Appendix H

EB2/EB3R Final Scenario – Phasing Diagrams

Site: 1.0 [1.0 Pakuranga Rd / Ti Rakau Dr (Site Folder: AM)]

Site Category: (None) Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog Phase Times specified by the user Phase Sequence: Variable Phasing Reference Phase: Phase A Input Phase Sequence: A, B, C Output Phase Sequence: A, B, C

Phase Tir	ning Summary
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Phase	Α	В	С
Phase Change Time (sec)	0	39	69
Green Time (sec)	34	24	25
Phase Time (sec)	40	30	30
Phase Split	40%	30%	30%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase VAR: Variable Phase



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Site: 3.0 [3.0 Pakuranga Highway / Pakuranga Rd (Site Folder: AM)]

Site Category: (None) Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 150 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog Phase Times specified by the user Phase Sequence: Variable Phasing Reference Phase: Phase A Input Phase Sequence: A, B, C, D Output Phase Sequence: A, B, C, D

Phase Timing Summary		
Phase	Α	В

Phase	Α	В	С	D
Phase Change Time (sec)	0	43	74	93
Green Time (sec)	37	25	13	51
Phase Time (sec)	43	31	19	57
Phase Split	29%	21%	13%	38%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence





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Site: 4.0 [4.0 Palm Ave / Aylesbury St (Site Folder: AM)]

Site Category: (None) Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Site User-Given Phase Times)

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Timings based on settings in the Site Phasing & Timing dialog Phase Times specified by the user Phase Sequence: Variable Phasing Reference Phase: Phase A Input Phase Sequence: A, B, C, D, E Output Phase Sequence: A, B, C, D, E

Α	В	С	
0	73	97	
	A 0	A B 0 73	A B C 0 73 97

		-	-	-	
Phase Change Time (sec)	0	73	97	114	139
Green Time (sec)	66	18	11	19	6
Phase Time (sec)	72	24	17	24	13
Phase Split	48%	16%	11%	16%	9%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence





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Site: 5.0 [5.0 Pakuranga Highway / Reeves Rd (Site Folder: AM)]

Site Category: (None)

Single Point Interchange (Signals) - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog Phase Times specified by the user Phase Sequence: Variable Phasing Reference Phase: Phase A Input Phase Sequence: A, B, C, D, F, E Output Phase Sequence: A, B, C, D, F, E

Phase Timing Summary							
Phase	Α	В	С	D	F	Е	1
Phase Change Time (sec)	0	32	52	72	106	131	1
Green Time (sec)	26	14	14	29	17	11	1
Phase Time (sec)	32	20	19	37	25	17]
Phase Split	21%	13%	13%	25%	17%	11%	٦.

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence





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Site: 7.0 [7.0 William Roberts Rd/ Mattson Rd/ Ti Rakau Drive (Site Folder: AM)]

Scheme Design Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 110 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog Phase Times determined by the program Downstream lane blockage effects included in determining phase times Phase Sequence: Leading Right Turn Reference Phase: Phase A Input Phase Sequence: A, X, B, C, D Output Phase Sequence: A, X, B, C, D

Phase Timing Summary					
Phase	Α	X	В	С	D
Phase Change Time (sec)	0	35	60	77	92
Green Time (sec)	27	19	11	7	12
Phase Time (sec)	33	25	19	13	20
Phase Split	30%	23%	17%	12%	18%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence





Phase D





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Site: 8.1 [8.1 U-turn - West of Marriot Rd (Site Folder: AM)]

Site Category: (None) Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 30 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog Phase Times determined by the program Downstream lane blockage effects included in determining phase times Phase Sequence: Opposed Turns Reference Phase: Phase A Input Phase Sequence: A, B Output Phase Sequence: A, B

Phase	Timing	Summary	

Phase	Α	В
Phase Change Time (sec)	0	18
Green Time (sec)	12	6
Phase Time (sec)	18	12
Phase Split	60%	40%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase VAR: Variable Phase



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Site: 9.1 [9.1 Staggered Crossing - East of Marriot Rd (Site Folder: AM)]

Site Category: (None) Pedestrian Crossing (Signalised) - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 40 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog Phase Times determined by the program Downstream Iane blockage effects included in determining phase times Phase Sequence: Two-Phase Reference Phase: Phase A Input Phase Sequence: A, B, C Output Phase Sequence: A, B, C

Phase Timing Summary

Phase	Α	В	С
Phase Change Time (sec)	0	2	23
Green Time (sec)	***	15	11
Phase Time (sec)	2	21	17
Phase Split	5%	53%	43%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

*** No green time has been calculated for this phase because the next phase starts during its intergreen time. This occurs with overlap phasing where there is no single movement connecting this phase to the next, or where the only such movement is a dummy movement with zero minimum green time specified. If a green time is required for this phase, specify a dummy movement with a non-zero minimum green time.



REF: Reference Phase VAR: Variable Phase



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Site: 9.2 [9.2 Staggered Crossing - East of Marriot Rd (Site Folder: AM)]

Site Category: (None) Pedestrian Crossing (Signalised) - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 50 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog Phase Times determined by the program Downstream Iane blockage effects included in determining phase times Phase Sequence: Two-Phase Reference Phase: Phase A Input Phase Sequence: A, B Output Phase Sequence: A, B

Phase Timing Summary

Phase	Α	В
Phase Change Time (sec)	0	33
Green Time (sec)	27	11
Phase Time (sec)	33	17
Phase Split	66%	34%

Mixed Running & Stopped MCs

Other Movement Class (MC) Stopped

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



Continuous Movement

Phase Transition Applied

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Site: 10.1 [10.1 U-turn - East of Edgewater Dr (West) (Site Folder: AM)]

Site Category: (None) Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 40 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog Phase Times determined by the program Downstream lane blockage effects included in determining phase times Phase Sequence: Opposed Turns Reference Phase: Phase B Input Phase Sequence: A, B Output Phase Sequence: A, B

Phase	Timing	Summary	

Phase	Α	В
Phase Change Time (sec)	12	0
Green Time (sec)	22	6
Phase Time (sec)	28	12
Phase Split	70%	30%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase VAR: Variable Phase



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Site: 13.0 [13.0 Gossamer Dr / Ti Rakau Dr (Site Folder: AM)]

Site Category: (None) Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 150 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog Phase Times specified by the user Phase Sequence: Variable Phasing Reference Phase: Phase A Input Phase Sequence: A, B, C, D, E, F Output Phase Sequence: A, B, C, D, E, F

Phase Timing Summary								
Phase	Α	В	С	D	Е	F		
Phase Change Time (sec)	0	50	73	85	100	123		
Green Time (sec)	44	17	6	11	17	21		
Phase Time (sec)	50	23	10	17	23	27		
Phase Split	33%	15%	7%	11%	15%	18%		

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence





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CCG PHASING SUMMARY

□ Common Control Group: CCG3 [Aylesbury/ WR/ Reeves Rd]

■ Network: N101 [AM -Continous Lane & Phase & Single lane (Network Folder: General)]

EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 158 seconds (CCG Practical Cycle Time)

Timings based on settings in the Network Timing dialog Phase Times determined by the program Downstream lane blockage effects included in determining phase times Phase Sequence: CCG Phasing Reference Phase: Phase A Input Phase Sequence: A, B, C, D, D2, E Output Phase Sequence: A, B, C, D, D2, E

Phase Timing Summary (CCG)

Phase	Α	В	С	D	D2	E
Phase Change Time (sec)	2	45	66	79	95	113
Green Time (sec)	37	14	6	10	12	41
Phase Time (sec)	44	21	12	16	18	47
Phase Split	28%	13%	8%	10%	11%	30%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence (CCG)













REF: Reference Phase VAR: Variable Phase



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Site: 1.0 [1.0 Pakuranga Rd / Ti Rakau Dr (Site Folder: AM)]

Site Category: (None) Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 97 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog Phase Times determined by the program Downstream lane blockage effects included in determining phase times Phase Sequence: Variable Phasing Reference Phase: Phase A Input Phase Sequence: A, B, C Output Phase Sequence: A, B, C

Phase Timing	Summary
---------------------	---------

Phase	Α	В	С
Phase Change Time (sec)	0	34	64
Green Time (sec)	28	24	27
Phase Time (sec)	34	30	33
Phase Split	35%	31%	34%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase VAR: Variable Phase



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Site: 3.0 [3.0 Pakuranga Highway / Pakuranga Rd (Site Folder: AM)]

Site Category: (None) Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog Phase Times specified by the user Phase Sequence: Variable Phasing Reference Phase: Phase A Input Phase Sequence: A, B, C, D Output Phase Sequence: A, B, C, D

Phase Timing	Summary
--------------	---------

Phase	Α	В	С	D
Phase Change Time (sec)	0	68	89	108
Green Time (sec)	62	15	13	6
Phase Time (sec)	68	21	19	12
Phase Split	57%	18%	16%	10%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence





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Site: 4.0 [4.0 Palm Ave / Aylesbury St (Site Folder: AM)]

Site Category: (None) Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog Phase Times specified by the user Phase Sequence: Variable Phasing Reference Phase: Phase A Input Phase Sequence: A, B, C, D, E Output Phase Sequence: A, B, C, D, E

Phase Tim	ing Su	mmar	у		
Phase			Α	В	
			-		

Phase	Α	В	С	D	E
Phase Change Time (sec)	0	72	96	113	139
Green Time (sec)	66	18	11	20	6
Phase Time (sec)	72	24	17	25	12
Phase Split	48%	16%	11%	17%	8%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence





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Site: 5.0 [5.0 Pakuranga Highway / Reeves Rd (Site Folder: AM)]

Site Category: (None)

Single Point Interchange (Signals) - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog Phase Times specified by the user Phase Sequence: Variable Phasing Reference Phase: Phase A Input Phase Sequence: A, B, C, D, F, E Output Phase Sequence: A, B, C, D, F, E

Phase Timing Summary							
Phase	Α	В	С	D	F	E	1
Phase Change Time (sec)	0	15	30	53	96	116	
Green Time (sec)	9	9	17	38	12	26	
Phase Time (sec)	15	15	22	46	20	32	
Phase Split	10%	10%	15%	31%	13%	21%	

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence





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Site: 7.0 [7.0 William Roberts Rd/ Mattson Rd/ Ti Rakau Drive (Site Folder: AM)]

Scheme Design Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 120 seconds (Network Practical Cycle Time)

Timings based on settings in the Network Timing dialog Phase Times determined by the program Downstream lane blockage effects included in determining phase times Phase Sequence: Leading Right Turn Reference Phase: Phase A Input Phase Sequence: A, X, B, C, D Output Phase Sequence: A, X, B, C, D

Phase Timing Summary								
Phase	Α	X	В	С	D			
Phase Change Time (sec)	0	44	69	86	100			
Green Time (sec)	36	19	11	6	14			
Phase Time (sec)	42	25	19	12	22			
Phase Split	35%	21%	16%	10%	18%			

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence





Phase D





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Site: 8.1 [8.1 U-turn - West of Marriot Rd (Site Folder: AM)]

Site Category: (None) Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 40 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog Phase Times determined by the program Downstream lane blockage effects included in determining phase times Phase Sequence: Opposed Turns Reference Phase: Phase A Input Phase Sequence: A, B Output Phase Sequence: A, B

Ρ	hase	Timing	Summary	

Phase	Α	В
Phase Change Time (sec)	0	28
Green Time (sec)	22	6
Phase Time (sec)	28	12
Phase Split	70%	30%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase VAR: Variable Phase



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Site: 9.1 [9.1 Staggered Crossing - East of Marriot Rd (Site Folder: AM)]

Site Category: (None) Pedestrian Crossing (Signalised) - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 50 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog Phase Times determined by the program Downstream Iane blockage effects included in determining phase times Phase Sequence: Two-Phase Reference Phase: Phase A Input Phase Sequence: A, B, C Output Phase Sequence: A, B, C

Phase Timing Summary

Phase	Α	В	С
Phase Change Time (sec)	0	8	33
Green Time (sec)	2	19	11
Phase Time (sec)	8	25	17
Phase Split	16%	50%	34%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence Phase A REF Phase B TI Rakau Drive (West) TI Rakau Drive (West) TI Rakau Drive (West) TI Rakau Drive (East) TI Rakau Drive (East) TI Rakau Drive (East)



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Site: 9.2 [9.2 Staggered Crossing - East of Marriot Rd (Site Folder: AM)]

Site Category: (None) Pedestrian Crossing (Signalised) - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 60 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog Phase Times determined by the program Downstream Iane blockage effects included in determining phase times Phase Sequence: Two-Phase Reference Phase: Phase A Input Phase Sequence: A, B Output Phase Sequence: A, B

Phase Timing Summary

Phase	Α	В
Phase Change Time (sec)	0	43
Green Time (sec)	37	11
Phase Time (sec)	43	17
Phase Split	72%	28%

Mixed Running & Stopped MCs

Other Movement Class (MC) Stopped

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.



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Continuous Movement

Phase Transition Applied

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Site: 10.1 [10.1 U-turn - East of Edgewater Dr (West) (Site Folder: AM)]

Site Category: (None) Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 50 seconds (Site Practical Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog Phase Times determined by the program Downstream lane blockage effects included in determining phase times Phase Sequence: Opposed Turns Reference Phase: Phase B Input Phase Sequence: A, B Output Phase Sequence: A, B

Phase	Timing	Summary	

Phase	Α	В
Phase Change Time (sec)	12	0
Green Time (sec)	32	6
Phase Time (sec)	38	12
Phase Split	76%	24%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase VAR: Variable Phase



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Site: 13.0 [13.0 Gossamer Dr / Ti Rakau Dr (Site Folder: AM)]

Site Category: (None) Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 160 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog Phase Times specified by the user Phase Sequence: Variable Phasing Reference Phase: Phase A Input Phase Sequence: A, B, C, D, E, F Output Phase Sequence: A, B, C, D, E, F

Phase Timing Summary								
Phase	Α	В	С	D	E	F		
Phase Change Time (sec)	0	63	87	101	113	136		
Green Time (sec)	57	18	8	8	19	17		
Phase Time (sec)	63	24	12	12	26	23		
Phase Split	39%	15%	8%	8%	16%	14%		

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence





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CCG PHASING SUMMARY

□ Common Control Group: CCG3 [Aylesbury/ WR/ Reeves Rd]

■ Network: N101 [PM -Continous Lane & Phase & Single Iane (Network Folder: General)]

EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (CCG Practical Cycle Time)

Timings based on settings in the Network Timing dialog Phase Times determined by the program Downstream lane blockage effects included in determining phase times Phase Sequence: CCG Phasing Reference Phase: Phase A Input Phase Sequence: A, B, C, C2, D, E Output Phase Sequence: A, B, C, C2, D, E

Phase Timing Summary (CCG)

Phase	Α	В	С	C2	D	E
Phase Change Time (sec)	2	19	39	56	74	91
Green Time (sec)	11	14	10	12	11	35
Phase Time (sec)	17	21	16	18	17	41
Phase Split	13%	16%	12%	14%	13%	32%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence (CCG)













REF: Reference Phase VAR: Variable Phase



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