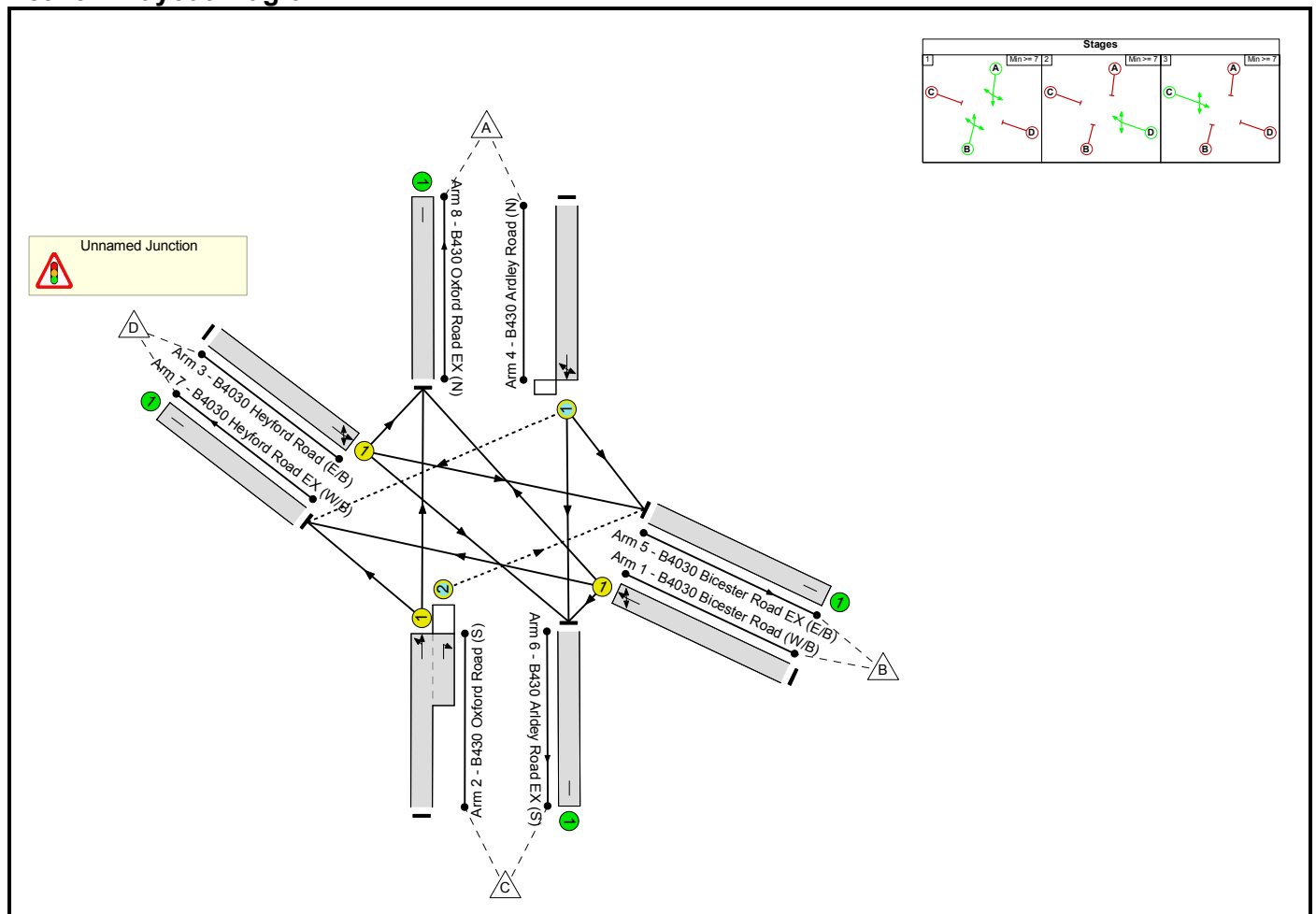


Full Input Data And Results
Full Input Data And Results

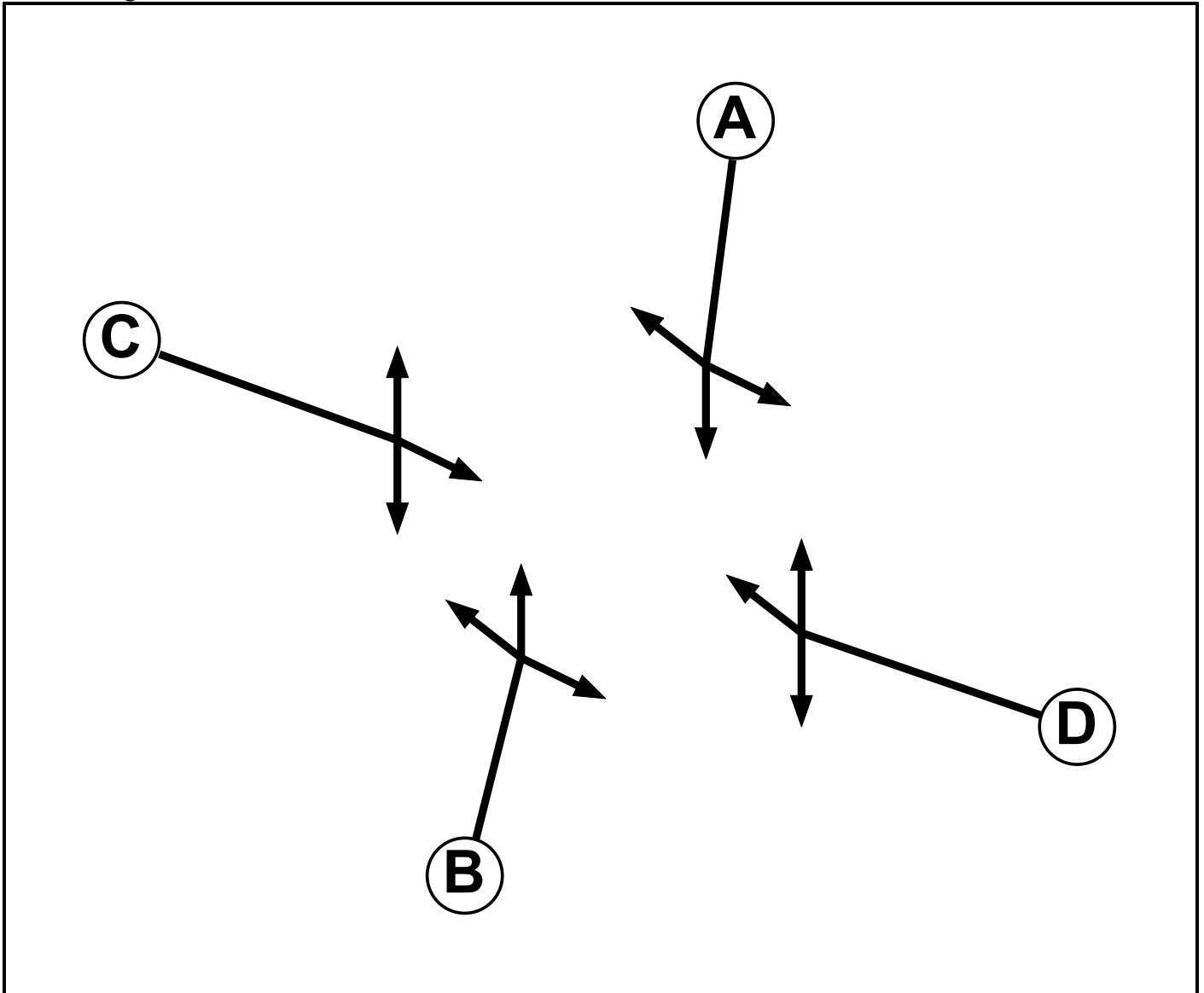
User and Project Details

Project:	Heyford Park
Title:	Middleton Stoney Junction
Location:	
Additional detail:	Existing Layout
File name:	Middleton Stoney Signalised Junction_Consented V3.lsg3x
Author:	ekeen
Company:	Peter Brett Associates
Address:	10 Queen Square

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

Full Input Data And Results

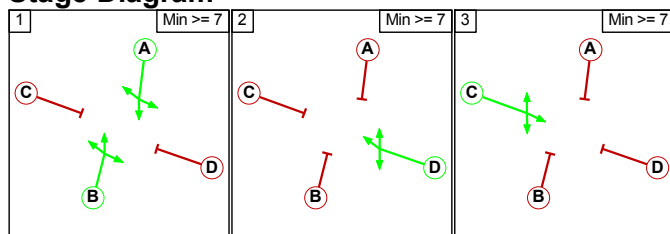
Phase Intergrens Matrix

		Starting Phase			
		A	B	C	D
Terminating Phase	A	-	5	8	
	B	-	8	5	
	C	5	7	-	8
	D	7	5	8	-

Phases in Stage

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

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	2	B	Losing	3	3

Prohibited Stage Change

		To Stage		
		1	2	3
From Stage	1	-	8	8
	2	7	-	8
	3	7	8	-

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
2/2 (B430 Oxford Road (S))	5/1 (Right)	1439	0	4/1	1.09	To 5/1 (Left) To 6/1 (Ahead)	2.00	-	0.50	2	2.00
4/1 (B430 Ardley Road (N))	7/1 (Right)	1439	0	2/1	1.09	To 7/1 (Left) To 8/1 (Ahead)	1.00	1.00	0.50	1	1.00

Full Input Data And Results

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (B4030 Bicester Road (W/B))	U	D	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 6 Left	13.00
											Arm 7 Ahead	30.00
											Arm 8 Right	30.00
2/1 (B430 Oxford Road (S))	U	B	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 7 Left	30.00
											Arm 8 Ahead	Inf
2/2 (B430 Oxford Road (S))	O	B	2	3	5.0	Geom	-	3.00	0.00	N	Arm 5 Right	10.00
3/1 (B4030 Heyford Road (E/B))	U	C	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Ahead	30.00
											Arm 6 Right	30.00
											Arm 8 Left	7.00
4/1 (B430 Ardley Road (N))	O	A	2	3	60.0	Geom	-	3.32	0.00	Y	Arm 5 Left	12.00
											Arm 6 Ahead	Inf
5/1 (B4030 Bicester Road EX (E/B))	U		2	3	60.0	Inf	-	-	-	-	Arm 7 Right	8.00
											-	-
6/1 (B430 Ardley Road EX (S))	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (B4030 Heyford Road EX (W/B))	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (B430 Oxford Road EX (N))	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
15: '2022 Ref (Sens) AM'	07:45	08:45	01:00	
16: '2022 Ref (Sens) PM'	17:00	18:00	01:00	

Full Input Data And Results

Scenario 15: '2022 Ref (Sens) Case AM' (FG15: '2022 Ref (Sens) AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	120	431	12	563
	B	85	0	52	291	428
	C	196	20	0	67	283
	D	11	325	115	0	451
	Tot.	292	465	598	370	1725

Traffic Lane Flows

Lane	Scenario 15: 2022 Ref (Sens) Case AM
Junction: Unnamed Junction	
1/1	428
2/1 (with short)	283(In) 263(Out)
2/2 (short)	20
3/1	451
4/1	563
5/1	465
6/1	598
7/1	370
8/1	292

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 (B4030 Bicester Road (W/B))	3.00	0.00	Y	Arm 6 Left	13.00	12.1 %	1810	1810
				Arm 7 Ahead	30.00	68.0 %		
				Arm 8 Right	30.00	19.9 %		
2/1 (B430 Oxford Road (S))	3.00	0.00	Y	Arm 7 Left	30.00	25.5 %	1891	1891
				Arm 8 Ahead	Inf	74.5 %		
2/2 (B430 Oxford Road (S))	3.00	0.00	N	Arm 5 Right	10.00	100.0 %	1787	1787
3/1 (B4030 Heyford Road (E/B))	3.00	0.00	Y	Arm 5 Ahead	30.00	72.1 %	1817	1817
				Arm 6 Right	30.00	25.5 %		
				Arm 8 Left	7.00	2.4 %		
4/1 (B430 Ardley Road (N))	3.32	0.00	Y	Arm 5 Left	12.00	21.3 %	1889	1889
				Arm 6 Ahead	Inf	76.6 %		
5/1 (B4030 Bicester Road EX (E/B) Lane 1)				Arm 7 Right	8.00	2.1 %	Inf	Inf
				Infinite Saturation Flow				
6/1 (B430 Ardey Road EX (S) Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (B4030 Heyford Road EX (W/B) Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (B430 Oxford Road EX (N) Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 16: '2022 Ref (Sens) Case PM' (FG16: '2022 Ref (Sens) PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
	A	B	C	D	Tot.	
A	0	69	169	11	249	
B	58	0	22	304	384	
C	419	61	0	108	588	
D	5	249	75	0	329	
Tot.	482	379	266	423	1550	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 16: 2022 Ref (Sens) Case PM
Junction: Unnamed Junction	
1/1	384
2/1 (with short)	588(In) 527(Out)
2/2 (short)	61
3/1	329
4/1	249
5/1	379
6/1	266
7/1	423
8/1	482

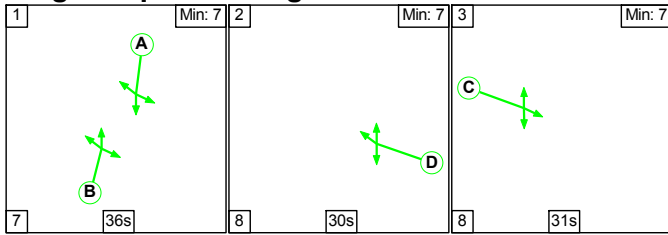
Lane Saturation Flows

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 (B4030 Bicester Road (W/B))	3.00	0.00	Y	Arm 6 Left	13.00	5.7 %	1817	1817
				Arm 7 Ahead	30.00	79.2 %		
				Arm 8 Right	30.00	15.1 %		
2/1 (B430 Oxford Road (S))	3.00	0.00	Y	Arm 7 Left	30.00	20.5 %	1896	1896
				Arm 8 Ahead	Inf	79.5 %		
2/2 (B430 Oxford Road (S))	3.00	0.00	N	Arm 5 Right	10.00	100.0 %	1787	1787
3/1 (B4030 Heyford Road (E/B))	3.00	0.00	Y	Arm 5 Ahead	30.00	75.7 %	1819	1819
				Arm 6 Right	30.00	22.8 %		
				Arm 8 Left	7.00	1.5 %		
				Arm 5 Left	12.00	27.7 %		
4/1 (B430 Ardley Road (N))	3.32	0.00	Y	Arm 6 Ahead	Inf	67.9 %	1867	1867
				Arm 7 Right	8.00	4.4 %		
5/1 (B4030 Bicester Road EX (E/B) Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (B430 Ardley Road EX (S) Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (B4030 Heyford Road EX (W/B) Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (B430 Oxford Road EX (N) Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 15: '2022 Ref (Sens) Case AM' (FG15: '2022 Ref (Sens) AM', Plan 1: 'Network Control Plan 1')

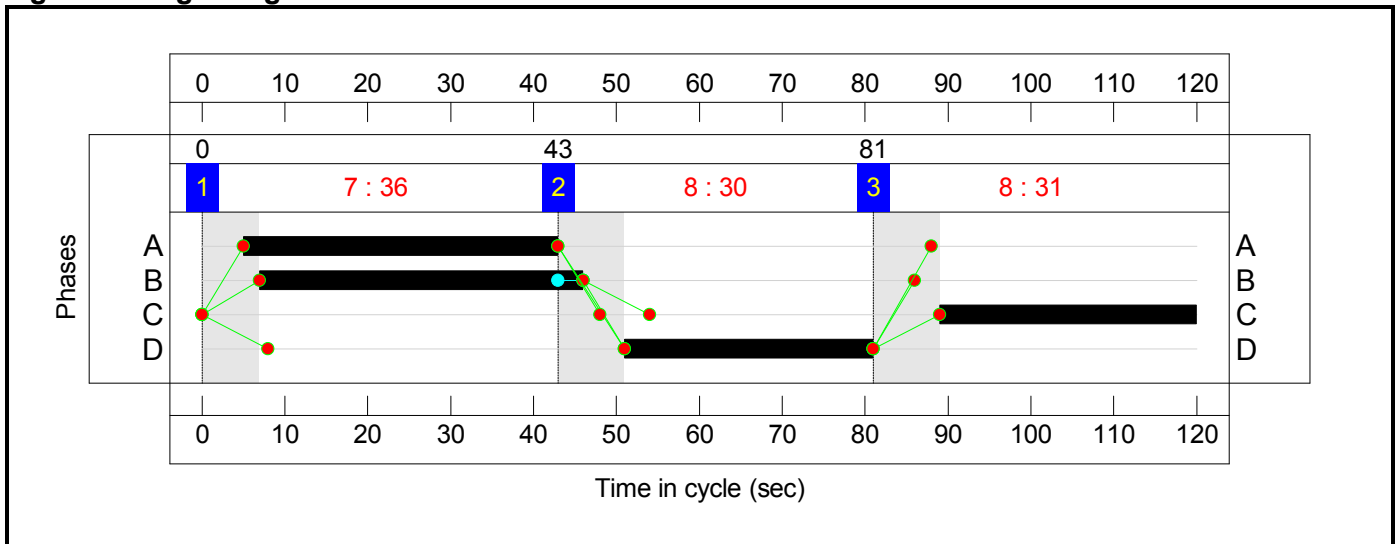
Stage Sequence Diagram



Stage Timings


Stage	1	2	3
Duration	36	30	31
Change Point	0	43	81

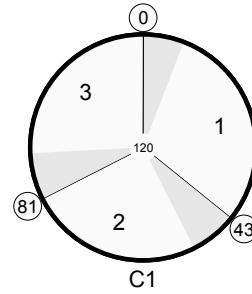
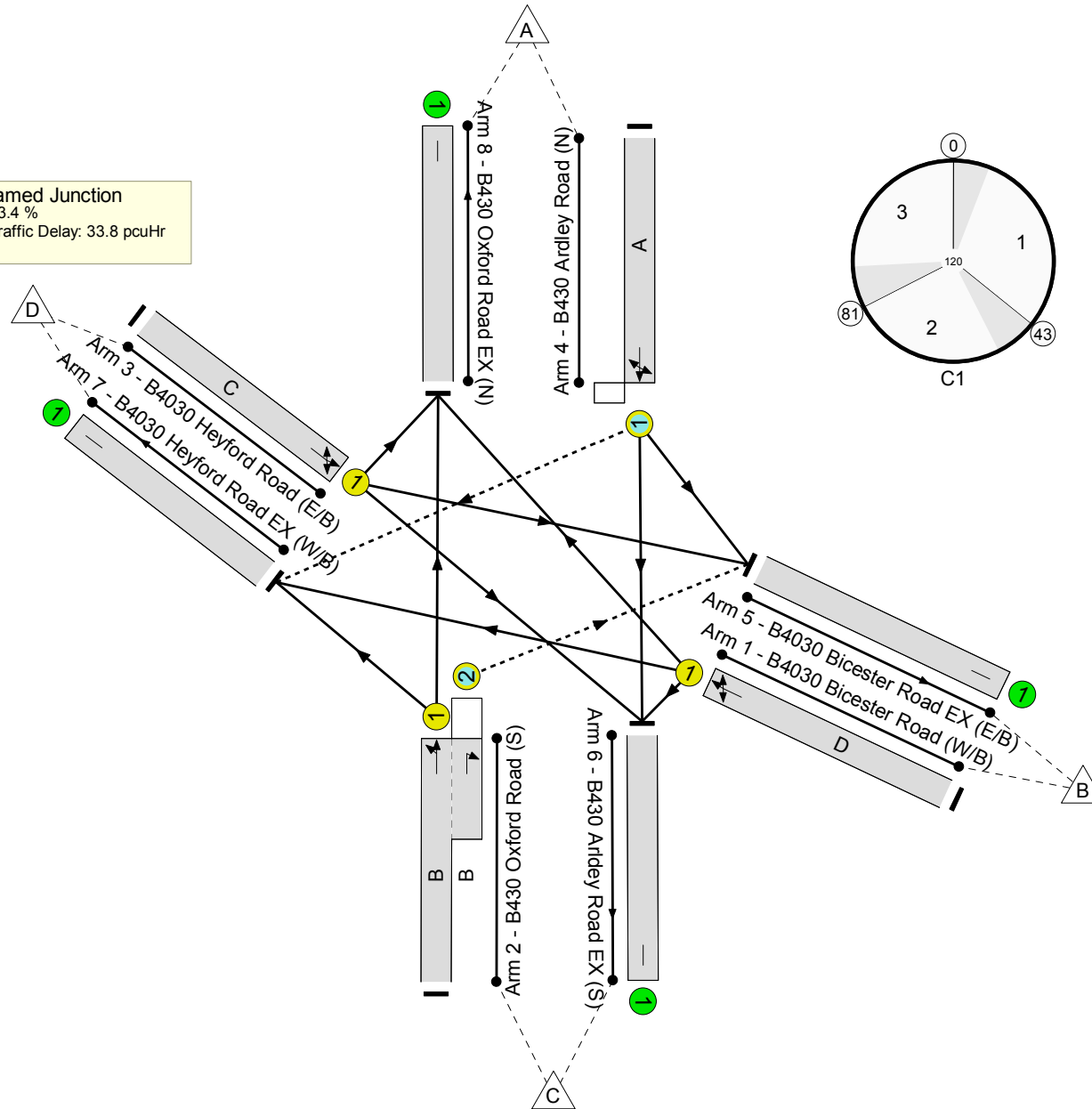
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results


Unnamed Junction
 PRC: -3.4 %
 Total Traffic Delay: 33.8 pcuHr



Stages		
1	Min >= 7	2
3	Min >= 7	3
1	Min >= 7	3

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: Middleton Stoney Junction	-	-	N/A	-	-		-	-	-	-	-	-	93.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	93.1%
1/1	B4030 Bicester Road (W/B) Left Ahead Right	U	N/A	N/A	D		1	30	-	428	1810	468	91.5%
2/1+2/2	B430 Oxford Road (S) Right Left Ahead	U+O	N/A	N/A	B		1	39	-	283	1891:1787	632	44.8%
3/1	B4030 Heyford Road (E/B) Ahead Right Left	U	N/A	N/A	C		1	31	-	451	1817	485	93.1%
4/1	B430 Ardley Road (N) Left Ahead Right	O	N/A	N/A	A		1	38	-	563	1889	614	91.7%
5/1	B4030 Bicester Road EX (E/B)	U	N/A	N/A	-		-	-	-	465	Inf	Inf	0.0%
6/1	B430 Arldey Road EX (S)	U	N/A	N/A	-		-	-	-	598	Inf	Inf	0.0%
7/1	B4030 Heyford Road EX (W/B)	U	N/A	N/A	-		-	-	-	370	Inf	Inf	0.0%
8/1	B430 Oxford Road EX (N)	U	N/A	N/A	-		-	-	-	292	Inf	Inf	0.0%

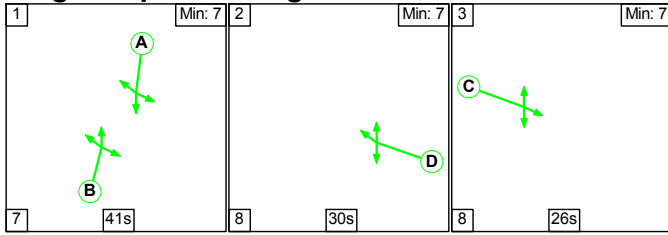
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Middleton Stoney Junction	-	-	31	1	0	19.0	14.6	0.2	33.8	-	-	-	-
Unnamed Junction	-	-	31	1	0	19.0	14.6	0.2	33.8	-	-	-	-
1/1	428	428	-	-	-	5.1	4.4	-	9.6	80.4	13.8	4.4	18.2
2/1+2/2	283	283	20	0	0	2.4	0.4	0.1	3.0	37.9	6.9	0.4	7.3
3/1	451	451	-	-	-	5.4	5.1	-	10.5	84.0	14.7	5.1	19.8
4/1	563	563	12	0	0	6.1	4.7	0.0	10.8	68.9	18.0	4.7	22.7
5/1	465	465	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	598	598	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	370	370	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	292	292	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
<p>C1 PRC for Signalled Lanes (%): -3.4 Total Delay for Signalled Lanes (pcuHr): 33.83 Cycle Time (s): 120 PRC Over All Lanes (%): -3.4 Total Delay Over All Lanes(pcuHr): 33.83</p>													

Full Input Data And Results

Scenario 16: '2022 Ref (Sens) Case PM' (FG16: '2022 Ref (Sens) PM', Plan 1: 'Network Control Plan 1')

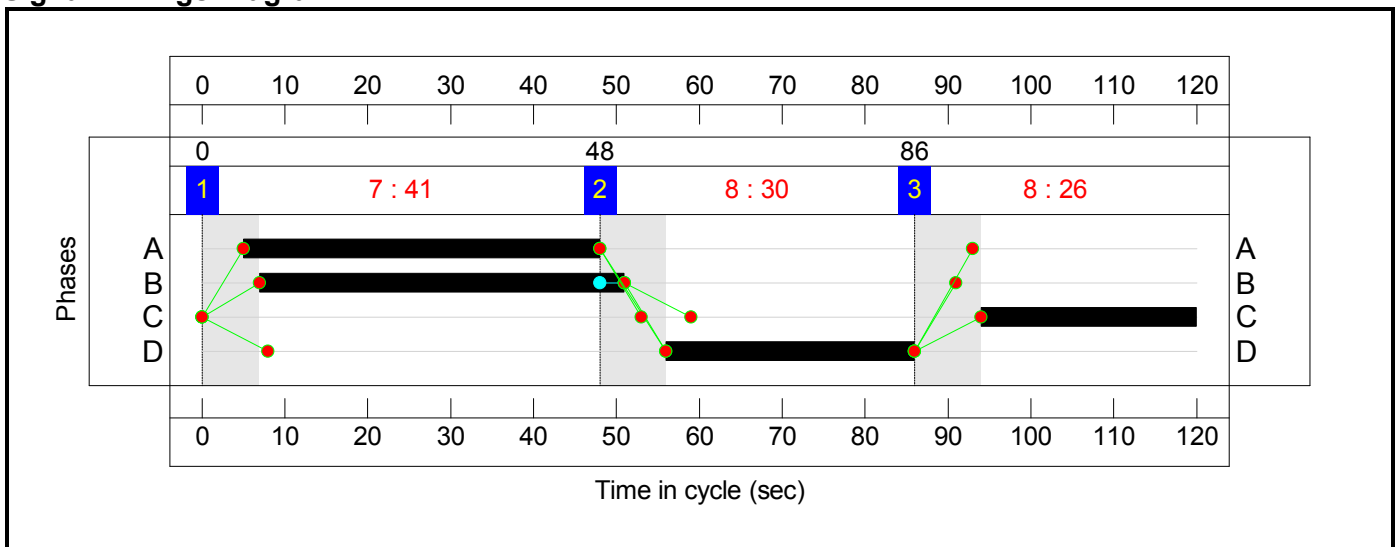
Stage Sequence Diagram



Stage Timings


Stage	1	2	3
Duration	41	30	26
Change Point	0	48	86

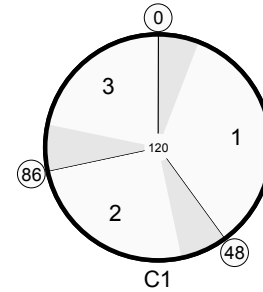
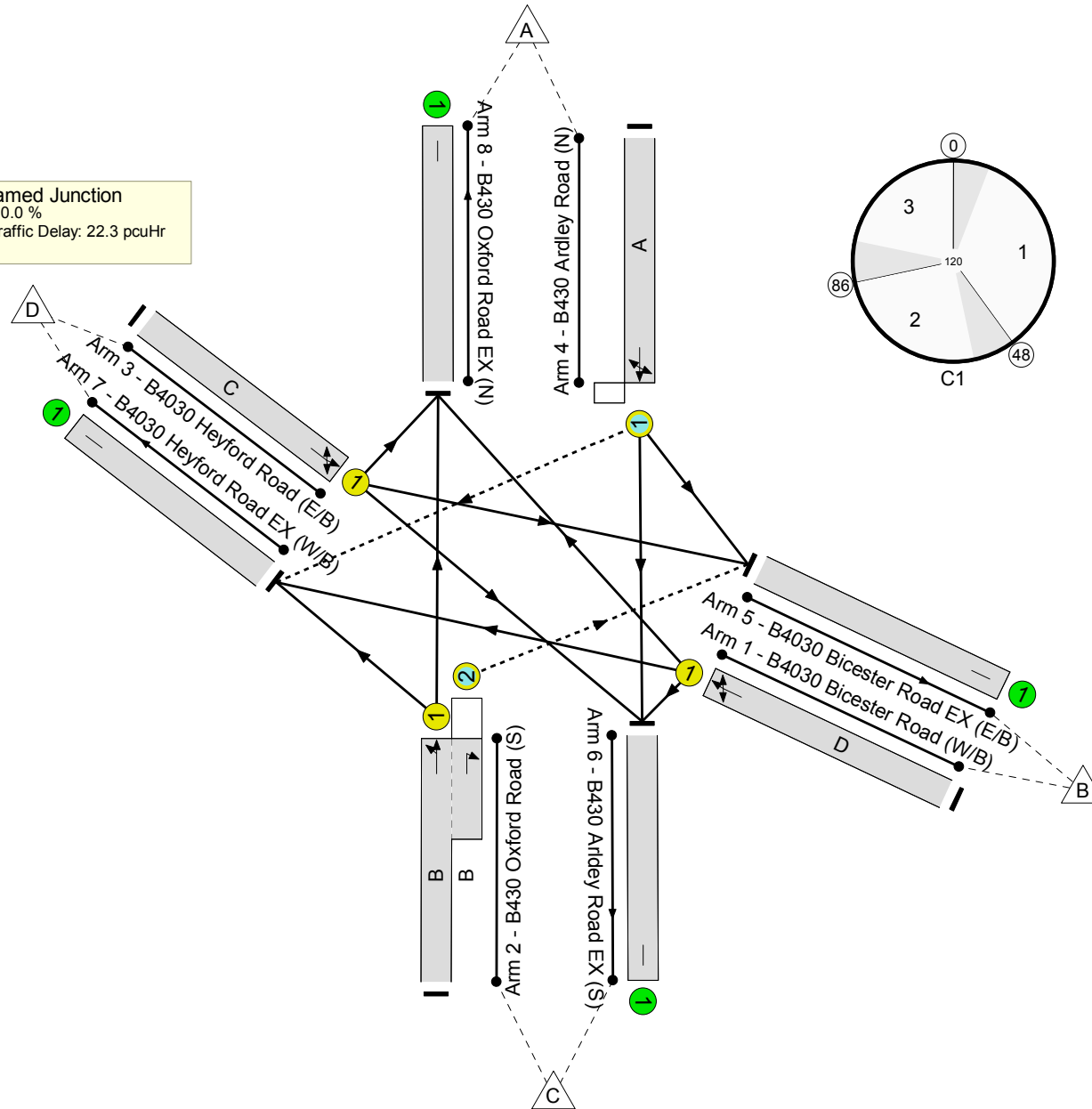
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results


Unnamed Junction
 PRC: 10.0 %
 Total Traffic Delay: 22.3 pcuHr



Stages			
1	Min >= 7	2	Min >= 7
3	A	A	A
C	B	B	B
D	D	D	D
3	Min >= 7	3	Min >= 7

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: Middleton Stoney Junction	-	-	N/A	-	-		-	-	-	-	-	-	81.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	81.8%
1/1	B4030 Bicester Road (W/B) Left Ahead Right	U	N/A	N/A	D		1	30	-	384	1817	469	81.8%
2/1+2/2	B430 Oxford Road (S) Right Left Ahead	U+O	N/A	N/A	B		1	44	-	588	1896:1787	733	80.3%
3/1	B4030 Heyford Road (E/B) Ahead Right Left	U	N/A	N/A	C		1	26	-	329	1819	409	80.4%
4/1	B430 Ardley Road (N) Left Ahead Right	O	N/A	N/A	A		1	43	-	249	1867	675	36.9%
5/1	B4030 Bicester Road EX (E/B)	U	N/A	N/A	-		-	-	-	379	Inf	Inf	0.0%
6/1	B430 Arldey Road EX (S)	U	N/A	N/A	-		-	-	-	266	Inf	Inf	0.0%
7/1	B4030 Heyford Road EX (W/B)	U	N/A	N/A	-		-	-	-	423	Inf	Inf	0.0%
8/1	B430 Oxford Road EX (N)	U	N/A	N/A	-		-	-	-	482	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: Middleton Stoney Junction	-	-	70	1	1	15.8	6.4	0.1	22.3	-	-	-	-
Unnamed Junction	-	-	70	1	1	15.8	6.4	0.1	22.3	-	-	-	-
1/1	384	384	-	-	-	4.5	2.1	-	6.6	61.9	11.9	2.1	14.1
2/1+2/2	588	588	59	1	1	5.4	2.0	0.1	7.4	45.3	16.7	2.0	18.7
3/1	329	329	-	-	-	4.0	2.0	-	6.0	65.4	10.3	2.0	12.3
4/1	249	249	10	1	0	1.9	0.3	0.1	2.3	33.0	6.0	0.3	6.3
5/1	379	379	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	266	266	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	423	423	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	482	482	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		10.0	Total Delay for Signalled Lanes (pcuHr):		22.25	Cycle Time (s): 120				
			PRC Over All Lanes (%):		10.0	Total Delay Over All Lanes (pcuHr):		22.25					