

Appendix O

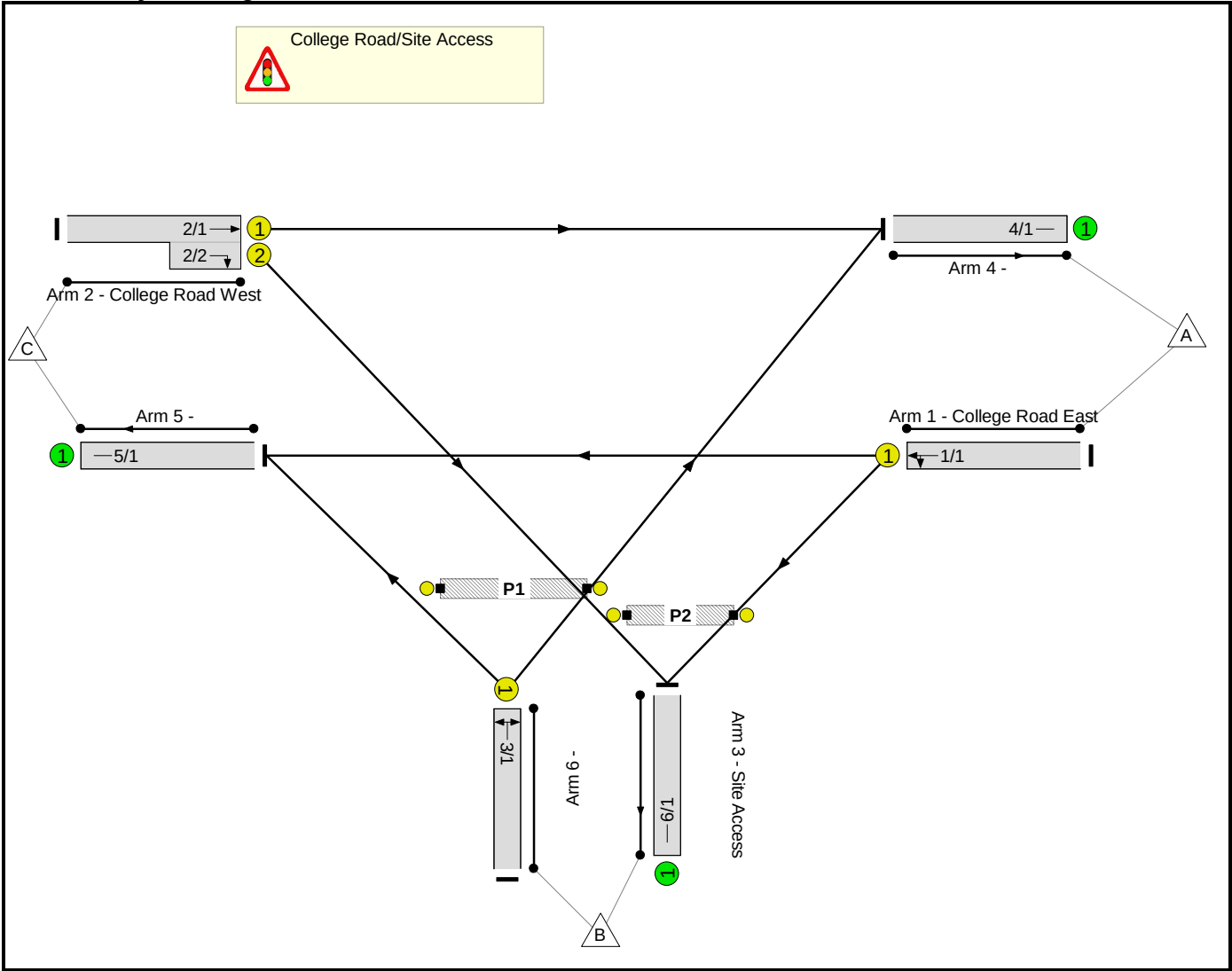
Full Input Data And Results

Full Input Data And Results

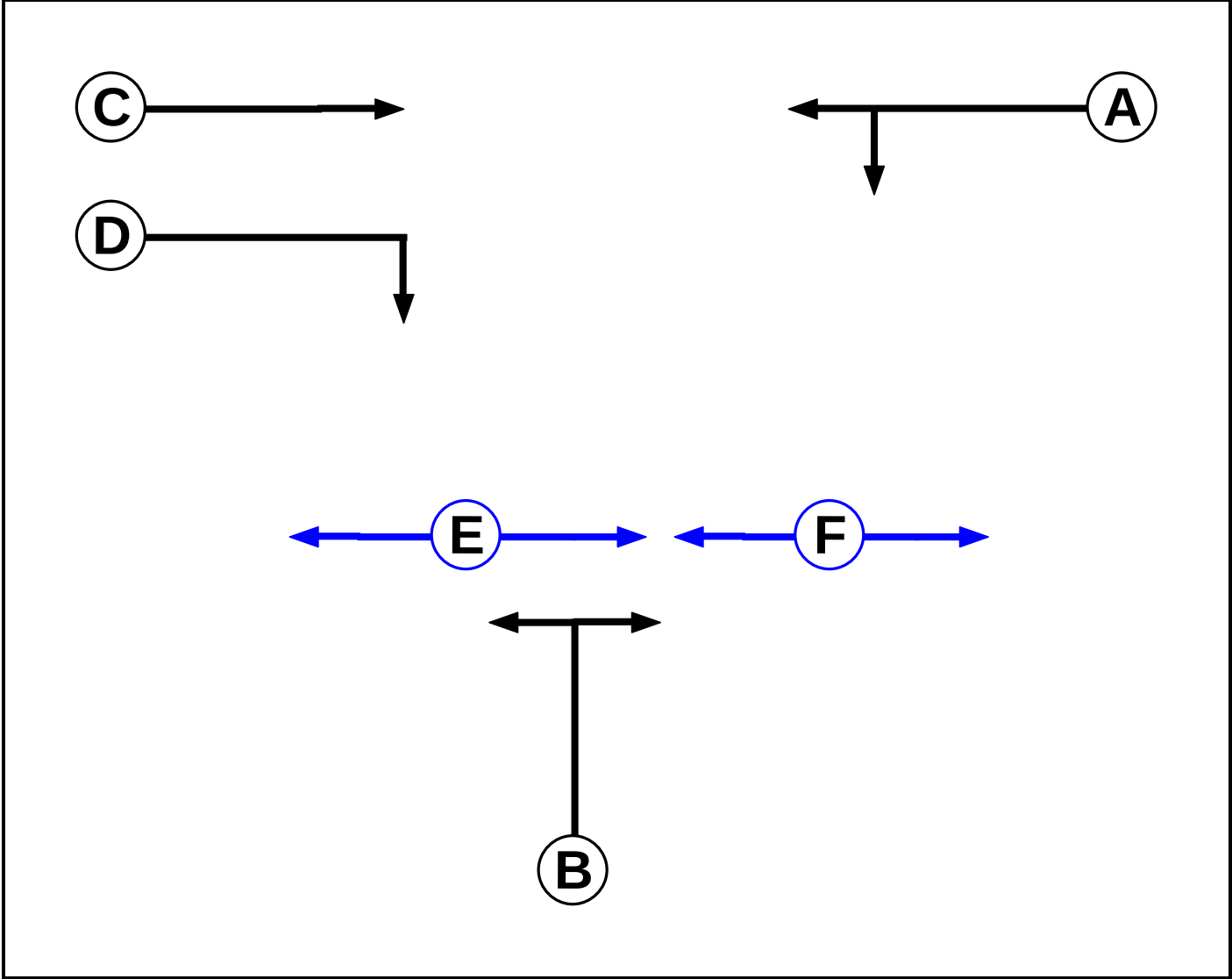
User and Project Details

Project:	College Road, Campdown
Title:	Site Access
Location:	Purbrook
Additional detail:	048.0010 (790 Dwellings)
File name:	College Road - Site Access HCC Comments.lsg3x
Author:	Shaan Novitzki
Company:	Paul Basham Associates
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

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

Full Input Data And Results

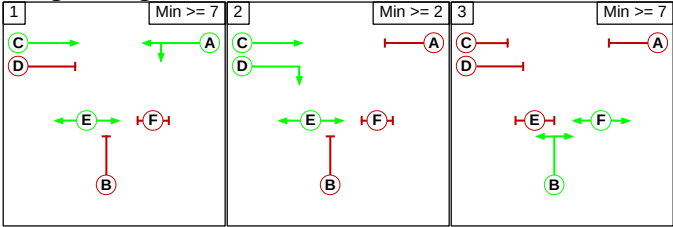
Phase Intergreens Matrix

Terminating Phase	Starting Phase						
		A	B	C	D	E	F
	A		-	-	7	-	-
	B	7		7	-	7	-
	C	-	7		-	-	-
	D	-	7	-		-	7
	E	-	7	-	-		-
	F	7	-	7	-	-	

Phases in Stage

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

Stage Diagram



Phase Delays

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

Prohibited Stage Change

From Stage	To Stage			
		1	2	3
	1		7	7
	2	2		7
	3	7	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: College Road/Site Access
There are no Opposed Lanes in this Junction

Lane Input Data

Junction: College Road/Site Access												
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 (College Road East)	U	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 5 Ahead	Inf
2/1 (College Road West)	U	C	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 6 Left	15.00
2/2 (College Road West)	U	D	2	3	4.0	Geom	-	3.00	0.00	N	Arm 4 Ahead	Inf
2/2 (College Road West)	U	D	2	3	4.0	Geom	-	3.00	0.00	N	Arm 6 Right	17.00
3/1 (Site Access)	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 4 Right	22.00
4/1	U		2	3	60.0	Inf	-	-	-	-	Arm 5 Left	15.00
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2016 AM'	08:00	09:00	01:00	
2: '2016 PM'	17:00	18:00	01:00	
3: '2019 AM'	08:00	09:00	01:00	
4: '2019 PM'	17:00	18:00	01:00	
5: '2029 Base + Dev AM'	08:00	09:00	01:00	
6: '2029 Base + Dev PM'	17:00	18:00	01:00	

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

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin	A	B	C	Tot.	
	A	0	0	213	213
	B	0	0	0	0
	C	216	0	0	216
	Tot.	216	0	213	429

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2016 AM
Junction: College Road/Site Access	
1/1	213
2/1 (with short)	216(In) 216(Out)
2/2 (short)	0
3/1	0
4/1	216
5/1	213
6/1	0

Lane Saturation Flows

Junction: College Road/Site Access								
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 (College Road East)	3.50	0.00	Y	Arm 5 Ahead Arm 6 Left	Inf 15.00	100.0 % 0.0 %	1965	1965
2/1 (College Road West)	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
2/2 (College Road West)	3.00	0.00	N	Arm 6 Right	17.00	0.0 %	2055	2055
3/1 (Site Access)	3.50	0.00	Y	Arm 4 Right Arm 5 Left	22.00 15.00	0.0 % 0.0 %	1965	1965
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

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

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	0	152	152
	B	0	0	0	0
	C	86	0	0	86
	Tot.	86	0	152	238

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2016 PM
Junction: College Road/Site Access	
1/1	152
2/1 (with short)	86(In) 86(Out)
2/2 (short)	0
3/1	0
4/1	86
5/1	152
6/1	0

Lane Saturation Flows

Junction: College Road/Site Access								
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 (College Road East)	3.50	0.00	Y	Arm 5 Ahead Arm 6 Left	Inf 15.00	100.0 % 0.0 %	1965	1965
2/1 (College Road West)	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
2/2 (College Road West)	3.00	0.00	N	Arm 6 Right	17.00	0.0 %	2055	2055
3/1 (Site Access)	3.50	0.00	Y	Arm 4 Right Arm 5 Left	22.00 15.00	0.0 % 0.0 %	1965	1965
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2019 AM' (FG3: '2019 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	0	203	203
	B	0	0	0	0
	C	206	0	0	206
	Tot.	206	0	203	409

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2019 AM
Junction: College Road/Site Access	
1/1	203
2/1 (with short)	206(In) 206(Out)
2/2 (short)	0
3/1	0
4/1	206
5/1	203
6/1	0

Lane Saturation Flows

Junction: College Road/Site Access								
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 (College Road East)	3.50	0.00	Y	Arm 5 Ahead Arm 6 Left	Inf 15.00	100.0 % 0.0 %	1965	1965
2/1 (College Road West)	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
2/2 (College Road West)	3.00	0.00	N	Arm 6 Right	17.00	0.0 %	2055	2055
3/1 (Site Access)	3.50	0.00	Y	Arm 4 Right Arm 5 Left	22.00 15.00	0.0 % 0.0 %	1965	1965
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2019 PM' (FG4: '2019 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	0	145	145
	B	0	0	0	0
	C	82	0	0	82
	Tot.	82	0	145	227

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2019 PM
Junction: College Road/Site Access	
1/1	145
2/1 (with short)	82(In) 82(Out)
2/2 (short)	0
3/1	0
4/1	82
5/1	145
6/1	0

Lane Saturation Flows

Junction: College Road/Site Access								
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 (College Road East)	3.50	0.00	Y	Arm 5 Ahead Arm 6 Left	Inf 15.00	100.0 % 0.0 %	1965	1965
2/1 (College Road West)	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
2/2 (College Road West)	3.00	0.00	N	Arm 6 Right	17.00	0.0 %	2055	2055
3/1 (Site Access)	3.50	0.00	Y	Arm 4 Right Arm 5 Left	22.00 15.00	0.0 % 0.0 %	1965	1965
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2029 Base + Dev AM' (FG5: '2029 Base + Dev AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	108	228	336
	B	254	0	67	321
	C	232	29	0	261
	Tot.	486	137	295	918

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2029 Base + Dev AM
Junction: College Road/Site Access	
1/1	336
2/1 (with short)	261(In) 232(Out)
2/2 (short)	29
3/1	321
4/1	486
5/1	295
6/1	137

Lane Saturation Flows

Junction: College Road/Site Access								
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 (College Road East)	3.50	0.00	Y	Arm 5 Ahead	Inf	67.9 %	1904	1904
				Arm 6 Left	15.00	32.1 %		
2/1 (College Road West)	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915
2/2 (College Road West)	3.00	0.00	N	Arm 6 Right	17.00	100.0 %	1888	1888
3/1 (Site Access)	3.50	0.00	Y	Arm 4 Right	22.00	79.1 %	1828	1828
				Arm 5 Left	15.00	20.9 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2029 Base + Dev PM' (FG6: '2029 Base + Dev PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	251	162	413
	B	155	0	41	196
	C	92	67	0	159
	Tot.	247	318	203	768

Full Input Data And Results

Traffic Lane Flows

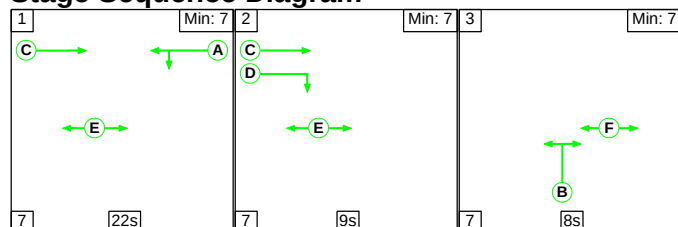
Lane	Scenario 6: 2029 Base + Dev PM
Junction: College Road/Site Access	
1/1	413
2/1 (with short)	159(In) 92(Out)
2/2 (short)	67
3/1	196
4/1	247
5/1	203
6/1	318

Lane Saturation Flows

Junction: College Road/Site Access									
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 (College Road East)	3.50	0.00	Y	Arm 5 Ahead	Inf	39.2 %	1852	1852	
				Arm 6 Left	15.00	60.8 %			
2/1 (College Road West)	3.00	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1915	1915	
2/2 (College Road West)	3.00	0.00	N	Arm 6 Right	17.00	100.0 %	1888	1888	
3/1 (Site Access)	3.50	0.00	Y	Arm 4 Right	22.00	79.1 %	1828	1828	
				Arm 5 Left	15.00	20.9 %			
4/1	Infinite Saturation Flow					Inf	Inf		
5/1	Infinite Saturation Flow					Inf	Inf		
6/1	Infinite Saturation Flow					Inf	Inf		

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

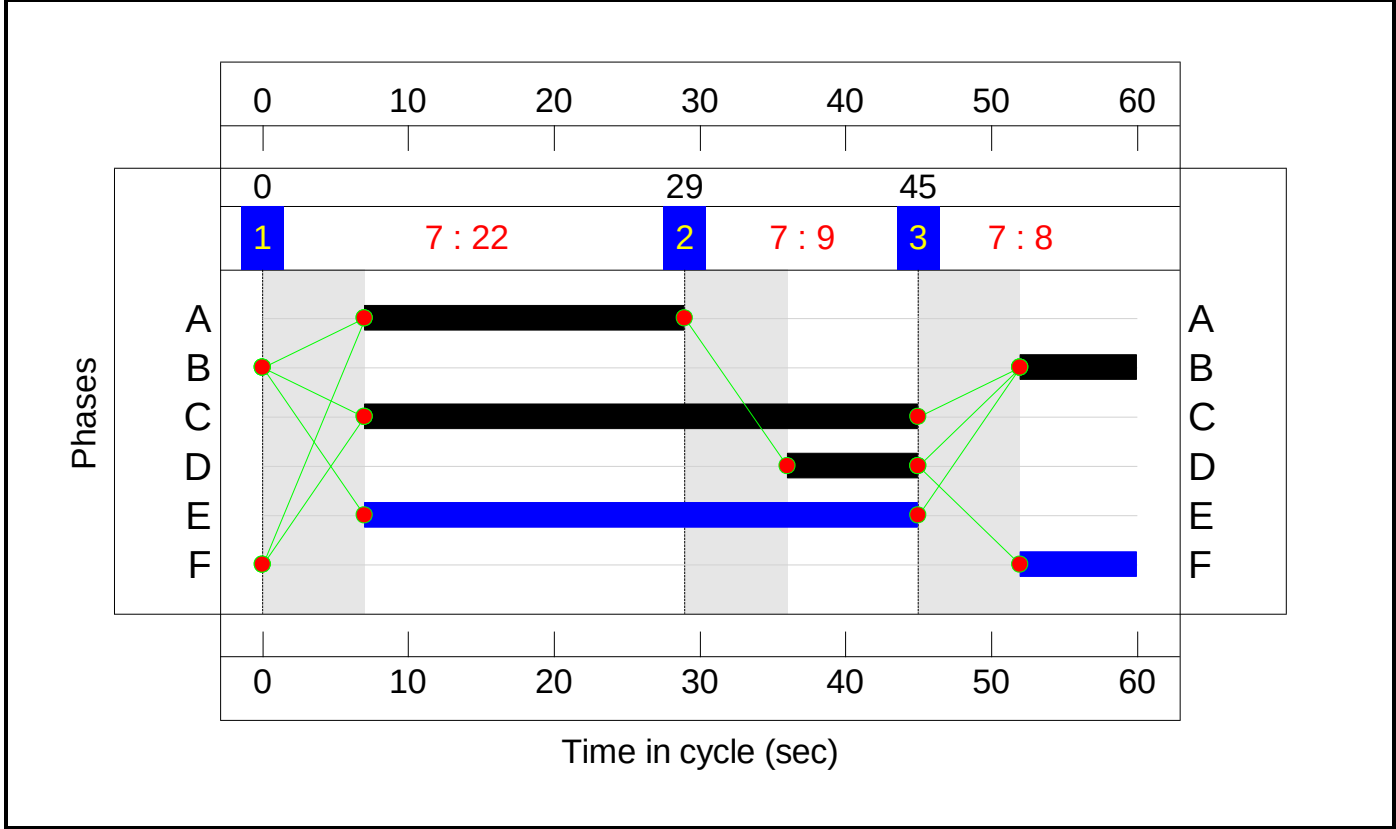
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	22	9	8
Change Point	0	29	45

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

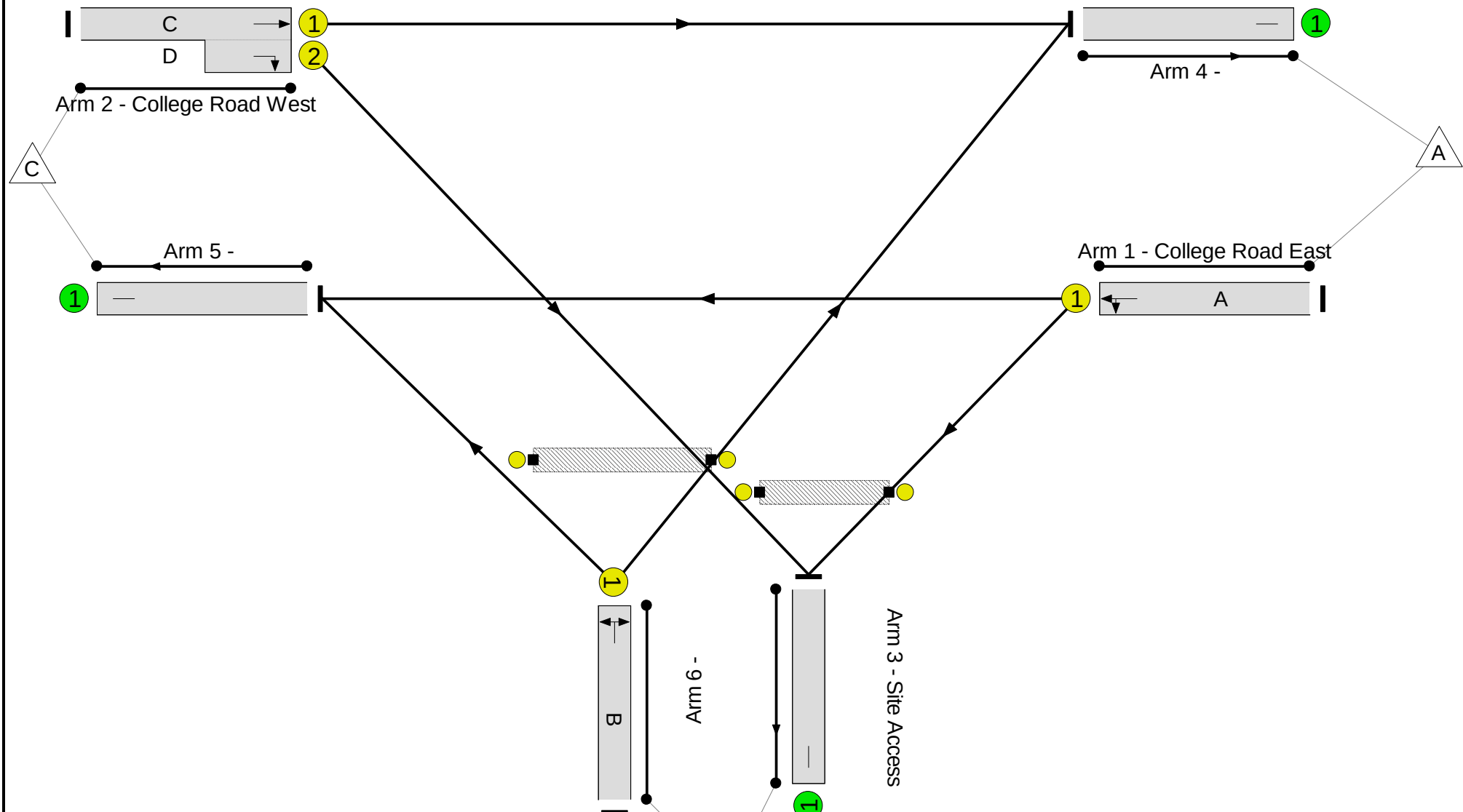


College Road/Site Access

PRC: 218.3 %

Total Traffic Delay: 1.3 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	28.3%
College Road/Site Access	-	-	N/A	-	-		-	-	-	-	-	-	28.3%
1/1	College Road East Ahead Left	U	N/A	N/A	A		1	22	-	213	1965	753	28.3%
2/1+2/2	College Road West Ahead Right	U	N/A	N/A	C D		1	38:9	-	216	1915:2055	1229+0	17.6 : 0.0%
3/1	Site Access Right Left	U	N/A	N/A	B		1	8	-	0	1965	295	0.0%
4/1		U	N/A	N/A	-		-	-	-	216	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	213	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	38	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	8	-	0	-	0	0.0%

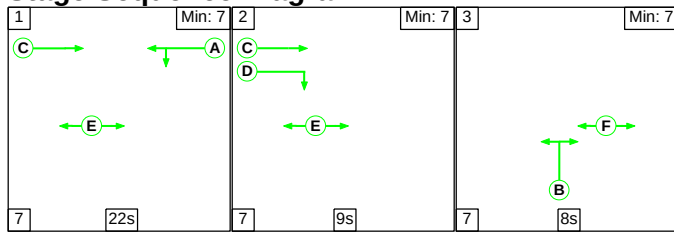
Full Input Data And Results

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Full Input Data And Results

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

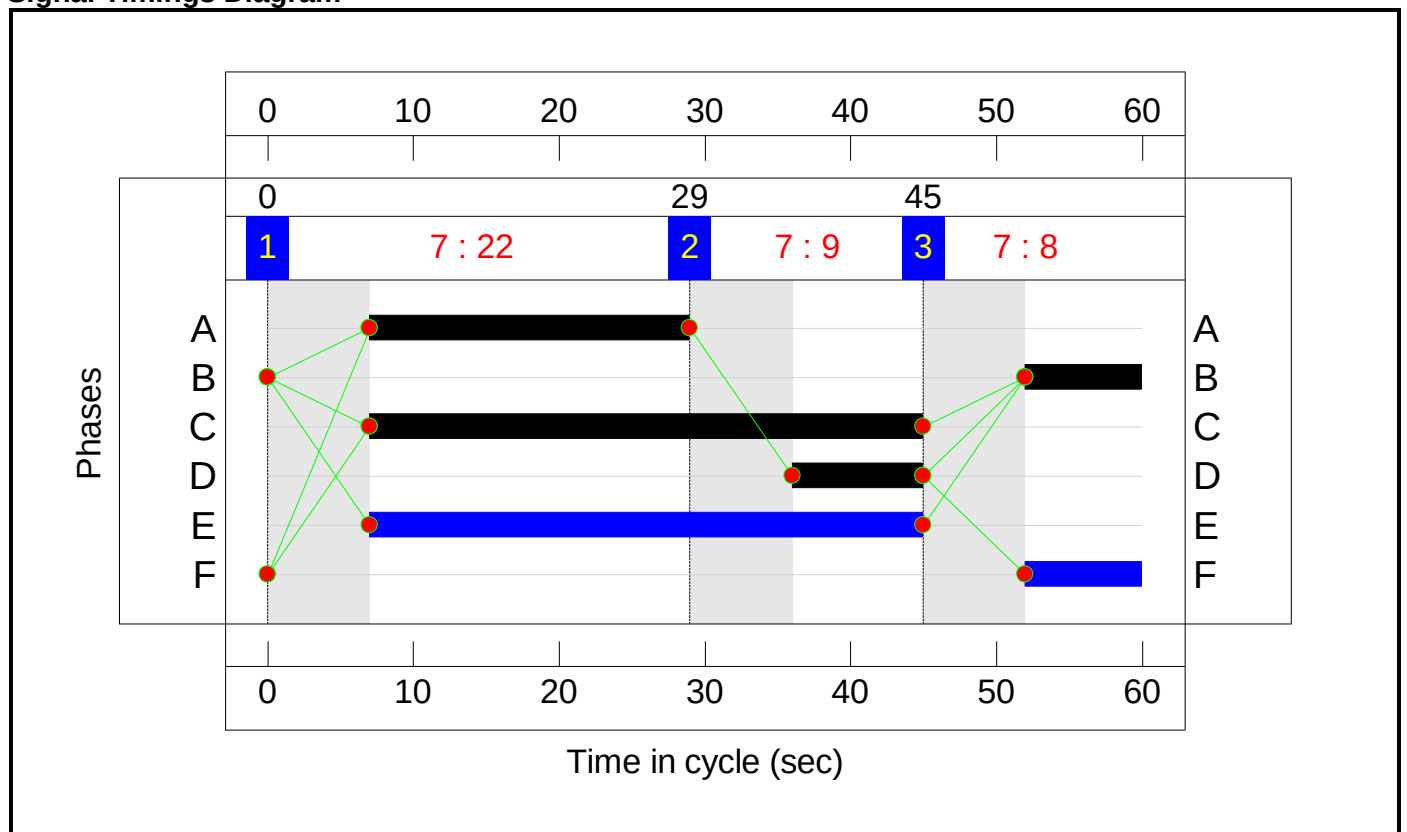
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	22	9	8
Change Point	0	29	45

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

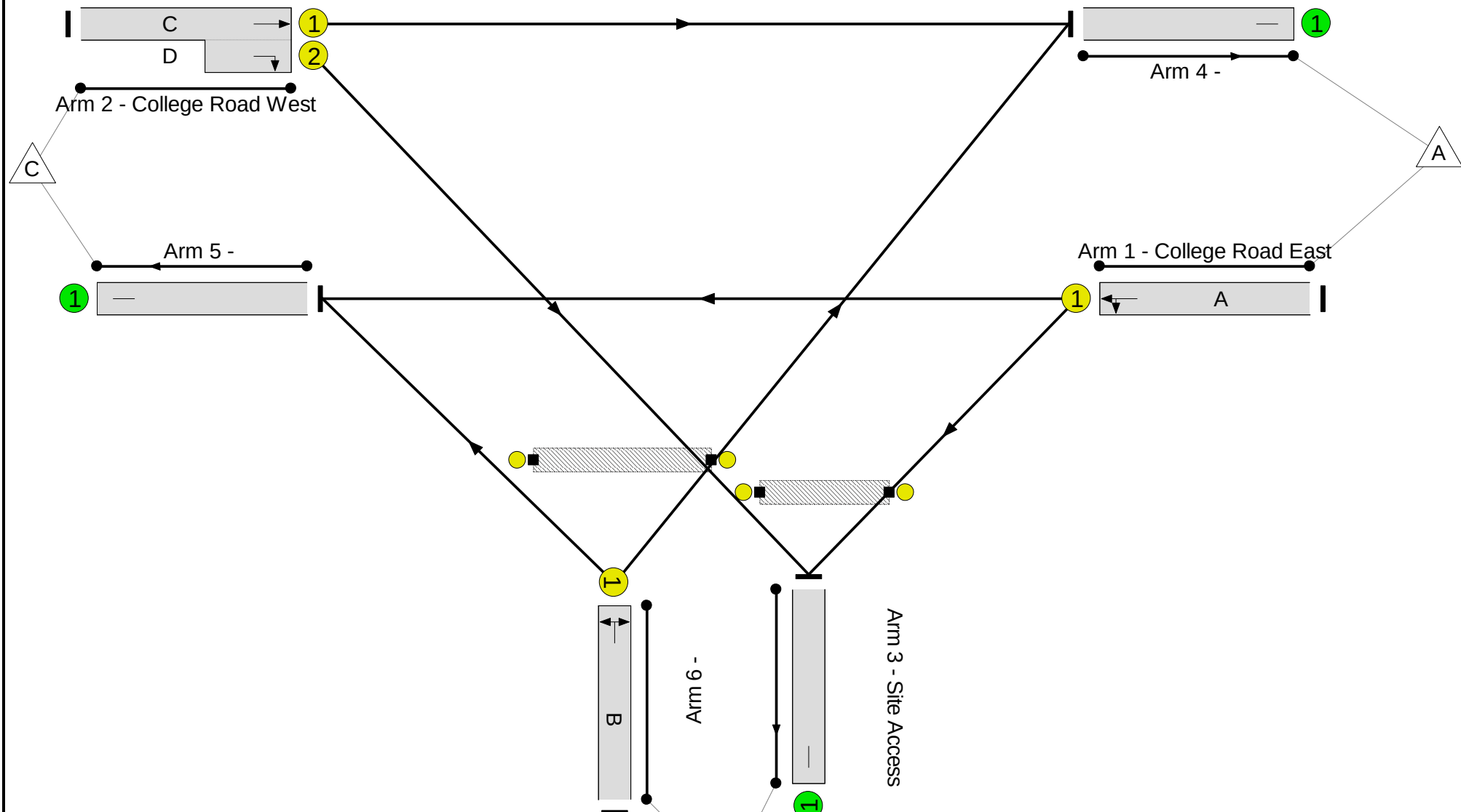


College Road/Site Access

PRC: 346.0 %

Total Traffic Delay: 0.8 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	20.2%
College Road/Site Access	-	-	N/A	-	-		-	-	-	-	-	-	20.2%
1/1	College Road East Ahead Left	U	N/A	N/A	A		1	22	-	152	1965	753	20.2%
2/1+2/2	College Road West Ahead Right	U	N/A	N/A	C D		1	38:9	-	86	1915:2055	1229+0	7.0 : 0.0%
3/1	Site Access Right Left	U	N/A	N/A	B		1	8	-	0	1965	295	0.0%
4/1		U	N/A	N/A	-		-	-	-	86	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	152	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	38	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	8	-	0	-	0	0.0%

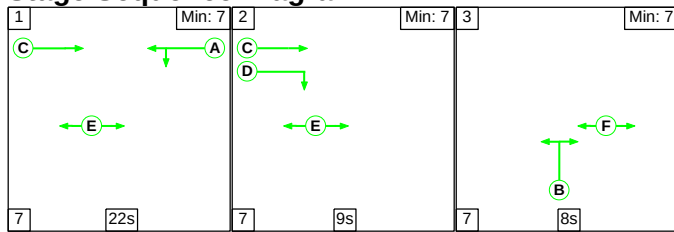
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	0.6	0.2	0.0	0.8	-	-	-	-
College Road/Site Access	-	-	0	0	0	0.6	0.2	0.0	0.8	-	-	-	-
1/1	152	152	-	-	-	0.5	0.1	-	0.6	15.4	1.7	0.1	1.8
2/1+2/2	86	86	-	-	-	0.1	0.0	-	0.1	5.4	0.5	0.0	0.5
3/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	86	86	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	152	152	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 346.0 Total Delay for Signalled Lanes (pcuHr): 0.78 Cycle Time (s): 60 PRC Over All Lanes (%): 346.0 Total Delay Over All Lanes(pcuHr): 0.78													

Full Input Data And Results

Scenario 3: '2019 AM' (FG3: '2019 AM', Plan 1: 'Network Control Plan 1')

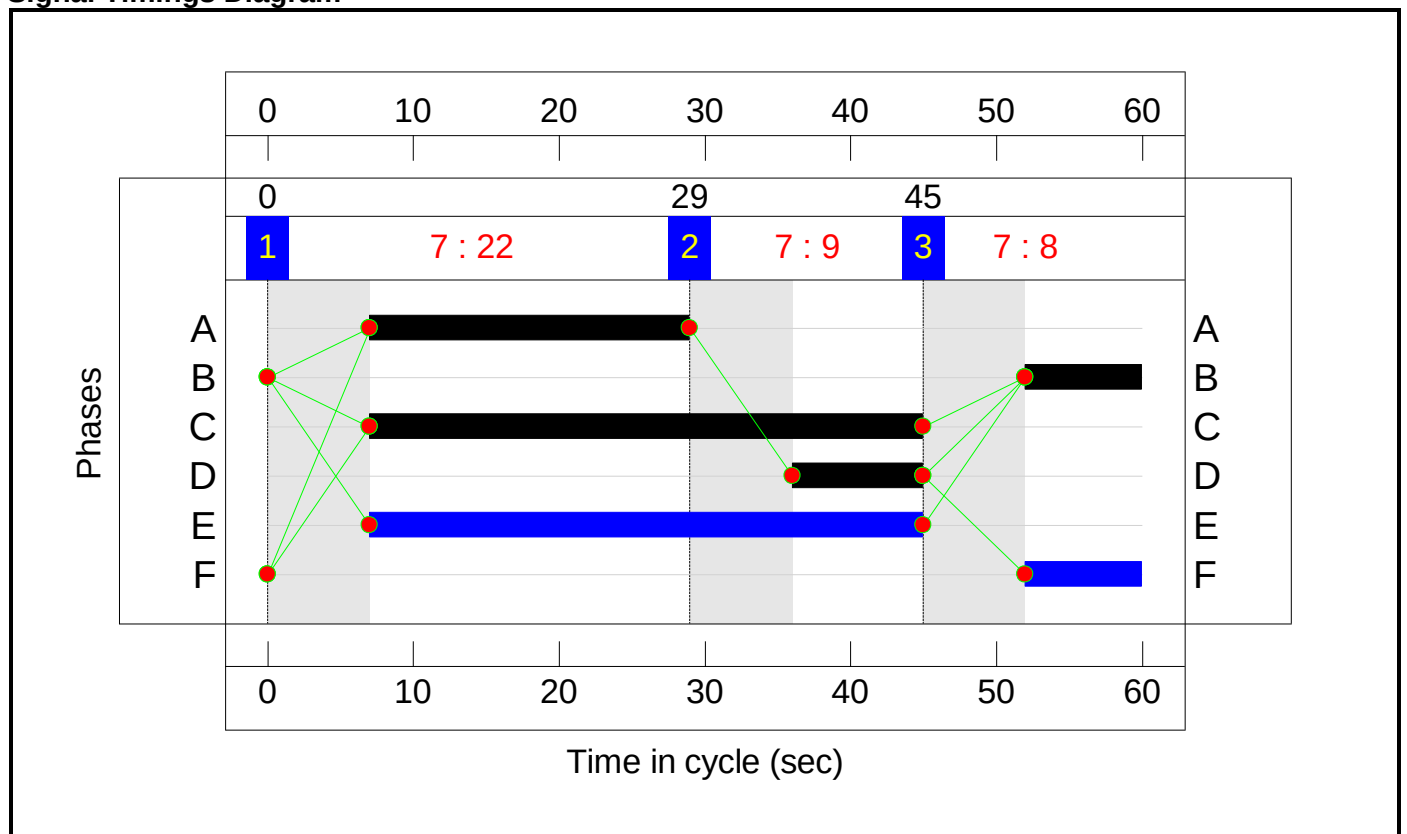
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	22	9	8
Change Point	0	29	45

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

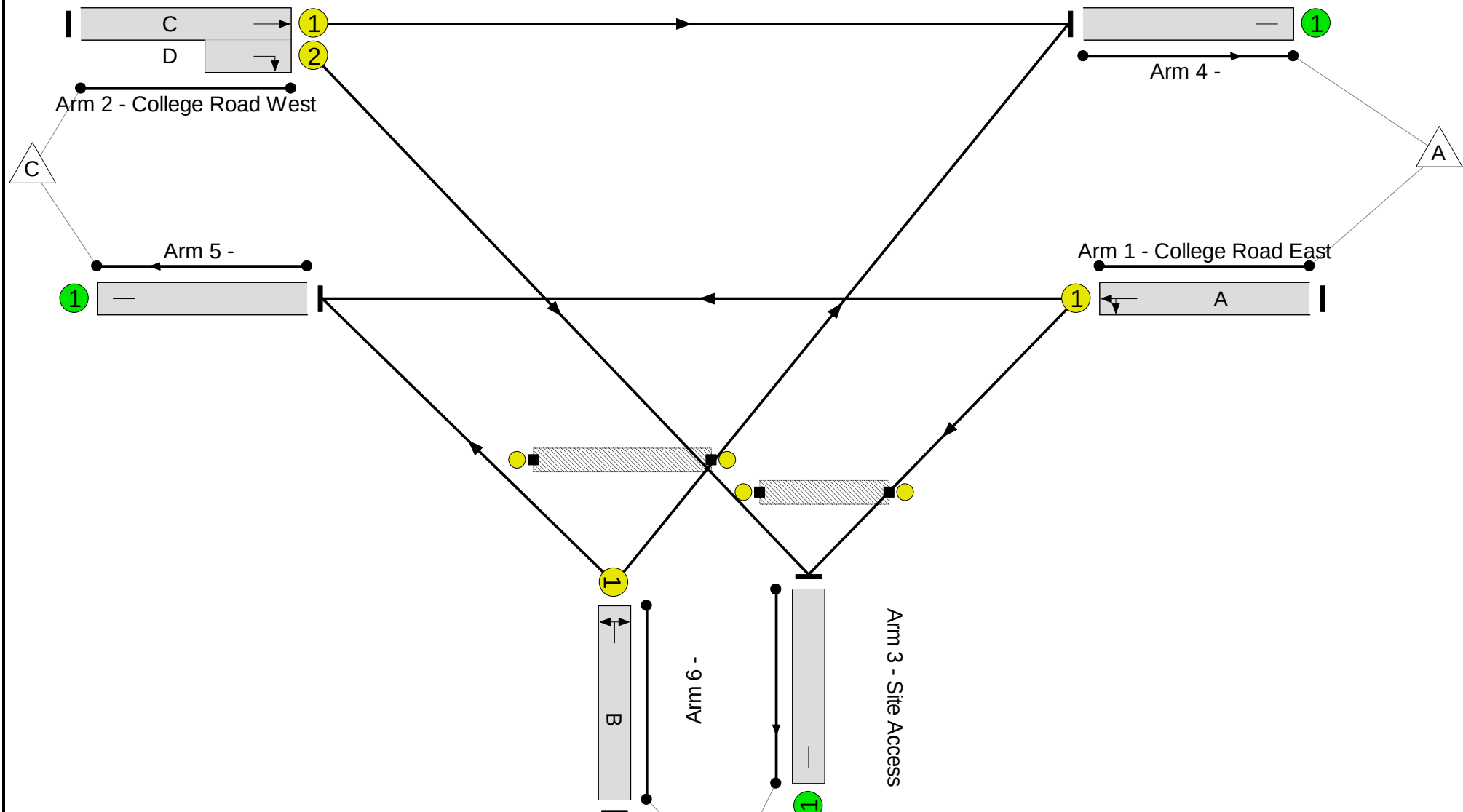


College Road/Site Access

PRC: 234.0 %

Total Traffic Delay: 1.2 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	26.9%
College Road/Site Access	-	-	N/A	-	-		-	-	-	-	-	-	26.9%
1/1	College Road East Ahead Left	U	N/A	N/A	A		1	22	-	203	1965	753	26.9%
2/1+2/2	College Road West Ahead Right	U	N/A	N/A	C D		1	38:9	-	206	1915:2055	1229+0	16.8 : 0.0%
3/1	Site Access Right Left	U	N/A	N/A	B		1	8	-	0	1965	295	0.0%
4/1		U	N/A	N/A	-		-	-	-	206	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	203	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	38	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	8	-	0	-	0	0.0%

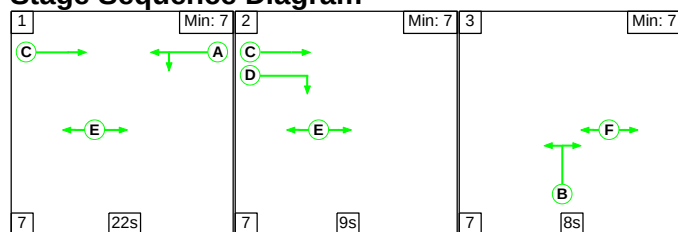
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	1.0	0.3	0.0	1.2	-	-	-	-
College Road/Site Access	-	-	0	0	0	1.0	0.3	0.0	1.2	-	-	-	-
1/1	203	203	-	-	-	0.7	0.2	-	0.9	16.0	2.3	0.2	2.5
2/1+2/2	206	206	-	-	-	0.2	0.1	-	0.3	5.9	1.3	0.1	1.4
3/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	206	206	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	203	203	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 234.0 Total Delay for Signalled Lanes (pcuHr): 1.24 Cycle Time (s): 60 PRC Over All Lanes (%): 234.0 Total Delay Over All Lanes(pcuHr): 1.24													

Full Input Data And Results

Scenario 4: '2019 PM' (FG4: '2019 PM', Plan 1: 'Network Control Plan 1')

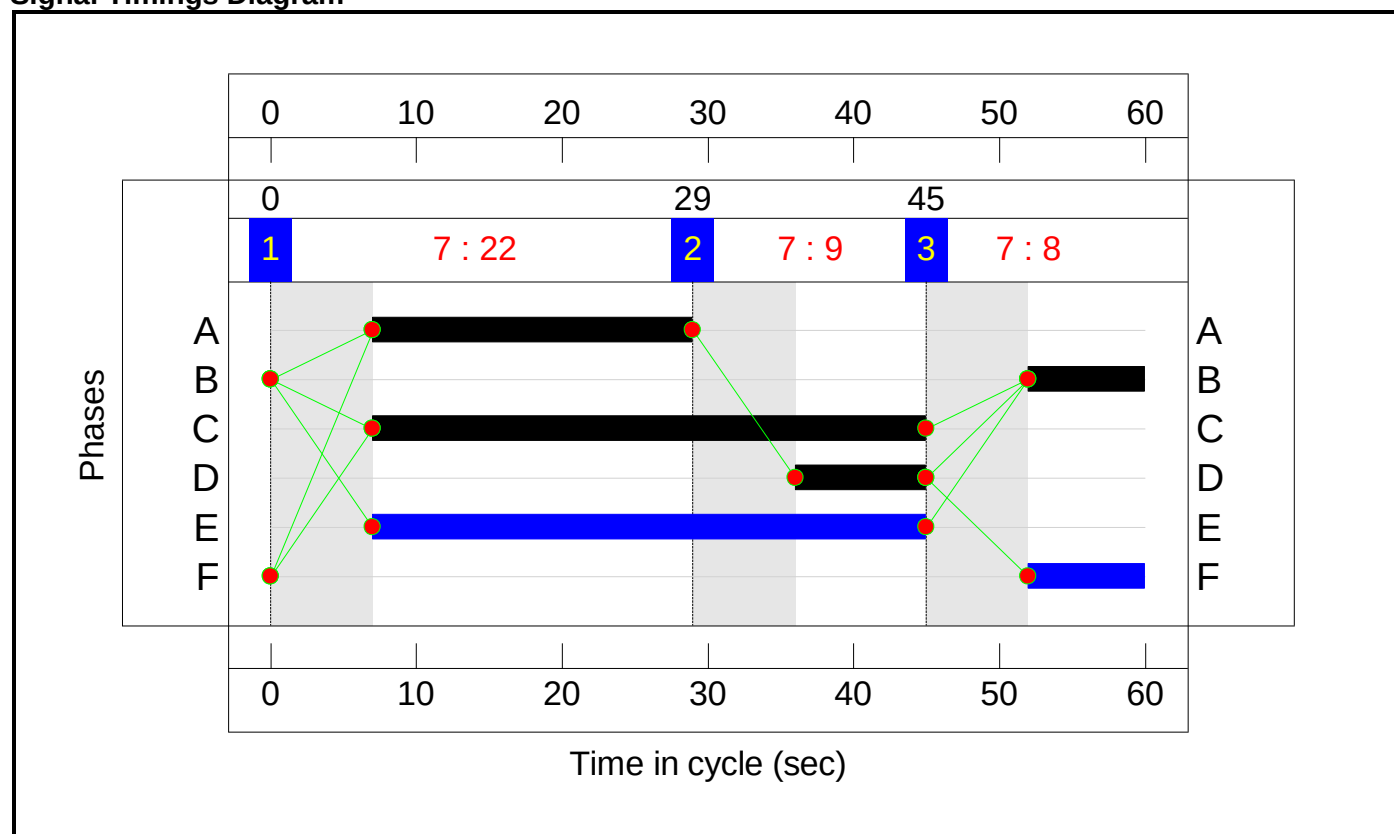
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	22	9	8
Change Point	0	29	45

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

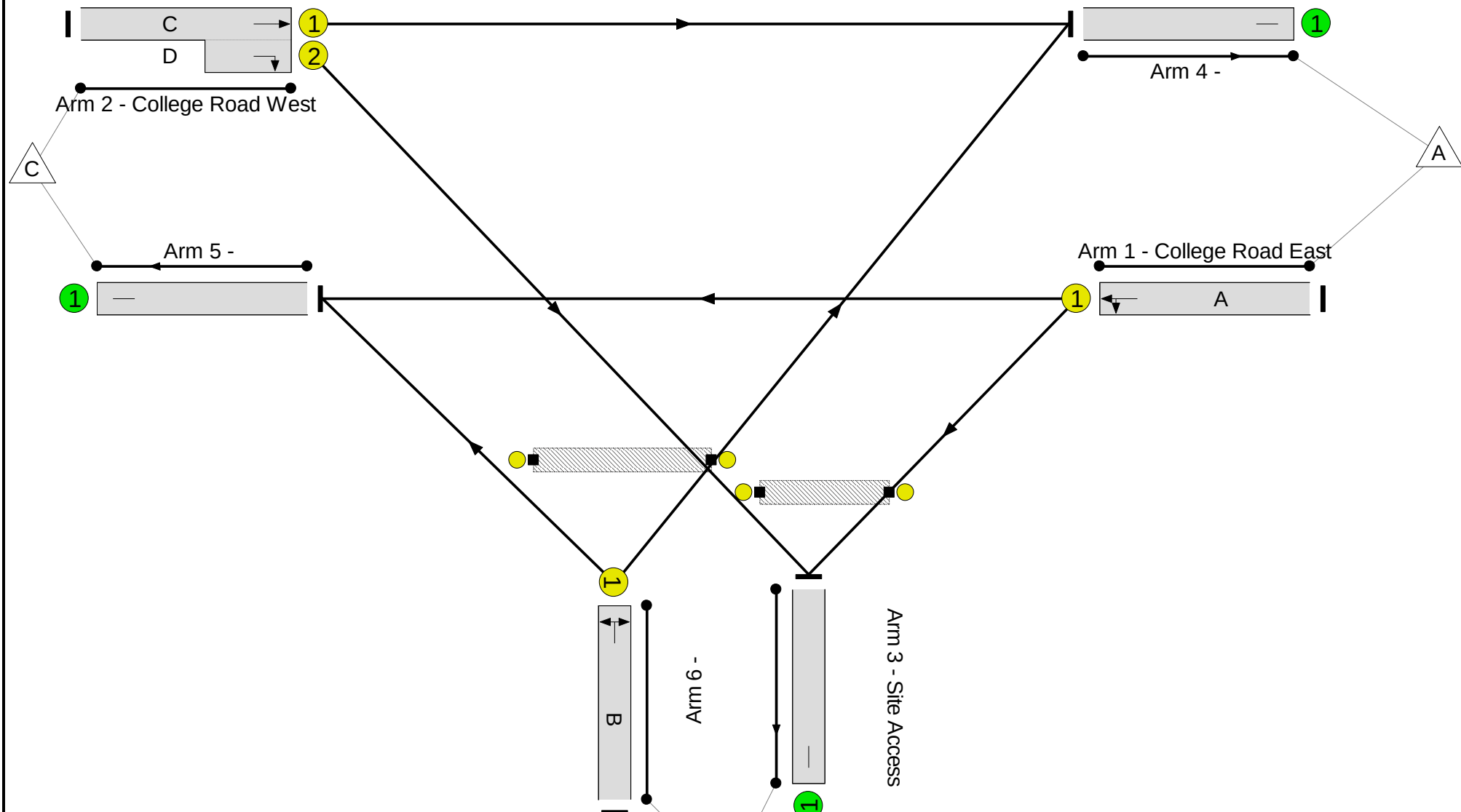


College Road/Site Access

PRC: 367.5 %

Total Traffic Delay: 0.7 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	19.2%
College Road/Site Access	-	-	N/A	-	-		-	-	-	-	-	-	19.2%
1/1	College Road East Ahead Left	U	N/A	N/A	A		1	22	-	145	1965	753	19.2%
2/1+2/2	College Road West Ahead Right	U	N/A	N/A	C D		1	38:9	-	82	1915:2055	1229+0	6.7 : 0.0%
3/1	Site Access Right Left	U	N/A	N/A	B		1	8	-	0	1965	295	0.0%
4/1		U	N/A	N/A	-		-	-	-	82	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	145	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	38	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	8	-	0	-	0	0.0%

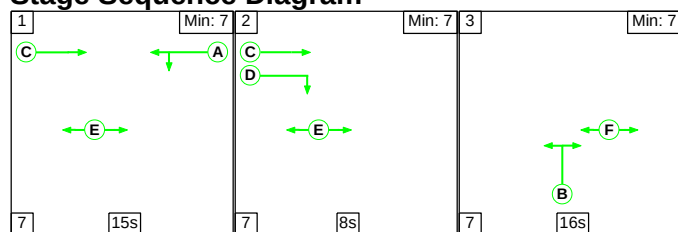
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	0.6	0.2	0.0	0.7	-	-	-	-
College Road/Site Access	-	-	0	0	0	0.6	0.2	0.0	0.7	-	-	-	-
1/1	145	145	-	-	-	0.5	0.1	-	0.6	15.3	1.6	0.1	1.7
2/1+2/2	82	82	-	-	-	0.1	0.0	-	0.1	5.4	0.5	0.0	0.5
3/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	82	82	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	145	145	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 367.5 Total Delay for Signalled Lanes (pcuHr): 0.74 Cycle Time (s): 60 PRC Over All Lanes (%): 367.5 Total Delay Over All Lanes(pcuHr): 0.74													

Full Input Data And Results

Scenario 5: '2029 Base + Dev AM' (FG5: '2029 Base + Dev AM', Plan 1: 'Network Control Plan 1')

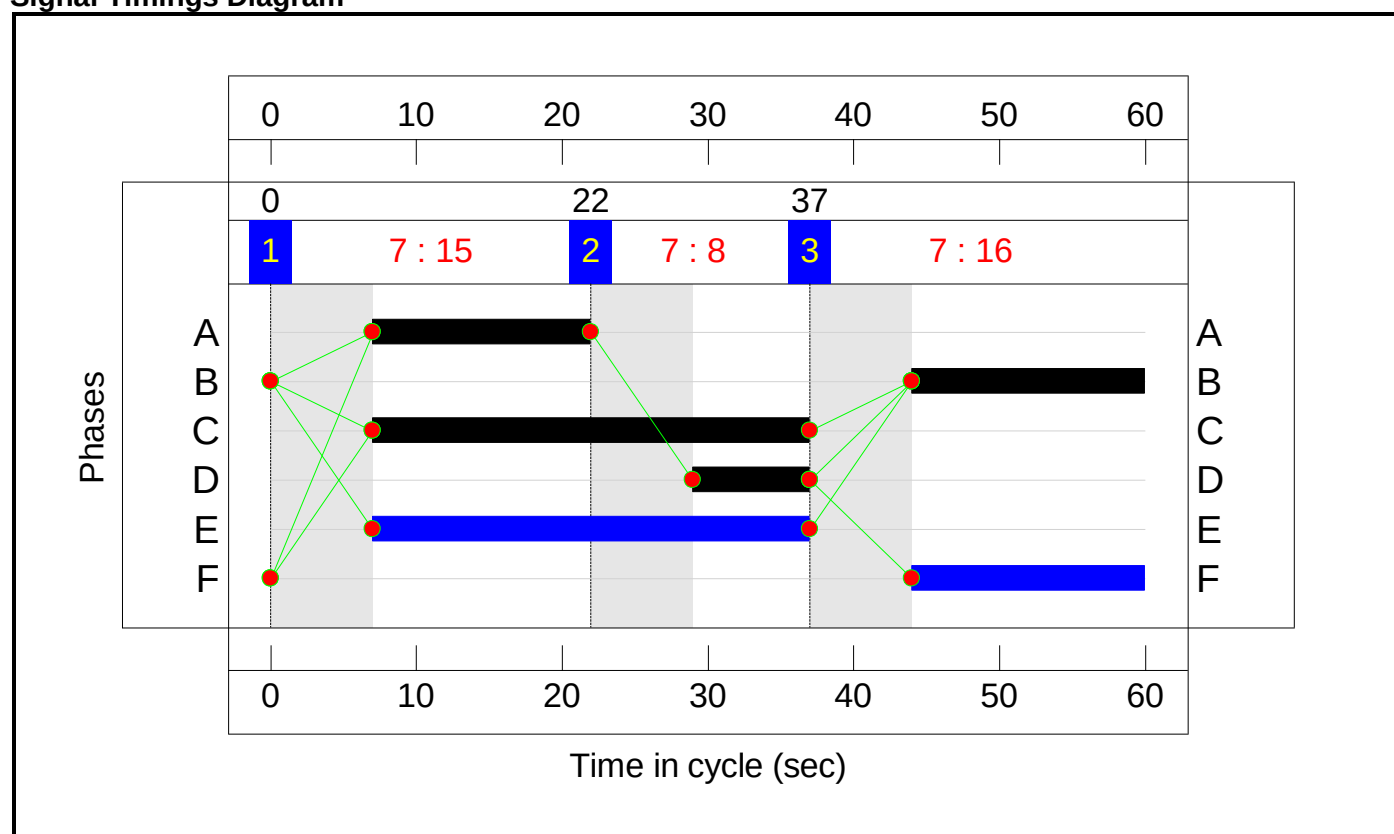
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	15	8	16
Change Point	0	22	37

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

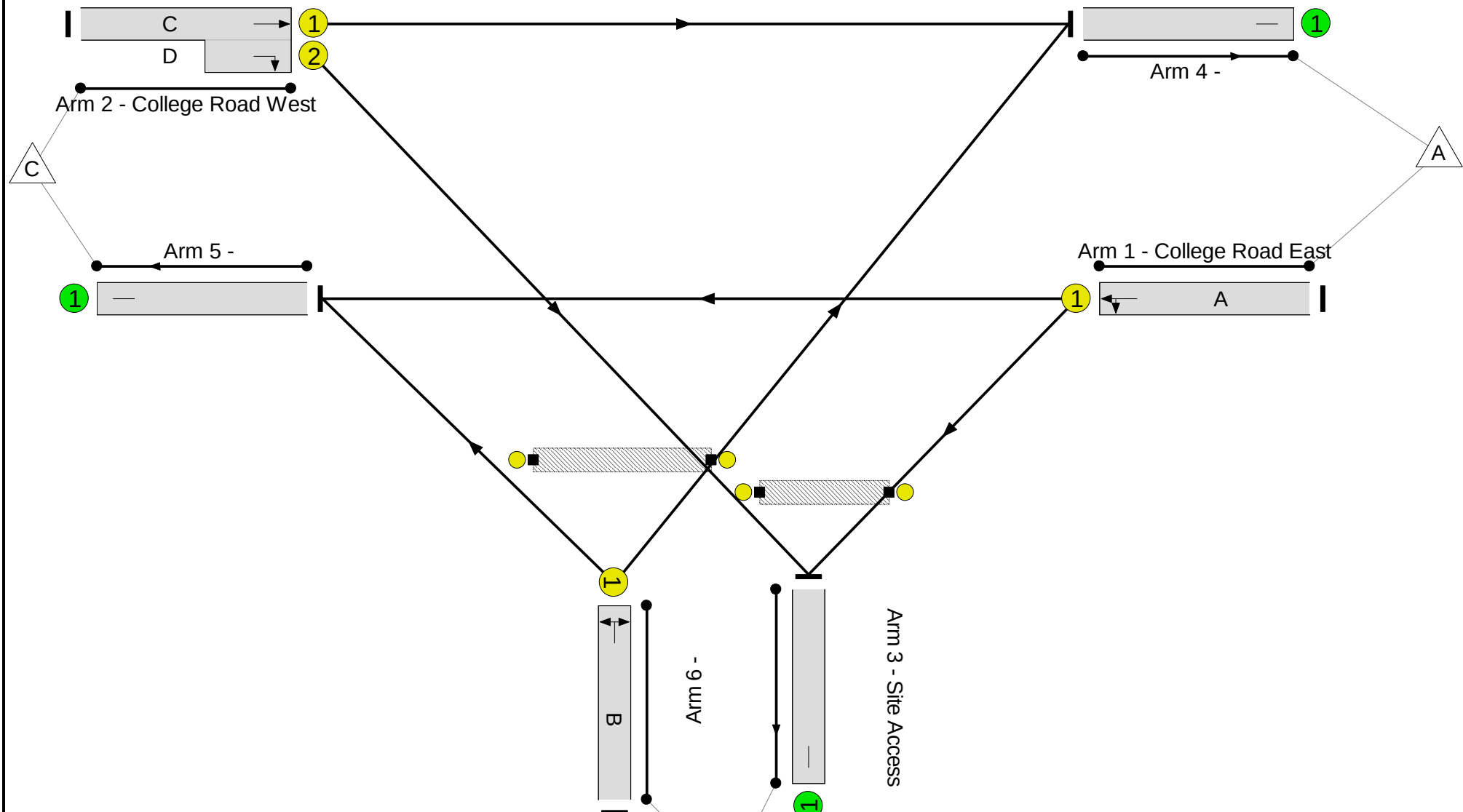


College Road/Site Access

PRC: 36.0 %

Total Traffic Delay: 6.1 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	66.2%
College Road/Site Access	-	-	N/A	-	-		-	-	-	-	-	-	66.2%
1/1	College Road East Ahead Left	U	N/A	N/A	A		1	15	-	336	1904	508	66.2%
2/1+2/2	College Road West Ahead Right	U	N/A	N/A	C D		1	30:8	-	261	1915:1888	891+111	26.0 : 26.0%
3/1	Site Access Right Left	U	N/A	N/A	B		1	16	-	321	1828	518	62.0%
4/1		U	N/A	N/A	-		-	-	-	486	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	295	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	137	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	30	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	16	-	0	-	0	0.0%

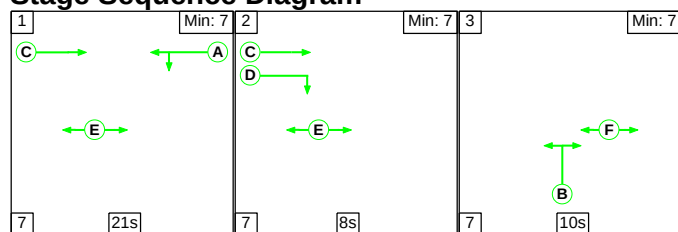
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	4.2	2.0	0.0	6.1	-	-	-	-
College Road/Site Access	-	-	0	0	0	4.2	2.0	0.0	6.1	-	-	-	-
1/1	336	336	-	-	-	1.8	1.0	-	2.8	30.0	4.9	1.0	5.9
2/1+2/2	261	261	-	-	-	0.7	0.2	-	0.9	12.0	2.1	0.2	2.2
3/1	321	321	-	-	-	1.7	0.8	-	2.5	27.8	4.6	0.8	5.4
4/1	486	486	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	295	295	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	137	137	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 36.0 Total Delay for Signalled Lanes (pcuHr): 6.14 Cycle Time (s): 60 PRC Over All Lanes (%): 36.0 Total Delay Over All Lanes(pcuHr): 6.14													

Full Input Data And Results

Scenario 6: '2029 Base + Dev PM' (FG6: '2029 Base + Dev PM', Plan 1: 'Network Control Plan 1')

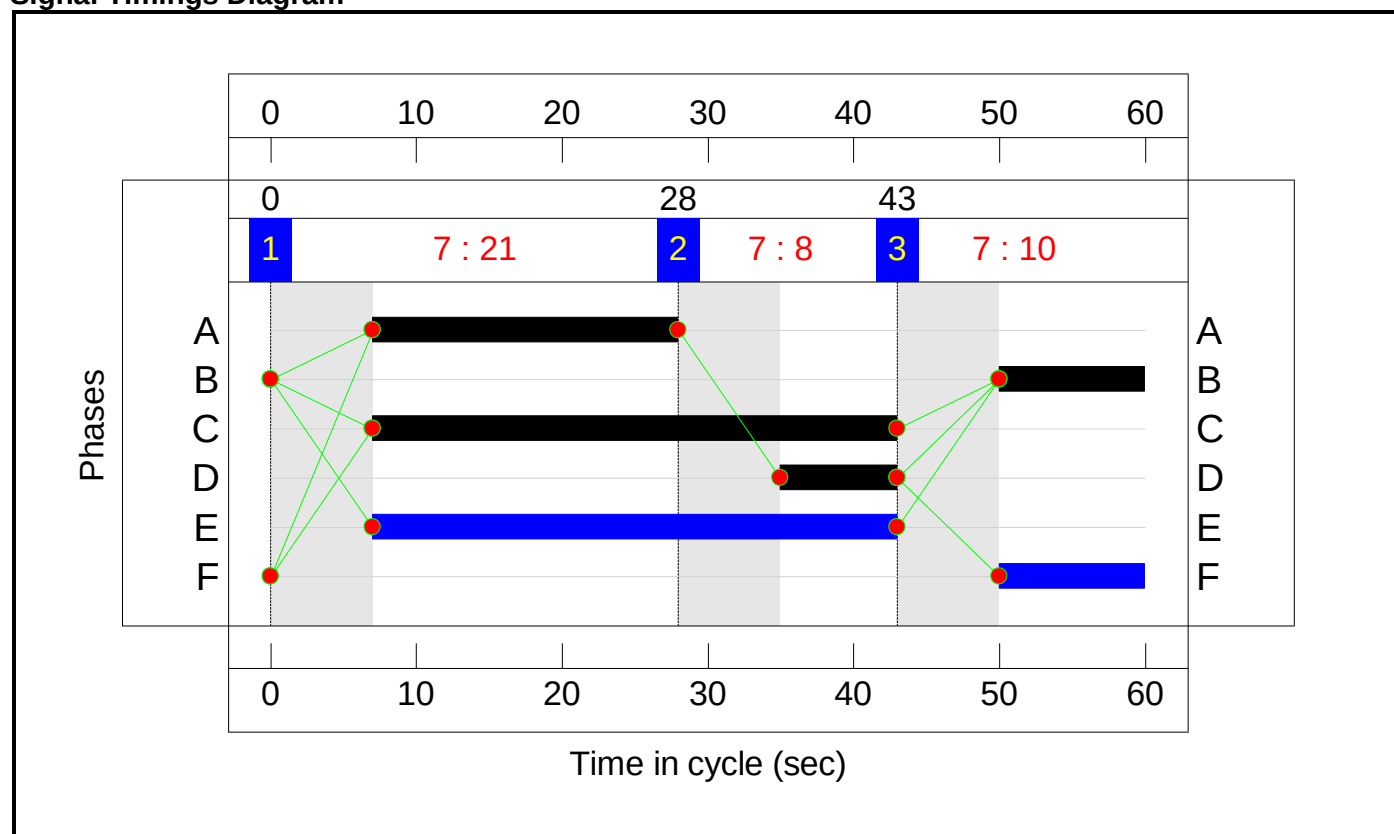
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	21	8	10
Change Point	0	28	43

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

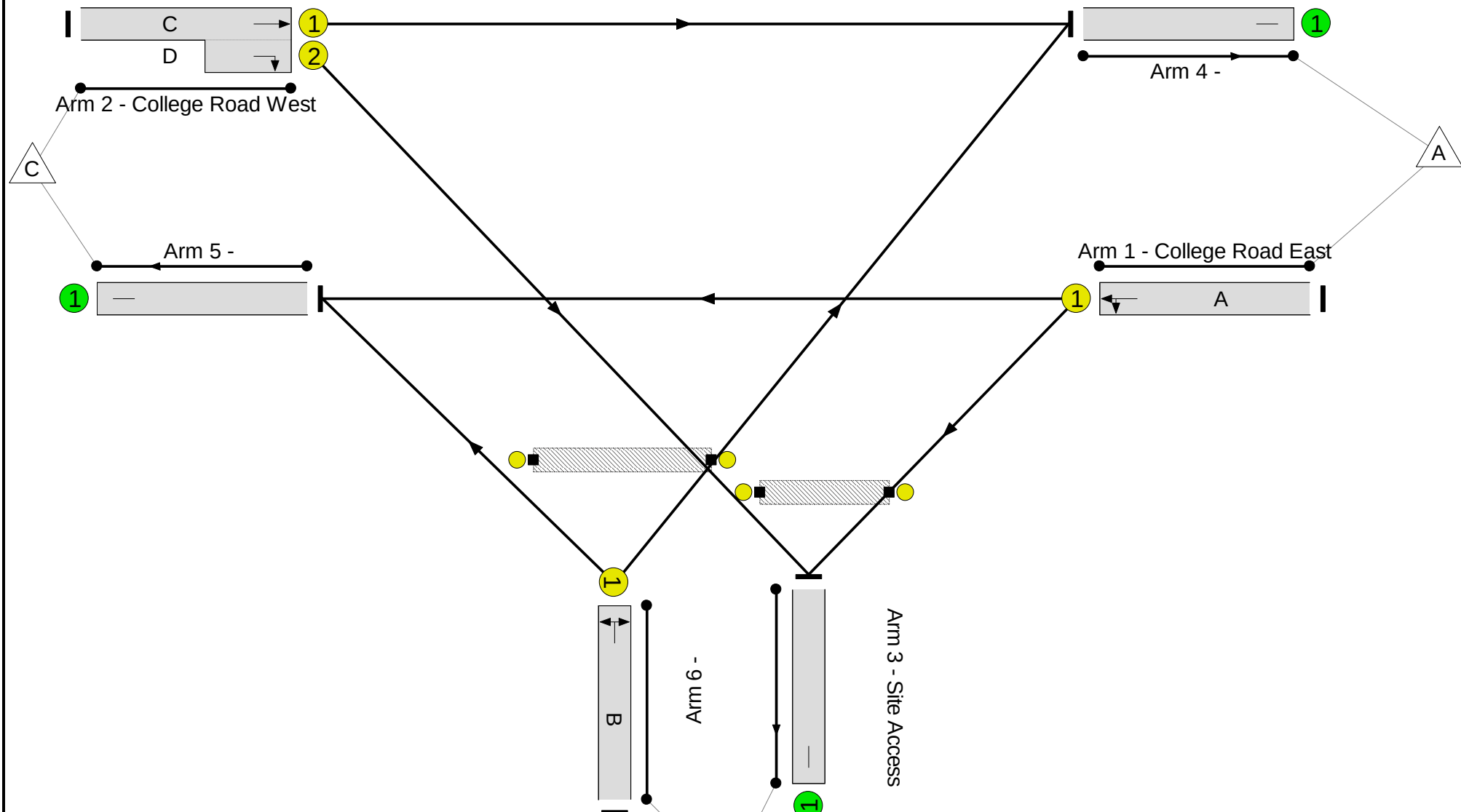


College Road/Site Access

PRC: 48.0 %

Total Traffic Delay: 5.2 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	60.8%
College Road/Site Access	-	-	N/A	-	-		-	-	-	-	-	-	60.8%
1/1	College Road East Ahead Left	U	N/A	N/A	A		1	21	-	413	1852	679	60.8%
2/1+2/2	College Road West Ahead Right	U	N/A	N/A	C D		1	36:8	-	159	1915:1888	348+253	26.4 : 26.4%
3/1	Site Access Right Left	U	N/A	N/A	B		1	10	-	196	1828	335	58.5%
4/1		U	N/A	N/A	-		-	-	-	247	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	203	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	318	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	36	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	10	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	3.5	1.6	0.0	5.2	-	-	-	-
College Road/Site Access	-	-	0	0	0	3.5	1.6	0.0	5.2	-	-	-	-
1/1	413	413	-	-	-	1.8	0.8	-	2.5	22.2	5.5	0.8	6.3
2/1+2/2	159	159	-	-	-	0.5	0.2	-	0.7	16.2	1.0	0.2	1.1
3/1	196	196	-	-	-	1.2	0.7	-	1.9	35.2	2.9	0.7	3.6
4/1	247	247	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	203	203	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	318	318	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 48.0 Total Delay for Signalled Lanes (pcuHr): 5.18 Cycle Time (s): 60 PRC Over All Lanes (%): 48.0 Total Delay Over All Lanes(pcuHr): 5.18													

Appendix P

Junctions 9			
PICADY 9 - Priority Intersection Module			
Version: 9.0.2.5947 © Copyright TRL Limited, 2017			
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Filename: Crookhorn Lane - Portsdown Hill Road.j9

Path: Z:\Projects\040-049\048 Persimmon Charles Church\048.0010 College Road, Campdown\Modelling 790 Units\Crookhorn Lane Portsdown Hill

Report generation date: 08/07/2019 09:51:02

- »Existing Configuration - 2019 Baseline, AM
- »Existing Configuration - 2019 Baseline, PM
- »Existing Configuration - 2029 Baseline, AM
- »Existing Configuration - 2029 Baseline, PM
- »Existing Configuration - 2029 Baseline + Development, AM
- »Existing Configuration - 2029 Baseline + Development, PM

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
Existing Configuration - 2019 Baseline								
Stream B-C	0.7	16.13	0.41	C	0.3	12.54	0.25	B
Stream B-A	62.2	785.94	1.56	F	12.3	181.29	1.02	F
Stream C-AB	0.5	9.50	0.33	A	0.3	8.23	0.23	A
Existing Configuration - 2029 Baseline								
Stream B-C	0.9	19.23	0.49	C	0.4	15.05	0.30	C
Stream B-A	134.3	2292.13	2.32	F	57.2	793.90	1.58	F
Stream C-AB	0.7	11.28	0.40	B	0.4	10.29	0.30	B
Existing Configuration - 2029 Baseline + Development								
Stream B-C	1.3	23.37	0.58	C	0.6	16.67	0.37	C
Stream B-A	181.9	2414.57	2.74	F	87.1	1502.04	1.92	F
Stream C-AB	0.8	12.00	0.43	B	0.6	11.87	0.37	B

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

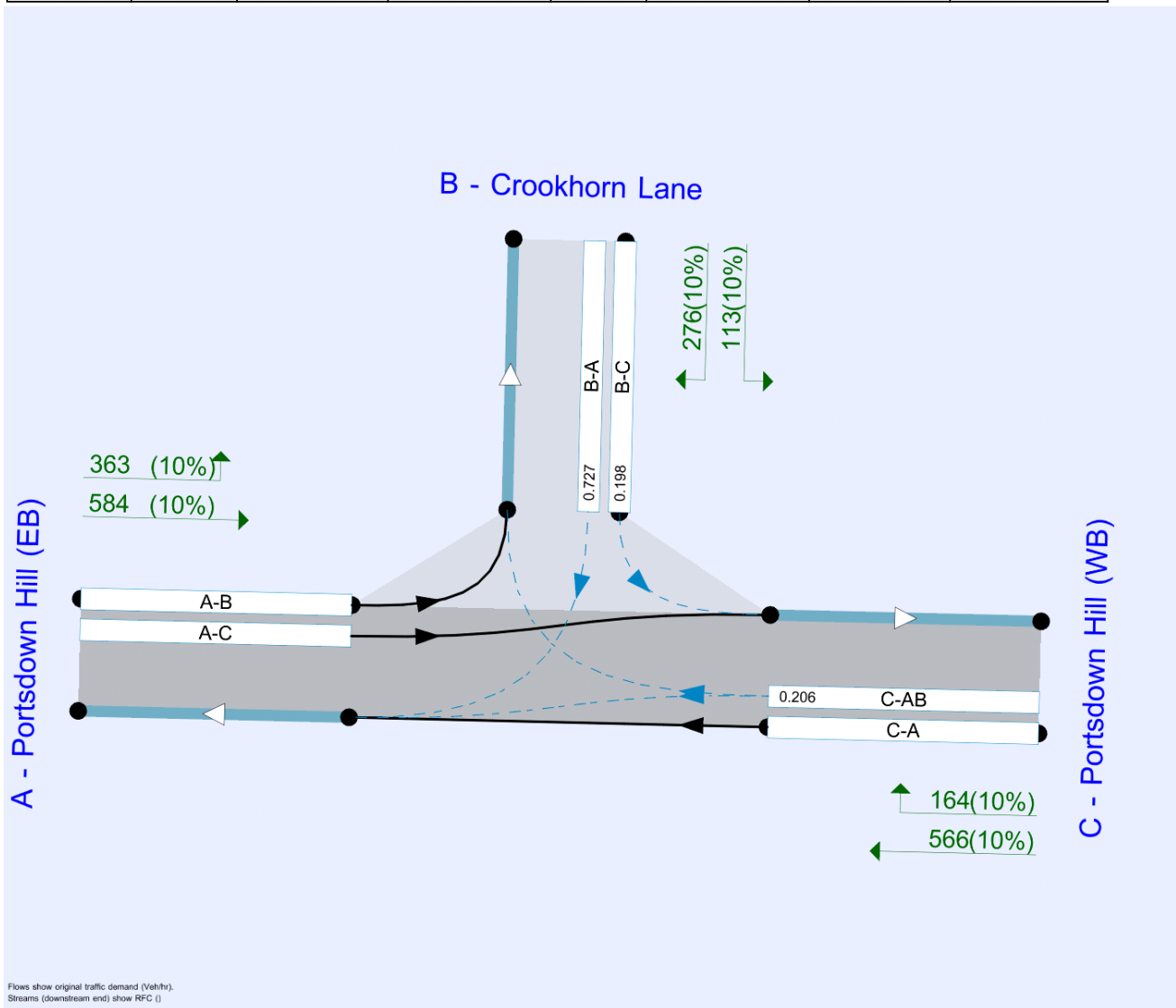
File summary

File Description

Title	Crookhorn Lane - Portsdown Hill Road (2016 Baseline + Development)
Location	Havant
Site number	
Date	08/07/2019
Version	
Status	Preliminary
Identifier	
Client	Persimmon Homes
Jobnumber	048.0010
Enumerator	SN
Description	735 Dwellings

Units

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



Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	60.00	30.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Baseline	PM	ONE HOUR	16:45	18:15	15	✓
D5	2029 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D6	2029 Baseline	PM	ONE HOUR	16:45	18:15	15	✓
D7	2029 Baseline + Development	AM	ONE HOUR	07:45	09:15	15	✓
D8	2029 Baseline + Development	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Existing Configuration - 2019 Baseline, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Crookham Lane - Portsdown Hill Road	T-Junction	Two-way	116.17	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Portsdown Hill (EB)		Major
B	Crookhorn Lane		Minor
C	Portsdown Hill (WB)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Portsdown Hill (WB)	6.60		✓	5.00	250.0	✓	9.00

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 (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B - Crookhorn Lane	Two lanes	3.50	3.50	115	140

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	616	0.109	0.276	0.174	0.395
1	B-C	748	0.112	0.282	-	-
1	C-B	938	0.354	0.354	-	-

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 Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Baseline	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Portsdown Hill (EB)		ONE HOUR	✓	727	100.000
B - Crookhorn Lane		ONE HOUR	✓	424	100.000
C - Portsdown Hill (WB)		ONE HOUR	✓	784	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Portsdown Hill (EB)	B - Crookhorn Lane	C - Portsdown Hill (WB)
From	A - Portsdown Hill (EB)	0	285	442
	B - Crookhorn Lane	281	0	143
	C - Portsdown Hill (WB)	611	173	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Portsdown Hill (EB)	B - Crookhorn Lane	C - Portsdown Hill (WB)
From	A - Portsdown Hill (EB)	10	10	10
	B - Crookhorn Lane	10	10	10
	C - Portsdown Hill (WB)	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.41	16.13	0.7	C	131	197
B-A	1.56	785.94	62.2	F	258	387
C-AB	0.33	9.50	0.5	A	159	238
C-A					561	841
A-B					262	392
A-C					406	608

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	108	27	467	0.230	106	0.0	0.3	9.953	A
B-A	212	53	313	0.675	204	0.0	1.9	31.163	D
C-AB	130	33	659	0.198	129	0.0	0.2	6.785	A
C-A	460	115			460				
A-B	215	54			215				
A-C	333	83			333				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	129	32	407	0.316	128	0.3	0.5	12.877	B
B-A	253	63	265	0.953	235	1.9	6.4	87.533	F
C-AB	156	39	621	0.250	155	0.2	0.3	7.718	A
C-A	549	137			549				
A-B	256	64			256				
A-C	397	99			397				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	157	39	381	0.414	157	0.5	0.7	15.999	C
B-A	309	77	199	1.557	197	6.4	34.5	404.624	F
C-AB	191	48	569	0.335	190	0.3	0.5	9.467	A
C-A	673	168			673				
A-B	314	78			314				
A-C	487	122			487				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	157	39	381	0.414	157	0.7	0.7	16.125	C
B-A	309	77	199	1.559	198	34.5	62.2	785.224	F
C-AB	191	48	569	0.335	190	0.5	0.5	9.501	A
C-A	673	168			673				
A-B	314	78			314				
A-C	487	122			487				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	129	32	404	0.318	129	0.7	0.5	13.142	B
B-A	253	63	265	0.954	261	62.2	60.3	785.937	F
C-AB	156	39	621	0.250	156	0.5	0.3	7.751	A
C-A	549	137			549				
A-B	256	64			256				
A-C	397	99			397				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	108	27	421	0.255	108	0.5	0.3	11.510	B
B-A	212	53	313	0.676	308	60.3	36.2	568.307	F
C-AB	130	33	659	0.198	131	0.3	0.2	6.818	A
C-A	460	115			460				
A-B	215	54			215				
A-C	333	83			333				

Existing Configuration - 2019 Baseline, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Crookham Lane - Portsdown Hill Road	T-Junction	Two-way	25.79	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2019 Baseline	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Portsdown Hill (EB)		ONE HOUR	✓	727	100.000
B - Crookhorn Lane		ONE HOUR	✓	310	100.000
C - Portsdown Hill (WB)		ONE HOUR	✓	624	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Portsdown Hill (EB)	B - Crookhorn Lane	C - Portsdown Hill (WB)
From	A - Portsdown Hill (EB)	0	285	442
	B - Crookhorn Lane	225	0	85
	C - Portsdown Hill (WB)	504	120	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Portsdown Hill (EB)	B - Crookhorn Lane	C - Portsdown Hill (WB)
From	A - Portsdown Hill (EB)	10	10	10
	B - Crookhorn Lane	10	10	10
	C - Portsdown Hill (WB)	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.25	12.54	0.3	B	78	117
B-A	1.02	181.29	12.3	F	206	310
C-AB	0.23	8.23	0.3	A	110	165
C-A					462	694
A-B					262	392
A-C					406	608

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	64	16	493	0.130	63	0.0	0.1	8.379	A
B-A	169	42	343	0.494	166	0.0	0.9	19.898	C
C-AB	90	23	659	0.137	90	0.0	0.2	6.319	A
C-A	379	95			379				
A-B	215	54			215				
A-C	333	83			333				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	76	19	447	0.171	76	0.1	0.2	9.709	A
B-A	202	51	301	0.673	199	0.9	1.9	34.036	D
C-AB	108	27	621	0.174	108	0.2	0.2	7.006	A
C-A	453	113			453				
A-B	256	64			256				
A-C	397	99			397				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	94	23	381	0.246	93	0.2	0.3	12.504	B
B-A	248	62	242	1.022	222	1.9	8.4	111.866	F
C-AB	132	33	569	0.232	132	0.2	0.3	8.221	A
C-A	555	139			555				
A-B	314	78			314				
A-C	487	122			487				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	94	23	381	0.246	94	0.3	0.3	12.544	B
B-A	248	62	242	1.022	232	8.4	12.3	181.288	F
C-AB	132	33	569	0.232	132	0.3	0.3	8.234	A
C-A	555	139			555				
A-B	314	78			314				
A-C	487	122			487				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	76	19	426	0.179	77	0.3	0.2	10.312	B
B-A	202	51	301	0.673	242	12.3	2.4	79.662	F
C-AB	108	27	621	0.174	108	0.3	0.2	7.021	A
C-A	453	113			453				
A-B	256	64			256				
A-C	397	99			397				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	64	16	489	0.131	64	0.2	0.2	8.489	A
B-A	169	42	343	0.494	175	2.4	1.0	22.077	C
C-AB	90	23	659	0.137	91	0.2	0.2	6.336	A
C-A	379	95			379				
A-B	215	54			215				
A-C	333	83			333				

Existing Configuration - 2029 Baseline, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Crookham Lane - Portsdown Hill Road	T-Junction	Two-way	333.90	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2029 Baseline	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Portsdown Hill (EB)		ONE HOUR	✓	819	100.000
B - Crookhorn Lane		ONE HOUR	✓	478	100.000
C - Portsdown Hill (WB)		ONE HOUR	✓	895	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Portsdown Hill (EB)	B - Crookhorn Lane	C - Portsdown Hill (WB)
From	A - Portsdown Hill (EB)	0	321	498
	B - Crookhorn Lane	317	0	161
	C - Portsdown Hill (WB)	700	195	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Portsdown Hill (EB)	B - Crookhorn Lane	C - Portsdown Hill (WB)
From	A - Portsdown Hill (EB)	10	10	10
	B - Crookhorn Lane	10	10	10
	C - Portsdown Hill (WB)	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.49	19.23	0.9	C	148	222
B-A	2.32	2292.13	134.3	F	291	436
C-AB	0.40	11.28	0.7	B	179	268
C-A					642	963
A-B					295	442
A-C					457	685

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	121	30	431	0.281	120	0.0	0.4	11.520	B
B-A	239	60	281	0.851	223	0.0	3.9	53.497	F
C-AB	147	37	634	0.231	146	0.0	0.3	7.348	A
C-A	527	132			527				
A-B	242	60			242				
A-C	375	94			375				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	145	36	391	0.370	144	0.4	0.6	14.578	B
B-A	285	71	226	1.262	220	3.9	20.0	252.618	F
C-AB	175	44	592	0.296	175	0.3	0.4	8.620	A
C-A	629	157			629				
A-B	289	72			289				
A-C	448	112			448				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	177	44	364	0.487	176	0.6	0.9	18.977	C
B-A	349	87	151	2.316	151	20.0	69.7	1054.791	F
C-AB	215	54	534	0.402	214	0.4	0.7	11.216	B
C-A	771	193			771				
A-B	353	88			353				
A-C	548	137			548				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	177	44	364	0.487	177	0.9	0.9	19.231	C
B-A	349	87	150	2.322	150	69.7	119.3	2292.133	F
C-AB	215	54	534	0.402	215	0.7	0.7	11.282	B
C-A	771	193			771				
A-B	353	88			353				
A-C	548	137			548				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	145	36	391	0.370	146	0.9	0.6	14.778	B
B-A	285	71	225	1.265	225	119.3	134.3	1822.553	F
C-AB	175	44	592	0.296	176	0.7	0.4	8.678	A
C-A	629	157			629				
A-B	289	72			289				
A-C	448	112			448				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	121	30	410	0.295	122	0.6	0.4	12.515	B
B-A	239	60	280	0.853	278	134.3	124.5	1677.009	F
C-AB	147	37	634	0.231	147	0.4	0.3	7.401	A
C-A	527	132			527				
A-B	242	60			242				
A-C	375	94			375				

Existing Configuration - 2029 Baseline, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Crookham Lane - Portsdown Hill Road	T-Junction	Two-way	104.02	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2029 Baseline	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Portsdown Hill (EB)		ONE HOUR	✓	909	100.000
B - Crookhorn Lane		ONE HOUR	✓	348	100.000
C - Portsdown Hill (WB)		ONE HOUR	✓	701	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Portsdown Hill (EB)	B - Crookhorn Lane	C - Portsdown Hill (WB)
From	A - Portsdown Hill (EB)	0	325	584
	B - Crookhorn Lane	253	0	95
	C - Portsdown Hill (WB)	566	135	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Portsdown Hill (EB)	B - Crookhorn Lane	C - Portsdown Hill (WB)
From	A - Portsdown Hill (EB)	10	10	10
	B - Crookhorn Lane	10	10	10
	C - Portsdown Hill (WB)	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.30	15.05	0.4	C	87	131
B-A	1.58	793.90	57.2	F	232	348
C-AB	0.30	10.29	0.4	B	124	186
C-A					519	779
A-B					298	447
A-C					536	804

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	72	18	444	0.161	71	0.0	0.2	9.629	A
B-A	190	48	298	0.640	184	0.0	1.6	30.193	D
C-AB	102	25	610	0.167	101	0.0	0.2	7.056	A
C-A	426	107			426				
A-B	245	61			245				
A-C	440	110			440				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	85	21	381	0.224	85	0.2	0.3	12.162	B
B-A	227	57	247	0.923	212	1.6	5.4	82.804	F
C-AB	121	30	563	0.215	121	0.2	0.3	8.135	A
C-A	509	127			509				
A-B	292	73			292				
A-C	525	131			525				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	105	26	344	0.304	104	0.3	0.4	14.979	B
B-A	279	70	176	1.583	174	5.4	31.4	414.718	F
C-AB	149	37	498	0.298	148	0.3	0.4	10.258	B
C-A	623	156			623				
A-B	358	89			358				
A-C	643	161			643				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	105	26	344	0.304	105	0.4	0.4	15.046	C
B-A	279	70	176	1.585	176	31.4	57.2	793.903	F
C-AB	149	37	498	0.298	149	0.4	0.4	10.292	B
C-A	623	156			623				
A-B	358	89			358				
A-C	643	161			643				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	85	21	374	0.228	86	0.4	0.3	12.508	B
B-A	227	57	246	0.924	242	57.2	53.6	760.774	F
C-AB	121	30	563	0.215	122	0.4	0.3	8.165	A
C-A	509	127			509				
A-B	292	73			292				
A-C	525	131			525				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	72	18	396	0.180	72	0.3	0.2	11.105	B
B-A	190	48	297	0.641	292	53.6	28.2	509.917	F
C-AB	102	25	610	0.167	102	0.3	0.2	7.086	A
C-A	426	107			426				
A-B	245	61			245				
A-C	440	110			440				

Existing Configuration - 2029 Baseline + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Crookham Lane - Portsdown Hill Road	T-Junction	Two-way	378.72	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2029 Baseline + Development	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Portsdown Hill (EB)		ONE HOUR	✓	835	100.000
B - Crookhorn Lane		ONE HOUR	✓	546	100.000
C - Portsdown Hill (WB)		ONE HOUR	✓	907	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Portsdown Hill (EB)	B - Crookhorn Lane	C - Portsdown Hill (WB)
From	A - Portsdown Hill (EB)	0	337	498
	B - Crookhorn Lane	356	0	190
	C - Portsdown Hill (WB)	700	207	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Portsdown Hill (EB)	B - Crookhorn Lane	C - Portsdown Hill (WB)
From	A - Portsdown Hill (EB)	10	10	10
	B - Crookhorn Lane	10	10	10
	C - Portsdown Hill (WB)	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.58	23.37	1.3	C	174	262
B-A	2.74	2414.57	181.9	F	327	490
C-AB	0.43	12.00	0.8	B	190	285
C-A					642	963
A-B					309	464
A-C					457	685

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	143	36	413	0.346	141	0.0	0.5	13.137	B
B-A	268	67	276	0.972	241	0.0	6.9	76.905	F
C-AB	156	39	630	0.247	155	0.0	0.3	7.551	A
C-A	527	132			527				
A-B	254	63			254				
A-C	375	94			375				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	171	43	390	0.438	170	0.5	0.8	16.299	C
B-A	320	80	220	1.455	218	6.9	32.4	415.963	F
C-AB	186	47	587	0.317	186	0.3	0.5	8.957	A
C-A	629	157			629				
A-B	303	76			303				
A-C	448	112			448				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	209	52	363	0.577	207	0.8	1.3	22.806	C
B-A	392	98	143	2.732	143	32.4	94.5	1465.669	F
C-AB	228	57	528	0.432	227	0.5	0.7	11.918	B
C-A	770	193			770				
A-B	371	93			371				
A-C	548	137			548				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	209	52	363	0.577	209	1.3	1.3	23.370	C
B-A	392	98	143	2.740	143	94.5	156.7	2274.303	F
C-AB	228	57	528	0.432	228	0.7	0.8	12.004	B
C-A	770	193			770				
A-B	371	93			371				
A-C	548	137			548				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	171	43	390	0.438	173	1.3	0.8	16.758	C
B-A	320	80	219	1.459	219	156.7	181.9	2414.568	F
C-AB	186	47	587	0.317	187	0.8	0.5	9.033	A
C-A	629	157			629				
A-B	303	76			303				
A-C	448	112			448				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	143	36	409	0.350	144	0.8	0.5	13.627	B
B-A	268	67	275	0.975	273	181.9	180.6	2386.006	F
C-AB	156	39	630	0.247	156	0.5	0.3	7.611	A
C-A	527	132			527				
A-B	254	63			254				
A-C	375	94			375				

Existing Configuration - 2029 Baseline + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Crookham Lane - Portsdown Hill Road	T-Junction	Two-way	202.51	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2029 Baseline + Development	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Portsdown Hill (EB)		ONE HOUR	✓	947	100.000
B - Crookhorn Lane		ONE HOUR	✓	389	100.000
C - Portsdown Hill (WB)		ONE HOUR	✓	730	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Portsdown Hill (EB)	B - Crookhorn Lane	C - Portsdown Hill (WB)
From	A - Portsdown Hill (EB)	0	363	584
	B - Crookhorn Lane	276	0	113
	C - Portsdown Hill (WB)	566	164	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Portsdown Hill (EB)	B - Crookhorn Lane	C - Portsdown Hill (WB)
From	A - Portsdown Hill (EB)	10	10	10
	B - Crookhorn Lane	10	10	10
	C - Portsdown Hill (WB)	10	10	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.37	16.67	0.6	C	104	156
B-A	1.92	1502.04	87.1	F	253	380
C-AB	0.37	11.87	0.6	B	151	226
C-A					519	779
A-B					333	500
A-C					536	804

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	85	21	430	0.198	84	0.0	0.2	10.385	B
B-A	208	52	286	0.727	199	0.0	2.3	38.123	E
C-AB	123	31	600	0.206	122	0.0	0.3	7.520	A
C-A	426	107			426				
A-B	273	68			273				
A-C	440	110			440				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	102	25	371	0.274	101	0.2	0.4	13.292	B
B-A	248	62	232	1.068	217	2.3	10.1	140.544	F
C-AB	147	37	551	0.267	147	0.3	0.4	8.896	A
C-A	509	127			509				
A-B	326	82			326				
A-C	525	131			525				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	124	31	340	0.366	124	0.4	0.6	16.557	C
B-A	304	76	159	1.915	158	10.1	46.6	676.037	F
C-AB	181	45	484	0.373	180	0.4	0.6	11.806	B
C-A	623	156			623				
A-B	400	100			400				
A-C	643	161			643				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	124	31	340	0.366	124	0.6	0.6	16.668	C
B-A	304	76	158	1.919	158	46.6	83.0	1502.037	F
C-AB	181	45	484	0.373	181	0.6	0.6	11.873	B
C-A	623	156			623				
A-B	400	100			400				
A-C	643	161			643				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	102	25	371	0.274	102	0.6	0.4	13.417	B
B-A	248	62	232	1.070	232	83.0	87.1	1258.167	F
C-AB	147	37	551	0.267	148	0.6	0.4	8.954	A
C-A	509	127			509				
A-B	326	82			326				
A-C	525	131			525				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
B-C	85	21	394	0.216	85	0.4	0.3	11.690	B
B-A	208	52	285	0.728	282	87.1	68.5	994.895	F
C-AB	123	31	600	0.206	124	0.4	0.3	7.566	A
C-A	426	107			426				
A-B	273	68			273				
A-C	440	110			440				

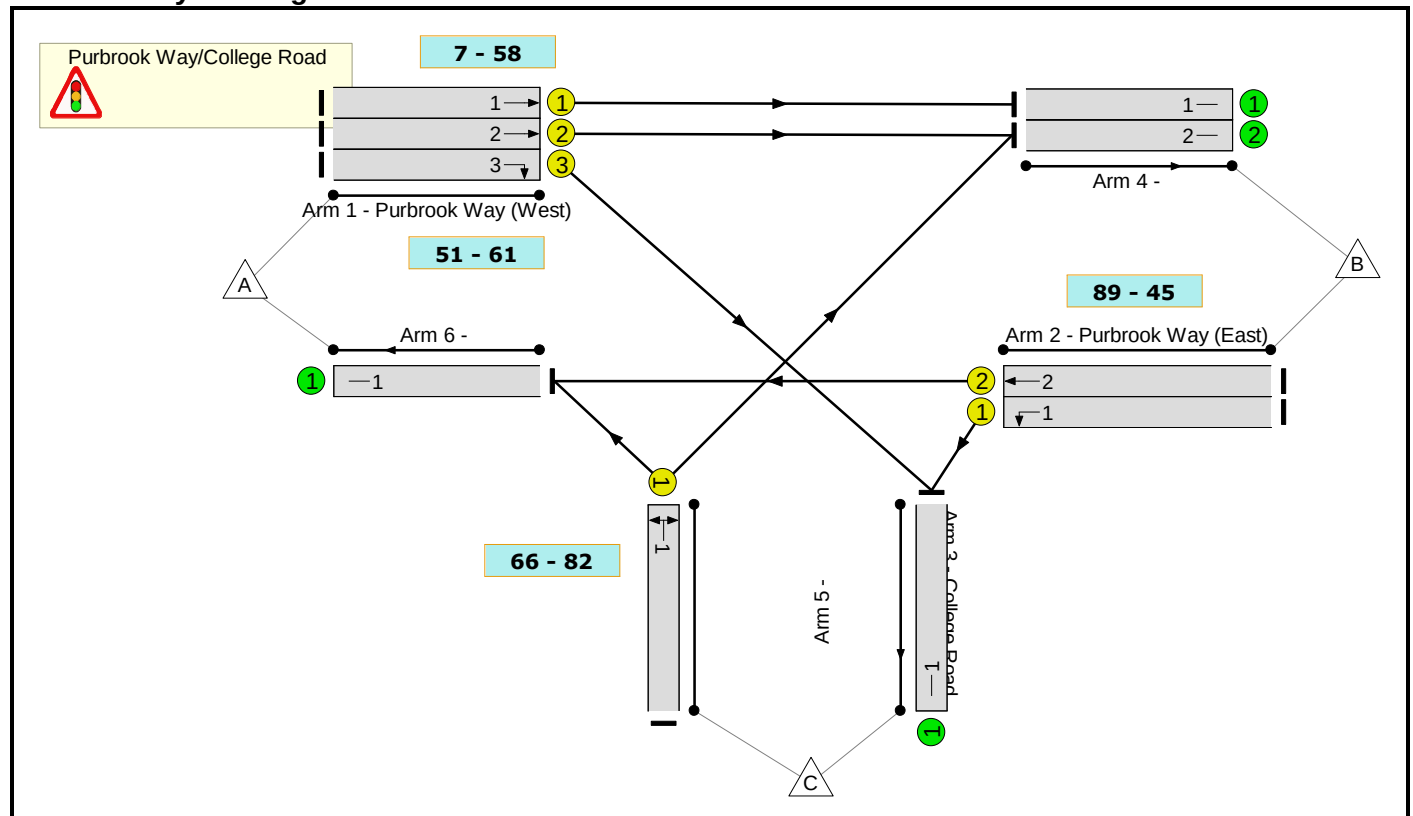
Appendix Q

MBL Basic Results Summary
MBL Basic Results Summary

User and Project Details

Project:	College Road, Campdown
Title:	Purbrook Way/College Road Improvement scheme
Location:	Purbrook
Additional detail:	With 250 units for signal opening (2016), with 2500 units for future year (2021)
File name:	AGREED LINSIG 2017-11-17 College Road-Purbrook Way with dev Improvement - Revised Stagger.lsg3x

Junction Layout Diagram



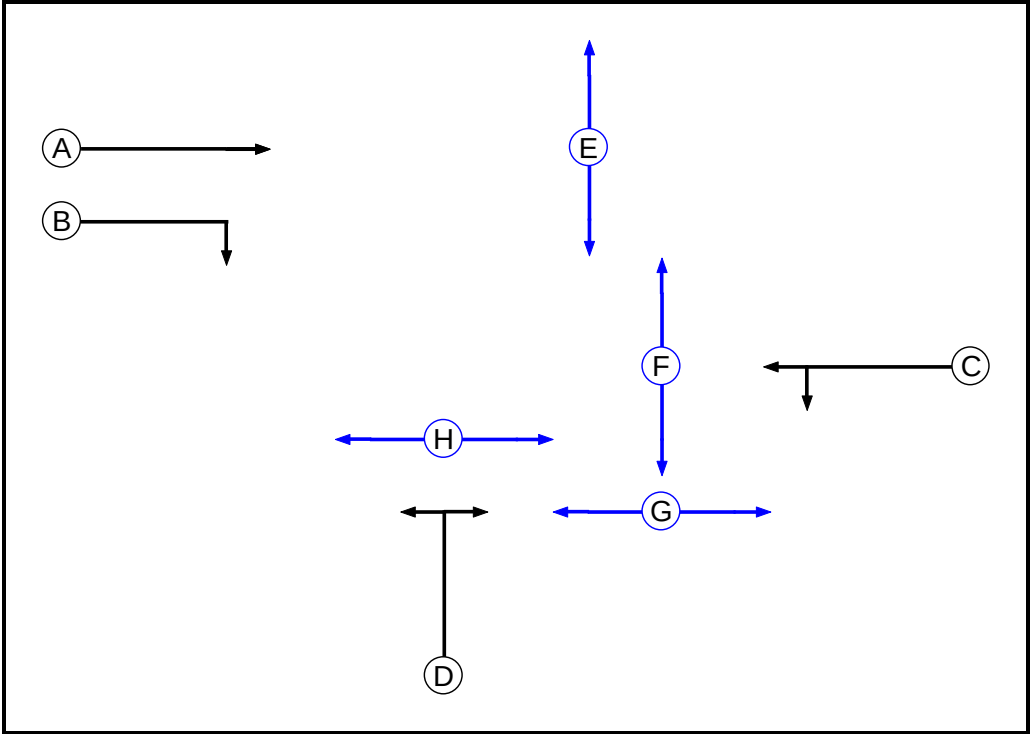
MBL Basic Results Summary

Lane Input Data

Junction: Purbrook Way/College 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 (Purbrook Way (West))	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Ahead	Inf
1/2 (Purbrook Way (West))	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Ahead	Inf
1/3 (Purbrook Way (West))	U	B	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Right	15.00
2/1 (Purbrook Way (East))	U	C	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Left	17.50
2/2 (Purbrook Way (East))	U	C	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 6 Ahead	Inf
3/1 (College Road)	U	D	2	3	60.0	Geom	-	3.75	0.00	Y	Arm 4 Right Arm 6 Left	25.00 15.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

MBL Basic Results Summary

Phase Diagram

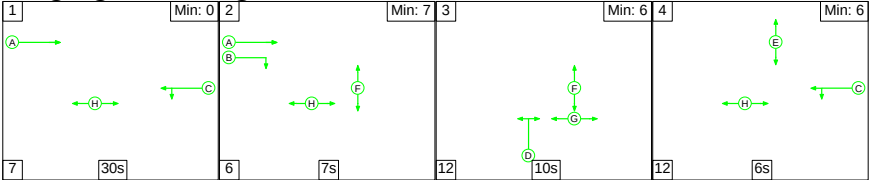


Intergreens

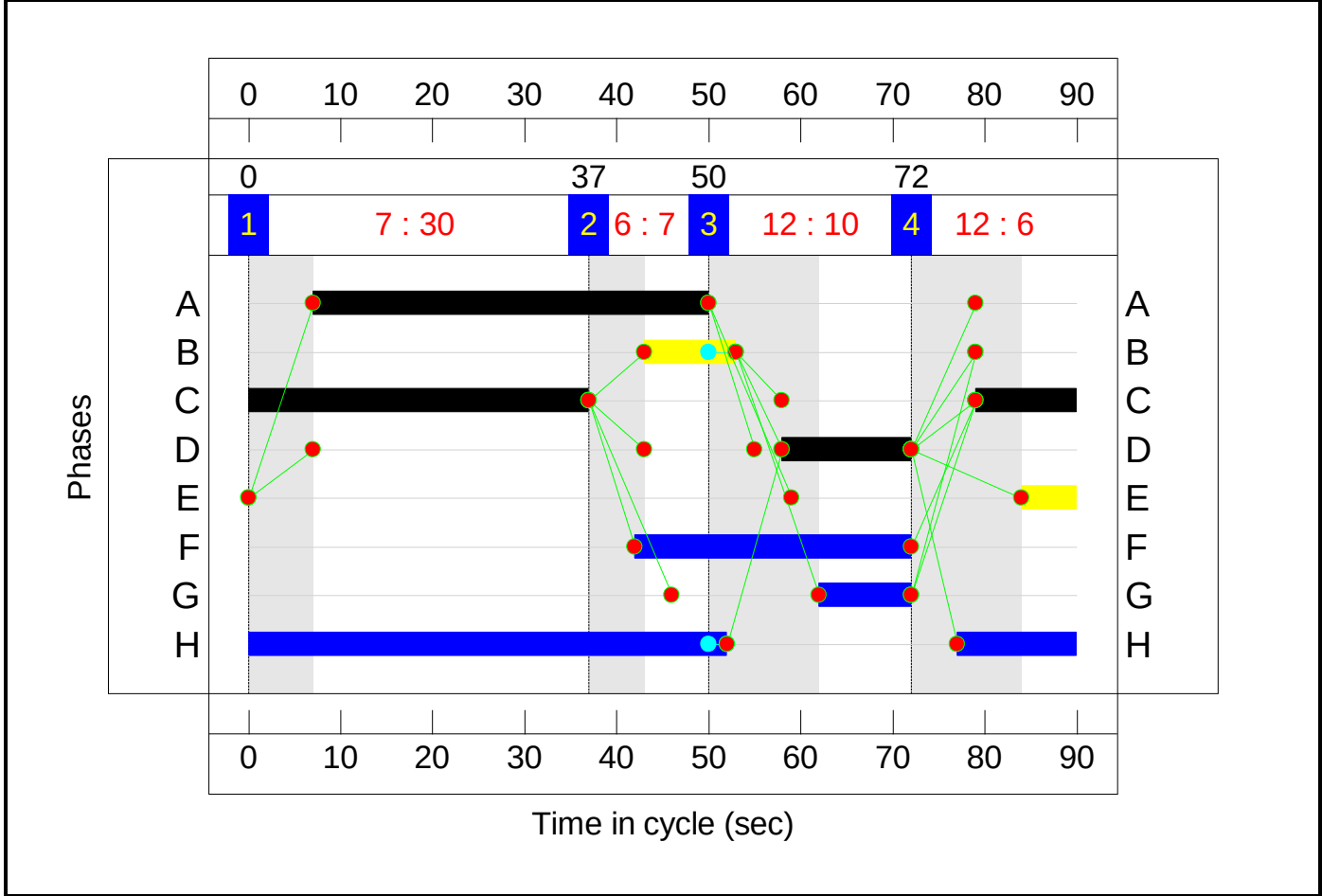
Terminating Phase	Starting Phase								
		A	B	C	D	E	F	G	H
	A		-	-	5	9	-	-	-
	B	-		5	5	-	-	9	-
	C	-	6		6	-	5	9	-
	D	7	7	7		12	-	-	5
	E	7	-	-	7		-	-	-
	F	-	-	7	-	-		-	-
	G	-	7	7	-	-	-		-
	H	-	-	-	6	-	-	-	

Scenario 1: '2029 Base + Dev (790 units) - AM Peak' (FG1: '2029 Base + Dev (790 units) - AM Peak', Plan 1: 'Network Control Plan 1')

Staging Plan Diagram



Signal Timings Diagram



Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2029 Base + Dev (790 units) - AM Peak'	08:00	09:00	01:00	

Traffic Flows, Desired

Desired Flow :

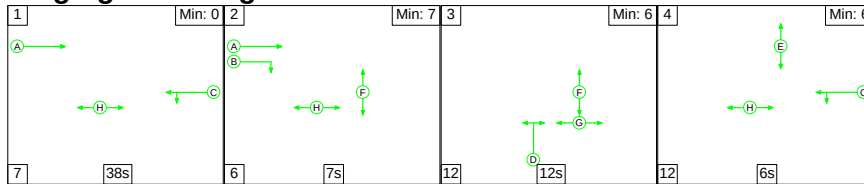
	Destination				
		A	B	C	Tot.
Origin	A	0	1235	192	1427
	B	826	0	570	1396
	C	160	349	0	509
	Tot.	986	1584	762	3332

Link Results

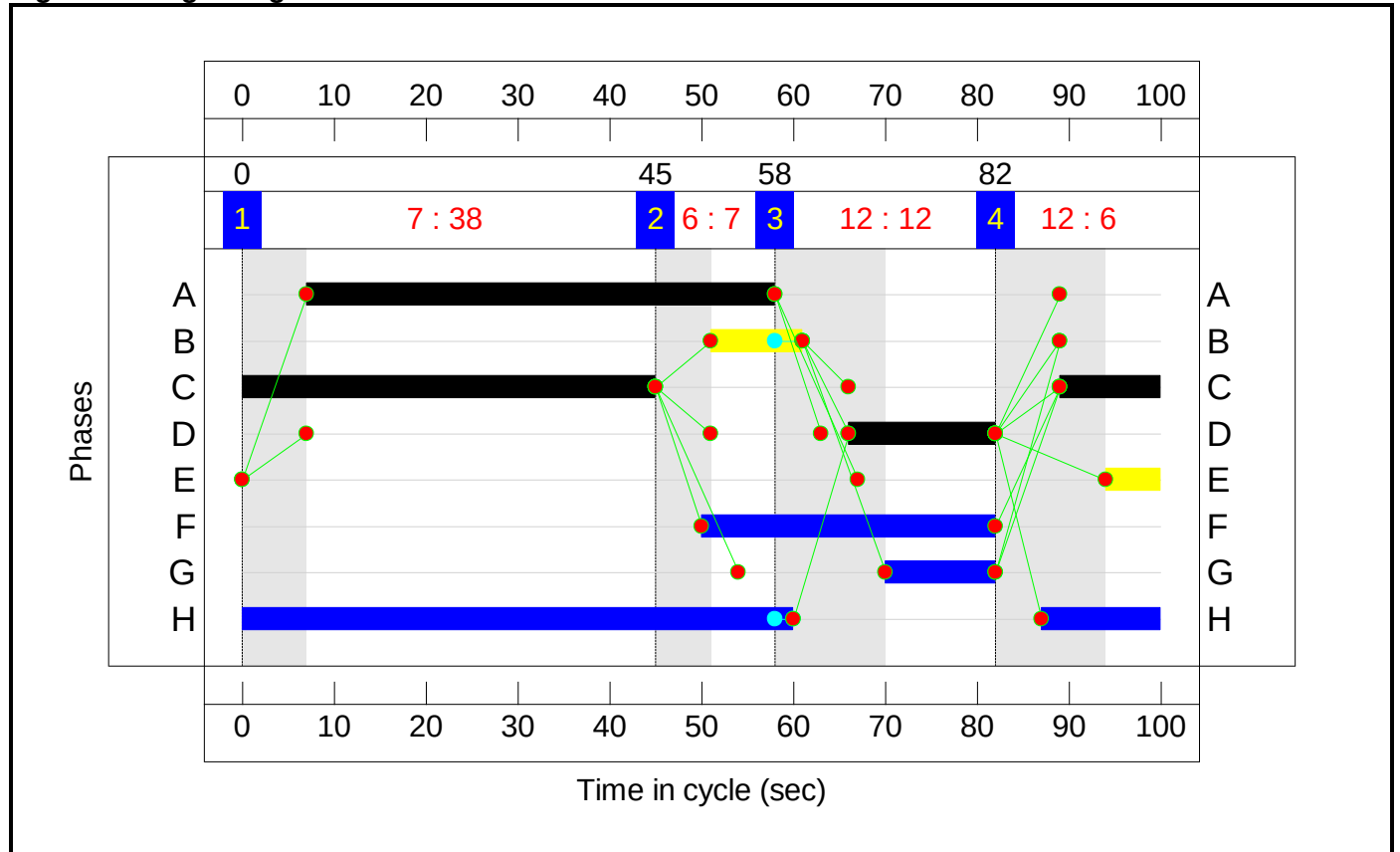
MBL Basic Results Summary

Scenario 2: '2029 Base + Dev (790 units) - PM Peak' (FG2: '2029 Base + Dev (790 units) - PM Peak', Plan 1: 'Network Control Plan 1')

Staging Plan Diagram



Signal Timings Diagram



Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
2: '2029 Base + Dev (790 units) - PM Peak'	17:00	18:00	01:00	

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
	A	B	C	Tot.	
A	0	771	155	926	
B	955	0	464	1419	
C	175	320	0	495	
Tot.	1130	1091	619	2840	

Link Results

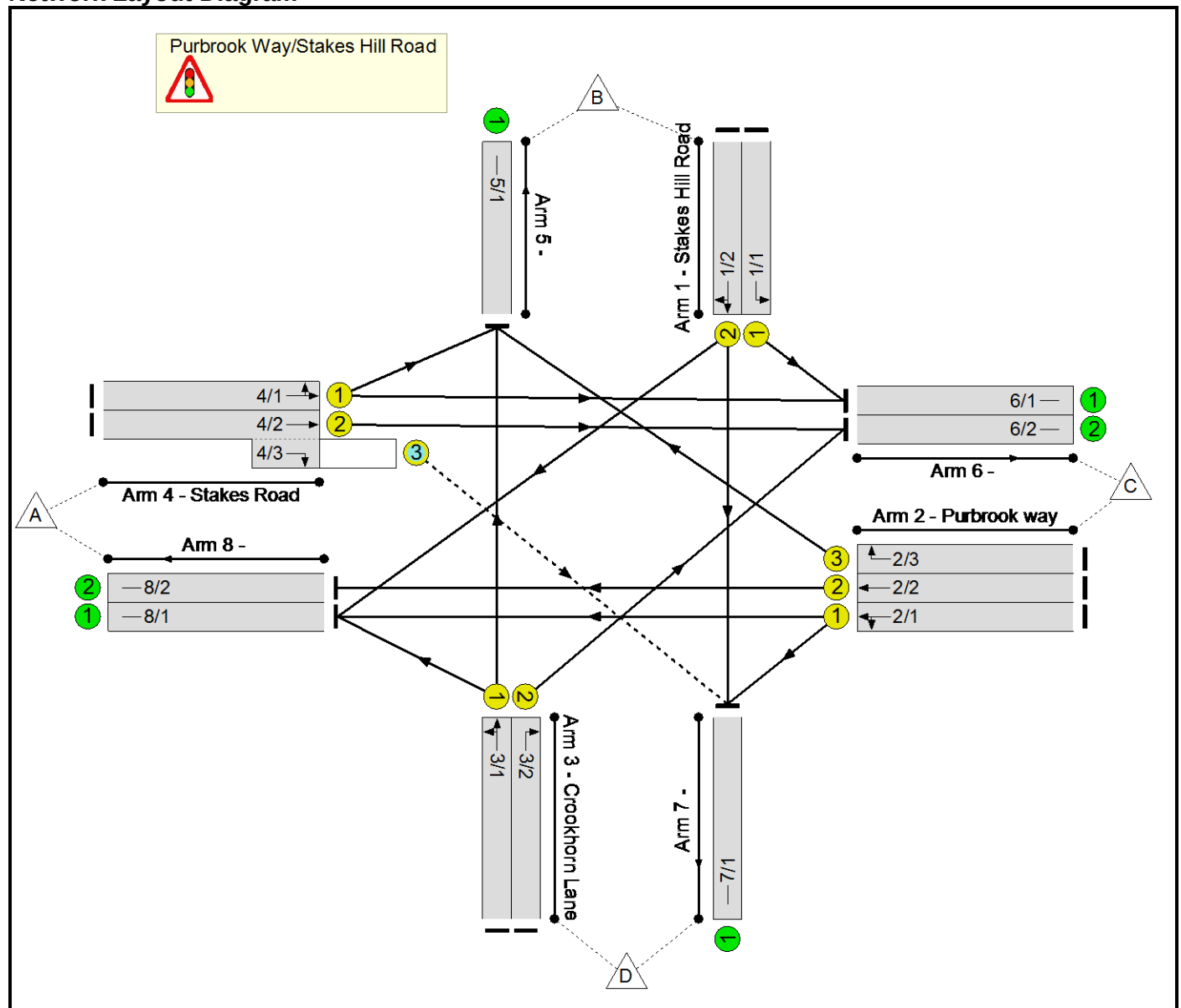
Appendix R

Full Input Data And Results
Full Input Data And Results

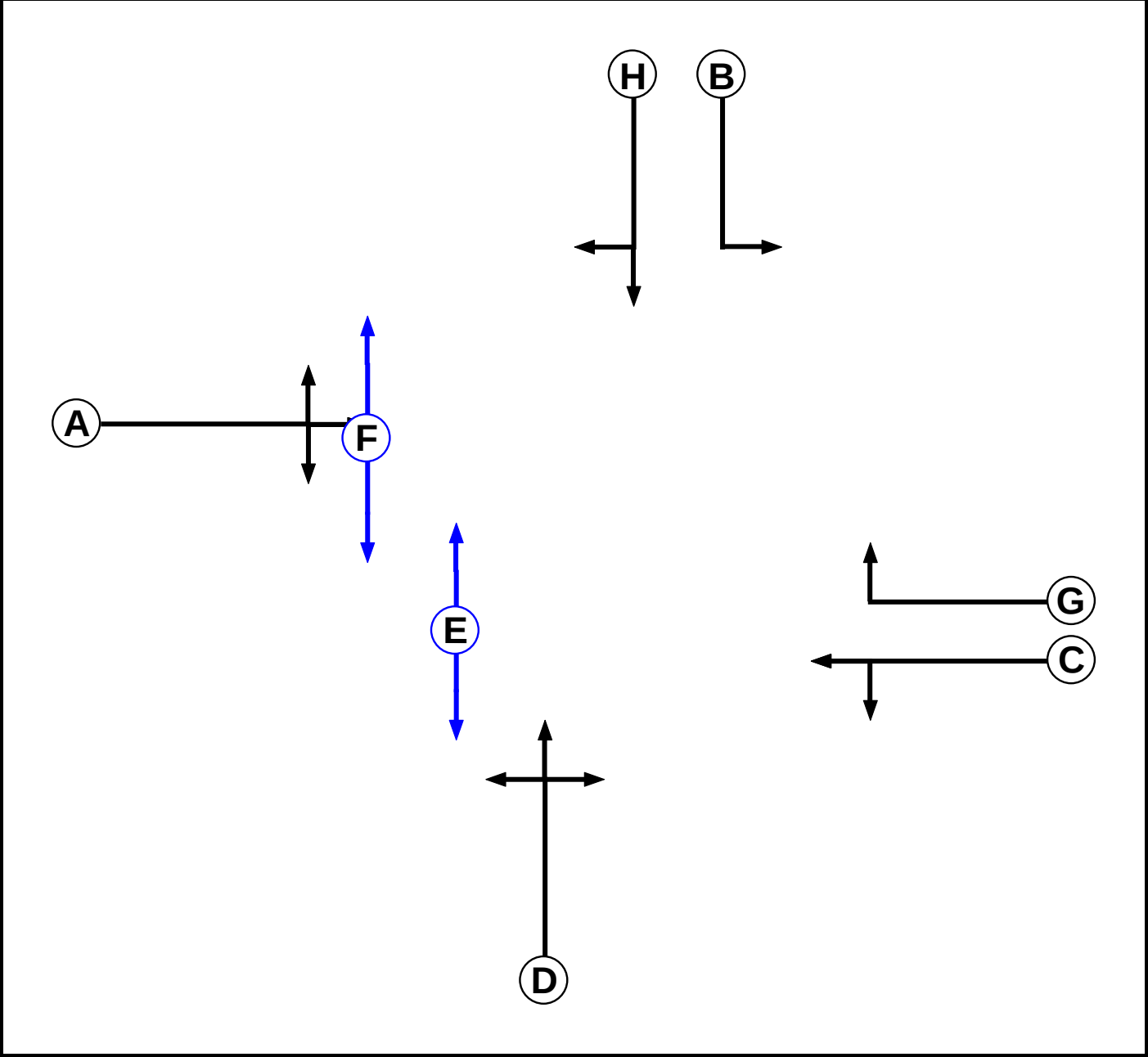
User and Project Details

Project:	048.0010
Title:	College Road, Campdown
Location:	Purbrook
Additional detail:	
File name:	Purbrook Way - Stakes Hill Road Rbt.lsg3x
Author:	Shaan Novitzki
Company:	Paul Basham Associates
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		6	6
F	Pedestrian		6	6
G	Traffic		7	7
H	Traffic		7	7

Full Input Data And Results

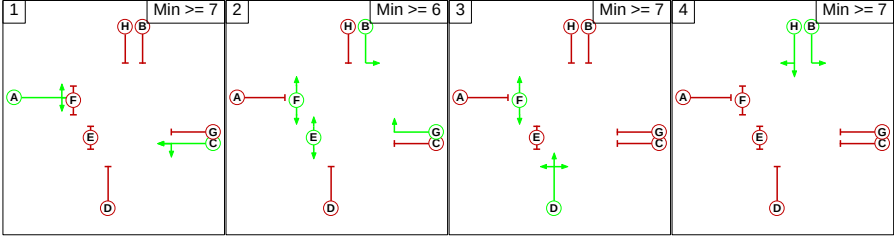
Phase Intergreens Matrix

Terminating Phase	Starting Phase								
		A	B	C	D	E	F	G	H
	A		7	-	5	-	5	5	7
	B	5		6	7	-	-	-	-
	C	-	5		7	8	-	-	5
	D	6	5	5		7	-	6	5
	E	-	-	10	10		-	-	10
	F	8	-	-	-	-		-	-
	G	5	-	-	5	-	-		5
	H	5	-	6	7	10	-	6	

Phases in Stage

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

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
2	3	B	Losing	3	3
2	3	G	Losing	5	5
3	4	F	Losing	5	5

Prohibited Stage Change

From Stage	To Stage				
		1	2	3	4
	1		8	7	7
	2	10		10	10
	3	8	7		5
	4	6	10	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Purbrook Way/Stakes Hill 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)
4/3 (Stakes Road)	7/1 (Right)	1439	0	2/1	1.09	All	4.00	-	0.50	4	2.00
				2/2	1.09	All					

Lane Input Data

Junction: Purbrook Way/Stakes Hill 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 (Stakes Hill Road)	U	B	2	3	60.0	Geom	-	3.91	0.00	N	Arm 6 Left	23.00
1/2 (Stakes Hill Road)	U	H	2	3	60.0	Geom	-	4.55	0.00	N	Arm 7 Ahead	Inf
											Arm 8 Right	35.00
2/1 (Purbrook way)	U	C	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 7 Left	20.00
											Arm 8 Ahead	Inf
2/2 (Purbrook way)	U	C	2	3	60.0	Geom	-	3.50	0.00	N	Arm 8 Ahead	Inf
2/3 (Purbrook way)	U	G	2	3	60.0	Geom	-	4.54	0.00	N	Arm 5 Right	20.00
3/1 (Crookhorn Lane)	U	D	2	3	60.0	Geom	-	3.76	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	20.00
3/2 (Crookhorn Lane)	U	D	2	3	60.0	Geom	-	4.55	0.00	N	Arm 6 Right	30.00
4/1 (Stakes Road)	U	A	2	3	60.0	Geom	-	3.71	0.00	Y	Arm 5 Left	20.00
											Arm 6 Ahead	Inf
4/2 (Stakes Road)	U	A	2	3	60.0	Geom	-	3.50	0.00	N	Arm 6 Ahead	Inf
4/3 (Stakes Road)	O	A	2	3	3.5	Geom	-	3.51	0.00	N	Arm 7 Right	25.00
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2029 Base AM'	08:00	09:00	01:00	
2: '2029 Base PM'	17:00	18:00	01:00	
3: '2029 Base + Dev AM'	08:00	09:00	01:00	
4: '2029 Base + Dev PM'	17:00	18:00	01:00	

Scenario 1: '2029 Base AM' (FG1: '2029 Base AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	90	554	41	685
	B	181	0	687	160	1028
	C	360	445	0	83	888
	D	66	168	153	0	387
	Tot.	607	703	1394	284	2988

Traffic Lane Flows

Lane	Scenario 1: 2029 Base AM
Junction: Purbrook Way/Stakes Hill Road	
1/1	687
1/2	341
2/1	200
2/2	243
2/3	445
3/1	234
3/2	153
4/1	312
4/2 (with short)	373(In) 332(Out)
4/3 (short)	41
5/1	703
6/1	909
6/2	485
7/1	284
8/1	364
8/2	243

Lane Saturation Flows

Junction: Purbrook Way/Stakes Hill 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 (Stakes Hill Road)	3.91	0.00	N	Arm 6 Left	23.00	100.0 %	2015	2015
1/2 (Stakes Hill Road)	4.55	0.00	N	Arm 7 Ahead	Inf	46.9 %	2161	2161
				Arm 8 Right	35.00	53.1 %		
2/1 (Purbrook way)	3.00	0.00	Y	Arm 7 Left	20.00	41.5 %	1857	1857
				Arm 8 Ahead	Inf	58.5 %		
2/2 (Purbrook way)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
2/3 (Purbrook way)	4.54	0.00	N	Arm 5 Right	20.00	100.0 %	2055	2055
3/1 (Crookhorn Lane)	3.76	0.00	Y	Arm 5 Ahead	Inf	71.8 %	1950	1950
				Arm 8 Left	20.00	28.2 %		
3/2 (Crookhorn Lane)	4.55	0.00	N	Arm 6 Right	30.00	100.0 %	2105	2105
4/1 (Stakes Road)	3.71	0.00	Y	Arm 5 Left	20.00	28.8 %	1944	1944
				Arm 6 Ahead	Inf	71.2 %		
4/2 (Stakes Road)	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
4/3 (Stakes Road)	3.51	0.00	N	Arm 7 Right	25.00	100.0 %	1987	1987
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2029 Base PM' (FG2: '2029 Base PM', Plan 1: 'Network Control Plan 1')**Traffic Flows, Desired****Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	175	385	51	611
	B	111	0	366	265	742
	C	573	508	0	142	1223
	D	79	241	97	0	417
	Tot.	763	924	848	458	2993

Traffic Lane Flows

Lane	Scenario 2: 2029 Base PM
Junction: Purbrook Way/Stakes Hill Road	
1/1	366
1/2	376
2/1	333
2/2	382
2/3	508
3/1	320
3/2	97
4/1	267
4/2 (with short)	344(In) 293(Out)
4/3 (short)	51
5/1	924
6/1	458
6/2	390
7/1	458
8/1	381
8/2	382

Lane Saturation Flows

Junction: Purbrook Way/Stakes Hill 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 (Stakes Hill Road)	3.91	0.00	N	Arm 6 Left	23.00	100.0 %	2015	2015
1/2 (Stakes Hill Road)	4.55	0.00	N	Arm 7 Ahead	Inf	70.5 %	2182	2182
				Arm 8 Right	35.00	29.5 %		
2/1 (Purbrook way)	3.00	0.00	Y	Arm 7 Left	20.00	42.6 %	1856	1856
				Arm 8 Ahead	Inf	57.4 %		
2/2 (Purbrook way)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
2/3 (Purbrook way)	4.54	0.00	N	Arm 5 Right	20.00	100.0 %	2055	2055
3/1 (Crookhorn Lane)	3.76	0.00	Y	Arm 5 Ahead	Inf	75.3 %	1955	1955
				Arm 8 Left	20.00	24.7 %		
3/2 (Crookhorn Lane)	4.55	0.00	N	Arm 6 Right	30.00	100.0 %	2105	2105
4/1 (Stakes Road)	3.71	0.00	Y	Arm 5 Left	20.00	65.5 %	1893	1893
				Arm 6 Ahead	Inf	34.5 %		
4/2 (Stakes Road)	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
4/3 (Stakes Road)	3.51	0.00	N	Arm 7 Right	25.00	100.0 %	1987	1987
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2029 Base + Dev AM' (FG3: '2029 Base + Dev AM', Plan 1: 'Network Control Plan 1')**Traffic Flows, Desired****Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	90	563	41	694
	B	181	0	705	160	1046
	C	382	487	0	83	952
	D	66	168	153	0	387
	Tot.	629	745	1421	284	3079

Traffic Lane Flows

Lane	Scenario 3: 2029 Base + Dev AM
Junction: Purbrook Way/Stakes Hill Road	
1/1	687
1/2	341
2/1	200
2/2	243
2/3	445
3/1	234
3/2	153
4/1	312
4/2 (with short)	373(In) 332(Out)
4/3 (short)	41
5/1	703
6/1	909
6/2	485
7/1	284
8/1	364
8/2	243

Lane Saturation Flows

Junction: Purbrook Way/Stakes Hill 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 (Stakes Hill Road)	3.91	0.00	N	Arm 6 Left	23.00	100.0 %	2015	2015
1/2 (Stakes Hill Road)	4.55	0.00	N	Arm 7 Ahead	Inf	46.9 %	2161	2161
				Arm 8 Right	35.00	53.1 %		
2/1 (Purbrook way)	3.00	0.00	Y	Arm 7 Left	20.00	41.5 %	1857	1857
				Arm 8 Ahead	Inf	58.5 %		
2/2 (Purbrook way)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
2/3 (Purbrook way)	4.54	0.00	N	Arm 5 Right	20.00	100.0 %	2055	2055
3/1 (Crookhorn Lane)	3.76	0.00	Y	Arm 5 Ahead	Inf	71.8 %	1950	1950
				Arm 8 Left	20.00	28.2 %		
3/2 (Crookhorn Lane)	4.55	0.00	N	Arm 6 Right	30.00	100.0 %	2105	2105
4/1 (Stakes Road)	3.71	0.00	Y	Arm 5 Left	20.00	28.8 %	1944	1944
4/2 (Stakes Road)	3.50	0.00	N	Arm 6 Ahead	Inf	71.2 %		
4/3 (Stakes Road)	3.51	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
				Arm 7 Right	25.00	100.0 %	1987	1987
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2029 Base + Dev AM + Mitigation' (FG3: '2029 Base + Dev AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	90	563	41	694
	B	181	0	705	160	1046
	C	382	487	0	83	952
	D	66	168	153	0	387
	Tot.	629	745	1421	284	3079

Traffic Lane Flows

Lane	Scenario 4: 2029 Base + Dev AM + Mitigation
Junction: Purbrook Way/Stakes Hill Road	
1/1	705
1/2	341
2/1	210
2/2	255
2/3	487
3/1	234
3/2	153
4/1	319
4/2 (with short)	375(In) 334(Out)
4/3 (short)	41
5/1	745
6/1	934
6/2	487
7/1	284
8/1	374
8/2	255

Lane Saturation Flows

Junction: Purbrook Way/Stakes Hill 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 (Stakes Hill Road)	3.91	0.00	N	Arm 6 Left	23.00	100.0 %	2015	2015
1/2 (Stakes Hill Road)	4.55	0.00	N	Arm 7 Ahead	Inf	46.9 %	2161	2161
				Arm 8 Right	35.00	53.1 %		
2/1 (Purbrook way)	3.00	0.00	Y	Arm 7 Left	20.00	39.5 %	1860	1860
				Arm 8 Ahead	Inf	60.5 %		
2/2 (Purbrook way)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
2/3 (Purbrook way)	4.54	0.00	N	Arm 5 Right	20.00	100.0 %	2055	2055
3/1 (Crookhorn Lane)	3.76	0.00	Y	Arm 5 Ahead	Inf	71.8 %	1950	1950
				Arm 8 Left	20.00	28.2 %		
3/2 (Crookhorn Lane)	4.55	0.00	N	Arm 6 Right	30.00	100.0 %	2105	2105
4/1 (Stakes Road)	3.71	0.00	Y	Arm 5 Left	20.00	28.2 %	1945	1945
				Arm 6 Ahead	Inf	71.8 %		
4/2 (Stakes Road)	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
4/3 (Stakes Road)	3.51	0.00	N	Arm 7 Right	25.00	100.0 %	1987	1987
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2029 Base + Dev PM' (FG4: '2029 Base + Dev PM', Plan 1: 'Network Control Plan 1')**Traffic Flows, Desired****Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	160	374	46	580
	B	101	0	377	242	720
	C	589	535	0	142	1266
	D	73	220	88	0	381
	Tot.	763	915	839	430	2947

Traffic Lane Flows

Lane	Scenario 5: 2029 Base + Dev PM
Junction: Purbrook Way/Stakes Hill Road	
1/1	366
1/2	376
2/1	333
2/2	382
2/3	508
3/1	320
3/2	97
4/1	267
4/2 (with short)	344(In) 293(Out)
4/3 (short)	51
5/1	924
6/1	458
6/2	390
7/1	458
8/1	381
8/2	382

Lane Saturation Flows

Junction: Purbrook Way/Stakes Hill 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 (Stakes Hill Road)	3.91	0.00	N	Arm 6 Left	23.00	100.0 %	2015	2015
1/2 (Stakes Hill Road)	4.55	0.00	N	Arm 7 Ahead	Inf	70.5 %	2182	2182
				Arm 8 Right	35.00	29.5 %		
2/1 (Purbrook way)	3.00	0.00	Y	Arm 7 Left	20.00	42.6 %	1856	1856
				Arm 8 Ahead	Inf	57.4 %		
2/2 (Purbrook way)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
2/3 (Purbrook way)	4.54	0.00	N	Arm 5 Right	20.00	100.0 %	2055	2055
3/1 (Crookhorn Lane)	3.76	0.00	Y	Arm 5 Ahead	Inf	75.3 %	1955	1955
				Arm 8 Left	20.00	24.7 %		
3/2 (Crookhorn Lane)	4.55	0.00	N	Arm 6 Right	30.00	100.0 %	2105	2105
4/1 (Stakes Road)	3.71	0.00	Y	Arm 5 Left	20.00	65.5 %	1893	1893
				Arm 6 Ahead	Inf	34.5 %		
4/2 (Stakes Road)	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
4/3 (Stakes Road)	3.51	0.00	N	Arm 7 Right	25.00	100.0 %	1987	1987
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2029 Base + Dev PM + Mitigation' (FG4: '2029 Base + Dev PM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	160	374	46	580
	B	101	0	377	242	720
	C	589	535	0	142	1266
	D	73	220	88	0	381
	Tot.	763	915	839	430	2947

Traffic Lane Flows

Lane	Scenario 6: 2029 Base + Dev PM + Mitigation
Junction: Purbrook Way/Stakes Hill Road	
1/1	377
1/2	343
2/1	340
2/2	391
2/3	535
3/1	293
3/2	88
4/1	256
4/2 (with short)	324(In) 278(Out)
4/3 (short)	46
5/1	915
6/1	473
6/2	366
7/1	430
8/1	372
8/2	391

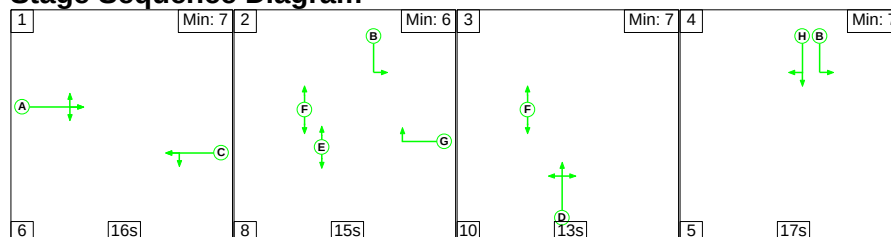
Full Input Data And Results

Lane Saturation Flows

Junction: Purbrook Way/Stakes Hill 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 (Stakes Hill Road)	3.91	0.00	N	Arm 6 Left	23.00	100.0 %	2015	2015
1/2 (Stakes Hill Road)	4.55	0.00	N	Arm 7 Ahead	Inf	70.6 %	2182	2182
				Arm 8 Right	35.00	29.4 %		
2/1 (Purbrook way)	3.00	0.00	Y	Arm 7 Left	20.00	41.8 %	1857	1857
				Arm 8 Ahead	Inf	58.2 %		
2/2 (Purbrook way)	3.50	0.00	N	Arm 8 Ahead	Inf	100.0 %	2105	2105
2/3 (Purbrook way)	4.54	0.00	N	Arm 5 Right	20.00	100.0 %	2055	2055
3/1 (Crookhorn Lane)	3.76	0.00	Y	Arm 5 Ahead	Inf	75.1 %	1954	1954
				Arm 8 Left	20.00	24.9 %		
3/2 (Crookhorn Lane)	4.55	0.00	N	Arm 6 Right	30.00	100.0 %	2105	2105
4/1 (Stakes Road)	3.71	0.00	Y	Arm 5 Left	20.00	62.5 %	1897	1897
				Arm 6 Ahead	Inf	37.5 %		
4/2 (Stakes Road)	3.50	0.00	N	Arm 6 Ahead	Inf	100.0 %	2105	2105
4/3 (Stakes Road)	3.51	0.00	N	Arm 7 Right	25.00	100.0 %	1987	1987
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
6/2	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
8/2	Infinite Saturation Flow						Inf	Inf

Scenario 1: '2029 Base AM' (FG1: '2029 Base AM', Plan 1: 'Network Control Plan 1')

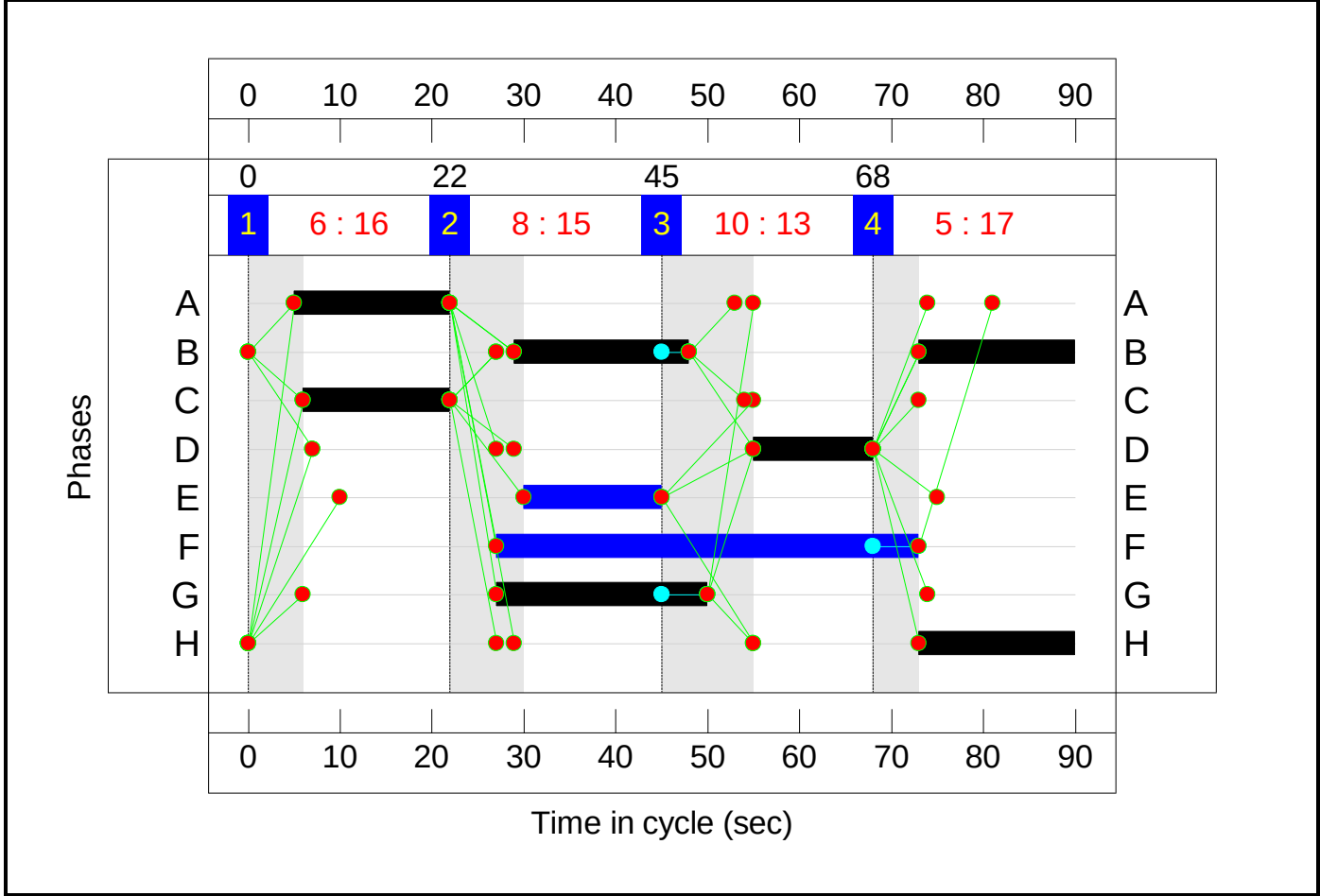
Stage Sequence Diagram



Stage Timings

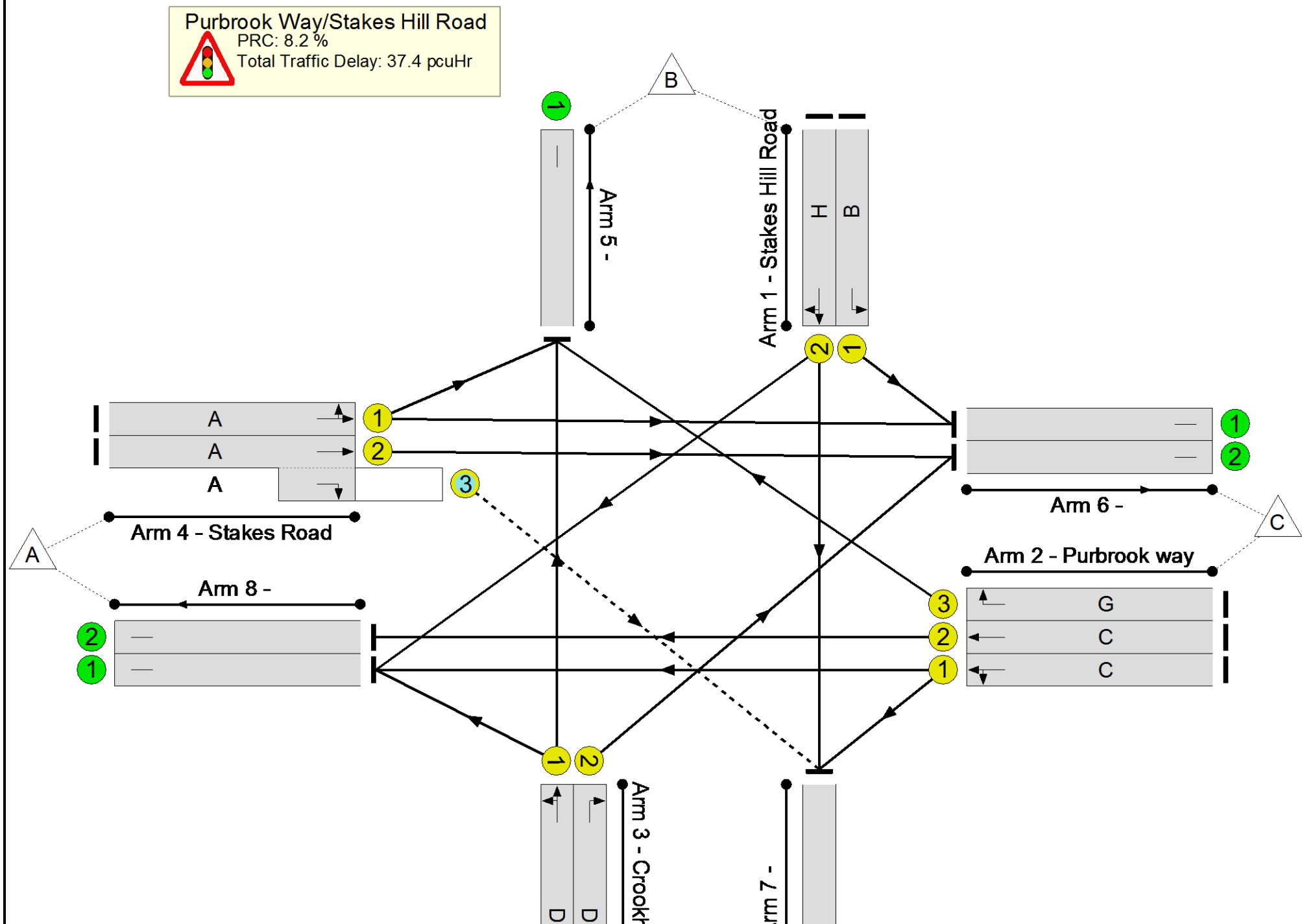
Stage	1	2	3	4
Duration	16	15	13	17
Change Point	0	22	45	68

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	83.2%
Purbrook Way/Stakes Hill Road	-	-	N/A	-	-		-	-	-	-	-	-	83.2%
1/1	Stakes Hill Road Left	U	N/A	N/A	B		2	36	-	687	2015	851	80.7%
1/2	Stakes Hill Road Ahead Right	U	N/A	N/A	H		1	17	-	341	2161	432	78.9%
2/1	Purbrook way Left Ahead	U	N/A	N/A	C		1	16	-	200	1857	351	57.0%
2/2	Purbrook way Ahead	U	N/A	N/A	C		1	16	-	243	2105	398	61.1%
2/3	Purbrook way Right	U	N/A	N/A	G		1	23	-	445	2055	548	81.2%
3/1	Crookhorn Lane Ahead Left	U	N/A	N/A	D		1	13	-	234	1950	303	77.1%
3/2	Crookhorn Lane Right	U	N/A	N/A	D		1	13	-	153	2105	327	46.7%
4/1	Stakes Road Left Ahead	U	N/A	N/A	A		1	17	-	312	1944	389	80.2%
4/2+4/3	Stakes Road Ahead Right	U+O	N/A	N/A	A		1	17	-	373	2105:1987	399+49	83.2 : 83.2%
5/1		U	N/A	N/A	-		-	-	-	703	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	909	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	485	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	284	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	364	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	243	Inf	Inf	0.0%

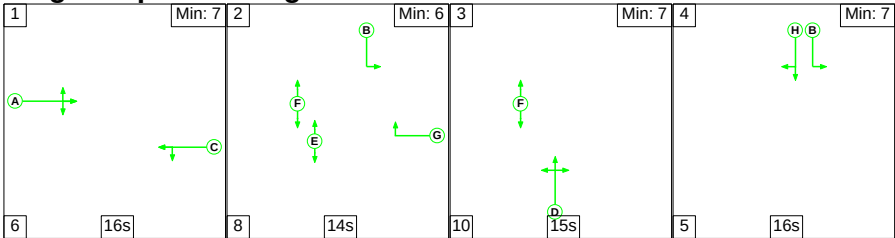
Full Input Data And Results

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	-	-	40	0	1	23.7	13.7	0.1	37.4	-	-	-	-
Purbrook Way/Stakes Hill Road	-	-	40	0	1	23.7	13.7	0.1	37.4	-	-	-	-
1/1	687	687	-	-	-	2.2	2.0	-	4.2	22.2	8.0	2.0	10.1
1/2	341	341	-	-	-	3.2	1.8	-	5.0	53.2	8.1	1.8	9.8
2/1	200	200	-	-	-	1.8	0.7	-	2.5	45.0	4.5	0.7	5.2
2/2	243	243	-	-	-	2.3	0.8	-	3.0	45.0	5.5	0.8	6.3
2/3	445	445	-	-	-	3.8	2.1	-	5.9	47.7	10.4	2.1	12.5
3/1	234	234	-	-	-	2.4	1.6	-	4.0	61.3	5.6	1.6	7.2
3/2	153	153	-	-	-	1.5	0.4	-	1.9	44.9	3.4	0.4	3.9
4/1	312	312	-	-	-	3.0	1.9	-	4.9	56.6	7.4	1.9	9.3
4/2+4/3	373	373	40	0	1	3.5	2.3	0.1	5.9	57.1	8.5	2.3	10.8
5/1	703	703	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	909	909	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	485	485	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	284	284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	364	364	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	243	243	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 8.2 Total Delay for Signalled Lanes (pcuHr): 37.43 Cycle Time (s): 90 PRC Over All Lanes (%): 8.2 Total Delay Over All Lanes(pcuHr): 37.43													

Full Input Data And Results

Scenario 2: '2029 Base PM' (FG2: '2029 Base PM', Plan 1: 'Network Control Plan 1')

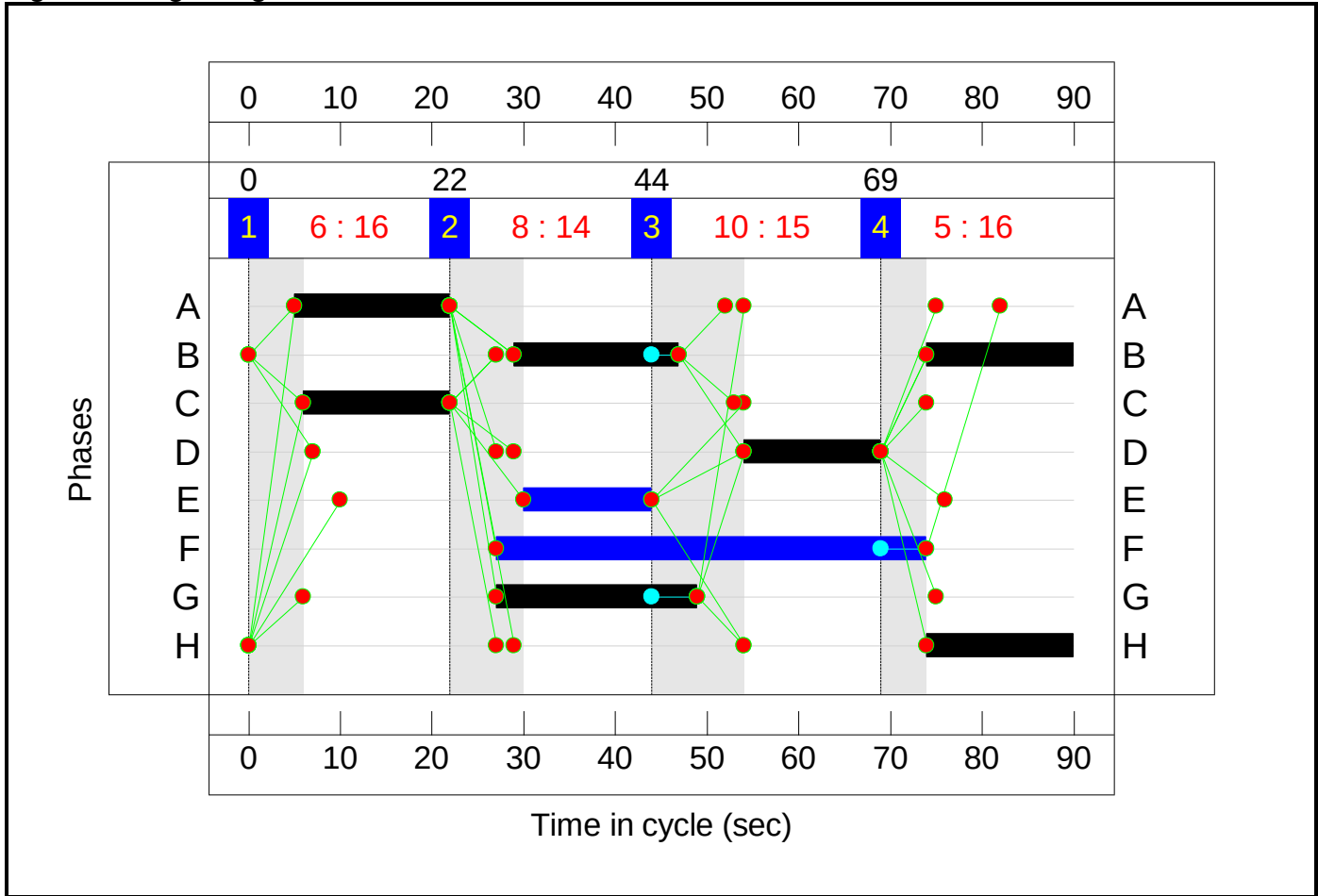
Stage Sequence Diagram



Stage Timings

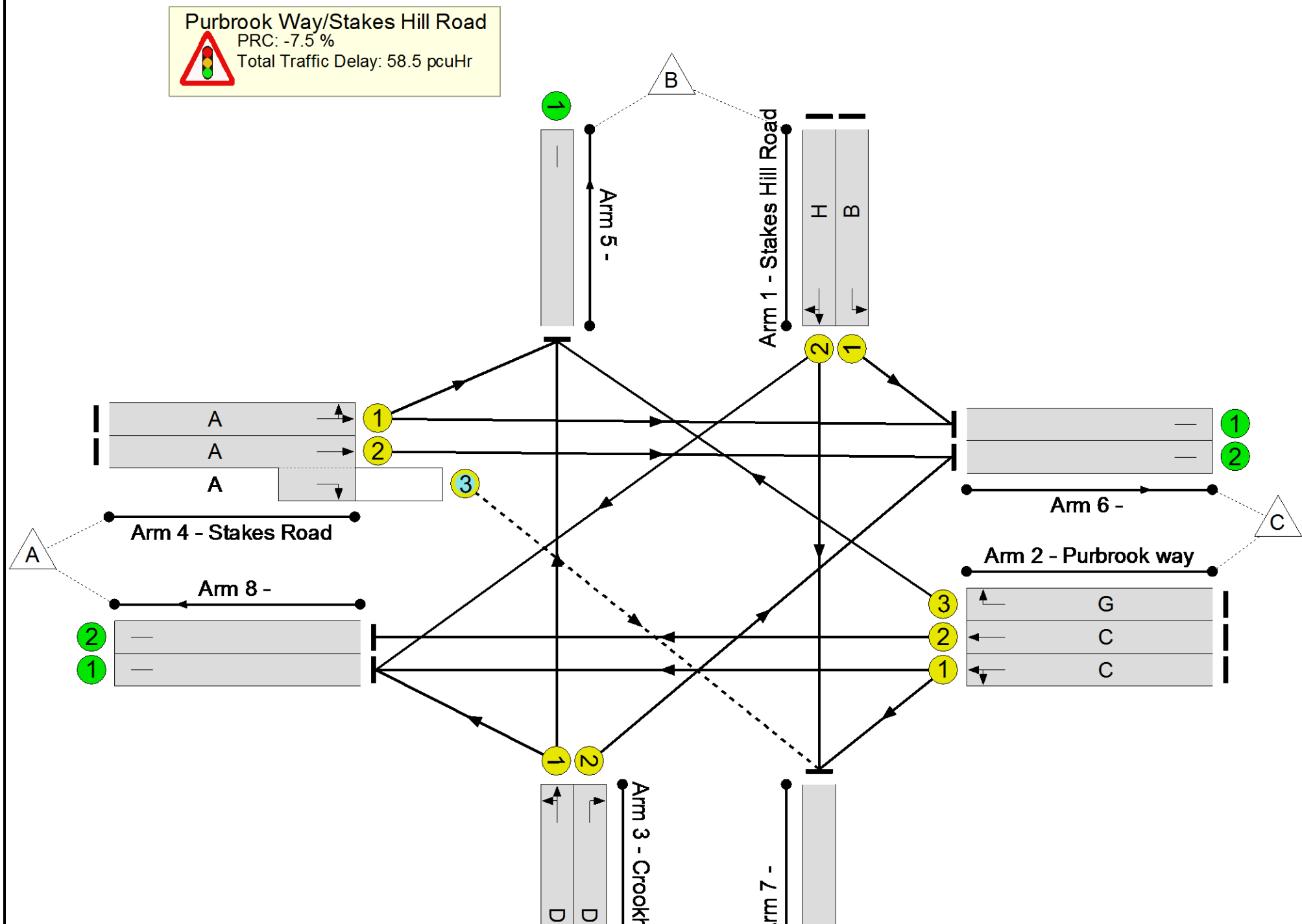
Stage	1	2	3	4
Duration	16	14	15	16
Change Point	0	22	44	69

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	96.7%
Purbrook Way/Stakes Hill Road	-	-	N/A	-	-		-	-	-	-	-	-	96.7%
1/1	Stakes Hill Road Left	U	N/A	N/A	B		2	34	-	366	2015	806	45.4%
1/2	Stakes Hill Road Ahead Right	U	N/A	N/A	H		1	16	-	376	2182	412	91.2%
2/1	Purbrook way Left Ahead	U	N/A	N/A	C		1	16	-	333	1856	351	95.0%
2/2	Purbrook way Ahead	U	N/A	N/A	C		1	16	-	382	2105	398	96.1%
2/3	Purbrook way Right	U	N/A	N/A	G		1	22	-	508	2055	525	96.7%
3/1	Crookhorn Lane Ahead Left	U	N/A	N/A	D		1	15	-	320	1955	348	92.1%
3/2	Crookhorn Lane Right	U	N/A	N/A	D		1	15	-	97	2105	374	25.9%
4/1	Stakes Road Left Ahead	U	N/A	N/A	A		1	17	-	267	1893	379	70.5%
4/2+4/3	Stakes Road Ahead Right	U+O	N/A	N/A	A		1	17	-	344	2105:1987	388+67	75.6 : 75.6%
5/1		U	N/A	N/A	-		-	-	-	924	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	458	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	390	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	458	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	381	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	382	Inf	Inf	0.0%

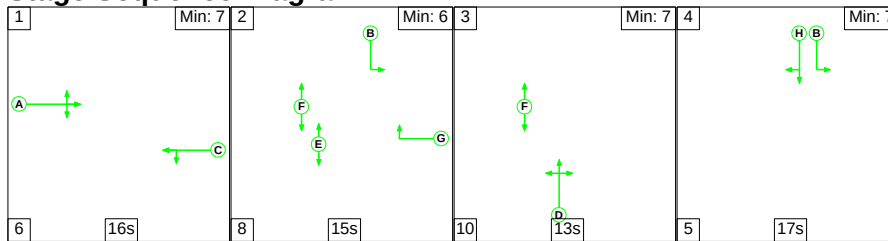
Full Input Data And Results

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	-	-	3	0	48	26.4	32.0	0.2	58.5	-	-	-	-
Purbrook Way/Stakes Hill Road	-	-	3	0	48	26.4	32.0	0.2	58.5	-	-	-	-
1/1	366	366	-	-	-	1.0	0.4	-	1.4	14.0	3.5	0.4	3.9
1/2	376	376	-	-	-	3.7	4.2	-	8.0	76.1	9.2	4.2	13.4
2/1	333	333	-	-	-	3.3	5.7	-	9.1	98.1	8.1	5.7	13.9
2/2	382	382	-	-	-	3.8	6.6	-	10.5	98.6	9.4	6.6	16.1
2/3	508	508	-	-	-	4.7	7.8	-	12.4	88.2	12.6	7.8	20.3
3/1	320	320	-	-	-	3.2	4.4	-	7.6	85.9	7.8	4.4	12.2
3/2	97	97	-	-	-	0.9	0.2	-	1.0	38.4	2.1	0.2	2.2
4/1	267	267	-	-	-	2.5	1.2	-	3.7	49.3	6.2	1.2	7.3
4/2+4/3	344	344	3	0	48	3.2	1.5	0.2	4.9	50.8	7.4	1.5	8.9
5/1	924	924	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	458	458	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	390	390	-	-	-	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	381	381	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	382	382	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -7.5 Total Delay for Signalled Lanes (pcuHr): 58.53 Cycle Time (s): 90 PRC Over All Lanes (%): -7.5 Total Delay Over All Lanes(pcuHr): 58.53													

Full Input Data And Results

Scenario 3: '2029 Base + Dev AM' (FG3: '2029 Base + Dev AM', Plan 1: 'Network Control Plan 1')

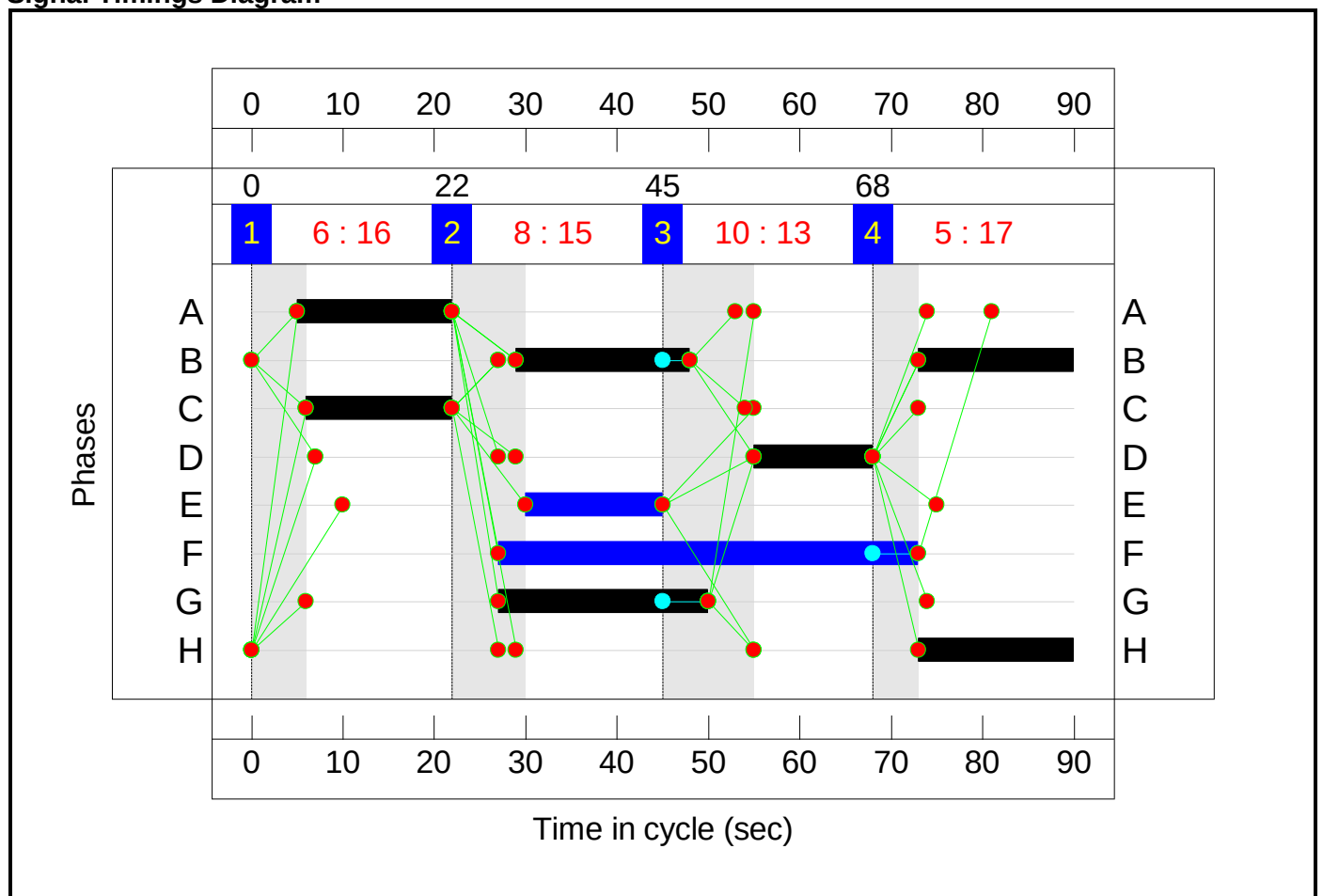
Stage Sequence Diagram



Stage Timings

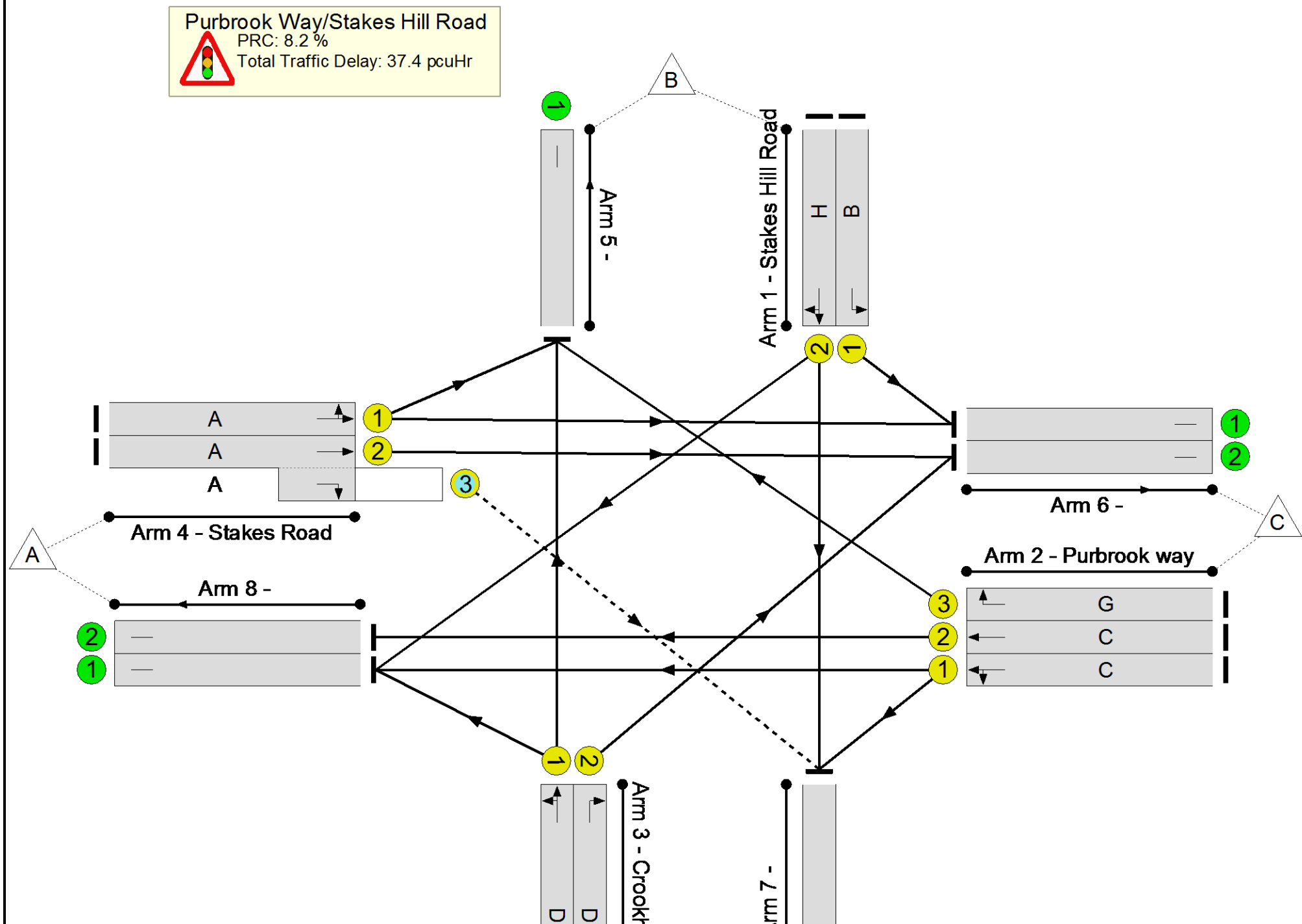
Stage	1	2	3	4
Duration	16	15	13	17
Change Point	0	22	45	68

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	83.2%
Purbrook Way/Stakes Hill Road	-	-	N/A	-	-		-	-	-	-	-	-	83.2%
1/1	Stakes Hill Road Left	U	N/A	N/A	B		2	36	-	687	2015	851	80.7%
1/2	Stakes Hill Road Ahead Right	U	N/A	N/A	H		1	17	-	341	2161	432	78.9%
2/1	Purbrook way Left Ahead	U	N/A	N/A	C		1	16	-	200	1857	351	57.0%
2/2	Purbrook way Ahead	U	N/A	N/A	C		1	16	-	243	2105	398	61.1%
2/3	Purbrook way Right	U	N/A	N/A	G		1	23	-	445	2055	548	81.2%
3/1	Crookhorn Lane Ahead Left	U	N/A	N/A	D		1	13	-	234	1950	303	77.1%
3/2	Crookhorn Lane Right	U	N/A	N/A	D		1	13	-	153	2105	327	46.7%
4/1	Stakes Road Left Ahead	U	N/A	N/A	A		1	17	-	312	1944	389	80.2%
4/2+4/3	Stakes Road Ahead Right	U+O	N/A	N/A	A		1	17	-	373	2105:1987	399+49	83.2 : 83.2%
5/1		U	N/A	N/A	-		-	-	-	703	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	909	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	485	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	284	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	364	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	243	Inf	Inf	0.0%

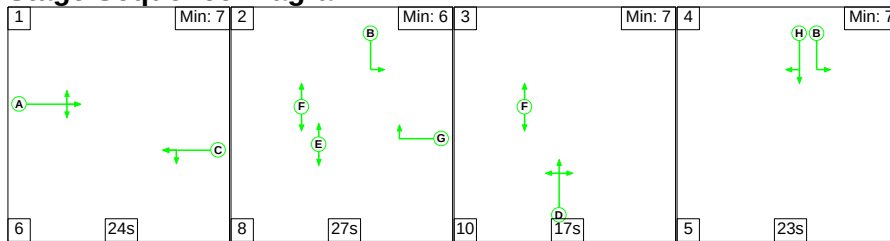
Full Input Data And Results

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	-	-	40	0	1	23.7	13.7	0.1	37.4	-	-	-	-
Purbrook Way/Stakes Hill Road	-	-	40	0	1	23.7	13.7	0.1	37.4	-	-	-	-
1/1	687	687	-	-	-	2.2	2.0	-	4.2	22.2	8.0	2.0	10.1
1/2	341	341	-	-	-	3.2	1.8	-	5.0	53.2	8.1	1.8	9.8
2/1	200	200	-	-	-	1.8	0.7	-	2.5	45.0	4.5	0.7	5.2
2/2	243	243	-	-	-	2.3	0.8	-	3.0	45.0	5.5	0.8	6.3
2/3	445	445	-	-	-	3.8	2.1	-	5.9	47.7	10.4	2.1	12.5
3/1	234	234	-	-	-	2.4	1.6	-	4.0	61.3	5.6	1.6	7.2
3/2	153	153	-	-	-	1.5	0.4	-	1.9	44.9	3.4	0.4	3.9
4/1	312	312	-	-	-	3.0	1.9	-	4.9	56.6	7.4	1.9	9.3
4/2+4/3	373	373	40	0	1	3.5	2.3	0.1	5.9	57.1	8.5	2.3	10.8
5/1	703	703	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	909	909	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	485	485	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	284	284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	364	364	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	243	243	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 8.2 Total Delay for Signalled Lanes (pcuHr): 37.43 Cycle Time (s): 90 PRC Over All Lanes (%): 8.2 Total Delay Over All Lanes(pcuHr): 37.43													

Full Input Data And Results

Scenario 4: '2029 Base + Dev AM + Mitigation' (FG3: '2029 Base + Dev AM', Plan 1: 'Network Control Plan 1')

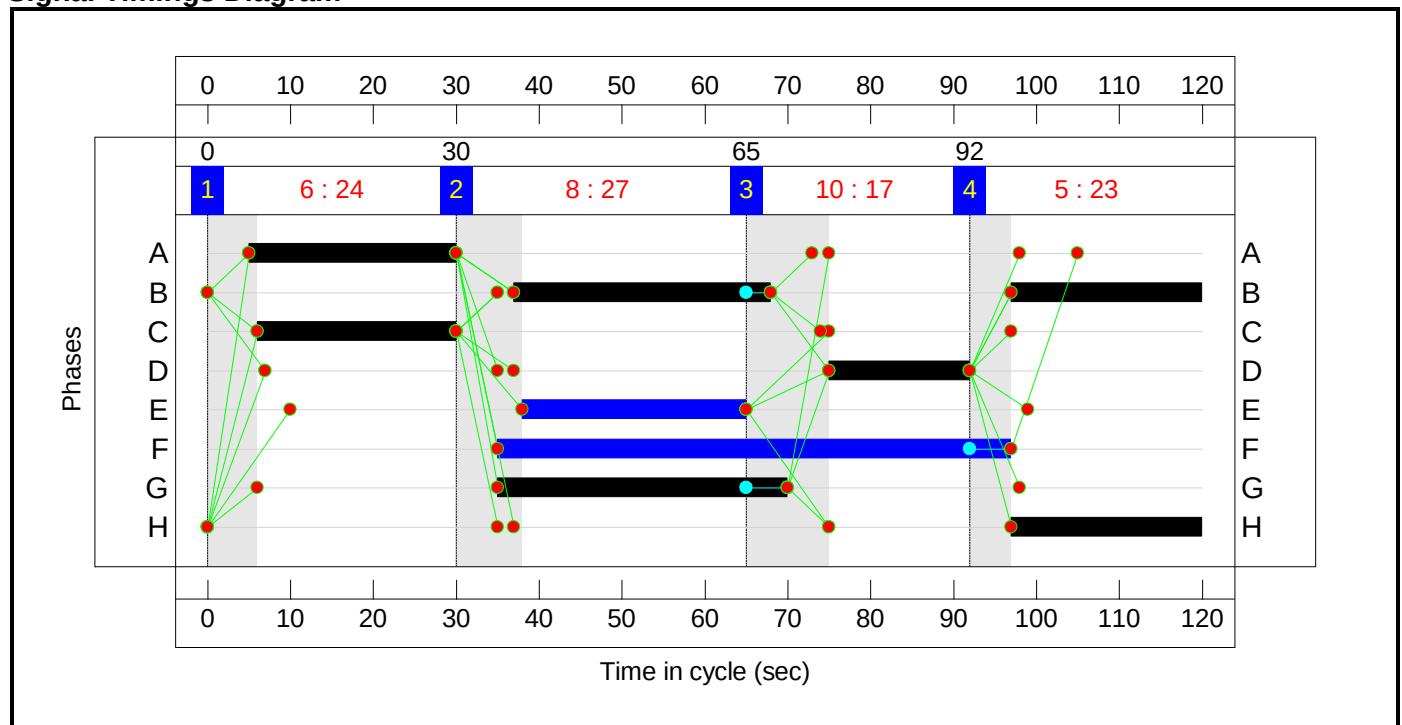
Stage Sequence Diagram



Stage Timings

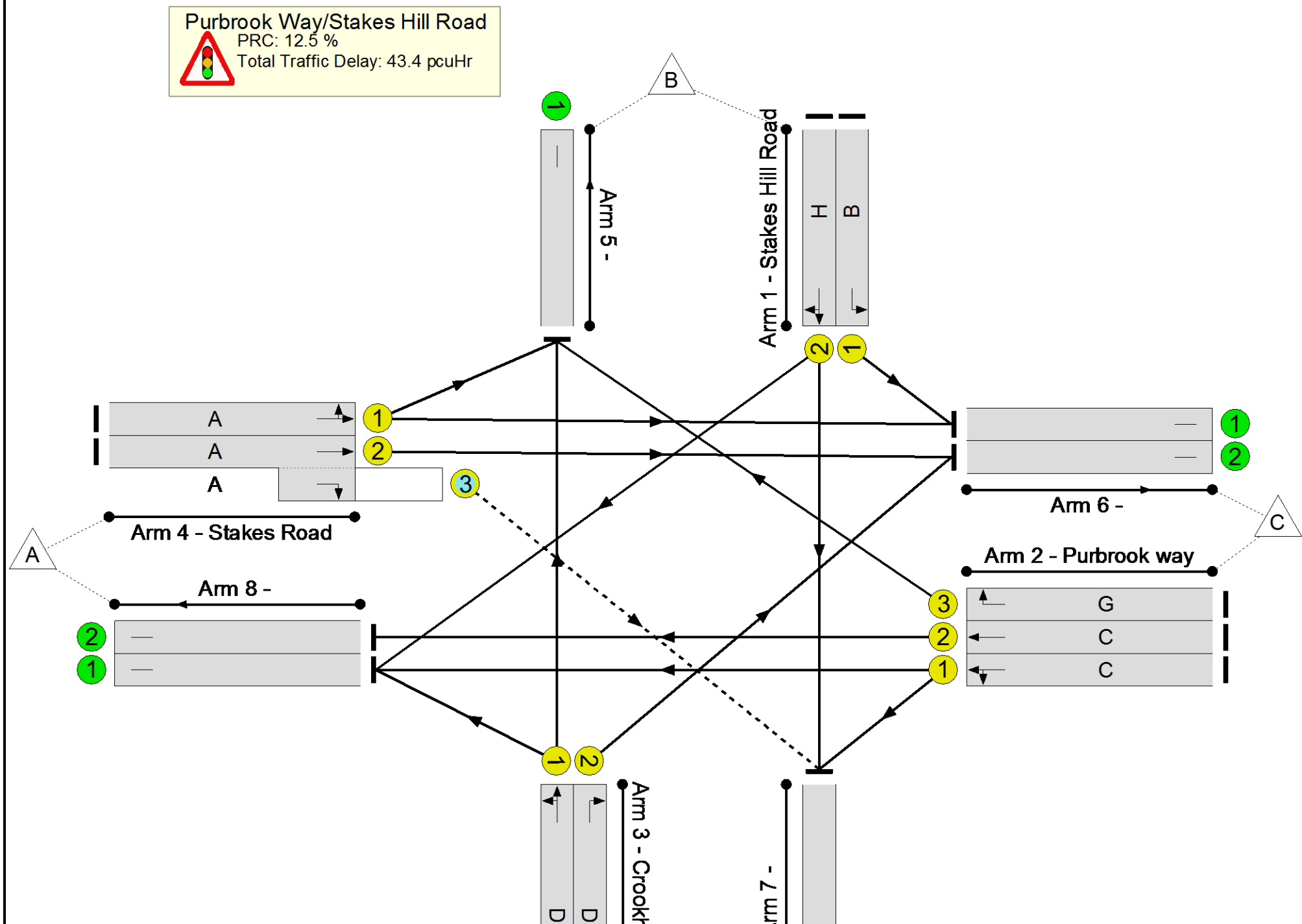
Stage	1	2	3	4
Duration	24	27	17	23
Change Point	0	30	65	92

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	80.0%
Purbrook Way/Stakes Hill Road	-	-	N/A	-	-		-	-	-	-	-	-	80.0%
1/1	Stakes Hill Road Left	U	N/A	N/A	B		2	54	-	705	2015	940	75.0%
1/2	Stakes Hill Road Ahead Right	U	N/A	N/A	H		1	23	-	341	2161	432	78.9%
2/1	Purbrook way Left Ahead	U	N/A	N/A	C		1	24	-	210	1860	388	54.2%
2/2	Purbrook way Ahead	U	N/A	N/A	C		1	24	-	255	2105	439	58.1%
2/3	Purbrook way Right	U	N/A	N/A	G		1	35	-	487	2055	617	79.0%
3/1	Crookhorn Lane Ahead Left	U	N/A	N/A	D		1	17	-	234	1950	293	80.0%
3/2	Crookhorn Lane Right	U	N/A	N/A	D		1	17	-	153	2105	316	48.5%
4/1	Stakes Road Left Ahead	U	N/A	N/A	A		1	25	-	319	1945	421	75.7%
4/2+4/3	Stakes Road Ahead Right	U+O	N/A	N/A	A		1	25	-	375	2105:1987	424+52	78.8 : 78.8%
5/1		U	N/A	N/A	-		-	-	-	745	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	934	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	487	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	284	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	374	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	255	Inf	Inf	0.0%

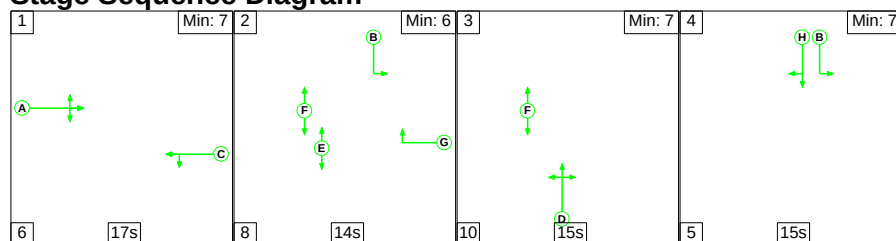
Full Input Data And Results

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	-	-	40	0	1	31.3	12.0	0.1	43.4	-	-	-	-
Purbrook Way/Stakes Hill Road	-	-	40	0	1	31.3	12.0	0.1	43.4	-	-	-	-
1/1	705	705	-	-	-	2.6	1.5	-	4.1	20.9	10.8	1.5	12.3
1/2	341	341	-	-	-	4.3	1.8	-	6.1	64.6	10.7	1.8	12.5
2/1	210	210	-	-	-	2.5	0.6	-	3.1	52.5	6.2	0.6	6.8
2/2	255	255	-	-	-	3.0	0.7	-	3.7	52.5	7.6	0.7	8.3
2/3	487	487	-	-	-	5.2	1.8	-	7.0	52.1	14.9	1.8	16.7
3/1	234	234	-	-	-	3.2	1.9	-	5.1	78.2	7.5	1.9	9.4
3/2	153	153	-	-	-	2.0	0.5	-	2.5	57.7	4.6	0.5	5.1
4/1	319	319	-	-	-	3.9	1.5	-	5.4	61.1	9.9	1.5	11.4
4/2+4/3	375	375	40	0	1	4.6	1.8	0.1	6.4	61.8	11.2	1.8	13.0
5/1	745	745	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	934	934	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	487	487	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	284	284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	374	374	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	255	255	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 12.5 Total Delay for Signalled Lanes (pcuHr): 43.42 Cycle Time (s): 120 PRC Over All Lanes (%): 12.5 Total Delay Over All Lanes(pcuHr): 43.42													

Full Input Data And Results

Scenario 5: '2029 Base + Dev PM' (FG4: '2029 Base + Dev PM', Plan 1: 'Network Control Plan 1')

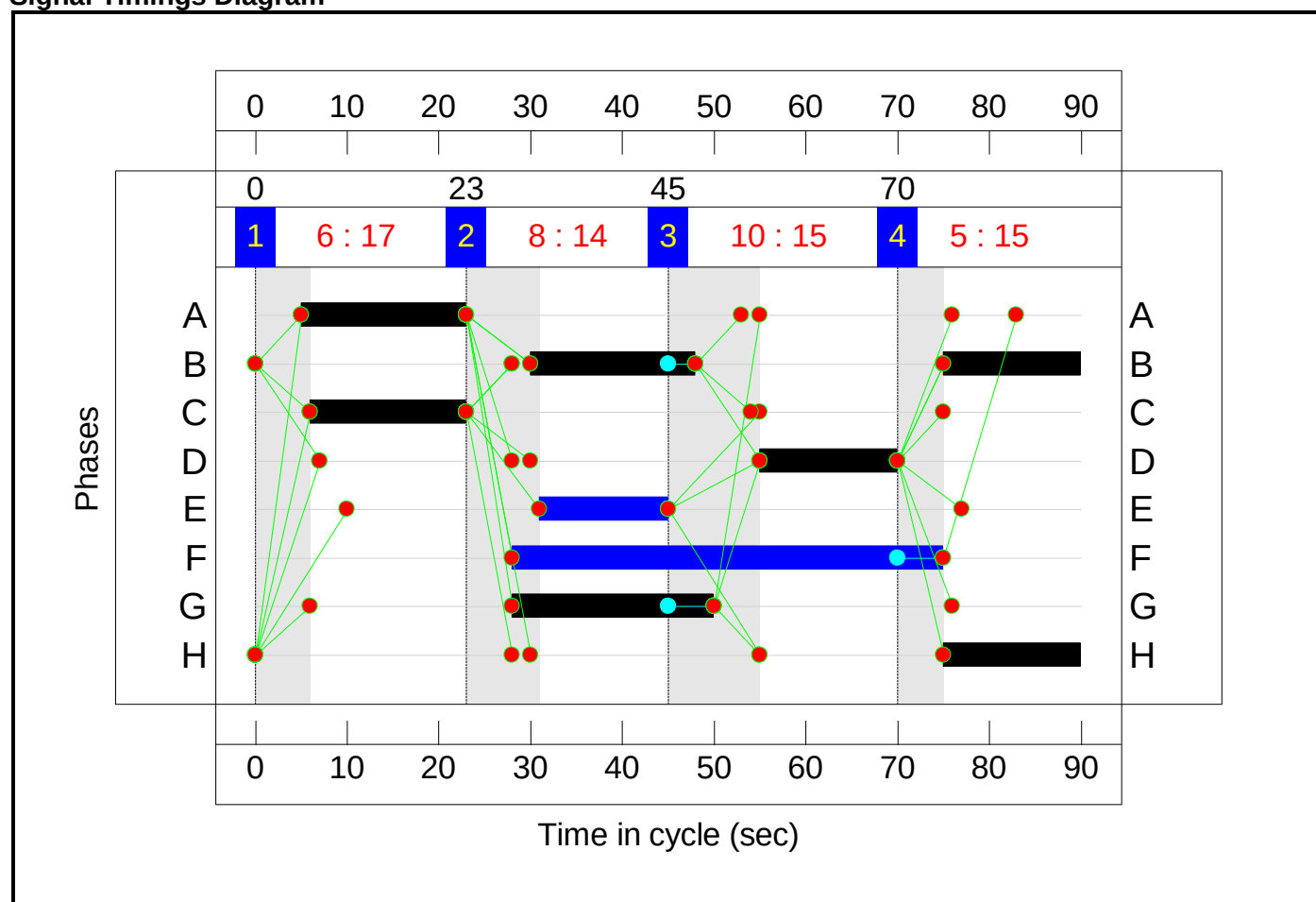
Stage Sequence Diagram



Stage Timings

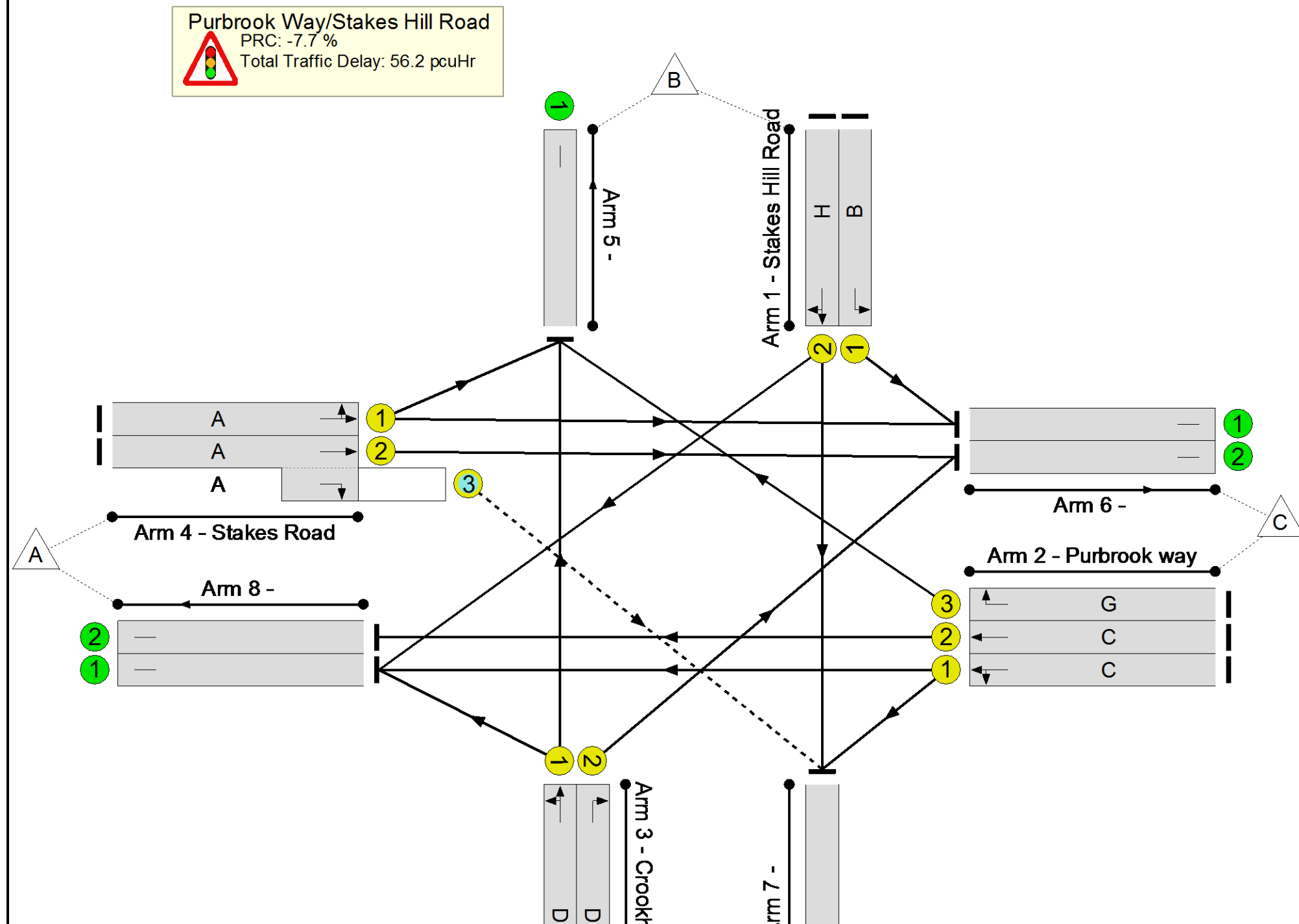
Stage	1	2	3	4
Duration	17	14	15	15
Change Point	0	23	45	70

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	96.9%
Purbrook Way/Stakes Hill Road	-	-	N/A	-	-		-	-	-	-	-	-	96.9%
1/1	Stakes Hill Road Left	U	N/A	N/A	B		2	33	-	366	2015	784	46.7%
1/2	Stakes Hill Road Ahead Right	U	N/A	N/A	H		1	15	-	376	2182	388	96.9%
2/1	Purbrook way Left Ahead	U	N/A	N/A	C		1	17	-	333	1856	371	89.7%
2/2	Purbrook way Ahead	U	N/A	N/A	C		1	17	-	382	2105	421	90.7%
2/3	Purbrook way Right	U	N/A	N/A	G		1	22	-	508	2055	525	96.7%
3/1	Crookhorn Lane Ahead Left	U	N/A	N/A	D		1	15	-	320	1955	348	92.1%
3/2	Crookhorn Lane Right	U	N/A	N/A	D		1	15	-	97	2105	374	25.9%
4/1	Stakes Road Left Ahead	U	N/A	N/A	A		1	18	-	267	1893	400	66.8%
4/2+4/3	Stakes Road Ahead Right	U+O	N/A	N/A	A		1	18	-	344	2105:1987	407+71	71.9 : 71.9%
5/1		U	N/A	N/A	-		-	-	-	924	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	458	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	390	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	458	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	381	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	382	Inf	Inf	0.0%

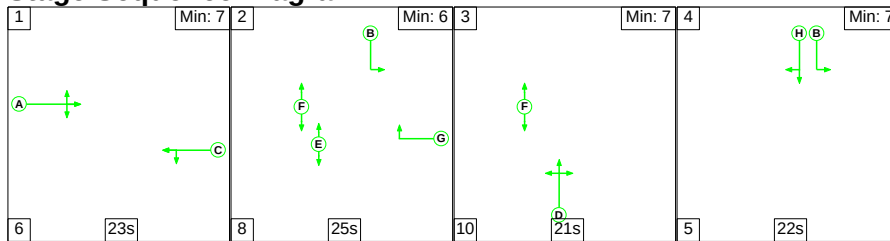
Full Input Data And Results

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	-	-	15	0	36	26.2	29.9	0.2	56.2	-	-	-	-
Purbrook Way/Stakes Hill Road	-	-	15	0	36	26.2	29.9	0.2	56.2	-	-	-	-
1/1	366	366	-	-	-	1.0	0.4	-	1.5	14.6	3.6	0.4	4.0
1/2	376	376	-	-	-	3.8	7.2	-	11.0	105.4	9.3	7.2	16.5
2/1	333	333	-	-	-	3.2	3.7	-	6.9	74.6	8.0	3.7	11.7
2/2	382	382	-	-	-	3.7	4.1	-	7.8	73.4	9.2	4.1	13.3
2/3	508	508	-	-	-	4.7	7.8	-	12.4	88.2	12.6	7.8	20.3
3/1	320	320	-	-	-	3.2	4.4	-	7.6	85.9	7.8	4.4	12.2
3/2	97	97	-	-	-	0.9	0.2	-	1.0	38.4	2.1	0.2	2.2
4/1	267	267	-	-	-	2.4	1.0	-	3.4	46.0	6.1	1.0	7.1
4/2+4/3	344	344	15	0	36	3.1	1.3	0.2	4.5	47.3	7.3	1.3	8.6
5/1	924	924	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	458	458	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	390	390	-	-	-	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	381	381	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	382	382	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -7.7 Total Delay for Signalled Lanes (pcuHr): 56.23 Cycle Time (s): 90 PRC Over All Lanes (%): -7.7 Total Delay Over All Lanes(pcuHr): 56.23													

Full Input Data And Results

Scenario 6: '2029 Base + Dev PM + Mitigation' (FG4: '2029 Base + Dev PM', Plan 1: 'Network Control Plan 1')

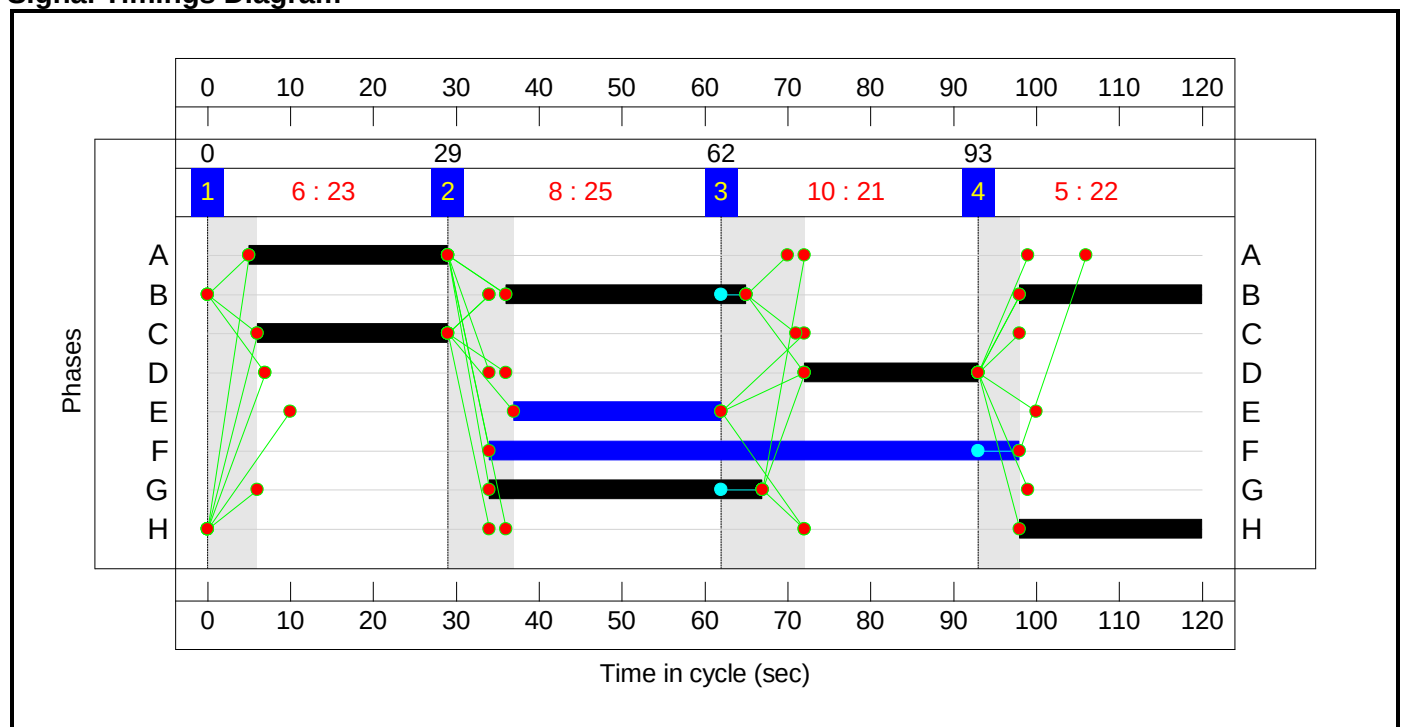
Stage Sequence Diagram



Stage Timings

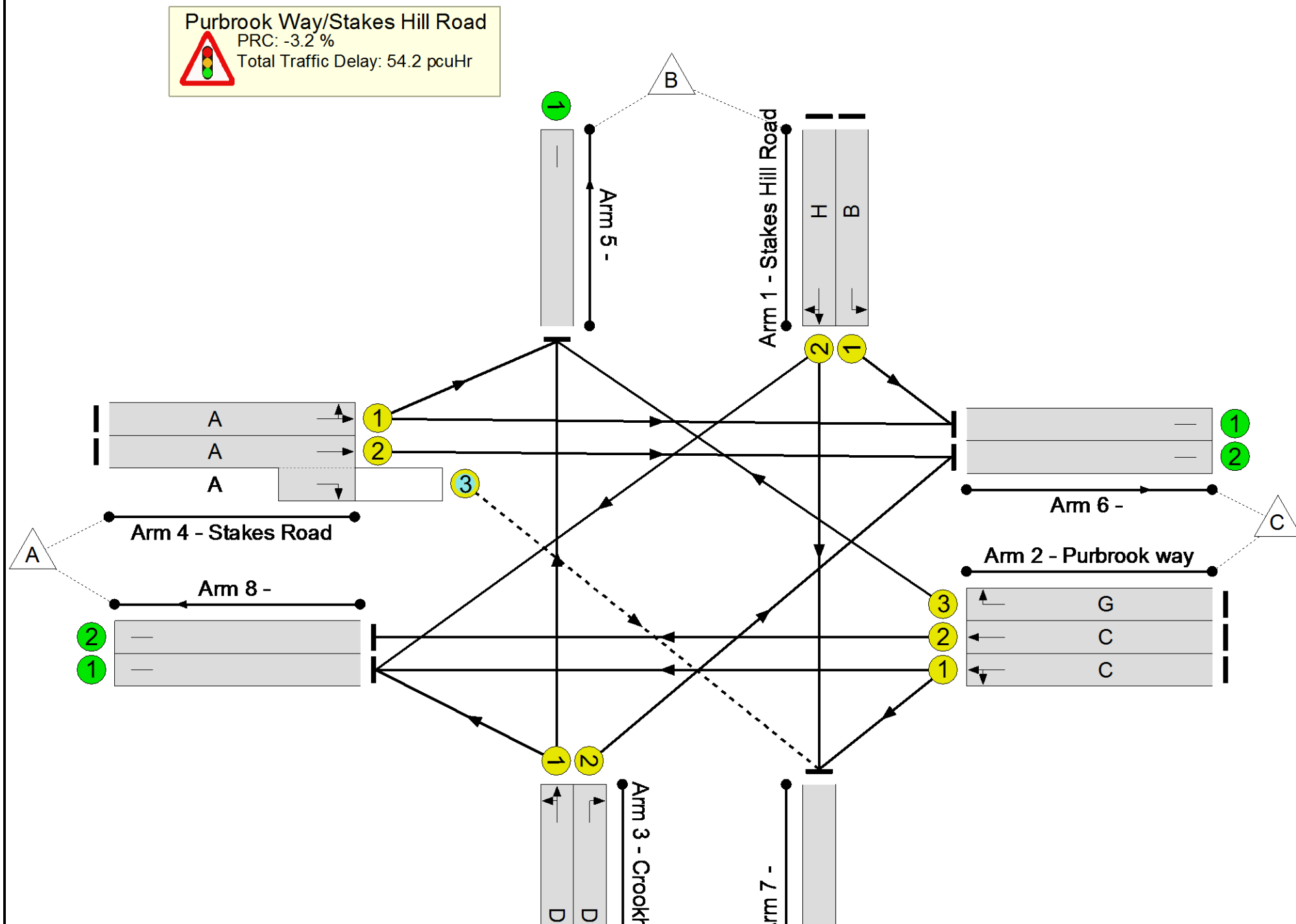
Stage	1	2	3	4
Duration	23	25	21	22
Change Point	0	29	62	93

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	92.9%
Purbrook Way/Stakes Hill Road	-	-	N/A	-	-		-	-	-	-	-	-	92.9%
1/1	Stakes Hill Road Left	U	N/A	N/A	B		2	51	-	377	2015	890	42.4%
1/2	Stakes Hill Road Ahead Right	U	N/A	N/A	H		1	22	-	343	2182	418	82.0%
2/1	Purbrook way Left Ahead	U	N/A	N/A	C		1	23	-	340	1857	371	91.5%
2/2	Purbrook way Ahead	U	N/A	N/A	C		1	23	-	391	2105	421	92.9%
2/3	Purbrook way Right	U	N/A	N/A	G		1	33	-	535	2055	582	91.9%
3/1	Crookhorn Lane Ahead Left	U	N/A	N/A	D		1	21	-	293	1954	358	81.8%
3/2	Crookhorn Lane Right	U	N/A	N/A	D		1	21	-	88	2105	386	22.8%
4/1	Stakes Road Left Ahead	U	N/A	N/A	A		1	24	-	256	1897	395	64.8%
4/2+4/3	Stakes Road Ahead Right	U+O	N/A	N/A	A		1	24	-	324	2105:1987	397+66	70.1 : 70.1%
5/1		U	N/A	N/A	-		-	-	-	915	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	473	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	366	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	430	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	372	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	391	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	-	-	11	0	35	33.2	20.7	0.2	54.2	-	-	-	-
Purbrook Way/Stakes Hill Road	-	-	11	0	35	33.2	20.7	0.2	54.2	-	-	-	-
1/1	377	377	-	-	-	1.2	0.4	-	1.6	15.0	4.5	0.4	4.9
1/2	343	343	-	-	-	4.4	2.2	-	6.6	69.2	11.0	2.2	13.1
2/1	340	340	-	-	-	4.4	4.3	-	8.7	92.1	11.0	4.3	15.3
2/2	391	391	-	-	-	5.1	4.9	-	10.0	92.4	12.7	4.9	17.6
2/3	535	535	-	-	-	6.2	4.7	-	10.9	73.4	17.2	4.7	22.0
3/1	293	293	-	-	-	3.8	2.1	-	5.9	73.0	9.4	2.1	11.5
3/2	88	88	-	-	-	1.0	0.1	-	1.2	47.8	2.5	0.1	2.6
4/1	256	256	-	-	-	3.1	0.9	-	4.0	56.2	7.8	0.9	8.7
4/2+4/3	324	324	11	0	35	3.9	1.2	0.2	5.3	58.5	9.3	1.2	10.5
5/1	915	915	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	473	473	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	366	366	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	430	430	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	372	372	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	391	391	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -3.2 Total Delay for Signalled Lanes (pcuHr): 54.17 Cycle Time (s): 120 PRC Over All Lanes (%): -3.2 Total Delay Over All Lanes(pcuHr): 54.17													

Appendix S

Junctions 9			
ARCADY 9 - Roundabout Module			
Version: 9.0.2.5947 © Copyright TRL Limited, 2017			
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 770558 software@trl.co.uk www.trlsoftware.co.uk			
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution			

Filename: A3(M) Linked (Existing configuration from Topo).j9

Path: Z:\Projects\040-049\048 Persimmon Charles Church\048.0010 College Road, Campdown\Modelling 790 Units\A3(M) Roundabouts

Report generation date: 08/07/2019 10:22:59

- »Existing Configuration - 2019 Baseline, AM
- »Existing Configuration - 2019 Baseline, PM
- »Existing Configuration - 2029 Baseline, AM
- »Existing Configuration - 2029 Baseline, PM
- »Existing Configuration - 2029 Baseline + Dev, AM
- »Existing Configuration - 2029 Baseline + Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (min)	RFC	LOS	Queue (PCU)	Delay (min)	RFC	LOS
Existing Configuration - 2019 Baseline								
1 - A3(M) Offslip - 1 - Purbrook Way (WB)	0.8	0.06	0.42	A	0.6	0.05	0.35	A
1 - A3(M) Offslip - 2 - A3(M) Offslip (NB)	1.4	0.09	0.55	A	2.8	0.13	0.72	A
1 - A3(M) Offslip - 3 - Purbrook Way (EB)	6.3	0.27	0.86	C	2.3	0.13	0.68	A
2 - A3(M) Onslip - 1 - Purbrook Way (Westbound)	3.2	0.15	0.75	A	1.7	0.09	0.60	A
2 - A3(M) Onslip - 3 - Purbrook Way (Eastbound)	6.1	0.20	0.85	B	3.8	0.14	0.78	A
2 - A3(M) Onslip - 4 - BnQ Access	1.5	0.91	0.60	F	3.0	0.98	0.76	F
Existing Configuration - 2029 Baseline								
1 - A3(M) Offslip - 1 - Purbrook Way (WB)	1.0	0.06	0.47	A	0.7	0.05	0.38	A
1 - A3(M) Offslip - 2 - A3(M) Offslip (NB)	2.1	0.12	0.66	A	5.6	0.24	0.84	B
1 - A3(M) Offslip - 3 - Purbrook Way (EB)	30.9	1.10	1.00	F	4.2	0.22	0.80	B
2 - A3(M) Onslip - 1 - Purbrook Way (Westbound)	6.5	0.28	0.86	C	2.3	0.11	0.68	A
2 - A3(M) Onslip - 3 - Purbrook Way (Eastbound)	16.8	0.50	0.96	D	8.0	0.26	0.89	C
2 - A3(M) Onslip - 4 - BnQ Access	22.8	10.68	1.84	F	41.1	10.04	1.61	F
Existing Configuration - 2029 Baseline + Dev								
1 - A3(M) Offslip - 1 - Purbrook Way (WB)	1.0	0.06	0.48	A	0.7	0.06	0.40	A
1 - A3(M) Offslip - 2 - A3(M) Offslip (NB)	2.7	0.15	0.71	A	16.3	0.64	0.96	E
1 - A3(M) Offslip - 3 - Purbrook Way (EB)	120.2	3.43	1.13	F	7.9	0.39	0.89	C
2 - A3(M) Onslip - 1 - Purbrook Way (Westbound)	10.2	0.43	0.92	D	3.0	0.13	0.73	A
2 - A3(M) Onslip - 3 - Purbrook Way (Eastbound)	21.5	0.63	0.97	E	14.7	0.45	0.95	D
2 - A3(M) Onslip - 4 - BnQ Access	45.8	36.41	2.71	F	70.9	44.25	3.08	F

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

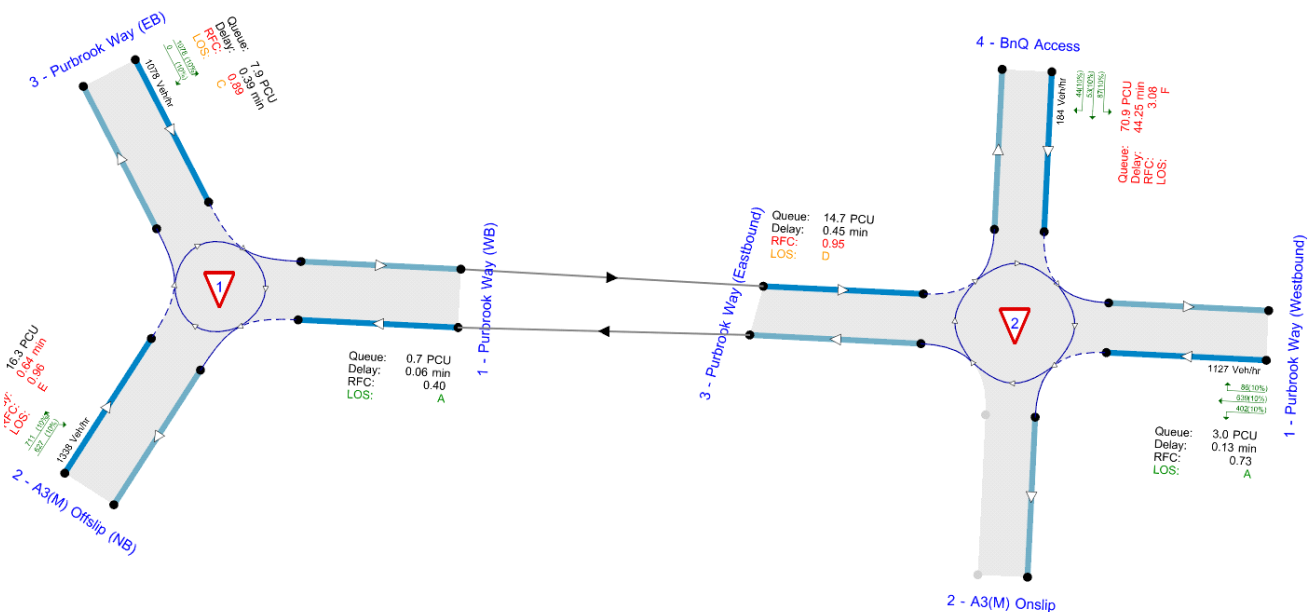
File summary

File Description

Title	A3(M) Roundabouts (existing configuration)
Location	Purbrook
Site number	6
Date	08/07/2019
Version	
Status	Preliminary
Identifier	
Client	Persimmon Homes
Jobnumber	048.0010
Enumerator	SN
Description	735 Dwellings

Units

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



Flows show original traffic demand (Veh/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (min)	Queue threshold (PCU)
5.75				0.85	0.60	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Baseline	PM	ONE HOUR	16:45	18:15	15	✓
D5	2029 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D6	2029 Baseline	PM	ONE HOUR	16:45	18:15	15	✓
D7	2029 Baseline + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D8	2029 Baseline + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Existing Configuration - 2019 Baseline, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
1	A3(M) Offslip	Standard Roundabout	1, 2, 3	0.16	A
2	A3(M) Onslip	Standard Roundabout	1, 2, 3, 4	0.20	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Junction	Arm	Name	Description
1 - A3(M) Offslip	1	Purbrook Way (WB)	
	2	A3(M) Offslip (NB)	
	3	Purbrook Way (EB)	
2 - A3(M) Onslip	1	Purbrook Way (Westbound)	
	2	A3(M) Onslip	Exit only
	3	Purbrook Way (Eastbound)	
	4	BnQ Access	

Roundabout Geometry

Junction	Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A3(M) Offslip	1 - Purbrook Way (WB)	6.10	6.10	0.0	30.0	30.0	14.0	
	2 - A3(M) Offslip (NB)	6.40	7.70	8.0	34.0	30.0	18.0	
	3 - Purbrook Way (EB)	6.00	6.30	2.5	65.0	30.0	17.0	
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	6.50	7.00	10.0	100.0	40.0	9.0	
	2 - A3(M) Onslip							✓
	3 - Purbrook Way (Eastbound)	7.00	7.00	0.0	30.0	40.0	17.0	
	4 - BnQ Access	3.60	3.70	2.0	25.0	40.0	15.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	0.738	1981
	2 - A3(M) Offslip (NB)	0.807	2334
	3 - Purbrook Way (EB)	0.750	2032
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	0.803	2335
	2 - A3(M) Onslip		
	3 - Purbrook Way (Eastbound)	0.771	2251
	4 - BnQ Access	0.558	1186

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Baseline	AM	ONE HOUR	07:45	09:15	15	✓

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	2	3	Queue limited	Normal	0	100.00	19.00
2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	1	1	Queue limited	Normal	0	100.00	38.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	✓				
	2 - A3(M) Offslip (NB)		ONE HOUR	✓	757	100.000
	3 - Purbrook Way (EB)		ONE HOUR	✓	1216	100.000
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)		ONE HOUR	✓	1095	100.000
	2 - A3(M) Onslip					
	3 - Purbrook Way (Eastbound)	✓				
	4 - BnQ Access		ONE HOUR	✓	88	100.000

Origin-Destination Data

Demand (Veh/hr)

2 - A3(M)
Onslip

	To				
From		1 - Purbrook Way (Westbound)	2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	4 - BnQ Access
	1 - Purbrook Way (Westbound)	0	383	675	37
	2 - A3(M) Onslip	Exit-only	Exit-only	Exit-only	Exit-only
	3 - Purbrook Way (Eastbound)	935	538	0	67
	4 - BnQ Access	57	13	18	0

Demand (Veh/hr)

1 - A3(M) Offslip

	To			
From		1 - Purbrook Way (WB)	2 - A3(M) Offslip (NB)	3 - Purbrook Way (EB)
	1 - Purbrook Way (WB)	0	0	682
	2 - A3(M) Offslip (NB)	348	0	409
	3 - Purbrook Way (EB)	1216	0	0

Vehicle Mix

Heavy Vehicle Percentages

2 - A3(M)
Onslip

	To				
From		1 - Purbrook Way (Westbound)	2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	4 - BnQ Access
	1 - Purbrook Way (Westbound)	10	10	10	10
	2 - A3(M) Onslip	Exit-only	Exit-only	Exit-only	Exit-only
	3 - Purbrook Way (Eastbound)	10	10	10	10
	4 - BnQ Access	10	10	10	10

Heavy Vehicle Percentages

1 - A3(M) Offslip

	To			
		1 - Purbrook Way (WB)	2 - A3(M) Offslip (NB)	3 - Purbrook Way (EB)
From	1 - Purbrook Way (WB)	10	10	10
	2 - A3(M) Offslip (NB)	10	10	10
	3 - Purbrook Way (EB)	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	0.42	0.06	0.8	A	699	1049
	2 - A3(M) Offslip (NB)	0.55	0.09	1.4	A	764	1146
	3 - Purbrook Way (EB)	0.86	0.27	6.3	C	1227	1841
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	0.75	0.15	3.2	A	1105	1658
	2 - A3(M) Onslip						
	3 - Purbrook Way (Eastbound)	0.85	0.20	6.1	B	1578	2366
	4 - BnQ Access	0.60	0.91	1.5	F	89	133

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	571	143	0	1981	0.288	570	1289	0.0	0.4	0.047	A
	2 - A3(M) Offslip (NB)	627	157	570	1875	0.334	625	0	0.0	0.5	0.053	A
	3 - Purbrook Way (EB)	1007	252	287	1817	0.554	1002	907	0.0	1.4	0.080	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	907	227	474	1955	0.464	903	826	0.0	0.9	0.062	A
	2 - A3(M) Onslip			602				775				
	3 - Purbrook Way (Eastbound)	1289	322	31	2228	0.579	1283	571	0.0	1.5	0.069	A
	4 - BnQ Access	73	18	1227	501	0.145	72	86	0.0	0.2	0.154	A

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	684	171	0	1981	0.345	683	1543	0.4	0.6	0.051	A
	2 - A3(M) Offslip (NB)	749	187	683	1783	0.420	748	0	0.5	0.8	0.064	A
	3 - Purbrook Way (EB)	1202	301	344	1775	0.678	1199	1087	1.4	2.3	0.114	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1083	271	568	1879	0.576	1081	990	0.9	1.5	0.082	A
	2 - A3(M) Onslip			720				928				
	3 - Purbrook Way (Eastbound)	1543	386	37	2223	0.694	1539	684	1.5	2.4	0.096	A
	4 - BnQ Access	87	22	1472	365	0.239	86	103	0.2	0.3	0.237	B

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	835	209	0	1981	0.421	834	1878	0.6	0.8	0.058	A
	2 - A3(M) Offslip (NB)	917	229	834	1661	0.552	915	0	0.8	1.3	0.088	A
	3 - Purbrook Way (EB)	1473	368	420	1717	0.858	1458	1328	2.3	6.0	0.242	B
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1326	332	688	1783	0.744	1320	1199	1.5	3.1	0.141	A
	2 - A3(M) Onslip			879				1129				
	3 - Purbrook Way (Eastbound)	1878	470	45	2217	0.847	1865	835	2.4	5.7	0.181	B
	4 - BnQ Access	107	27	1784	190	0.560	103	126	0.3	1.3	0.727	E

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	839	210	0	1981	0.423	839	1893	0.8	0.8	0.058	A
	2 - A3(M) Offslip (NB)	917	229	839	1657	0.553	917	0	1.3	1.4	0.089	A
	3 - Purbrook Way (EB)	1473	368	421	1716	0.858	1471	1334	6.0	6.3	0.266	C
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1326	332	698	1775	0.747	1326	1217	3.1	3.2	0.147	A
	2 - A3(M) Onslip			884				1140				
	3 - Purbrook Way (Eastbound)	1893	473	45	2217	0.854	1891	839	5.7	6.1	0.201	B
	4 - BnQ Access	107	27	1809	177	0.603	106	127	1.3	1.5	0.909	F

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	690	173	0	1981	0.348	691	1563	0.8	0.6	0.051	A
	2 - A3(M) Offslip (NB)	749	187	691	1777	0.421	751	0	1.4	0.8	0.064	A
	3 - Purbrook Way (EB)	1202	301	345	1773	0.678	1218	1097	6.3	2.4	0.122	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1083	271	583	1867	0.580	1089	1017	3.2	1.5	0.086	A
	2 - A3(M) Onslip			727				945				
	3 - Purbrook Way (Eastbound)	1563	391	37	2223	0.703	1577	690	6.1	2.7	0.104	A
	4 - BnQ Access	87	22	1508	344	0.253	92	105	1.5	0.4	0.265	C

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	575	144	0	1981	0.290	576	1300	0.6	0.5	0.047	A
	2 - A3(M) Offslip (NB)	627	157	576	1869	0.335	628	0	0.8	0.6	0.053	A
	3 - Purbrook Way (EB)	1007	252	289	1816	0.555	1011	915	2.4	1.4	0.082	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	907	227	481	1949	0.465	909	839	1.5	1.0	0.064	A
	2 - A3(M) Onslip			606				784				
	3 - Purbrook Way (Eastbound)	1300	325	31	2228	0.583	1304	575	2.7	1.6	0.072	A
	4 - BnQ Access	73	18	1247	490	0.149	74	87	0.4	0.2	0.159	A

Existing Configuration - 2019 Baseline, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
1	A3(M) Offslip	Standard Roundabout	1, 2, 3	0.11	A
2	A3(M) Onslip	Standard Roundabout	1, 2, 3, 4	0.17	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2019 Baseline	PM	ONE HOUR	16:45	18:15	15	✓

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	2	3	Queue limited	Normal	0	100.00	19.00
2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	1	1	Queue limited	Normal	0	100.00	38.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	✓				
	2 - A3(M) Offslip (NB)		ONE HOUR	✓	1060	100.000
	3 - Purbrook Way (EB)		ONE HOUR	✓	853	100.000
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)		ONE HOUR	✓	961	100.000
	2 - A3(M) Onslip					
	3 - Purbrook Way (Eastbound)	✓				
	4 - BnQ Access		ONE HOUR	✓	163	100.000

Origin-Destination Data

Demand (Veh/hr)

2 - A3(M)
Onslip

	To				
From		1 - Purbrook Way (Westbound)	2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	4 - BnQ Access
	1 - Purbrook Way (Westbound)	0	358	527	76
	2 - A3(M) Onslip	Exit-only	Exit-only	Exit-only	Exit-only
	3 - Purbrook Way (Eastbound)	1027	324	0	35
	4 - BnQ Access	77	47	39	0

Demand (Veh/hr)

1 - A3(M) Offslip

	To			
		1 - Purbrook Way (WB)	2 - A3(M) Offslip (NB)	3 - Purbrook Way (EB)
From				
	1 - Purbrook Way (WB)	0	0	558
	2 - A3(M) Offslip (NB)	553	0	507
	3 - Purbrook Way (EB)	853	0	0

Vehicle Mix

Heavy Vehicle Percentages

2 - A3(M) Onslip

	To				
From		1 - Purbrook Way (Westbound)	2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	4 - BnQ Access
	1 - Purbrook Way (Westbound)	10	10	10	10
	2 - A3(M) Onslip	Exit-only	Exit-only	Exit-only	Exit-only
	3 - Purbrook Way (Eastbound)	10	10	10	10
	4 - BnQ Access	10	10	10	10

Heavy Vehicle Percentages

1 - A3(M) Offslip

	To			
From		1 - Purbrook Way (WB)	2 - A3(M) Offslip (NB)	3 - Purbrook Way (EB)
	1 - Purbrook Way (WB)	10	10	10
	2 - A3(M) Offslip (NB)	10	10	10
	3 - Purbrook Way (EB)	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	0.35	0.05	0.6	A	571	856
	2 - A3(M) Offslip (NB)	0.72	0.13	2.8	A	1070	1605
	3 - Purbrook Way (EB)	0.68	0.13	2.3	A	861	1292
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	0.60	0.09	1.7	A	970	1455
	2 - A3(M) Onslip						
	3 - Purbrook Way (Eastbound)	0.78	0.14	3.8	A	1418	2128
	4 - BnQ Access	0.76	0.98	3.0	F	165	247

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	467	117	0	1981	0.236	466	1159	0.0	0.3	0.044	A
	2 - A3(M) Offslip (NB)	878	219	466	1959	0.448	874	0	0.0	0.9	0.061	A
	3 - Purbrook Way (EB)	706	177	456	1690	0.418	703	884	0.0	0.8	0.067	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	796	199	340	2062	0.386	793	919	0.0	0.7	0.052	A
	2 - A3(M) Onslip			530				604				
	3 - Purbrook Way (Eastbound)	1159	290	63	2203	0.526	1155	467	0.0	1.2	0.063	A
	4 - BnQ Access	135	34	1125	558	0.242	134	92	0.0	0.3	0.155	A

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	559	140	0	1981	0.282	558	1388	0.3	0.4	0.046	A
	2 - A3(M) Offslip (NB)	1048	262	558	1884	0.556	1046	0	0.9	1.4	0.079	A
	3 - Purbrook Way (EB)	844	211	546	1623	0.520	842	1059	0.8	1.2	0.084	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	950	238	408	2008	0.473	949	1102	0.7	1.0	0.062	A
	2 - A3(M) Onslip			634				724				
	3 - Purbrook Way (Eastbound)	1388	347	75	2193	0.633	1385	559	1.2	1.9	0.081	A
	4 - BnQ Access	161	40	1350	433	0.373	160	110	0.3	0.6	0.241	B

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	682	171	0	1981	0.344	682	1696	0.4	0.6	0.051	A
	2 - A3(M) Offslip (NB)	1284	321	682	1784	0.720	1278	0	1.4	2.7	0.129	A
	3 - Purbrook Way (EB)	1033	258	667	1532	0.674	1029	1293	1.2	2.2	0.130	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1164	291	495	1938	0.601	1161	1341	1.0	1.6	0.085	A
	2 - A3(M) Onslip			774				882				
	3 - Purbrook Way (Eastbound)	1696	424	92	2180	0.778	1688	682	1.9	3.7	0.132	A
	4 - BnQ Access	197	49	1646	268	0.738	190	134	0.6	2.6	0.783	E

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	685	171	0	1981	0.346	685	1703	0.6	0.6	0.051	A
	2 - A3(M) Offslip (NB)	1284	321	685	1781	0.721	1284	0	2.7	2.8	0.132	A
	3 - Purbrook Way (EB)	1033	258	670	1530	0.675	1033	1299	2.2	2.3	0.133	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1164	291	501	1933	0.602	1164	1354	1.6	1.7	0.086	A
	2 - A3(M) Onslip			777				888				
	3 - Purbrook Way (Eastbound)	1703	426	92	2180	0.781	1702	685	3.7	3.8	0.138	A
	4 - BnQ Access	197	49	1659	260	0.759	196	135	2.6	3.0	0.979	F

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	563	141	0	1981	0.284	564	1397	0.6	0.4	0.047	A
	2 - A3(M) Offslip (NB)	1048	262	564	1879	0.558	1054	0	2.8	1.4	0.081	A
	3 - Purbrook Way (EB)	844	211	550	1620	0.521	848	1068	2.3	1.2	0.086	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	950	238	418	2000	0.475	953	1121	1.7	1.0	0.063	A
	2 - A3(M) Onslip			639				733				
	3 - Purbrook Way (Eastbound)	1397	349	75	2193	0.637	1405	563	3.8	2.0	0.085	A
	4 - BnQ Access	161	40	1369	422	0.382	170	111	3.0	0.7	0.271	C

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	470	117	0	1981	0.237	470	1167	0.4	0.3	0.044	A
	2 - A3(M) Offslip (NB)	878	219	470	1955	0.449	880	0	1.4	0.9	0.061	A
	3 - Purbrook Way (EB)	706	177	459	1688	0.418	708	891	1.2	0.8	0.067	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	796	199	345	2058	0.387	797	931	1.0	0.7	0.052	A
	2 - A3(M) Onslip			533				610				
	3 - Purbrook Way (Eastbound)	1167	292	63	2203	0.530	1170	470	2.0	1.3	0.064	A
	4 - BnQ Access	135	34	1140	550	0.246	136	93	0.7	0.4	0.160	A

Existing Configuration - 2029 Baseline, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
1	A3(M) Offslip	Standard Roundabout	1, 2, 3	0.55	D
2	A3(M) Onslip	Standard Roundabout	1, 2, 3, 4	0.73	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2029 Baseline	AM	ONE HOUR	07:45	09:15	15	✓

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	2	3	Queue limited	Normal	0	100.00	19.00
2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	1	1	Queue limited	Normal	0	100.00	38.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	✓				
	2 - A3(M) Offslip (NB)		ONE HOUR	✓	862	100.000
	3 - Purbrook Way (EB)		ONE HOUR	✓	1384	100.000
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)		ONE HOUR	✓	1234	100.000
	2 - A3(M) Onslip					
	3 - Purbrook Way (Eastbound)	✓				
	4 - BnQ Access		ONE HOUR	✓	98	100.000

Origin-Destination Data

Demand (Veh/hr)

2 - A3(M)
Onslip

From	To			
		1 - Purbrook Way (Westbound)	2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)
	1 - Purbrook Way (Westbound)	0	432	761
	2 - A3(M) Onslip	Exit-only	Exit-only	Exit-only
	3 - Purbrook Way (Eastbound)	1053	606	0
	4 - BnQ Access	64	14	20
				0

Demand (Veh/hr)

1 - A3(M) Offslip

	To			
		1 - Purbrook Way (WB)	2 - A3(M) Offslip (NB)	3 - Purbrook Way (EB)
From				
	1 - Purbrook Way (WB)	0	0	776
	2 - A3(M) Offslip (NB)	396	0	466
	3 - Purbrook Way (EB)	1384	0	0

Vehicle Mix

Heavy Vehicle Percentages

2 - A3(M) Onslip

	To				
From		1 - Purbrook Way (Westbound)	2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	4 - BnQ Access
	1 - Purbrook Way (Westbound)	10	10	10	10
	2 - A3(M) Onslip	Exit-only	Exit-only	Exit-only	Exit-only
	3 - Purbrook Way (Eastbound)	10	10	10	10
	4 - BnQ Access	10	10	10	10

Heavy Vehicle Percentages

1 - A3(M) Offslip

	To			
From		1 - Purbrook Way (WB)	2 - A3(M) Offslip (NB)	3 - Purbrook Way (EB)
	1 - Purbrook Way (WB)	10	10	10
	2 - A3(M) Offslip (NB)	10	10	10
	3 - Purbrook Way (EB)	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	0.47	0.06	1.0	A	788	1182
	2 - A3(M) Offslip (NB)	0.66	0.12	2.1	A	870	1305
	3 - Purbrook Way (EB)	1.00	1.10	30.9	F	1397	2095
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	0.86	0.28	6.5	C	1246	1868
	2 - A3(M) Onslip						
	3 - Purbrook Way (Eastbound)	0.96	0.50	16.8	D	1795	2693
	4 - BnQ Access	1.84	10.68	22.8	F	99	148

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	643	161	0	1981	0.325	641	1465	0.0	0.5	0.049	A
	2 - A3(M) Offslip (NB)	714	178	641	1817	0.393	711	0	0.0	0.7	0.060	A
	3 - Purbrook Way (EB)	1146	287	327	1787	0.641	1138	1026	0.0	1.9	0.101	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1022	255	537	1905	0.537	1017	936	0.0	1.3	0.074	A
	2 - A3(M) Onslip			677				876				
	3 - Purbrook Way (Eastbound)	1465	366	34	2225	0.658	1457	643	0.0	2.1	0.085	A
	4 - BnQ Access	81	20	1393	409	0.199	80	98	0.0	0.3	0.200	B

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	770	192	0	1981	0.389	769	1752	0.5	0.7	0.054	A
	2 - A3(M) Offslip (NB)	852	213	769	1714	0.497	851	0	0.7	1.1	0.076	A
	3 - Purbrook Way (EB)	1369	342	391	1739	0.787	1361	1229	1.9	3.9	0.171	B
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1220	305	642	1820	0.671	1217	1121	1.3	2.2	0.109	A
	2 - A3(M) Onslip			810				1049				
	3 - Purbrook Way (Eastbound)	1752	438	40	2220	0.789	1744	770	2.1	3.9	0.137	A
	4 - BnQ Access	97	24	1668	255	0.380	95	117	0.3	0.6	0.409	C

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	929	232	0	1981	0.469	928	2083	0.7	1.0	0.063	A
	2 - A3(M) Offslip (NB)	1044	261	928	1585	0.659	1040	0	1.1	2.1	0.120	A
	3 - Purbrook Way (EB)	1676	419	478	1674	1.001	1605	1491	3.9	21.7	0.646	E
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1495	374	745	1737	0.860	1479	1298	2.2	6.1	0.242	B
	2 - A3(M) Onslip			979				1245				
	3 - Purbrook Way (Eastbound)	2083	521	49	2213	0.941	2048	929	3.9	12.5	0.344	C
	4 - BnQ Access	119	30	1959	93	1.275	85	139	0.6	9.2	4.859	F

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	934	233	0	1981	0.471	933	2119	1.0	1.0	0.063	A
	2 - A3(M) Offslip (NB)	1044	261	933	1581	0.660	1044	0	2.1	2.1	0.123	A
	3 - Purbrook Way (EB)	1676	419	480	1673	1.002	1639	1498	21.7	30.9	1.100	F
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1495	374	756	1728	0.865	1493	1317	6.1	6.5	0.275	C
	2 - A3(M) Onslip			983				1266				
	3 - Purbrook Way (Eastbound)	2119	530	50	2213	0.957	2102	934	12.5	16.8	0.498	D
	4 - BnQ Access	119	30	2010	65	1.838	64	142	9.2	22.8	10.684	F

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	795	199	0	1981	0.401	796	1868	1.0	0.7	0.056	A
	2 - A3(M) Offslip (NB)	852	213	796	1692	0.504	856	0	2.1	1.1	0.079	A
	3 - Purbrook Way (EB)	1369	342	393	1737	0.788	1475	1259	30.9	4.4	0.344	C
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1220	305	722	1755	0.695	1236	1263	6.5	2.6	0.131	A
	2 - A3(M) Onslip			836				1123				
	3 - Purbrook Way (Eastbound)	1868	467	41	2220	0.842	1910	795	16.8	6.3	0.237	B
	4 - BnQ Access	97	24	1826	167	0.581	159	125	22.8	7.3	5.659	F

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	656	164	0	1981	0.331	656	1484	0.7	0.5	0.050	A
	2 - A3(M) Offslip (NB)	714	178	656	1805	0.396	715	0	1.1	0.7	0.061	A
	3 - Purbrook Way (EB)	1146	287	329	1786	0.642	1156	1043	4.4	2.0	0.106	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1022	255	562	1884	0.542	1027	982	2.6	1.3	0.077	A
	2 - A3(M) Onslip			690				899				
	3 - Purbrook Way (Eastbound)	1484	371	34	2225	0.667	1500	656	6.3	2.2	0.093	A
	4 - BnQ Access	81	20	1435	385	0.211	109	100	7.3	0.3	0.263	C

Existing Configuration - 2029 Baseline, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
1	A3(M) Offslip	Standard Roundabout	1, 2, 3	0.19	B
2	A3(M) Onslip	Standard Roundabout	1, 2, 3, 4	0.83	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2029 Baseline	PM	ONE HOUR	16:45	18:15	15	✓

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	2	3	Queue limited	Normal	0	100.00	19.00
2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	1	1	Queue limited	Normal	0	100.00	38.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	✓				
	2 - A3(M) Offslip (NB)		ONE HOUR	✓	1202	100.000
	3 - Purbrook Way (EB)		ONE HOUR	✓	967	100.000
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)		ONE HOUR	✓	1080	100.000
	2 - A3(M) Onslip					
	3 - Purbrook Way (Eastbound)	✓				
	4 - BnQ Access		ONE HOUR	✓	184	100.000

Origin-Destination Data

Demand (Veh/hr)

2 - A3(M)
Onslip

From	To			
		1 - Purbrook Way (Westbound)	2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)
	1 - Purbrook Way (Westbound)	0	402	592
	2 - A3(M) Onslip	Exit-only	Exit-only	Exit-only
	3 - Purbrook Way (Eastbound)	1154	364	0
	4 - BnQ Access	87	53	44
				0

Demand (Veh/hr)

1 - A3(M) Offslip

	To			
		1 - Purbrook Way (WB)	2 - A3(M) Offslip (NB)	3 - Purbrook Way (EB)
From				
	1 - Purbrook Way (WB)	0	0	633
	2 - A3(M) Offslip (NB)	627	0	575
	3 - Purbrook Way (EB)	967	0	0

Vehicle Mix

Heavy Vehicle Percentages

2 - A3(M) Onslip

	To				
		1 - Purbrook Way (Westbound)	2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	4 - BnQ Access
From					
	1 - Purbrook Way (Westbound)	10	10	10	10
	2 - A3(M) Onslip	Exit-only	Exit-only	Exit-only	Exit-only
	3 - Purbrook Way (Eastbound)	10	10	10	10
	4 - BnQ Access	10	10	10	10

Heavy Vehicle Percentages

1 - A3(M) Offslip

	To			
		1 - Purbrook Way (WB)	2 - A3(M) Offslip (NB)	3 - Purbrook Way (EB)
From				
	1 - Purbrook Way (WB)	10	10	10
	2 - A3(M) Offslip (NB)	10	10	10
	3 - Purbrook Way (EB)	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	0.38	0.05	0.7	A	642	962
	2 - A3(M) Offslip (NB)	0.84	0.24	5.6	B	1213	1820
	3 - Purbrook Way (EB)	0.80	0.22	4.2	B	976	1464
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	0.68	0.11	2.3	A	1090	1635
	2 - A3(M) Onslip						
	3 - Purbrook Way (Eastbound)	0.89	0.26	8.0	C	1608	2412
	4 - BnQ Access	1.61	10.04	41.1	F	186	279

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	524	131	0	1981	0.265	523	1313	0.0	0.4	0.045	A
	2 - A3(M) Offslip (NB)	995	249	523	1912	0.521	991	0	0.0	1.2	0.071	A
	3 - Purbrook Way (EB)	801	200	517	1645	0.487	797	997	0.0	1.0	0.077	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	894	224	385	2026	0.441	891	1040	0.0	0.9	0.058	A
	2 - A3(M) Onslip			595				680				
	3 - Purbrook Way (Eastbound)	1313	328	71	2197	0.598	1307	524	0.0	1.6	0.074	A
	4 - BnQ Access	152	38	1274	475	0.321	150	104	0.0	0.5	0.202	B

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	627	157	0	1981	0.317	627	1572	0.4	0.5	0.049	A
	2 - A3(M) Offslip (NB)	1189	297	627	1828	0.650	1185	0	1.2	2.0	0.102	A
	3 - Purbrook Way (EB)	956	239	618	1568	0.610	954	1194	1.0	1.7	0.107	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1068	267	461	1965	0.543	1066	1246	0.9	1.3	0.073	A
	2 - A3(M) Onslip			712				815				
	3 - Purbrook Way (Eastbound)	1572	393	85	2186	0.719	1567	627	1.6	2.7	0.106	A
	4 - BnQ Access	182	45	1528	333	0.546	179	124	0.5	1.2	0.420	D

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	750	188	0	1981	0.379	750	1914	0.5	0.7	0.054	A
	2 - A3(M) Offslip (NB)	1456	364	750	1729	0.842	1442	0	2.0	5.4	0.220	B
	3 - Purbrook Way (EB)	1171	293	752	1468	0.798	1162	1440	1.7	4.1	0.209	B
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1308	327	522	1917	0.682	1304	1476	1.3	2.3	0.107	A
	2 - A3(M) Onslip			854				971				
	3 - Purbrook Way (Eastbound)	1914	479	104	2171	0.882	1896	750	2.7	7.3	0.226	B
	4 - BnQ Access	223	56	1848	155	1.442	149	151	1.2	19.8	5.058	F

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	750	187	0	1981	0.379	750	1929	0.7	0.7	0.054	A
	2 - A3(M) Offslip (NB)	1456	364	750	1729	0.842	1455	0	5.4	5.6	0.239	B
	3 - Purbrook Way (EB)	1171	293	759	1463	0.801	1170	1446	4.1	4.2	0.224	B
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1308	327	523	1916	0.683	1308	1493	2.3	2.3	0.109	A
	2 - A3(M) Onslip			854				977				
	3 - Purbrook Way (Eastbound)	1929	482	104	2171	0.889	1926	750	7.3	8.0	0.263	C
	4 - BnQ Access	223	56	1878	138	1.614	138	152	19.8	41.1	10.035	F

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	659	165	0	1981	0.333	660	1593	0.7	0.6	0.050	A
	2 - A3(M) Offslip (NB)	1189	297	660	1802	0.660	1202	0	5.6	2.2	0.113	A
	3 - Purbrook Way (EB)	956	239	627	1562	0.612	966	1235	4.2	1.8	0.113	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1068	267	535	1906	0.560	1072	1338	2.3	1.4	0.079	A
	2 - A3(M) Onslip			745				863				
	3 - Purbrook Way (Eastbound)	1593	398	85	2185	0.729	1613	659	8.0	3.0	0.119	A
	4 - BnQ Access	182	45	1573	308	0.590	300	126	41.1	11.5	5.311	F

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	538	135	0	1981	0.272	539	1325	0.6	0.4	0.046	A
	2 - A3(M) Offslip (NB)	995	249	539	1899	0.524	999	0	2.2	1.2	0.074	A
	3 - Purbrook Way (EB)	801	200	521	1641	0.488	804	1017	1.8	1.1	0.079	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	894	224	414	2003	0.447	896	1079	1.4	0.9	0.060	A
	2 - A3(M) Onslip			610				701				
	3 - Purbrook Way (Eastbound)	1325	331	71	2196	0.603	1330	538	3.0	1.7	0.077	A
	4 - BnQ Access	152	38	1297	462	0.330	196	105	11.5	0.6	0.291	C

Existing Configuration - 2029 Baseline + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
1	A3(M) Offslip	Standard Roundabout	1, 2, 3	1.69	F
2	A3(M) Onslip	Standard Roundabout	1, 2, 3, 4	1.61	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2029 Baseline + Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	2	3	Queue limited	Normal	0	100.00	19.00
2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	1	1	Queue limited	Normal	0	100.00	38.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	✓				
	2 - A3(M) Offslip (NB)		ONE HOUR	✓	920	100.000
	3 - Purbrook Way (EB)		ONE HOUR	✓	1561	100.000
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)		ONE HOUR	✓	1254	100.000
	2 - A3(M) Onslip					
	3 - Purbrook Way (Eastbound)	✓				
	4 - BnQ Access		ONE HOUR	✓	98	100.000

Origin-Destination Data

Demand (Veh/hr)

2 - A3(M)
Onslip

	To				
From		1 - Purbrook Way (Westbound)	2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	4 - BnQ Access
	1 - Purbrook Way (Westbound)	0	432	781	41
	2 - A3(M) Onslip	Exit-only	Exit-only	Exit-only	Exit-only
	3 - Purbrook Way (Eastbound)	1101	747	0	76
	4 - BnQ Access	64	14	20	0

Demand (Veh/hr)

1 - A3(M) Offslip

	To			
		1 - Purbrook Way (WB)	2 - A3(M) Offslip (NB)	3 - Purbrook Way (EB)
From				
	1 - Purbrook Way (WB)	0	0	796
	2 - A3(M) Offslip (NB)	396	0	524
	3 - Purbrook Way (EB)	1561	0	0

Vehicle Mix

Heavy Vehicle Percentages

2 - A3(M) Onslip

	To				
From		1 - Purbrook Way (Westbound)	2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	4 - BnQ Access
	1 - Purbrook Way (Westbound)	10	10	10	10
	2 - A3(M) Onslip	Exit-only	Exit-only	Exit-only	Exit-only
	3 - Purbrook Way (Eastbound)	10	10	10	10
	4 - BnQ Access	10	10	10	10

Heavy Vehicle Percentages

1 - A3(M) Offslip

	To			
From		1 - Purbrook Way (WB)	2 - A3(M) Offslip (NB)	3 - Purbrook Way (EB)
	1 - Purbrook Way (WB)	10	10	10
	2 - A3(M) Offslip (NB)	10	10	10
	3 - Purbrook Way (EB)	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	0.48	0.06	1.0	A	803	1205
	2 - A3(M) Offslip (NB)	0.71	0.15	2.7	A	929	1393
	3 - Purbrook Way (EB)	1.13	3.43	120.2	F	1576	2363
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	0.92	0.43	10.2	D	1266	1899
	2 - A3(M) Onslip						
	3 - Purbrook Way (Eastbound)	0.97	0.63	21.5	E	1973	2960
	4 - BnQ Access	2.71	36.41	45.8	F	99	148

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	659	165	0	1981	0.333	657	1608	0.0	0.5	0.050	A
	2 - A3(M) Offslip (NB)	762	190	657	1804	0.422	759	0	0.0	0.8	0.063	A
	3 - Purbrook Way (EB)	1293	323	327	1787	0.723	1282	1089	0.0	2.8	0.128	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1038	260	648	1815	0.572	1033	966	0.0	1.5	0.084	A
	2 - A3(M) Onslip			693				987				
	3 - Purbrook Way (Eastbound)	1608	402	34	2225	0.723	1597	659	0.0	2.8	0.103	A
	4 - BnQ Access	81	20	1534	330	0.246	80	97	0.0	0.4	0.262	C

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	788	197	0	1981	0.398	787	1916	0.5	0.7	0.055	A
	2 - A3(M) Offslip (NB)	910	227	787	1699	0.535	908	0	0.8	1.3	0.083	A
	3 - Purbrook Way (EB)	1544	386	391	1739	0.888	1525	1304	2.8	7.4	0.286	C
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1240	310	771	1717	0.722	1235	1149	1.5	2.8	0.135	A
	2 - A3(M) Onslip			828				1177				
	3 - Purbrook Way (Eastbound)	1916	479	40	2220	0.863	1902	788	2.8	6.3	0.199	B
	4 - BnQ Access	97	24	1827	167	0.581	93	115	0.4	1.3	0.854	F

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	943	236	0	1981	0.476	942	2137	0.7	1.0	0.063	A
	2 - A3(M) Offslip (NB)	1114	279	942	1574	0.708	1109	0	1.3	2.6	0.140	A
	3 - Purbrook Way (EB)	1891	473	477	1674	1.129	1659	1573	7.4	65.2	1.475	F
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1519	380	835	1665	0.912	1494	1239	2.8	9.0	0.344	C
	2 - A3(M) Onslip			992				1337				
	3 - Purbrook Way (Eastbound)	2137	534	49	2214	0.965	2096	943	6.3	16.6	0.444	D
	4 - BnQ Access	119	30	2013	63	1.887	60	132	1.3	15.9	11.603	F

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	952	238	0	1981	0.480	952	2150	1.0	1.0	0.064	A
	2 - A3(M) Offslip (NB)	1114	279	952	1566	0.711	1114	0	2.6	2.7	0.146	A
	3 - Purbrook Way (EB)	1891	473	479	1673	1.130	1671	1586	65.2	120.2	3.421	F
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1519	380	843	1659	0.915	1514	1248	9.0	10.2	0.428	D
	2 - A3(M) Onslip			1001				1355				
	3 - Purbrook Way (Eastbound)	2150	538	50	2213	0.972	2131	952	16.6	21.4	0.625	E
	4 - BnQ Access	119	30	2047	44	2.708	44	134	15.9	34.7	36.411	F

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	800	200	0	1981	0.404	801	2115	1.0	0.7	0.056	A
	2 - A3(M) Offslip (NB)	910	227	801	1688	0.539	915	0	2.7	1.3	0.086	A
	3 - Purbrook Way (EB)	1544	386	394	1737	0.889	1721	1322	120.2	75.8	3.431	F
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1240	310	839	1662	0.746	1267	1244	10.2	3.4	0.178	B
	2 - A3(M) Onslip			841				1265				
	3 - Purbrook Way (Eastbound)	2115	529	41	2219	0.953	2115	800	21.4	21.5	0.618	E
	4 - BnQ Access	97	24	2031	53	1.844	52	125	34.7	45.8	28.046	F

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	677	169	0	1981	0.342	677	1912	0.7	0.6	0.051	A
	2 - A3(M) Offslip (NB)	762	190	677	1788	0.426	764	0	1.3	0.8	0.065	A
	3 - Purbrook Way (EB)	1293	323	329	1786	0.724	1584	1113	75.8	3.1	0.843	F
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1038	260	809	1686	0.616	1045	1210	3.4	1.8	0.104	A
	2 - A3(M) Onslip			711				1143				
	3 - Purbrook Way (Eastbound)	1912	478	34	2225	0.860	1969	677	21.5	7.4	0.299	C
	4 - BnQ Access	81	20	1891	131	0.620	128	112	45.8	34.1	18.833	F

Existing Configuration - 2029 Baseline + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
1	A3(M) Offslip	Standard Roundabout	1, 2, 3	0.42	D
2	A3(M) Onslip	Standard Roundabout	1, 2, 3, 4	3.01	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2029 Baseline + Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	2	3	Queue limited	Normal	0	100.00	19.00
2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	1	1	Queue limited	Normal	0	100.00	38.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	✓				
	2 - A3(M) Offslip (NB)		ONE HOUR	✓	1338	100.000
	3 - Purbrook Way (EB)		ONE HOUR	✓	1078	100.000
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)		ONE HOUR	✓	1127	100.000
	2 - A3(M) Onslip					
	3 - Purbrook Way (Eastbound)	✓				
	4 - BnQ Access		ONE HOUR	✓	184	100.000

Origin-Destination Data

Demand (Veh/hr)

2 - A3(M)
Onslip

	To				
From		1 - Purbrook Way (Westbound)	2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	4 - BnQ Access
	1 - Purbrook Way (Westbound)	0	402	639	86
	2 - A3(M) Onslip	Exit-only	Exit-only	Exit-only	Exit-only
	3 - Purbrook Way (Eastbound)	1184	450	0	39
	4 - BnQ Access	87	53	44	0

Demand (Veh/hr)

1 - A3(M) Offslip

	To			
		1 - Purbrook Way (WB)	2 - A3(M) Offslip (NB)	3 - Purbrook Way (EB)
From	1 - Purbrook Way (WB)	0	0	679
	2 - A3(M) Offslip (NB)	627	0	711
	3 - Purbrook Way (EB)	1078	0	0

Vehicle Mix

Heavy Vehicle Percentages

2 - A3(M) Onslip

	To				
From		1 - Purbrook Way (Westbound)	2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	4 - BnQ Access
	1 - Purbrook Way (Westbound)	10	10	10	10
	2 - A3(M) Onslip	Exit-only	Exit-only	Exit-only	Exit-only
	3 - Purbrook Way (Eastbound)	10	10	10	10
	4 - BnQ Access	10	10	10	10

Heavy Vehicle Percentages

1 - A3(M) Offslip

	To			
From		1 - Purbrook Way (WB)	2 - A3(M) Offslip (NB)	3 - Purbrook Way (EB)
	1 - Purbrook Way (WB)	10	10	10
	2 - A3(M) Offslip (NB)	10	10	10
	3 - Purbrook Way (EB)	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	0.40	0.06	0.7	A	689	1033
	2 - A3(M) Offslip (NB)	0.96	0.64	16.3	E	1351	2026
	3 - Purbrook Way (EB)	0.89	0.39	7.9	C	1088	1632
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	0.73	0.13	3.0	A	1138	1706
	2 - A3(M) Onslip						
	3 - Purbrook Way (Eastbound)	0.95	0.45	14.7	D	1720	2579
	4 - BnQ Access	3.08	44.25	70.9	F	186	279

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	563	141	0	1981	0.284	561	1404	0.0	0.4	0.046	A
	2 - A3(M) Offslip (NB)	1108	277	561	1881	0.589	1102	0	0.0	1.6	0.084	A
	3 - Purbrook Way (EB)	893	223	516	1645	0.543	888	1147	0.0	1.3	0.087	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	933	233	455	1970	0.474	929	1059	0.0	1.0	0.063	A
	2 - A3(M) Onslip			634				750				
	3 - Purbrook Way (Eastbound)	1404	351	71	2197	0.639	1396	563	0.0	1.9	0.082	A
	4 - BnQ Access	152	38	1364	425	0.358	150	103	0.0	0.6	0.238	B

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	673	168	0	1981	0.340	672	1679	0.4	0.6	0.050	A
	2 - A3(M) Offslip (NB)	1323	331	672	1792	0.738	1317	0	1.6	3.0	0.137	A
	3 - Purbrook Way (EB)	1066	267	617	1569	0.679	1062	1372	1.3	2.3	0.129	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1114	279	543	1899	0.587	1112	1268	1.0	1.5	0.084	A
	2 - A3(M) Onslip			758				898				
	3 - Purbrook Way (Eastbound)	1679	420	85	2186	0.768	1673	673	1.9	3.5	0.127	A
	4 - BnQ Access	182	45	1634	274	0.663	177	124	0.6	1.9	0.645	E

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	794	199	0	1981	0.401	793	2026	0.6	0.7	0.056	A
	2 - A3(M) Offslip (NB)	1620	405	793	1694	0.957	1578	0	3.0	13.6	0.458	D
	3 - Purbrook Way (EB)	1306	326	739	1478	0.884	1286	1632	2.3	7.1	0.318	C
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1365	341	588	1863	0.732	1359	1457	1.5	2.9	0.130	A
	2 - A3(M) Onslip			898				1049				
	3 - Purbrook Way (Eastbound)	2026	506	104	2171	0.933	1994	794	3.5	11.5	0.326	C
	4 - BnQ Access	223	56	1948	99	2.244	98	150	1.9	33.2	12.576	F

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	791	198	0	1981	0.399	791	2056	0.7	0.7	0.055	A
	2 - A3(M) Offslip (NB)	1620	405	791	1696	0.956	1610	0	13.6	16.3	0.642	E
	3 - Purbrook Way (EB)	1306	326	754	1466	0.890	1302	1646	7.1	7.9	0.386	C
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1365	341	588	1864	0.732	1365	1480	2.9	3.0	0.132	A
	2 - A3(M) Onslip			895				1057				
	3 - Purbrook Way (Eastbound)	2056	514	104	2171	0.947	2044	791	11.5	14.7	0.454	D
	4 - BnQ Access	223	56	1996	72	3.083	72	152	33.2	70.9	44.252	F

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	687	172	0	1981	0.347	687	1732	0.7	0.6	0.051	A
	2 - A3(M) Offslip (NB)	1323	331	687	1780	0.743	1375	0	16.3	3.3	0.183	B
	3 - Purbrook Way (EB)	1066	267	644	1549	0.688	1088	1418	7.9	2.5	0.149	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1114	279	591	1861	0.599	1120	1357	3.0	1.7	0.090	A
	2 - A3(M) Onslip			772				939				
	3 - Purbrook Way (Eastbound)	1732	433	85	2185	0.793	1773	687	14.7	4.4	0.175	B
	4 - BnQ Access	182	45	1732	220	0.829	216	127	70.9	62.3	16.896	F

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	625	156	0	1981	0.316	626	1420	0.6	0.5	0.049	A
	2 - A3(M) Offslip (NB)	1108	277	626	1829	0.606	1114	0	3.3	1.7	0.093	A
	3 - Purbrook Way (EB)	893	223	522	1641	0.544	897	1218	2.5	1.3	0.089	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	933	233	594	1859	0.502	935	1199	1.7	1.1	0.072	A
	2 - A3(M) Onslip			697				833				
	3 - Purbrook Way (Eastbound)	1420	355	71	2196	0.646	1429	625	4.4	2.0	0.087	A
	4 - BnQ Access	152	38	1396	407	0.374	397	105	62.3	1.0	4.898	F

Appendix T

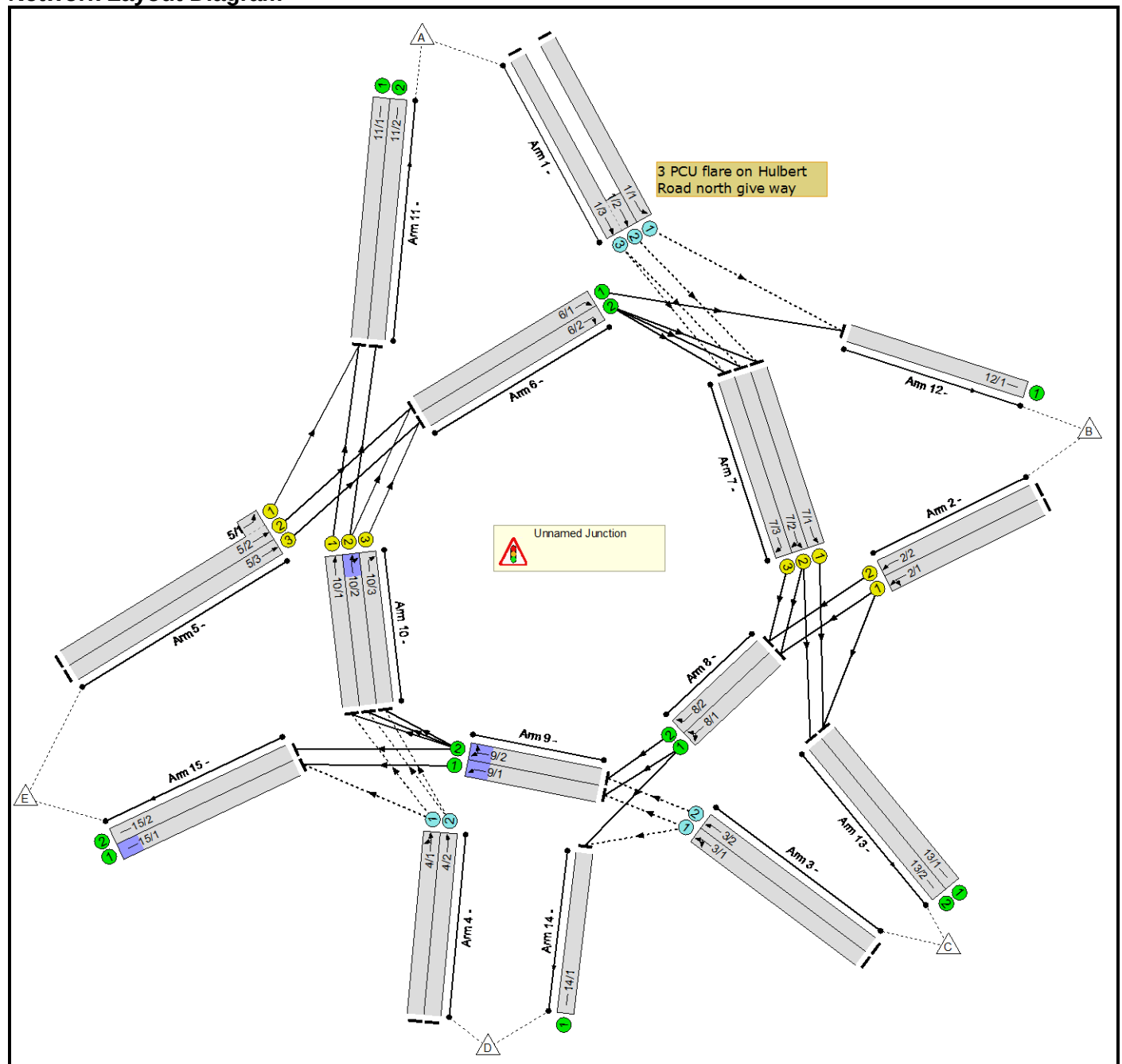
Full Input Data And Results

Full Input Data And Results

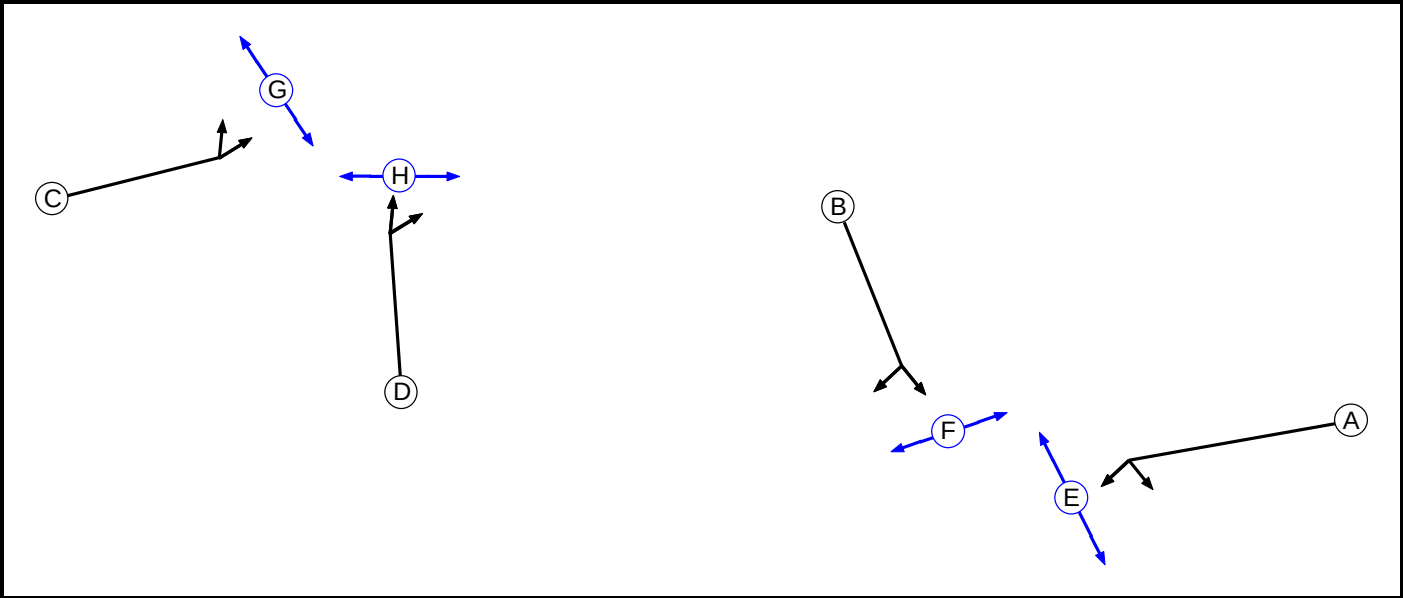
User and Project Details

Project:	College Road, Campdown
Title:	Asda roundabout Leigh Park
Location:	Purbrook
Additional detail:	
File name:	Leigh Park Asda rdbt Purbrook Way (735 units).lsg3x
Author:	Shaan Novitzki
Company:	Paul Basham Associates
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	2		-9999	7
B	Traffic	2		-9999	7
C	Traffic	1		-9999	7
D	Traffic	1		-9999	7
E	Pedestrian	2		-9999	6
F	Pedestrian	2		-9999	6
G	Pedestrian	1		-9999	6
H	Pedestrian	1		-9999	6

Full Input Data And Results

Phase Intergreens Matrix

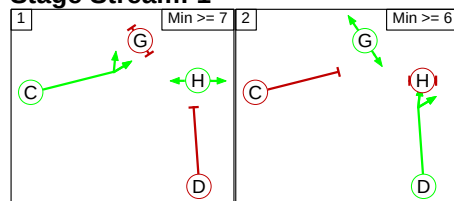
Terminating Phase	Starting Phase								
		A	B	C	D	E	F	G	H
	A		5	-	-	6	-	-	-
	B	5		-	-	-	5	-	-
	C	-	-		5	-	-	6	-
	D	-	-	5		-	-	-	5
	E	6	-	-	-		-	-	-
	F	-	6	-	-	-		-	-
	G	-	-	6	-	-	-		-
	H	-	-	-	6	-	-	-	

Phases in Stage

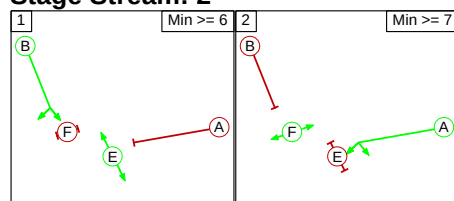
Stream	Stage No.	Phases in Stage
1	1	C H
1	2	D G
2	1	B E
2	2	A F

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	2	C	Losing	1	1
2	1	D	Losing	1	1

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	2	B	Losing	1	1
2	1	A	Losing	1	1

Prohibited Stage Change

Stage Stream: 1

	To Stage		
From Stage		1	2
	1		7
	2	6	

Stage Stream: 2

	To Stage		
From Stage		1	2
	1		6
	2	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/1	12/1 (Ahead)	1000	0	6/1	0.33	All	-	-	-	-	-
1/2	7/1 (Ahead)	1000	0	6/1	0.33	All	-	-	-	-	-
				6/2	0.33	All					
1/3	7/2 (Ahead)	1000	0	6/1	0.33	All	-	-	-	-	-
				6/2	0.33	All					
	7/3 (Ahead)	1000	0	6/1	0.33	All					
				6/2	0.33	All					
3/1	9/1 (Ahead)	839	0	8/1	0.33	All	-	-	-	-	-
				8/2	0.33	All					
	14/1 (Left)	839	0	8/1	0.33	All					
				8/2	0.33	All					
3/2	9/2 (Ahead)	839	0	8/1	0.33	All	-	-	-	-	-
				8/2	0.33	All					
4/1	10/1 (Ahead)	880	0	9/1	0.33	All	-	-	-	-	-
				9/2	0.33	All					
	15/1 (Left)	880	0	9/1	0.33	All					
4/2	10/2 (Ahead)	1400	0	9/1	0.33	All	-	-	-	-	-
				9/2	0.33	All					
	10/3 (Ahead)	880	0	9/1	0.33	All					
				9/2	0.33	All					

Full Input Data And Results

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1	O		2	3	60.0	User	1900	-	-	-	-	-
1/2	O		2	3	3.0	User	1900	-	-	-	-	-
1/3	O		2	3	60.0	User	1900	-	-	-	-	-
2/1	U	A	2	3	60.0	User	1900	-	-	-	-	-
2/2	U	A	2	3	60.0	User	1900	-	-	-	-	-
3/1	O		2	3	60.0	User	1900	-	-	-	-	-
3/2	O		2	3	60.0	User	1900	-	-	-	-	-
4/1	O		2	3	60.0	User	1900	-	-	-	-	-
4/2	O		2	3	60.0	User	1900	-	-	-	-	-
5/1	U	C	2	3	3.0	User	1900	-	-	-	-	-
5/2	U	C	2	3	60.0	User	1900	-	-	-	-	-
5/3	U	C	2	3	60.0	User	1900	-	-	-	-	-
6/1	U		2	3	60.0	User	1900	-	-	-	-	-
6/2	U		2	3	60.0	User	1900	-	-	-	-	-
7/1	U	B	2	3	60.0	User	1900	-	-	-	-	-
7/2	U	B	2	3	60.0	User	1900	-	-	-	-	-
7/3	U	B	2	3	60.0	User	1900	-	-	-	-	-
8/1	U		2	3	60.0	User	1900	-	-	-	-	-
8/2	U		2	3	60.0	User	1900	-	-	-	-	-
9/1	U		2	3	60.0	User	1900	-	-	-	-	-
9/2	U		2	3	60.0	User	1900	-	-	-	-	-
10/1	U	D	2	3	60.0	User	1900	-	-	-	-	-
10/2	U	D	2	3	60.0	User	1900	-	-	-	-	-
10/3	U	D	2	3	60.0	User	1900	-	-	-	-	-
11/1	U		2	3	60.0	Inf	-	-	-	-	-	-
11/2	U		2	3	60.0	User	1900	-	-	-	-	-
12/1	U		2	3	60.0	Inf	-	-	-	-	-	-
13/1	U		2	3	60.0	User	1900	-	-	-	-	-
13/2	U		2	3	60.0	Inf	-	-	-	-	-	-
14/1	U		2	3	60.0	User	1900	-	-	-	-	-
15/1	U		2	3	60.0	User	1900	-	-	-	-	-
15/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Junction: Unnamed Junction						
Lane	Custom Occupancy per Flow Group (PCU)					
	AM Peak	PM Peak	AM peak 2026+B8 DHF+McDonalds	PM peak 2026+B8 DHF+McDonalds	AM peak 2026+B8 DHF+McDonalds + Developmemt	PM peak 2026+B8 DHF+McDonalds + Development
1/2	3.0	3.0	3.0	3.0	3.0	3.0
5/1	2.0	1.0	5.0	5.0	5.0	5.0

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM Peak'	08:00	09:00	01:00	
2: 'PM Peak'	17:00	18:00	01:00	
3: 'AM peak 2026+B8 DHF+McDonalds'	08:00	09:00	01:00	
4: 'PM peak 2026+B8 DHF+McDonalds'	17:00	18:00	01:00	
5: 'AM peak 2026+B8 DHF+McDonalds + Developmemt'	08:00	09:00	01:00	
6: 'PM peak 2026+B8 DHF+McDonalds + Development'	17:00	18:00	01:00	

Scenario 1: 'AM Peak' (FG1: 'AM Peak', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	0	114	37	49	54	254
	B	532	0	0	59	843	1434
	C	201	0	0	142	148	491
	D	46	49	101	0	59	255
	E	145	707	124	168	0	1144
	Tot.	924	870	262	418	1104	3578

Traffic Lane Flows

Lane	Scenario 1: AM Peak
Junction: Unnamed Junction	
1/1	114
1/2 (short)	36
1/3 (with short)	140(In) 104(Out)
2/1	671
2/2	763
3/1	243
3/2	248
4/1	104
4/2	151
5/1 (short)	145
5/2 (with short)	852(In) 707(Out)
5/3	292
6/1	756
6/2	393
7/1	231
7/2	248
7/3	54
8/1	888
8/2	817
9/1	713
9/2	1065
10/1	435
10/2	393
10/3	101
11/1	580
11/2	344
12/1	870
13/1	231
13/2	31
14/1	418
15/1	772
15/2	332

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	This lane uses a directly entered Saturation Flow						1900	1900
1/2	This lane uses a directly entered Saturation Flow						1900	1900
1/3	This lane uses a directly entered Saturation Flow						1900	1900
2/1	This lane uses a directly entered Saturation Flow						1900	1900
2/2	This lane uses a directly entered Saturation Flow						1900	1900
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
4/1	This lane uses a directly entered Saturation Flow						1900	1900
4/2	This lane uses a directly entered Saturation Flow						1900	1900
5/1	This lane uses a directly entered Saturation Flow						1900	1900
5/2	This lane uses a directly entered Saturation Flow						1900	1900
5/3	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
7/1	This lane uses a directly entered Saturation Flow						1900	1900
7/2	This lane uses a directly entered Saturation Flow						1900	1900
7/3	This lane uses a directly entered Saturation Flow						1900	1900
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900
11/1	Infinite Saturation Flow						Inf	Inf
11/2	This lane uses a directly entered Saturation Flow						1900	1900
12/1	Infinite Saturation Flow						Inf	Inf
13/1	This lane uses a directly entered Saturation Flow						1900	1900
13/2	Infinite Saturation Flow						Inf	Inf
14/1	This lane uses a directly entered Saturation Flow						1900	1900
15/1	This lane uses a directly entered Saturation Flow						1900	1900
15/2	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 2: 'PM Peak' (FG2: 'PM Peak', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	0	562	157	63	143	925
	B	540	0	0	36	693	1269
	C	216	0	0	116	109	441
	D	76	59	146	0	125	406
	E	70	632	86	99	0	887
	Tot.	902	1253	389	314	1070	3928

Traffic Lane Flows

Lane	Scenario 2: PM Peak
Junction: Unnamed Junction	
1/1	562
1/2 (short)	110
1/3 (with short)	363(In) 253(Out)
2/1	599
2/2	670
3/1	215
3/2	226
4/1	201
4/2	205
5/1 (short)	70
5/2 (with short)	702(In) 632(Out)
5/3	185
6/1	691
6/2	331
7/1	267
7/2	284
7/3	143
8/1	761
8/2	813
9/1	662
9/2	1039
10/1	500
10/2	391
10/3	146
11/1	570
11/2	332
12/1	1253
13/1	267
13/2	122
14/1	314
15/1	787
15/2	283

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	This lane uses a directly entered Saturation Flow						1900	1900
1/2	This lane uses a directly entered Saturation Flow						1900	1900
1/3	This lane uses a directly entered Saturation Flow						1900	1900
2/1	This lane uses a directly entered Saturation Flow						1900	1900
2/2	This lane uses a directly entered Saturation Flow						1900	1900
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
4/1	This lane uses a directly entered Saturation Flow						1900	1900
4/2	This lane uses a directly entered Saturation Flow						1900	1900
5/1	This lane uses a directly entered Saturation Flow						1900	1900
5/2	This lane uses a directly entered Saturation Flow						1900	1900
5/3	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
7/1	This lane uses a directly entered Saturation Flow						1900	1900
7/2	This lane uses a directly entered Saturation Flow						1900	1900
7/3	This lane uses a directly entered Saturation Flow						1900	1900
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900
11/1	Infinite Saturation Flow						Inf	Inf
11/2	This lane uses a directly entered Saturation Flow						1900	1900
12/1	Infinite Saturation Flow						Inf	Inf
13/1	This lane uses a directly entered Saturation Flow						1900	1900
13/2	Infinite Saturation Flow						Inf	Inf
14/1	This lane uses a directly entered Saturation Flow						1900	1900
15/1	This lane uses a directly entered Saturation Flow						1900	1900
15/2	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'AM 2026 revised flows' (FG3: 'AM peak 2026+B8 DHF+McDonalds', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	0	393	347	110	191	1041
	B	347	0	22	111	580	1060
	C	172	29	0	77	262	540
	D	86	65	35	0	164	350
	E	135	572	175	186	0	1068
	Tot.	740	1059	579	484	1197	4059

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: AM 2026 revised flows
Junction: Unnamed Junction	
1/1	393
1/2 (short)	278
1/3 (with short)	648(In) 370(Out)
2/1	510
2/2	550
3/1	266
3/2	274
4/1	170
4/2	180
5/1 (short)	135
5/2 (with short)	707(In) 572(Out)
5/3	361
6/1	666
6/2	396
7/1	403
7/2	450
7/3	191
8/1	784
8/2	741
9/1	566
9/2	1015
10/1	404
10/2	295
10/3	35
11/1	539
11/2	201
12/1	1059
13/1	425
13/2	154
14/1	484
15/1	730
15/2	467

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	This lane uses a directly entered Saturation Flow						1900	1900
1/2	This lane uses a directly entered Saturation Flow						1900	1900
1/3	This lane uses a directly entered Saturation Flow						1900	1900
2/1	This lane uses a directly entered Saturation Flow						1900	1900
2/2	This lane uses a directly entered Saturation Flow						1900	1900
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
4/1	This lane uses a directly entered Saturation Flow						1900	1900
4/2	This lane uses a directly entered Saturation Flow						1900	1900
5/1	This lane uses a directly entered Saturation Flow						1900	1900
5/2	This lane uses a directly entered Saturation Flow						1900	1900
5/3	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
7/1	This lane uses a directly entered Saturation Flow						1900	1900
7/2	This lane uses a directly entered Saturation Flow						1900	1900
7/3	This lane uses a directly entered Saturation Flow						1900	1900
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900
11/1	Infinite Saturation Flow						Inf	Inf
11/2	This lane uses a directly entered Saturation Flow						1900	1900
12/1	Infinite Saturation Flow						Inf	Inf
13/1	This lane uses a directly entered Saturation Flow						1900	1900
13/2	Infinite Saturation Flow						Inf	Inf
14/1	This lane uses a directly entered Saturation Flow						1900	1900
15/1	This lane uses a directly entered Saturation Flow						1900	1900
15/2	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'PM 2026 revised flows' (FG4: 'PM peak 2026+B8 DHF+McDonalds', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	0	444	174	167	135	920
	B	406	0	31	170	476	1083
	C	199	34	0	125	130	488
	D	176	234	82	0	299	791
	E	103	590	139	302	0	1134
	Tot.	884	1302	426	764	1040	4416

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: PM 2026 revised flows
Junction: Unnamed Junction	
1/1	444
1/2 (short)	174
1/3 (with short)	476(In) 302(Out)
2/1	511
2/2	572
3/1	241
3/2	247
4/1	387
4/2	404
5/1 (short)	103
5/2 (with short)	693(In) 590(Out)
5/3	441
6/1	858
6/2	523
7/1	390
7/2	474
7/3	135
8/1	949
8/2	707
9/1	426
9/2	954
10/1	589
10/2	460
10/3	82
11/1	692
11/2	192
12/1	1302
13/1	421
13/2	5
14/1	764
15/1	725
15/2	315

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	This lane uses a directly entered Saturation Flow						1900	1900
1/2	This lane uses a directly entered Saturation Flow						1900	1900
1/3	This lane uses a directly entered Saturation Flow						1900	1900
2/1	This lane uses a directly entered Saturation Flow						1900	1900
2/2	This lane uses a directly entered Saturation Flow						1900	1900
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
4/1	This lane uses a directly entered Saturation Flow						1900	1900
4/2	This lane uses a directly entered Saturation Flow						1900	1900
5/1	This lane uses a directly entered Saturation Flow						1900	1900
5/2	This lane uses a directly entered Saturation Flow						1900	1900
5/3	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
7/1	This lane uses a directly entered Saturation Flow						1900	1900
7/2	This lane uses a directly entered Saturation Flow						1900	1900
7/3	This lane uses a directly entered Saturation Flow						1900	1900
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900
11/1	Infinite Saturation Flow						Inf	Inf
11/2	This lane uses a directly entered Saturation Flow						1900	1900
12/1	Infinite Saturation Flow						Inf	Inf
13/1	This lane uses a directly entered Saturation Flow						1900	1900
13/2	Infinite Saturation Flow						Inf	Inf
14/1	This lane uses a directly entered Saturation Flow						1900	1900
15/1	This lane uses a directly entered Saturation Flow						1900	1900
15/2	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: 'AM 2026 revised flows + Development' (FG5: 'AM peak 2026+B8 DHF+McDonalds + Development', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination						
		A	B	C	D	E	Tot.
	A	0	393	347	110	201	1051
	B	347	0	22	111	591	1071
	C	172	29	0	77	262	540
	D	86	65	35	0	164	350
	E	157	598	175	186	0	1116
	Tot.	762	1085	579	484	1218	4128

Traffic Lane Flows

Lane	Scenario 5: AM 2026 revised flows + Development
Junction: Unnamed Junction	
1/1	393
1/2 (short)	272
1/3 (with short)	658(In) 386(Out)
2/1	517
2/2	554
3/1	267
3/2	273
4/1	171
4/2	179
5/1 (short)	157
5/2 (with short)	755(In) 598(Out)
5/3	361
6/1	692
6/2	396
7/1	397
7/2	456
7/3	201
8/1	791
8/2	755
9/1	574
9/2	1028
10/1	402
10/2	297
10/3	35
11/1	559
11/2	203
12/1	1085
13/1	419
13/2	160
14/1	484
15/1	738
15/2	480

Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	This lane uses a directly entered Saturation Flow						1900	1900
1/2	This lane uses a directly entered Saturation Flow						1900	1900
1/3	This lane uses a directly entered Saturation Flow						1900	1900
2/1	This lane uses a directly entered Saturation Flow						1900	1900
2/2	This lane uses a directly entered Saturation Flow						1900	1900
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
4/1	This lane uses a directly entered Saturation Flow						1900	1900
4/2	This lane uses a directly entered Saturation Flow						1900	1900
5/1	This lane uses a directly entered Saturation Flow						1900	1900
5/2	This lane uses a directly entered Saturation Flow						1900	1900
5/3	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
7/1	This lane uses a directly entered Saturation Flow						1900	1900
7/2	This lane uses a directly entered Saturation Flow						1900	1900
7/3	This lane uses a directly entered Saturation Flow						1900	1900
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900
11/1	Infinite Saturation Flow						Inf	Inf
11/2	This lane uses a directly entered Saturation Flow						1900	1900
12/1	Infinite Saturation Flow						Inf	Inf
13/1	This lane uses a directly entered Saturation Flow						1900	1900
13/2	Infinite Saturation Flow						Inf	Inf
14/1	This lane uses a directly entered Saturation Flow						1900	1900
15/1	This lane uses a directly entered Saturation Flow						1900	1900
15/2	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'PM 2026 revised flows + Development' (FG6: 'PM peak 2026+B8 DHF+McDonalds + Development', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination						
		A	B	C	D	E	Tot.
	A	0	444	174	167	157	942
	B	406	0	31	170	501	1108
	C	199	34	0	125	130	488
	D	176	234	82	0	299	791
	E	117	606	139	302	0	1164
	Tot.	898	1318	426	764	1087	4493

Traffic Lane Flows

Lane	Scenario 6: PM 2026 revised flows + Development
Junction: Unnamed Junction	
1/1	444
1/2 (short)	174
1/3 (with short)	498(In) 324(Out)
2/1	546
2/2	562
3/1	242
3/2	246
4/1	387
4/2	404
5/1 (short)	117
5/2 (with short)	723(In) 606(Out)
5/3	441
6/1	874
6/2	523
7/1	388
7/2	476
7/3	157
8/1	984
8/2	719
9/1	462
9/2	965
10/1	534
10/2	515
10/3	82
11/1	651
11/2	247
12/1	1318
13/1	419
13/2	7
14/1	764
15/1	761
15/2	326

Full Input Data And Results

Lane Saturation Flows

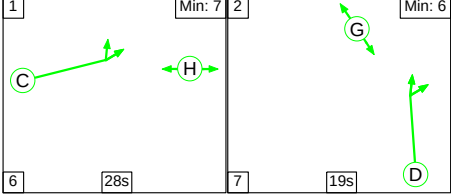
Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1	This lane uses a directly entered Saturation Flow						1900	1900
1/2	This lane uses a directly entered Saturation Flow						1900	1900
1/3	This lane uses a directly entered Saturation Flow						1900	1900
2/1	This lane uses a directly entered Saturation Flow						1900	1900
2/2	This lane uses a directly entered Saturation Flow						1900	1900
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
4/1	This lane uses a directly entered Saturation Flow						1900	1900
4/2	This lane uses a directly entered Saturation Flow						1900	1900
5/1	This lane uses a directly entered Saturation Flow						1900	1900
5/2	This lane uses a directly entered Saturation Flow						1900	1900
5/3	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
7/1	This lane uses a directly entered Saturation Flow						1900	1900
7/2	This lane uses a directly entered Saturation Flow						1900	1900
7/3	This lane uses a directly entered Saturation Flow						1900	1900
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900
10/1	This lane uses a directly entered Saturation Flow						1900	1900
10/2	This lane uses a directly entered Saturation Flow						1900	1900
10/3	This lane uses a directly entered Saturation Flow						1900	1900
11/1	Infinite Saturation Flow						Inf	Inf
11/2	This lane uses a directly entered Saturation Flow						1900	1900
12/1	Infinite Saturation Flow						Inf	Inf
13/1	This lane uses a directly entered Saturation Flow						1900	1900
13/2	Infinite Saturation Flow						Inf	Inf
14/1	This lane uses a directly entered Saturation Flow						1900	1900
15/1	This lane uses a directly entered Saturation Flow						1900	1900
15/2	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

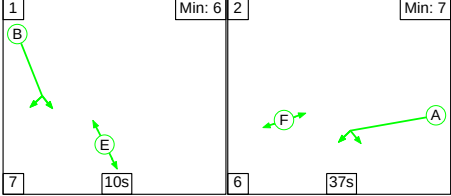
Scenario 1: 'AM Peak' (FG1: 'AM Peak', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

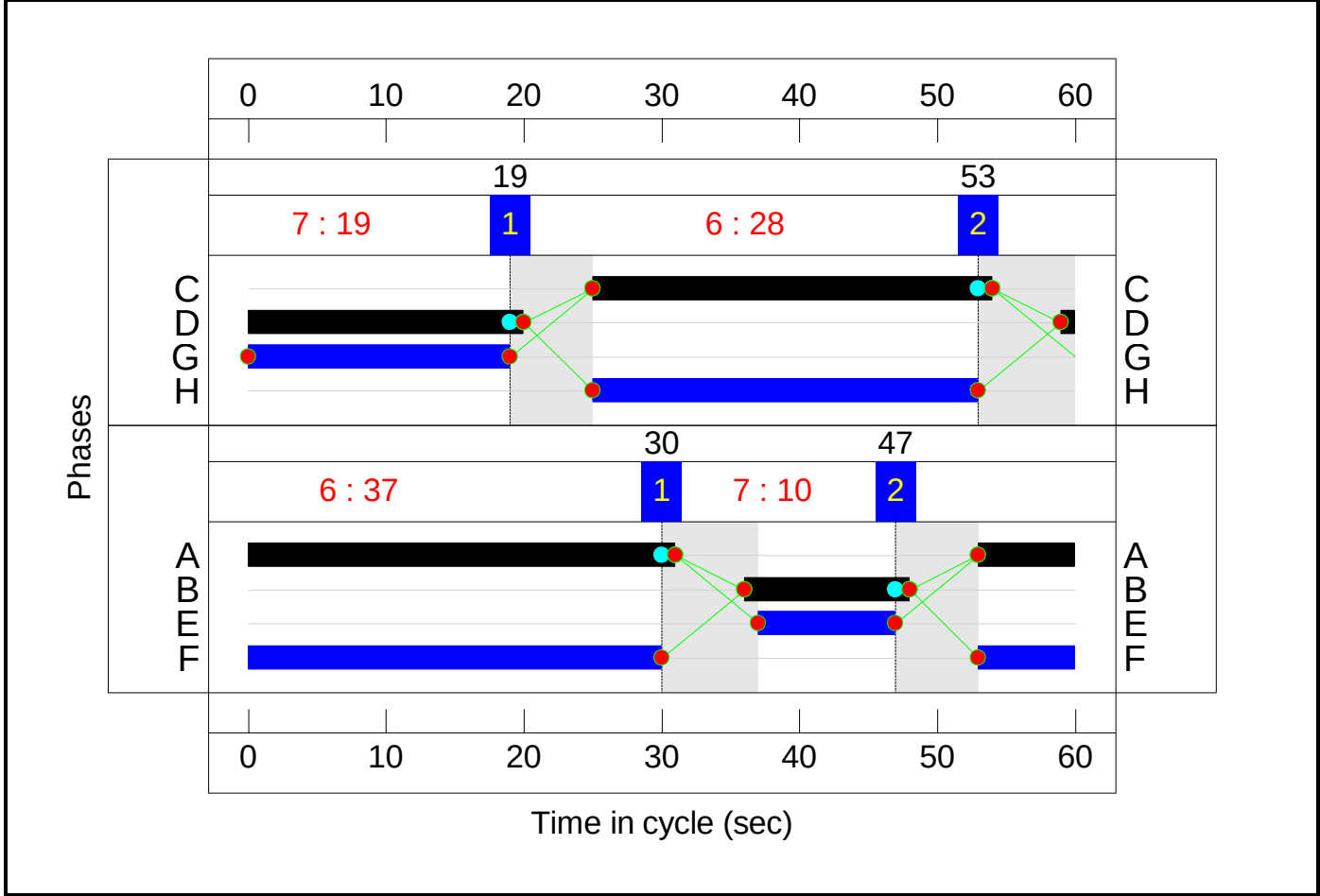
Stage Stream: 1

Stage	1	2
Duration	28	19
Change Point	19	53

Stage Stream: 2

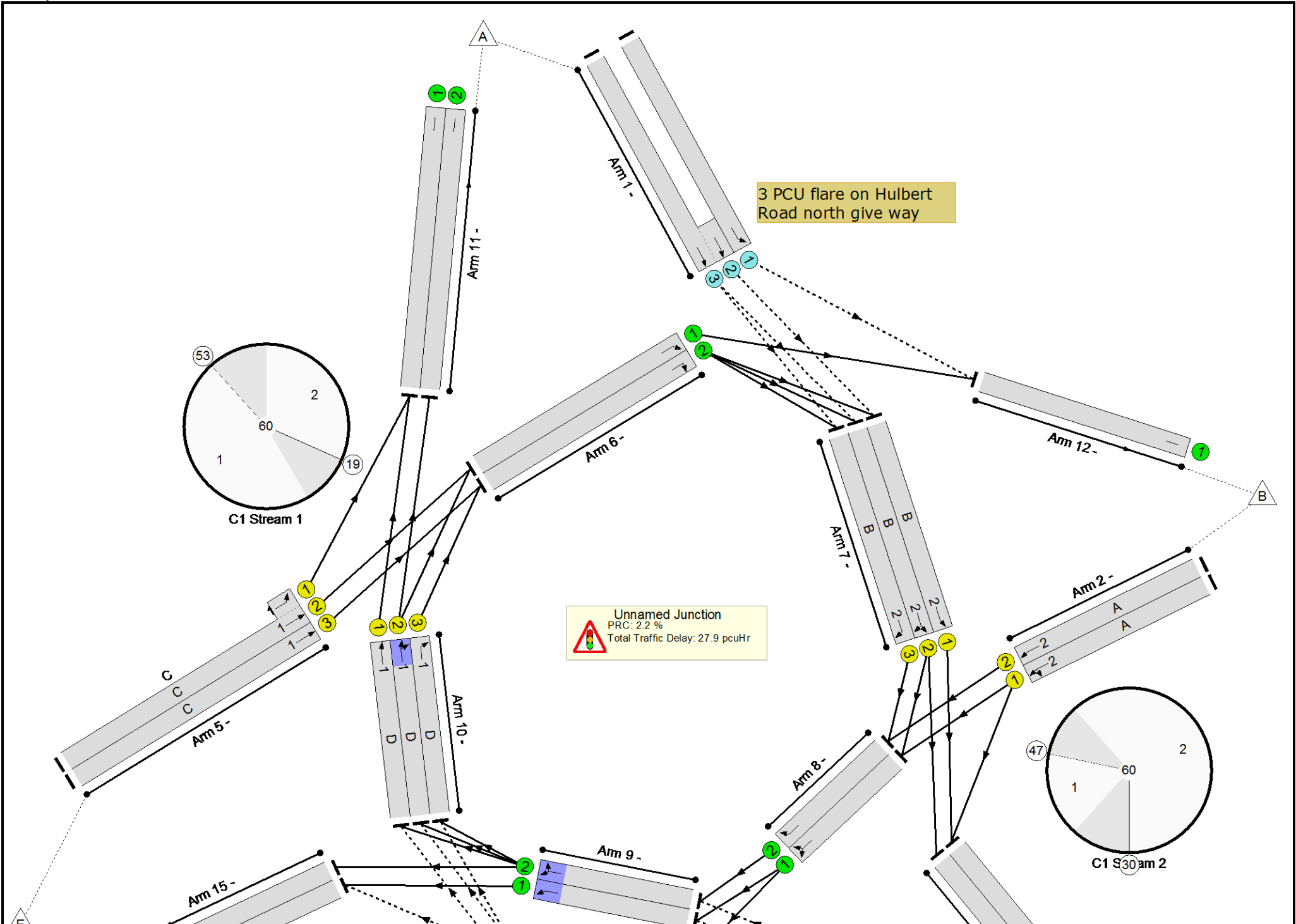
Stage	1	2
Duration	10	37
Change Point	30	47

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: HCC revised 2026 traffic flows	-	-	N/A	-	-		-	-	-	-	-	-	88.0%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	88.0%
1/1	Ahead	O	N/A	N/A	-		-	-	-	114	1900	750	15.2%
1/3+1/2	Ahead	O	N/A	N/A	-		-	-	-	140	1900:1900	839	16.7%
2/1	Ahead Left	U	2	N/A	A		1	38	-	671	1900	1235	54.3%
2/2	Ahead	U	2	N/A	A		1	38	-	763	1900	1235	61.8%
3/1	Ahead Left	O	N/A	N/A	-		-	-	-	243	1900	339	71.6%
3/2	Ahead	O	N/A	N/A	-		-	-	-	248	1900	339	73.1%
4/1	Ahead Left	O	N/A	N/A	-		-	-	-	104	1900	428	24.3%
4/2	Ahead	O	N/A	N/A	-		-	-	-	151	1900	413	36.5%
5/2+5/1	Ahead Left	U	1	N/A	C		1	29	-	852	1900:1900	968	88.0%
5/3	Ahead	U	1	N/A	C		1	29	-	292	1900	950	30.7%
6/1	Right	U	N/A	N/A	-		-	-	-	756	1900	1900	39.8%
6/2	Right	U	N/A	N/A	-		-	-	-	393	1900	1900	20.7%
7/1	Ahead	U	2	N/A	B		1	12	-	231	1900	412	56.1%
7/2	Right Ahead	U	2	N/A	B		1	12	-	248	1900	412	60.2%
7/3	Right	U	2	N/A	B		1	12	-	54	1900	412	13.1%
8/1	Right Ahead	U	N/A	N/A	-		-	-	-	888	1900	1900	46.7%
8/2	Right	U	N/A	N/A	-		-	-	-	817	1900	1900	43.0%
9/1	Ahead	U	N/A	N/A	-		-	-	-	713	1900	1900	37.5%
9/2	Right Ahead	U	N/A	N/A	-		-	-	-	1065	1900	1900	56.1%
10/1	Ahead	U	1	N/A	D		1	21	-	435	1900	697	62.4%
10/2	Right Ahead	U	1	N/A	D		1	21	-	393	1900	697	56.4%
10/3	Right	U	1	N/A	D		1	21	-	101	1900	697	14.5%
11/1		U	N/A	N/A	-		-	-	-	580	Inf	Inf	0.0%

Full Input Data And Results

11/2		U	N/A	N/A	-		-	-	-	344	1900	1900	18.1%
12/1		U	N/A	N/A	-		-	-	-	870	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	231	1900	1900	12.2%
13/2		U	N/A	N/A	-		-	-	-	31	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	418	1900	1900	22.0%
15/1		U	N/A	N/A	-		-	-	-	772	1900	1900	40.6%
15/2		U	N/A	N/A	-		-	-	-	332	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: HCC revised 2026 traffic flows	-	-	1140	0	0	13.8	14.2	0.0	27.9	-	-	-	-
Unnamed Junction	-	-	1140	0	0	13.8	14.2	0.0	27.9	-	-	-	-
1/1	114	114	114	0	0	0.0	0.1	-	0.1	2.8	0.0	0.1	0.1
1/3+1/2	140	140	280	0	0	0.0	0.1	-	0.1	2.8	0.2	0.1	0.3
2/1	671	671	-	-	-	1.1	0.6	-	1.7	8.9	6.0	0.6	6.6
2/2	763	763	-	-	-	1.3	0.8	-	2.1	9.9	7.4	0.8	8.2
3/1	243	243	243	0	0	0.4	1.2	-	1.6	23.6	2.7	1.2	3.9
3/2	248	248	248	0	0	0.4	1.3	-	1.7	24.7	2.8	1.3	4.1
4/1	104	104	104	0	0	0.1	0.2	-	0.2	7.5	0.5	0.2	0.7
4/2	151	151	151	0	0	0.1	0.3	-	0.4	9.2	0.9	0.3	1.2
5/2+5/1	852	852	-	-	-	3.1	3.5	-	6.6	27.7	12.1	3.5	15.6
5/3	292	292	-	-	-	0.7	0.2	-	0.9	11.6	2.8	0.2	3.1
6/1	756	756	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
6/2	393	393	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
7/1	231	231	-	-	-	1.2	0.6	-	1.8	28.8	3.2	0.6	3.8
7/2	248	248	-	-	-	1.1	0.8	-	1.9	27.5	2.8	0.8	3.6
7/3	54	54	-	-	-	0.3	0.1	-	0.4	25.0	0.7	0.1	0.8
8/1	888	888	-	-	-	0.0	0.4	-	0.4	1.8	0.0	0.4	0.4
8/2	817	817	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
9/1	713	713	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
9/2	1065	1065	-	-	-	0.0	0.6	-	0.6	2.2	0.0	0.6	0.6
10/1	435	435	-	-	-	1.8	0.8	-	2.6	21.9	4.9	0.8	5.7
10/2	393	393	-	-	-	1.6	0.6	-	2.3	21.0	4.3	0.6	4.9
10/3	101	101	-	-	-	0.6	0.1	-	0.6	22.7	1.5	0.1	1.5
11/1	580	580	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

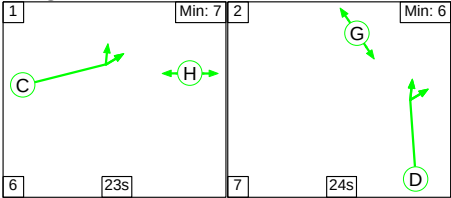
Full Input Data And Results

11/2	344	344	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
12/1	870	870	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	231	231	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
13/2	31	31	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	418	418	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
15/1	772	772	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
15/2	332	332	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 2.2 C1 Stream: 2 PRC for Signalled Lanes (%): 45.7 PRC Over All Lanes (%): 2.2 Total Delay for Signalled Lanes (pcuHr): 13.08 Total Delay for Signalled Lanes (pcuHr): 7.88 Cycle Time (s): 60 Cycle Time (s): 60 Total Delay Over All Lanes(pcuHr): 27.93													

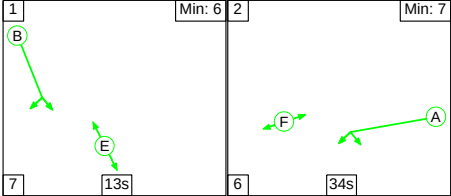
Full Input Data And Results
Scenario 2: 'PM Peak' (FG2: 'PM Peak', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

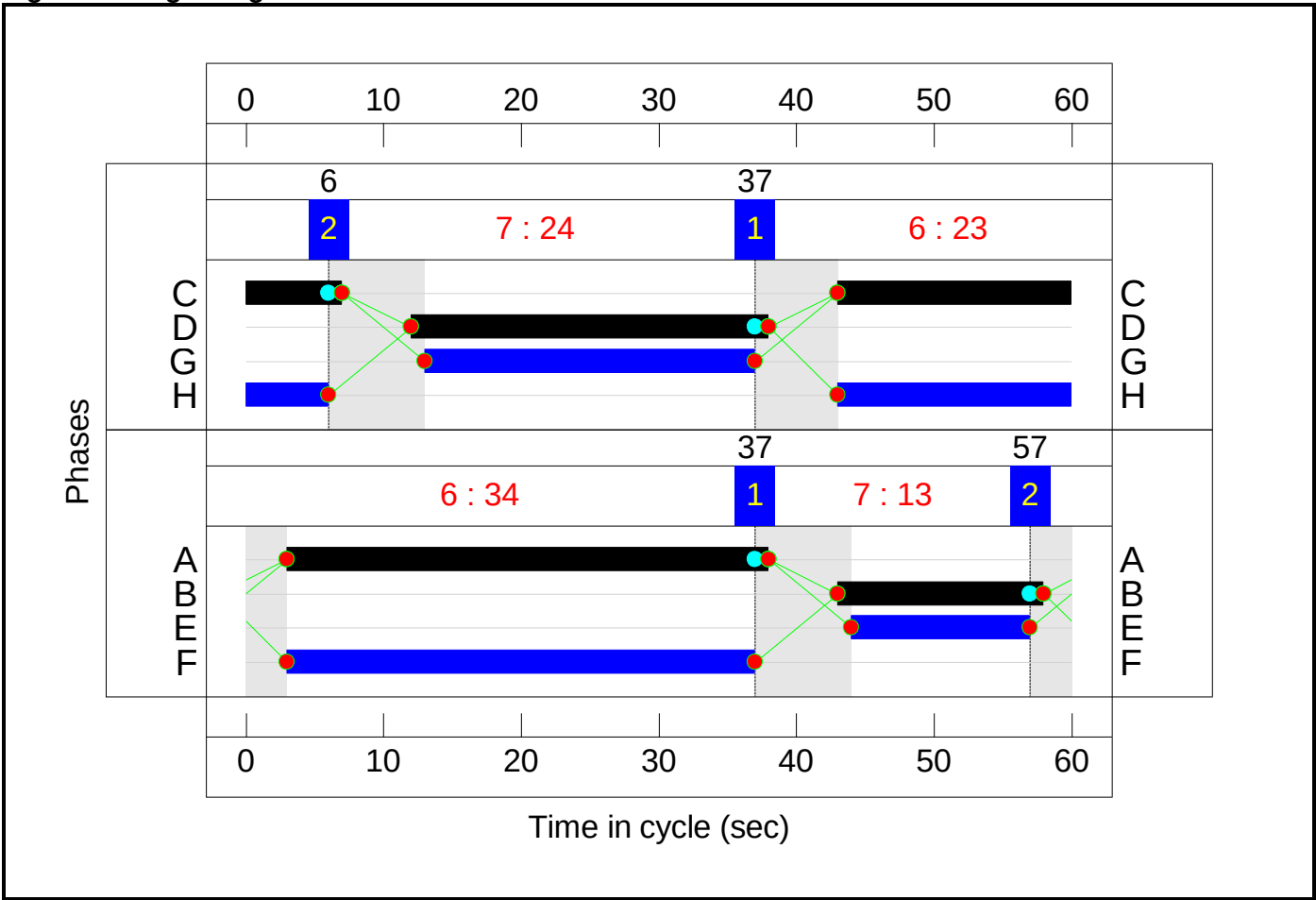
Stage Stream: 1

Stage	1	2
Duration	23	24
Change Point	37	6

Stage Stream: 2

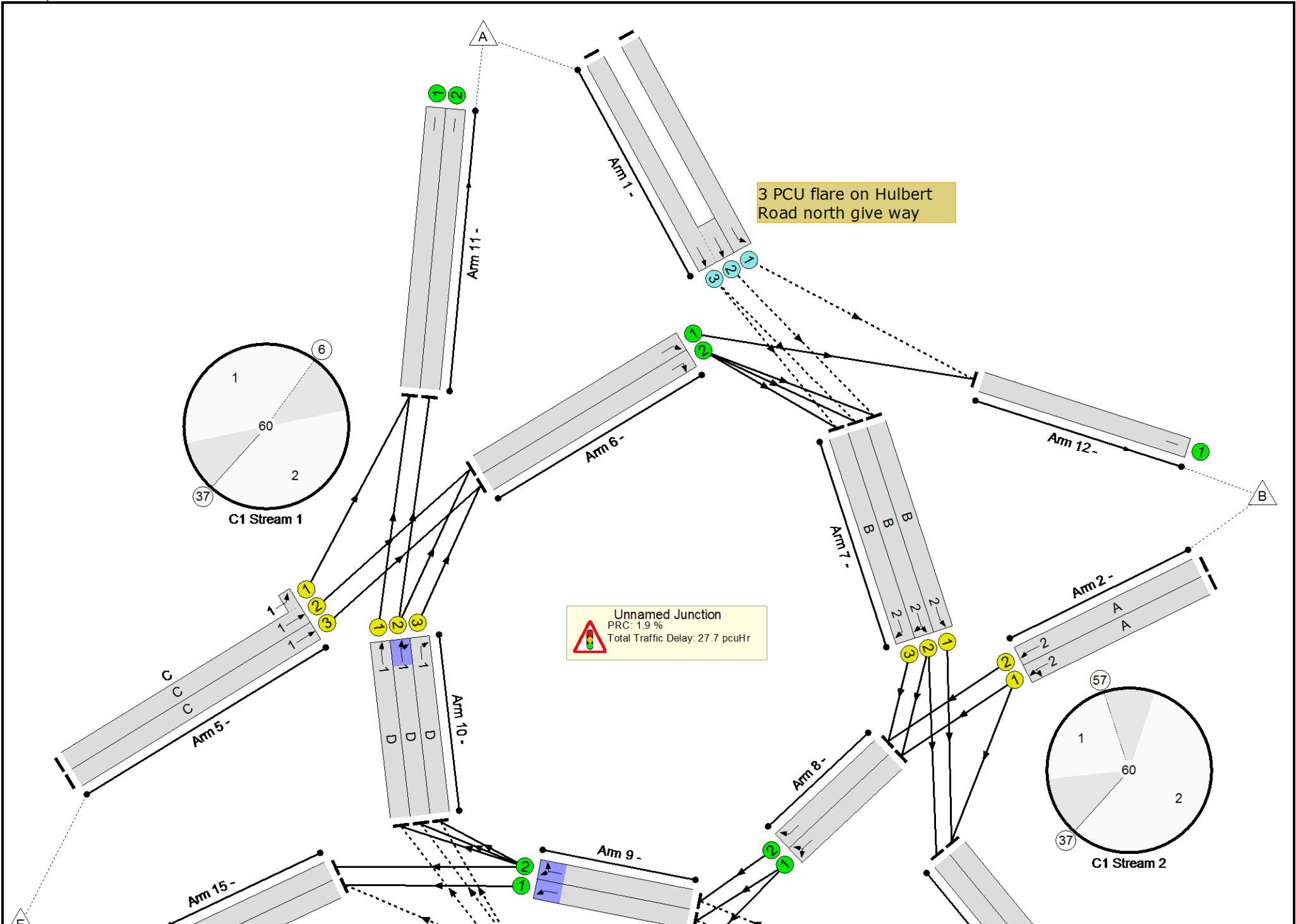
Stage	1	2
Duration	13	34
Change Point	37	57

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: HCC revised 2026 traffic flows	-	-	N/A	-	-		-	-	-	-	-	-	88.3%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	88.3%
1/1	Ahead	O	N/A	N/A	-		-	-	-	562	1900	772	72.8%
1/3+1/2	Ahead	O	N/A	N/A	-		-	-	-	363	1900:1900	951	38.2%
2/1	Ahead Left	U	2	N/A	A		1	35	-	599	1900	1140	52.5%
2/2	Ahead	U	2	N/A	A		1	35	-	670	1900	1140	58.8%
3/1	Ahead Left	O	N/A	N/A	-		-	-	-	215	1900	379	56.8%
3/2	Ahead	O	N/A	N/A	-		-	-	-	226	1900	379	59.7%
4/1	Ahead Left	O	N/A	N/A	-		-	-	-	201	1900	469	42.9%
4/2	Ahead	O	N/A	N/A	-		-	-	-	205	1900	430	47.7%
5/2+5/1	Ahead Left	U	1	N/A	C		1	24	-	702	1900:1900	795	88.3%
5/3	Ahead	U	1	N/A	C		1	24	-	185	1900	792	23.4%
6/1	Right	U	N/A	N/A	-		-	-	-	691	1900	1900	36.4%
6/2	Right	U	N/A	N/A	-		-	-	-	331	1900	1900	17.4%
7/1	Ahead	U	2	N/A	B		1	15	-	267	1900	507	52.7%
7/2	Right Ahead	U	2	N/A	B		1	15	-	284	1900	507	56.1%
7/3	Right	U	2	N/A	B		1	15	-	143	1900	507	28.2%
8/1	Right Ahead	U	N/A	N/A	-		-	-	-	761	1900	1900	40.1%
8/2	Right	U	N/A	N/A	-		-	-	-	813	1900	1900	42.8%
9/1	Ahead	U	N/A	N/A	-		-	-	-	662	1900	1900	34.8%
9/2	Right Ahead	U	N/A	N/A	-		-	-	-	1039	1900	1900	54.7%
10/1	Ahead	U	1	N/A	D		1	26	-	500	1900	855	58.5%
10/2	Right Ahead	U	1	N/A	D		1	26	-	391	1900	855	45.7%
10/3	Right	U	1	N/A	D		1	26	-	146	1900	855	17.1%
11/1		U	N/A	N/A	-		-	-	-	570	Inf	Inf	0.0%

Full Input Data And Results

11/2		U	N/A	N/A	-		-	-	-	332	1900	1900	17.5%
12/1		U	N/A	N/A	-		-	-	-	1253	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	267	1900	1900	14.1%
13/2		U	N/A	N/A	-		-	-	-	122	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	314	1900	1900	16.5%
15/1		U	N/A	N/A	-		-	-	-	787	1900	1900	41.4%
15/2		U	N/A	N/A	-		-	-	-	283	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: HCC revised 2026 traffic flows	-	-	2135	0	0	13.7	14.0	0.0	27.7	-	-	-	-
Unnamed Junction	-	-	2135	0	0	13.7	14.0	0.0	27.7	-	-	-	-
1/1	562	562	562	0	0	0.1	1.3	-	1.5	9.3	4.2	1.3	5.5
1/3+1/2	363	363	726	0	0	0.0	0.3	-	0.3	3.3	0.8	0.3	1.1
2/1	599	599	-	-	-	1.2	0.6	-	1.7	10.3	5.8	0.6	6.4
2/2	670	670	-	-	-	1.4	0.7	-	2.1	11.2	6.9	0.7	7.6
3/1	215	215	215	0	0	0.2	0.7	-	0.9	14.3	1.7	0.7	2.3
3/2	226	226	226	0	0	0.2	0.7	-	1.0	15.3	1.9	0.7	2.6
4/1	201	201	201	0	0	0.1	0.4	-	0.5	8.8	1.1	0.4	1.5
4/2	205	205	205	0	0	0.1	0.5	-	0.6	10.6	1.5	0.5	1.9
5/2+5/1	702	702	-	-	-	3.1	3.5	-	6.6	34.1	10.6	3.5	14.1
5/3	185	185	-	-	-	0.6	0.2	-	0.7	14.3	2.0	0.2	2.1
6/1	691	691	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
6/2	331	331	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
7/1	267	267	-	-	-	1.4	0.6	-	1.9	25.7	3.7	0.6	4.2
7/2	284	284	-	-	-	1.7	0.6	-	2.3	29.2	3.6	0.6	4.3
7/3	143	143	-	-	-	0.7	0.2	-	0.9	22.2	1.9	0.2	2.1
8/1	761	761	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
8/2	813	813	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
9/1	662	662	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
9/2	1039	1039	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
10/1	500	500	-	-	-	1.2	0.7	-	1.9	13.6	3.9	0.7	4.6
10/2	391	391	-	-	-	1.2	0.4	-	1.6	15.1	3.9	0.4	4.3
10/3	146	146	-	-	-	0.5	0.1	-	0.6	14.7	1.6	0.1	1.7
11/1	570	570	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

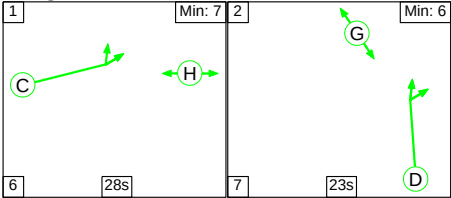
Full Input Data And Results

11/2	332	332	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
12/1	1253	1253	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	267	267	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
13/2	122	122	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	314	314	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
15/1	787	787	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
15/2	283	283	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 1.9 C1 Stream: 2 PRC for Signalled Lanes (%): 53.1 PRC Over All Lanes (%): 1.9 Total Delay for Signalled Lanes (pcuHr): 11.51 Total Delay for Signalled Lanes (pcuHr): 8.90 Cycle Time (s): 60 Cycle Time (s): 60 Total Delay Over All Lanes(pcuHr): 27.71													

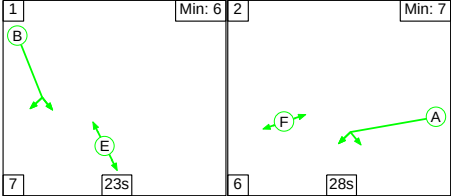
Full Input Data And Results
Scenario 3: 'AM 2026 revised flows' (FG3: 'AM peak 2026+B8 DHF+McDonalds', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

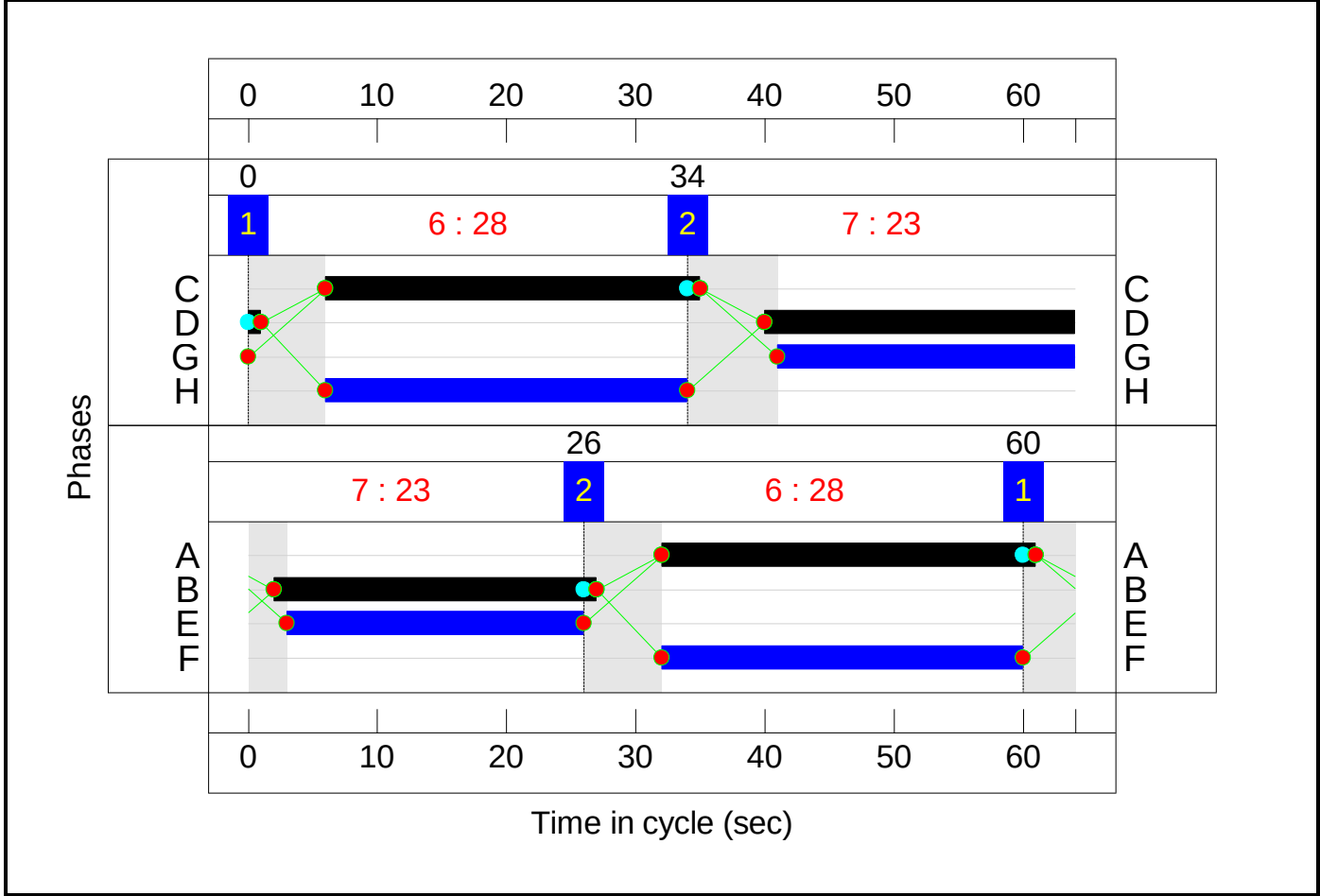
Stage Stream: 1

Stage	1	2
Duration	28	23
Change Point	0	34

Stage Stream: 2

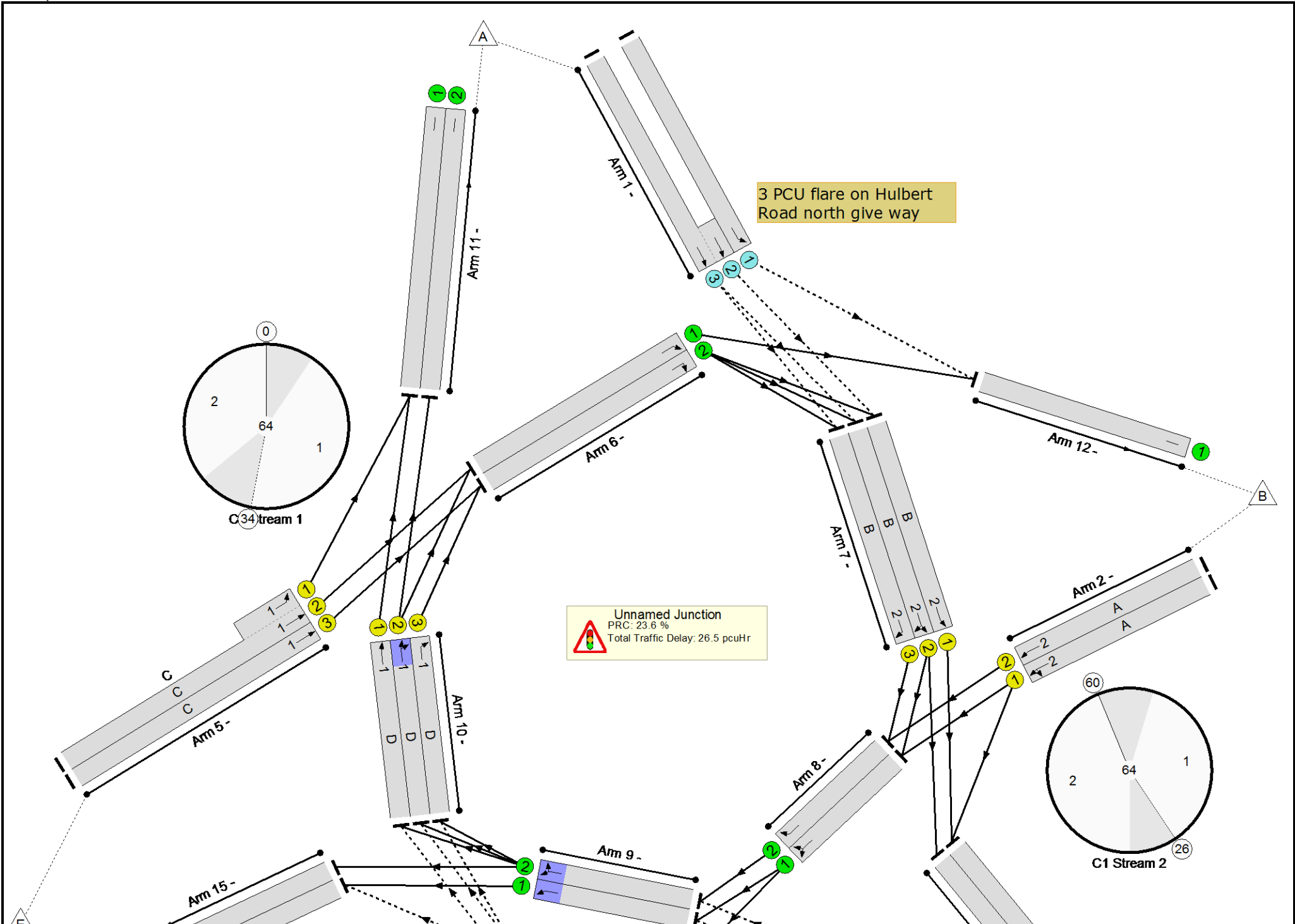
Stage	1	2
Duration	23	28
Change Point	60	26

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: HCC revised 2026 traffic flows	-	-	N/A	-	-		-	-	-	-	-	-	72.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	72.8%
1/1	Ahead	O	N/A	N/A	-		-	-	-	393	1900	780	50.4%
1/3+1/2	Ahead	O	N/A	N/A	-		-	-	-	648	1900:1900	1164	55.7%
2/1	Ahead Left	U	2	N/A	A		1	29	-	510	1900	891	57.3%
2/2	Ahead	U	2	N/A	A		1	29	-	550	1900	891	61.8%
3/1	Ahead Left	O	N/A	N/A	-		-	-	-	266	1900	397	67.1%
3/2	Ahead	O	N/A	N/A	-		-	-	-	274	1900	397	69.1%
4/1	Ahead Left	O	N/A	N/A	-		-	-	-	170	1900	594	28.6%
4/2	Ahead	O	N/A	N/A	-		-	-	-	180	1900	664	27.1%
5/2+5/1	Ahead Left	U	1	N/A	C		1	29	-	707	1900:1900	971	72.8%
5/3	Ahead	U	1	N/A	C		1	29	-	361	1900	891	40.5%
6/1	Right	U	N/A	N/A	-		-	-	-	666	1900	1900	35.1%
6/2	Right	U	N/A	N/A	-		-	-	-	396	1900	1900	20.8%
7/1	Ahead	U	2	N/A	B		1	25	-	403	1900	772	52.2%
7/2	Right Ahead	U	2	N/A	B		1	25	-	450	1900	772	58.3%
7/3	Right	U	2	N/A	B		1	25	-	191	1900	772	24.7%
8/1	Right Ahead	U	N/A	N/A	-		-	-	-	784	1900	1900	41.3%
8/2	Right	U	N/A	N/A	-		-	-	-	741	1900	1900	39.0%
9/1	Ahead	U	N/A	N/A	-		-	-	-	566	1900	1900	29.8%
9/2	Right Ahead	U	N/A	N/A	-		-	-	-	1015	1900	1900	53.4%
10/1	Ahead	U	1	N/A	D		1	25	-	404	1900	772	52.3%
10/2	Right Ahead	U	1	N/A	D		1	25	-	295	1900	772	38.2%
10/3	Right	U	1	N/A	D		1	25	-	35	1900	772	4.5%
11/1		U	N/A	N/A	-		-	-	-	539	Inf	Inf	0.0%

Full Input Data And Results

11/2		U	N/A	N/A	-		-	-	-	201	1900	1900	10.6%
12/1		U	N/A	N/A	-		-	-	-	1059	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	425	1900	1900	22.4%
13/2		U	N/A	N/A	-		-	-	-	154	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	484	1900	1900	25.5%
15/1		U	N/A	N/A	-		-	-	-	730	1900	1900	38.4%
15/2		U	N/A	N/A	-		-	-	-	467	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: HCC revised 2026 traffic flows	-	-	2579	0	0	14.9	11.6	0.0	26.5	-	-	-	-
Unnamed Junction	-	-	2579	0	0	14.9	11.6	0.0	26.5	-	-	-	-
1/1	393	393	393	0	0	0.0	0.5	-	0.5	4.6	0.8	0.5	1.3
1/3+1/2	648	648	1296	0	0	0.4	0.6	-	1.0	5.7	2.8	0.6	3.4
2/1	510	510	-	-	-	1.7	0.7	-	2.4	17.1	6.5	0.7	7.2
2/2	550	550	-	-	-	1.9	0.8	-	2.7	18.0	7.2	0.8	8.0
3/1	266	266	266	0	0	0.3	1.0	-	1.3	17.6	2.2	1.0	3.2
3/2	274	274	274	0	0	0.3	1.1	-	1.4	18.6	2.4	1.1	3.5
4/1	170	170	170	0	0	0.1	0.2	-	0.3	5.8	0.8	0.2	1.0
4/2	180	180	180	0	0	0.1	0.2	-	0.3	5.4	0.8	0.2	1.0
5/2+5/1	707	707	-	-	-	2.5	1.3	-	3.8	19.4	8.4	1.3	9.8
5/3	361	361	-	-	-	1.1	0.3	-	1.5	14.5	4.1	0.3	4.5
6/1	666	666	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
6/2	396	396	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
7/1	403	403	-	-	-	1.7	0.5	-	2.2	19.8	5.1	0.5	5.7
7/2	450	450	-	-	-	1.8	0.7	-	2.5	20.2	4.8	0.7	5.5
7/3	191	191	-	-	-	0.7	0.2	-	0.9	16.1	2.4	0.2	2.6
8/1	784	784	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
8/2	741	741	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
9/1	566	566	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/2	1015	1015	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
10/1	404	404	-	-	-	1.0	0.5	-	1.6	14.1	2.8	0.5	3.4
10/2	295	295	-	-	-	1.1	0.3	-	1.4	17.1	3.4	0.3	3.7
10/3	35	35	-	-	-	0.1	0.0	-	0.1	14.4	0.4	0.0	0.4
11/1	539	539	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

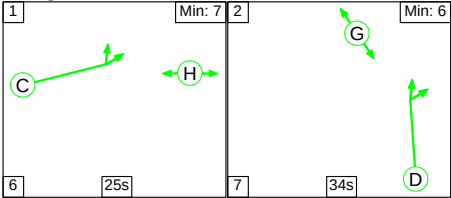
Full Input Data And Results

11/2	201	201	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
12/1	1059	1059	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	425	425	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
13/2	154	154	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	484	484	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
15/1	730	730	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
15/2	467	467	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 C1 Stream: 1 PRC for Signalled Lanes (%): Stream: 2 PRC for Signalled Lanes (%): PRC Over All Lanes (%): 23.6 45.7 23.6 Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr): 8.39 10.76 26.48 Cycle Time (s): Cycle Time (s): 64 64													

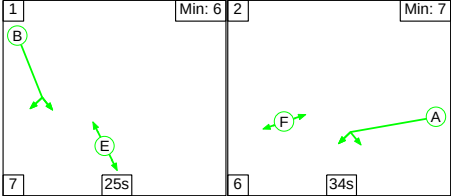
Full Input Data And Results
Scenario 4: 'PM 2026 revised flows' (FG4: 'PM peak 2026+B8 DHF+McDonalds', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

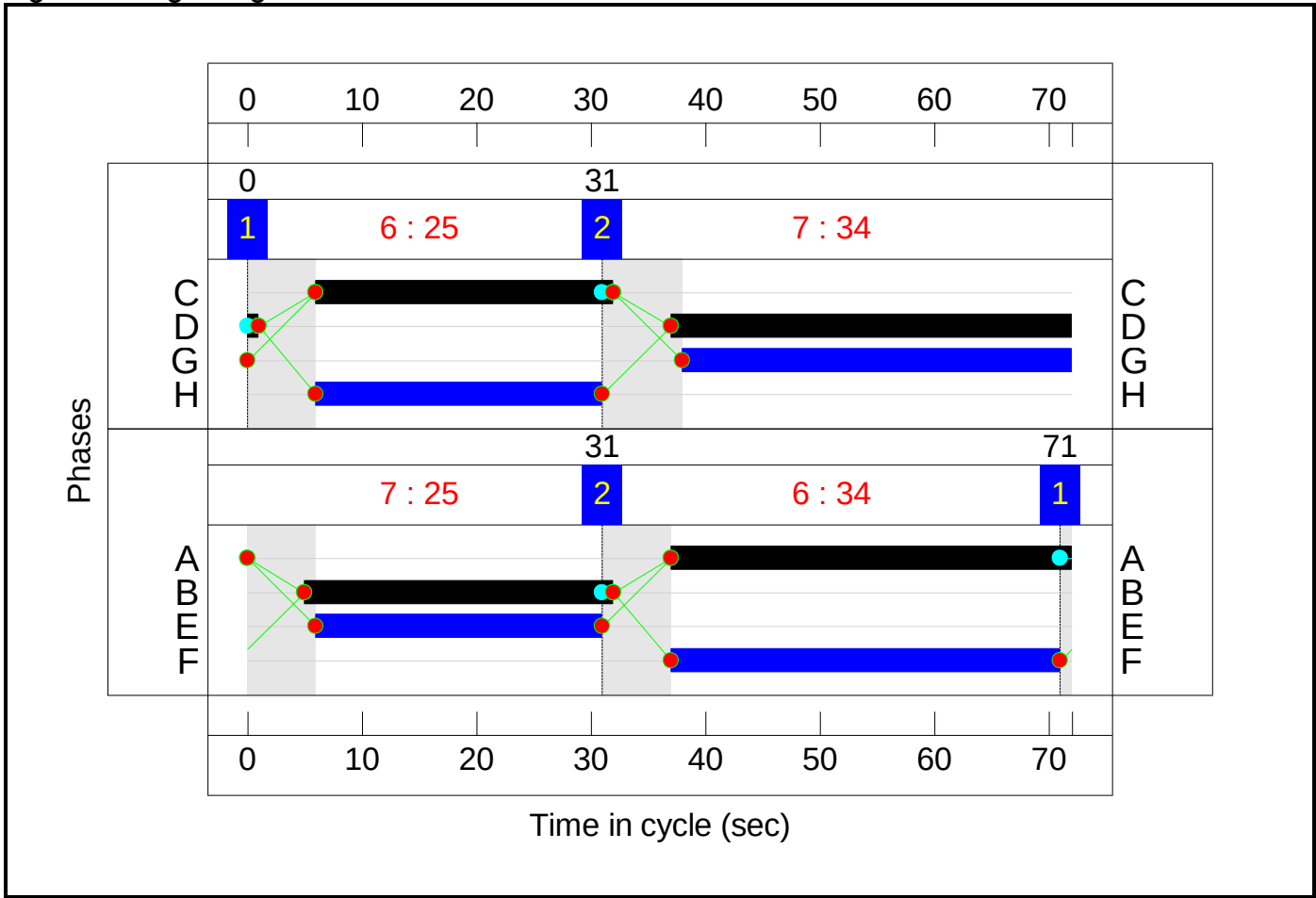
Stage Stream: 1

Stage	1	2
Duration	25	34
Change Point	0	31

Stage Stream: 2

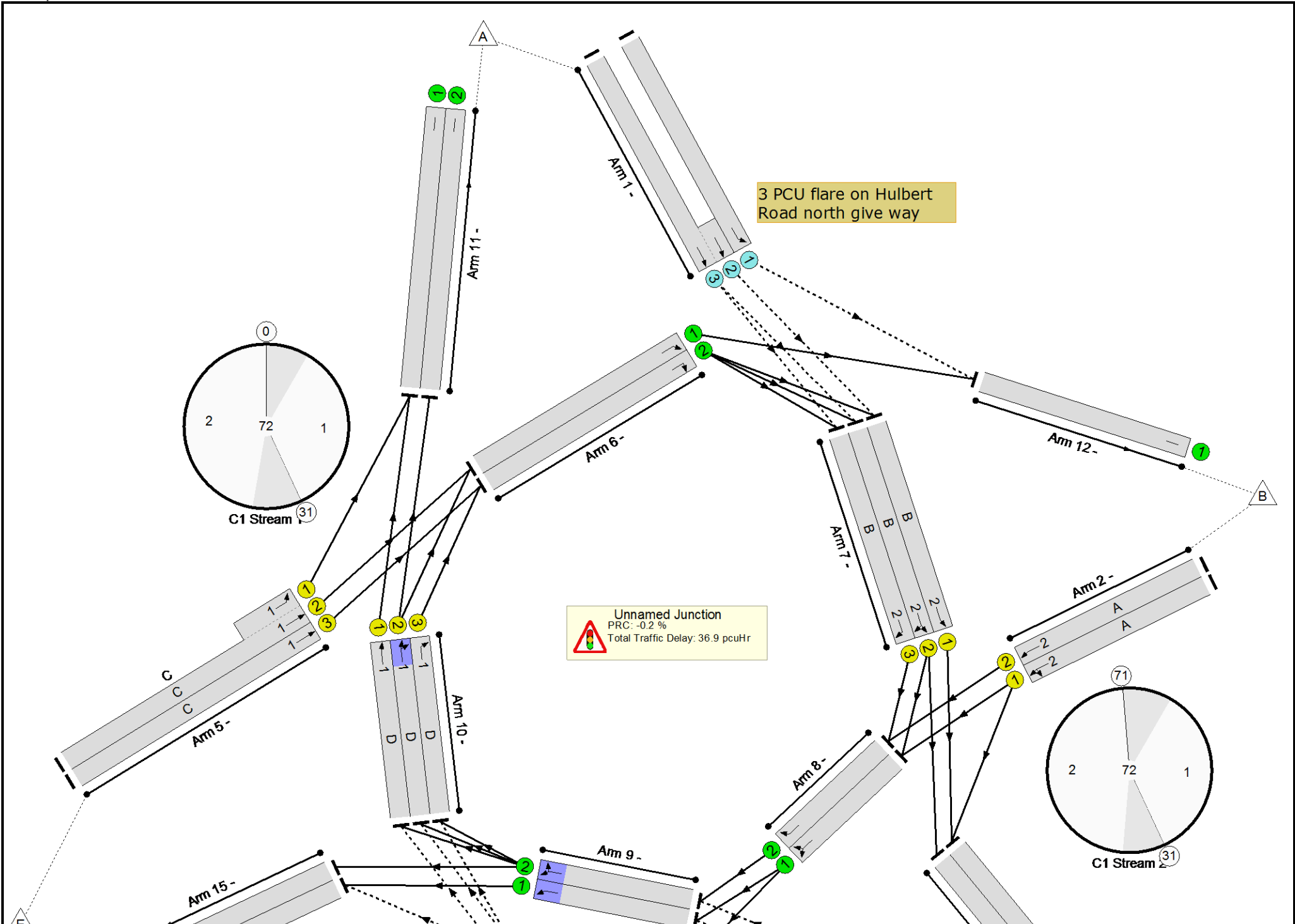
Stage	1	2
Duration	25	34
Change Point	71	31

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: HCC revised 2026 traffic flows	-	-	N/A	-	-		-	-	-	-	-	-	90.2%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	90.2%
1/1	Ahead	O	N/A	N/A	-		-	-	-	444	1900	717	62.0%
1/3+1/2	Ahead	O	N/A	N/A	-		-	-	-	476	1900:1900	908	52.4%
2/1	Ahead Left	U	2	N/A	A		1	35	-	511	1900	950	53.8%
2/2	Ahead	U	2	N/A	A		1	35	-	572	1900	950	60.2%
3/1	Ahead Left	O	N/A	N/A	-		-	-	-	241	1900	355	68.0%
3/2	Ahead	O	N/A	N/A	-		-	-	-	247	1900	355	69.7%
4/1	Ahead Left	O	N/A	N/A	-		-	-	-	387	1900	575	67.3%
4/2	Ahead	O	N/A	N/A	-		-	-	-	404	1900	722	55.9%
5/2+5/1	Ahead Left	U	1	N/A	C		1	26	-	693	1900:1900	769	90.2%
5/3	Ahead	U	1	N/A	C		1	26	-	441	1900	713	61.9%
6/1	Right	U	N/A	N/A	-		-	-	-	858	1900	1900	45.2%
6/2	Right	U	N/A	N/A	-		-	-	-	523	1900	1900	27.5%
7/1	Ahead	U	2	N/A	B		1	27	-	390	1900	739	52.8%
7/2	Right Ahead	U	2	N/A	B		1	27	-	474	1900	739	64.2%
7/3	Right	U	2	N/A	B		1	27	-	135	1900	739	18.3%
8/1	Right Ahead	U	N/A	N/A	-		-	-	-	949	1900	1900	49.9%
8/2	Right	U	N/A	N/A	-		-	-	-	707	1900	1900	37.2%
9/1	Ahead	U	N/A	N/A	-		-	-	-	426	1900	1900	22.4%
9/2	Right Ahead	U	N/A	N/A	-		-	-	-	954	1900	1900	50.2%
10/1	Ahead	U	1	N/A	D		1	36	-	589	1900	976	60.3%
10/2	Right Ahead	U	1	N/A	D		1	36	-	460	1900	976	47.1%
10/3	Right	U	1	N/A	D		1	36	-	82	1900	976	8.4%
11/1		U	N/A	N/A	-		-	-	-	692	Inf	Inf	0.0%

Full Input Data And Results

11/2		U	N/A	N/A	-		-	-	-	192	1900	1900	10.1%
12/1		U	N/A	N/A	-		-	-	-	1302	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	421	1900	1900	22.2%
13/2		U	N/A	N/A	-		-	-	-	5	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	764	1900	1900	40.2%
15/1		U	N/A	N/A	-		-	-	-	725	1900	1900	38.2%
15/2		U	N/A	N/A	-		-	-	-	315	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: HCC revised 2026 traffic flows	-	-	2675	0	0	19.8	17.1	0.0	36.9	-	-	-	-
Unnamed Junction	-	-	2675	0	0	19.8	17.1	0.0	36.9	-	-	-	-
1/1	444	444	444	0	0	0.0	0.8	-	0.8	6.8	2.6	0.8	3.4
1/3+1/2	476	476	952	0	0	0.5	0.5	-	1.0	7.6	2.9	0.5	3.4
2/1	511	511	-	-	-	1.7	0.6	-	2.3	16.4	7.0	0.6	7.5
2/2	572	572	-	-	-	2.0	0.8	-	2.8	17.6	8.1	0.8	8.9
3/1	241	241	241	0	0	0.3	1.0	-	1.3	19.7	2.1	1.0	3.1
3/2	247	247	247	0	0	0.3	1.1	-	1.4	20.6	2.2	1.1	3.3
4/1	387	387	387	0	0	0.3	1.0	-	1.4	12.7	3.9	1.0	4.9
4/2	404	404	404	0	0	0.3	0.6	-	0.9	8.3	3.4	0.6	4.0
5/2+5/1	693	693	-	-	-	3.9	4.1	-	8.1	41.9	12.0	4.1	16.2
5/3	441	441	-	-	-	2.2	0.8	-	3.1	24.9	7.1	0.8	7.9
6/1	858	858	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
6/2	523	523	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
7/1	390	390	-	-	-	1.9	0.6	-	2.5	23.0	5.3	0.6	5.9
7/2	474	474	-	-	-	1.9	0.9	-	2.8	21.5	4.7	0.9	5.6
7/3	135	135	-	-	-	0.6	0.1	-	0.7	19.9	2.1	0.1	2.2
8/1	949	949	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
8/2	707	707	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
9/1	426	426	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
9/2	954	954	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
10/1	589	589	-	-	-	1.6	0.8	-	2.4	14.5	5.0	0.8	5.8
10/2	460	460	-	-	-	1.7	0.4	-	2.2	16.9	6.0	0.4	6.5
10/3	82	82	-	-	-	0.3	0.0	-	0.3	13.7	1.0	0.0	1.0
11/1	692	692	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

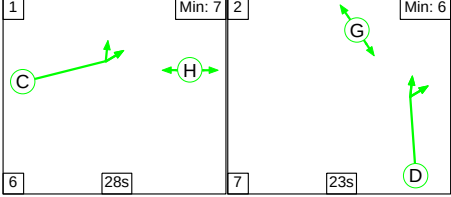
Full Input Data And Results

11/2	192	192	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
12/1	1302	1302	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	421	421	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
13/2	5	5	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	764	764	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
15/1	725	725	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
15/2	315	315	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): -0.2 C1 Stream: 2 PRC for Signalled Lanes (%): 40.3 PRC Over All Lanes (%): -0.2 Total Delay for Signalled Lanes (pcuHr): 15.97 Total Delay for Signalled Lanes (pcuHr): 11.20 Total Delay Over All Lanes(pcuHr): 36.92 Cycle Time (s): 72 Cycle Time (s): 72													

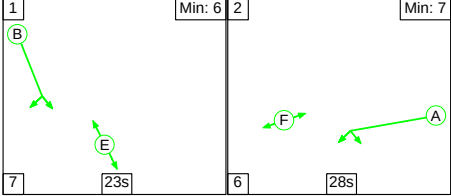
Scenario 5: 'AM 2026 revised flows + Development' (FG5: 'AM peak 2026+B8 DHF+McDonalds + Developmemt', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

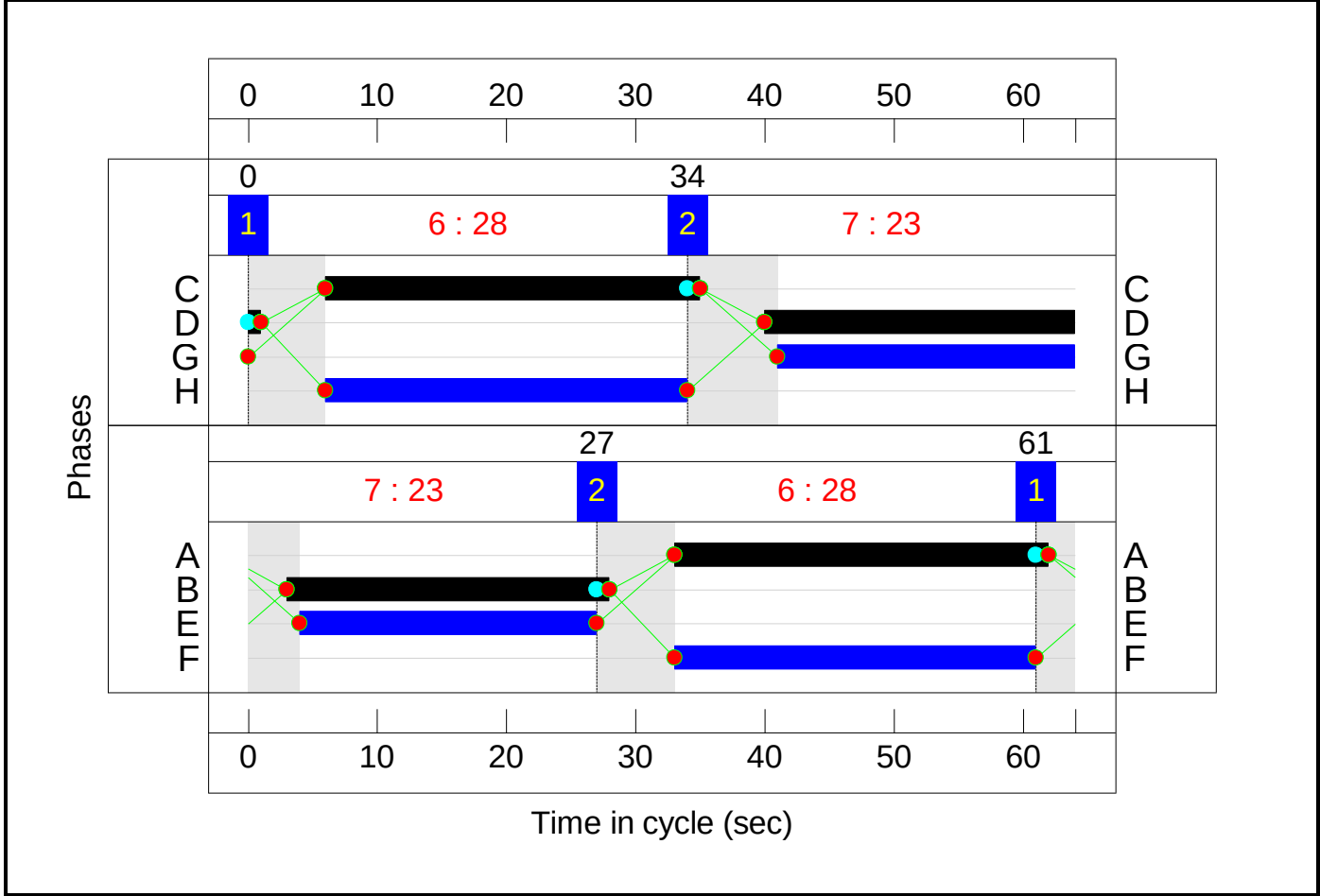
Stage Stream: 1

Stage	1	2
Duration	28	23
Change Point	0	34

Stage Stream: 2

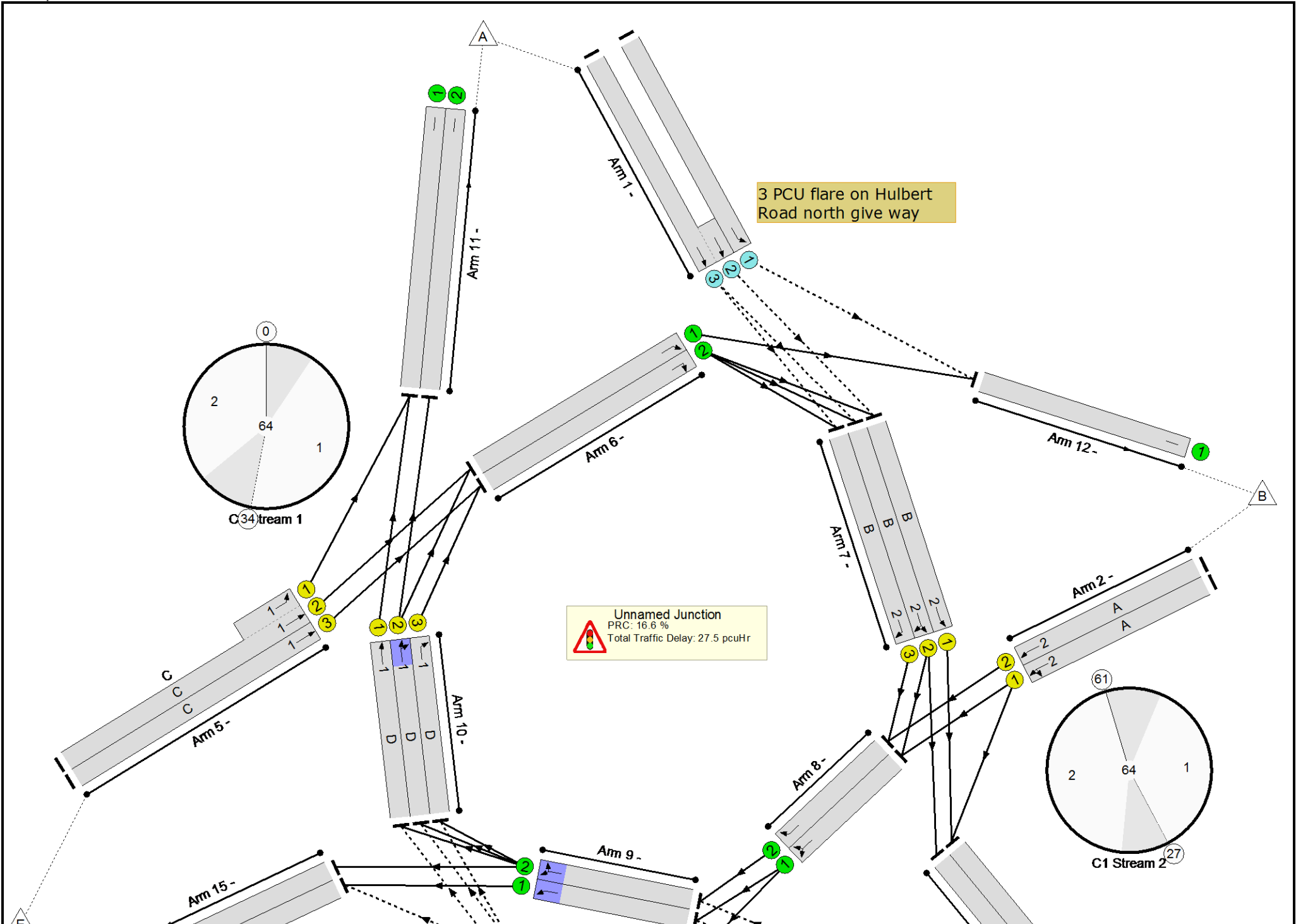
Stage	1	2
Duration	23	28
Change Point	61	27

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: HCC revised 2026 traffic flows	-	-	N/A	-	-		-	-	-	-	-	-	77.2%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	77.2%
1/1	Ahead	O	N/A	N/A	-		-	-	-	393	1900	771	50.9%
1/3+1/2	Ahead	O	N/A	N/A	-		-	-	-	658	1900:1900	1118	58.8%
2/1	Ahead Left	U	2	N/A	A		1	29	-	517	1900	891	58.0%
2/2	Ahead	U	2	N/A	A		1	29	-	554	1900	891	62.2%
3/1	Ahead Left	O	N/A	N/A	-		-	-	-	267	1900	392	68.1%
3/2	Ahead	O	N/A	N/A	-		-	-	-	273	1900	392	69.6%
4/1	Ahead Left	O	N/A	N/A	-		-	-	-	171	1900	587	29.1%
4/2	Ahead	O	N/A	N/A	-		-	-	-	179	1900	655	27.3%
5/2+5/1	Ahead Left	U	1	N/A	C		1	29	-	755	1900:1900	979	77.2%
5/3	Ahead	U	1	N/A	C		1	29	-	361	1900	891	40.5%
6/1	Right	U	N/A	N/A	-		-	-	-	692	1900	1900	36.4%
6/2	Right	U	N/A	N/A	-		-	-	-	396	1900	1900	20.8%
7/1	Ahead	U	2	N/A	B		1	25	-	397	1900	772	51.4%
7/2	Right Ahead	U	2	N/A	B		1	25	-	456	1900	772	59.1%
7/3	Right	U	2	N/A	B		1	25	-	201	1900	772	26.0%
8/1	Right Ahead	U	N/A	N/A	-		-	-	-	791	1900	1900	41.6%
8/2	Right	U	N/A	N/A	-		-	-	-	755	1900	1900	39.7%
9/1	Ahead	U	N/A	N/A	-		-	-	-	574	1900	1900	30.2%
9/2	Right Ahead	U	N/A	N/A	-		-	-	-	1028	1900	1900	54.1%
10/1	Ahead	U	1	N/A	D		1	25	-	402	1900	772	52.1%
10/2	Right Ahead	U	1	N/A	D		1	25	-	297	1900	772	38.5%

Full Input Data And Results

10/3	Right	U	1	N/A	D		1	25	-	35	1900	772	4.5%
11/1		U	N/A	N/A	-		-	-	-	559	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	203	1900	1900	10.7%
12/1		U	N/A	N/A	-		-	-	-	1085	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	419	1900	1900	22.1%
13/2		U	N/A	N/A	-		-	-	-	160	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	484	1900	1900	25.5%
15/1		U	N/A	N/A	-		-	-	-	738	1900	1900	38.8%
15/2		U	N/A	N/A	-		-	-	-	480	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: HCC revised 2026 traffic flows	-	-	2599	0	0	15.3	12.2	0.0	27.5	-	-	-	-
Unnamed Junction	-	-	2599	0	0	15.3	12.2	0.0	27.5	-	-	-	-
1/1	393	393	393	0	0	0.0	0.5	-	0.5	4.8	0.7	0.5	1.2
1/3+1/2	658	658	1316	0	0	0.4	0.7	-	1.2	6.3	3.2	0.7	3.9
2/1	517	517	-	-	-	1.8	0.7	-	2.5	17.2	6.6	0.7	7.3
2/2	554	554	-	-	-	2.0	0.8	-	2.8	18.1	7.2	0.8	8.1
3/1	267	267	267	0	0	0.3	1.1	-	1.4	18.3	2.2	1.1	3.3
3/2	273	273	273	0	0	0.3	1.1	-	1.4	19.1	2.4	1.1	3.5
4/1	171	171	171	0	0	0.1	0.2	-	0.3	5.9	0.8	0.2	1.0
4/2	179	179	179	0	0	0.1	0.2	-	0.3	5.5	0.8	0.2	1.0
5/2+5/1	755	755	-	-	-	2.7	1.7	-	4.4	20.9	9.4	1.7	11.0
5/3	361	361	-	-	-	1.1	0.3	-	1.5	14.5	4.1	0.3	4.5
6/1	692	692	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
6/2	396	396	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
7/1	397	397	-	-	-	1.7	0.5	-	2.2	19.8	5.0	0.5	5.6
7/2	456	456	-	-	-	1.8	0.7	-	2.5	19.7	4.8	0.7	5.5
7/3	201	201	-	-	-	0.7	0.2	-	0.9	16.5	2.7	0.2	2.9
8/1	791	791	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
8/2	755	755	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
9/1	574	574	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
9/2	1028	1028	-	-	-	0.0	0.6	-	0.6	2.1	0.1	0.6	0.6
10/1	402	402	-	-	-	1.1	0.5	-	1.6	14.4	2.8	0.5	3.3
10/2	297	297	-	-	-	1.1	0.3	-	1.4	17.4	3.4	0.3	3.7
10/3	35	35	-	-	-	0.1	0.0	-	0.1	14.8	0.4	0.0	0.4
11/1	559	559	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

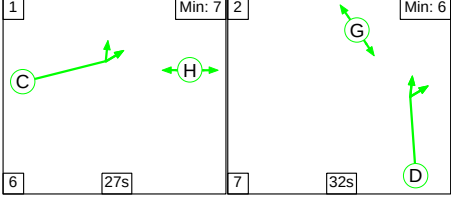
11/2	203	203	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
12/1	1085	1085	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	419	419	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
13/2	160	160	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	484	484	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
15/1	738	738	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
15/2	480	480	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	16.6	Total Delay for Signalled Lanes (pcuHr):	9.04	Cycle Time (s):	64
C1	Stream: 2 PRC for Signalled Lanes (%):	44.7	Total Delay for Signalled Lanes (pcuHr):	10.85	Cycle Time (s):	64
	PRC Over All Lanes (%):	16.6	Total Delay Over All Lanes(pcuHr):	27.53		

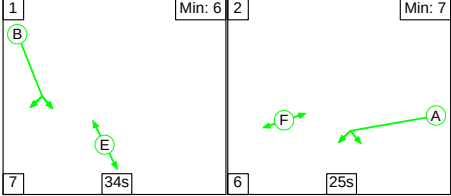
Scenario 6: 'PM 2026 revised flows + Development' (FG6: 'PM peak 2026+B8 DHF+McDonalds + Development', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

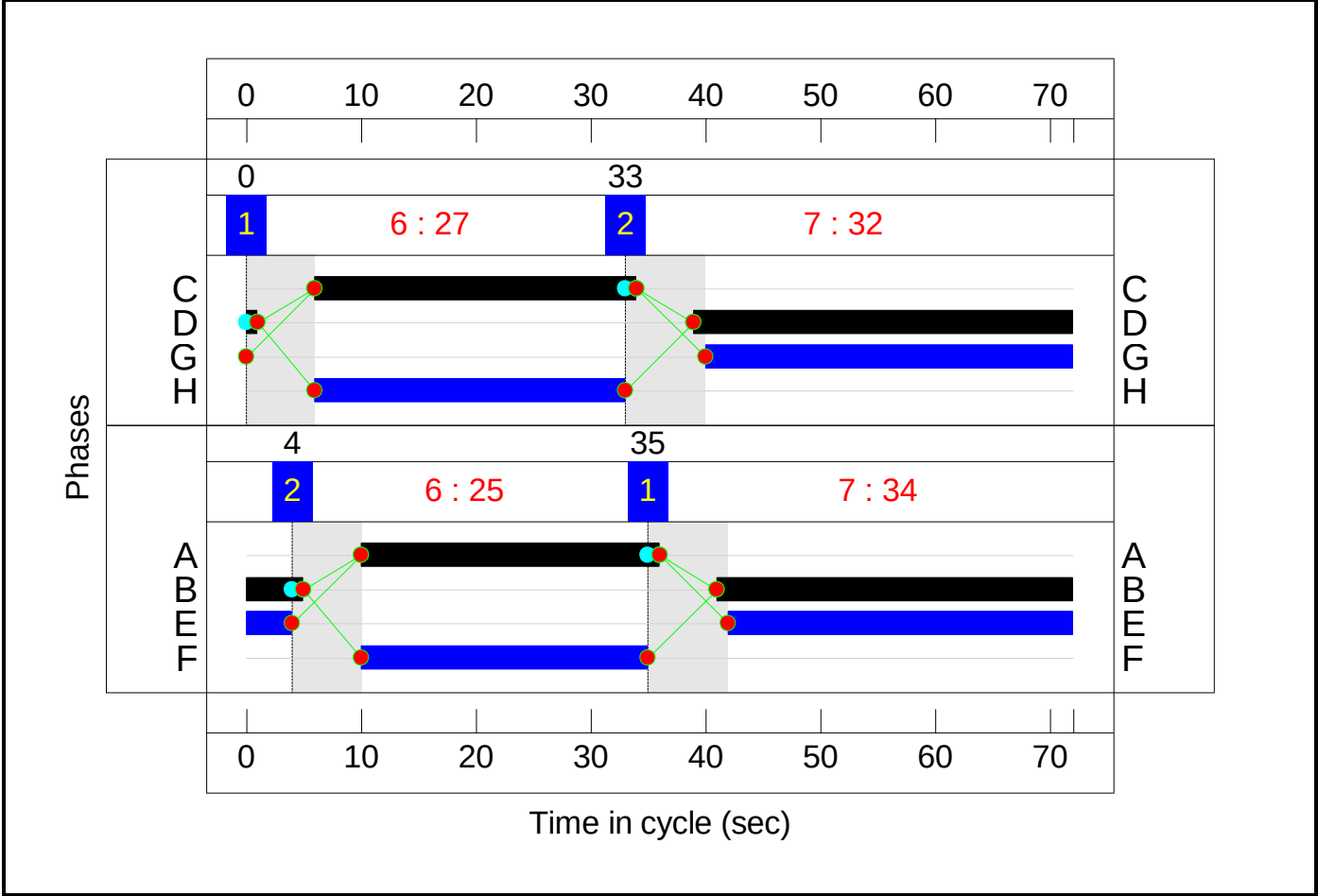
Stage Stream: 1

Stage	1	2
Duration	27	32
Change Point	0	33

Stage Stream: 2

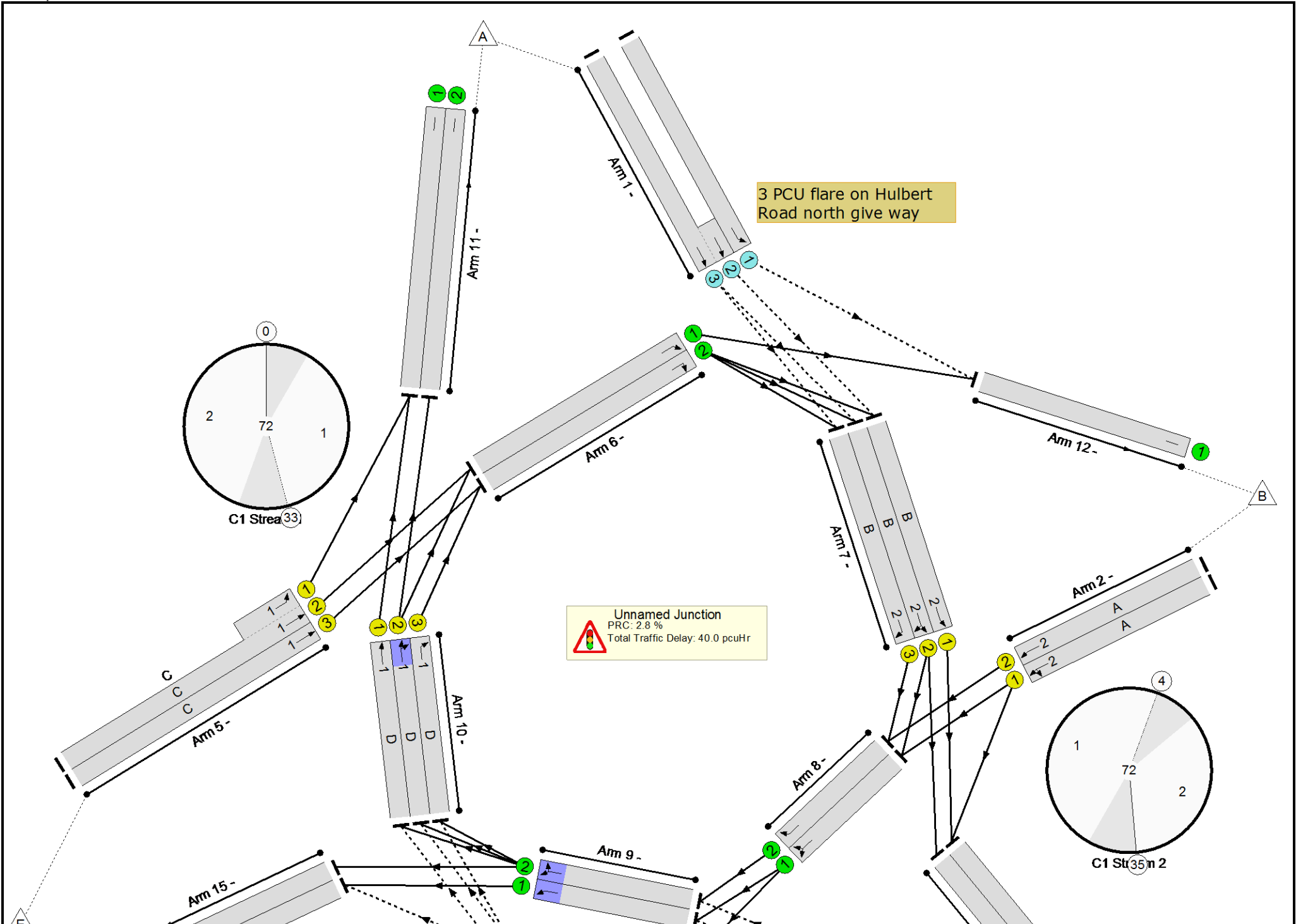
Stage	1	2
Duration	34	25
Change Point	35	4

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: HCC revised 2026 traffic flows	-	-	N/A	-	-		-	-	-	-	-	-	87.5%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	87.5%
1/1	Ahead	O	N/A	N/A	-		-	-	-	444	1900	711	62.4%
1/3+1/2	Ahead	O	N/A	N/A	-		-	-	-	498	1900:1900	874	57.0%
2/1	Ahead Left	U	2	N/A	A		1	26	-	546	1900	713	76.6%
2/2	Ahead	U	2	N/A	A		1	26	-	562	1900	713	78.9%
3/1	Ahead Left	O	N/A	N/A	-		-	-	-	242	1900	356	68.0%
3/2	Ahead	O	N/A	N/A	-		-	-	-	246	1900	356	69.1%
4/1	Ahead Left	O	N/A	N/A	-		-	-	-	387	1900	555	69.7%
4/2	Ahead	O	N/A	N/A	-		-	-	-	404	1900	704	57.4%
5/2+5/1	Ahead Left	U	1	N/A	C		1	28	-	723	1900:1900	826	87.5%
5/3	Ahead	U	1	N/A	C		1	28	-	441	1900	765	57.6%
6/1	Right	U	N/A	N/A	-		-	-	-	874	1900	1900	46.0%
6/2	Right	U	N/A	N/A	-		-	-	-	523	1900	1900	27.5%
7/1	Ahead	U	2	N/A	B		1	36	-	388	1900	976	39.7%
7/2	Right Ahead	U	2	N/A	B		1	36	-	476	1900	976	48.8%
7/3	Right	U	2	N/A	B		1	36	-	157	1900	976	16.1%
8/1	Right Ahead	U	N/A	N/A	-		-	-	-	984	1900	1900	51.8%
8/2	Right	U	N/A	N/A	-		-	-	-	719	1900	1900	37.8%
9/1	Ahead	U	N/A	N/A	-		-	-	-	462	1900	1900	24.3%
9/2	Right Ahead	U	N/A	N/A	-		-	-	-	965	1900	1900	50.8%
10/1	Ahead	U	1	N/A	D		1	34	-	534	1900	924	57.8%
10/2	Right Ahead	U	1	N/A	D		1	34	-	515	1900	924	55.8%
10/3	Right	U	1	N/A	D		1	34	-	82	1900	924	8.9%
11/1		U	N/A	N/A	-		-	-	-	651	Inf	Inf	0.0%

Full Input Data And Results

11/2		U	N/A	N/A	-		-	-	-	247	1900	1900	13.0%
12/1		U	N/A	N/A	-		-	-	-	1318	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	419	1900	1900	22.1%
13/2		U	N/A	N/A	-		-	-	-	7	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	764	1900	1900	40.2%
15/1		U	N/A	N/A	-		-	-	-	761	1900	1900	40.1%
15/2		U	N/A	N/A	-		-	-	-	326	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: HCC revised 2026 traffic flows	-	-	2719	0	0	21.9	18.1	0.0	40.0	-	-	-	-
Unnamed Junction	-	-	2719	0	0	21.9	18.1	0.0	40.0	-	-	-	-
1/1	444	444	444	0	0	0.0	0.8	-	0.9	6.9	2.5	0.8	3.3
1/3+1/2	498	498	996	0	0	0.5	0.7	-	1.1	8.2	3.1	0.7	3.7
2/1	546	546	-	-	-	3.0	1.6	-	4.6	30.3	9.6	1.6	11.2
2/2	562	562	-	-	-	3.1	1.8	-	4.9	31.6	9.8	1.8	11.7
3/1	242	242	242	0	0	0.5	1.0	-	1.6	23.3	3.6	1.0	4.7
3/2	246	246	246	0	0	0.6	1.1	-	1.6	24.1	3.8	1.1	4.9
4/1	387	387	387	0	0	0.5	1.1	-	1.7	15.6	4.3	1.1	5.4
4/2	404	404	404	0	0	0.5	0.7	-	1.2	10.3	4.0	0.7	4.7
5/2+5/1	723	723	-	-	-	3.8	3.3	-	7.1	35.3	12.1	3.3	15.4
5/3	441	441	-	-	-	2.0	0.7	-	2.7	22.2	6.7	0.7	7.4
6/1	874	874	-	-	-	0.0	0.4	-	0.4	1.8	0.0	0.4	0.4
6/2	523	523	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
7/1	388	388	-	-	-	1.1	0.3	-	1.5	13.5	5.0	0.3	5.4
7/2	476	476	-	-	-	2.0	0.5	-	2.4	18.4	8.3	0.5	8.8
7/3	157	157	-	-	-	0.3	0.1	-	0.4	9.1	1.0	0.1	1.1
8/1	984	984	-	-	-	0.0	0.5	-	0.5	2.0	0.0	0.5	0.5
8/2	719	719	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
9/1	462	462	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/2	965	965	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
10/1	534	534	-	-	-	2.1	0.7	-	2.8	18.9	9.6	0.7	10.3
10/2	515	515	-	-	-	1.7	0.6	-	2.3	16.0	6.9	0.6	7.5
10/3	82	82	-	-	-	0.2	0.0	-	0.2	10.6	0.5	0.0	0.6
11/1	651	651	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

11/2	247	247	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
12/1	1318	1318	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	419	419	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
13/2	7	7	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	764	764	-	-	-	0.0	0.3	-	0.3	1.6	1.6	0.3	1.9
15/1	761	761	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
15/2	326	326	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
			C1 Stream: 1 PRC for Signalled Lanes (%):	2.8				Total Delay for Signalled Lanes (pcuHr):	15.15			Cycle Time (s):	72
			C1 Stream: 2 PRC for Signalled Lanes (%):	14.1				Total Delay for Signalled Lanes (pcuHr):	13.82			Cycle Time (s):	72
			PRC Over All Lanes (%):	2.8				Total Delay Over All Lanes(pcuHr):	40.03				

Appendix U

Project:	048.0010
Title:	College Road, Campdown
Location:	Pubbrook
Additional detail:	
File name:	Crookhorn Lane - Portsdown Hill Road jct v1 Improved.lsg3x
Author:	Shaan Novitzki
Company:	Paul Basham Associates
Address:	

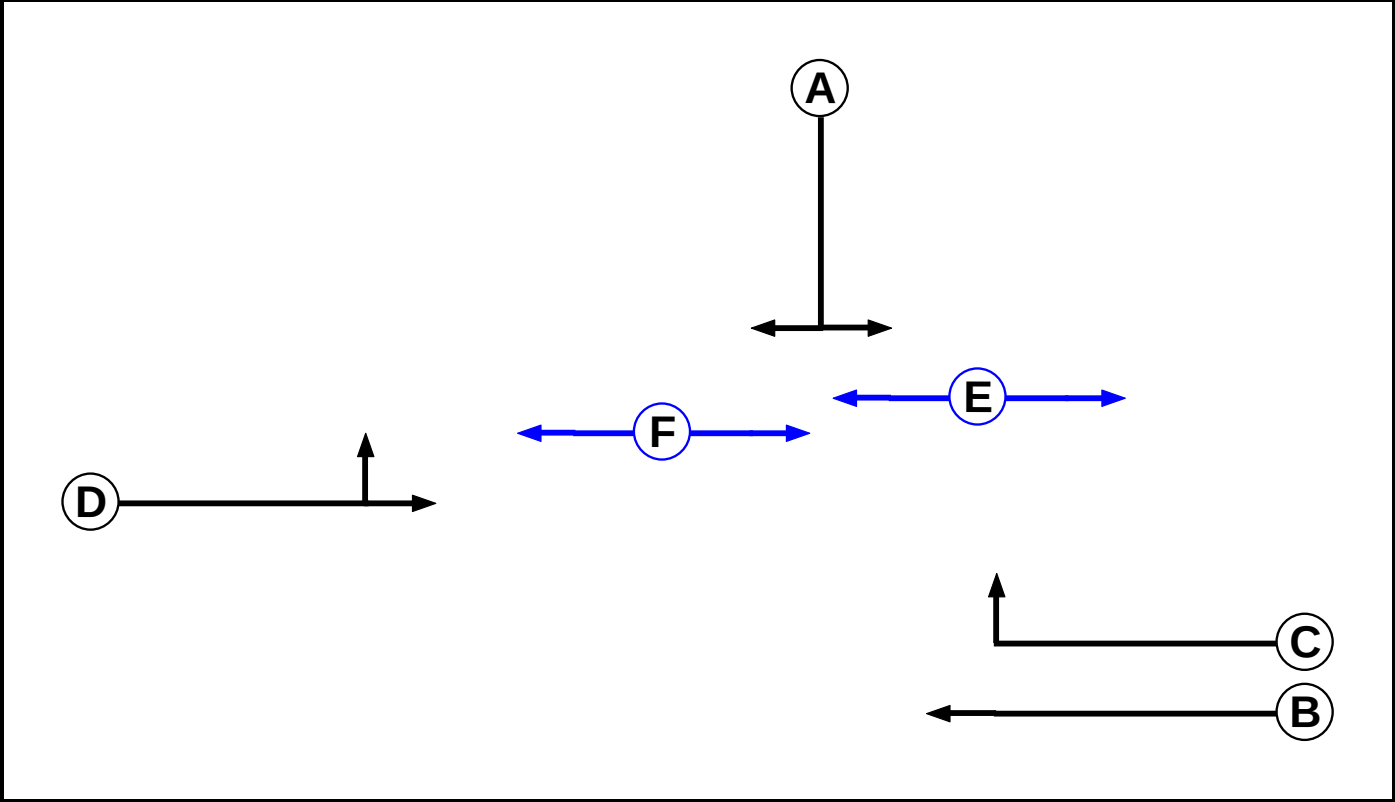
Crookhorn Lane/Portsdown Hill Road

Diagram illustrating a roundabout layout with six arms and associated lane configurations:

- Arm 1 - Crookhorn Lane:** 1/2 left lane, 1/1 right lane.
- Arm 2 - Portsdown Hill Rd WB:** 2/2 left lane, 2/1 right lane.
- Arm 3 - Portsdown Hill Rd EB:** 3/1 right lane.
- Arm 4:** 4/1 right lane.
- Arm 5:** 5/1 right lane.
- Arm 6:** 6/1 left lane.

The diagram also shows pedestrian crossings P1 and P2, and a traffic light at the top left.

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

Full Input Data And Results

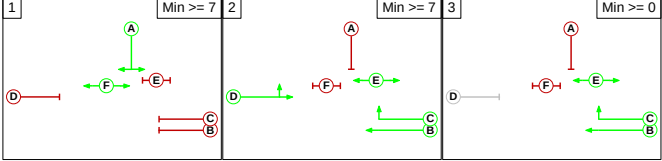
Phase Intergreens Matrix

Terminating Phase	Starting Phase						
		A	B	C	D	E	F
	A		5	5	5	5	-
	B	5		-	-	-	-
	C	5	-		-	-	5
	D	5	-	-		-	5
	E	7	-	-	-		-
	F	-	7	7	7	-	

Phases in Stage

Stage No.	Phases in Stage
1	A F
2	B C D E
3	B 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
	1		7	7
	2	7		0
	3	7	2	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Crookhorn Lane/Portsmouth Hill 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)
2/2 (Portsmouth Hill Rd WB)	4/1 (Right)	1439	0	3/1	1.09	All	4.35	-	0.50	4	4.00

Full Input Data And Results

Lane Input Data

Junction: Crookhorn Lane/Portstown Hill 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 (Crookhorn Lane)	U	A	2	3	3.5	Geom	-	3.75	0.00	Y	Arm 5 Left	9.00
1/2 (Crookhorn Lane)	U	A	2	3	60.0	Geom	-	3.75	0.00	N	Arm 6 Right	18.00
2/1 (Portstown Hill Rd WB)	U	B	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 6 Ahead	Inf
2/2 (Portstown Hill Rd WB)	O	C	2	3	7.8	Geom	-	3.25	0.00	N	Arm 4 Right	15.00
3/1 (Portstown Hill Rd EB)	U	D	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 4 Left	15.00
											Arm 5 Ahead	Inf
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2029 Base + Dev AM'	08:00	09:00	01:00	
2: '2029 Base + Dev PM'	17:00	18:00	01:00	

Scenario 1: '2029 Base + Dev AM' (FG1: '2029 Base + Dev AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin	A	B	C	Tot.	
	A	0	190	356	546
	B	207	0	700	907
	C	337	498	0	835
	Tot.	544	688	1056	2288

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2029 Base + Dev AM
Junction: Crookhorn Lane/Portsmouth Hill Road	
1/1 (short)	190
1/2 (with short)	546(In) 356(Out)
2/1 (with short)	907(In) 700(Out)
2/2 (short)	207
3/1	835
4/1	544
5/1	688
6/1	1056

Lane Saturation Flows

Junction: Crookhorn Lane/Portsmouth Hill 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 (Crookhorn Lane)	3.75	0.00	Y	Arm 5 Left	9.00	100.0 %	1706	1706	
1/2 (Crookhorn Lane)	3.75	0.00	N	Arm 6 Right	18.00	100.0 %	1966	1966	
2/1 (Portsmouth Hill Rd WB)	3.25	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1940	1940	
2/2 (Portsmouth Hill Rd WB)	3.25	0.00	N	Arm 4 Right	15.00	100.0 %	1891	1891	
3/1 (Portsmouth Hill Rd EB)	3.65	0.00	Y	Arm 4 Left	15.00	40.4 %	1903	1903	
				Arm 5 Ahead	Inf	59.6 %			
4/1	Infinite Saturation Flow					Inf	Inf		
5/1	Infinite Saturation Flow					Inf	Inf		
6/1	Infinite Saturation Flow					Inf	Inf		

Scenario 2: '2029 Base + Dev PM' (FG2: '2029 Base + Dev PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin	A	B	C	Tot.	
	A	0	113	276	389
	B	164	0	566	730
	C	363	584	0	947
	Tot.	527	697	842	2066

Traffic Lane Flows

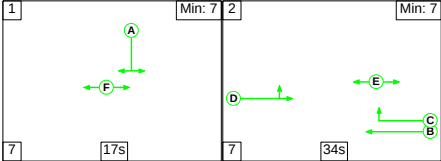
Lane	Scenario 2: 2029 Base + Dev PM
Junction: Crookhorn Lane/Portsmouth Hill Road	
1/1 (short)	113
1/2 (with short)	389(In) 276(Out)
2/1 (with short)	730(In) 566(Out)
2/2 (short)	164
3/1	947
4/1	527
5/1	697
6/1	842

Lane Saturation Flows

Junction: Crookhorn Lane/Portsmouth Hill 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 (Crookhorn Lane)	3.75	0.00	Y	Arm 5 Left	9.00	100.0 %	1706	1706	
1/2 (Crookhorn Lane)	3.75	0.00	N	Arm 6 Right	18.00	100.0 %	1966	1966	
2/1 (Portsmouth Hill Rd WB)	3.25	0.00	Y	Arm 6 Ahead	Inf	100.0 %	1940	1940	
2/2 (Portsmouth Hill Rd WB)	3.25	0.00	N	Arm 4 Right	15.00	100.0 %	1891	1891	
3/1 (Portsmouth Hill Rd EB)	3.65	0.00	Y	Arm 4 Left	15.00	38.3 %	1907	1907	
				Arm 5 Ahead	Inf	61.7 %			
4/1	Infinite Saturation Flow						Inf	Inf	
5/1	Infinite Saturation Flow						Inf	Inf	
6/1	Infinite Saturation Flow						Inf	Inf	

Scenario 1: '2029 Base + Dev AM' (FG1: '2029 Base + Dev AM', Plan 1: 'Network Control Plan 1')

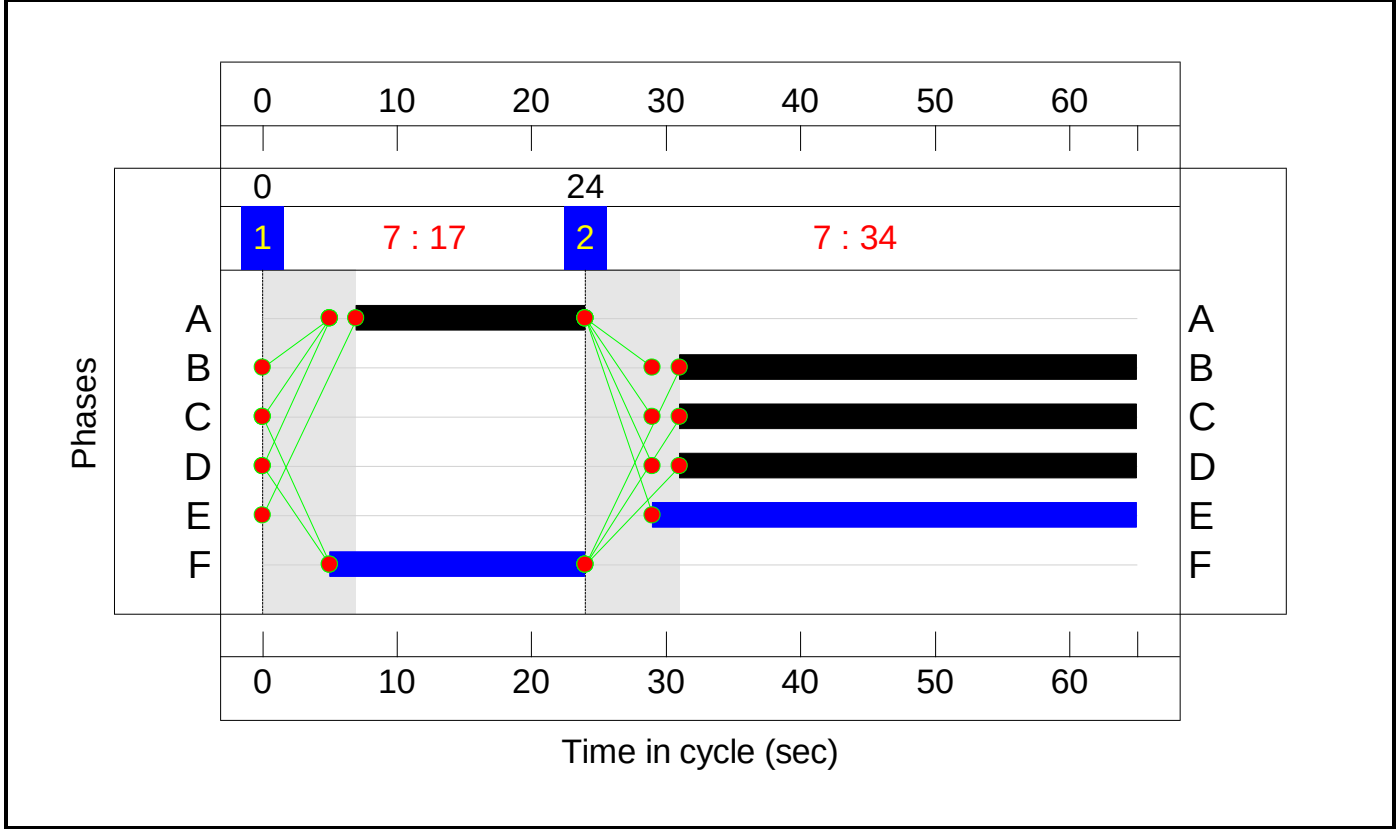
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	17	34
Change Point	0	24

Signal Timings Diagram



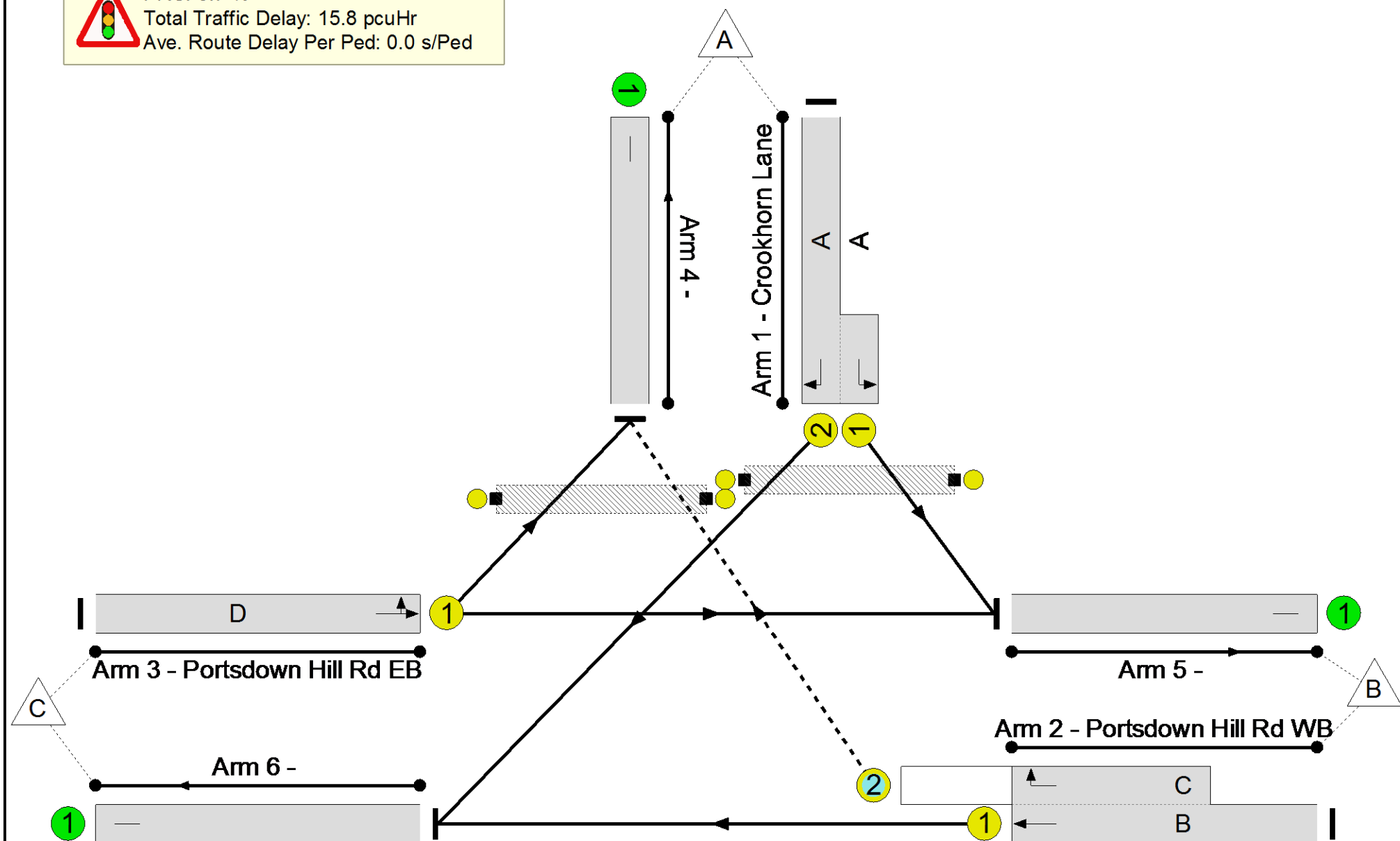
Full Input Data And Results

Network Layout Diagram

PRC: 8.7 %

Total Traffic Delay: 15.8 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	82.8%
Crookhorn Lane/Portstown Hill Road	-	-	N/A	-	-		-	-	-	-	-	-	82.8%
1/2+1/1	Crookhorn Lane Left Right	U	N/A	N/A	A		1	17	-	546	1966:1706	430+230	82.8 : 82.8%
2/1+2/2	Portstown Hill Rd WB Right Ahead	U+O	N/A	N/A	B C		1	34	-	907	1940:1891	919+272	76.2 : 76.2%
3/1	Portstown Hill Rd EB Left Ahead	U	N/A	N/A	D		1	34	-	835	1903	1025	81.5%
4/1		U	N/A	N/A	-		-	-	-	544	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	688	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	1056	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	36	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	19	-	0	-	0	0.0%

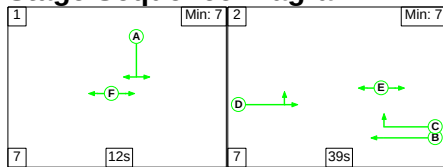
Full Input Data And Results

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	-	-	89	0	118	8.6	6.0	1.2	15.8	-	-	-	-
Crookhorn Lane/Portsdown Hill Road	-	-	89	0	118	8.6	6.0	1.2	15.8	-	-	-	-
1/2+1/1	546	546	-	-	-	3.1	2.3	-	5.5	35.9	7.1	2.3	9.4
2/1+2/2	907	907	89	0	118	2.6	1.6	1.2	5.4	21.3	9.6	1.6	11.1
3/1	835	835	-	-	-	2.9	2.2	-	5.0	21.6	12.3	2.2	14.4
4/1	544	544	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	688	688	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	1056	1056	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 8.7 Total Delay for Signalled Lanes (pcuHr): 15.84 Cycle Time (s): 65 PRC Over All Lanes (%): 8.7 Total Delay Over All Lanes(pcuHr): 15.84													

Full Input Data And Results

Scenario 2: '2029 Base + Dev PM' (FG2: '2029 Base + Dev PM', Plan 1: 'Network Control Plan 1')

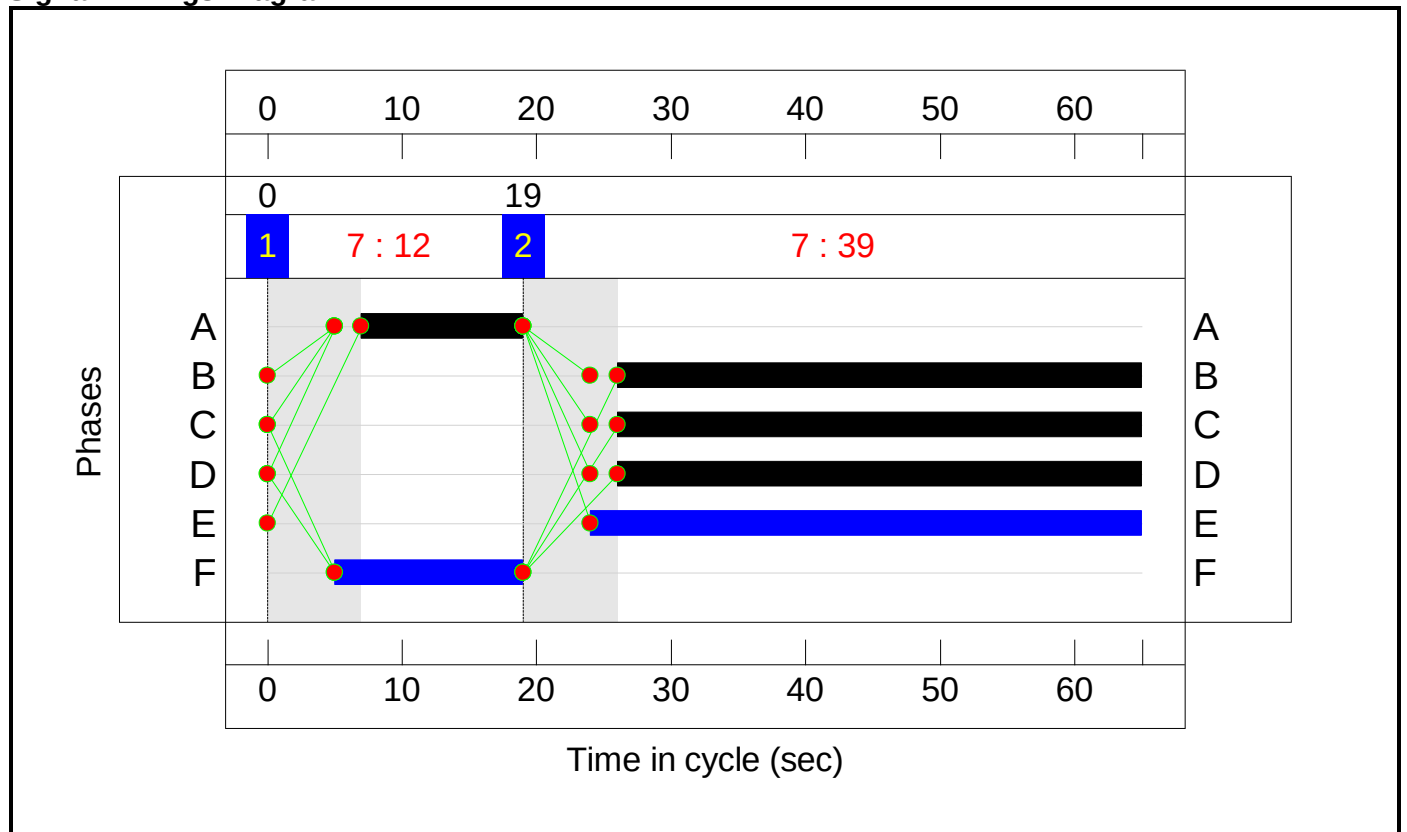
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	12	39
Change Point	0	19

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

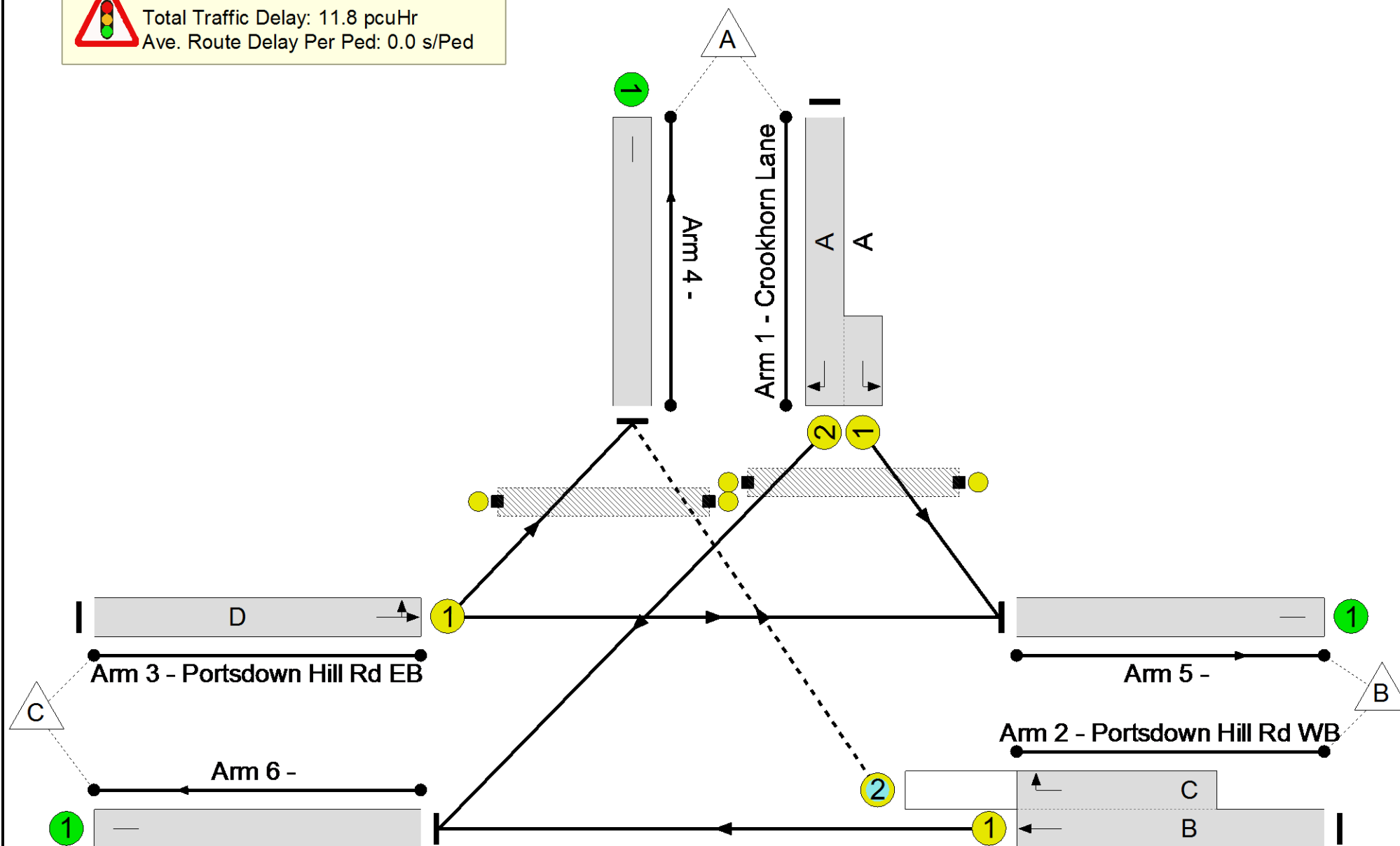
Crookhorn Lane/Portsdown Hill Road



PRC: 11.5 %

Total Traffic Delay: 11.8 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



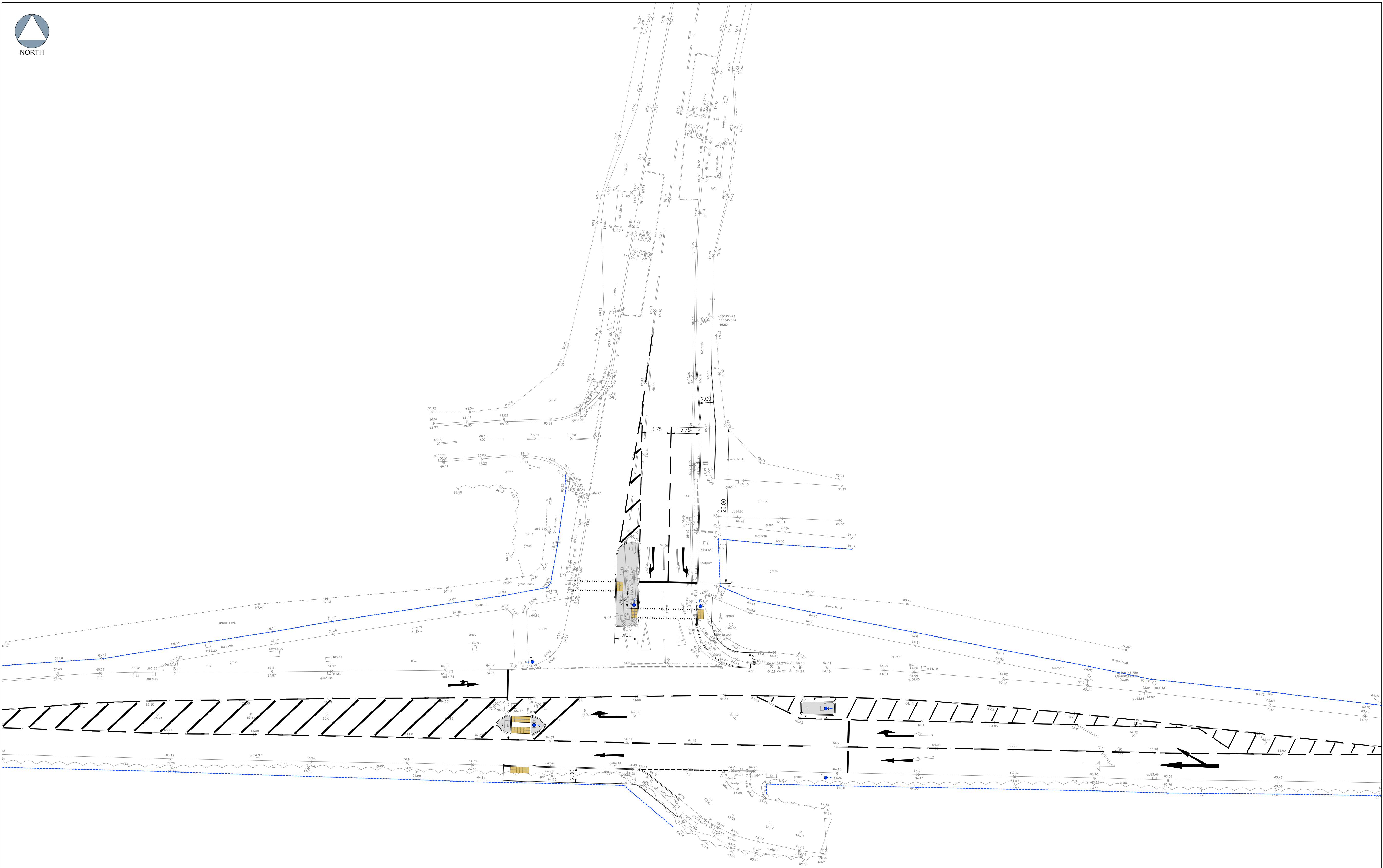
Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	80.7%
Crookhorn Lane/Portsdown Hill Road	-	-	N/A	-	-		-	-	-	-	-	-	80.7%
1/2+1/1	Crookhorn Lane Left Right	U	N/A	N/A	A		1	12	-	389	1966:1706	350+143	78.9 : 78.9%
2/1+2/2	Portsdown Hill Rd WB Right Ahead	U+O	N/A	N/A	B C		1	39	-	730	1940:1891	1036+300	54.6 : 54.6%
3/1	Portsdown Hill Rd EB Left Ahead	U	N/A	N/A	D		1	39	-	947	1907	1174	80.7%
4/1		U	N/A	N/A	-		-	-	-	527	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	697	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	842	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	41	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	14	-	0	-	0	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	-	-	94	0	70	6.4	4.5	1.0	11.8	-	-	-	-
Crookhorn Lane/Portsmouth Hill Road	-	-	94	0	70	6.4	4.5	1.0	11.8	-	-	-	-
1/2+1/1	389	389	-	-	-	2.6	1.8	-	4.4	40.6	5.1	1.8	6.9
2/1+2/2	730	730	94	0	70	1.3	0.6	1.0	2.9	14.2	5.5	0.6	6.1
3/1	947	947	-	-	-	2.5	2.1	-	4.6	17.4	12.9	2.1	14.9
4/1	527	527	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	697	697	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	842	842	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 11.5 Total Delay for Signalled Lanes (pcuHr): 11.84 Cycle Time (s): 65 PRC Over All Lanes (%): 11.5 Total Delay Over All Lanes(pcuHr): 11.84													



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KEY

- PROPOSED POLE WITH SIGNAL HEAD / STUB POLE WITH PBU
- INDICATIVE HIGHWAY BOUNDARY -- BASED ON HIGHWAY GEOGRAPHIC INFORMATION SERVICE Dtg No: TM/PEM37276a, PORTSMOUTH CITY COUNCIL.

A	REVISED DRAWING	05.03.18	EK	SB
Rev	Description	Date	By	Chkd



Paul Basham Associates Ltd
Lancaster Court, 8 Barnes Wallis Road, Farnham, PO15 5TU
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info@paulbashamassociates.com www.paulbashamassociates.com

Client



Project Name COLLEGE ROAD, CAMPDOWN			
Title PROPOSED SIGNAL-CONTROLLED JUNCTION			
Project Phase PRELIMINARY			
Checked By SB	Checked Date 16.02.2018	Drawn By EK	Drawn Date 15.02.18
Client Drawing No. -		Scale 1:250	(AT A1 SIZE)
PBA Drawing No. 048.0010.003			Revision A



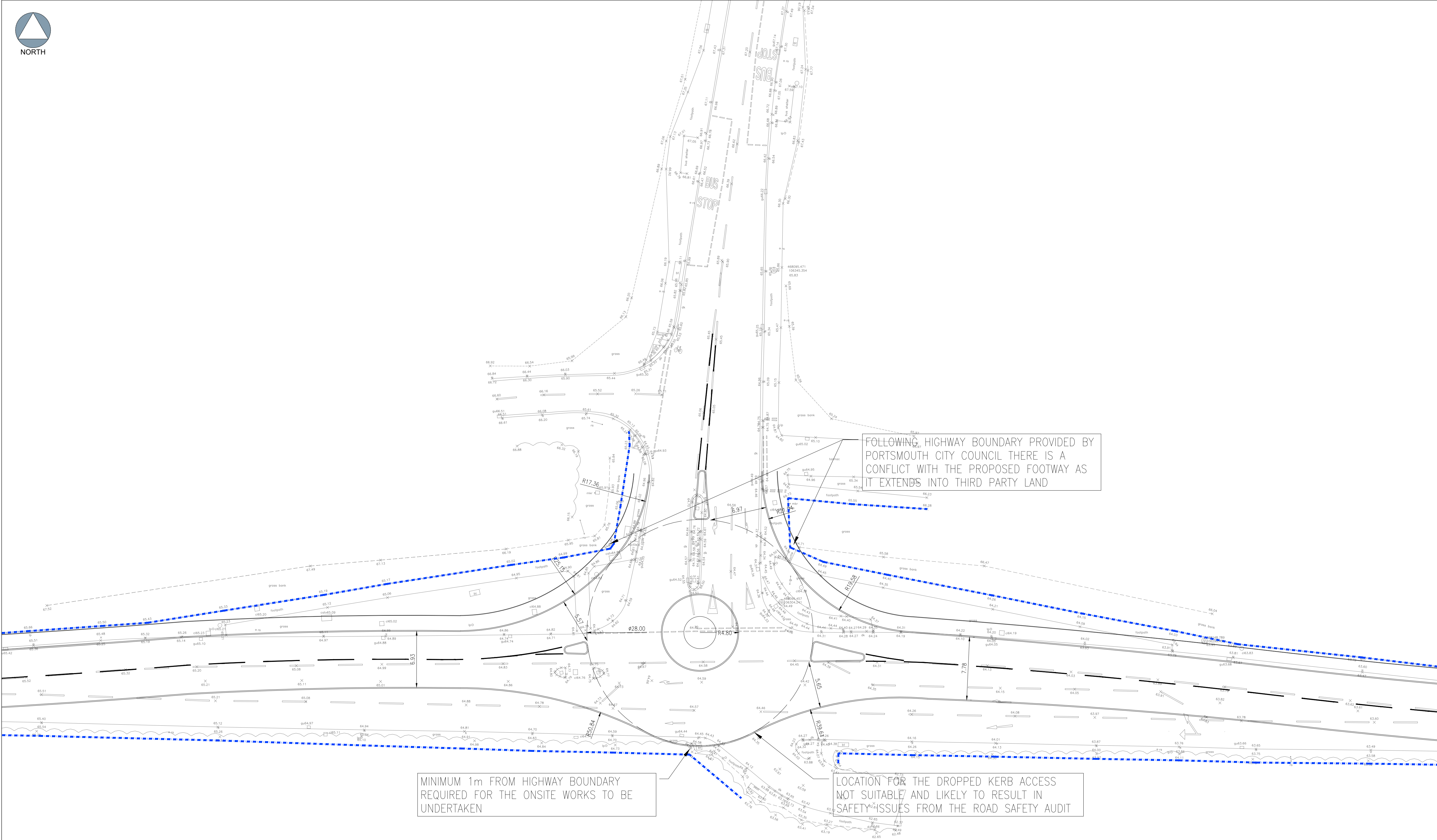
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KEY

--- INDICATIVE HIGHWAY BOUNDARY -- BASED ON HIGHWAY GEOGRAPHIC INFORMATION SERVICE Dtg No: TM/PCMS37276a, PORTSMOUTH CITY COUNCIL



Rev	Description	Date	By	Chkd



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Project Name COLLEGE ROAD, CAMPDOWN			
Title PROPOSED ROUNDABOUT			
Project Phase PRELIMINARY			
Checked By JH	Checked Date 10.07.2018	Drawn By EK	Drawn Date 10.07.2018
Client Drawing No. -		Scale 1:250	(AT A1 SIZE)
PBA Drawing No. 048.0010.005			Revision -

Appendix V



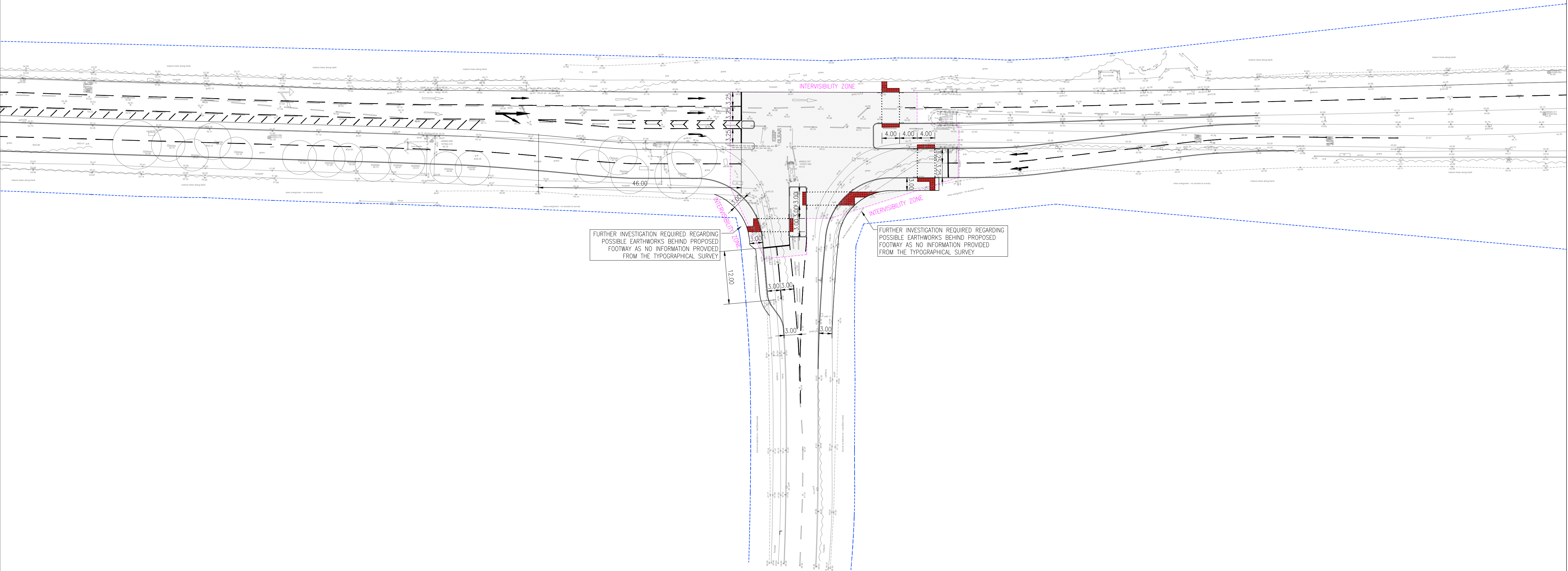
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KEY

INDICATIVE HIGHWAY BOUNDARY – BASED ON THE STATUS ENQUIRY – COLLEGE ROAD PURBROOK WAY, PURBROOK, PO785W WITH REFERENCE No 21333913



A	HIGHWAY BOUNDARY INCLUDED	23.02.18	EK	SB
Rev	Description	Date	By	Chkd



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Client



Project Name
COLLEGE ROAD,
CAMPDOWN

Title
PROPOSED SIGNAL-CONTROLLED JUNCTION

Project Phase
PRELIMINARY

Checked By SB	Checked Date 17.01.2018	Drawn By EK	Drawn Date 17.01.18
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Client Drawing No. -	Scale 500	(AT A1 SIZE)
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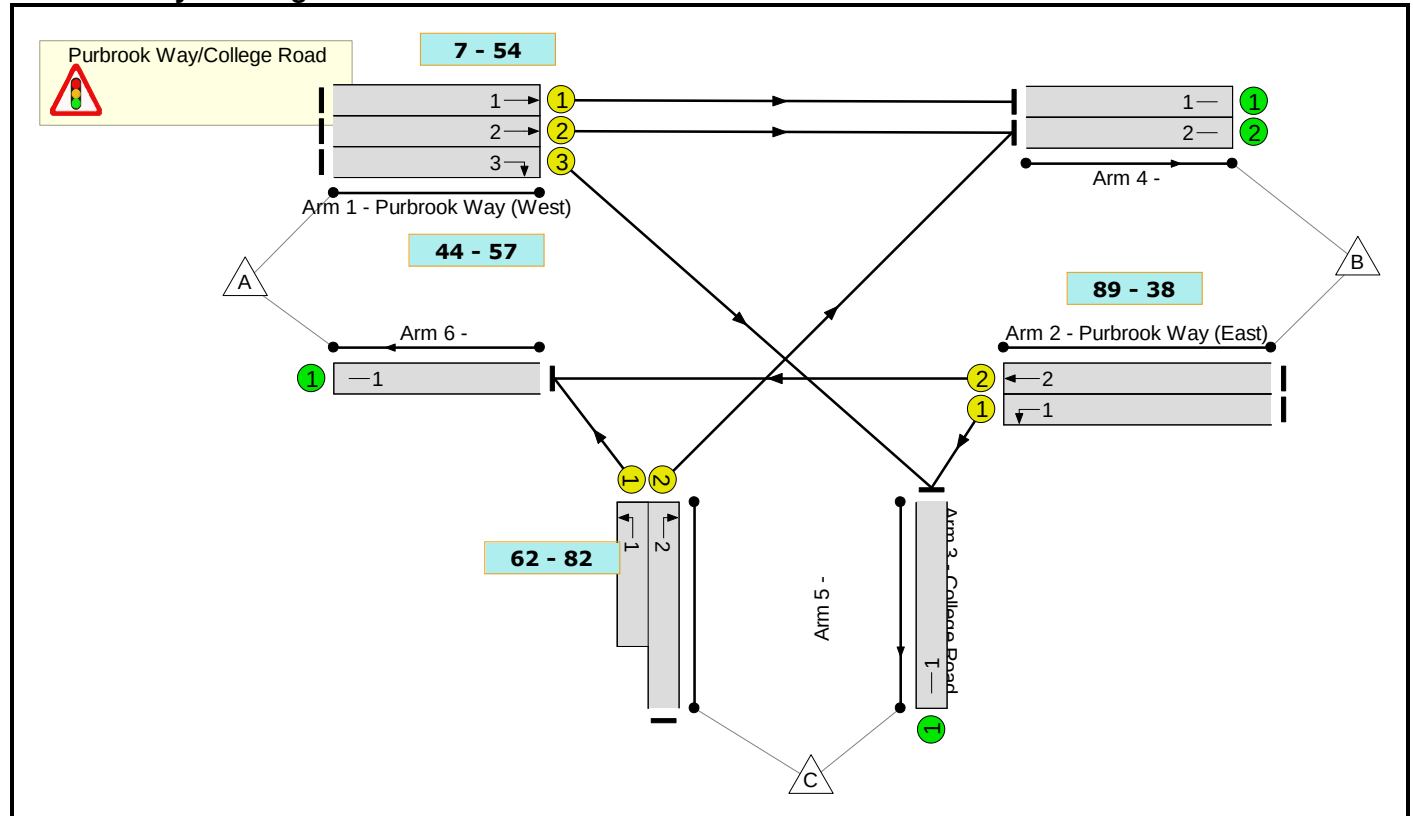
PBA Drawing No. 048.0010.001	Revision A
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MBL Basic Results Summary
MBL Basic Results Summary

User and Project Details

Project:	College Road, Campdown
Title:	Purbrook Way/College Road Improvement scheme
Location:	Pubrook
Additional detail:	With 250 units for signal opening (2016), with 2500 units for future year (2021)
File name:	Dev Purbrook Way College Road (Approved Model) Mitigation.lsg3x

Junction Layout Diagram



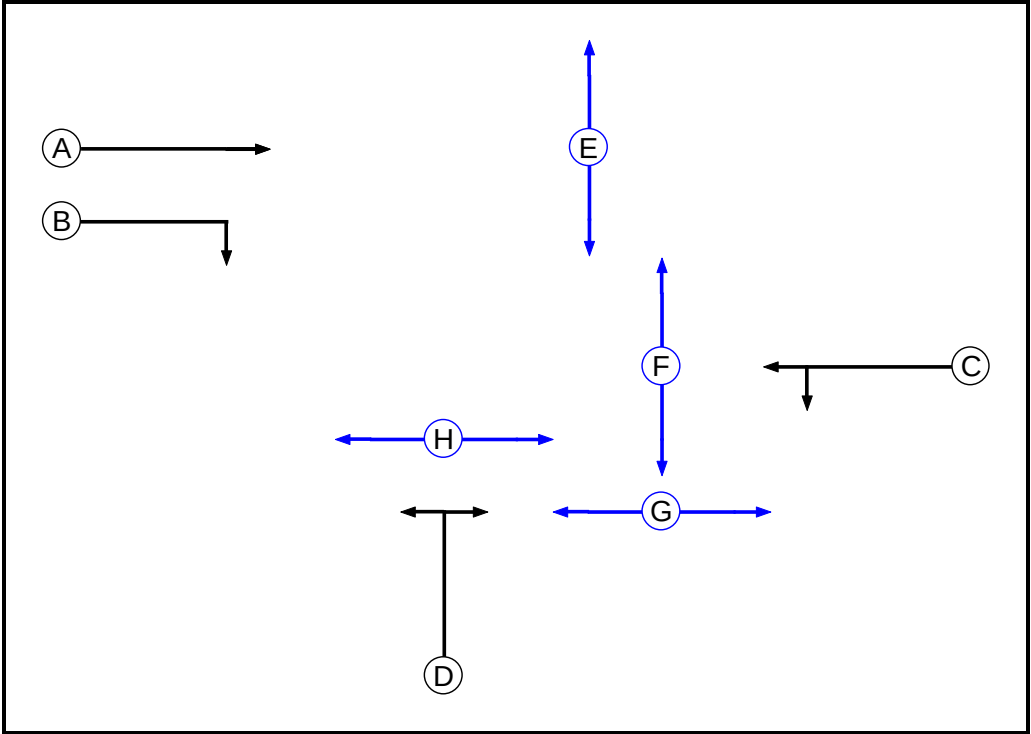
MBL Basic Results Summary

Lane Input Data

Junction: Purbrook Way/College 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 (Purbrook Way (West))	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Ahead	Inf
1/2 (Purbrook Way (West))	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Ahead	Inf
1/3 (Purbrook Way (West))	U	B	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Right	15.00
2/1 (Purbrook Way (East))	U	C	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Left	17.50
2/2 (Purbrook Way (East))	U	C	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 6 Ahead	Inf
3/1 (College Road)	U	D	2	3	7.0	Geom	-	3.25	0.00	Y	Arm 6 Left	15.00
3/2 (College Road)	U	D	2	3	60.0	Geom	-	3.75	0.00	Y	Arm 4 Right	25.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

MBL Basic Results Summary

Phase Diagram

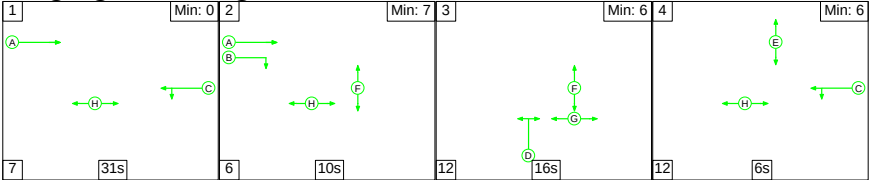


Intergreens

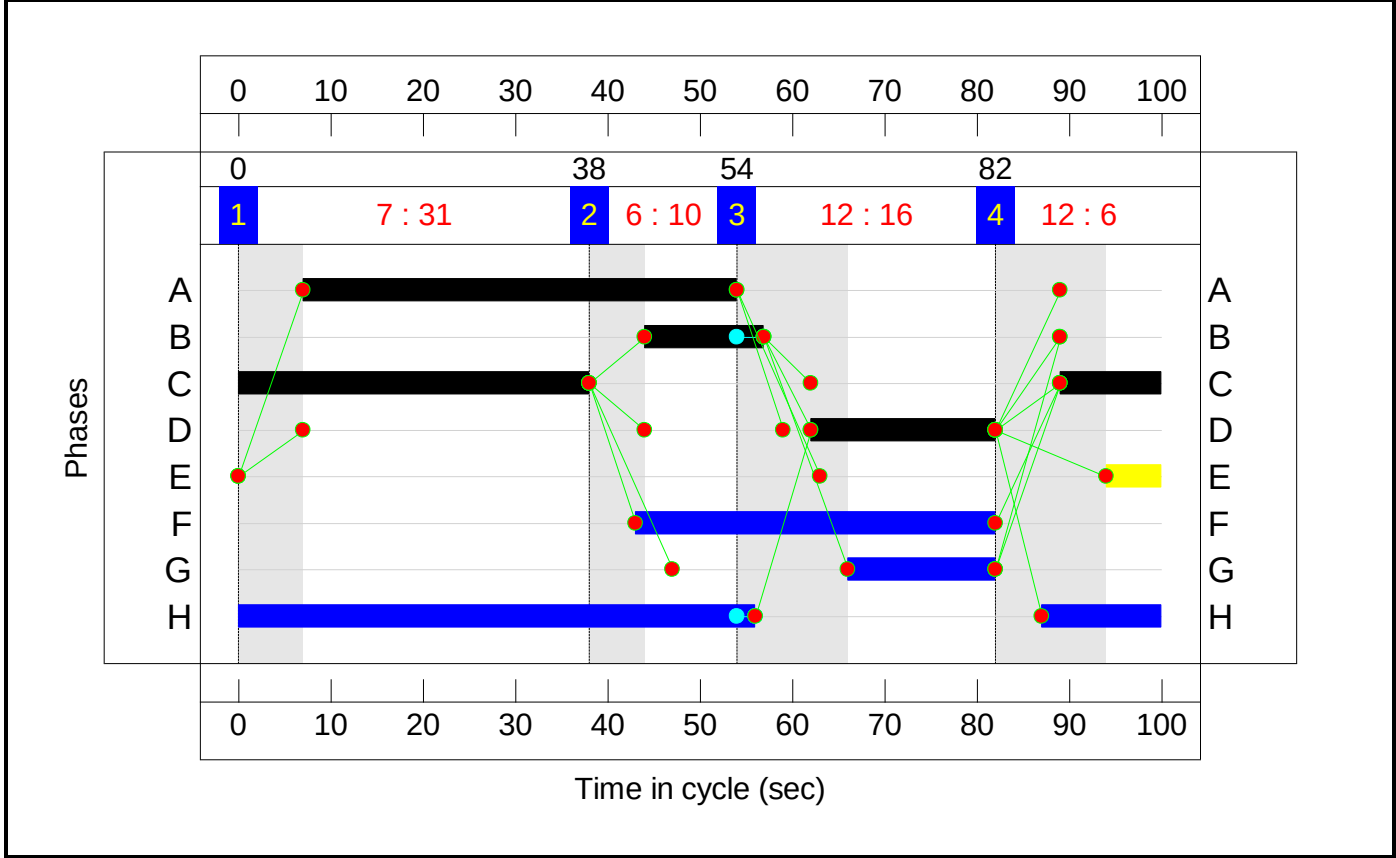
Terminating Phase	Starting Phase								
		A	B	C	D	E	F	G	H
	A		-	-	5	9	-	-	-
	B	-		5	5	-	-	9	-
	C	-	6		6	-	5	9	-
	D	7	7	7		12	-	-	5
	E	7	-	-	7		-	-	-
	F	-	-	7	-	-		-	-
	G	-	7	7	-	-	-		-
	H	-	-	-	6	-	-	-	

Scenario 1: '2029 Base + Dev (790 units) - AM Peak' (FG1: '2029 Base + Dev (790 units) - AM Peak', Plan 1: 'Network Control Plan 1')

Staging Plan Diagram



Signal Timings Diagram



Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2029 Base + Dev (790 units) - AM Peak'	08:00	09:00	01:00	

Traffic Flows, Desired

Desired Flow :

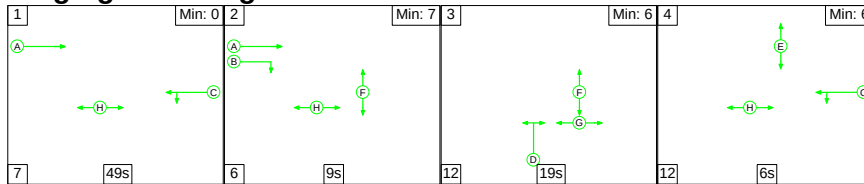
	Destination				
		A	B	C	Tot.
Origin	A	0	1235	192	1427
	B	826	0	570	1396
	C	160	349	0	509
	Tot.	986	1584	762	3332

Link Results

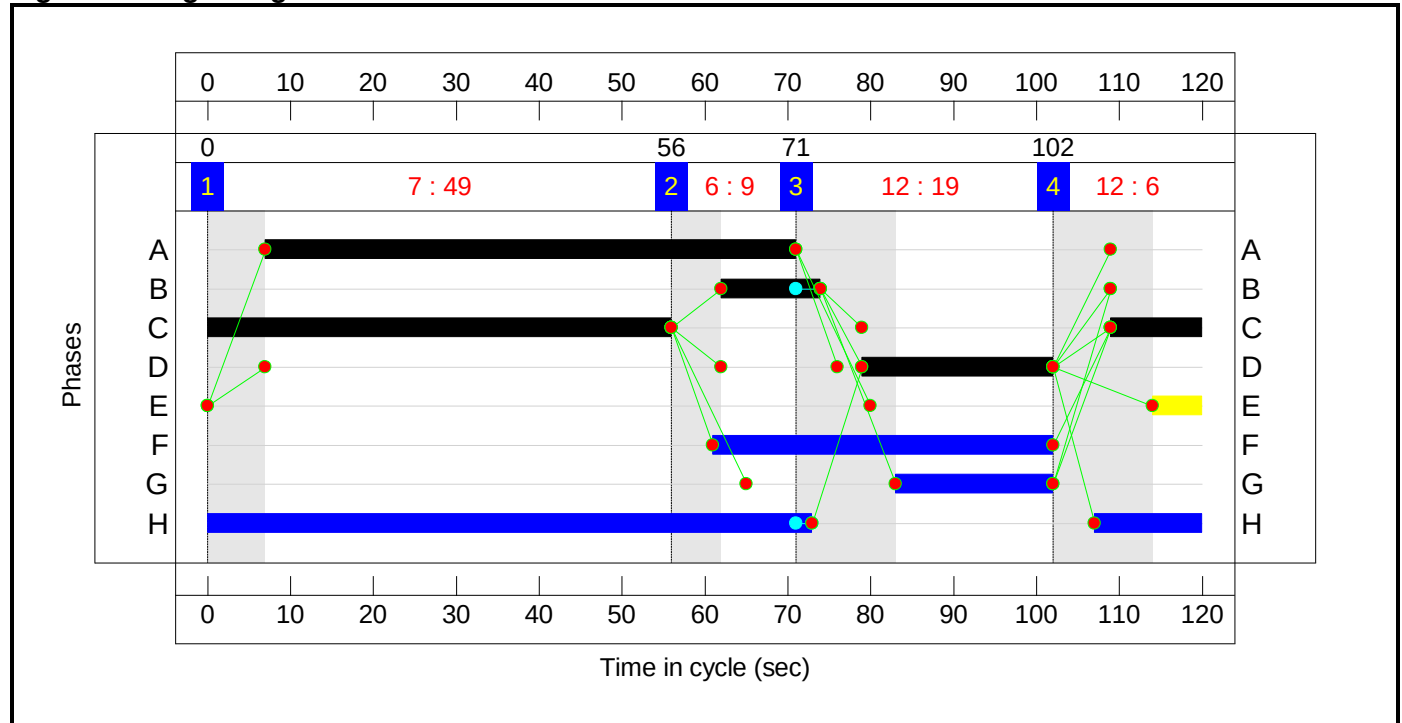
MBL Basic Results Summary

Scenario 2: '2029 Base + Dev (790 units) - PM Peak' (FG2: '2029 Base + Dev (790 units) - PM Peak', Plan 1: 'Network Control Plan 1')

Staging Plan Diagram



Signal Timings Diagram



Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
2: '2029 Base + Dev (790 units) - PM Peak'	17:00	18:00	01:00	

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	771	155	926
	B	955	0	464	1419
	C	175	320	0	495
	Tot.	1130	1091	619	2840

Link Results

C1	PRC for Signalled Lanes (%):	2.3	Total Delay for Signalled Lanes (pcuHr):	26.97	Cycle Time (s): 120
	PRC Over All Lanes (%):	2.3	Total Delay Over All Lanes(pcuHr):	26.97	

Junctions 9							
ARCADY 9 - Roundabout Module							
Version: 9.0.2.5947 © Copyright TRL Limited, 2017							
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 770558 software@trl.co.uk www.trlsoftware.co.uk							
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Filename: A3(M) Linked (Improved configuration).j9

Path: Z:\Projects\040-049\048 Persimmon Charles Church\048.0010 College Road, Campdown\Modelling 790 Units\A3(M) Roundabouts

Report generation date: 08/07/2019 10:28:04

»Improved Configuration - 2029 Baseline + Dev, AM

»Improved Configuration - 2029 Baseline + Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (min)	RFC	LOS	Queue (PCU)	Delay (min)	RFC	LOS
Improved Configuration - 2029 Baseline + Dev								
1 - A3(M) Offslip - 1 - Purbrook Way (WB)	1.0	0.07	0.49	A	0.8	0.06	0.42	A
1 - A3(M) Offslip - 2 - A3(M) Offslip (NB)	1.8	0.10	0.62	A	5.6	0.22	0.84	B
1 - A3(M) Offslip - 3 - Purbrook Way (EB)	11.3	0.38	0.92	C	2.8	0.13	0.72	A
2 - A3(M) Onslip - 1 - Purbrook Way (Westbound)	4.7	0.19	0.82	B	2.0	0.09	0.65	A
2 - A3(M) Onslip - 3 - Purbrook Way (Eastbound)	16.3	0.44	0.95	D	5.8	0.17	0.85	B
2 - A3(M) Onslip - 4 - BnQ Access	3.3	1.82	0.82	F	2.8	0.81	0.74	E

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

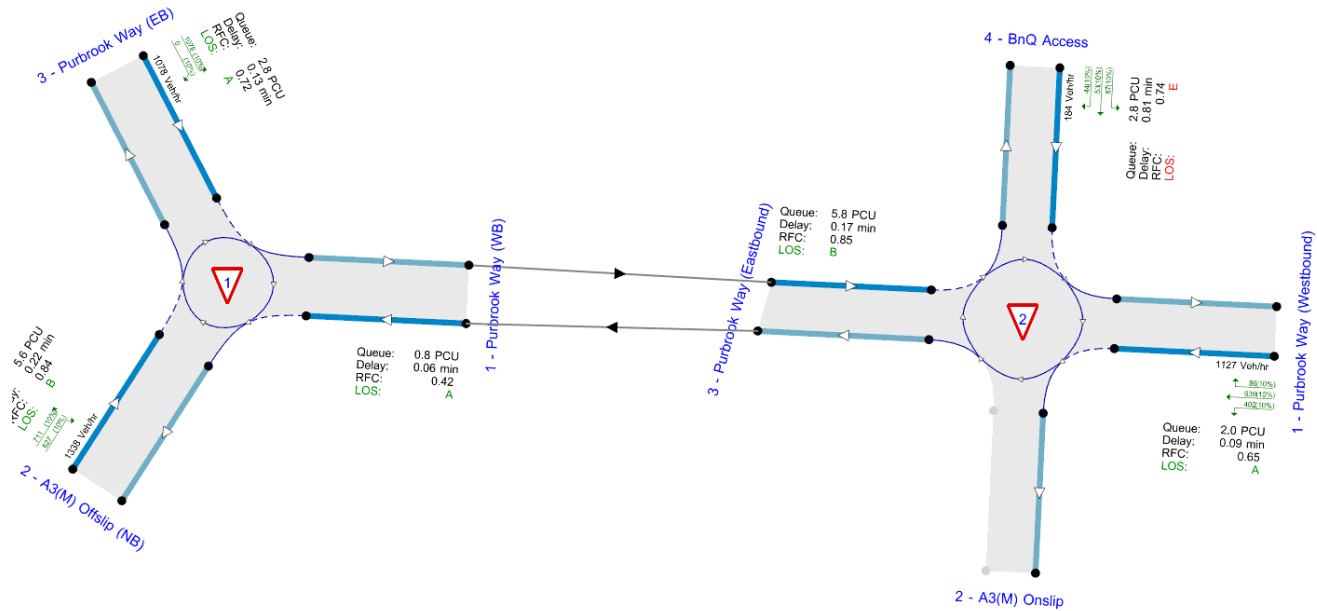
File summary

File Description

Title	A3(M) Roundabouts (Improved configuration)
Location	Purbrook
Site number	6
Date	08/07/2019
Version	
Status	Preliminary
Identifier	
Client	Persimmon Homes
Jobnumber	048.0010
Enumerator	SN
Description	790 Dwellings

Units

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



Flows show original traffic demand (Veh/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (min)	Queue threshold (PCU)
5.75				0.85	1.00	30.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2029 Baseline + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D8	2029 Baseline + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Improved Configuration - 2029 Baseline + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
1	A3(M) Offslip	Standard Roundabout	1, 2, 3	0.22	B
2	A3(M) Onslip	Standard Roundabout	1, 2, 3, 4	0.39	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Junction	Arm	Name	Description
1 - A3(M) Offslip	1	Purbrook Way (WB)	
	2	A3(M) Offslip (NB)	
	3	Purbrook Way (EB)	
2 - A3(M) Onslip	1	Purbrook Way (Westbound)	
	2	A3(M) Onslip	Exit only
	3	Purbrook Way (Eastbound)	
	4	BnQ Access	

Roundabout Geometry

Junction	Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A3(M) Offslip	1 - Purbrook Way (WB)	6.10	6.10	0.0	30.0	30.0	14.0	
	2 - A3(M) Offslip (NB)	6.40	8.83	24.0	30.0	30.0	18.0	
	3 - Purbrook Way (EB)	6.00	8.00	19.0	65.0	30.0	17.0	
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	6.50	8.83	13.0	100.0	40.0	9.0	
	2 - A3(M) Onslip							✓
	3 - Purbrook Way (Eastbound)	7.00	8.00	18.0	30.0	40.0	17.0	
	4 - BnQ Access	3.60	5.90	10.0	25.0	40.0	15.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	0.738	1981
	2 - A3(M) Offslip (NB)	0.868	2640
	3 - Purbrook Way (EB)	0.836	2451
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	0.873	2689
	2 - A3(M) Onslip		
	3 - Purbrook Way (Eastbound)	0.825	2524
	4 - BnQ Access	0.638	1585

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2029 Baseline + Dev	AM	ONE HOUR	07:45	09:15	15	✓

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	2	3	Queue limited	Normal	0	100.00	19.00
2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	1	1	Queue limited	Normal	0	100.00	38.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	✓				
	2 - A3(M) Offslip (NB)		ONE HOUR	✓	920	100.000
	3 - Purbrook Way (EB)		ONE HOUR	✓	1561	100.000
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)		ONE HOUR	✓	1254	100.000
	2 - A3(M) Onslip					
	3 - Purbrook Way (Eastbound)	✓				
	4 - BnQ Access		ONE HOUR	✓	98	100.000

Origin-Destination Data

Demand (Veh/hr)

2 - A3(M)
Onslip

		To			
		1 - Purbrook Way (Westbound)	2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	4 - BnQ Access
From	1 - Purbrook Way (Westbound)	0	432	781	41
	2 - A3(M) Onslip	Exit-only	Exit-only	Exit-only	Exit-only
	3 - Purbrook Way (Eastbound)	1101	747	0	76
	4 - BnQ Access	64	14	20	0

Demand (Veh/hr)

1 - A3(M) Offslip

		To		
		1 - Purbrook Way (WB)	2 - A3(M) Offslip (NB)	3 - Purbrook Way (EB)
From	1 - Purbrook Way (WB)	0	0	796
	2 - A3(M) Offslip (NB)	396	0	524
	3 - Purbrook Way (EB)	1561	0	0

Vehicle Mix

Heavy Vehicle Percentages

2 - A3(M)
Onslip

		To			
		1 - Purbrook Way (Westbound)	2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	4 - BnQ Access
From	1 - Purbrook Way (Westbound)	10	10	10	10
	2 - A3(M) Onslip	Exit-only	Exit-only	Exit-only	Exit-only
	3 - Purbrook Way (Eastbound)	10	10	10	10
	4 - BnQ Access	10	10	10	10

Heavy Vehicle Percentages

1 - A3(M) Offslip

	To			
		1 - Purbrook Way (WB)	2 - A3(M) Offslip (NB)	3 - Purbrook Way (EB)
From	1 - Purbrook Way (WB)	10	10	10
	2 - A3(M) Offslip (NB)	10	10	10
	3 - Purbrook Way (EB)	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	0.49	0.07	1.0	A	808	1212
	2 - A3(M) Offslip (NB)	0.62	0.10	1.8	A	929	1393
	3 - Purbrook Way (EB)	0.92	0.38	11.3	C	1576	2363
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	0.82	0.19	4.7	B	1266	1899
	2 - A3(M) Onslip						
	3 - Purbrook Way (Eastbound)	0.95	0.44	16.3	D	1974	2961
	4 - BnQ Access	0.82	1.82	3.3	F	99	148

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	661	165	0	1981	0.333	658	1613	0.0	0.5	0.050	A
	2 - A3(M) Offslip (NB)	762	190	658	2068	0.368	759	0	0.0	0.6	0.050	A
	3 - Purbrook Way (EB)	1293	323	327	2177	0.594	1286	1091	0.0	1.6	0.074	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1038	260	651	2120	0.490	1034	971	0.0	1.0	0.061	A
	2 - A3(M) Onslip			694				991				
	3 - Purbrook Way (Eastbound)	1613	403	34	2496	0.646	1605	661	0.0	2.0	0.073	A
	4 - BnQ Access	81	20	1542	601	0.135	80	97	0.0	0.2	0.127	A

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	790	198	0	1981	0.399	789	1930	0.5	0.7	0.055	A
	2 - A3(M) Offslip (NB)	910	227	789	1954	0.465	909	0	0.6	1.0	0.063	A
	3 - Purbrook Way (EB)	1544	386	391	2124	0.727	1539	1307	1.6	2.9	0.112	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1240	310	780	2008	0.618	1237	1163	1.0	1.8	0.085	A
	2 - A3(M) Onslip			831				1187				
	3 - Purbrook Way (Eastbound)	1930	482	40	2491	0.775	1923	790	2.0	3.7	0.115	A
	4 - BnQ Access	97	24	1847	407	0.238	96	116	0.2	0.3	0.212	B

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	962	241	0	1981	0.486	961	2339	0.7	1.0	0.065	A
	2 - A3(M) Offslip (NB)	1114	279	961	1806	0.617	1111	0	1.0	1.7	0.095	A
	3 - Purbrook Way (EB)	1891	473	478	2051	0.922	1861	1594	2.9	10.2	0.309	C
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1519	380	933	1874	0.810	1508	1391	1.8	4.4	0.175	B
	2 - A3(M) Onslip			1011				1429				
	3 - Purbrook Way (Eastbound)	2339	585	49	2484	0.942	2302	962	3.7	13.0	0.314	C
	4 - BnQ Access	119	30	2211	175	0.679	112	140	0.3	1.9	0.980	F

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	968	242	0	1981	0.489	968	2366	1.0	1.0	0.065	A
	2 - A3(M) Offslip (NB)	1114	279	968	1799	0.619	1114	0	1.7	1.8	0.096	A
	3 - Purbrook Way (EB)	1891	473	480	2050	0.922	1886	1603	10.2	11.3	0.381	C
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1519	380	952	1857	0.818	1518	1420	4.4	4.7	0.193	B
	2 - A3(M) Onslip			1018				1452				
	3 - Purbrook Way (Eastbound)	2366	591	50	2483	0.953	2352	968	13.0	16.3	0.439	D
	4 - BnQ Access	119	30	2259	144	0.823	113	143	1.9	3.3	1.821	F

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	802	200	0	1981	0.405	803	1970	1.0	0.8	0.056	A
	2 - A3(M) Offslip (NB)	910	227	803	1943	0.468	913	0	1.8	1.0	0.064	A
	3 - Purbrook Way (EB)	1544	386	393	2122	0.727	1577	1323	11.3	3.0	0.128	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1240	310	821	1972	0.629	1251	1226	4.7	1.9	0.093	A
	2 - A3(M) Onslip			842				1230				
	3 - Purbrook Way (Eastbound)	1970	492	41	2491	0.791	2018	802	16.3	4.3	0.153	A
	4 - BnQ Access	97	24	1938	349	0.278	108	121	3.3	0.4	0.287	C

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	666	166	0	1981	0.336	666	1627	0.8	0.6	0.050	A
	2 - A3(M) Offslip (NB)	762	190	666	2061	0.370	763	0	1.0	0.6	0.051	A
	3 - Purbrook Way (EB)	1293	323	329	2176	0.594	1298	1101	3.0	1.6	0.076	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1038	260	664	2109	0.492	1042	990	1.9	1.1	0.062	A
	2 - A3(M) Onslip			700				1006				
	3 - Purbrook Way (Eastbound)	1627	407	34	2496	0.652	1636	666	4.3	2.1	0.077	A
	4 - BnQ Access	81	20	1571	583	0.139	82	99	0.4	0.2	0.132	A

Improved Configuration - 2029 Baseline + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (min)	Junction LOS
1	A3(M) Offslip	Standard Roundabout	1, 2, 3	0.15	A
2	A3(M) Onslip	Standard Roundabout	1, 2, 3, 4	0.18	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2029 Baseline + Dev	PM	ONE HOUR	16:45	18:15	15	✓

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	2	3	Queue limited	Normal	0	100.00	19.00
2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	1	1	Queue limited	Normal	0	100.00	38.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	✓				
	2 - A3(M) Offslip (NB)		ONE HOUR	✓	1338	100.000
	3 - Purbrook Way (EB)		ONE HOUR	✓	1078	100.000
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)		ONE HOUR	✓	1127	100.000
	2 - A3(M) Onslip					
	3 - Purbrook Way (Eastbound)	✓				
	4 - BnQ Access		ONE HOUR	✓	184	100.000

Origin-Destination Data

Demand (Veh/hr)

2 - A3(M)
Onslip

		To			
		1 - Purbrook Way (Westbound)	2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	4 - BnQ Access
From	1 - Purbrook Way (Westbound)	0	402	639	86
	2 - A3(M) Onslip	Exit-only	Exit-only	Exit-only	Exit-only
	3 - Purbrook Way (Eastbound)	1184	450	0	39
	4 - BnQ Access	87	53	44	0

Demand (Veh/hr)

1 - A3(M) Offslip

	To			
		1 - Purbrook Way (WB)	2 - A3(M) Offslip (NB)	3 - Purbrook Way (EB)
From	1 - Purbrook Way (WB)	0	0	679
	2 - A3(M) Offslip (NB)	627	0	711
	3 - Purbrook Way (EB)	1078	0	0

Vehicle Mix

Heavy Vehicle Percentages

2 - A3(M) Onslip

	To				
From		1 - Purbrook Way (Westbound)	2 - A3(M) Onslip	3 - Purbrook Way (Eastbound)	4 - BnQ Access
	1 - Purbrook Way (Westbound)	10	10	10	10
	2 - A3(M) Onslip	Exit-only	Exit-only	Exit-only	Exit-only
	3 - Purbrook Way (Eastbound)	10	10	10	10
	4 - BnQ Access	10	10	10	10

Heavy Vehicle Percentages

1 - A3(M) Offslip

	To			
From		1 - Purbrook Way (WB)	2 - A3(M) Offslip (NB)	3 - Purbrook Way (EB)
	1 - Purbrook Way (WB)	10	10	10
	2 - A3(M) Offslip (NB)	10	10	10
	3 - Purbrook Way (EB)	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A3(M) Offslip	1 - Purbrook Way (WB)	0.42	0.06	0.8	A	689	1034
	2 - A3(M) Offslip (NB)	0.84	0.22	5.6	B	1351	2026
	3 - Purbrook Way (EB)	0.72	0.13	2.8	A	1088	1632
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	0.65	0.09	2.0	A	1138	1706
	2 - A3(M) Onslip						
	3 - Purbrook Way (Eastbound)	0.85	0.17	5.8	B	1720	2580
	4 - BnQ Access	0.74	0.81	2.8	E	186	279

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	564	141	0	1981	0.285	562	1406	0.0	0.4	0.046	A
	2 - A3(M) Offslip (NB)	1108	277	562	2152	0.515	1103	0	0.0	1.2	0.063	A
	3 - Purbrook Way (EB)	893	223	517	2018	0.442	889	1148	0.0	0.9	0.058	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	933	233	456	2290	0.407	930	1063	0.0	0.8	0.048	A
	2 - A3(M) Onslip			635				752				
	3 - Purbrook Way (Eastbound)	1406	352	71	2466	0.570	1401	564	0.0	1.4	0.062	A
	4 - BnQ Access	152	38	1368	712	0.214	151	104	0.0	0.3	0.117	A

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	674	169	0	1981	0.340	674	1683	0.4	0.6	0.050	A
	2 - A3(M) Offslip (NB)	1323	331	674	2055	0.644	1320	0	1.2	2.0	0.089	A
	3 - Purbrook Way (EB)	1066	267	619	1934	0.551	1064	1375	0.9	1.3	0.076	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1114	279	547	2211	0.504	1113	1274	0.8	1.1	0.060	A
	2 - A3(M) Onslip			759				901				
	3 - Purbrook Way (Eastbound)	1683	421	85	2454	0.686	1679	674	1.4	2.4	0.085	A
	4 - BnQ Access	182	45	1640	539	0.338	181	124	0.3	0.6	0.184	B

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	824	206	0	1981	0.416	823	2053	0.6	0.8	0.057	A
	2 - A3(M) Offslip (NB)	1620	405	823	1926	0.842	1607	0	2.0	5.4	0.199	B
	3 - Purbrook Way (EB)	1306	326	753	1821	0.717	1300	1676	1.3	2.7	0.125	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1365	341	663	2110	0.647	1361	1546	1.1	2.0	0.088	A
	2 - A3(M) Onslip			927				1097				
	3 - Purbrook Way (Eastbound)	2053	513	104	2439	0.842	2041	824	2.4	5.5	0.161	A
	4 - BnQ Access	223	56	1993	314	0.710	216	151	0.6	2.3	0.633	E

17:30 - 17:45

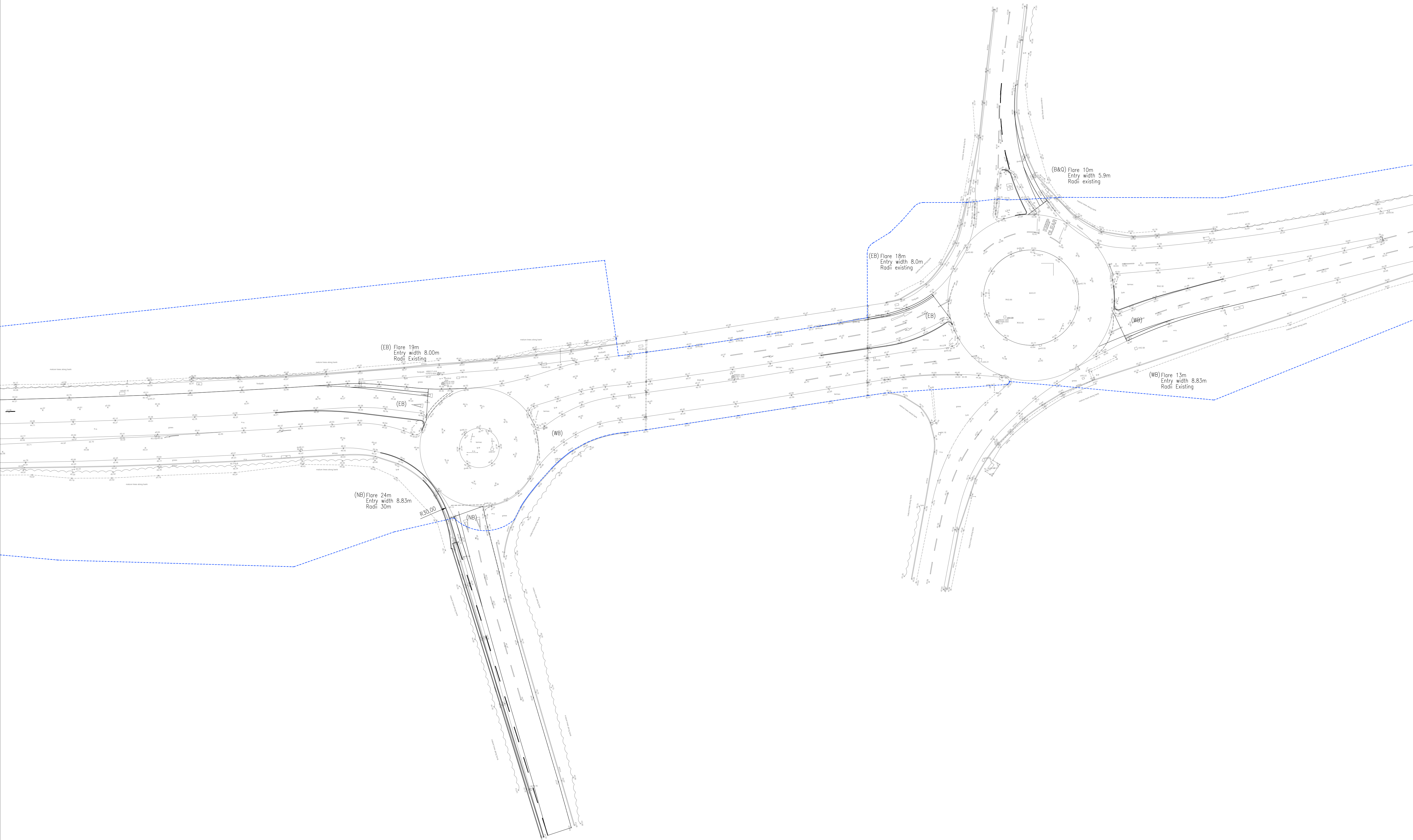
Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	827	207	0	1981	0.417	827	2064	0.8	0.8	0.057	A
	2 - A3(M) Offslip (NB)	1620	405	827	1922	0.843	1619	0	5.4	5.6	0.216	B
	3 - Purbrook Way (EB)	1306	326	759	1816	0.719	1305	1687	2.7	2.8	0.129	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1365	341	671	2103	0.649	1365	1564	2.0	2.0	0.089	A
	2 - A3(M) Onslip			931				1105				
	3 - Purbrook Way (Eastbound)	2064	516	104	2438	0.847	2063	827	5.5	5.8	0.175	B
	4 - BnQ Access	223	56	2015	300	0.743	221	152	2.3	2.8	0.807	E

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	679	170	0	1981	0.343	680	1698	0.8	0.6	0.051	A
	2 - A3(M) Offslip (NB)	1323	331	680	2049	0.646	1338	0	5.6	2.0	0.095	A
	3 - Purbrook Way (EB)	1066	267	627	1927	0.553	1072	1391	2.8	1.4	0.078	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	1114	279	561	2199	0.507	1118	1301	2.0	1.1	0.061	A
	2 - A3(M) Onslip			765				914				
	3 - Purbrook Way (Eastbound)	1698	425	85	2454	0.692	1712	679	5.8	2.5	0.090	A
	4 - BnQ Access	182	45	1672	519	0.351	191	125	2.8	0.6	0.206	B

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	LOS
1 - A3(M) Offslip	1 - Purbrook Way (WB)	567	142	0	1981	0.286	567	1416	0.6	0.4	0.047	A
	2 - A3(M) Offslip (NB)	1108	277	567	2147	0.516	1111	0	2.0	1.2	0.064	A
	3 - Purbrook Way (EB)	893	223	521	2015	0.443	895	1158	1.4	0.9	0.059	A
2 - A3(M) Onslip	1 - Purbrook Way (Westbound)	933	233	463	2285	0.408	935	1077	1.1	0.8	0.049	A
	2 - A3(M) Onslip			638				760				
	3 - Purbrook Way (Eastbound)	1416	354	71	2465	0.574	1420	567	2.5	1.5	0.063	A
	4 - BnQ Access	152	38	1387	701	0.218	154	104	0.6	0.3	0.121	A



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KEY

INDICATIVE HIGHWAY BOUNDARY – BASED ON THE STATUS ENQUIRY – PURBROOK WAY, PURBROOK, PO9 3QW WITH REFERENCE No 21333919

A	HIGHWAY BOUNDARY INCLUDED	23.02.18	EK	SB
Rev	Description	Date	By	Chkd



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Project Name COLLEGE ROAD, CAMPDOWN			
Title PROPOSED ROUNDABOUT MITIGATION			
Project Phase PRELIMINARY			
Checked By SB	Checked Date 17.01.2018	Drawn By EK	Drawn Date 17.01.18
Client Drawing No. -		Scale 1:500	(AT A1 SIZE)
PBA Drawing No. 048.0010.002			Revision A