3	60.0	User	1800	-	-	-	-	-
3/2 (New Mill Road)	U	C	2	3	60.0	User	1800	-	-	-	-	-
4/1 (Woodhead Road Exit (Southbound))	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Woodhead Road Exit (Northbound))	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (New Mill Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	O		2	3	1.0	User	1800	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Base 2015 AM'	08:00	09:00	01:00	
2: 'Base 2015 PM'	17:00	18:00	01:00	
3: 'Base 2020 AM'	08:00	09:00	01:00	
4: 'Base 2020 PM'	17:00	18:00	01:00	
5: 'Base 2015 AM + Com'	08:00	09:00	01:00	
6: 'Base 2015 PM + Com'	17:00	18:00	01:00	
7: 'Base 2020 AM + Com'	08:00	09:00	01:00	
8: 'Base 2020 PM + Com'	17:00	18:00	01:00	
9: 'Base 2015 AM + Dev + Com'	08:00	09:00	01:00	
10: 'Base 2015 PM + Dev + Com'	17:00	18:00	01:00	
11: 'Base 2020 AM + Dev + Com'	08:00	09:00	01:00	
12: 'Base 2020 PM + Dev + Com'	17:00	18:00	01:00	

Full Input Data And Results

Scenario 1: 'Base AM 2015' (FG1: 'Base 2015 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	451	19	470
	B	313	0	365	678
	C	5	470	0	475
	Tot.	318	921	384	1623

Traffic Lane Flows

Lane	Scenario 1: Base AM 2015
Junction: A6024 Woodhead Road/A616 New Mill Road	
1/1	470
2/1	365
2/2	313
3/1	5
3/2	470
4/1	318
5/1	921
6/1	384
7/1	19

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/A616 New Mill Road								
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 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Woodhead Road (Southbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (New Mill Road Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/2 (New Mill Road Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (New Mill Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1	This lane uses a directly entered Saturation Flow						1800	1800

Scenario 2: 'Base PM 2015' (FG2: 'Base 2015 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	365	13	378
	B	584	0	527	1111
	C	10	346	0	356
	Tot.	594	711	540	1845

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: Base PM 2015
Junction: A6024 Woodhead Road/A616 New Mill Road	
1/1	378
2/1	527
2/2	584
3/1	10
3/2	346
4/1	594
5/1	711
6/1	540
7/1	13

Lane Saturation Flows

Junction: A6024 Woodhead Road/A616 New Mill Road								
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 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Woodhead Road (Southbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (New Mill Road Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/2 (New Mill Road Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (New Mill Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1	This lane uses a directly entered Saturation Flow						1800	1800

Full Input Data And Results

Scenario 3: 'Base AM 2020' (FG3: 'Base 2020 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	479	20	499
	B	332	0	388	720
	C	5	499	0	504
	Tot.	337	978	408	1723

Traffic Lane Flows

Lane	Scenario 3: Base AM 2020
Junction: A6024 Woodhead Road/A616 New Mill Road	
1/1	499
2/1	388
2/2	332
3/1	5
3/2	499
4/1	337
5/1	978
6/1	408
7/1	20

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/A616 New Mill Road								
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 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Woodhead Road (Southbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (New Mill Road Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/2 (New Mill Road Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (New Mill Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1	This lane uses a directly entered Saturation Flow						1800	1800

Scenario 4: 'Base PM 2020' (FG4: 'Base 2020 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	383	14	397
	B	613	0	553	1166
	C	11	363	0	374
	Tot.	624	746	567	1937

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: Base PM 2020
Junction: A6024 Woodhead Road/A616 New Mill Road	
1/1	397
2/1	553
2/2	613
3/1	11
3/2	363
4/1	624
5/1	746
6/1	567
7/1	14

Lane Saturation Flows

Junction: A6024 Woodhead Road/A616 New Mill Road								
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 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Woodhead Road (Southbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (New Mill Road Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/2 (New Mill Road Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (New Mill Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1	This lane uses a directly entered Saturation Flow						1800	1800

Full Input Data And Results

Scenario 5: 'Base 2015 AM + Com' (FG5: 'Base 2015 AM + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	472	19	491
	B	319	0	365	684
	C	5	470	0	475
	Tot.	324	942	384	1650

Traffic Lane Flows

Lane	Scenario 5: Base 2015 AM + Com
Junction: A6024 Woodhead Road/A616 New Mill Road	
1/1	491
2/1	365
2/2	319
3/1	5
3/2	470
4/1	324
5/1	942
6/1	384
7/1	19

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/A616 New Mill Road								
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 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Woodhead Road (Southbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (New Mill Road Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/2 (New Mill Road Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (New Mill Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1	This lane uses a directly entered Saturation Flow						1800	1800

Scenario 6: 'Base 2015 PM + Com' (FG6: 'Base 2015 PM + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	373	13	386
	B	600	0	527	1127
	C	10	346	0	356
	Tot.	610	719	540	1869

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: Base 2015 PM + Com
Junction: A6024 Woodhead Road/A616 New Mill Road	
1/1	386
2/1	527
2/2	600
3/1	10
3/2	346
4/1	610
5/1	719
6/1	540
7/1	13

Lane Saturation Flows

Junction: A6024 Woodhead Road/A616 New Mill Road

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 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Woodhead Road (Southbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (New Mill Road Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/2 (New Mill Road Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (New Mill Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1	This lane uses a directly entered Saturation Flow						1800	1800

Full Input Data And Results

Scenario 7: 'Base 2020 AM + Com' (FG7: 'Base 2020 AM + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	500	20	520
	B	338	0	388	726
	C	5	499	0	504
	Tot.	343	999	408	1750

Traffic Lane Flows

Lane	Scenario 7: Base 2020 AM + Com
Junction: A6024 Woodhead Road/A616 New Mill Road	
1/1	520
2/1	388
2/2	338
3/1	5
3/2	499
4/1	343
5/1	999
6/1	408
7/1	20

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/A616 New Mill Road								
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 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Woodhead Road (Southbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (New Mill Road Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/2 (New Mill Road Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (New Mill Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1	This lane uses a directly entered Saturation Flow						1800	1800

Scenario 8: 'Base 2020 PM + Com' (FG8: 'Base 2020 PM + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	391	14	405
	B	629	0	553	1182
	C	11	363	0	374
	Tot.	640	754	567	1961

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: Base 2020 PM + Com
Junction: A6024 Woodhead Road/A616 New Mill Road	
1/1	405
2/1	553
2/2	629
3/1	11
3/2	363
4/1	640
5/1	754
6/1	567
7/1	14

Lane Saturation Flows

Junction: A6024 Woodhead Road/A616 New Mill Road

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 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Woodhead Road (Southbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (New Mill Road Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/2 (New Mill Road Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (New Mill Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1	This lane uses a directly entered Saturation Flow						1800	1800

Full Input Data And Results

Scenario 9: 'Base 2015 AM + Dev + Com' (FG9: 'Base 2015 AM + Dev + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	510	19	529
	B	338	0	365	703
	C	5	470	0	475
	Tot.	343	980	384	1707

Traffic Lane Flows

Lane	Scenario 9: Base 2015 AM + Dev + Com
Junction: A6024 Woodhead Road/A616 New Mill Road	
1/1	529
2/1	365
2/2	338
3/1	5
3/2	470
4/1	343
5/1	980
6/1	384
7/1	19

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/A616 New Mill Road								
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 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Woodhead Road (Southbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (New Mill Road Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/2 (New Mill Road Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (New Mill Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1	This lane uses a directly entered Saturation Flow						1800	1800

Scenario 10: 'Base 2015 PM + Dev + Com' (FG10: 'Base 2015 PM + Dev + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	397	13	410
	B	637	0	527	1164
	C	10	346	0	356
	Tot.	647	743	540	1930

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 10: Base 2015 PM + Dev + Com
Junction: A6024 Woodhead Road/A616 New Mill Road	
1/1	410
2/1	527
2/2	637
3/1	10
3/2	346
4/1	647
5/1	743
6/1	540
7/1	13

Lane Saturation Flows

Junction: A6024 Woodhead Road/A616 New Mill Road								
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 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Woodhead Road (Southbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (New Mill Road Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/2 (New Mill Road Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (New Mill Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1	This lane uses a directly entered Saturation Flow						1800	1800

Full Input Data And Results

Scenario 11: 'Base 2020 AM + Dev + Com' (FG11: 'Base 2020 AM + Dev + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	538	20	558
	B	357	0	388	745
	C	5	499	0	504
	Tot.	362	1037	408	1807

Traffic Lane Flows

Lane	Scenario 11: Base 2020 AM + Dev + Com
Junction: A6024 Woodhead Road/A616 New Mill Road	
1/1	558
2/1	388
2/2	357
3/1	5
3/2	499
4/1	362
5/1	1037
6/1	408
7/1	20

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Woodhead Road/A616 New Mill Road								
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 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Woodhead Road (Southbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (New Mill Road Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/2 (New Mill Road Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (New Mill Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1	This lane uses a directly entered Saturation Flow						1800	1800

Scenario 12: 'Base 2020 PM + Dev + Com' (FG12: 'Base 2020 PM + Dev + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	415	14	429
	B	666	0	553	1219
	C	11	363	0	374
	Tot.	677	778	567	2022

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 12: Base 2020 PM + Dev + Com
Junction: A6024 Woodhead Road/A616 New Mill Road	
1/1	429
2/1	553
2/2	666
3/1	11
3/2	363
4/1	677
5/1	778
6/1	567
7/1	14

Lane Saturation Flows

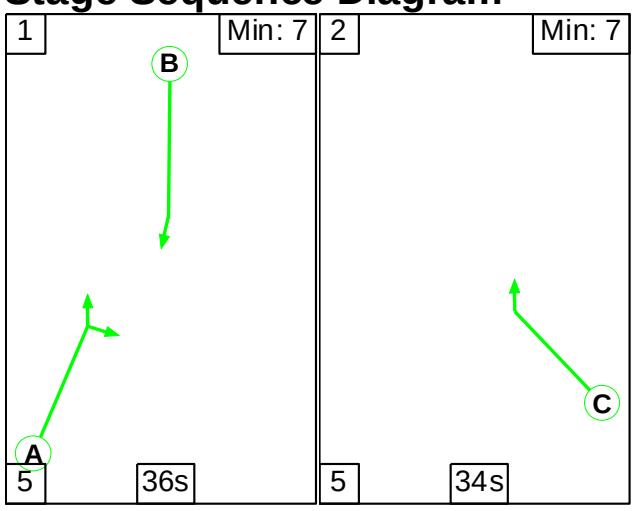
Junction: A6024 Woodhead Road/A616 New Mill Road

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 (Woodhead Road (Northbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Woodhead Road (Southbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Woodhead Road (Southbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (New Mill Road Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/2 (New Mill Road Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Woodhead Road Exit (Southbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Woodhead Road Exit (Northbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (New Mill Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1	This lane uses a directly entered Saturation Flow						1800	1800

Full Input Data And Results

Scenario 1: 'Base AM 2015' (FG1: 'Base 2015 AM', Plan 1: 'Network Control Plan 1')

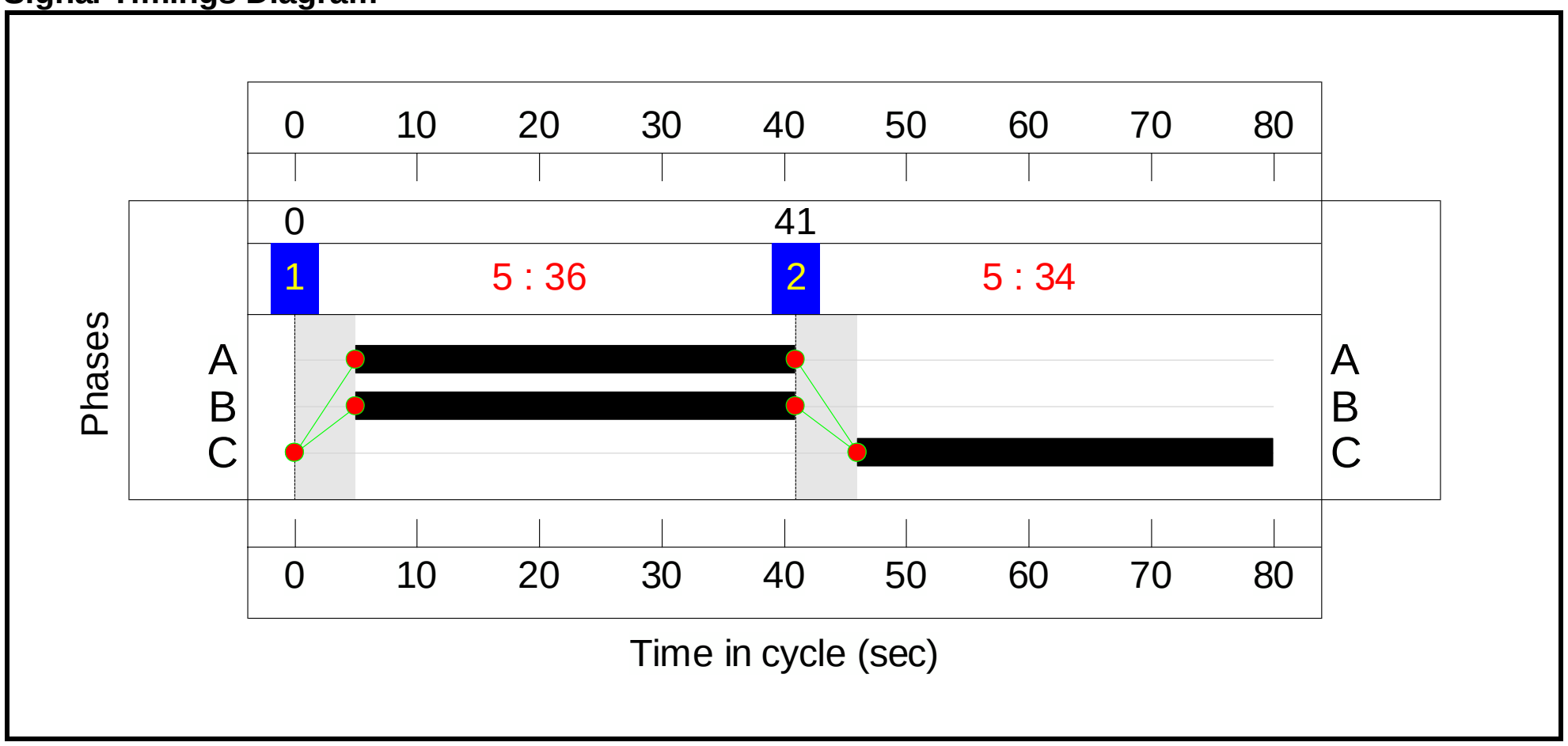
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	36	34
Change Point	0	41

Signal Timings Diagram



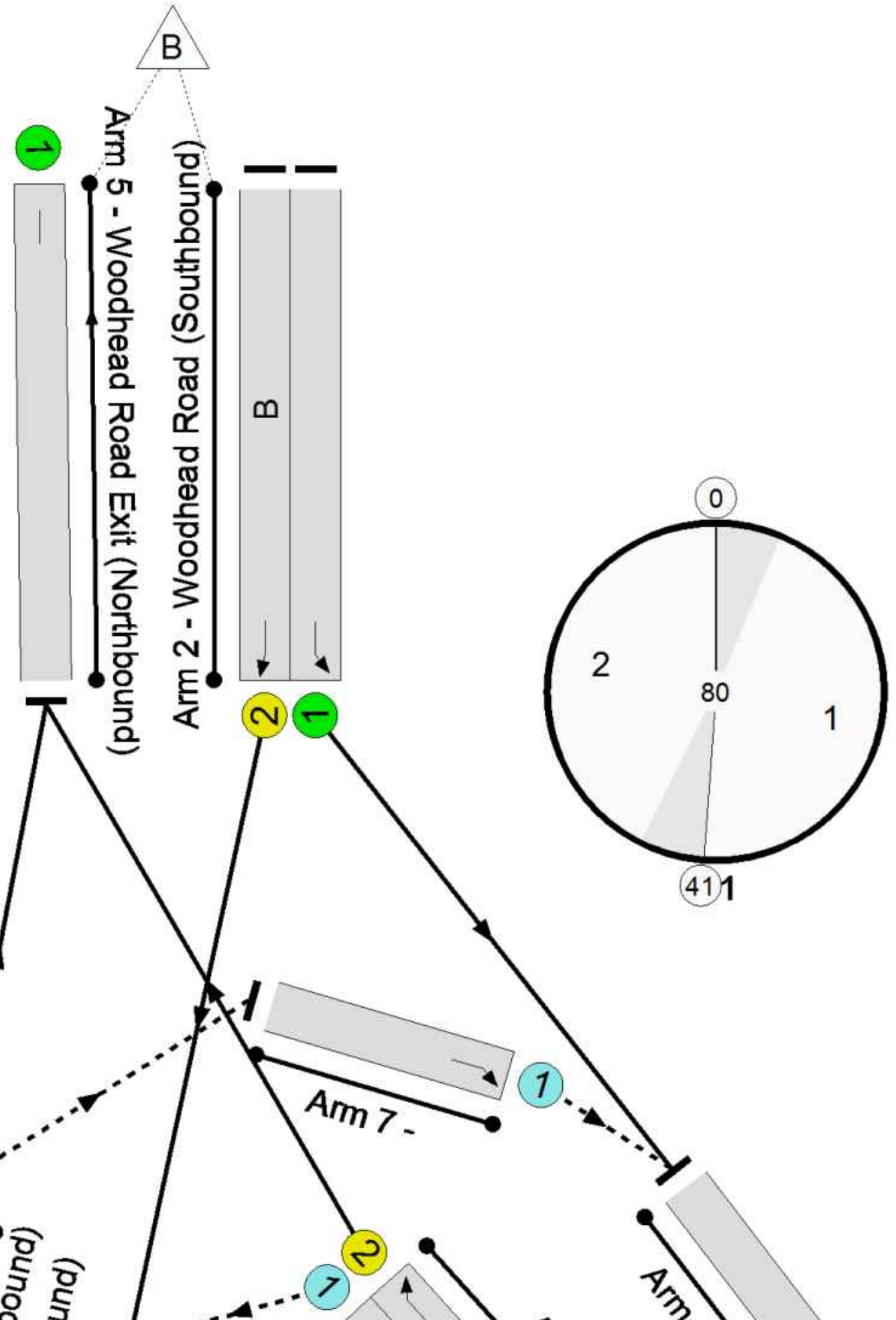
Full Input Data And Results

Network Layout Diagram

A6024 Woodhead Road/A616 New Mill Road

PRC: 50.3 %

Total Traffic Delay: 7.5 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**59.9%**
A6024 Woodhead Road/A616 New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**59.9%**
1/1	Woodhead Road (Northbound) Ahead Right	O	N/A	N/A	A		1	36	-	470	1800	785	59.9%
2/1	Woodhead Road (Southbound) Ahead	U	N/A	N/A	-		-	-	-	365	1800	1800	20.3%
2/2	Woodhead Road (Southbound) Ahead	U	N/A	N/A	B		1	36	-	313	1800	833	37.6%
3/1	New Mill Road Left	O	N/A	N/A	-		-	-	-	5	1800	1229	0.4%
3/2	New Mill Road Ahead	U	N/A	N/A	C		1	34	-	470	1800	788	59.7%
4/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	318	Inf	Inf	0.0%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	921	Inf	Inf	0.0%
6/1	New Mill Road Exit	U	N/A	N/A	-		-	-	-	384	Inf	Inf	0.0%
7/1	Ahead	O	N/A	N/A	-		-	-	-	19	1800	530	3.6%

Full Input Data And Results

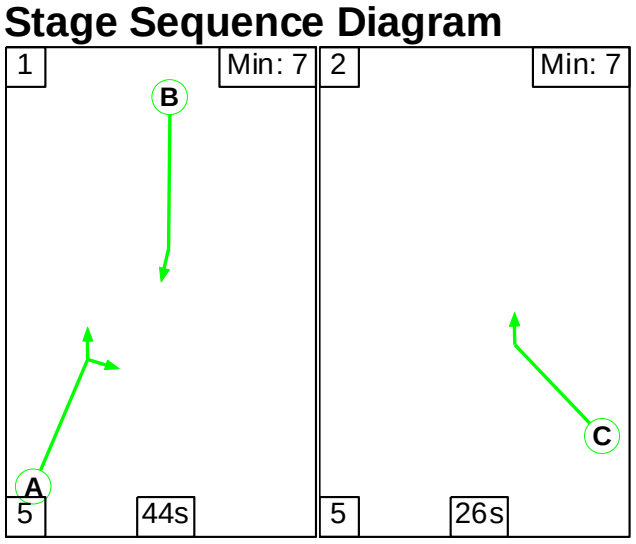
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/New Mill Road	**-**	**-**	**40**	**3**	**0**	**5.5**	**1.9**	**0.0**	**7.5**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/A616 New Mill Road	**-**	**-**	**40**	**3**	**0**	**5.5**	**1.9**	**0.0**	**7.5**	**-**	**-**	**-**	**-**
1/1	470	470	19	0	0	2.1	0.7	-	2.8	21.7	7.7	0.7	8.4
2/1	365	365	-	-	-	0.0	0.1	-	0.1	1.3	0.0	0.1	0.1
2/2	313	313	-	-	-	1.2	0.3	-	1.5	17.5	4.5	0.3	4.8
3/1	5	5	2	3	0	0.0	0.0	-	0.0	1.5	0.0	0.0	0.0
3/2	470	470	-	-	-	2.2	0.7	-	3.0	22.8	7.8	0.7	8.6
4/1	318	318	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	921	921	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	384	384	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	19	19	19	0	0	0.0	0.0	-	0.0	3.5	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 50.3 Total Delay for Signalled Lanes (pcuHr): 7.32 Cycle Time (s): 80
PRC Over All Lanes (%): 50.3 Total Delay Over All Lanes(pcuHr): 7.47

Full Input Data And Results

Scenario 2: 'Base PM 2015' (FG2: 'Base 2015 PM', Plan 1: 'Network Control Plan 1')

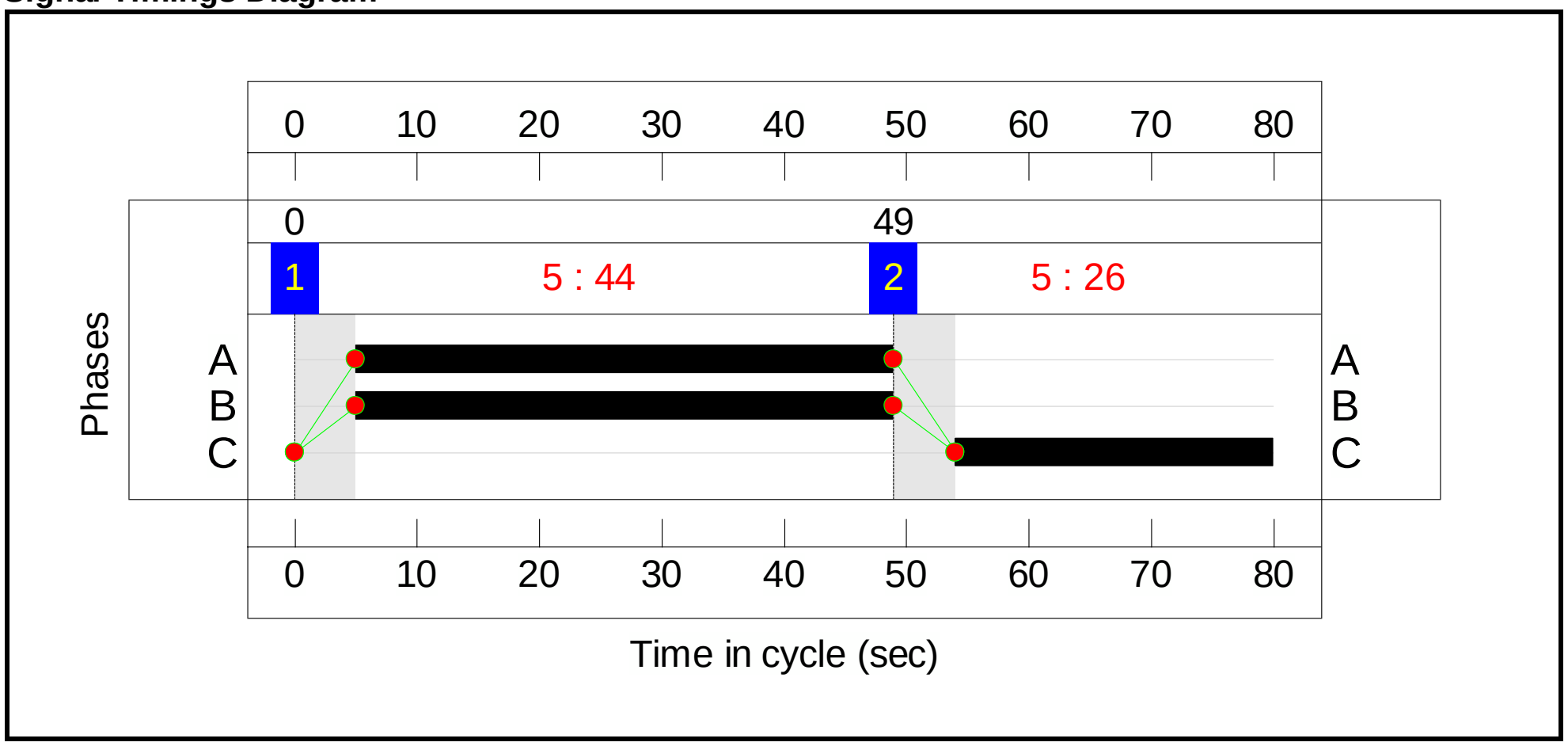
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	44	26
Change Point	0	49

Signal Timings Diagram



Full Input Data And Results

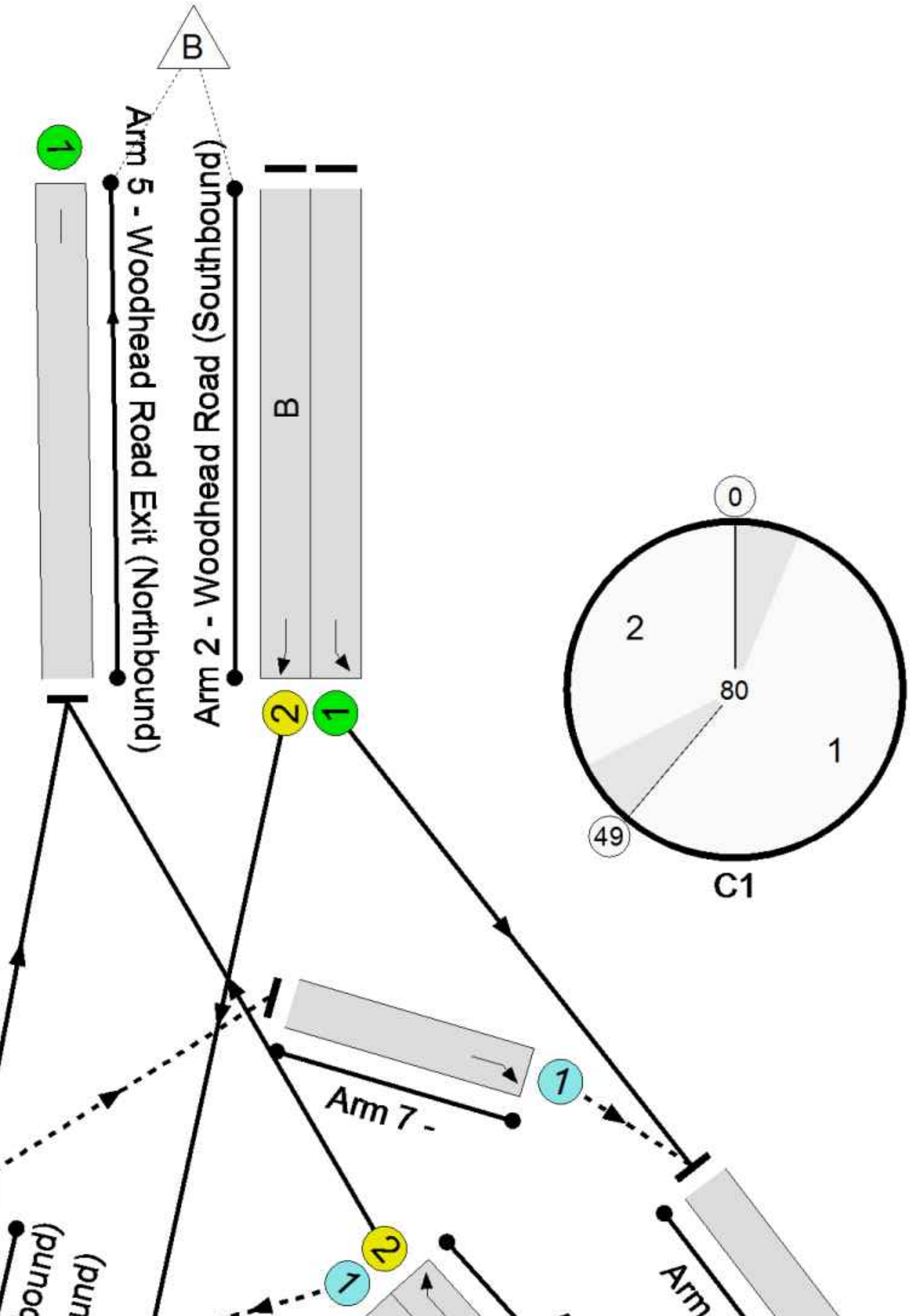
Network Layout Diagram

Full Input Data And Results

A6024 Woodhead Road/A616 New Mill Road

PRC: 56.0 %

Total Traffic Delay: 6.9 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**57.7%**
A6024 Woodhead Road/A616 New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**57.7%**
1/1	Woodhead Road (Northbound) Ahead Right	O	N/A	N/A	A		1	44	-	378	1800	956	39.5%
2/1	Woodhead Road (Southbound) Ahead	U	N/A	N/A	-		-	-	-	527	1800	1800	29.3%
2/2	Woodhead Road (Southbound) Ahead	U	N/A	N/A	B		1	44	-	584	1800	1013	57.7%
3/1	New Mill Road Left	O	N/A	N/A	-		-	-	-	10	1800	1061	0.9%
3/2	New Mill Road Ahead	U	N/A	N/A	C		1	26	-	346	1800	608	57.0%
4/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	594	Inf	Inf	0.0%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	711	Inf	Inf	0.0%
6/1	New Mill Road Exit	U	N/A	N/A	-		-	-	-	540	Inf	Inf	0.0%
7/1	Ahead	O	N/A	N/A	-		-	-	-	13	1800	500	2.6%

Full Input Data And Results

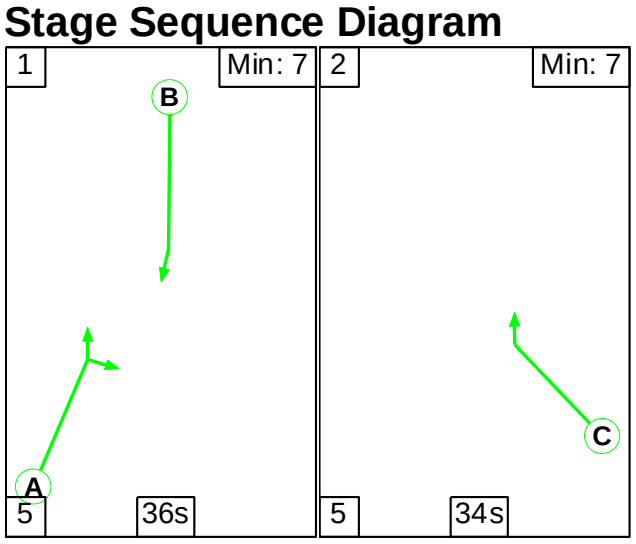
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/New Mill Road	**-**	**-**	**32**	**4**	**0**	**5.0**	**1.9**	**0.0**	**6.9**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/A616 New Mill Road	**-**	**-**	**32**	**4**	**0**	**5.0**	**1.9**	**0.0**	**6.9**	**-**	**-**	**-**	**-**
1/1	378	378	13	0	0	1.0	0.3	-	1.4	13.0	4.7	0.3	5.1
2/1	527	527	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
2/2	584	584	-	-	-	1.8	0.7	-	2.5	15.5	8.3	0.7	9.0
3/1	10	10	6	4	0	0.0	0.0	-	0.0	1.7	0.0	0.0	0.0
3/2	346	346	-	-	-	2.1	0.7	-	2.7	28.6	6.2	0.7	6.9
4/1	594	594	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	711	711	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	540	540	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	13	13	13	0	0	0.0	0.0	-	0.0	3.7	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 56.0 Total Delay for Signalled Lanes (pcuHr): 6.63 Cycle Time (s): 80
PRC Over All Lanes (%): 56.0 Total Delay Over All Lanes(pcuHr): 6.85

Full Input Data And Results

Scenario 3: 'Base AM 2020' (FG3: 'Base 2020 AM', Plan 1: 'Network Control Plan 1')

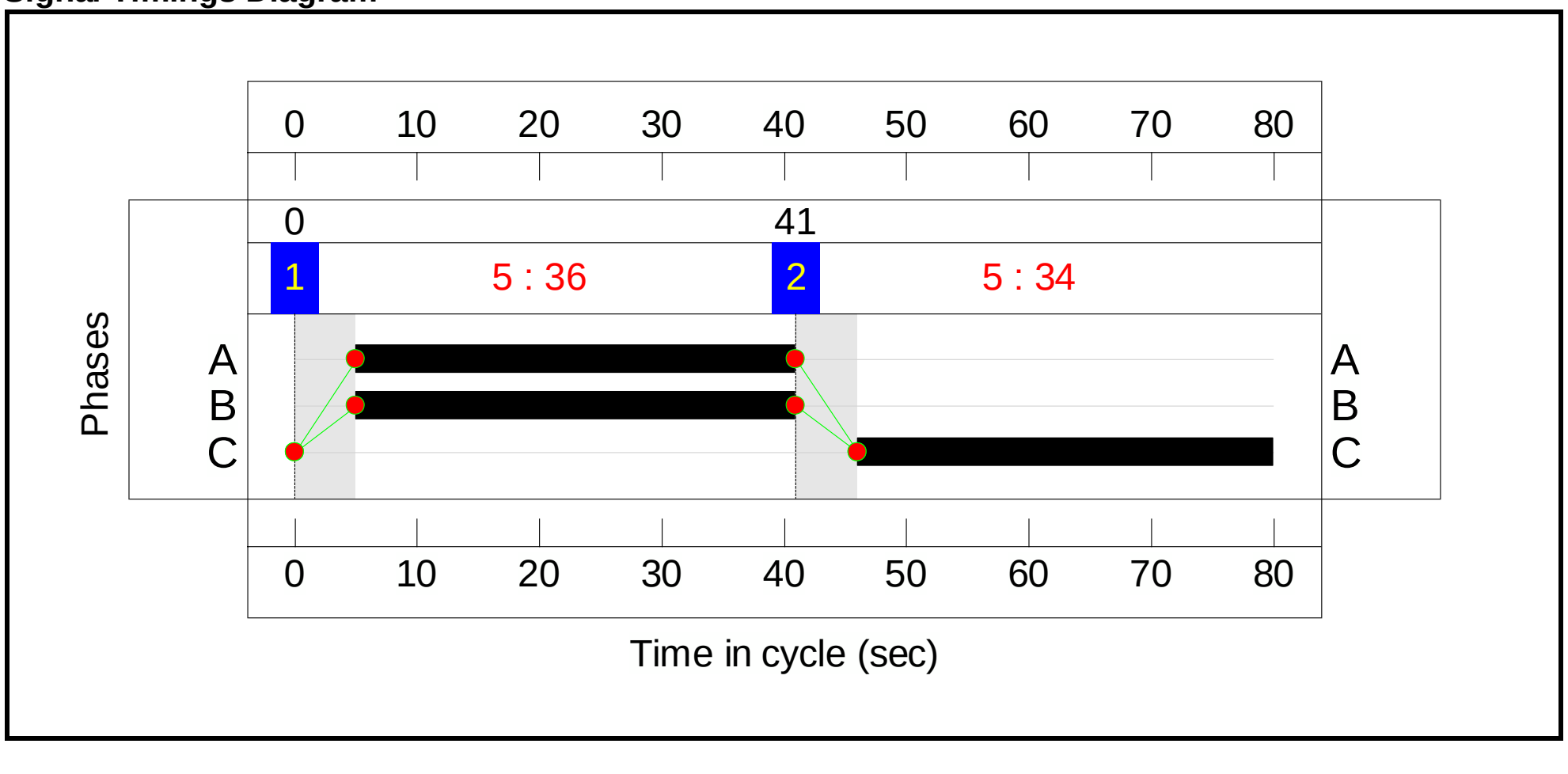
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	36	34
Change Point	0	41

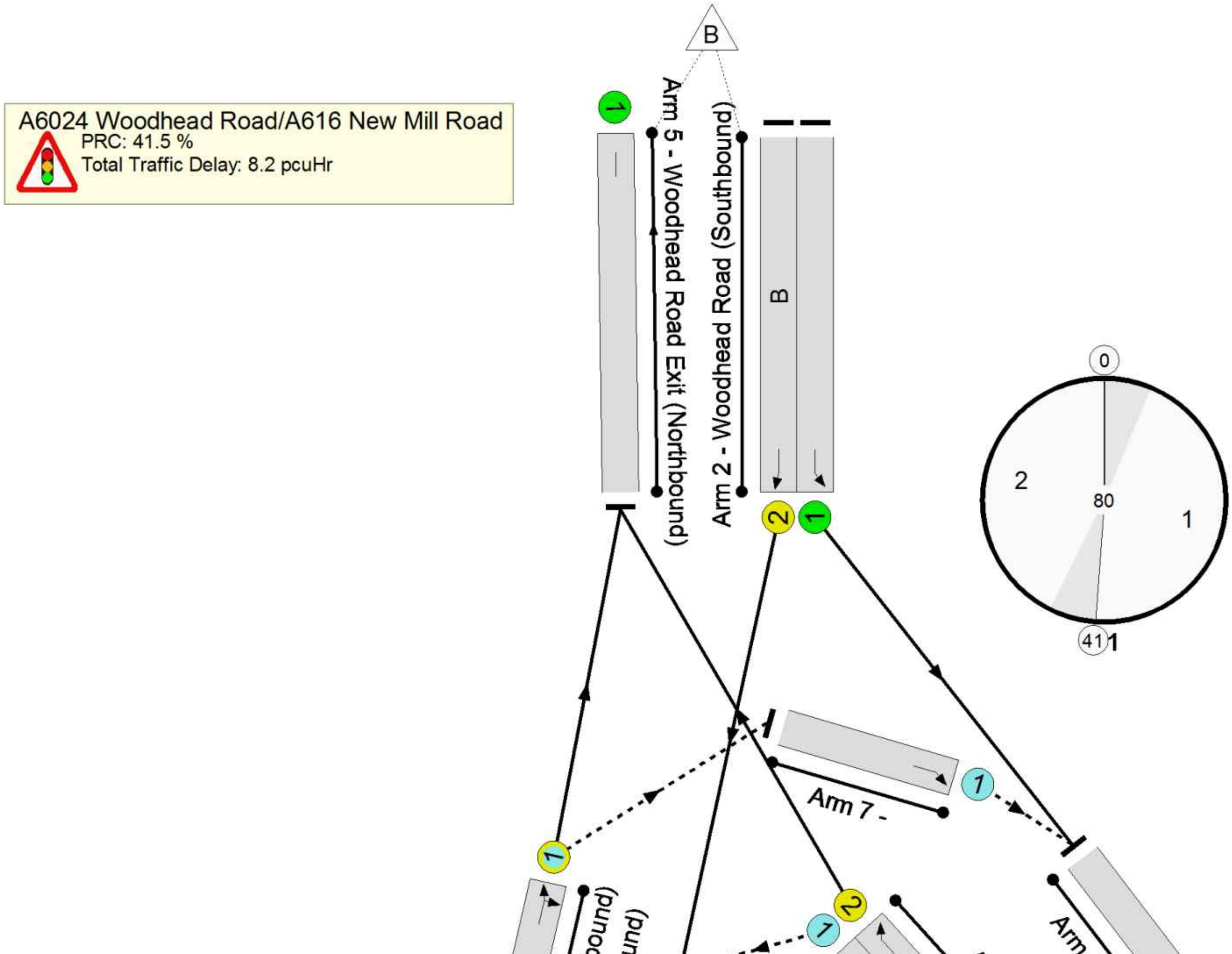
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**63.6%**
A6024 Woodhead Road/A616 New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**63.6%**
1/1	Woodhead Road (Northbound) Ahead Right	O	N/A	N/A	A		1	36	-	499	1800	785	63.6%
2/1	Woodhead Road (Southbound) Ahead	U	N/A	N/A	-		-	-	-	388	1800	1800	21.6%
2/2	Woodhead Road (Southbound) Ahead	U	N/A	N/A	B		1	36	-	332	1800	833	39.9%
3/1	New Mill Road Left	O	N/A	N/A	-		-	-	-	5	1800	1225	0.4%
3/2	New Mill Road Ahead	U	N/A	N/A	C		1	34	-	499	1800	788	63.4%
4/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	978	Inf	Inf	0.0%
6/1	New Mill Road Exit	U	N/A	N/A	-		-	-	-	408	Inf	Inf	0.0%
7/1	Ahead	O	N/A	N/A	-		-	-	-	20	1800	526	3.8%

Full Input Data And Results

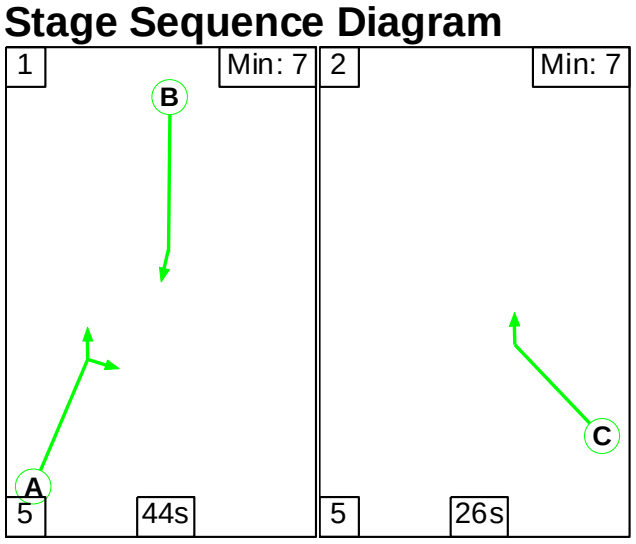
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/New Mill Road	**-**	**-**	**42**	**3**	**0**	**6.0**	**2.2**	**0.0**	**8.2**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/A616 New Mill Road	**-**	**-**	**42**	**3**	**0**	**6.0**	**2.2**	**0.0**	**8.2**	**-**	**-**	**-**	**-**
1/1	499	499	20	0	0	2.3	0.9	-	3.1	22.6	8.3	0.9	9.2
2/1	388	388	-	-	-	0.0	0.1	-	0.1	1.3	0.0	0.1	0.1
2/2	332	332	-	-	-	1.3	0.3	-	1.6	17.8	4.8	0.3	5.1
3/1	5	5	2	3	0	0.0	0.0	-	0.0	1.5	0.0	0.0	0.0
3/2	499	499	-	-	-	2.4	0.9	-	3.3	23.7	8.6	0.9	9.5
4/1	337	337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	978	978	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	408	408	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	20	20	20	0	0	0.0	0.0	-	0.0	3.6	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 41.5 Total Delay for Signalled Lanes (pcuHr): 8.06 Cycle Time (s): 80
PRC Over All Lanes (%): 41.5 Total Delay Over All Lanes(pcuHr): 8.22

Full Input Data And Results

Scenario 4: 'Base PM 2020' (FG4: 'Base 2020 PM', Plan 1: 'Network Control Plan 1')

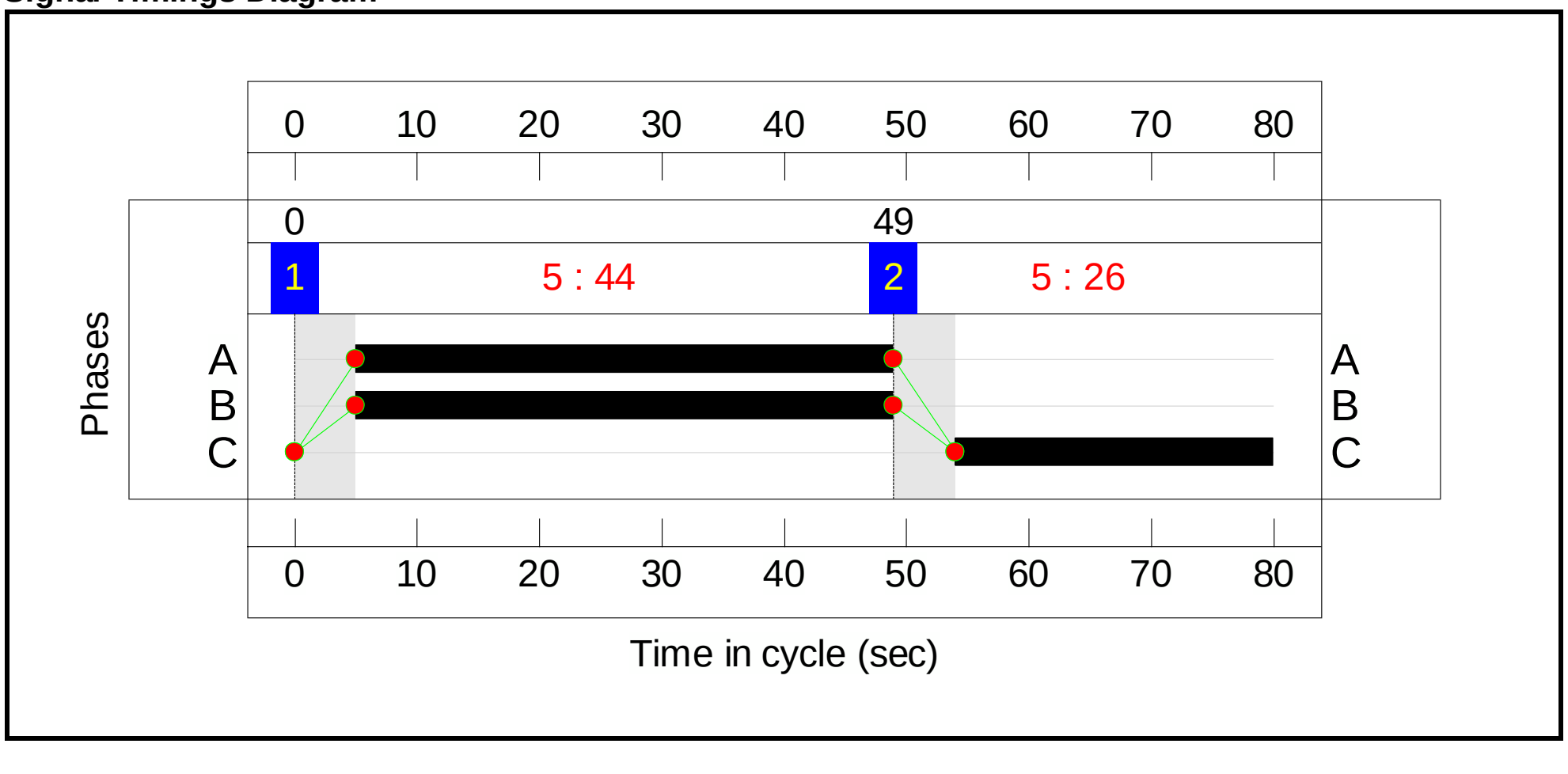
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	44	26
Change Point	0	49

Signal Timings Diagram



Full Input Data And Results

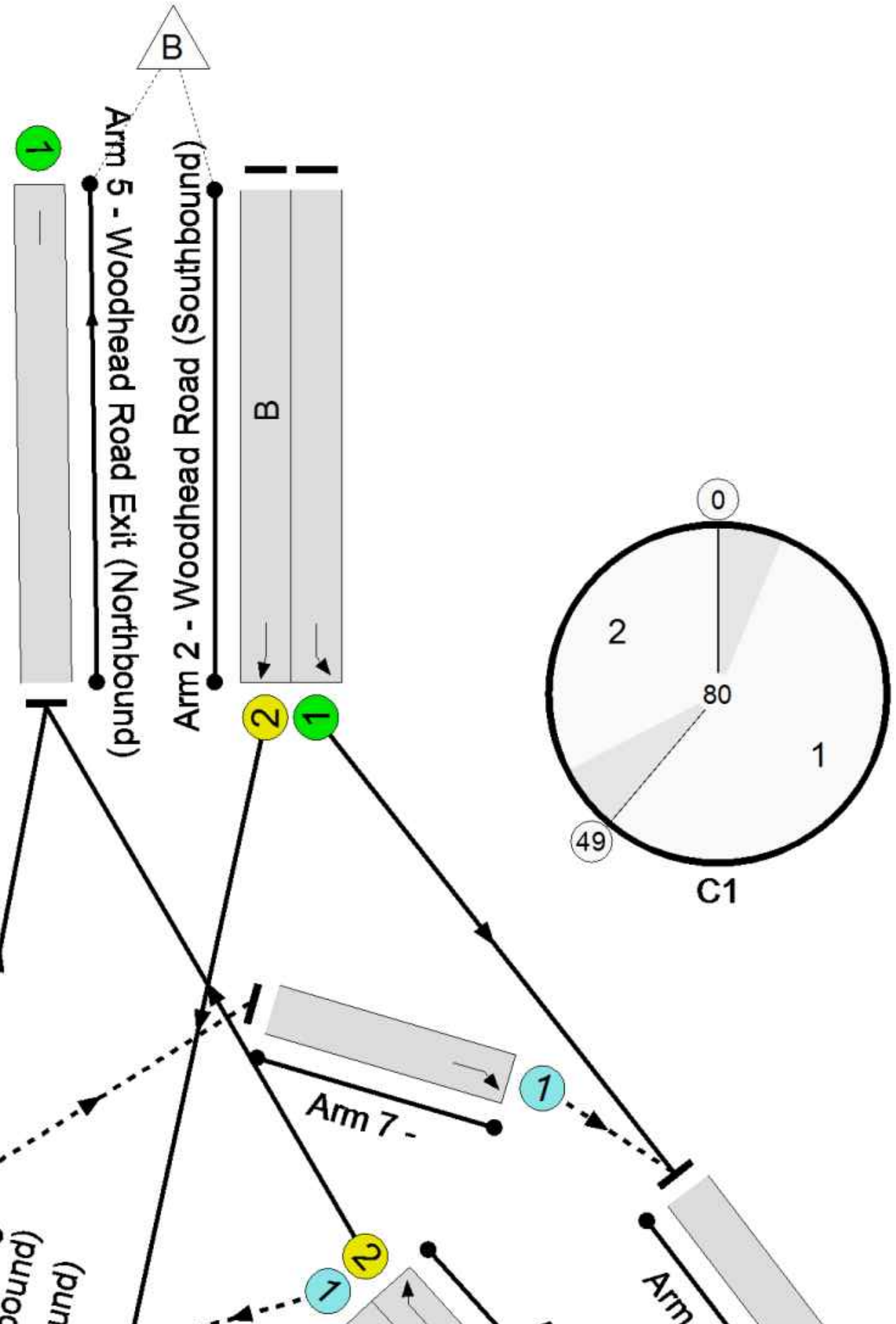
Network Layout Diagram

Full Input Data And Results

A6024 Woodhead Road/A616 New Mill Road

PRC: 48.7 %

Total Traffic Delay: 7.4 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**60.5%**
A6024 Woodhead Road/A616 New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**60.5%**
1/1	Woodhead Road (Northbound) Ahead Right	O	N/A	N/A	A		1	44	-	397	1800	954	41.6%
2/1	Woodhead Road (Southbound) Ahead	U	N/A	N/A	-		-	-	-	553	1800	1800	30.7%
2/2	Woodhead Road (Southbound) Ahead	U	N/A	N/A	B		1	44	-	613	1800	1013	60.5%
3/1	New Mill Road Left	O	N/A	N/A	-		-	-	-	11	1800	1055	1.0%
3/2	New Mill Road Ahead	U	N/A	N/A	C		1	26	-	363	1800	608	59.8%
4/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	624	Inf	Inf	0.0%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	746	Inf	Inf	0.0%
6/1	New Mill Road Exit	U	N/A	N/A	-		-	-	-	567	Inf	Inf	0.0%
7/1	Ahead	O	N/A	N/A	-		-	-	-	14	1800	495	2.8%

Full Input Data And Results

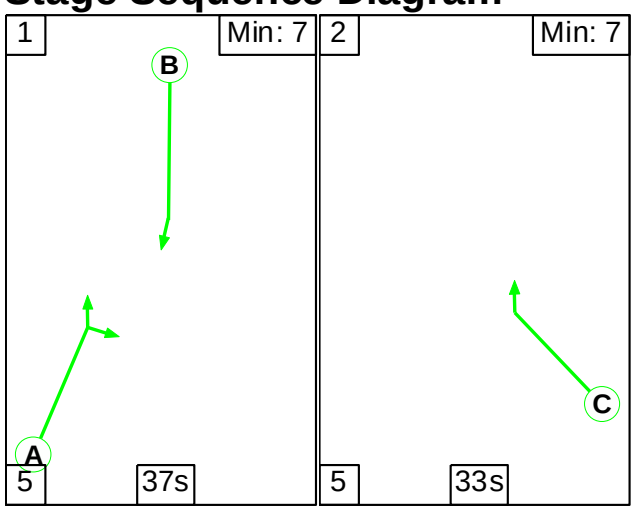
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/New Mill Road	**-**	**-**	**34**	**5**	**0**	**5.3**	**2.1**	**0.0**	**7.4**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/A616 New Mill Road	**-**	**-**	**34**	**5**	**0**	**5.3**	**2.1**	**0.0**	**7.4**	**-**	**-**	**-**	**-**
1/1	397	397	14	0	0	1.1	0.4	-	1.5	13.2	5.0	0.4	5.3
2/1	553	553	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
2/2	613	613	-	-	-	2.0	0.8	-	2.7	16.1	9.0	0.8	9.8
3/1	11	11	6	5	0	0.0	0.0	-	0.0	1.7	0.0	0.0	0.0
3/2	363	363	-	-	-	2.2	0.7	-	3.0	29.3	6.7	0.7	7.4
4/1	624	624	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	746	746	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	567	567	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	14	14	14	0	0	0.0	0.0	-	0.0	3.7	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 48.7 Total Delay for Signalled Lanes (pcuHr): 7.16 Cycle Time (s): 80
PRC Over All Lanes (%): 48.7 Total Delay Over All Lanes(pcuHr): 7.40

Full Input Data And Results

Scenario 5: 'Base 2015 AM + Com' (FG5: 'Base 2015 AM + Com', Plan 1: 'Network Control Plan 1')

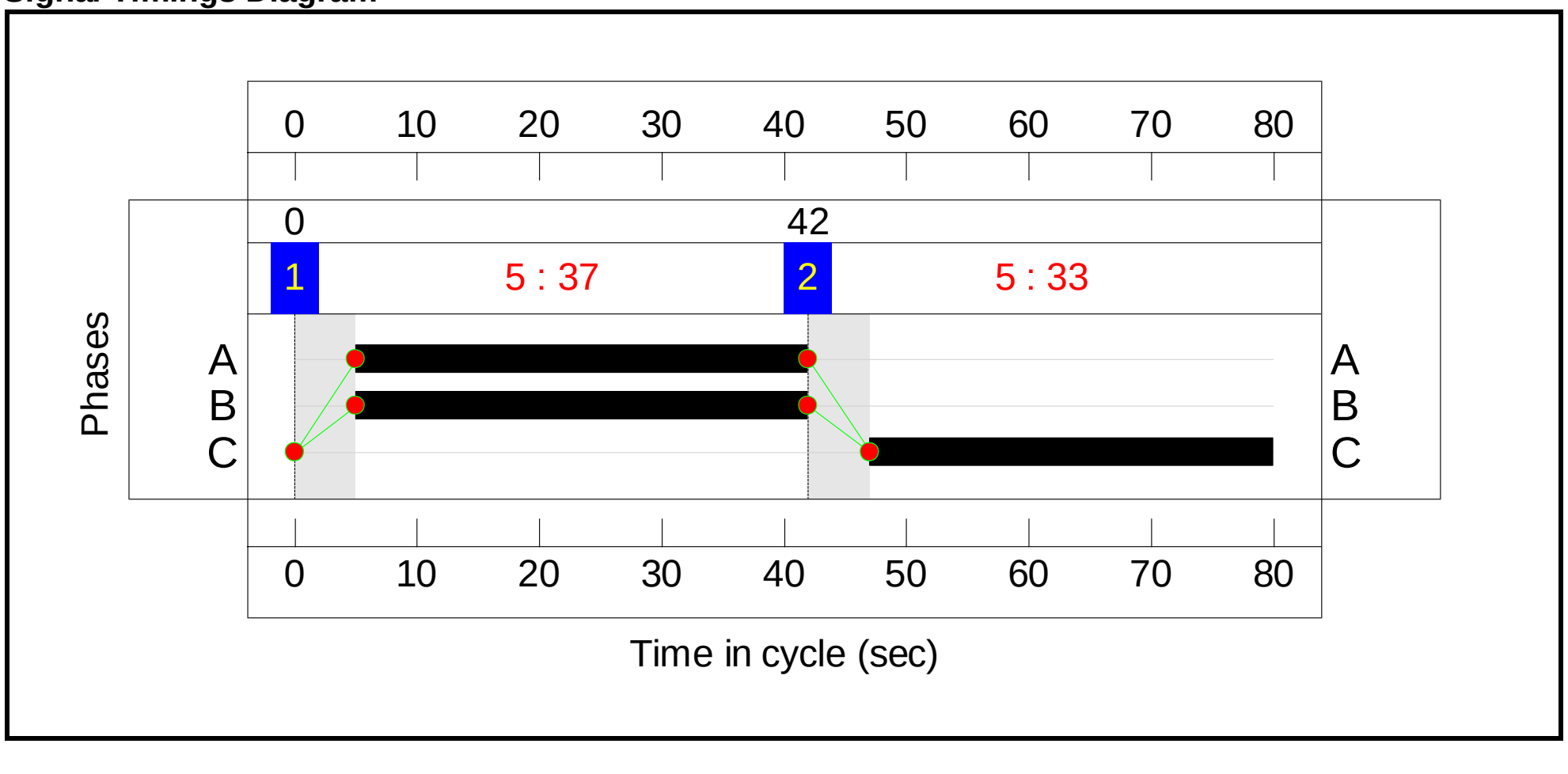
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	37	33
Change Point	0	42

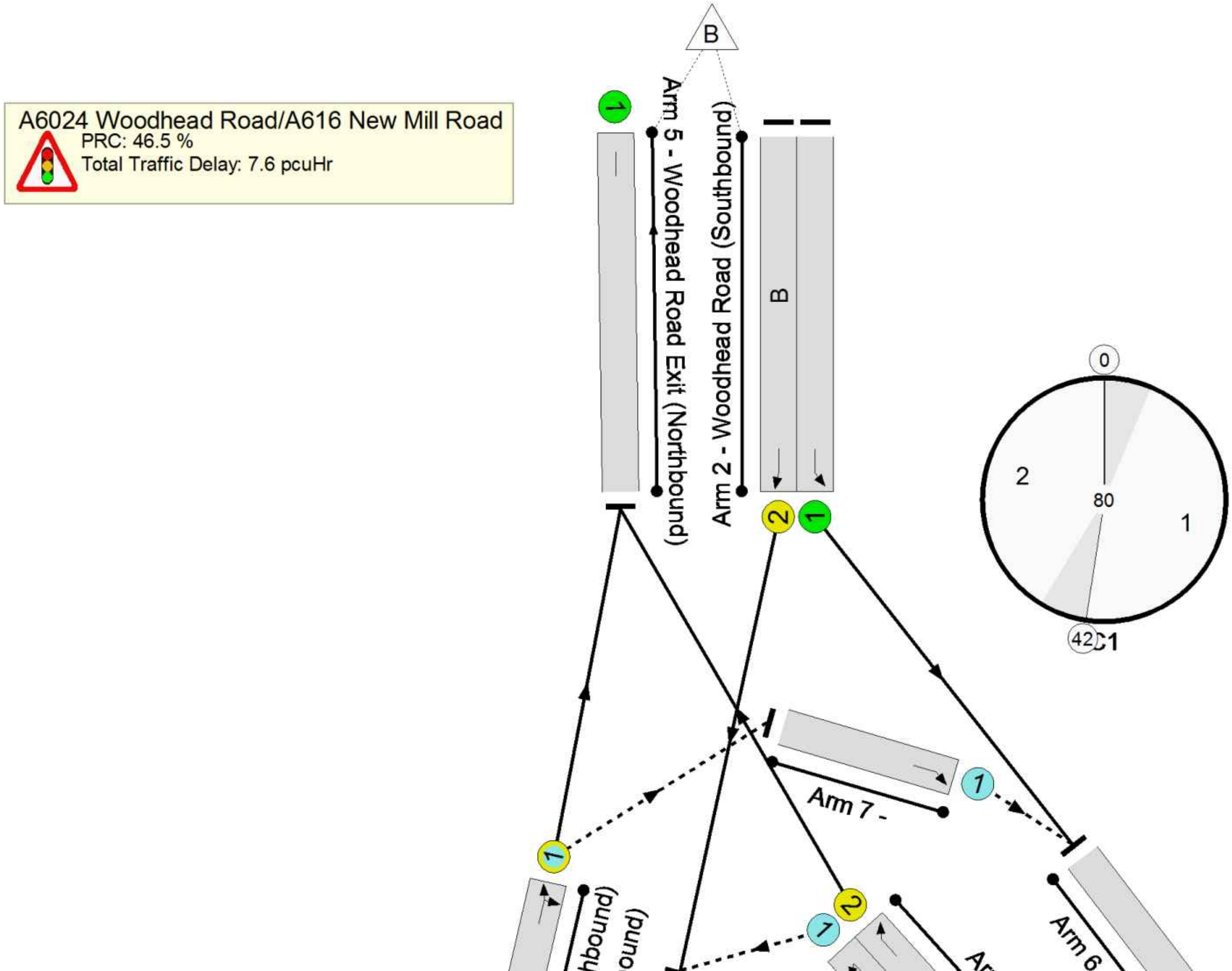
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**61.4%**
A6024 Woodhead Road/A616 New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**61.4%**
1/1	Woodhead Road (Northbound) Ahead Right	O	N/A	N/A	A		1	37	-	491	1800	808	60.7%
2/1	Woodhead Road (Southbound) Ahead	U	N/A	N/A	-		-	-	-	365	1800	1800	20.3%
2/2	Woodhead Road (Southbound) Ahead	U	N/A	N/A	B		1	37	-	319	1800	855	37.3%
3/1	New Mill Road Left	O	N/A	N/A	-		-	-	-	5	1800	1214	0.4%
3/2	New Mill Road Ahead	U	N/A	N/A	C		1	33	-	470	1800	765	61.4%
4/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	324	Inf	Inf	0.0%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	942	Inf	Inf	0.0%
6/1	New Mill Road Exit	U	N/A	N/A	-		-	-	-	384	Inf	Inf	0.0%
7/1	Ahead	O	N/A	N/A	-		-	-	-	19	1800	530	3.6%

Full Input Data And Results

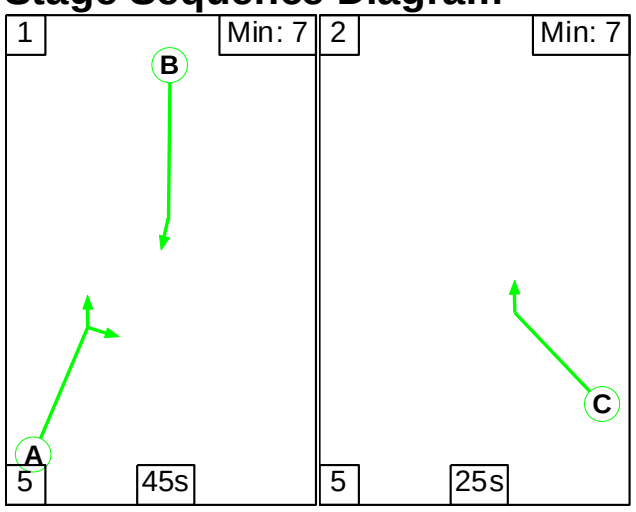
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/New Mill Road	**-**	**-**	**40**	**3**	**0**	**5.6**	**2.0**	**0.0**	**7.6**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/A616 New Mill Road	**-**	**-**	**40**	**3**	**0**	**5.6**	**2.0**	**0.0**	**7.6**	**-**	**-**	**-**	**-**
1/1	491	491	19	0	0	2.1	0.8	-	2.9	21.1	8.0	0.8	8.8
2/1	365	365	-	-	-	0.0	0.1	-	0.1	1.3	0.0	0.1	0.1
2/2	319	319	-	-	-	1.2	0.3	-	1.5	16.8	4.5	0.3	4.8
3/1	5	5	2	3	0	0.0	0.0	-	0.0	1.5	0.0	0.0	0.0
3/2	470	470	-	-	-	2.3	0.8	-	3.1	24.0	8.1	0.8	8.9
4/1	324	324	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	942	942	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	384	384	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	19	19	19	0	0	0.0	0.0	-	0.0	3.5	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 46.5 Total Delay for Signalled Lanes (pcuHr): 7.50 Cycle Time (s): 80
PRC Over All Lanes (%): 46.5 Total Delay Over All Lanes(pcuHr): 7.65

Full Input Data And Results

Scenario 6: 'Base 2015 PM + Com' (FG6: 'Base 2015 PM + Com', Plan 1: 'Network Control Plan 1')

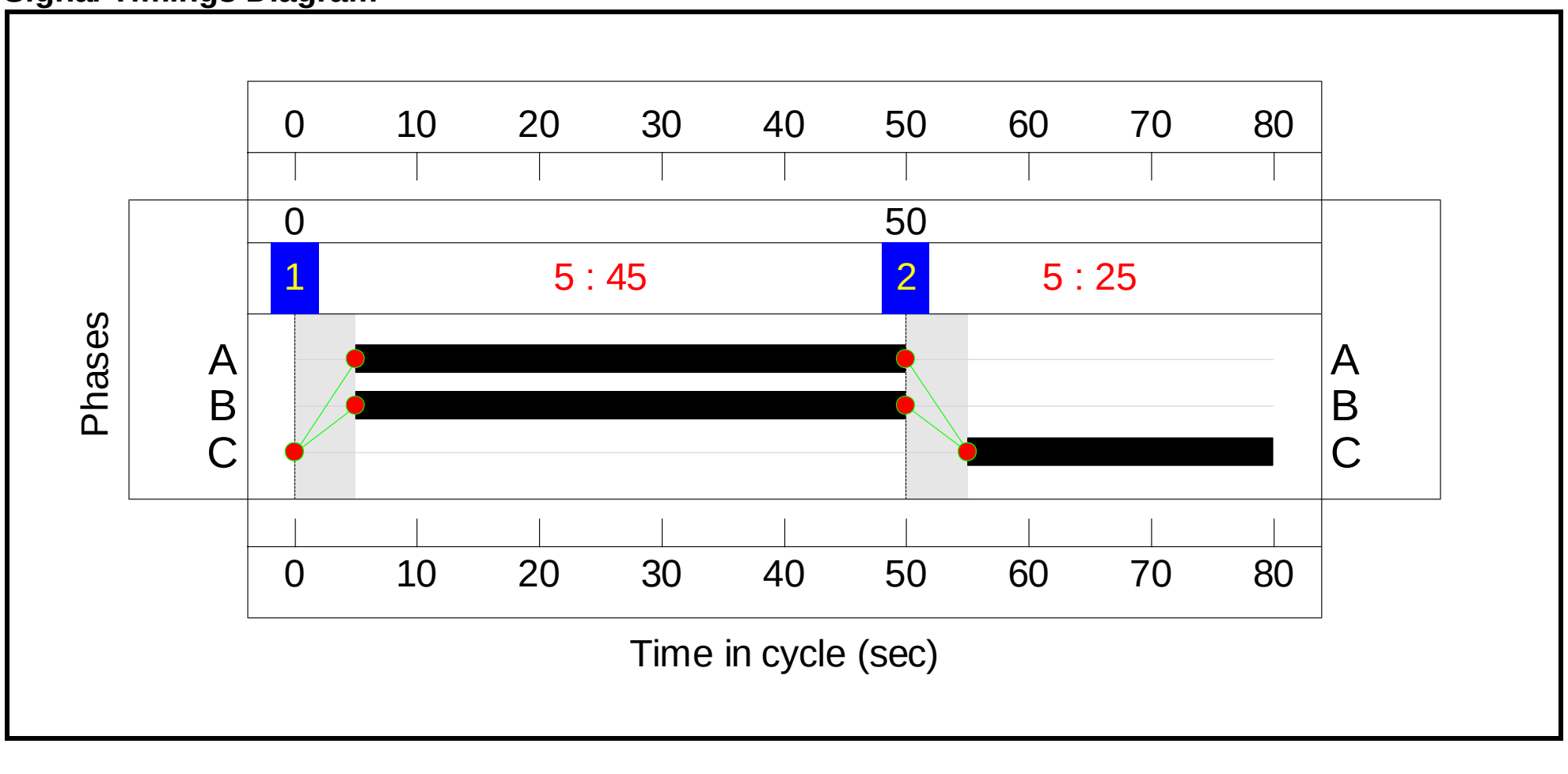
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	45	25
Change Point	0	50

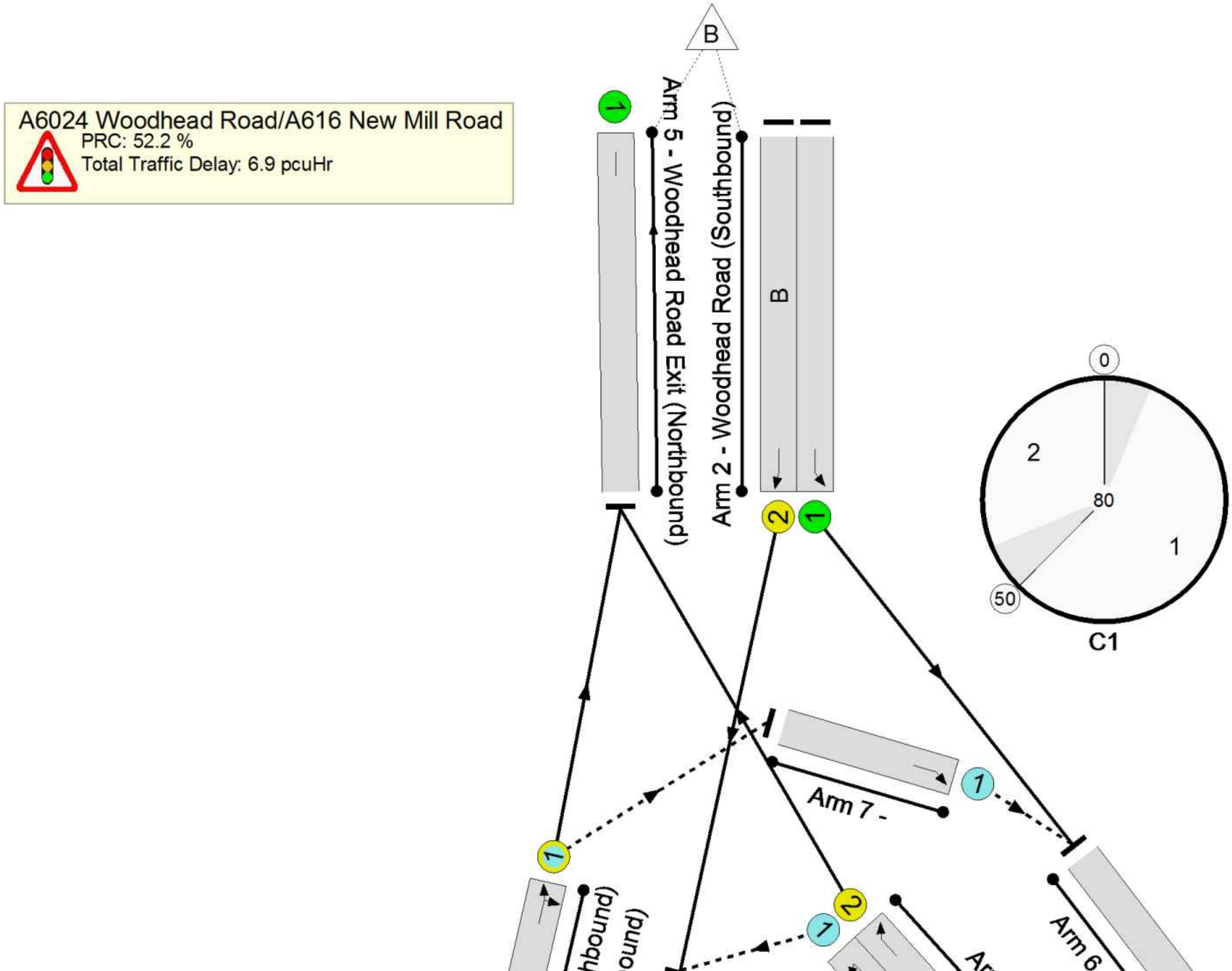
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**59.1%**
A6024 Woodhead Road/A616 New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**59.1%**
1/1	Woodhead Road (Northbound) Ahead Right	O	N/A	N/A	A		1	45	-	386	1800	979	39.4%
2/1	Woodhead Road (Southbound) Ahead	U	N/A	N/A	-		-	-	-	527	1800	1800	29.3%
2/2	Woodhead Road (Southbound) Ahead	U	N/A	N/A	B		1	45	-	600	1800	1035	58.0%
3/1	New Mill Road Left	O	N/A	N/A	-		-	-	-	10	1800	1044	1.0%
3/2	New Mill Road Ahead	U	N/A	N/A	C		1	25	-	346	1800	585	59.1%
4/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	610	Inf	Inf	0.0%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	719	Inf	Inf	0.0%
6/1	New Mill Road Exit	U	N/A	N/A	-		-	-	-	540	Inf	Inf	0.0%
7/1	Ahead	O	N/A	N/A	-		-	-	-	13	1800	500	2.6%

Full Input Data And Results

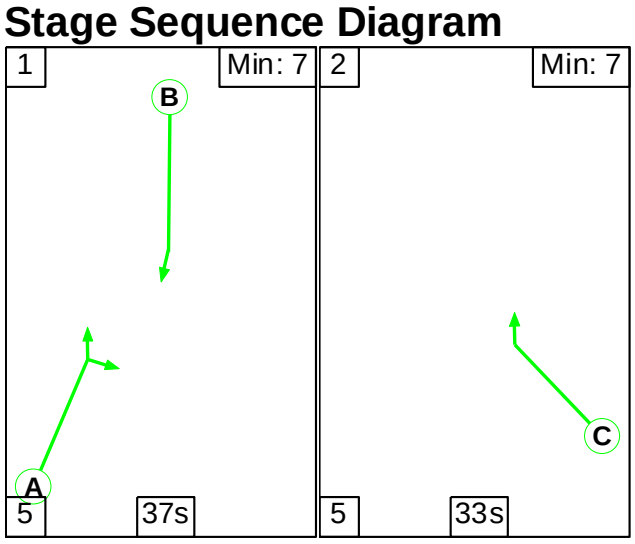
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/New Mill Road	**-**	**-**	**32**	**4**	**0**	**5.0**	**2.0**	**0.0**	**6.9**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/A616 New Mill Road	**-**	**-**	**32**	**4**	**0**	**5.0**	**2.0**	**0.0**	**6.9**	**-**	**-**	**-**	**-**
1/1	386	386	13	0	0	1.0	0.3	-	1.3	12.4	4.6	0.3	4.9
2/1	527	527	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
2/2	600	600	-	-	-	1.8	0.7	-	2.5	15.0	8.5	0.7	9.2
3/1	10	10	6	4	0	0.0	0.0	-	0.0	1.7	0.0	0.0	0.0
3/2	346	346	-	-	-	2.2	0.7	-	2.9	30.1	6.3	0.7	7.1
4/1	610	610	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	719	719	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	540	540	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	13	13	13	0	0	0.0	0.0	-	0.0	3.7	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 52.2 Total Delay for Signalled Lanes (pcuHr): 6.71 Cycle Time (s): 80
PRC Over All Lanes (%): 52.2 Total Delay Over All Lanes(pcuHr): 6.93

Full Input Data And Results

Scenario 7: 'Base 2020 AM + Com' (FG7: 'Base 2020 AM + Com', Plan 1: 'Network Control Plan 1')

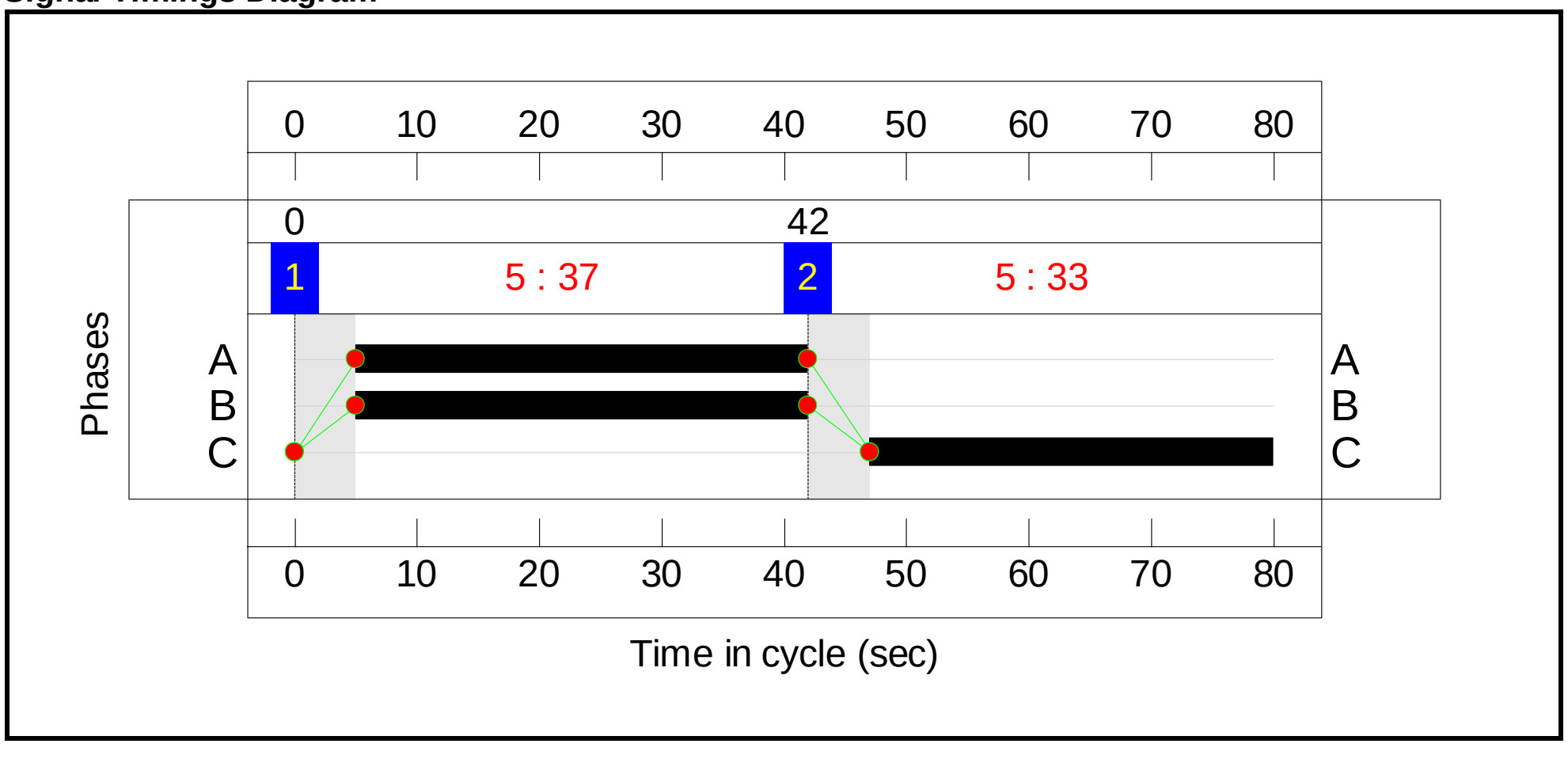
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	37	33
Change Point	0	42

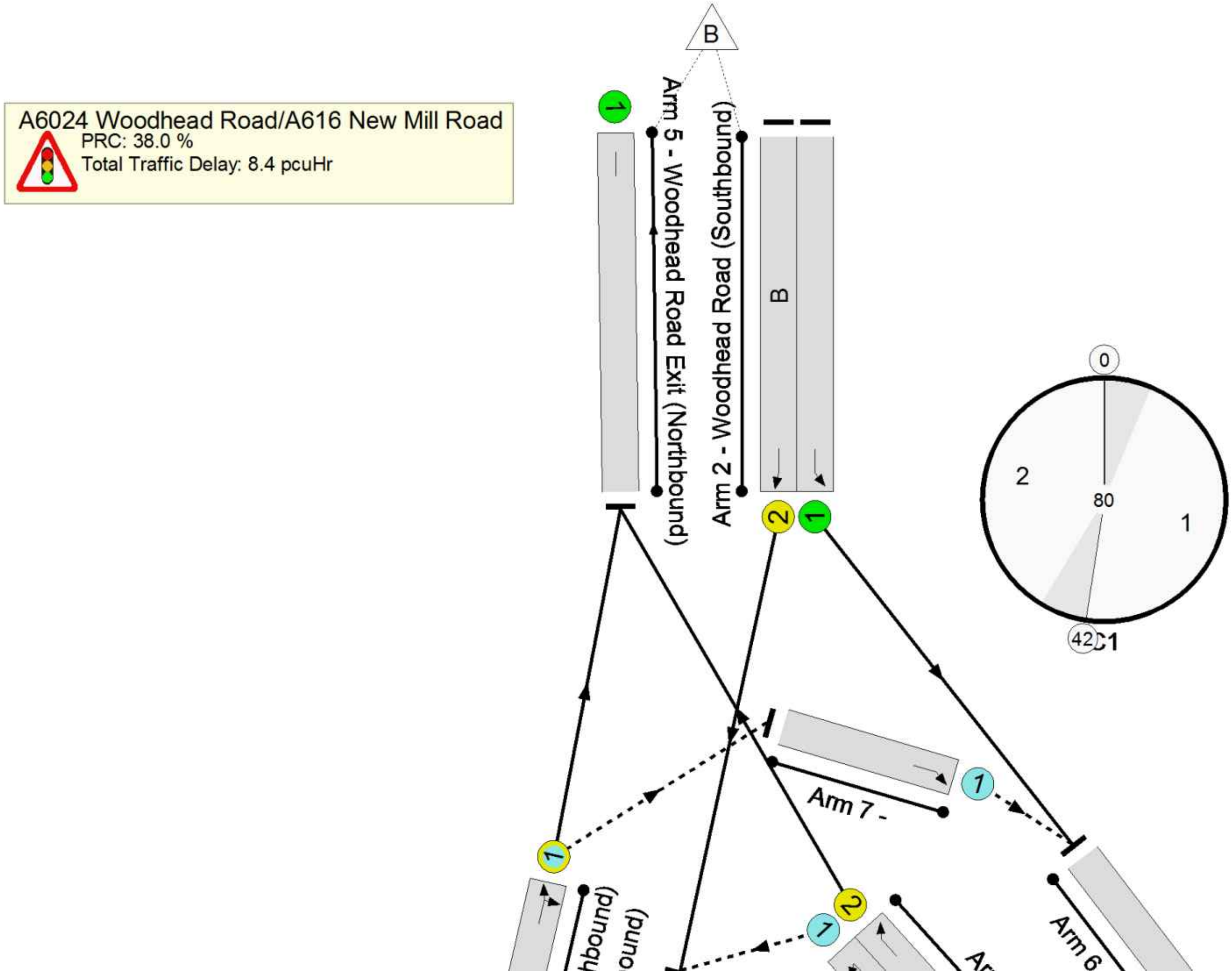
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**65.2%**
A6024 Woodhead Road/A616 New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**65.2%**
1/1	Woodhead Road (Northbound) Ahead Right	O	N/A	N/A	A		1	37	-	520	1800	808	64.4%
2/1	Woodhead Road (Southbound) Ahead	U	N/A	N/A	-		-	-	-	388	1800	1800	21.6%
2/2	Woodhead Road (Southbound) Ahead	U	N/A	N/A	B		1	37	-	338	1800	855	39.5%
3/1	New Mill Road Left	O	N/A	N/A	-		-	-	-	5	1800	1210	0.4%
3/2	New Mill Road Ahead	U	N/A	N/A	C		1	33	-	499	1800	765	65.2%
4/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	343	Inf	Inf	0.0%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	999	Inf	Inf	0.0%
6/1	New Mill Road Exit	U	N/A	N/A	-		-	-	-	408	Inf	Inf	0.0%
7/1	Ahead	O	N/A	N/A	-		-	-	-	20	1800	526	3.8%

Full Input Data And Results

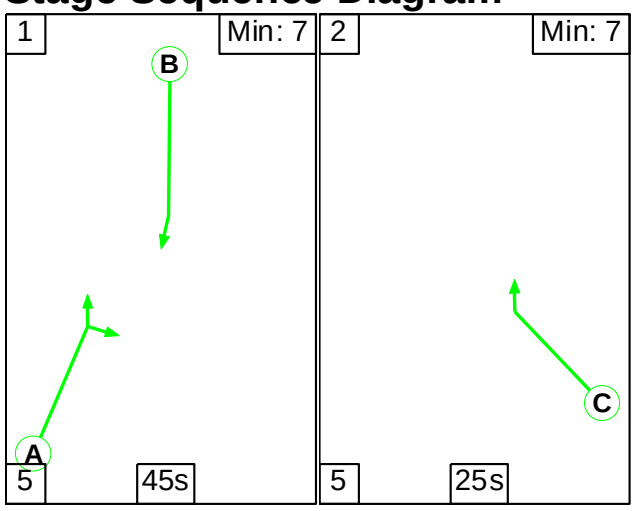
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/New Mill Road	**-**	**-**	**42**	**3**	**0**	**6.1**	**2.3**	**0.0**	**8.4**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/A616 New Mill Road	**-**	**-**	**42**	**3**	**0**	**6.1**	**2.3**	**0.0**	**8.4**	**-**	**-**	**-**	**-**
1/1	520	520	20	0	0	2.3	0.9	-	3.2	22.1	8.7	0.9	9.6
2/1	388	388	-	-	-	0.0	0.1	-	0.1	1.3	0.0	0.1	0.1
2/2	338	338	-	-	-	1.3	0.3	-	1.6	17.1	4.8	0.3	5.1
3/1	5	5	2	3	0	0.0	0.0	-	0.0	1.5	0.0	0.0	0.0
3/2	499	499	-	-	-	2.5	0.9	-	3.5	25.0	8.7	0.9	9.7
4/1	343	343	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	999	999	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	408	408	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	20	20	20	0	0	0.0	0.0	-	0.0	3.6	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 38.0 Total Delay for Signalled Lanes (pcuHr): 8.26 Cycle Time (s): 80
PRC Over All Lanes (%): 38.0 Total Delay Over All Lanes(pcuHr): 8.42

Full Input Data And Results

Scenario 8: 'Base 2020 PM + Com' (FG8: 'Base 2020 PM + Com', Plan 1: 'Network Control Plan 1')

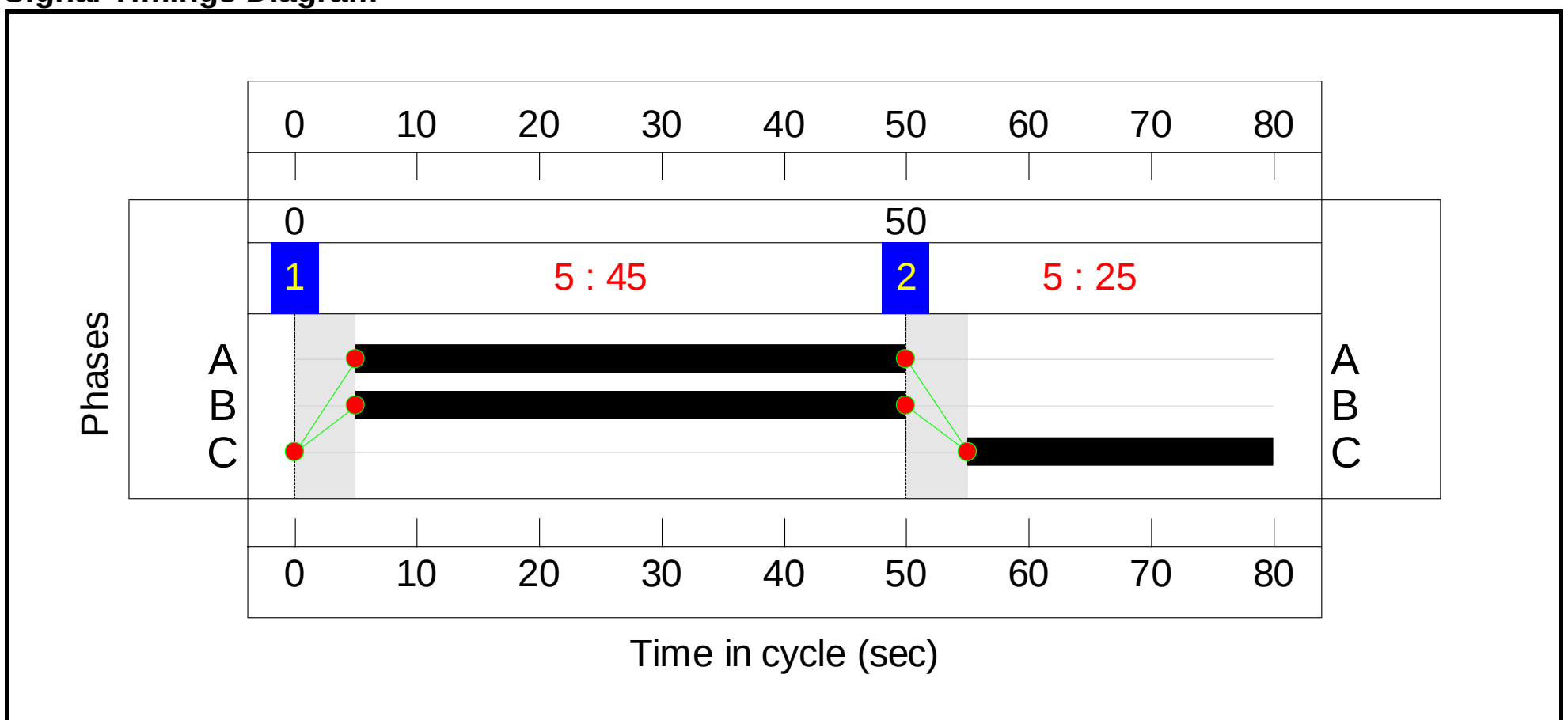
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	45	25
Change Point	0	50

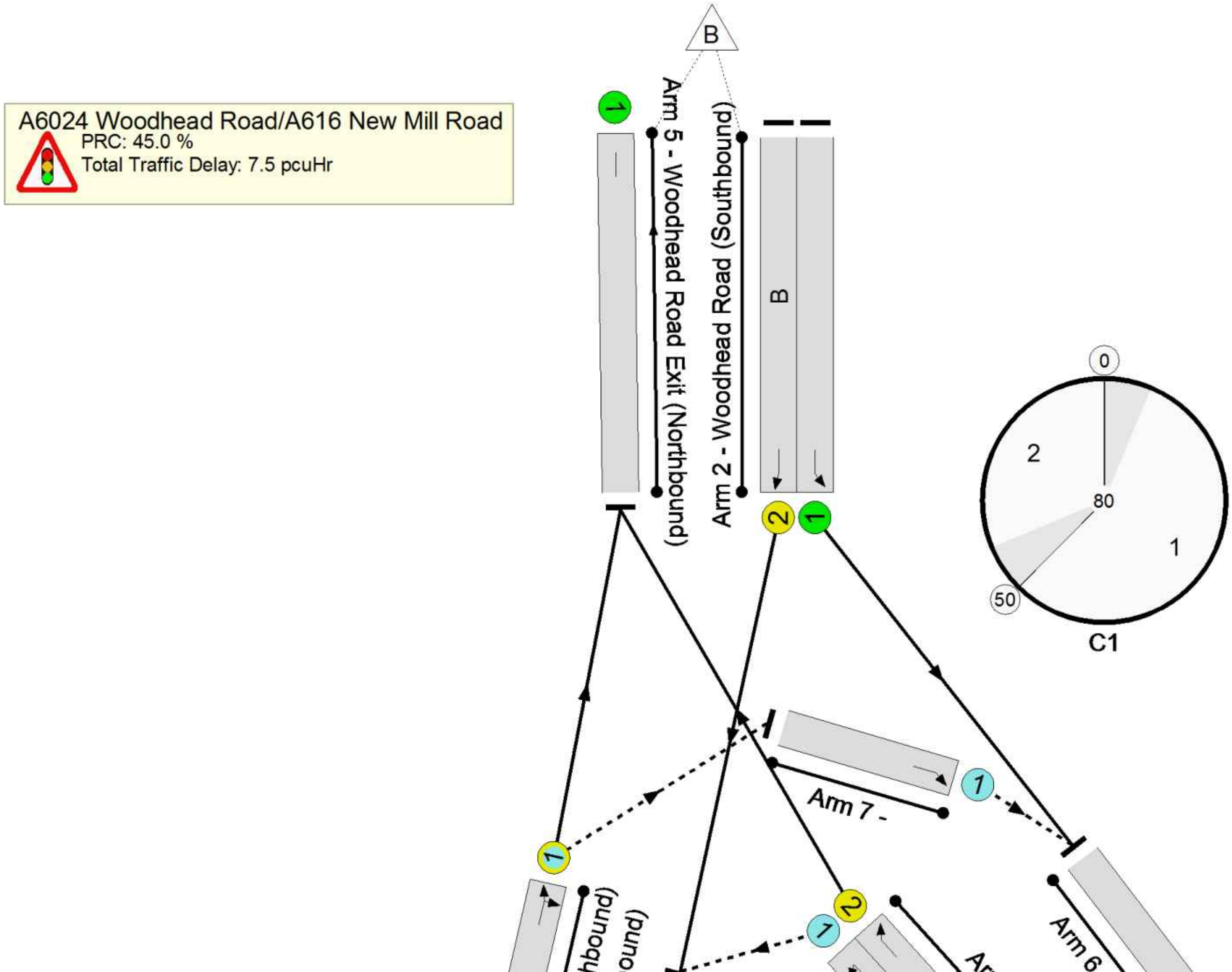
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**62.1%**
A6024 Woodhead Road/A616 New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**62.1%**
1/1	Woodhead Road (Northbound) Ahead Right	O	N/A	N/A	A		1	45	-	405	1800	976	41.5%
2/1	Woodhead Road (Southbound) Ahead	U	N/A	N/A	-		-	-	-	553	1800	1800	30.7%
2/2	Woodhead Road (Southbound) Ahead	U	N/A	N/A	B		1	45	-	629	1800	1035	60.8%
3/1	New Mill Road Left	O	N/A	N/A	-		-	-	-	11	1800	1038	1.1%
3/2	New Mill Road Ahead	U	N/A	N/A	C		1	25	-	363	1800	585	62.1%
4/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	640	Inf	Inf	0.0%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	754	Inf	Inf	0.0%
6/1	New Mill Road Exit	U	N/A	N/A	-		-	-	-	567	Inf	Inf	0.0%
7/1	Ahead	O	N/A	N/A	-		-	-	-	14	1800	495	2.8%

Full Input Data And Results

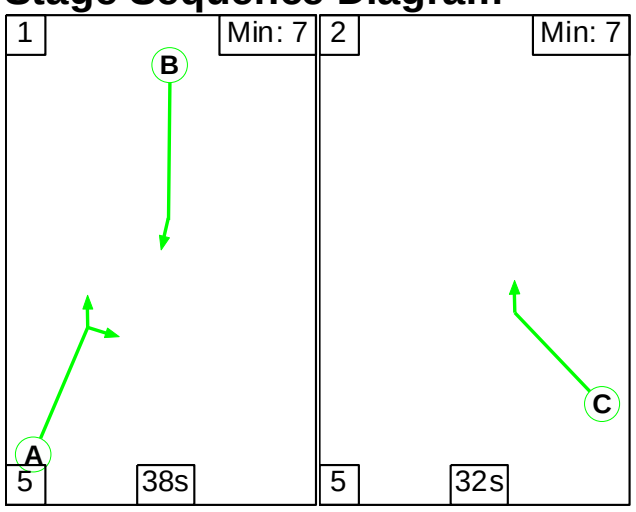
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/New Mill Road	**-**	**-**	**34**	**5**	**0**	**5.3**	**2.2**	**0.0**	**7.5**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/A616 New Mill Road	**-**	**-**	**34**	**5**	**0**	**5.3**	**2.2**	**0.0**	**7.5**	**-**	**-**	**-**	**-**
1/1	405	405	14	0	0	1.1	0.4	-	1.4	12.6	5.0	0.4	5.3
2/1	553	553	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
2/2	629	629	-	-	-	1.9	0.8	-	2.7	15.5	9.1	0.8	9.9
3/1	11	11	6	5	0	0.0	0.0	-	0.0	1.8	0.0	0.0	0.0
3/2	363	363	-	-	-	2.3	0.8	-	3.1	30.9	6.8	0.8	7.6
4/1	640	640	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	754	754	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	567	567	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	14	14	14	0	0	0.0	0.0	-	0.0	3.7	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 45.0 Total Delay for Signalled Lanes (pcuHr): 7.25 Cycle Time (s): 80
PRC Over All Lanes (%): 45.0 Total Delay Over All Lanes(pcuHr): 7.49

Full Input Data And Results

Scenario 9: 'Base 2015 AM + Dev + Com' (FG9: 'Base 2015 AM + Dev + Com', Plan 1: 'Network Control Plan 1')

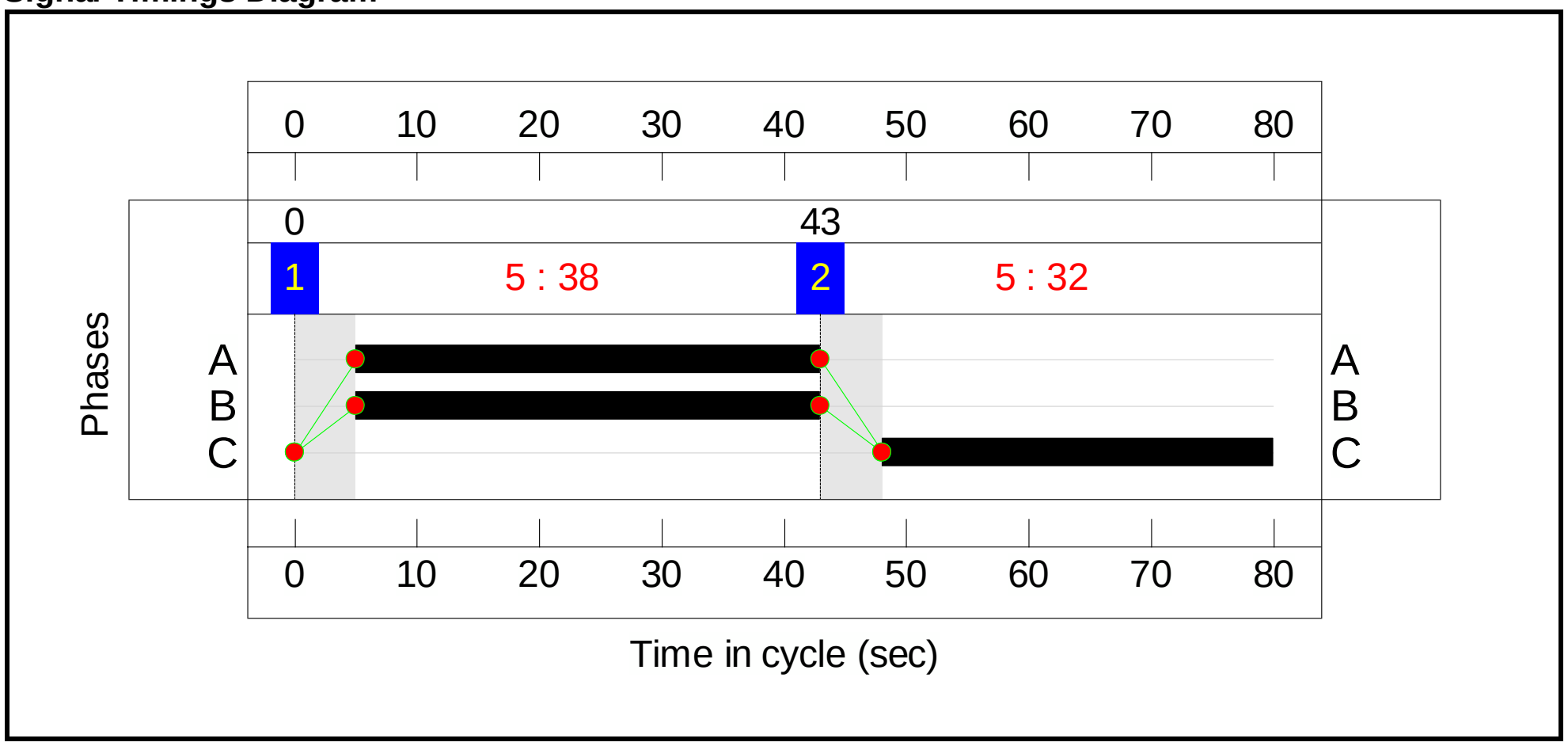
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	38	32
Change Point	0	43

Signal Timings Diagram



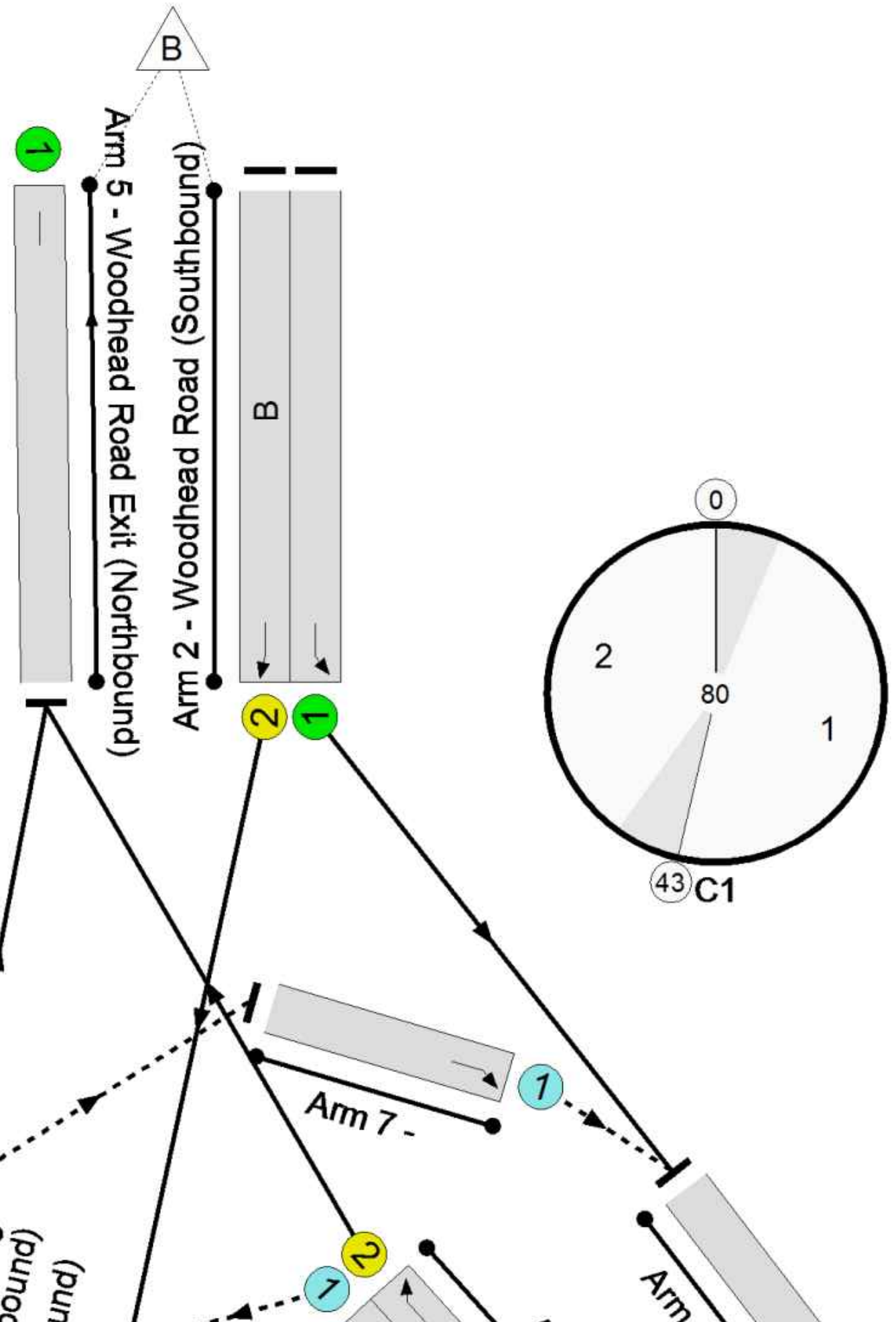
Full Input Data And Results

Network Layout Diagram

A6024 Woodhead Road/A616 New Mill Road

PRC: 41.7 %

Total Traffic Delay: 8.1 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**63.5%**
A6024 Woodhead Road/A616 New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**63.5%**
1/1	Woodhead Road (Northbound) Ahead Right	O	N/A	N/A	A		1	38	-	529	1800	833	63.5%
2/1	Woodhead Road (Southbound) Ahead	U	N/A	N/A	-		-	-	-	365	1800	1800	20.3%
2/2	Woodhead Road (Southbound) Ahead	U	N/A	N/A	B		1	38	-	338	1800	878	38.5%
3/1	New Mill Road Left	O	N/A	N/A	-		-	-	-	5	1800	1197	0.4%
3/2	New Mill Road Ahead	U	N/A	N/A	C		1	32	-	470	1800	743	63.3%
4/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	343	Inf	Inf	0.0%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	980	Inf	Inf	0.0%
6/1	New Mill Road Exit	U	N/A	N/A	-		-	-	-	384	Inf	Inf	0.0%
7/1	Ahead	O	N/A	N/A	-		-	-	-	19	1800	530	3.6%

Full Input Data And Results

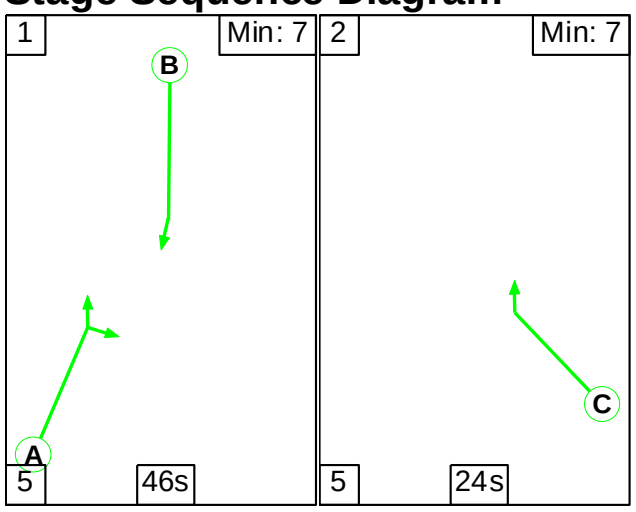
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/New Mill Road	**-**	**-**	**40**	**3**	**0**	**5.9**	**2.2**	**0.0**	**8.1**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/A616 New Mill Road	**-**	**-**	**40**	**3**	**0**	**5.9**	**2.2**	**0.0**	**8.1**	**-**	**-**	**-**	**-**
1/1	529	529	19	0	0	2.2	0.9	-	3.1	21.1	8.7	0.9	9.5
2/1	365	365	-	-	-	0.0	0.1	-	0.1	1.3	0.0	0.1	0.1
2/2	338	338	-	-	-	1.2	0.3	-	1.5	16.3	4.7	0.3	5.0
3/1	5	5	2	3	0	0.0	0.0	-	0.0	1.5	0.0	0.0	0.0
3/2	470	470	-	-	-	2.4	0.9	-	3.3	25.3	8.2	0.9	9.1
4/1	343	343	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	980	980	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	384	384	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	19	19	19	0	0	0.0	0.0	-	0.0	3.5	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 41.7 Total Delay for Signalled Lanes (pcuHr): 7.93 Cycle Time (s): 80
PRC Over All Lanes (%): 41.7 Total Delay Over All Lanes(pcuHr): 8.08

Full Input Data And Results

Scenario 10: 'Base 2015 PM + Dev + Com' (FG10: 'Base 2015 PM + Dev + Com', Plan 1: 'Network Control Plan 1')

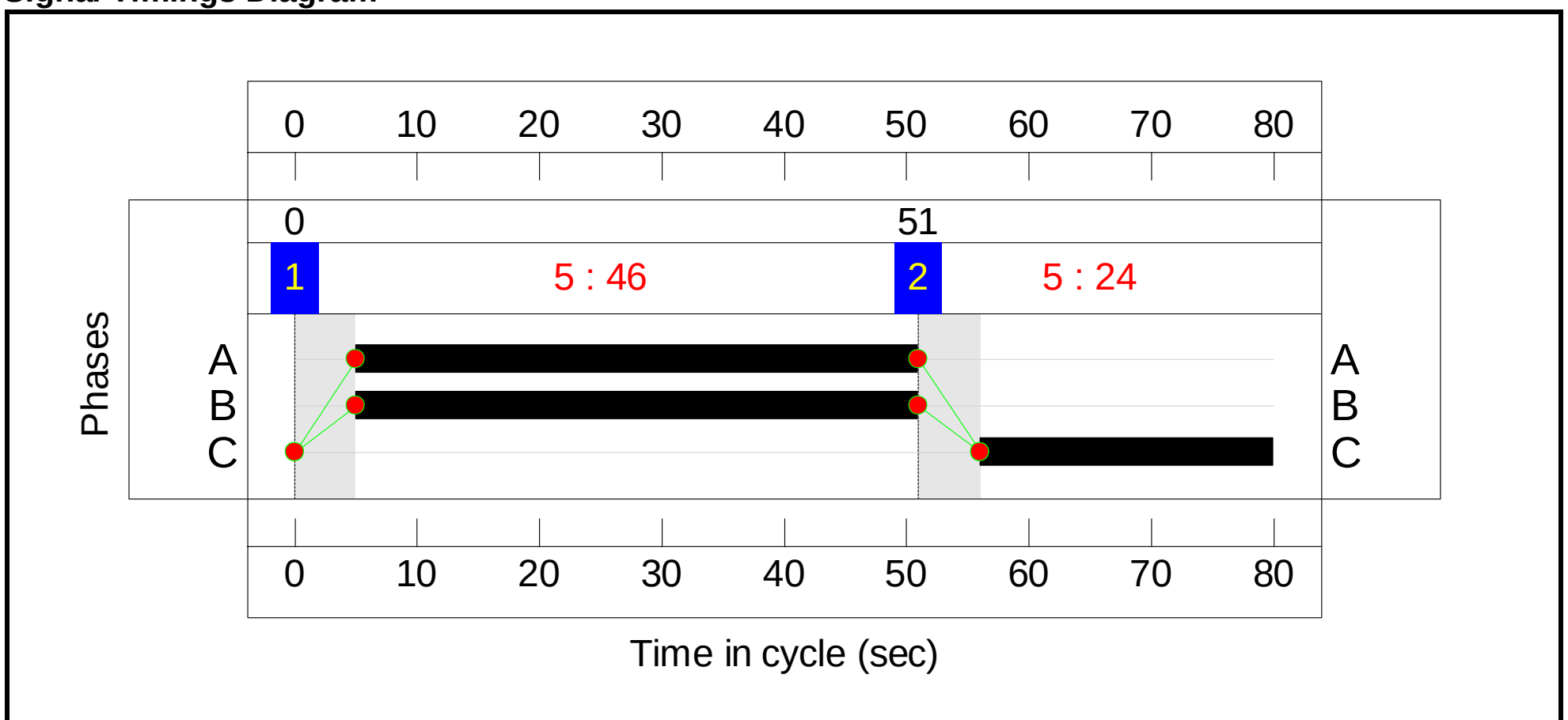
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	46	24
Change Point	0	51

Signal Timings Diagram



Full Input Data And Results

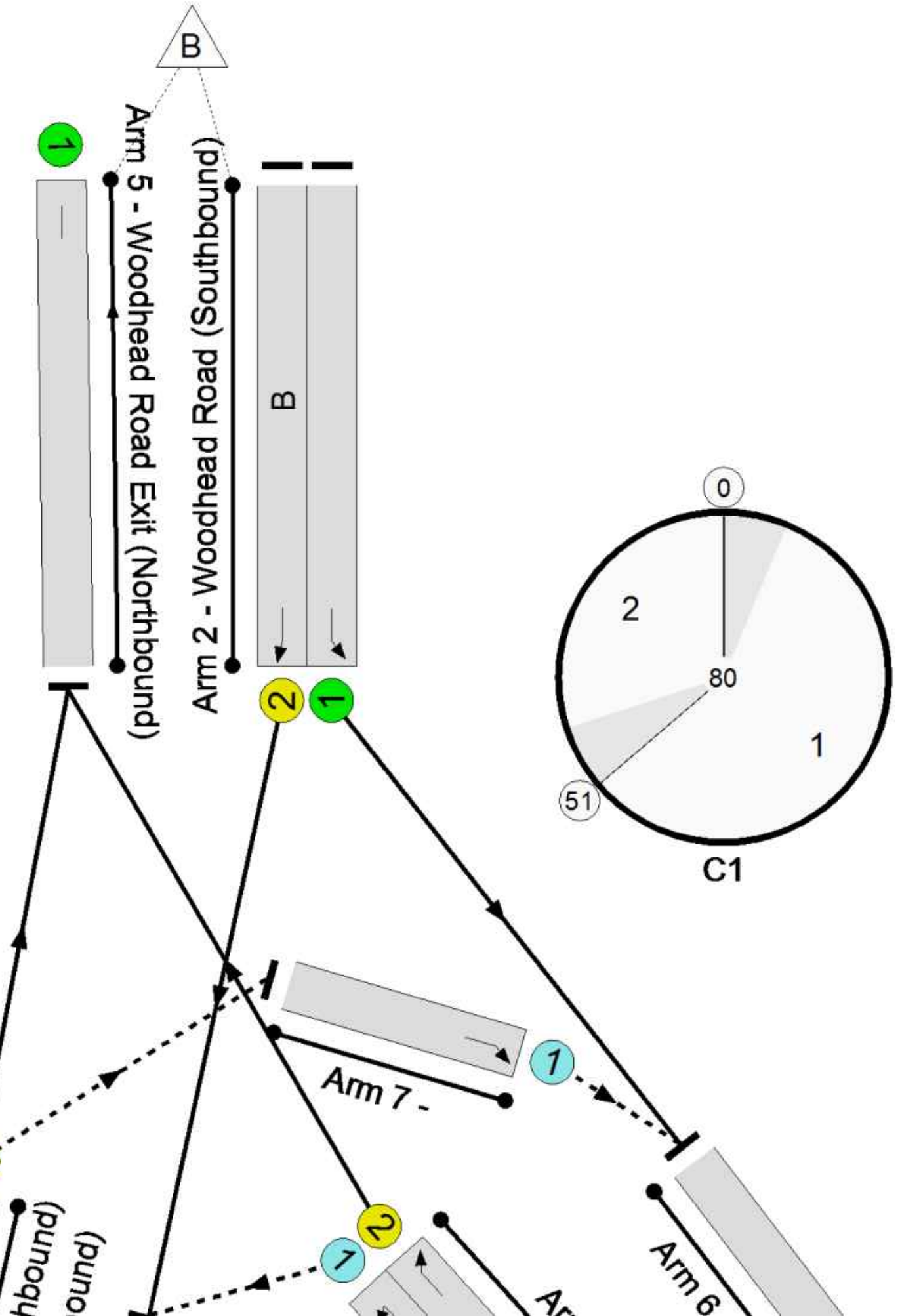
Network Layout Diagram

Full Input Data And Results

A6024 Woodhead Road/A616 New Mill Road

PRC: 46.3 %

Total Traffic Delay: 7.3 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**61.5%**
A6024 Woodhead Road/A616 New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**61.5%**
1/1	Woodhead Road (Northbound) Ahead Right	O	N/A	N/A	A		1	46	-	410	1800	1003	40.9%
2/1	Woodhead Road (Southbound) Ahead	U	N/A	N/A	-		-	-	-	527	1800	1800	29.3%
2/2	Woodhead Road (Southbound) Ahead	U	N/A	N/A	B		1	46	-	637	1800	1058	60.2%
3/1	New Mill Road Left	O	N/A	N/A	-		-	-	-	10	1800	1022	1.0%
3/2	New Mill Road Ahead	U	N/A	N/A	C		1	24	-	346	1800	563	61.5%
4/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	647	Inf	Inf	0.0%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	743	Inf	Inf	0.0%
6/1	New Mill Road Exit	U	N/A	N/A	-		-	-	-	540	Inf	Inf	0.0%
7/1	Ahead	O	N/A	N/A	-		-	-	-	13	1800	500	2.6%

Full Input Data And Results

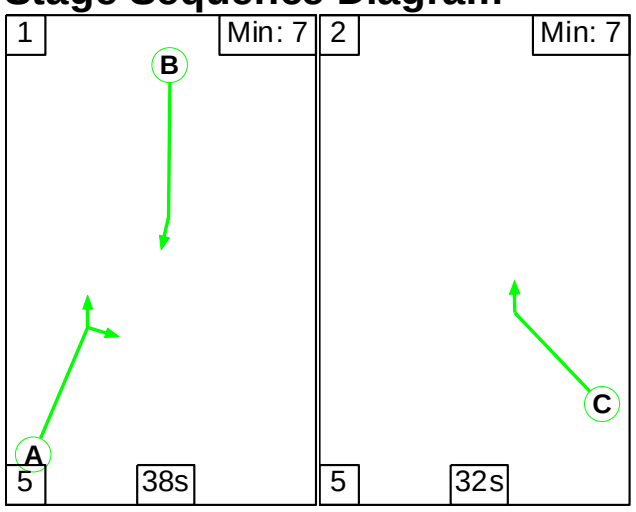
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/New Mill Road	**-**	**-**	**32**	**4**	**0**	**5.1**	**2.1**	**0.0**	**7.3**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/A616 New Mill Road	**-**	**-**	**32**	**4**	**0**	**5.1**	**2.1**	**0.0**	**7.3**	**-**	**-**	**-**	**-**
1/1	410	410	13	0	0	1.0	0.3	-	1.4	12.0	4.9	0.3	5.2
2/1	527	527	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
2/2	637	637	-	-	-	1.9	0.8	-	2.6	14.8	9.0	0.8	9.8
3/1	10	10	6	4	0	0.0	0.0	-	0.0	1.8	0.0	0.0	0.0
3/2	346	346	-	-	-	2.2	0.8	-	3.0	31.7	6.5	0.8	7.3
4/1	647	647	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	743	743	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	540	540	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	13	13	13	0	0	0.0	0.0	-	0.0	3.7	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 46.3 Total Delay for Signalled Lanes (pcuHr): 7.03 Cycle Time (s): 80
PRC Over All Lanes (%): 46.3 Total Delay Over All Lanes(pcuHr): 7.25

Full Input Data And Results

Scenario 11: 'Base 2020 AM + Dev + Com' (FG11: 'Base 2020 AM + Dev + Com', Plan 1: 'Network Control Plan 1')

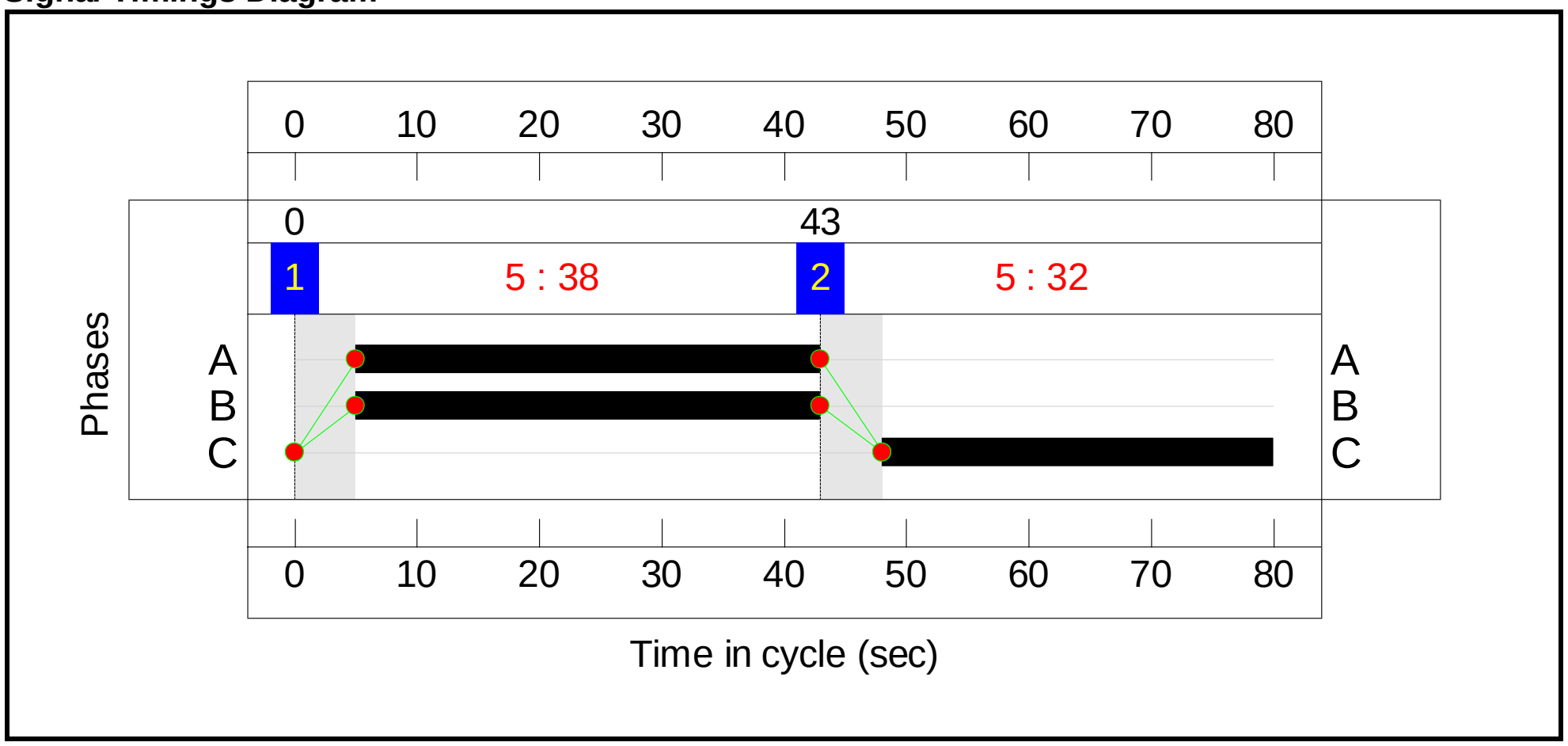
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	38	32
Change Point	0	43

Signal Timings Diagram



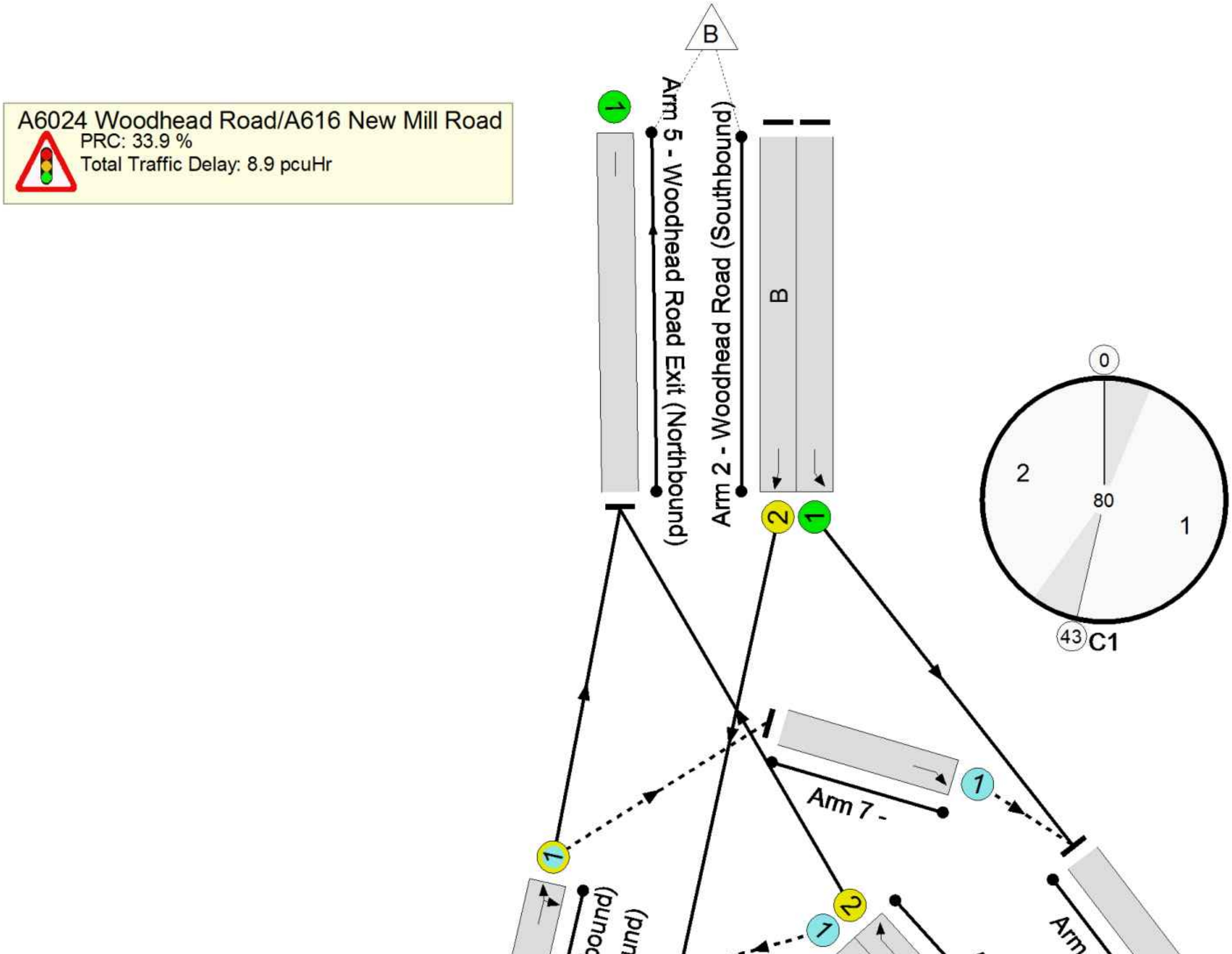
Full Input Data And Results

Network Layout Diagram

A6024 Woodhead Road/A616 New Mill Road

PRC: 33.9 %

Total Traffic Delay: 8.9 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**67.2%**
A6024 Woodhead Road/A616 New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**67.2%**
1/1	Woodhead Road (Northbound) Ahead Right	O	N/A	N/A	A		1	38	-	558	1800	832	67.1%
2/1	Woodhead Road (Southbound) Ahead	U	N/A	N/A	-		-	-	-	388	1800	1800	21.6%
2/2	Woodhead Road (Southbound) Ahead	U	N/A	N/A	B		1	38	-	357	1800	878	40.7%
3/1	New Mill Road Left	O	N/A	N/A	-		-	-	-	5	1800	1193	0.4%
3/2	New Mill Road Ahead	U	N/A	N/A	C		1	32	-	499	1800	743	67.2%
4/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	362	Inf	Inf	0.0%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	1037	Inf	Inf	0.0%
6/1	New Mill Road Exit	U	N/A	N/A	-		-	-	-	408	Inf	Inf	0.0%
7/1	Ahead	O	N/A	N/A	-		-	-	-	20	1800	526	3.8%

Full Input Data And Results

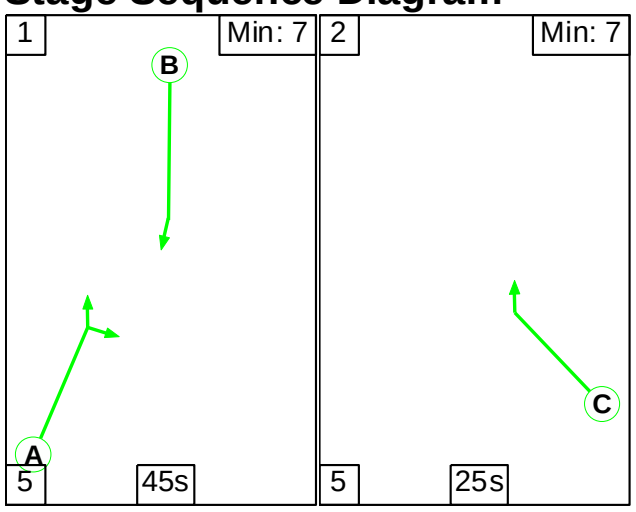
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Woodhead Road/New Mill Road	**-**	**-**	**42**	**3**	**0**	**6.4**	**2.5**	**0.0**	**8.9**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/A616 New Mill Road	**-**	**-**	**42**	**3**	**0**	**6.4**	**2.5**	**0.0**	**8.9**	**-**	**-**	**-**	**-**
1/1	558	558	20	0	0	2.4	1.0	-	3.4	22.1	9.3	1.0	10.3
2/1	388	388	-	-	-	0.0	0.1	-	0.1	1.3	0.0	0.1	0.1
2/2	357	357	-	-	-	1.3	0.3	-	1.6	16.6	5.1	0.3	5.4
3/1	5	5	2	3	0	0.0	0.0	-	0.0	1.5	0.0	0.0	0.0
3/2	499	499	-	-	-	2.6	1.0	-	3.7	26.4	9.0	1.0	10.0
4/1	362	362	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1037	1037	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	408	408	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	20	20	20	0	0	0.0	0.0	-	0.0	3.6	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 33.9 Total Delay for Signalled Lanes (pcuHr): 8.74 Cycle Time (s): 80
PRC Over All Lanes (%): 33.9 Total Delay Over All Lanes(pcuHr): 8.90

Full Input Data And Results

Scenario 12: 'Base 2020 PM + Dev + Com' (FG12: 'Base 2020 PM + Dev + Com', Plan 1: 'Network Control Plan 1')

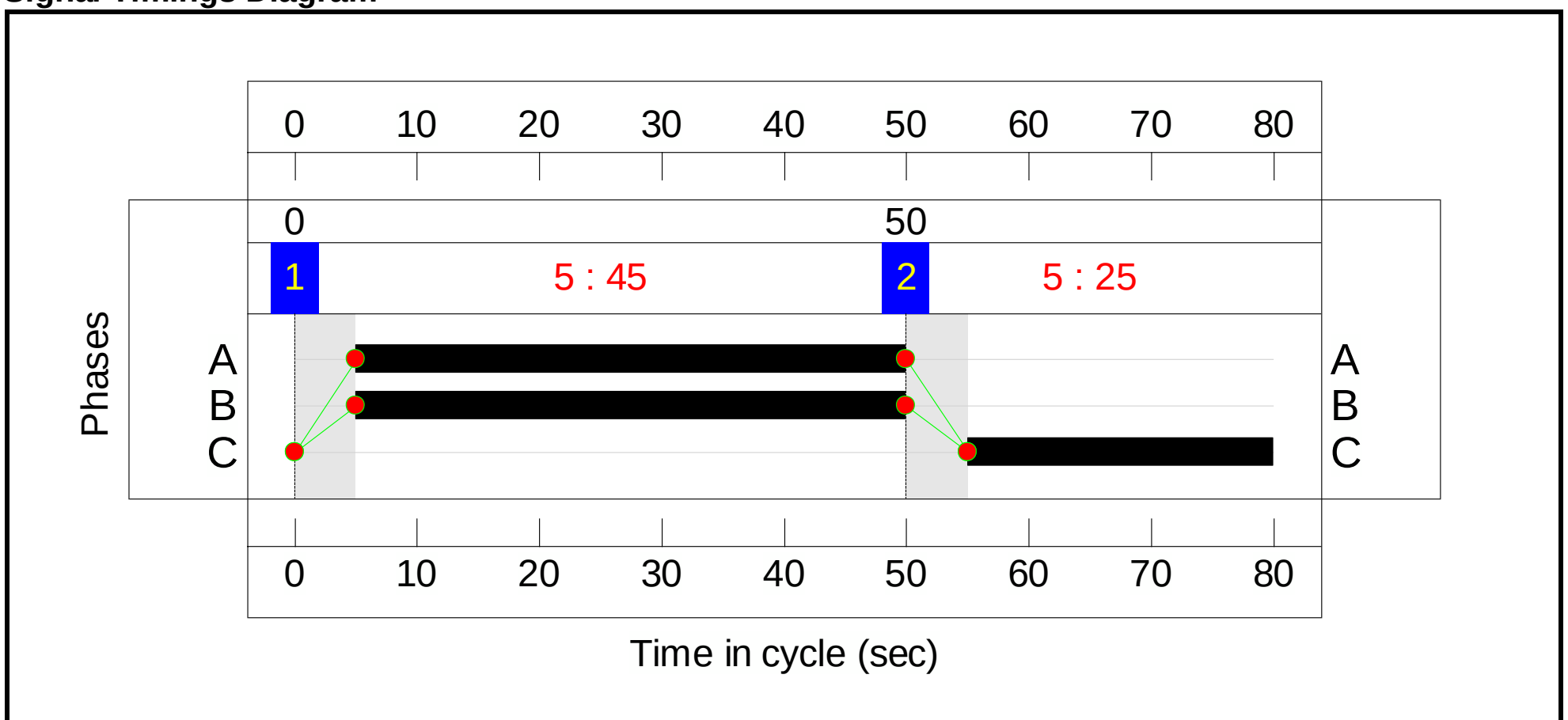
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	45	25
Change Point	0	50

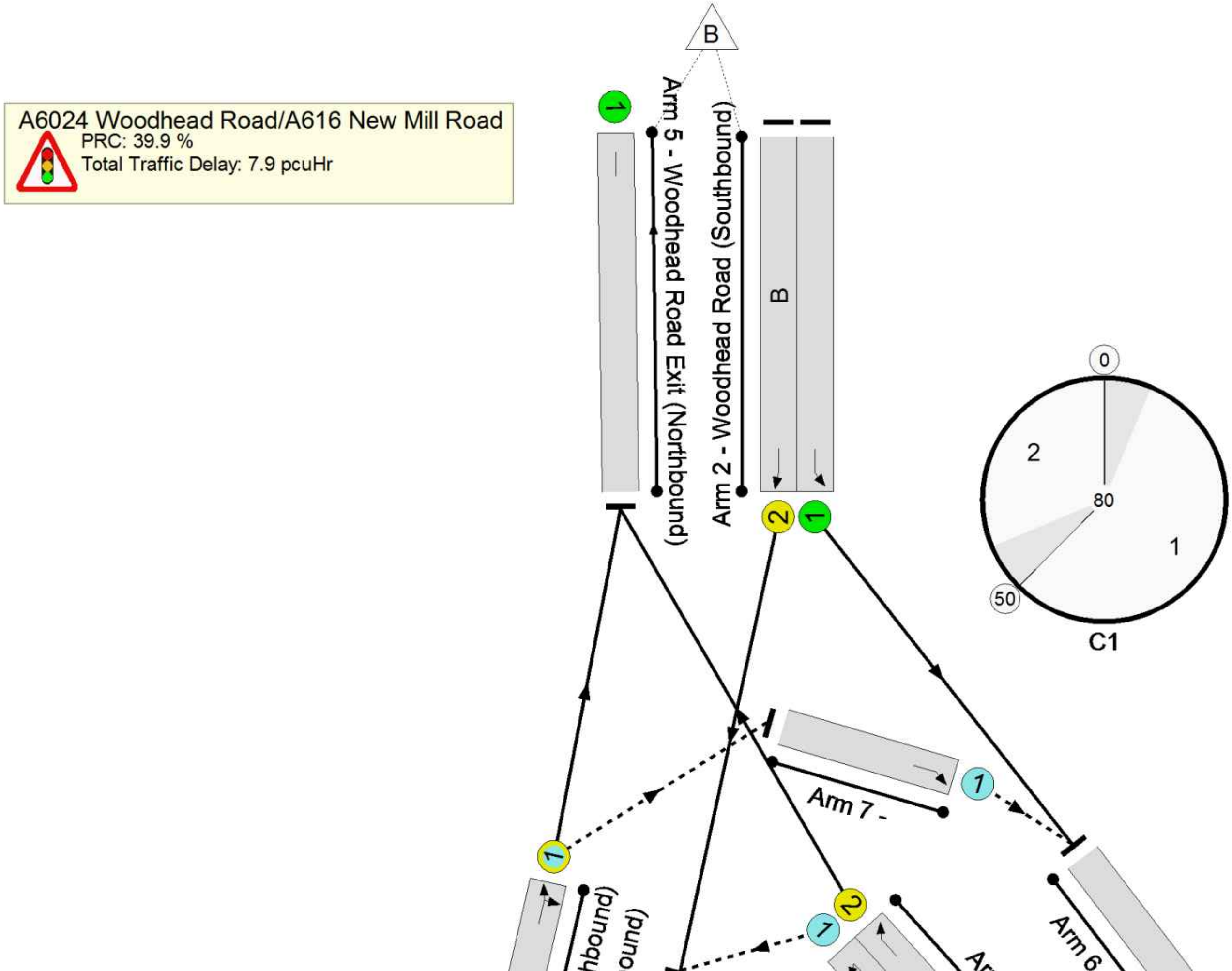
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Woodhead Road/New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**64.3%**
A6024 Woodhead Road/A616 New Mill Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**64.3%**
1/1	Woodhead Road (Northbound) Ahead Right	O	N/A	N/A	A		1	45	-	429	1800	979	43.8%
2/1	Woodhead Road (Southbound) Ahead	U	N/A	N/A	-		-	-	-	553	1800	1800	30.7%
2/2	Woodhead Road (Southbound) Ahead	U	N/A	N/A	B		1	45	-	666	1800	1035	64.3%
3/1	New Mill Road Left	O	N/A	N/A	-		-	-	-	11	1800	1030	1.1%
3/2	New Mill Road Ahead	U	N/A	N/A	C		1	25	-	363	1800	585	62.1%
4/1	Woodhead Road Exit (Southbound)	U	N/A	N/A	-		-	-	-	677	Inf	Inf	0.0%
5/1	Woodhead Road Exit (Northbound)	U	N/A	N/A	-		-	-	-	778	Inf	Inf	0.0%
6/1	New Mill Road Exit	U	N/A	N/A	-		-	-	-	567	Inf	Inf	0.0%
7/1	Ahead	O	N/A	N/A	-		-	-	-	14	1800	495	2.8%

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: A6024 Woodhead Road/New Mill Road	**-**	**-**	**34**	**5**	**0**	**5.6**	**2.3**	**0.0**	**7.9**	**-**	**-**	**-**	**-**
A6024 Woodhead Road/A616 New Mill Road	**-**	**-**	**34**	**5**	**0**	**5.6**	**2.3**	**0.0**	**7.9**	**-**	**-**	**-**	**-**
1/1	429	429	14	0	0	1.2	0.4	-	1.5	12.9	5.4	0.4	5.8
2/1	553	553	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
2/2	666	666	-	-	-	2.1	0.9	-	3.0	16.3	9.8	0.9	10.7
3/1	11	11	6	5	0	0.0	0.0	-	0.0	1.8	0.0	0.0	0.0
3/2	363	363	-	-	-	2.3	0.8	-	3.1	30.9	6.8	0.8	7.6
4/1	677	677	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	778	778	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	567	567	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	14	14	14	0	0	0.0	0.0	-	0.0	3.7	0.0	0.0	0.0

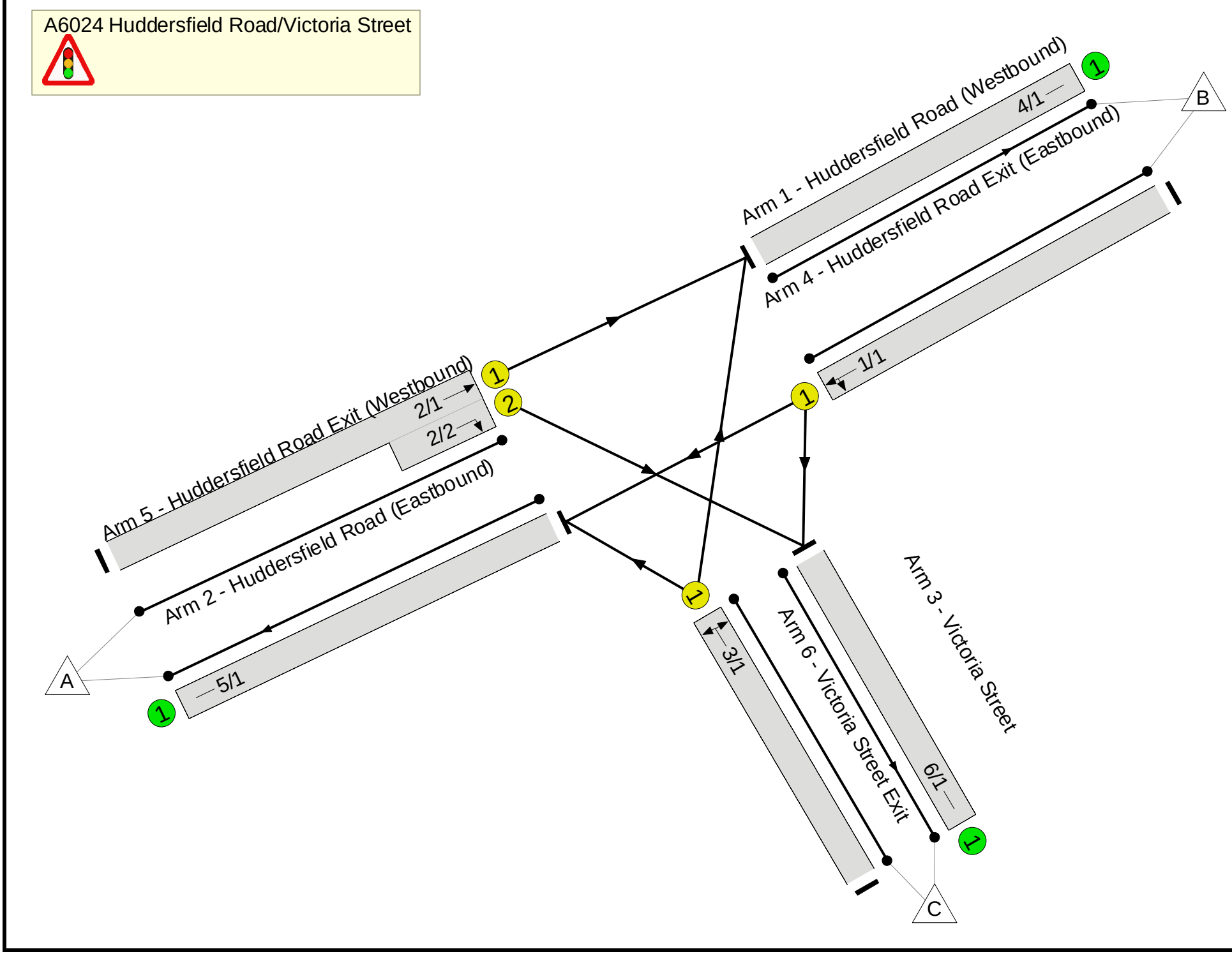
C1 PRC for Signalled Lanes (%): 39.9 Total Delay for Signalled Lanes (pcuHr): 7.67 Cycle Time (s): 80
PRC Over All Lanes (%): 39.9 Total Delay Over All Lanes(pcuHr): 7.92

Full Input Data And Results

User and Project Details

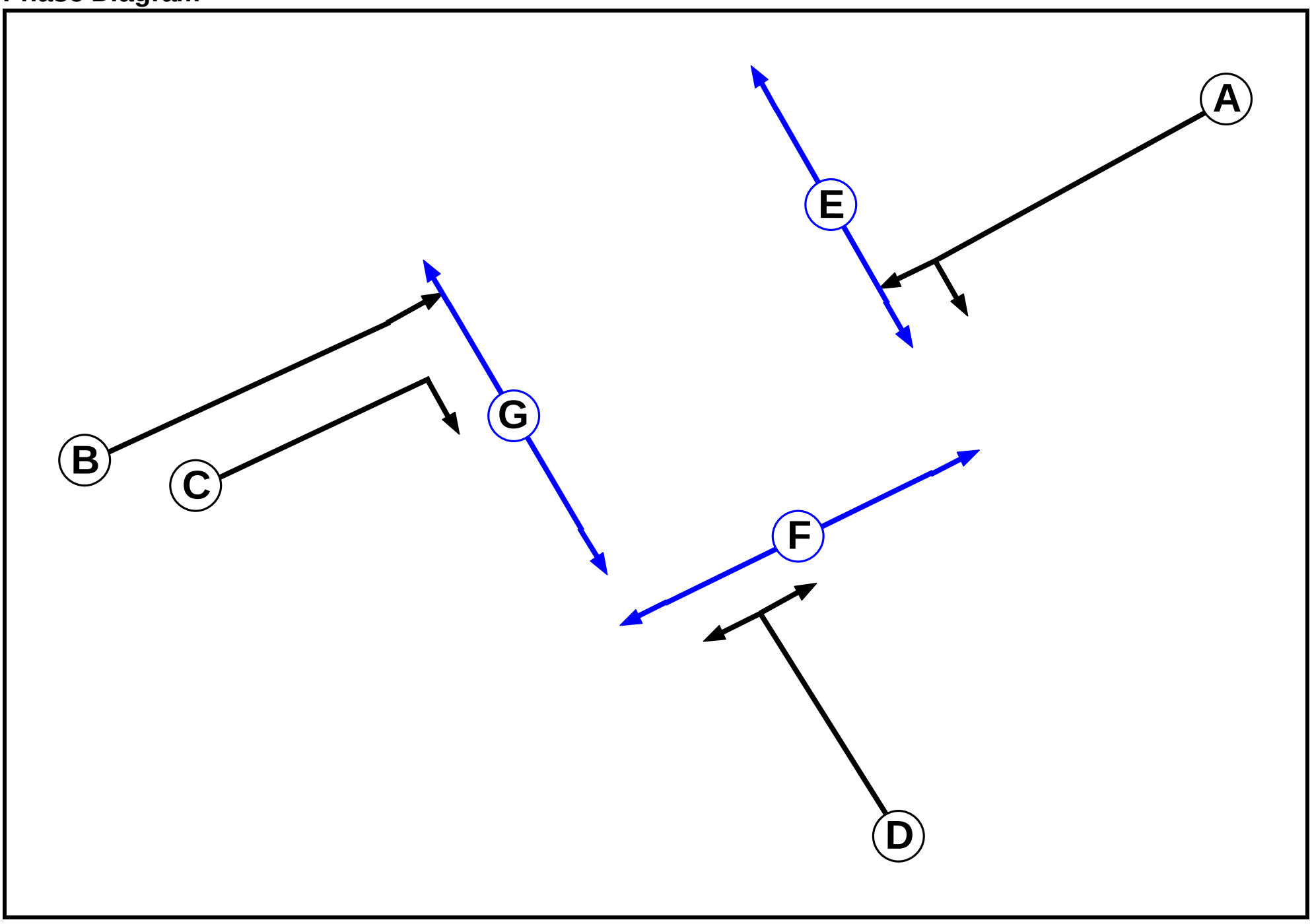
Project:	**Brockholes**
Title:	**A6024 Huddersfield Road/Victoria Street**
Location:	
File name:	A6024 Huddersfield Road_Victoria Street LinSig Model.lsg3x
Author:	Emma Robshaw
Company:	WSP | Parsons Brinckerhoff
Address:	Leeds
Notes:	

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

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

Full Input Data And Results

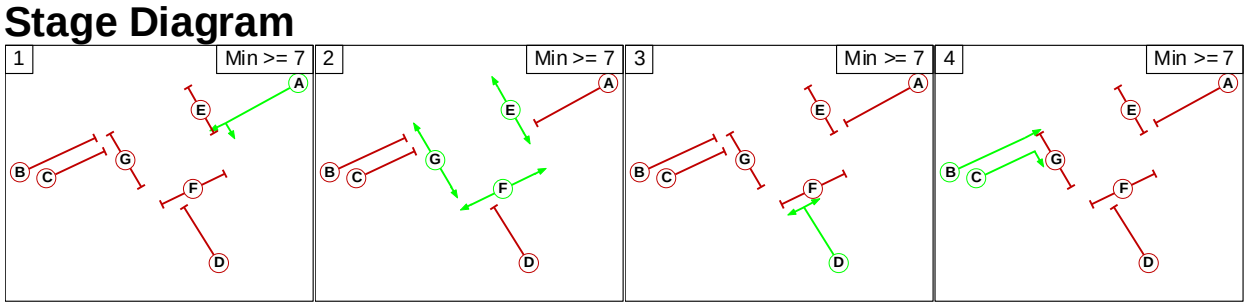
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G
A		5	5	5	7	7	7
B	10		-	7	9	9	9
C	10	-		7	9	9	9
D	5	5	5		7	7	7
E	5	5	5	5		-	-
F	5	5	5	5	-		-
G	5	5	5	5	-	-	

Phases in Stage

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

Stage Diagram



Phase Delays

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

Prohibited Stage Change

From Stage \ To Stage	1	2	3	4
1		7	5	5
2	5		5	5
3	5	7		5
4	10	9	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A6024 Huddersfield Road/Victoria Street
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: A6024 Huddersfield Road/Victoria Street

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Huddersfield Road (Westbound))	U	A	2	3	60.0	User	1800	-	-	-	-	-
2/1 (Huddersfield Road (Eastbound))	U	B	2	3	60.0	User	1800	-	-	-	-	-
2/2 (Huddersfield Road (Eastbound))	U	C	2	3	5.0	User	1800	-	-	-	-	-
3/1 (Victoria Street)	U	D	2	3	60.0	User	1800	-	-	-	-	-
4/1 (Huddersfield Road Exit (Eastbound))	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Huddersfield Road Exit (Westbound))	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Victoria Street Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Base 2015 AM'	08:00	09:00	01:00	
2: 'Base 2015 PM'	17:00	18:00	01:00	
3: 'Base 2020 AM'	08:00	09:00	01:00	
4: 'Base 2020 PM'	17:00	18:00	01:00	
5: 'Base 2015 AM + Com'	08:00	09:00	01:00	
6: 'Base 2015 PM + Com'	17:00	18:00	01:00	
7: 'Base 2020 AM + Com'	08:00	09:00	01:00	
8: 'Base 2020 PM + Com'	17:00	18:00	01:00	
9: 'Base 2015 AM + Dev + Com'	08:00	09:00	01:00	
10: 'Base 2015 PM + Dev + Com'	17:00	18:00	01:00	
11: 'Base 2020 AM + Dev + Com'	08:00	09:00	01:00	
12: 'Base 2020 PM + Dev + Com'	17:00	18:00	01:00	

Full Input Data And Results

Scenario 1: 'Base 2015 AM' (FG1: 'Base 2015 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	220	422	642
	B	144	0	172	316
	C	81	110	0	191
	Tot.	225	330	594	1149

Traffic Lane Flows

Lane	Scenario 1: Base 2015 AM
Junction: A6024 Huddersfield Road/Victoria Street	
1/1	316
2/1 (with short)	642(In) 220(Out)
2/2 (short)	422
3/1	191
4/1	330
5/1	225
6/1	594

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Huddersfield Road/Victoria Street								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Huddersfield Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Huddersfield Road (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Huddersfield Road (Eastbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Victoria Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Huddersfield Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Huddersfield Road Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Victoria Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Base 2015 PM' (FG2: 'Base 2015 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	219	428	647
	B	224	0	140	364
	C	121	130	0	251
	Tot.	345	349	568	1262

Traffic Lane Flows

Lane	Scenario 2: Base 2015 PM
Junction: A6024 Huddersfield Road/Victoria Street	
1/1	364
2/1 (with short)	647(In) 219(Out)
2/2 (short)	428
3/1	251
4/1	349
5/1	345
6/1	568

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Huddersfield Road/Victoria Street								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Huddersfield Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Huddersfield Road (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Huddersfield Road (Eastbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Victoria Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Huddersfield Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Huddersfield Road Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Victoria Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'Base 2020 AM' (FG3: 'Base 2020 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	234	448	682
	B	153	0	183	336
	C	86	117	0	203
	Tot.	239	351	631	1221

Traffic Lane Flows

Lane	Scenario 3: Base 2020 AM
Junction: A6024 Huddersfield Road/Victoria Street	
1/1	336
2/1 (with short)	682(In) 234(Out)
2/2 (short)	448
3/1	203
4/1	351
5/1	239
6/1	631

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Huddersfield Road/Victoria Street								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Huddersfield Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Huddersfield Road (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Huddersfield Road (Eastbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Victoria Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Huddersfield Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Huddersfield Road Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Victoria Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'Base 2020 PM' (FG4: 'Base 2020 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	230	449	679
	B	235	0	147	382
	C	127	137	0	264
	Tot.	362	367	596	1325

Traffic Lane Flows

Lane	Scenario 4: Base 2020 PM
Junction: A6024 Huddersfield Road/Victoria Street	
1/1	382
2/1 (with short)	679(In) 230(Out)
2/2 (short)	449
3/1	264
4/1	367
5/1	362
6/1	596

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Huddersfield Road/Victoria Street								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Huddersfield Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Huddersfield Road (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Huddersfield Road (Eastbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Victoria Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Huddersfield Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Huddersfield Road Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Victoria Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'Base 2015 AM + Com' (FG5: 'Base 2015 AM + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	220	422	642
	B	144	0	177	321
	C	81	125	0	206
	Tot.	225	345	599	1169

Traffic Lane Flows

Lane	Scenario 5: Base 2015 AM + Com
Junction: A6024 Huddersfield Road/Victoria Street	
1/1	321
2/1 (with short)	642(In) 220(Out)
2/2 (short)	422
3/1	206
4/1	345
5/1	225
6/1	599

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Huddersfield Road/Victoria Street								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Huddersfield Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Huddersfield Road (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Huddersfield Road (Eastbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Victoria Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Huddersfield Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Huddersfield Road Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Victoria Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Base 2015 PM + Com' (FG6: 'Base 2015 PM + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	219	428	647
	B	224	0	152	376
	C	121	137	0	258
	Tot.	345	356	580	1281

Traffic Lane Flows

Lane	Scenario 6: Base 2015 PM + Com
Junction: A6024 Huddersfield Road/Victoria Street	
1/1	376
2/1 (with short)	647(In) 219(Out)
2/2 (short)	428
3/1	258
4/1	356
5/1	345
6/1	580

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Huddersfield Road/Victoria Street								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Huddersfield Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Huddersfield Road (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Huddersfield Road (Eastbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Victoria Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Huddersfield Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Huddersfield Road Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Victoria Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 7: 'Base 2020 AM + Com' (FG7: 'Base 2020 AM + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	234	448	682
	B	153	0	188	341
	C	86	132	0	218
	Tot.	239	366	636	1241

Traffic Lane Flows

Lane	Scenario 7: Base 2020 AM + Com
Junction: A6024 Huddersfield Road/Victoria Street	
1/1	341
2/1 (with short)	682(In) 234(Out)
2/2 (short)	448
3/1	218
4/1	366
5/1	239
6/1	636

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Huddersfield Road/Victoria Street								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Huddersfield Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Huddersfield Road (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Huddersfield Road (Eastbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Victoria Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Huddersfield Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Huddersfield Road Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Victoria Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Base 2020 PM + Com' (FG8: 'Base 2020 PM + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	230	449	679
	B	235	0	159	394
	C	127	144	0	271
	Tot.	362	374	608	1344

Traffic Lane Flows

Lane	Scenario 8: Base 2020 PM + Com
Junction: A6024 Huddersfield Road/Victoria Street	
1/1	394
2/1 (with short)	679(In) 230(Out)
2/2 (short)	449
3/1	271
4/1	374
5/1	362
6/1	608

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Huddersfield Road/Victoria Street								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Huddersfield Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Huddersfield Road (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Huddersfield Road (Eastbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Victoria Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Huddersfield Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Huddersfield Road Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Victoria Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 9: 'Base 2015 AM + Dev + Com' (FG9: 'Base 2015 AM + Dev + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	221	422	643
	B	147	0	179	326
	C	81	126	0	207
	Tot.	228	347	601	1176

Traffic Lane Flows

Lane	Scenario 9: Base 2015 AM + Dev + Com
Junction: A6024 Huddersfield Road/Victoria Street	
1/1	326
2/1 (with short)	643(In) 221(Out)
2/2 (short)	422
3/1	207
4/1	347
5/1	228
6/1	601

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Huddersfield Road/Victoria Street								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Huddersfield Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Huddersfield Road (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Huddersfield Road (Eastbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Victoria Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Huddersfield Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Huddersfield Road Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Victoria Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 10: 'Base 2015 PM + Dev + Com' (FG10: 'Base 2015 PM + Dev + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	222	428	650
	B	226	0	153	379
	C	121	139	0	260
	Tot.	347	361	581	1289

Traffic Lane Flows

Lane	Scenario 10: Base 2015 PM + Dev + Com
Junction: A6024 Huddersfield Road/Victoria Street	
1/1	379
2/1 (with short)	650(In) 222(Out)
2/2 (short)	428
3/1	260
4/1	361
5/1	347
6/1	581

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Huddersfield Road/Victoria Street								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Huddersfield Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Huddersfield Road (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Huddersfield Road (Eastbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Victoria Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Huddersfield Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Huddersfield Road Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Victoria Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 11: 'Base 2020 AM + Dev + Com' (FG11: 'Base 2020 AM + Dev + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	235	448	683
	B	156	0	190	346
	C	86	133	0	219
	Tot.	242	368	638	1248

Traffic Lane Flows

Lane	Scenario 11: Base 2020 AM + Dev + Com
Junction: A6024 Huddersfield Road/Victoria Street	
1/1	346
2/1 (with short)	683(In) 235(Out)
2/2 (short)	448
3/1	219
4/1	368
5/1	242
6/1	638

Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Huddersfield Road/Victoria Street								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Huddersfield Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Huddersfield Road (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Huddersfield Road (Eastbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Victoria Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Huddersfield Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Huddersfield Road Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Victoria Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 12: 'Base 2020 PM + Dev + Com' (FG12: 'Base 2020 PM + Dev + Com', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	233	449	682
	B	237	0	160	397
	C	127	146	0	273
	Tot.	364	379	609	1352

Traffic Lane Flows

Lane	Scenario 12: Base 2020 PM + Dev + Com
Junction: A6024 Huddersfield Road/Victoria Street	
1/1	397
2/1 (with short)	682(In) 233(Out)
2/2 (short)	449
3/1	273
4/1	379
5/1	364
6/1	609

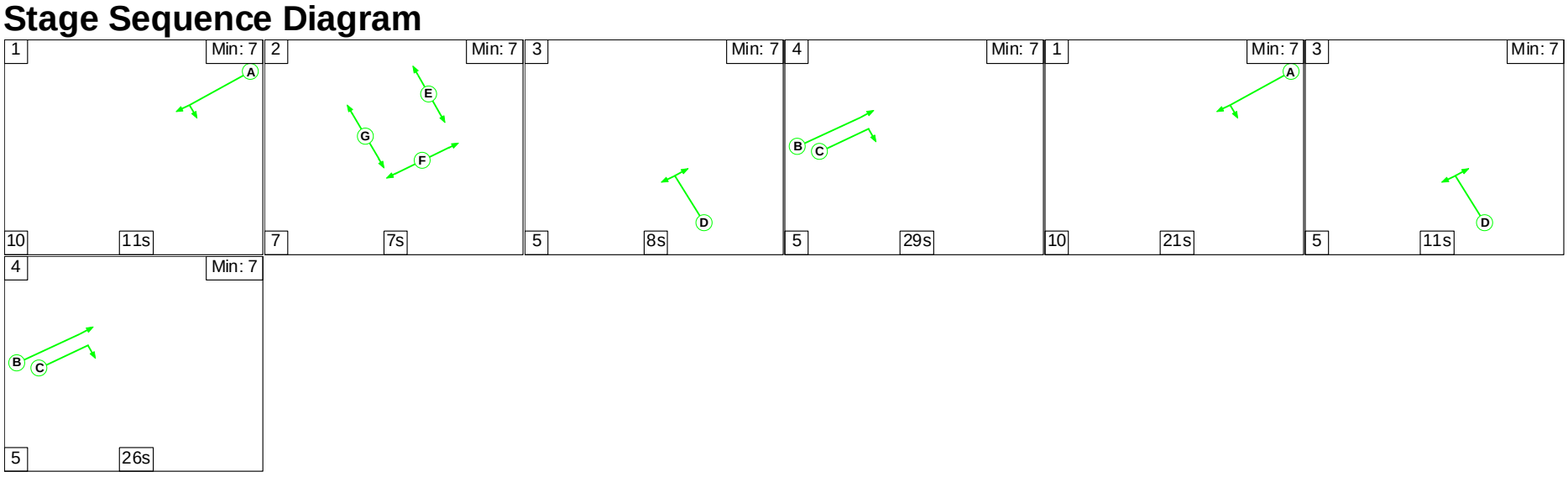
Full Input Data And Results

Lane Saturation Flows

Junction: A6024 Huddersfield Road/Victoria Street								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Huddersfield Road (Westbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (Huddersfield Road (Eastbound) Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/2 (Huddersfield Road (Eastbound) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (Victoria Street Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (Huddersfield Road Exit (Eastbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Huddersfield Road Exit (Westbound) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Victoria Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'Base 2015 AM' (FG1: 'Base 2015 AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

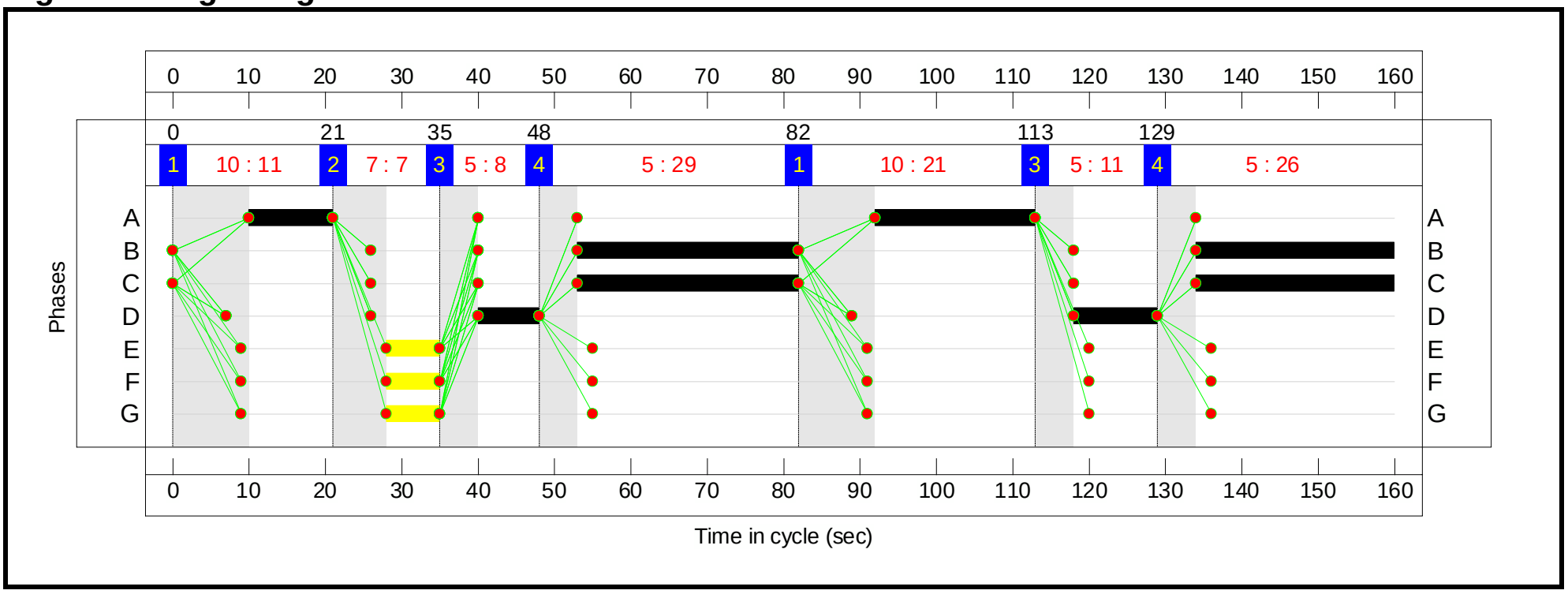


Stage Timings

Stage	1	2	3	4	1	3	4
Duration	11	7	8	29	21	11	26
Change Point	0	21	35	48	82	113	129

Full Input Data And Results

Signal Timings Diagram



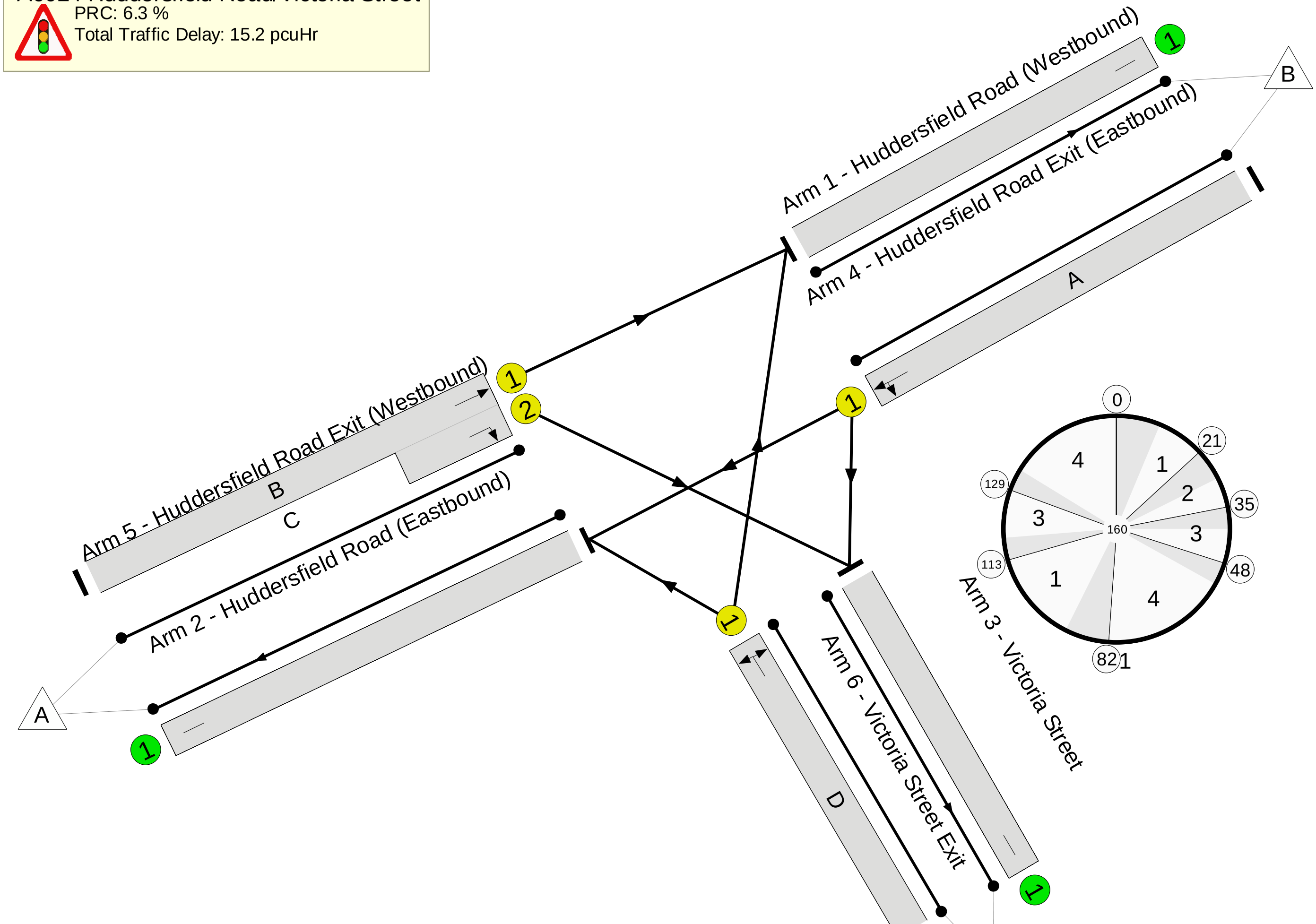
Full Input Data And Results

Network Layout Diagram

A6024 Huddersfield Road/Victoria Street

PRC: 6.3 %

Total Traffic Delay: 15.2 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**84.6%**
A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**84.6%**
1/1	Huddersfield Road (Westbound) Ahead Left	U	N/A	N/A	A		2	32	-	316	1800	383	82.6%
2/1+2/2	Huddersfield Road (Eastbound) Ahead Right	U	N/A	N/A	B C		2	55	-	642	1800:1800	260+499	84.6 : 84.6%
3/1	Victoria Street Right Left	U	N/A	N/A	D		2	19	-	191	1800	236	80.8%
4/1	Huddersfield Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	330	Inf	Inf	0.0%
5/1	Huddersfield Road Exit (Westbound)	U	N/A	N/A	-		-	-	-	225	Inf	Inf	0.0%
6/1	Victoria Street Exit	U	N/A	N/A	-		-	-	-	594	Inf	Inf	0.0%

Full Input Data And Results

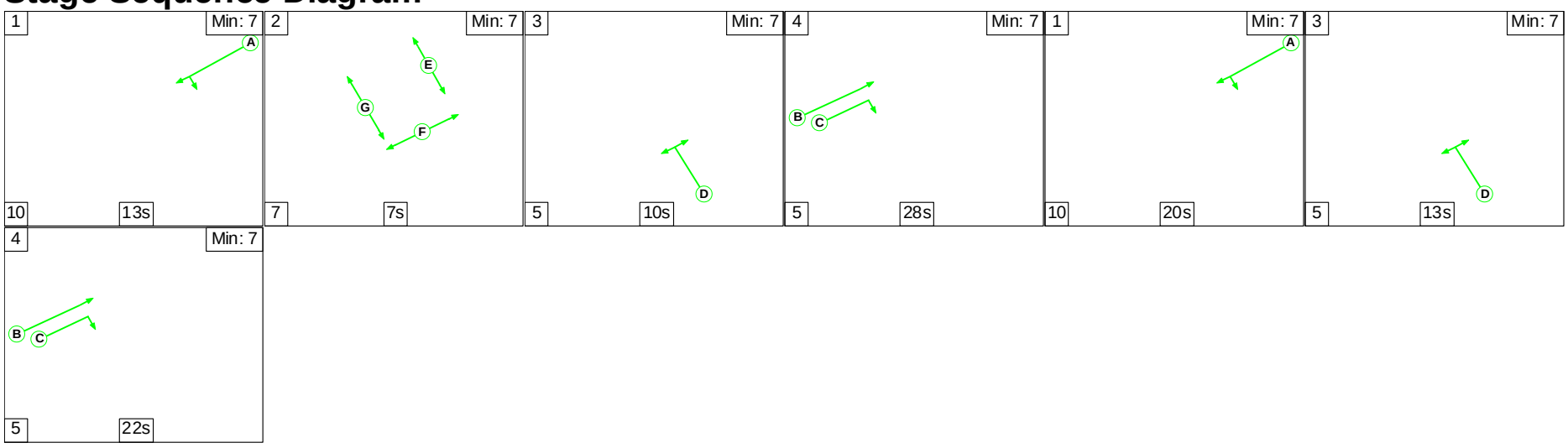
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**8.3**	**6.8**	**0.0**	**15.2**	**-**	**-**	**-**	**-**
A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**8.3**	**6.8**	**0.0**	**15.2**	**-**	**-**	**-**	**-**
1/1	316	316	-	-	-	2.7	2.2	-	4.9	55.8	7.4	2.2	9.6
2/1+2/2	642	642	-	-	-	3.9	2.6	-	6.5	36.5	10.2	2.6	12.9
3/1	191	191	-	-	-	1.8	1.9	-	3.7	70.4	4.1	1.9	6.1
4/1	330	330	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	225	225	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	594	594	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 6.3 Total Delay for Signalled Lanes (pcuHr): 15.15 Cycle Time (s): 160
PRC Over All Lanes (%): 6.3 Total Delay Over All Lanes(pcuHr): 15.15

Full Input Data And Results

Scenario 2: 'Base 2015 PM' (FG2: 'Base 2015 PM', Plan 1: 'Network Control Plan 1')

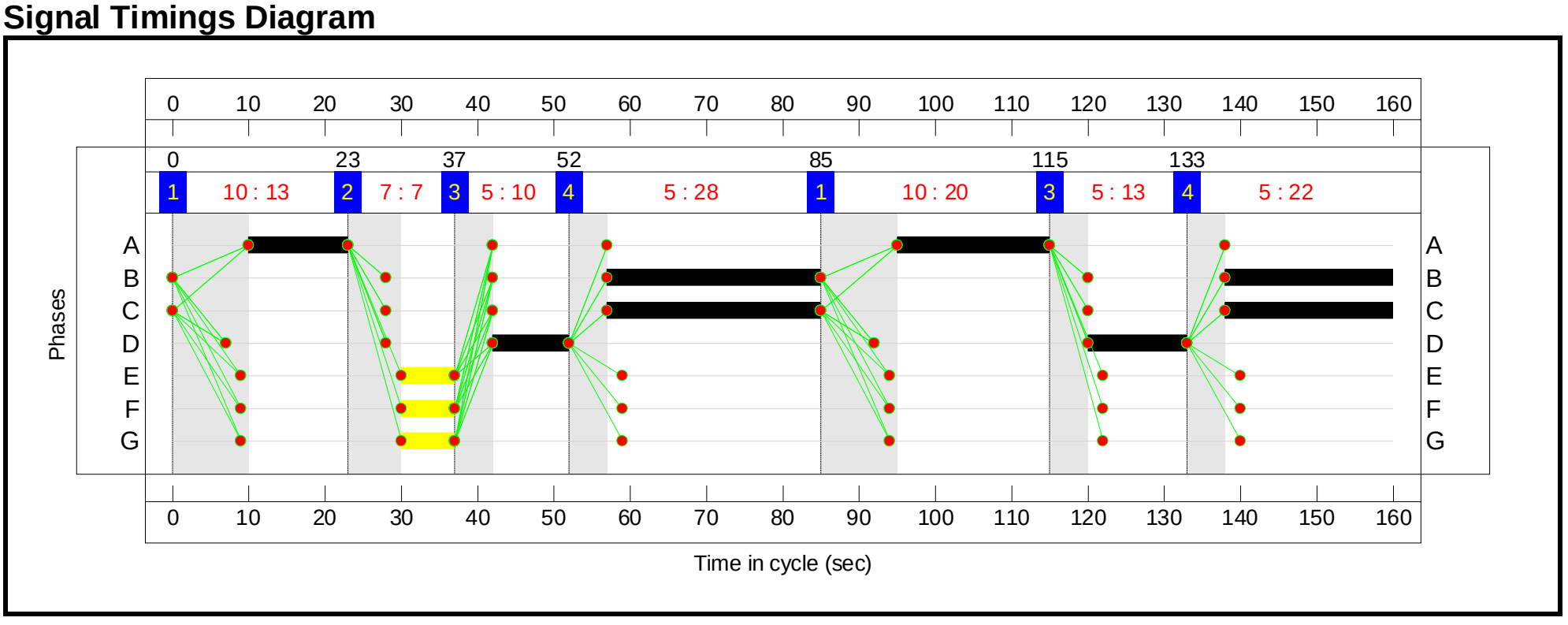
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	3	4
Duration	13	7	10	28	20	13	22
Change Point	0	23	37	52	85	115	133

Signal Timings Diagram



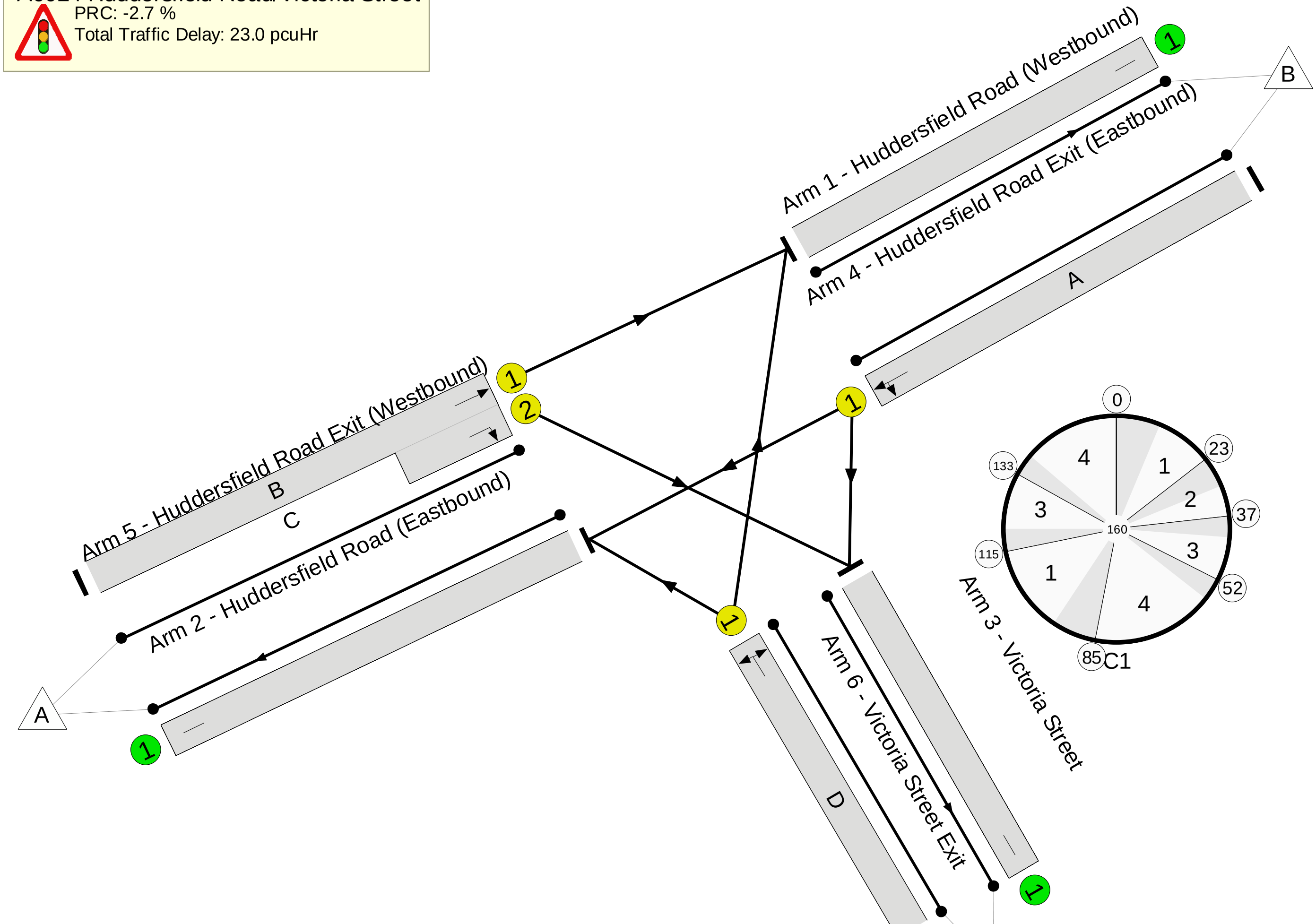
Full Input Data And Results

Network Layout Diagram

A6024 Huddersfield Road/Victoria Street

PRC: -2.7 %

Total Traffic Delay: 23.0 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**92.4%**
A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**92.4%**
1/1	Huddersfield Road (Westbound) Ahead Left	U	N/A	N/A	A		2	33	-	364	1800	394	92.4%
2/1+2/2	Huddersfield Road (Eastbound) Ahead Right	U	N/A	N/A	B C		2	50	-	647	1800:1800	237+463	92.4 : 92.4%
3/1	Victoria Street Right Left	U	N/A	N/A	D		2	23	-	251	1800	281	89.2%
4/1	Huddersfield Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	349	Inf	Inf	0.0%
5/1	Huddersfield Road Exit (Westbound)	U	N/A	N/A	-		-	-	-	345	Inf	Inf	0.0%
6/1	Victoria Street Exit	U	N/A	N/A	-		-	-	-	568	Inf	Inf	0.0%

Full Input Data And Results

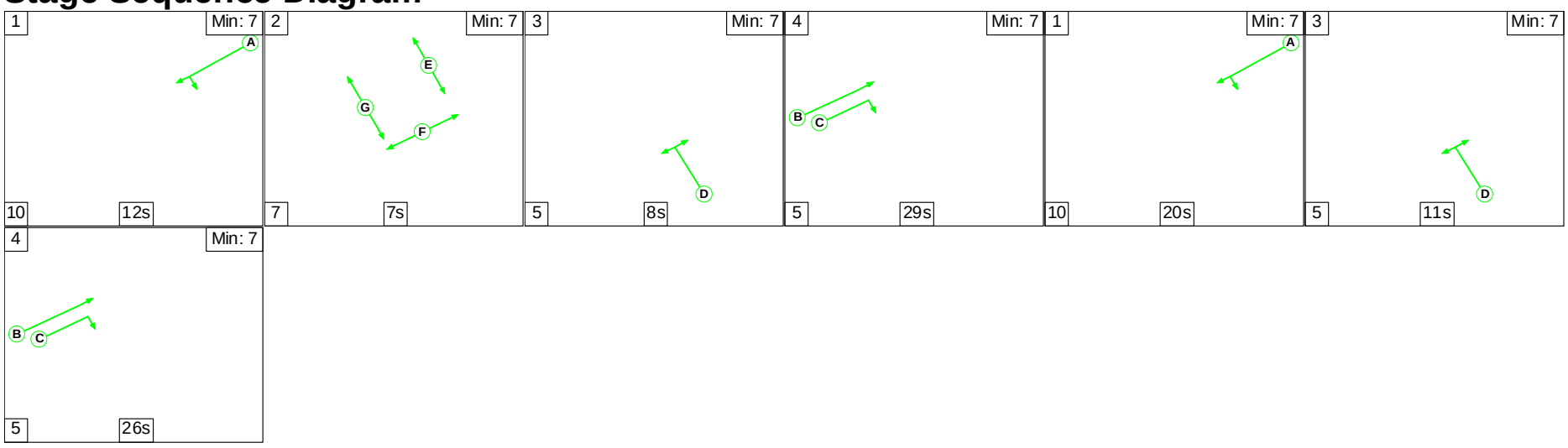
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**9.8**	**13.2**	**0.0**	**23.0**	**-**	**-**	**-**	**-**
A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**9.8**	**13.2**	**0.0**	**23.0**	**-**	**-**	**-**	**-**
1/1	364	364	-	-	-	3.2	4.7	-	7.8	77.2	8.9	4.7	13.6
2/1+2/2	647	647	-	-	-	4.4	5.1	-	9.5	52.7	11.6	5.1	16.7
3/1	251	251	-	-	-	2.3	3.4	-	5.7	81.8	5.5	3.4	8.9
4/1	349	349	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	345	345	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	568	568	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -2.7 Total Delay for Signalled Lanes (pcuHr): 22.98 Cycle Time (s): 160
PRC Over All Lanes (%): -2.7 Total Delay Over All Lanes(pcuHr): 22.98

Full Input Data And Results

Scenario 3: 'Base 2020 AM' (FG3: 'Base 2020 AM', Plan 1: 'Network Control Plan 1')

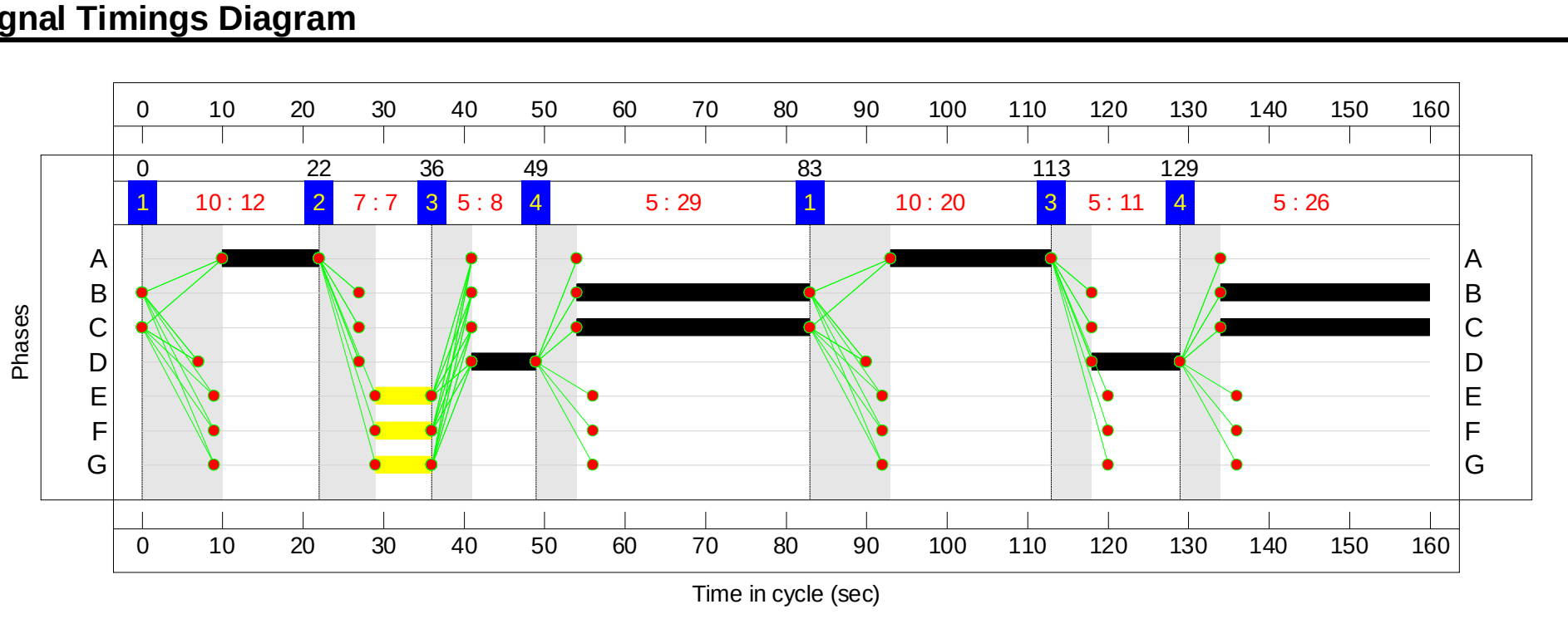
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	3	4
Duration	12	7	8	29	20	11	26
Change Point	0	22	36	49	83	113	129

Signal Timings Diagram



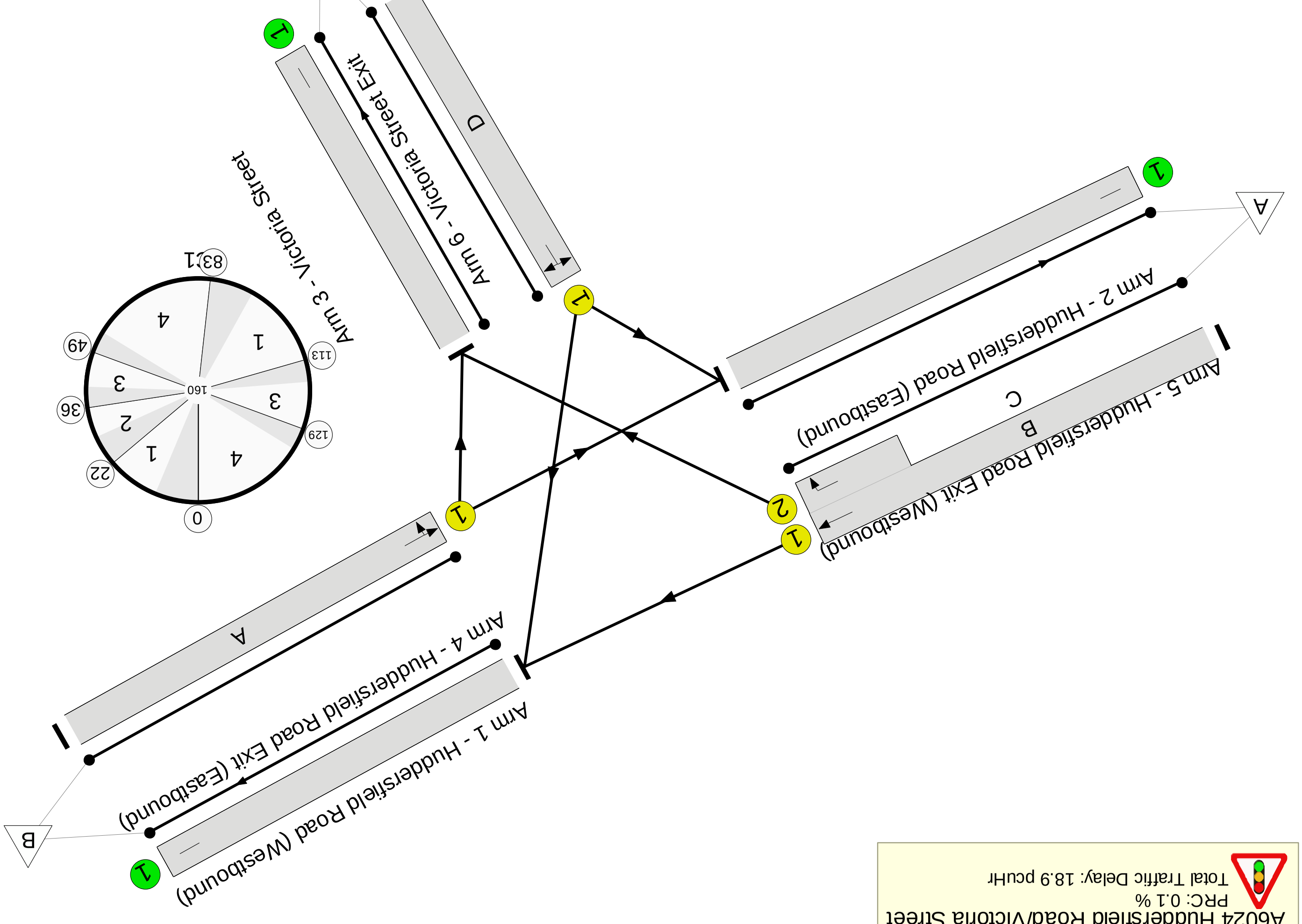
Full Input Data And Results

Network Layout Diagram

A6024 Huddersfield Road/Victoria Street

PRC: 0.1 %

Total Traffic Delay: 18.9 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**89.9%**
A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**89.9%**
1/1	Huddersfield Road (Westbound) Ahead Left	U	N/A	N/A	A		2	32	-	336	1800	383	87.8%
2/1+2/2	Huddersfield Road (Eastbound) Ahead Right	U	N/A	N/A	B C		2	55	-	682	1800:1800	260+498	89.9 : 89.9%
3/1	Victoria Street Right Left	U	N/A	N/A	D		2	19	-	203	1800	236	85.9%
4/1	Huddersfield Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	351	Inf	Inf	0.0%
5/1	Huddersfield Road Exit (Westbound)	U	N/A	N/A	-		-	-	-	239	Inf	Inf	0.0%
6/1	Victoria Street Exit	U	N/A	N/A	-		-	-	-	631	Inf	Inf	0.0%

Full Input Data And Results

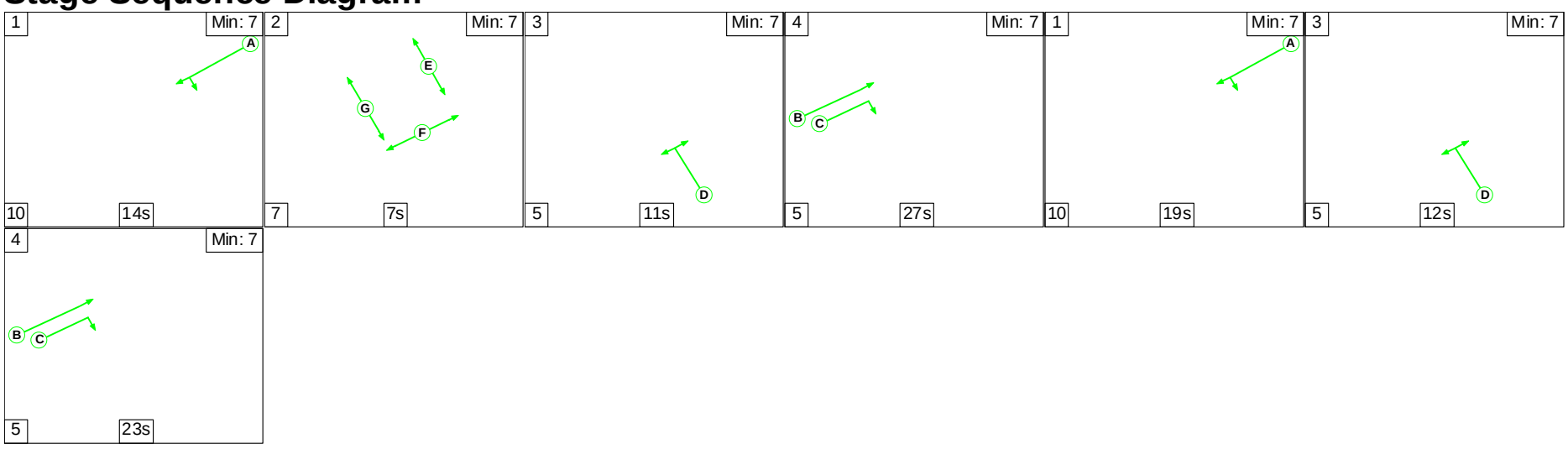
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**9.1**	**9.8**	**0.0**	**18.9**	**-**	**-**	**-**	**-**
A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**9.1**	**9.8**	**0.0**	**18.9**	**-**	**-**	**-**	**-**
1/1	336	336	-	-	-	2.9	3.2	-	6.1	64.9	8.0	3.2	11.2
2/1+2/2	682	682	-	-	-	4.3	4.0	-	8.3	43.7	11.8	4.0	15.8
3/1	203	203	-	-	-	1.9	2.6	-	4.6	80.9	4.5	2.6	7.1
4/1	351	351	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	239	239	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	631	631	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 0.1 Total Delay for Signalled Lanes (pcuHr): 18.90 Cycle Time (s): 160
PRC Over All Lanes (%): 0.1 Total Delay Over All Lanes(pcuHr): 18.90

Full Input Data And Results

Scenario 4: 'Base 2020 PM' (FG4: 'Base 2020 PM', Plan 1: 'Network Control Plan 1')

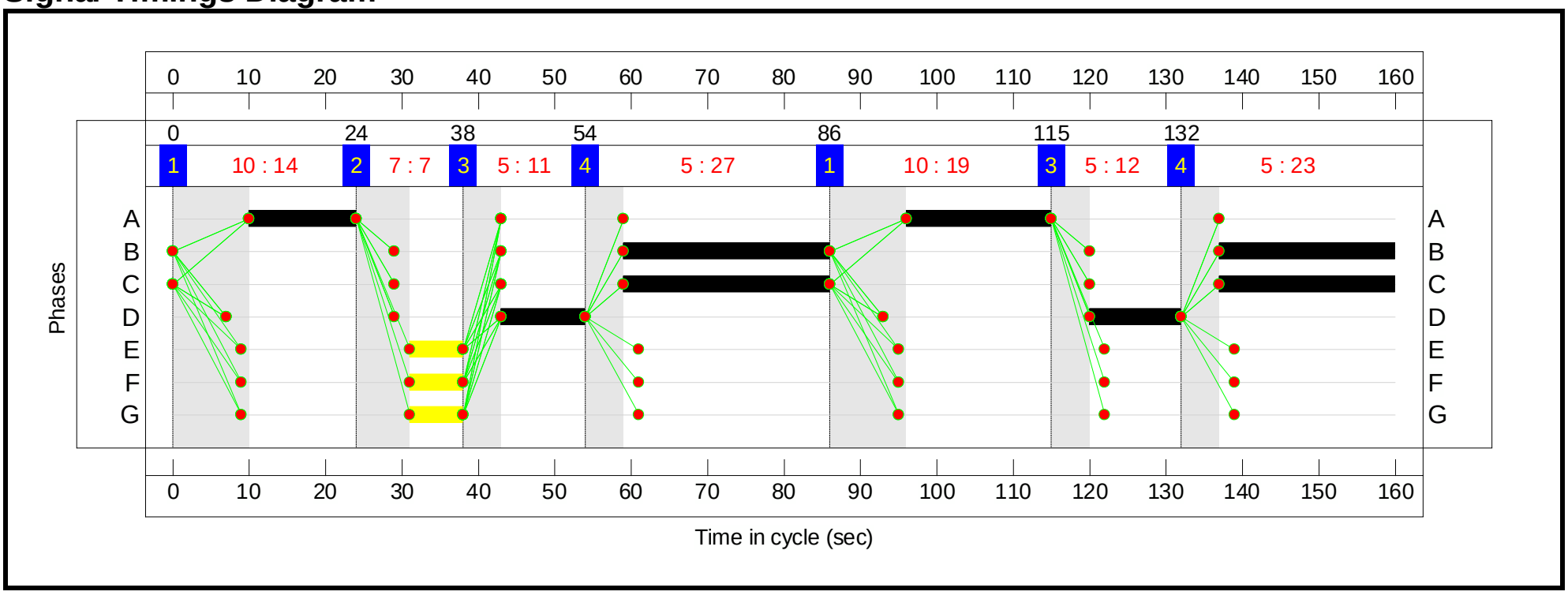
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	3	4
Duration	14	7	11	27	19	12	23
Change Point	0	24	38	54	86	115	132

Signal Timings Diagram



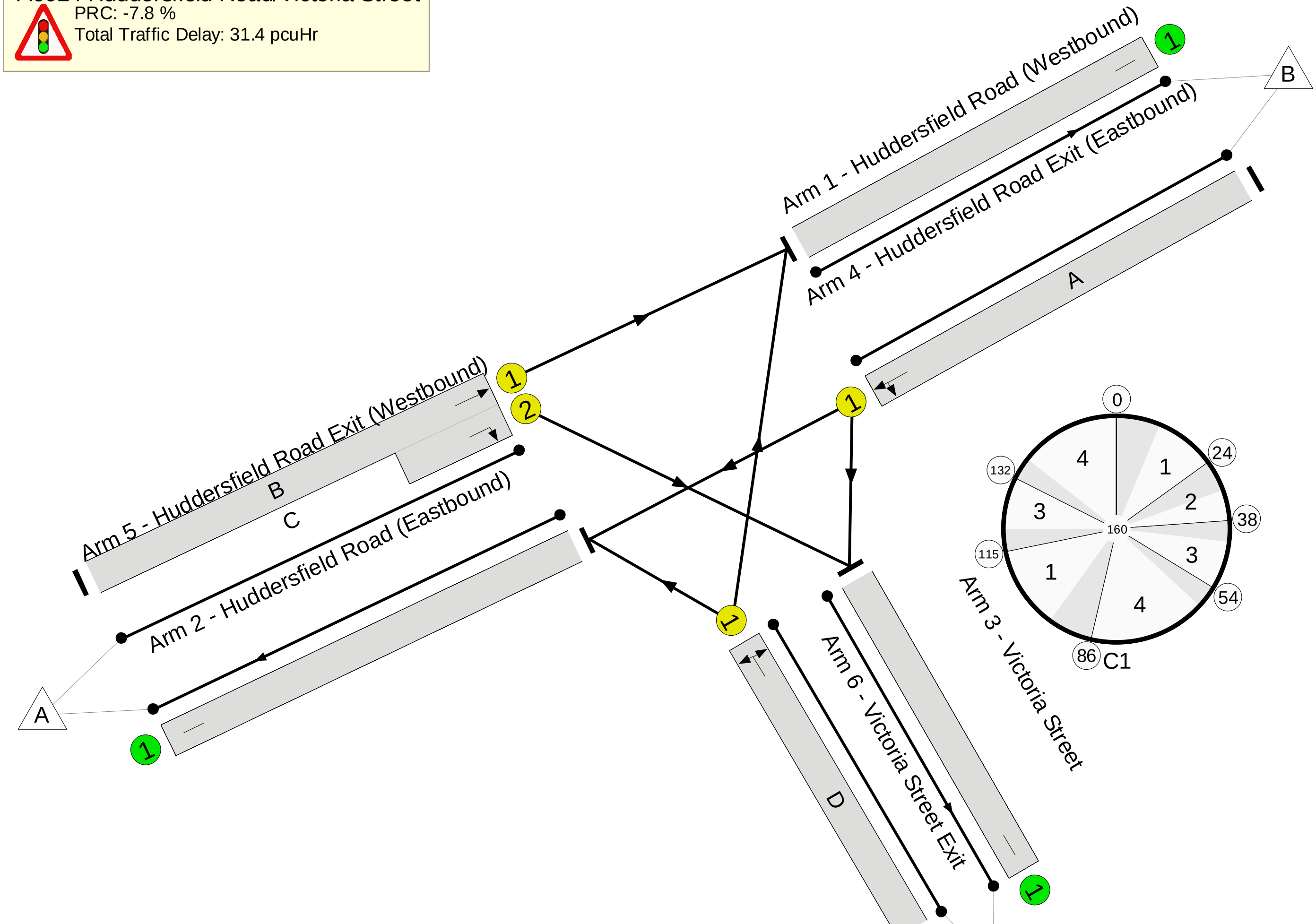
Full Input Data And Results

Network Layout Diagram

A6024 Huddersfield Road/Victoria Street

PRC: -7.8 %

Total Traffic Delay: 31.4 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.0%**
A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.0%**
1/1	Huddersfield Road (Westbound) Ahead Left	U	N/A	N/A	A		2	33	-	382	1800	394	97.0%
2/1+2/2	Huddersfield Road (Eastbound) Ahead Right	U	N/A	N/A	B C		2	50	-	679	1800:1800	237+463	97.0 : 97.0%
3/1	Victoria Street Right Left	U	N/A	N/A	D		2	23	-	264	1800	281	93.9%
4/1	Huddersfield Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	367	Inf	Inf	0.0%
5/1	Huddersfield Road Exit (Westbound)	U	N/A	N/A	-		-	-	-	362	Inf	Inf	0.0%
6/1	Victoria Street Exit	U	N/A	N/A	-		-	-	-	596	Inf	Inf	0.0%

Full Input Data And Results

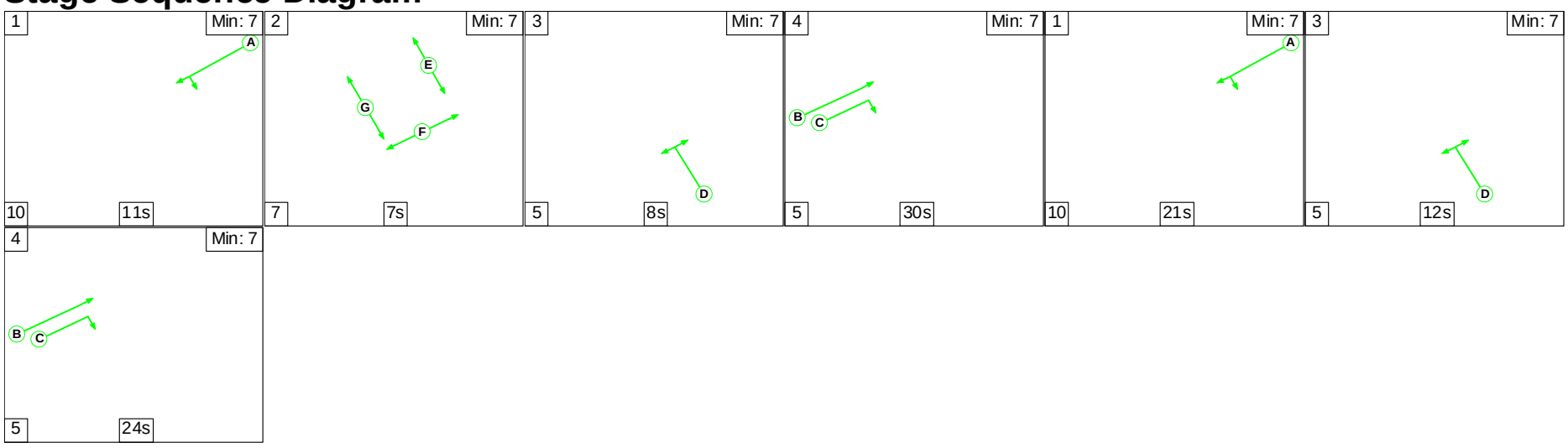
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**10.5**	**20.9**	**0.0**	**31.4**	**-**	**-**	**-**	**-**
A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**10.5**	**20.9**	**0.0**	**31.4**	**-**	**-**	**-**	**-**
1/1	382	382	-	-	-	3.3	7.3	-	10.6	100.1	9.5	7.3	16.8
2/1+2/2	679	679	-	-	-	4.7	8.8	-	13.5	71.4	13.3	8.8	22.0
3/1	264	264	-	-	-	2.5	4.9	-	7.3	100.1	6.0	4.9	10.9
4/1	367	367	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	362	362	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	596	596	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -7.8 Total Delay for Signalled Lanes (pcuHr): 31.43 Cycle Time (s): 160
PRC Over All Lanes (%): -7.8 Total Delay Over All Lanes(pcuHr): 31.43

Full Input Data And Results

Scenario 5: 'Base 2015 AM + Com' (FG5: 'Base 2015 AM + Com', Plan 1: 'Network Control Plan 1')

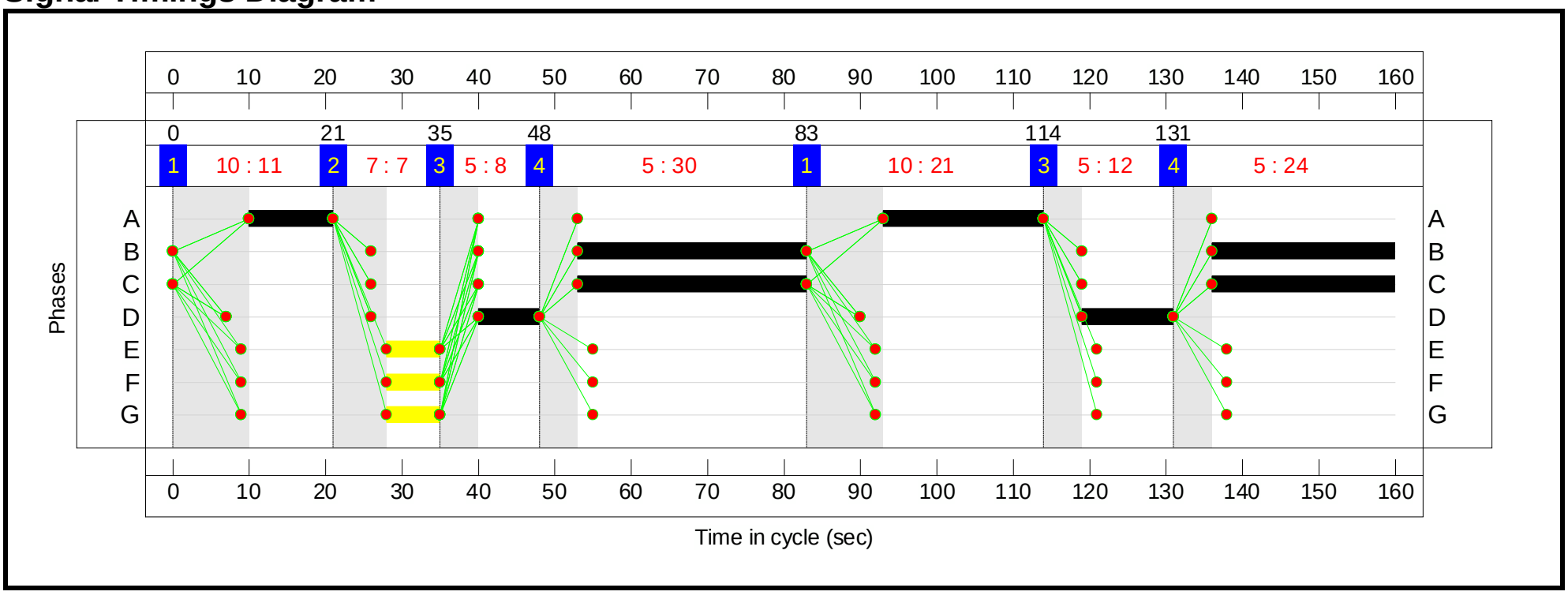
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	3	4
Duration	11	7	8	30	21	12	24
Change Point	0	21	35	48	83	114	131

Signal Timings Diagram



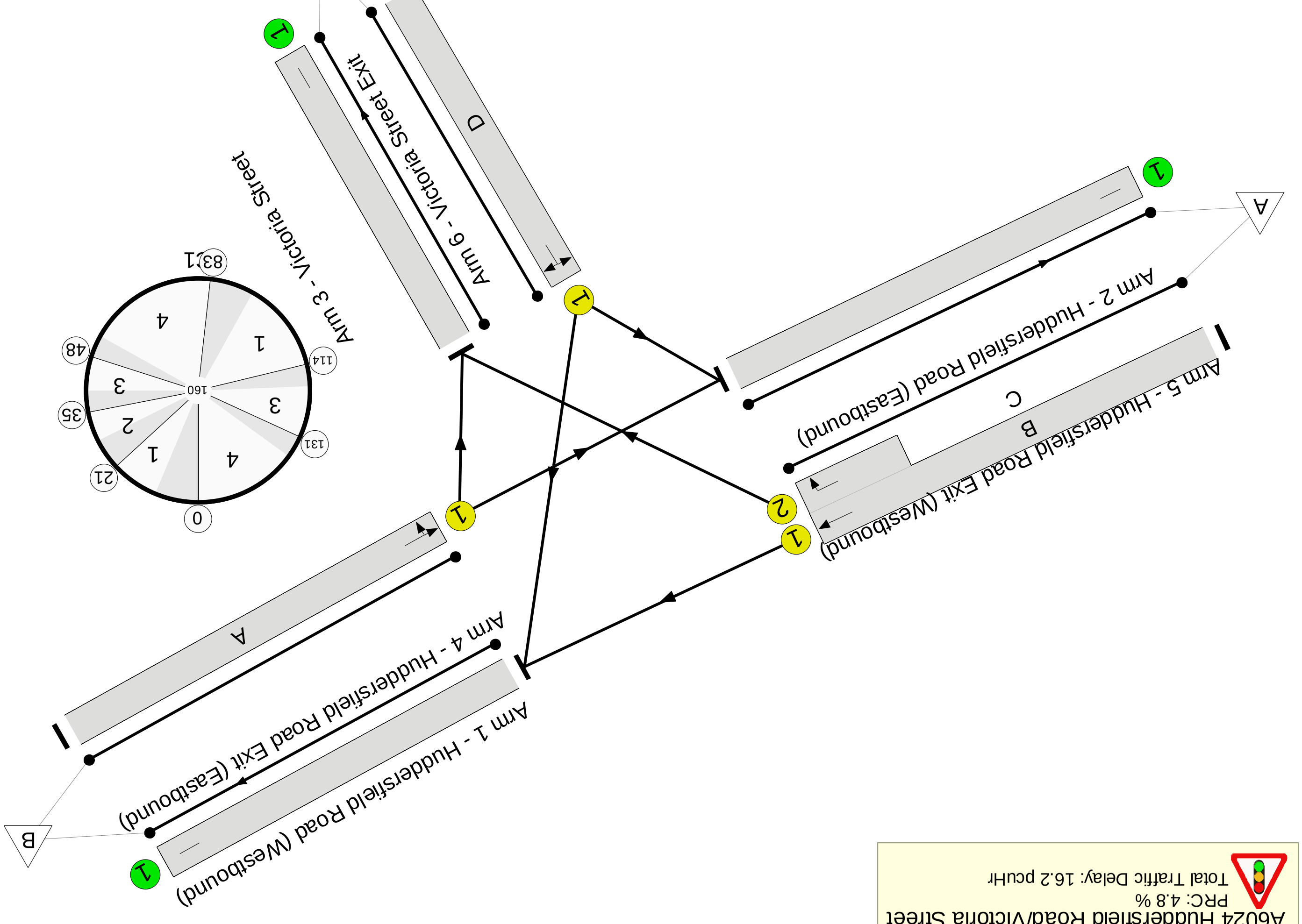
Full Input Data And Results

Network Layout Diagram

A6024 Huddersfield Road/Victoria Street

PRC: 4.8 %

Total Traffic Delay: 16.2 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**85.9%**
A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**85.9%**
1/1	Huddersfield Road (Westbound) Ahead Left	U	N/A	N/A	A		2	32	-	321	1800	383	83.9%
2/1+2/2	Huddersfield Road (Eastbound) Ahead Right	U	N/A	N/A	B C		2	54	-	642	1800:1800	256+491	85.9 : 85.9%
3/1	Victoria Street Right Left	U	N/A	N/A	D		2	20	-	206	1800	248	83.2%
4/1	Huddersfield Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	345	Inf	Inf	0.0%
5/1	Huddersfield Road Exit (Westbound)	U	N/A	N/A	-		-	-	-	225	Inf	Inf	0.0%
6/1	Victoria Street Exit	U	N/A	N/A	-		-	-	-	599	Inf	Inf	0.0%

Full Input Data And Results

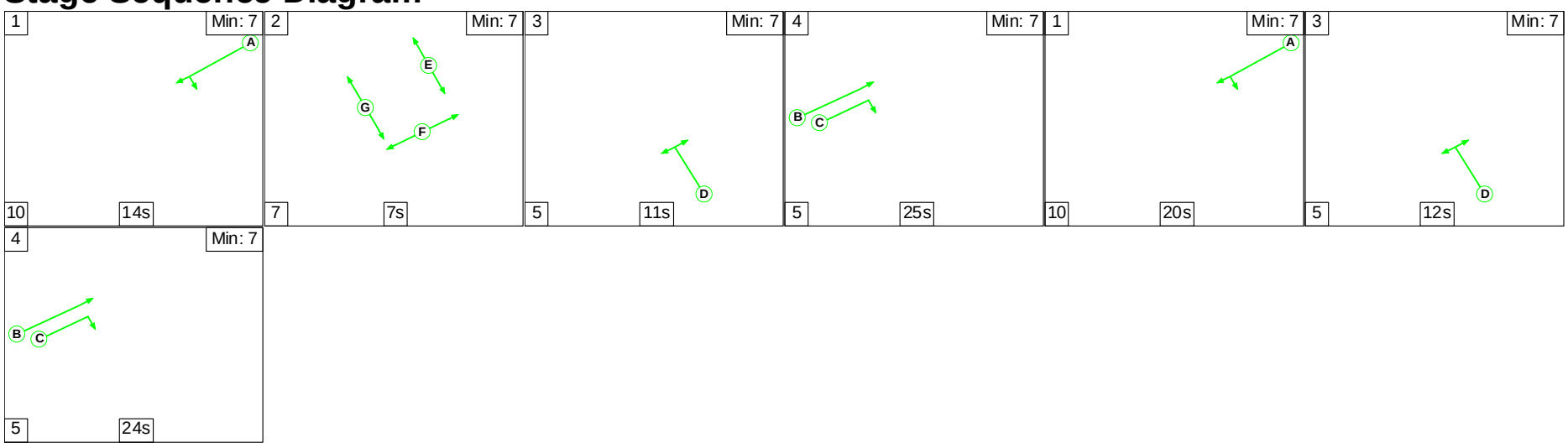
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**8.6**	**7.5**	**0.0**	**16.2**	**-**	**-**	**-**	**-**
A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**8.6**	**7.5**	**0.0**	**16.2**	**-**	**-**	**-**	**-**
1/1	321	321	-	-	-	2.7	2.4	-	5.2	57.8	7.7	2.4	10.1
2/1+2/2	642	642	-	-	-	4.0	2.9	-	6.9	38.4	10.2	2.9	13.1
3/1	206	206	-	-	-	1.9	2.2	-	4.2	72.8	4.5	2.2	6.8
4/1	345	345	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	225	225	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	599	599	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 4.8 Total Delay for Signalled Lanes (pcuHr): 16.17 Cycle Time (s): 160
PRC Over All Lanes (%): 4.8 Total Delay Over All Lanes(pcuHr): 16.17

Full Input Data And Results

Scenario 6: 'Base 2015 PM + Com' (FG6: 'Base 2015 PM + Com', Plan 1: 'Network Control Plan 1')

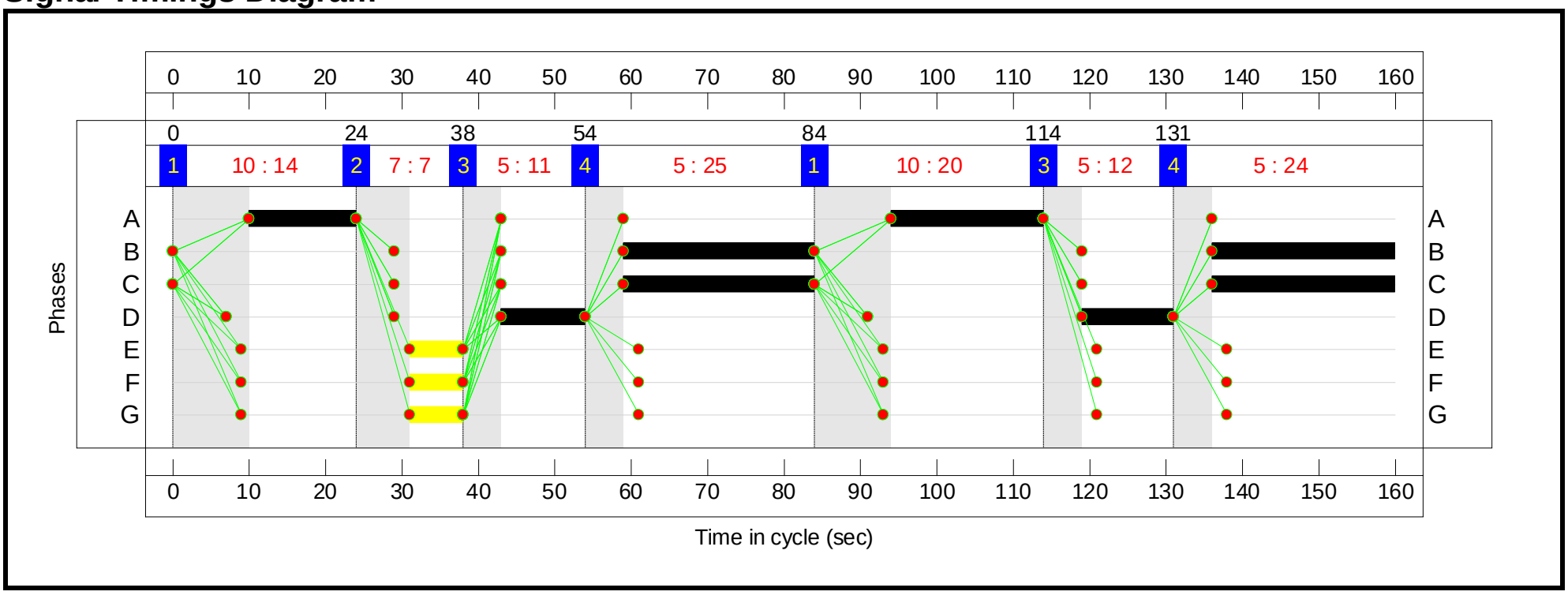
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	3	4
Duration	14	7	11	25	20	12	24
Change Point	0	24	38	54	84	114	131

Signal Timings Diagram



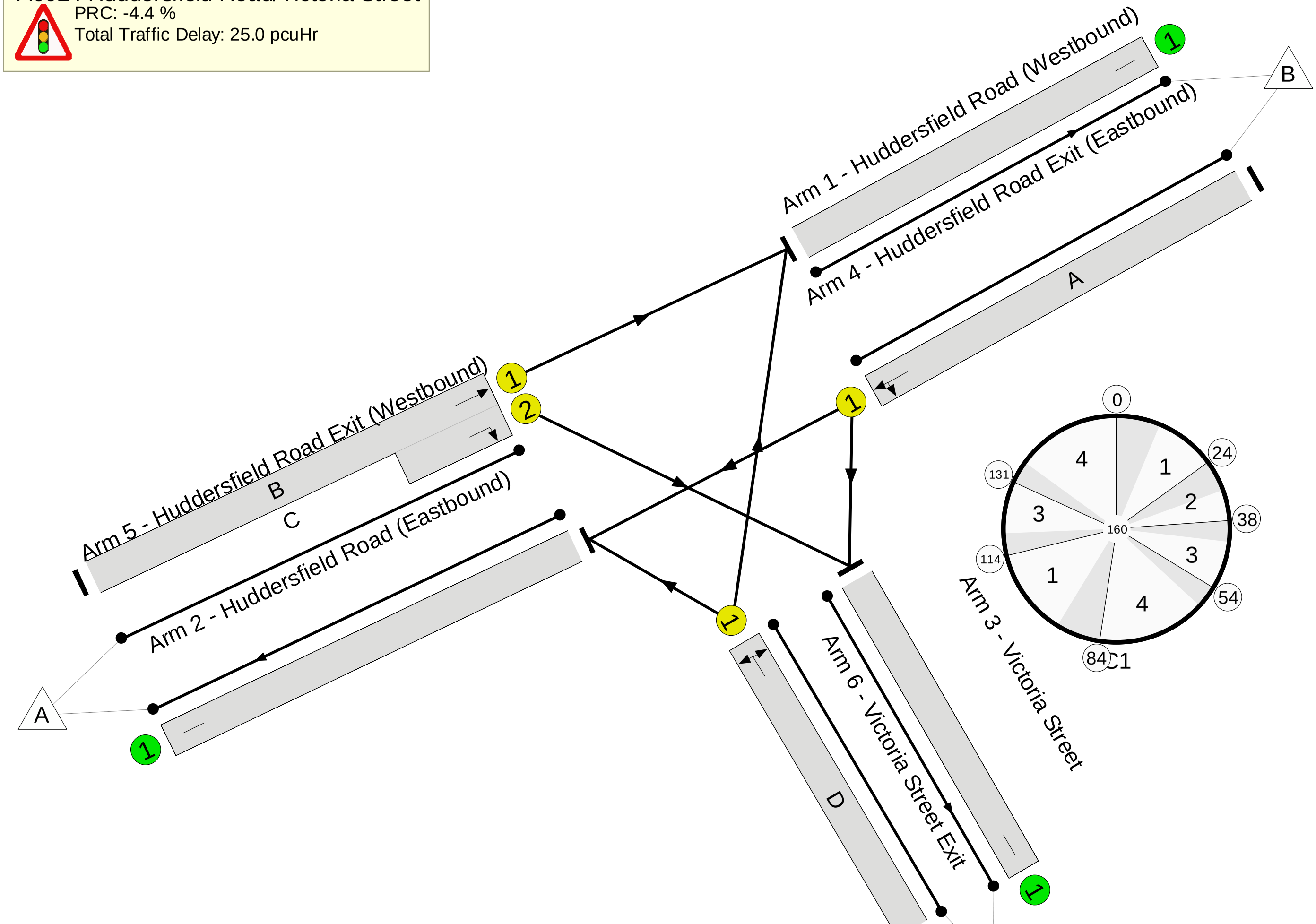
Full Input Data And Results

Network Layout Diagram

A6024 Huddersfield Road/Victoria Street

PRC: -4.4 %

Total Traffic Delay: 25.0 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.9%**
A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.9%**
1/1	Huddersfield Road (Westbound) Ahead Left	U	N/A	N/A	A		2	34	-	376	1800	405	92.8%
2/1+2/2	Huddersfield Road (Eastbound) Ahead Right	U	N/A	N/A	B C		2	49	-	647	1800:1800	233+456	93.9 : 93.9%
3/1	Victoria Street Right Left	U	N/A	N/A	D		2	23	-	258	1800	281	91.7%
4/1	Huddersfield Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	356	Inf	Inf	0.0%
5/1	Huddersfield Road Exit (Westbound)	U	N/A	N/A	-		-	-	-	345	Inf	Inf	0.0%
6/1	Victoria Street Exit	U	N/A	N/A	-		-	-	-	580	Inf	Inf	0.0%

Full Input Data And Results

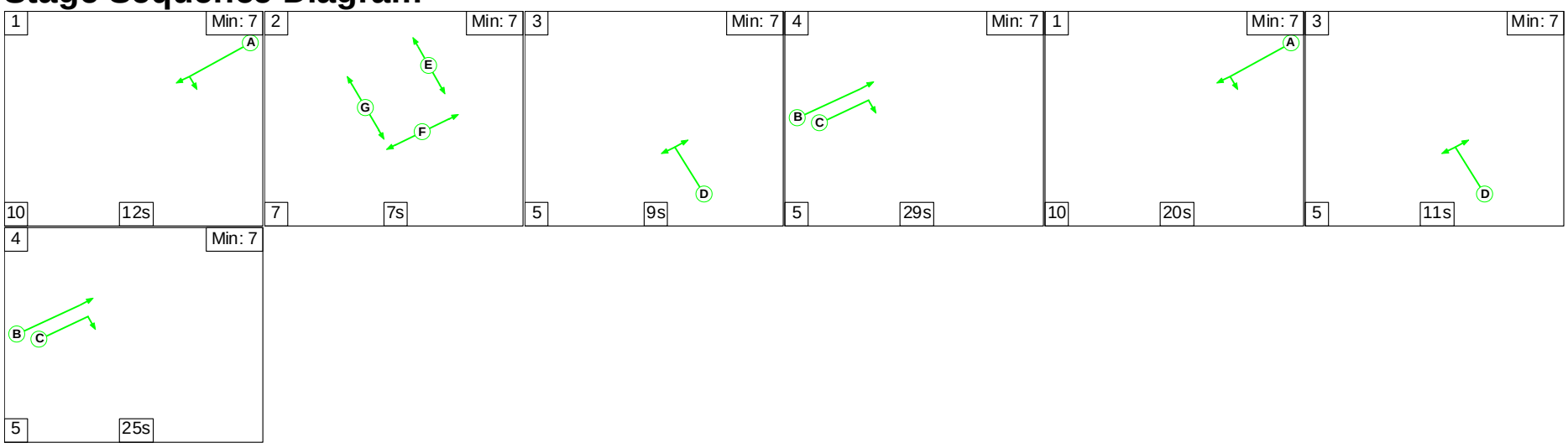
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**10.1**	**15.0**	**0.0**	**25.0**	**-**	**-**	**-**	**-**
A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**10.1**	**15.0**	**0.0**	**25.0**	**-**	**-**	**-**	**-**
1/1	376	376	-	-	-	3.2	4.9	-	8.1	77.3	9.1	4.9	13.9
2/1+2/2	647	647	-	-	-	4.5	6.0	-	10.5	58.2	12.2	6.0	18.2
3/1	258	258	-	-	-	2.4	4.1	-	6.5	90.6	5.9	4.1	10.0
4/1	356	356	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	345	345	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	580	580	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -4.4 Total Delay for Signalled Lanes (pcuHr): 25.03 Cycle Time (s): 160
PRC Over All Lanes (%): -4.4 Total Delay Over All Lanes(pcuHr): 25.03

Full Input Data And Results

Scenario 7: 'Base 2020 AM + Com' (FG7: 'Base 2020 AM + Com', Plan 1: 'Network Control Plan 1')

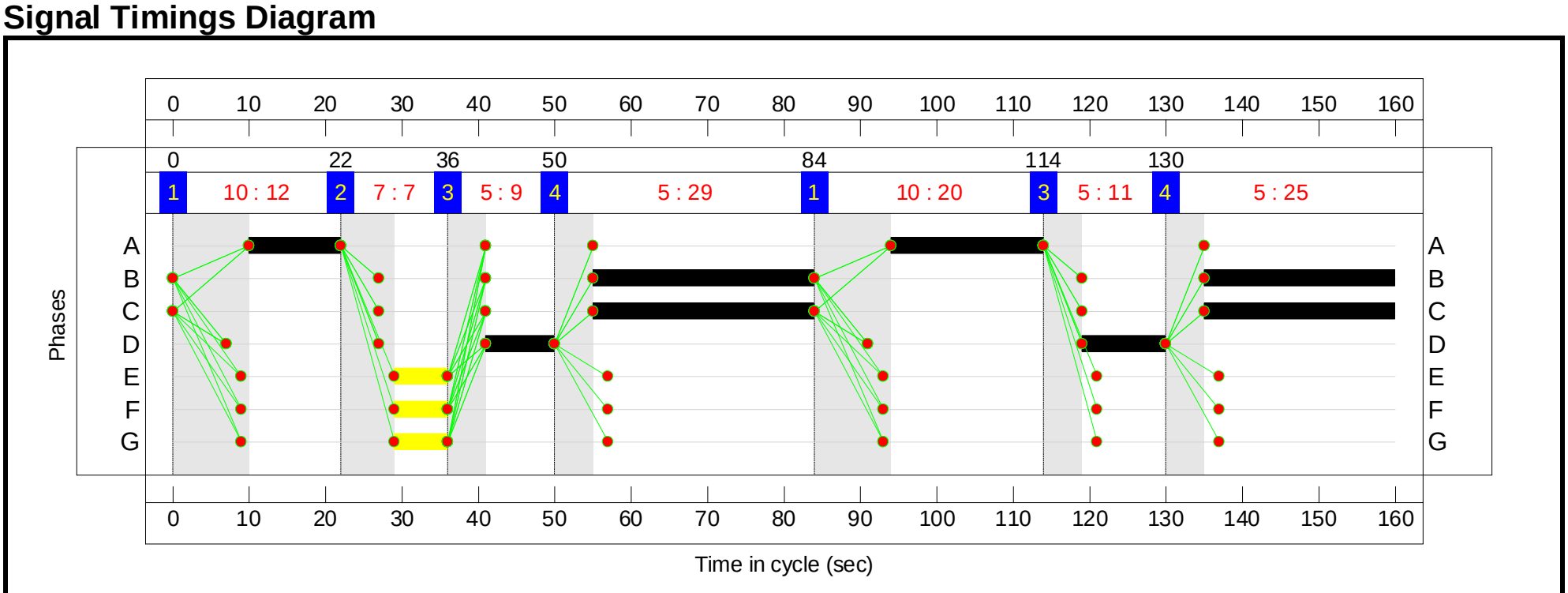
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	3	4
Duration	12	7	9	29	20	11	25
Change Point	0	22	36	50	84	114	130

Signal Timings Diagram



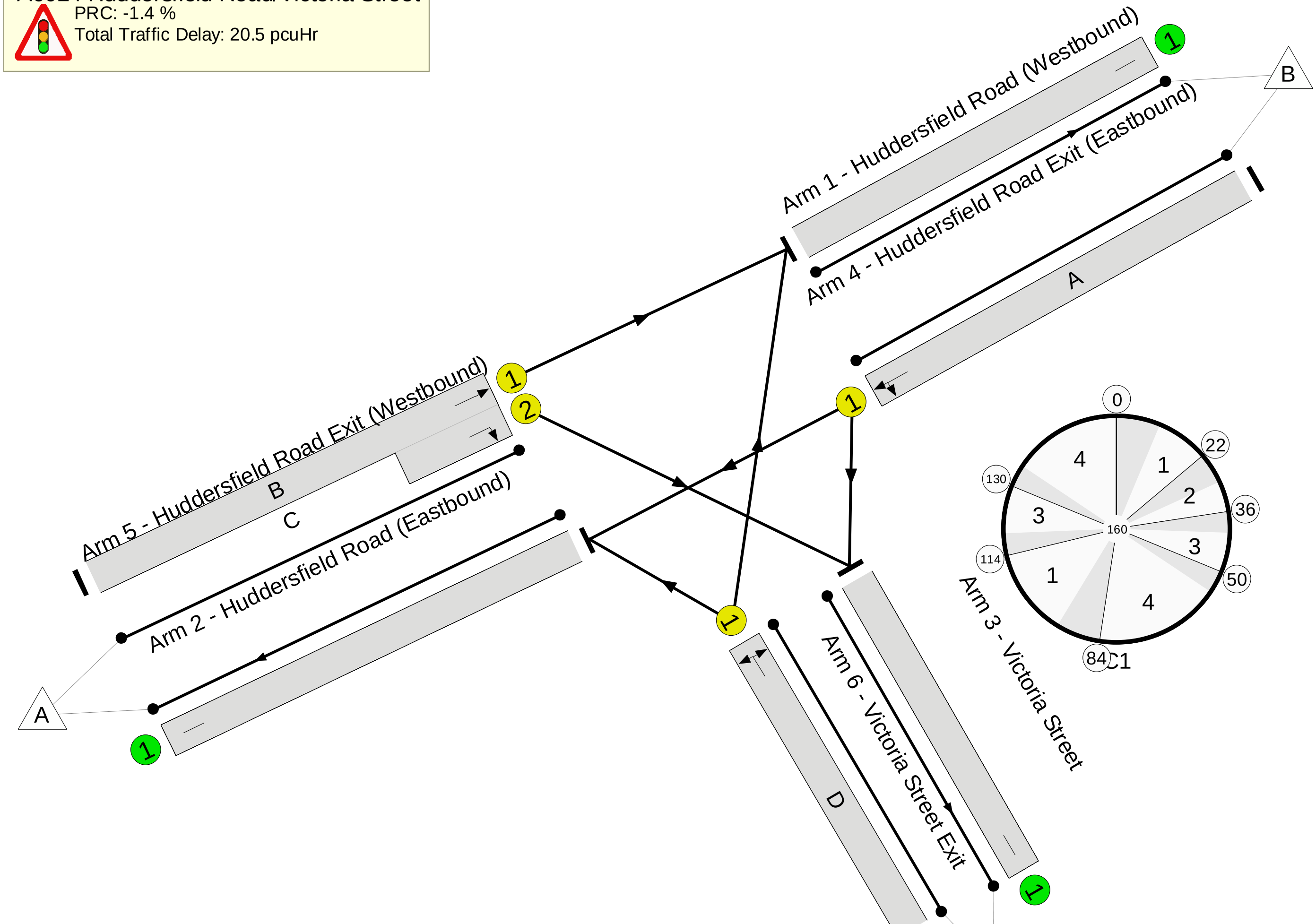
Full Input Data And Results

Network Layout Diagram

A6024 Huddersfield Road/Victoria Street

PRC: -1.4 %

Total Traffic Delay: 20.5 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**91.2%**
A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**91.2%**
1/1	Huddersfield Road (Westbound) Ahead Left	U	N/A	N/A	A		2	32	-	341	1800	383	89.2%
2/1+2/2	Huddersfield Road (Eastbound) Ahead Right	U	N/A	N/A	B C		2	54	-	682	1800:1800	256+491	91.2 : 91.2%
3/1	Victoria Street Right Left	U	N/A	N/A	D		2	20	-	218	1800	248	88.1%
4/1	Huddersfield Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	366	Inf	Inf	0.0%
5/1	Huddersfield Road Exit (Westbound)	U	N/A	N/A	-		-	-	-	239	Inf	Inf	0.0%
6/1	Victoria Street Exit	U	N/A	N/A	-		-	-	-	636	Inf	Inf	0.0%

Full Input Data And Results

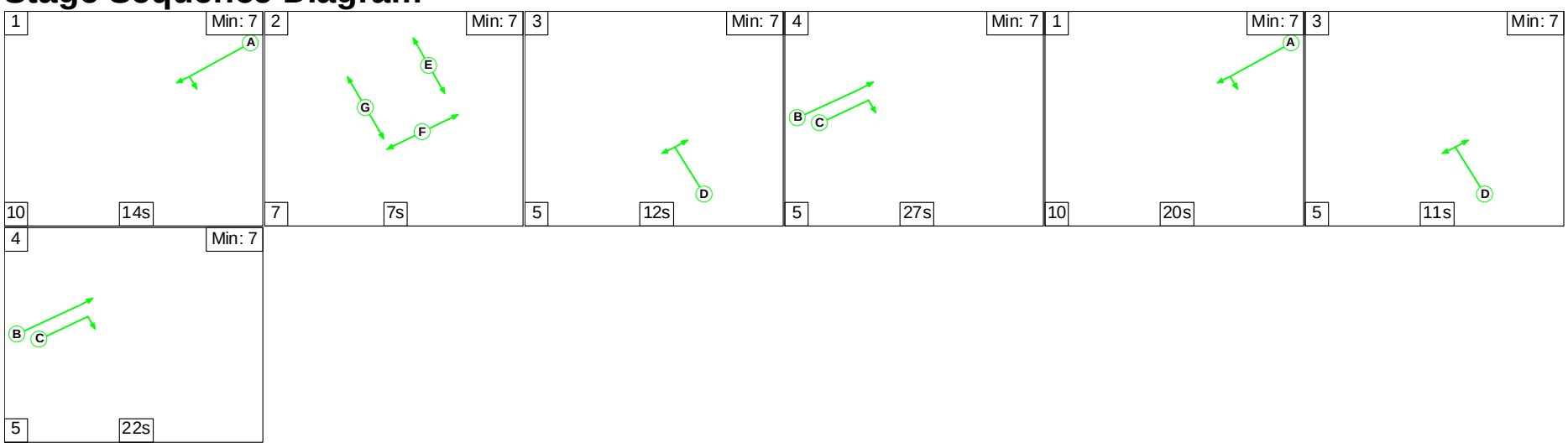
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**9.3**	**11.1**	**0.0**	**20.5**	**-**	**-**	**-**	**-**
A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**9.3**	**11.1**	**0.0**	**20.5**	**-**	**-**	**-**	**-**
1/1	341	341	-	-	-	2.9	3.5	-	6.5	68.2	8.2	3.5	11.8
2/1+2/2	682	682	-	-	-	4.4	4.6	-	8.9	47.1	12.2	4.6	16.7
3/1	218	218	-	-	-	2.1	3.1	-	5.1	84.4	4.8	3.1	7.8
4/1	366	366	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	239	239	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	636	636	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -1.4 Total Delay for Signalled Lanes (pcuHr): 20.49 Cycle Time (s): 160
PRC Over All Lanes (%): -1.4 Total Delay Over All Lanes(pcuHr): 20.49

Full Input Data And Results

Scenario 8: 'Base 2020 PM + Com' (FG8: 'Base 2020 PM + Com', Plan 1: 'Network Control Plan 1')

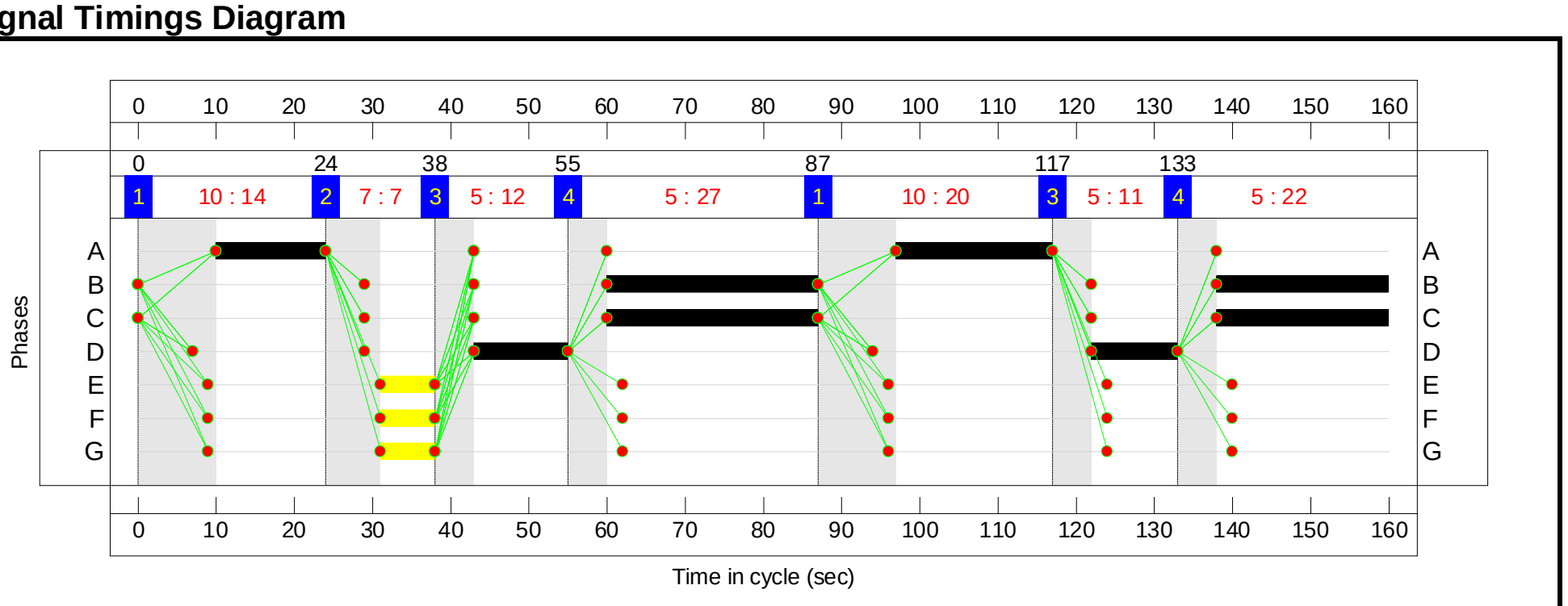
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	3	4
Duration	14	7	12	27	20	11	22
Change Point	0	24	38	55	87	117	133

Signal Timings Diagram



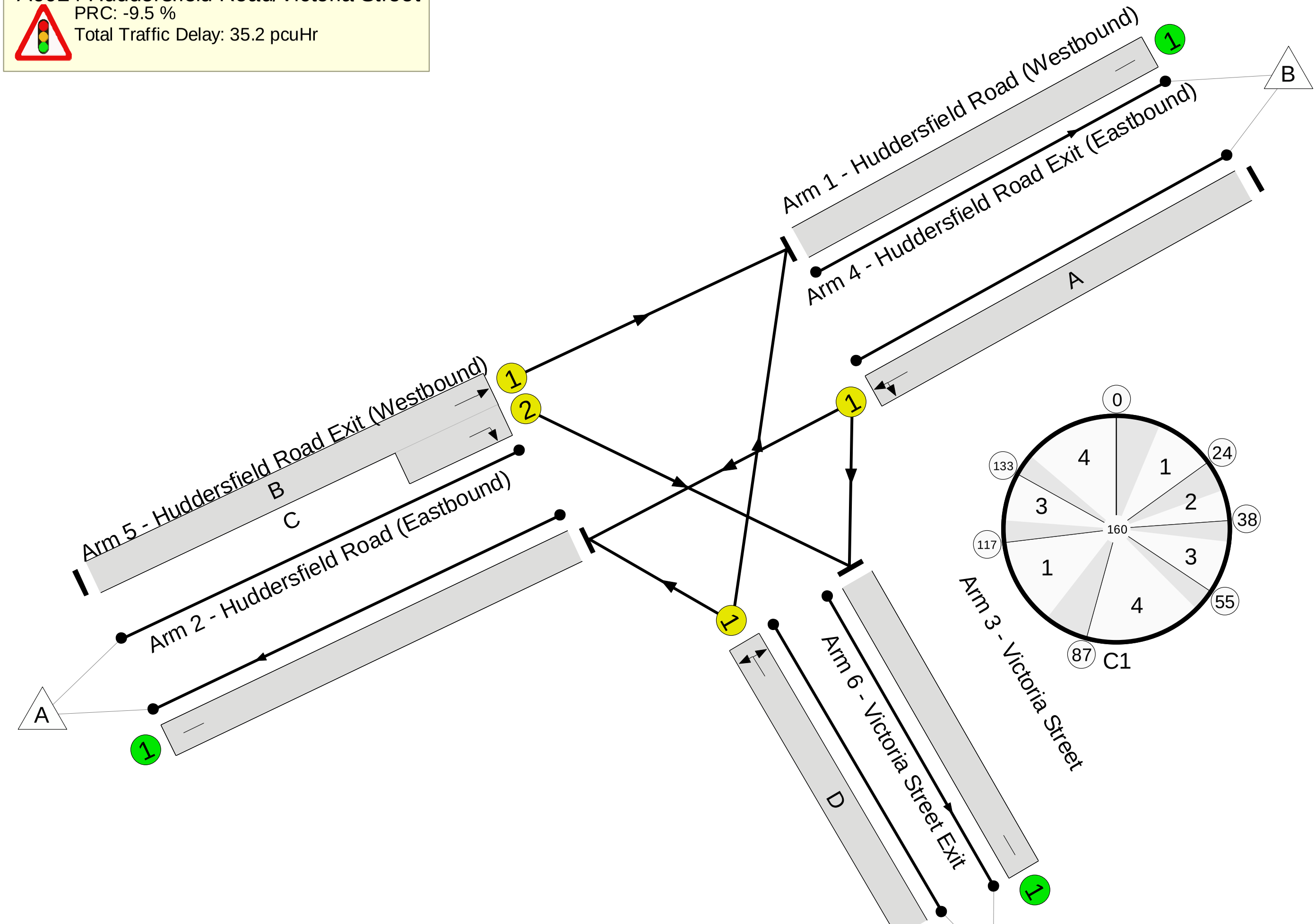
Full Input Data And Results

Network Layout Diagram

A6024 Huddersfield Road/Victoria Street

PRC: -9.5 %

Total Traffic Delay: 35.2 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**98.5%**
A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**98.5%**
1/1	Huddersfield Road (Westbound) Ahead Left	U	N/A	N/A	A		2	34	-	394	1800	405	97.3%
2/1+2/2	Huddersfield Road (Eastbound) Ahead Right	U	N/A	N/A	B C		2	49	-	679	1800:1800	233+456	98.5 : 98.5%
3/1	Victoria Street Right Left	U	N/A	N/A	D		2	23	-	271	1800	281	96.4%
4/1	Huddersfield Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	374	Inf	Inf	0.0%
5/1	Huddersfield Road Exit (Westbound)	U	N/A	N/A	-		-	-	-	362	Inf	Inf	0.0%
6/1	Victoria Street Exit	U	N/A	N/A	-		-	-	-	608	Inf	Inf	0.0%

Full Input Data And Results

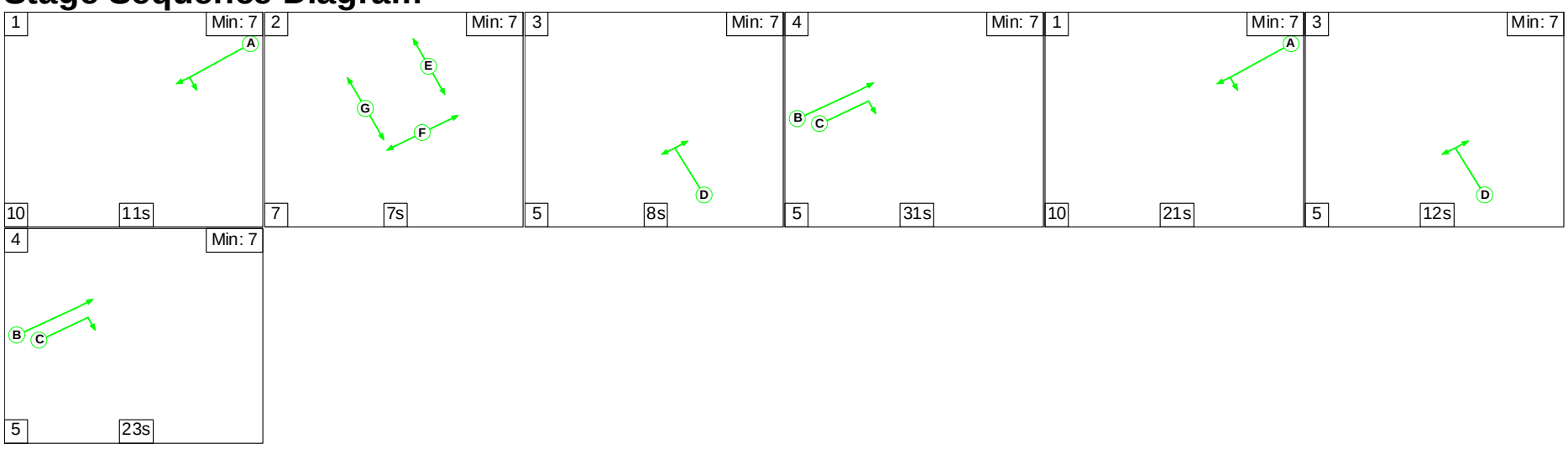
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**10.8**	**24.4**	**0.0**	**35.2**	**-**	**-**	**-**	**-**
A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**10.8**	**24.4**	**0.0**	**35.2**	**-**	**-**	**-**	**-**
1/1	394	394	-	-	-	3.5	7.5	-	11.0	100.5	10.1	7.5	17.6
2/1+2/2	679	679	-	-	-	4.8	10.8	-	15.6	82.6	13.7	10.8	24.4
3/1	271	271	-	-	-	2.5	6.1	-	8.6	114.0	6.1	6.1	12.2
4/1	374	374	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	362	362	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -9.5 Total Delay for Signalled Lanes (pcuHr): 35.17 Cycle Time (s): 160
PRC Over All Lanes (%): -9.5 Total Delay Over All Lanes(pcuHr): 35.17

Full Input Data And Results

Scenario 9: 'Base 2015 AM + Dev + Com' (FG9: 'Base 2015 AM + Dev + Com', Plan 1: 'Network Control Plan 1')

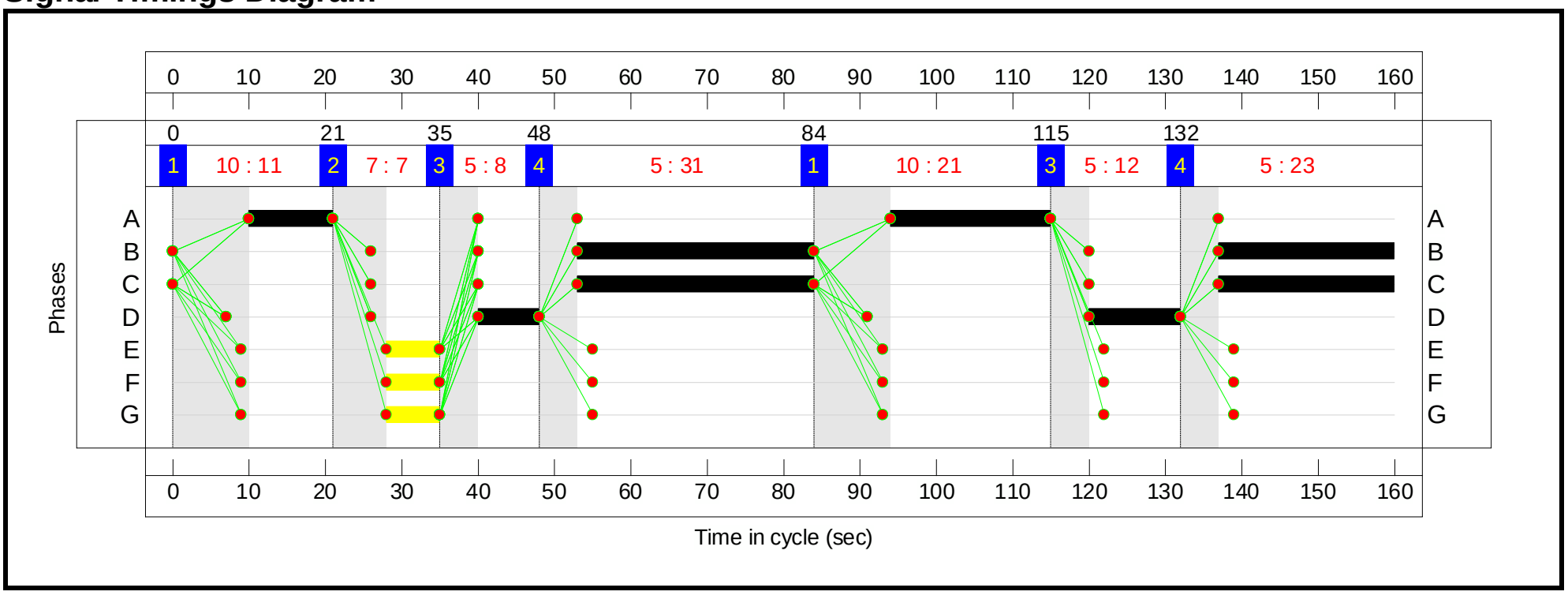
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	3	4
Duration	11	7	8	31	21	12	23
Change Point	0	21	35	48	84	115	132

Signal Timings Diagram



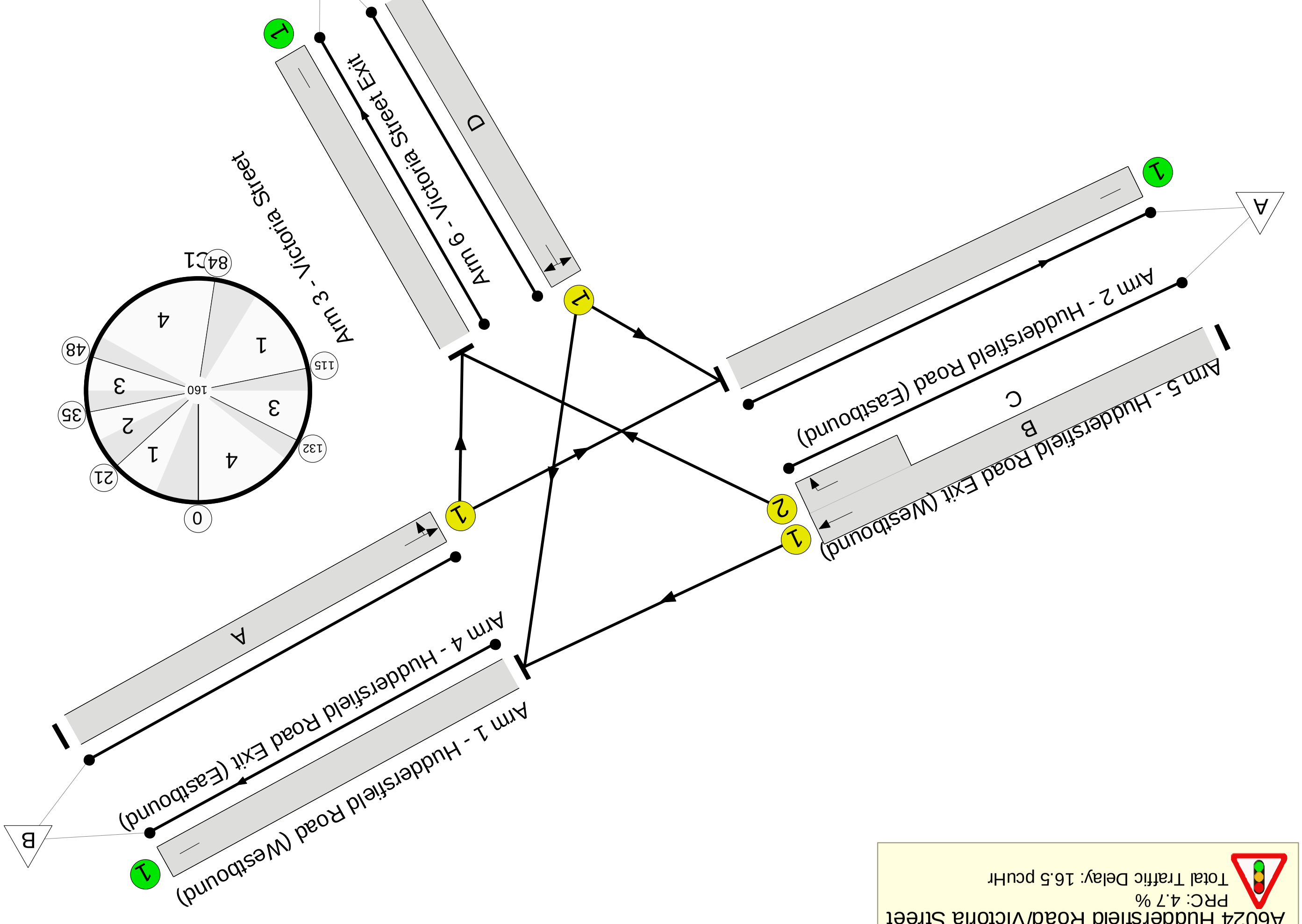
Full Input Data And Results

Network Layout Diagram

A6024 Huddersfield Road/Victoria Street

PRC: 4.7 %

Total Traffic Delay: 16.5 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**86.0%**
A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**86.0%**
1/1	Huddersfield Road (Westbound) Ahead Left	U	N/A	N/A	A		2	32	-	326	1800	383	85.2%
2/1+2/2	Huddersfield Road (Eastbound) Ahead Right	U	N/A	N/A	B C		2	54	-	643	1800:1800	257+491	86.0 : 86.0%
3/1	Victoria Street Right Left	U	N/A	N/A	D		2	20	-	207	1800	248	83.6%
4/1	Huddersfield Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	347	Inf	Inf	0.0%
5/1	Huddersfield Road Exit (Westbound)	U	N/A	N/A	-		-	-	-	228	Inf	Inf	0.0%
6/1	Victoria Street Exit	U	N/A	N/A	-		-	-	-	601	Inf	Inf	0.0%

Full Input Data And Results

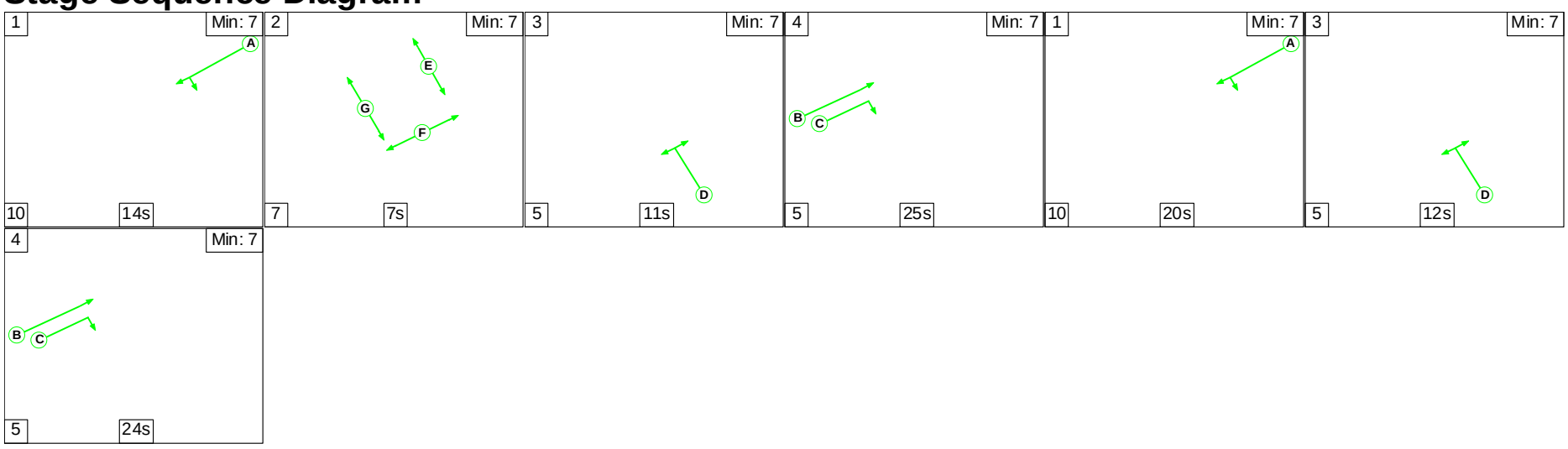
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**8.7**	**7.8**	**0.0**	**16.5**	**-**	**-**	**-**	**-**
A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**8.7**	**7.8**	**0.0**	**16.5**	**-**	**-**	**-**	**-**
1/1	326	326	-	-	-	2.8	2.6	-	5.4	60.0	7.9	2.6	10.5
2/1+2/2	643	643	-	-	-	4.0	2.9	-	6.9	38.5	10.2	2.9	13.1
3/1	207	207	-	-	-	1.9	2.3	-	4.2	73.6	4.6	2.3	6.9
4/1	347	347	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	228	228	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	601	601	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 4.7 Total Delay for Signalled Lanes (pcuHr): 16.54 Cycle Time (s): 160
PRC Over All Lanes (%): 4.7 Total Delay Over All Lanes(pcuHr): 16.54

Full Input Data And Results

Scenario 10: 'Base 2015 PM + Dev + Com' (FG10: 'Base 2015 PM + Dev + Com', Plan 1: 'Network Control Plan 1')

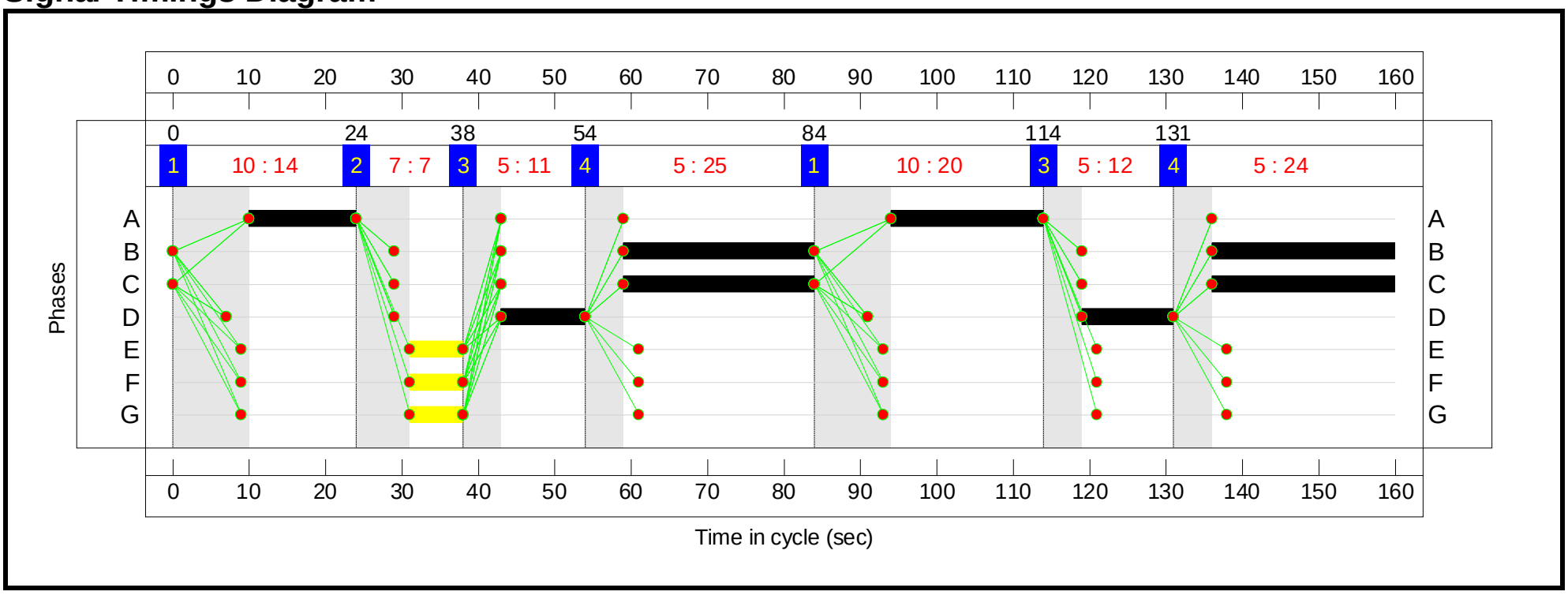
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	3	4
Duration	14	7	11	25	20	12	24
Change Point	0	24	38	54	84	114	131

Signal Timings Diagram



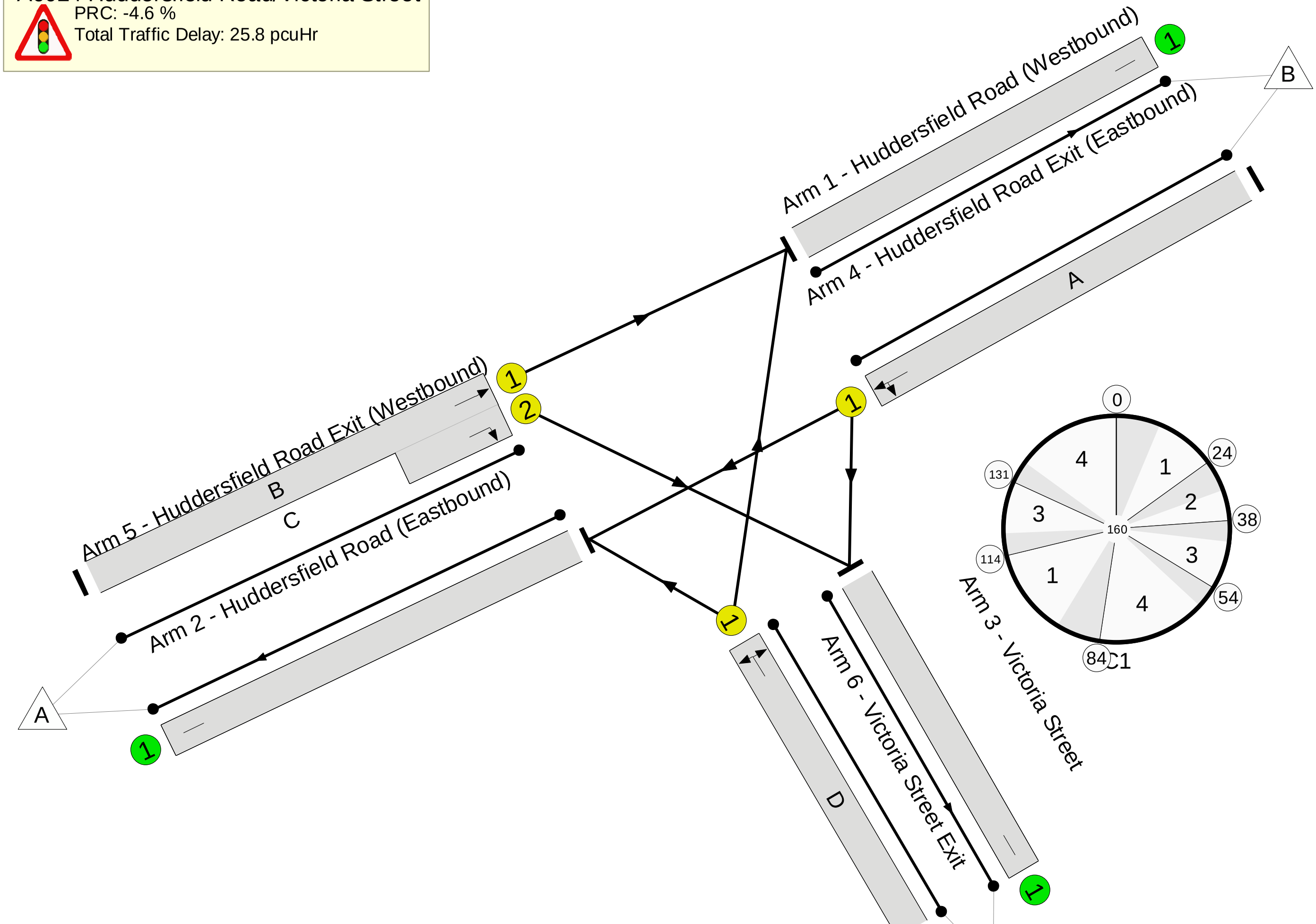
Full Input Data And Results

Network Layout Diagram

A6024 Huddersfield Road/Victoria Street

PRC: -4.6 %

Total Traffic Delay: 25.8 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**94.1%**
A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**94.1%**
1/1	Huddersfield Road (Westbound) Ahead Left	U	N/A	N/A	A		2	34	-	379	1800	405	93.6%
2/1+2/2	Huddersfield Road (Eastbound) Ahead Right	U	N/A	N/A	B C		2	49	-	650	1800:1800	236+455	94.1 : 94.1%
3/1	Victoria Street Right Left	U	N/A	N/A	D		2	23	-	260	1800	281	92.4%
4/1	Huddersfield Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	361	Inf	Inf	0.0%
5/1	Huddersfield Road Exit (Westbound)	U	N/A	N/A	-		-	-	-	347	Inf	Inf	0.0%
6/1	Victoria Street Exit	U	N/A	N/A	-		-	-	-	581	Inf	Inf	0.0%

Full Input Data And Results

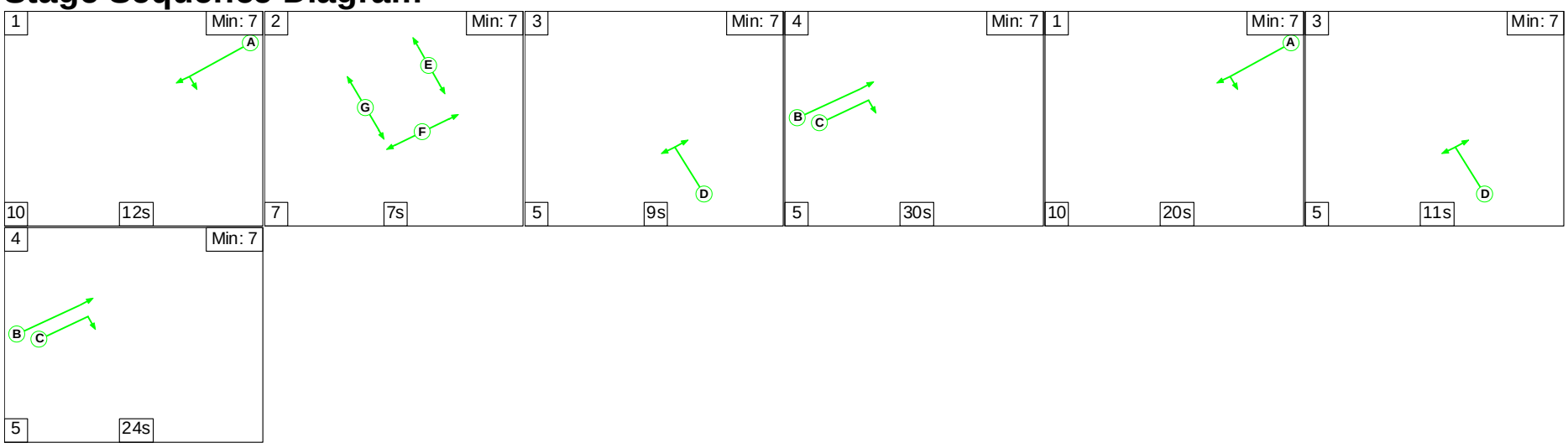
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**10.1**	**15.7**	**0.0**	**25.8**	**-**	**-**	**-**	**-**
A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**10.1**	**15.7**	**0.0**	**25.8**	**-**	**-**	**-**	**-**
1/1	379	379	-	-	-	3.2	5.2	-	8.5	80.3	9.2	5.2	14.4
2/1+2/2	650	650	-	-	-	4.5	6.2	-	10.6	59.0	12.2	6.2	18.4
3/1	260	260	-	-	-	2.4	4.3	-	6.8	93.5	5.9	4.3	10.3
4/1	361	361	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	347	347	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	581	581	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -4.6 Total Delay for Signalled Lanes (pcuHr): 25.85 Cycle Time (s): 160
PRC Over All Lanes (%): -4.6 Total Delay Over All Lanes(pcuHr): 25.85

Full Input Data And Results

Scenario 11: 'Base 2020 AM + Dev + Com' (FG11: 'Base 2020 AM + Dev + Com', Plan 1: 'Network Control Plan 1')

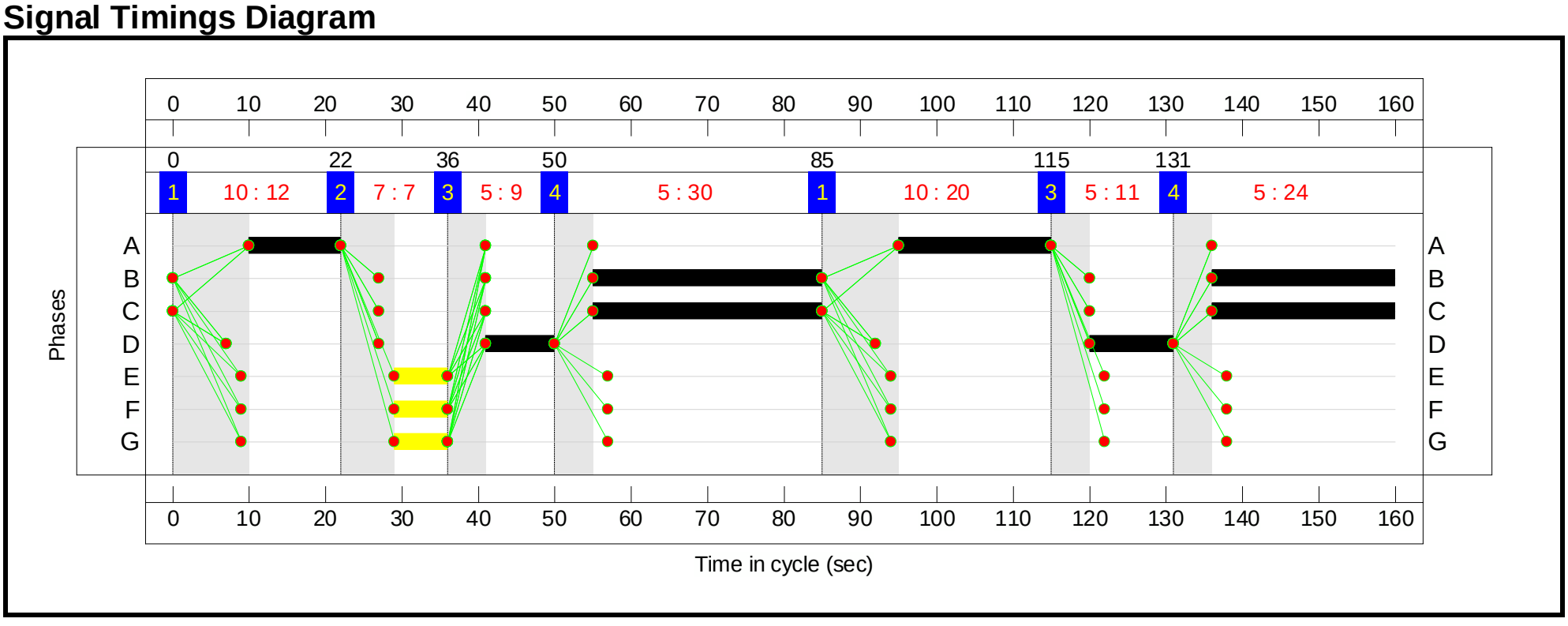
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	3	4
Duration	12	7	9	30	20	11	24
Change Point	0	22	36	50	85	115	131

Signal Timings Diagram



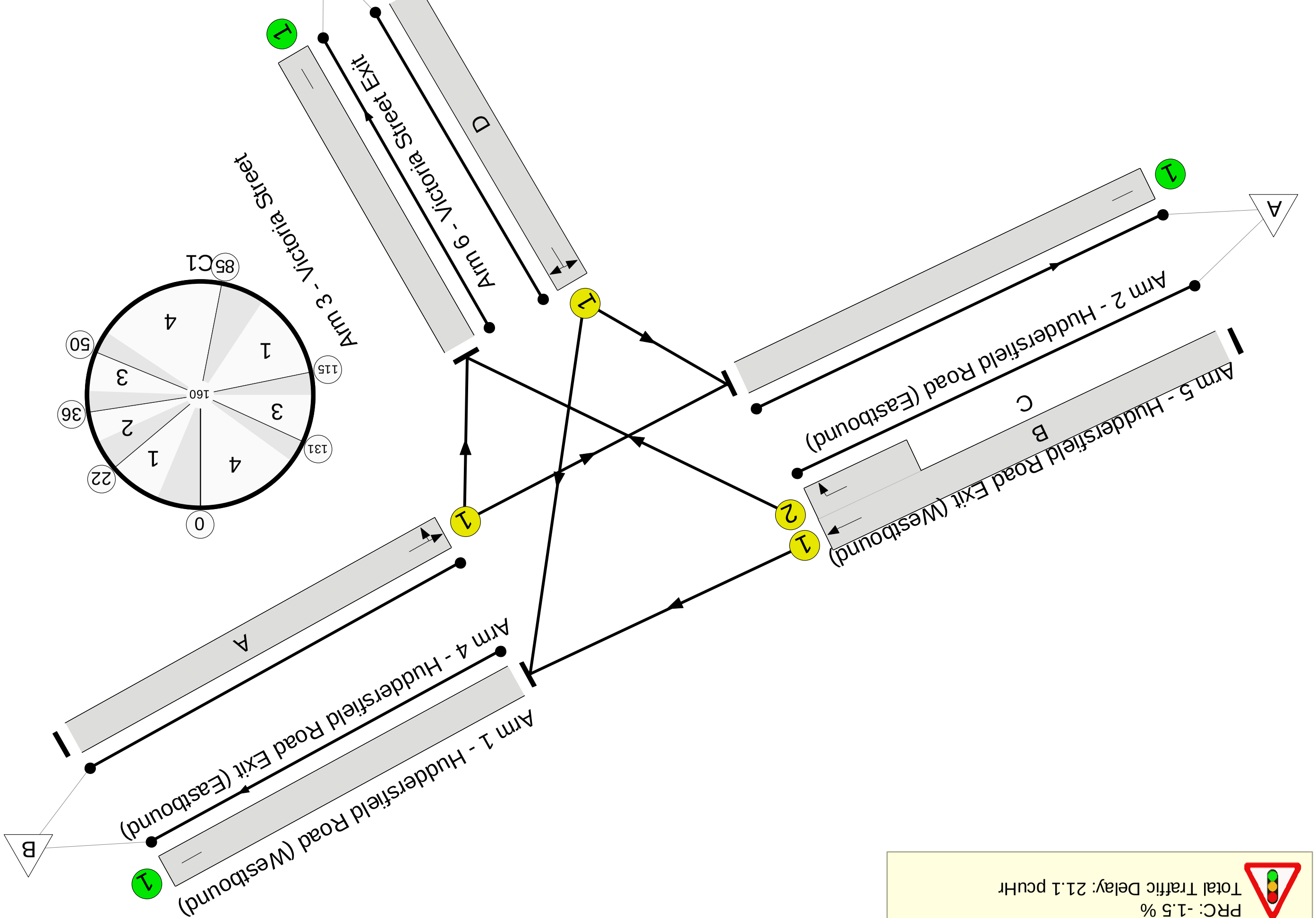
Full Input Data And Results

Network Layout Diagram

A6024 Huddersfield Road/Victoria Street

PRC: -1.5 %

Total Traffic Delay: 21.1 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**91.3%**
A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**91.3%**
1/1	Huddersfield Road (Westbound) Ahead Left	U	N/A	N/A	A		2	32	-	346	1800	383	90.5%
2/1+2/2	Huddersfield Road (Eastbound) Ahead Right	U	N/A	N/A	B C		2	54	-	683	1800:1800	257+491	91.3 : 91.3%
3/1	Victoria Street Right Left	U	N/A	N/A	D		2	20	-	219	1800	248	88.5%
4/1	Huddersfield Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	368	Inf	Inf	0.0%
5/1	Huddersfield Road Exit (Westbound)	U	N/A	N/A	-		-	-	-	242	Inf	Inf	0.0%
6/1	Victoria Street Exit	U	N/A	N/A	-		-	-	-	638	Inf	Inf	0.0%

Full Input Data And Results

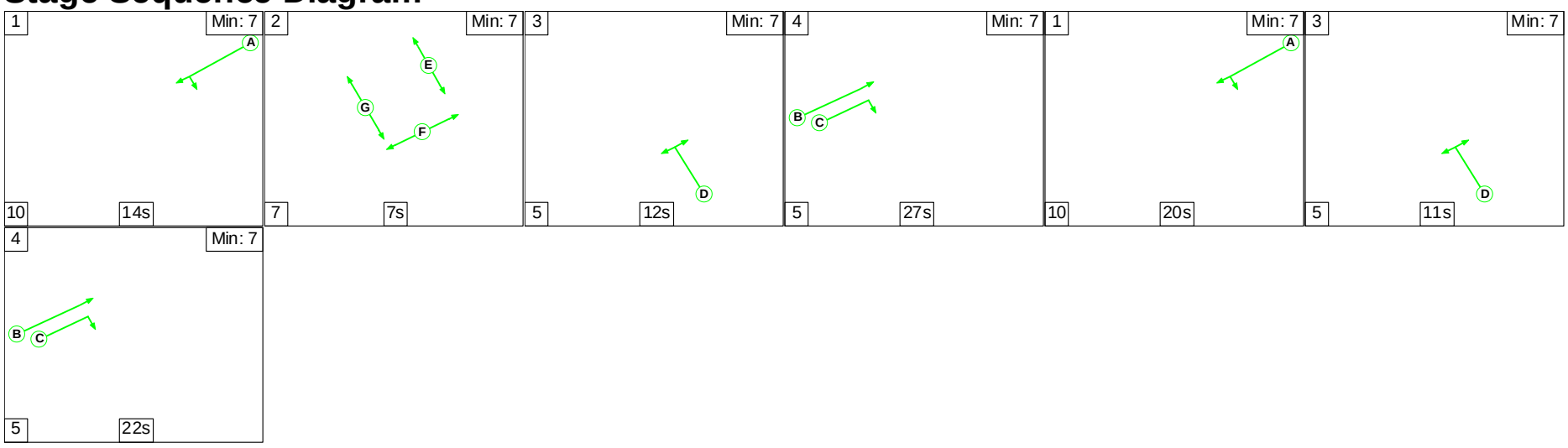
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**9.4**	**11.7**	**0.0**	**21.1**	**-**	**-**	**-**	**-**
A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**9.4**	**11.7**	**0.0**	**21.1**	**-**	**-**	**-**	**-**
1/1	346	346	-	-	-	3.0	3.9	-	6.9	72.0	8.6	3.9	12.5
2/1+2/2	683	683	-	-	-	4.4	4.6	-	9.0	47.2	12.2	4.6	16.8
3/1	219	219	-	-	-	2.1	3.1	-	5.2	85.6	4.7	3.1	7.9
4/1	368	368	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	242	242	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	638	638	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -1.5 Total Delay for Signalled Lanes (pcuHr): 21.08 Cycle Time (s): 160
PRC Over All Lanes (%): -1.5 Total Delay Over All Lanes(pcuHr): 21.08

Full Input Data And Results

Scenario 12: 'Base 2020 PM + Dev + Com' (FG12: 'Base 2020 PM + Dev + Com', Plan 1: 'Network Control Plan 1')

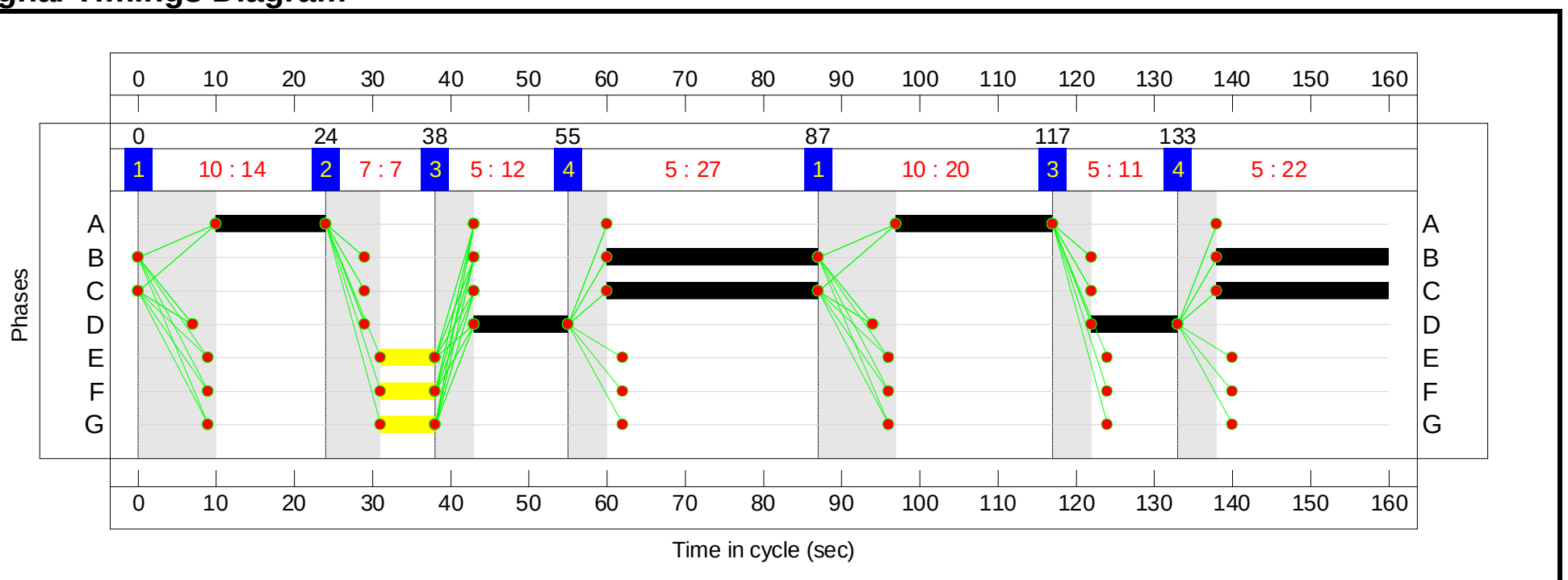
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	1	3	4
Duration	14	7	12	27	20	11	22
Change Point	0	24	38	55	87	117	133

Signal Timings Diagram



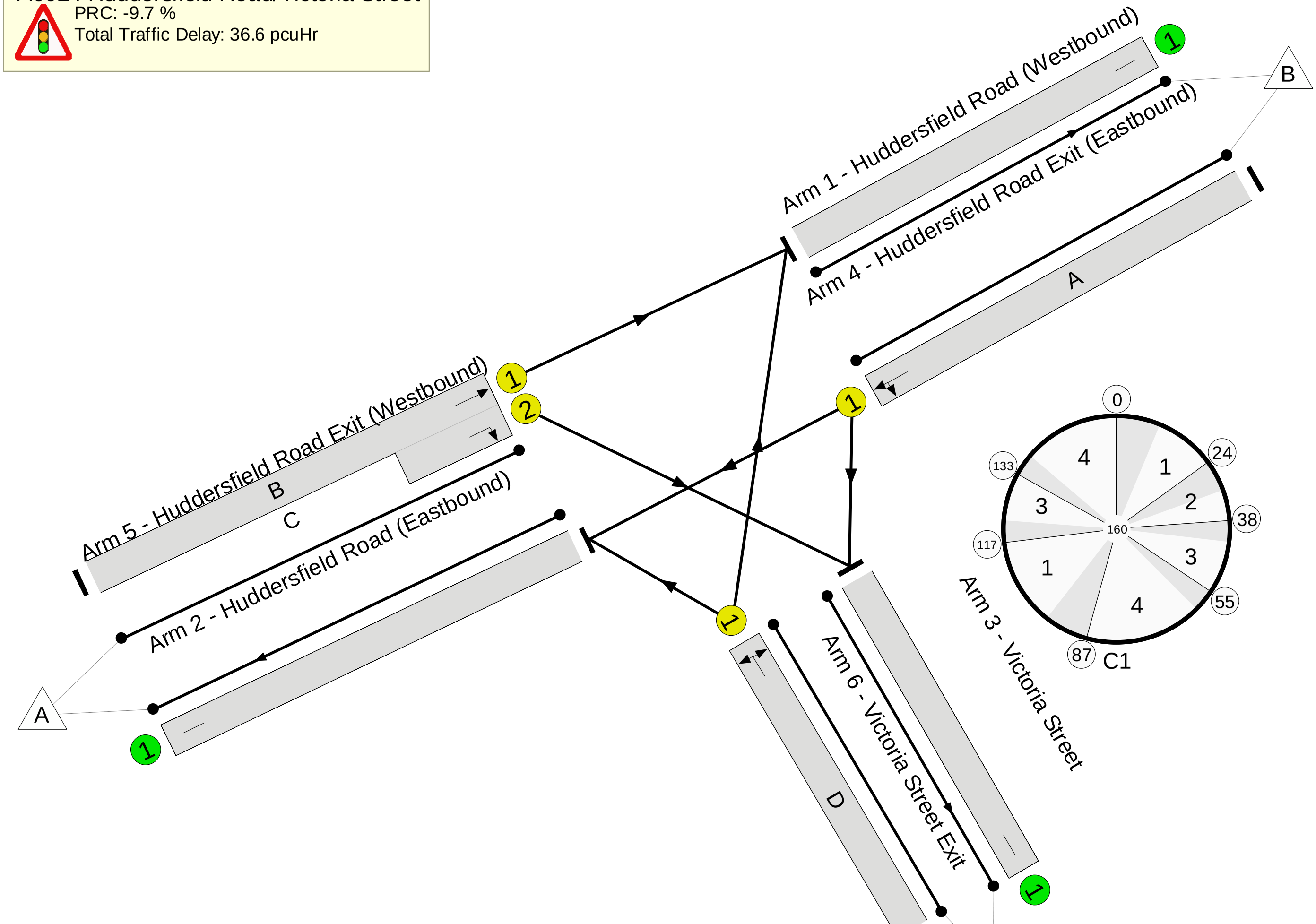
Full Input Data And Results

Network Layout Diagram

A6024 Huddersfield Road/Victoria Street

PRC: -9.7 %

Total Traffic Delay: 36.6 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**98.8%**
A6024 Huddersfield Road/Victoria Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**98.8%**
1/1	Huddersfield Road (Westbound) Ahead Left	U	N/A	N/A	A		2	34	-	397	1800	405	98.0%
2/1+2/2	Huddersfield Road (Eastbound) Ahead Right	U	N/A	N/A	B C		2	49	-	682	1800:1800	236+455	98.8 : 98.8%
3/1	Victoria Street Right Left	U	N/A	N/A	D		2	23	-	273	1800	281	97.1%
4/1	Huddersfield Road Exit (Eastbound)	U	N/A	N/A	-		-	-	-	379	Inf	Inf	0.0%
5/1	Huddersfield Road Exit (Westbound)	U	N/A	N/A	-		-	-	-	364	Inf	Inf	0.0%
6/1	Victoria Street Exit	U	N/A	N/A	-		-	-	-	609	Inf	Inf	0.0%

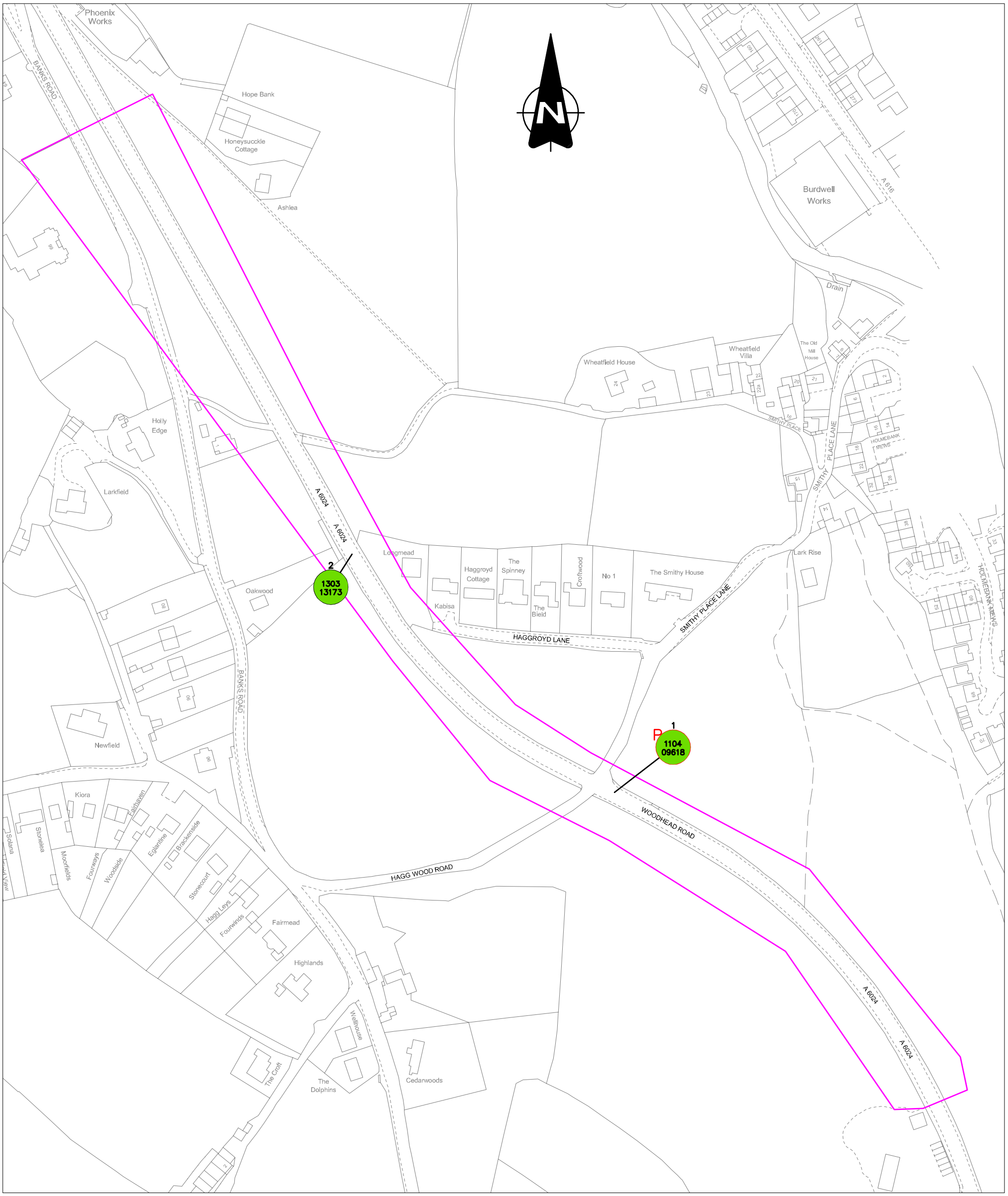
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**10.9**	**25.7**	**0.0**	**36.6**	**-**	**-**	**-**	**-**
A6024 Huddersfield Road/Victoria Street	**-**	**-**	**0**	**0**	**0**	**10.9**	**25.7**	**0.0**	**36.6**	**-**	**-**	**-**	**-**
1/1	397	397	-	-	-	3.5	8.2	-	11.6	105.6	10.1	8.2	18.3
2/1+2/2	682	682	-	-	-	4.8	11.1	-	15.9	84.2	13.7	11.1	24.8
3/1	273	273	-	-	-	2.5	6.5	-	9.0	118.7	6.1	6.5	12.6
4/1	379	379	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	364	364	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	609	609	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -9.7 Total Delay for Signalled Lanes (pcuHr): 36.59 Cycle Time (s): 160
PRC Over All Lanes (%): -9.7 Total Delay Over All Lanes(pcuHr): 36.59

Appendix G

ACCIDENT DATA



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Ordnance Survey 100019241

Kirklees COUNCIL

Streetscene & Housing
Flint Street, Fartown
Huddersfield, HD1 6LG

20010492 Brockholes
Site Frontage

Accident data
01–08–2010 to 31–07–2015

Scale	
NTS	
Drawn: PW	Checked:
Section: Safety	Date: Aug 15
Drawing No.	

SEVERITY	District	Brockholes Site Frontage - 01/08/2010 to 31/07/2015	Grid Reference
SLIGHT	Ref.No 110409618		Police Officer Attend: Yes

Date	05/09/2011 Day Monday
Time	17:12
Weather	Fine without high winds
Road Surface	Wet/Damp
Street Lighting	Daylight

Road A6024 Location Woodhead Road at Junction with Hagg Wood Road, Thongsbridge

Description of Accident: V1 is Travelling Along Woodhead Road from Honley Towards Holmfirth. Pedestrian Alights from Bus and Crosses Road from Behind the Bus. Pedestrian is Masked by the Bus and Steps out into the Path of V1.

SITE DETAILS

Speed Limit	40 MPH
Carriageway	Single carriageway
Junction Detail	Crossroads
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres
	No physical crossing facility within 50 m

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

CONTRIBUTORY FACTORS	PARTICIPANT	PROBABILITY
801 Crossed road masked by stationary or parked vehicle (Pede	Casualty 001	A

VEHICLES INVOLVED 1

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from Northwest to Southeast Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Cleared junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 0 Hit and run Not hit and run
Drivers age 44 yrs Sex Female Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Commuting to/from work

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Pedestrian Veh ref No 1
Severity SLIGHT Age 11 yrs Sex Male Post code

Car Passenger?	Not a passenger
PSV Passenger?	Not a passenger
Seat Belt	Not applicable
Cycle Helmet	
Ped Movement	Crossing from driver's offside - masked
Ped Location	In carriageway, crossing elsewhere
Ped Direction to	East bound
School Pupil	Other
Roadworker injured	Not applicable

Other Details