

Appendix F

Construction Scenario 2 – Phasing Diagrams

PHASING SUMMARY

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

Network: N101 [AM
(Network Folder: General)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 140 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 B

Input Phase Sequence: A, B, Bus, D, E

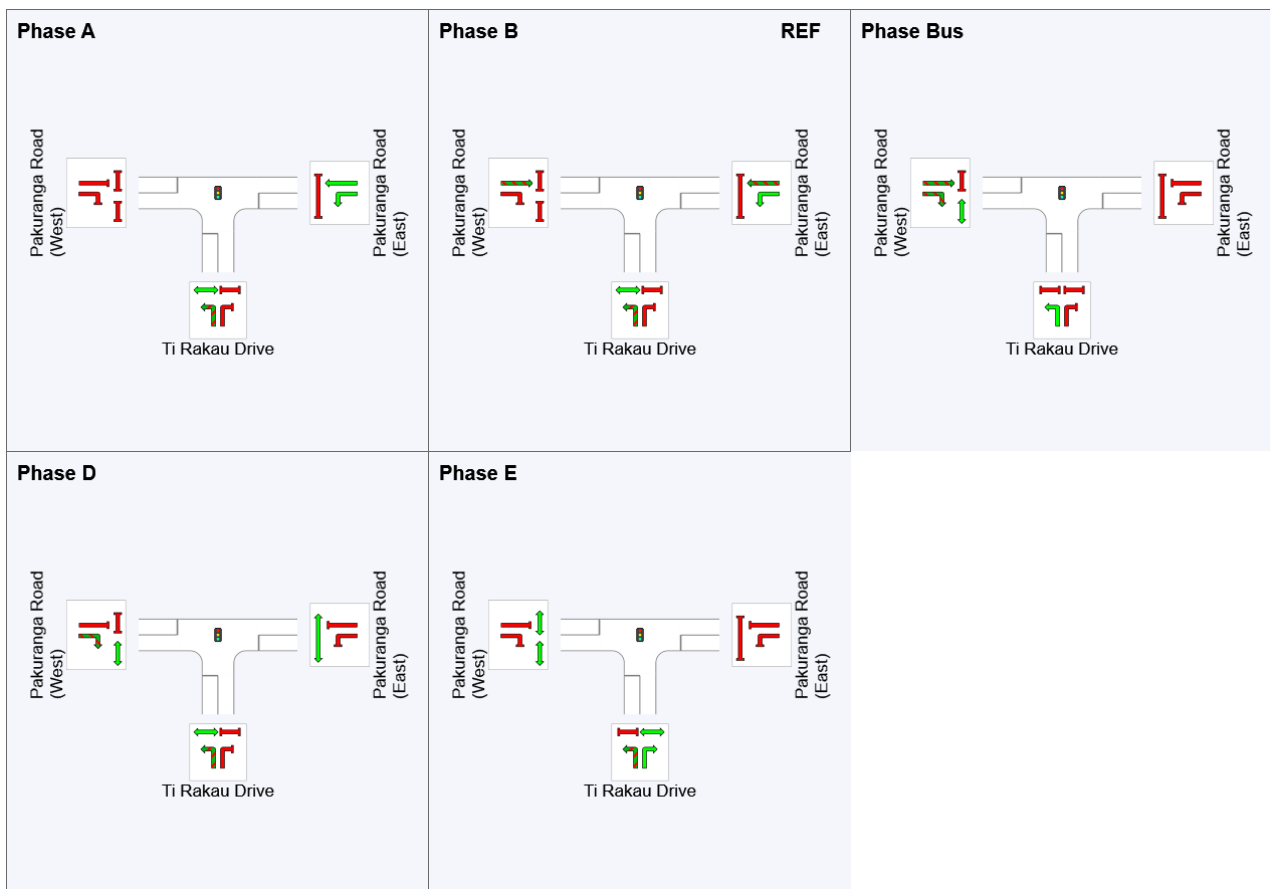
Output Phase Sequence: A, B, Bus, D, E

Phase Timing Summary

Phase	A	B	Bus	D	E
Phase Change Time (sec)	113	0	45	57	84
Green Time (sec)	21	39	6	21	23
Phase Time (sec)	27	45	12	27	29
Phase Split	19%	32%	9%	19%	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



REF: Reference Phase

VAR: Variable Phase

	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

PHASING SUMMARY

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

Network: N101 [PM (Network Folder: General)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 130 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: B, A, D, Bus, E

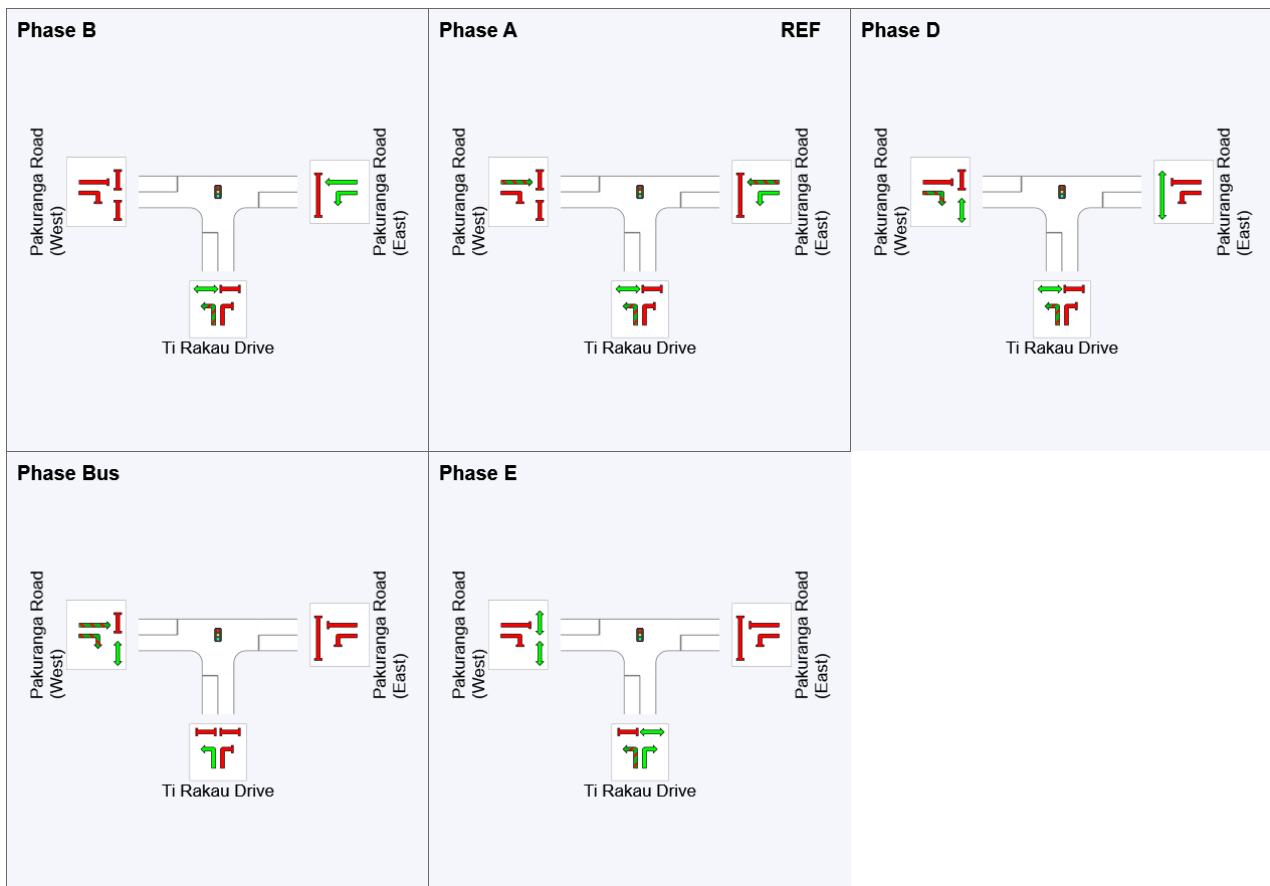
Output Phase Sequence: B, A, D, Bus, E

Phase Timing Summary

Phase	B	A	D	Bus	E
Phase Change Time (sec)	123	0	70	95	109
Green Time (sec)	5	66	19	9	8
Phase Time (sec)	9	72	24	15	10
Phase Split	7%	55%	18%	12%	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



REF: Reference Phase

VAR: Variable Phase

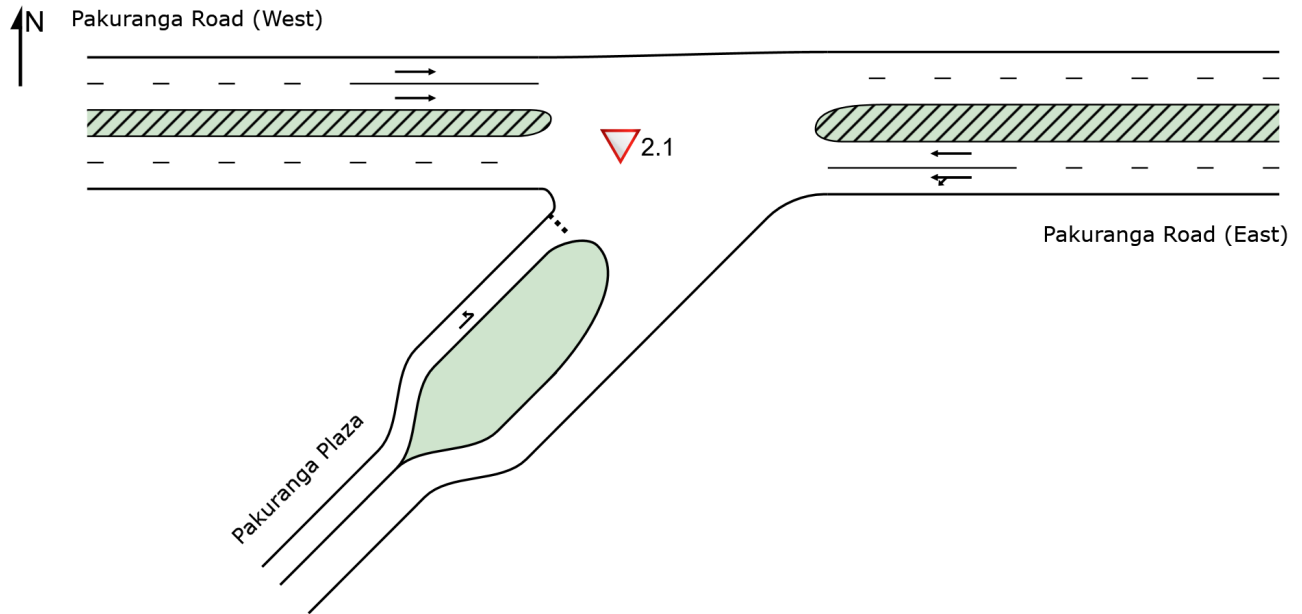
	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

SITE LAYOUT

▽ Site: 2.1 [2.1 Pakuranga Plaza / Pakuranga Rd (Site Folder: AM)]

Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



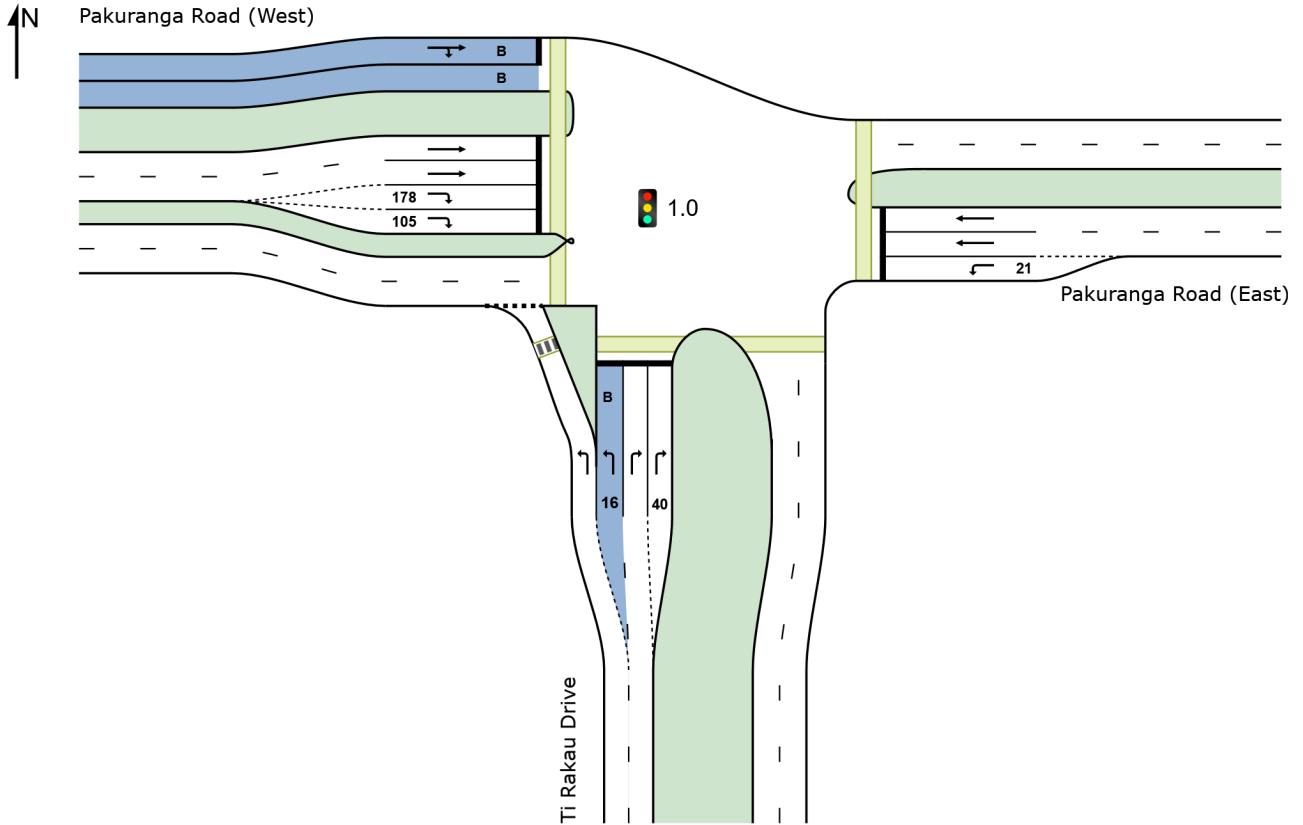
SITE LAYOUT

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

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated

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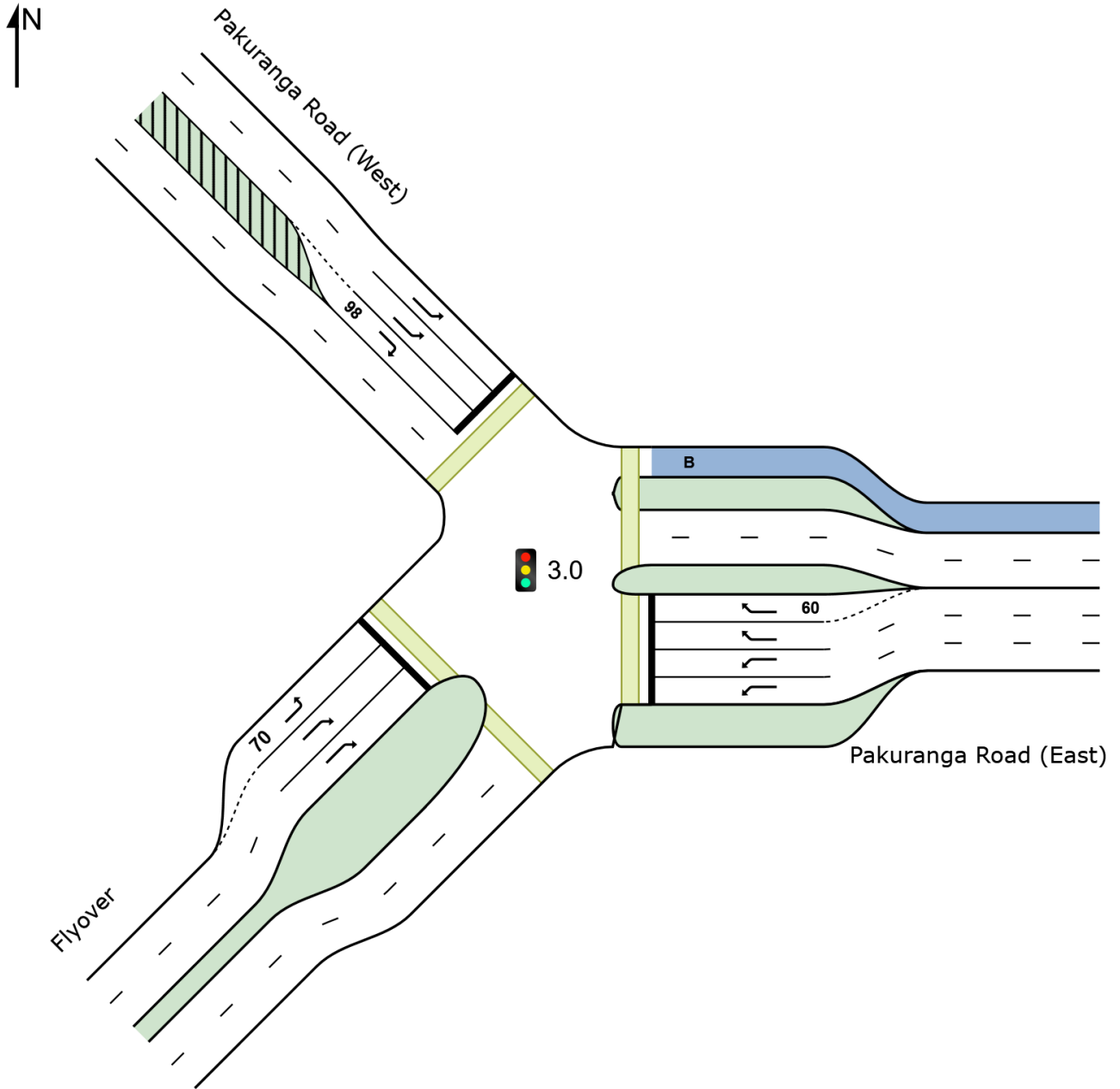
Project: C:\Users\jacques.vandenheever\Downloads\2028 Construction 2 AM - XL (1).sip9

SITE LAYOUT

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

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.

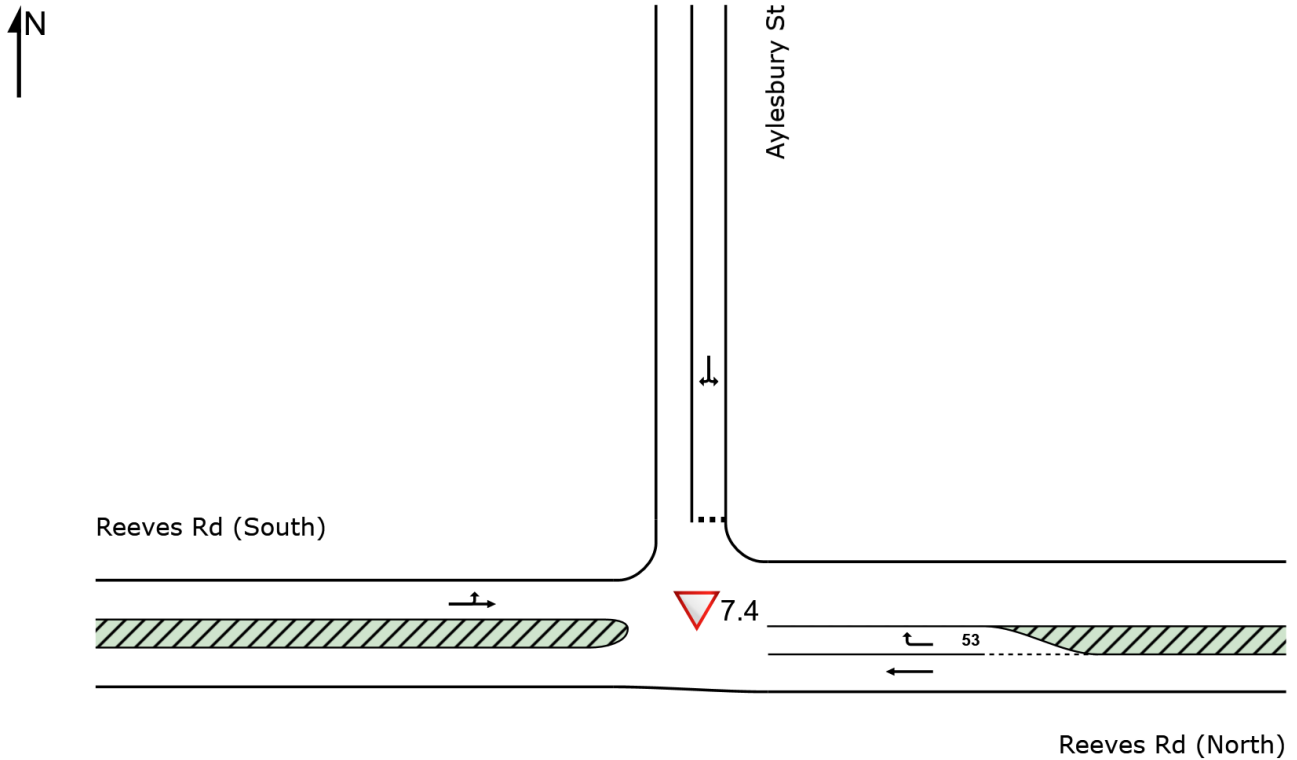


SITE LAYOUT

▽ Site: 7.4 [7.4 Reeves Rd/ Aylesbury St - XL (Site Folder: AM)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.

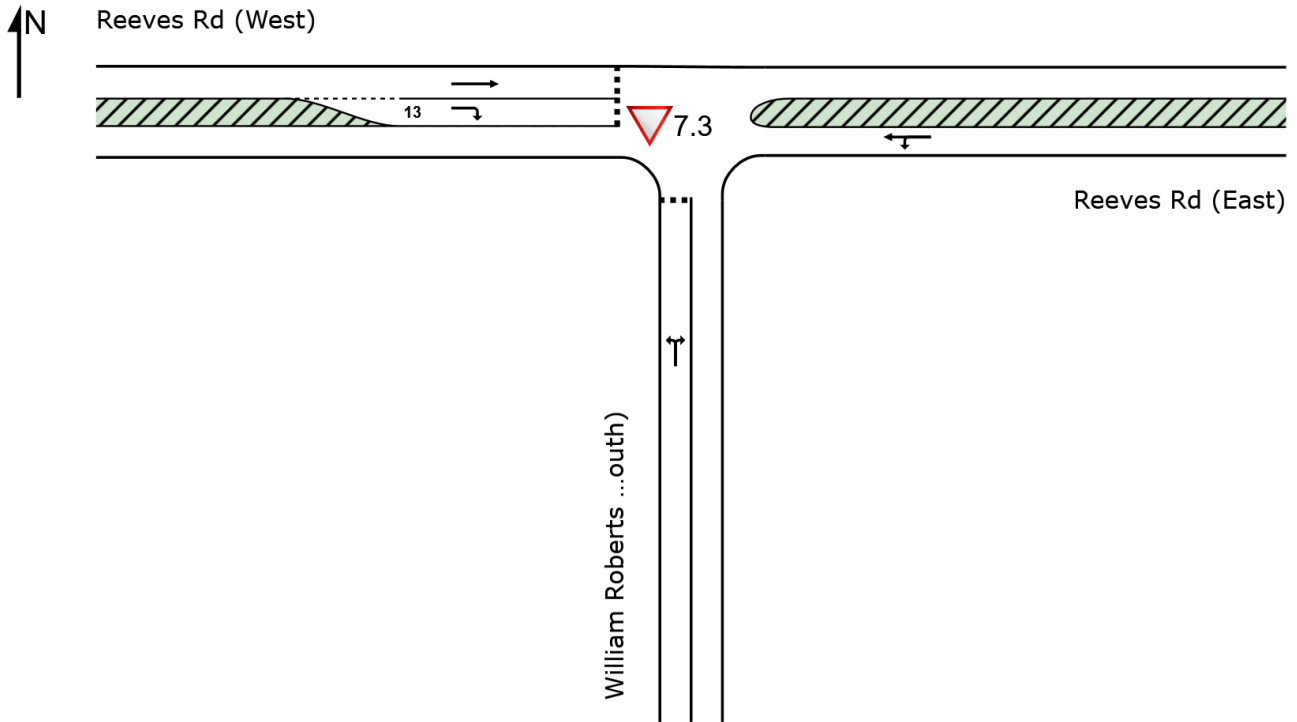


SITE LAYOUT

▽ Site: 7.3 [7.3 William Roberts Rd / Reeves Rd - XL (Site Folder: AM)]

Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.

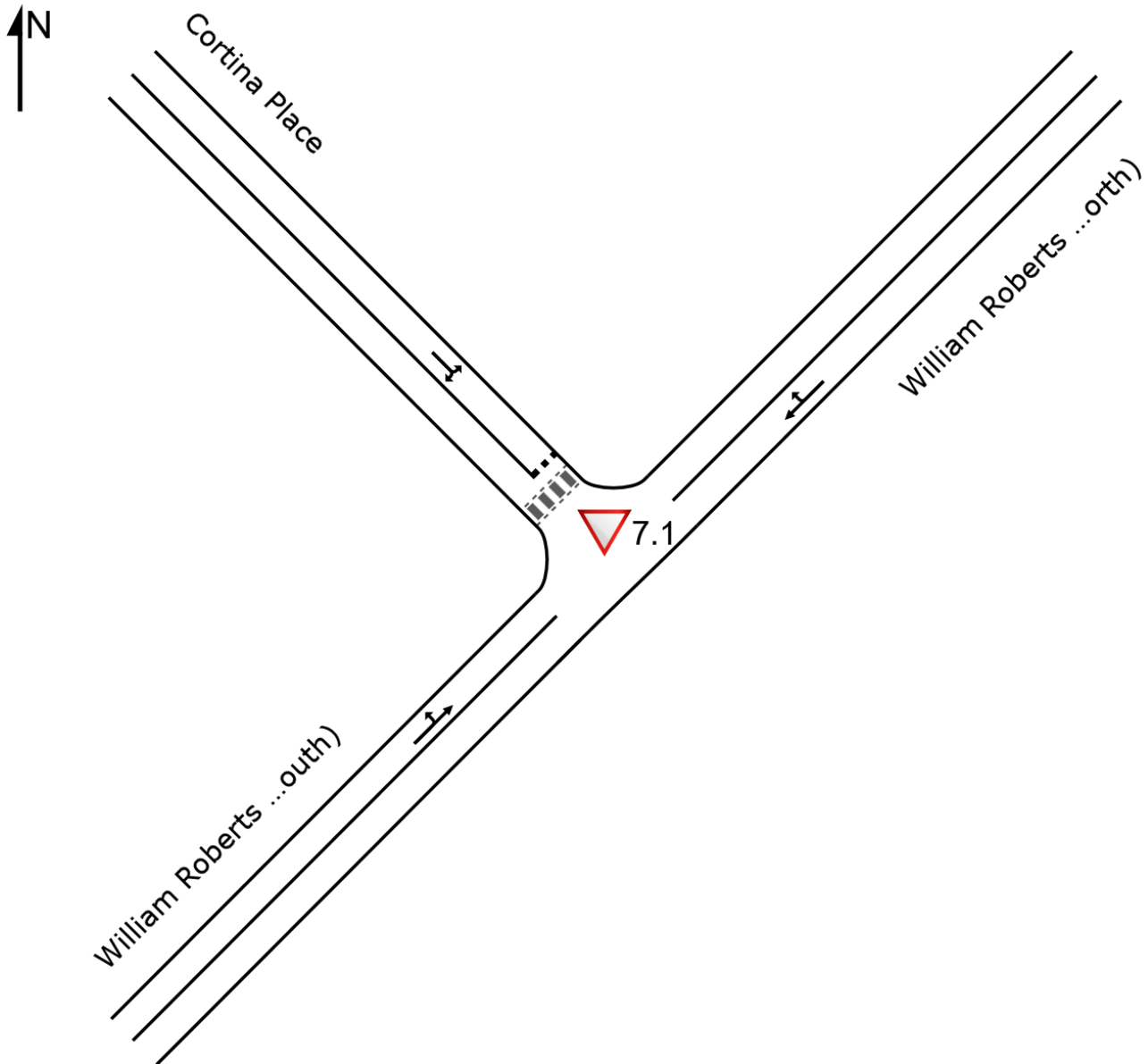


SITE LAYOUT

▼ Site: 7.1 [7.1 William Roberts Rd / Cortina PI (Site Folder: AM)]

Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



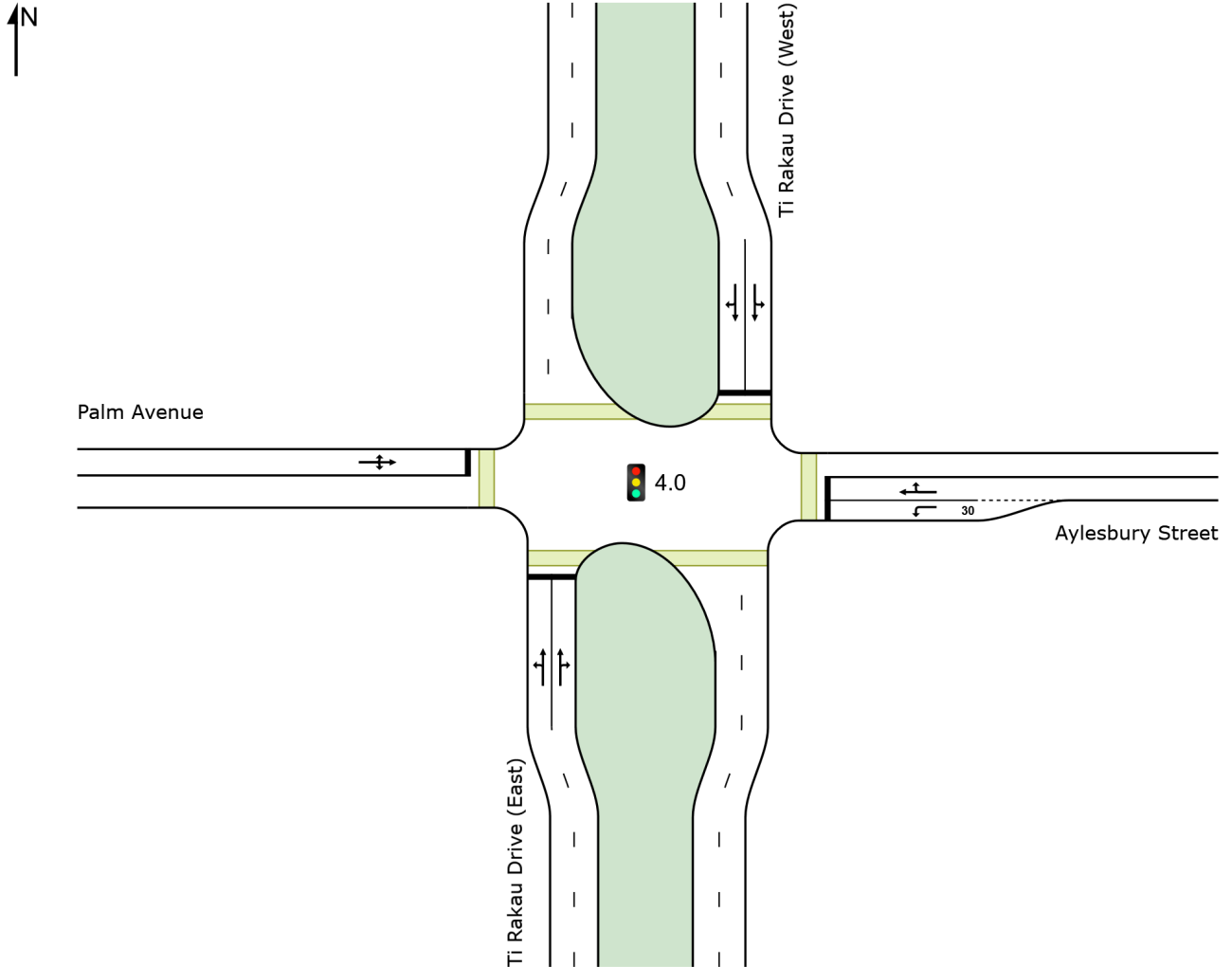
SITE LAYOUT

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

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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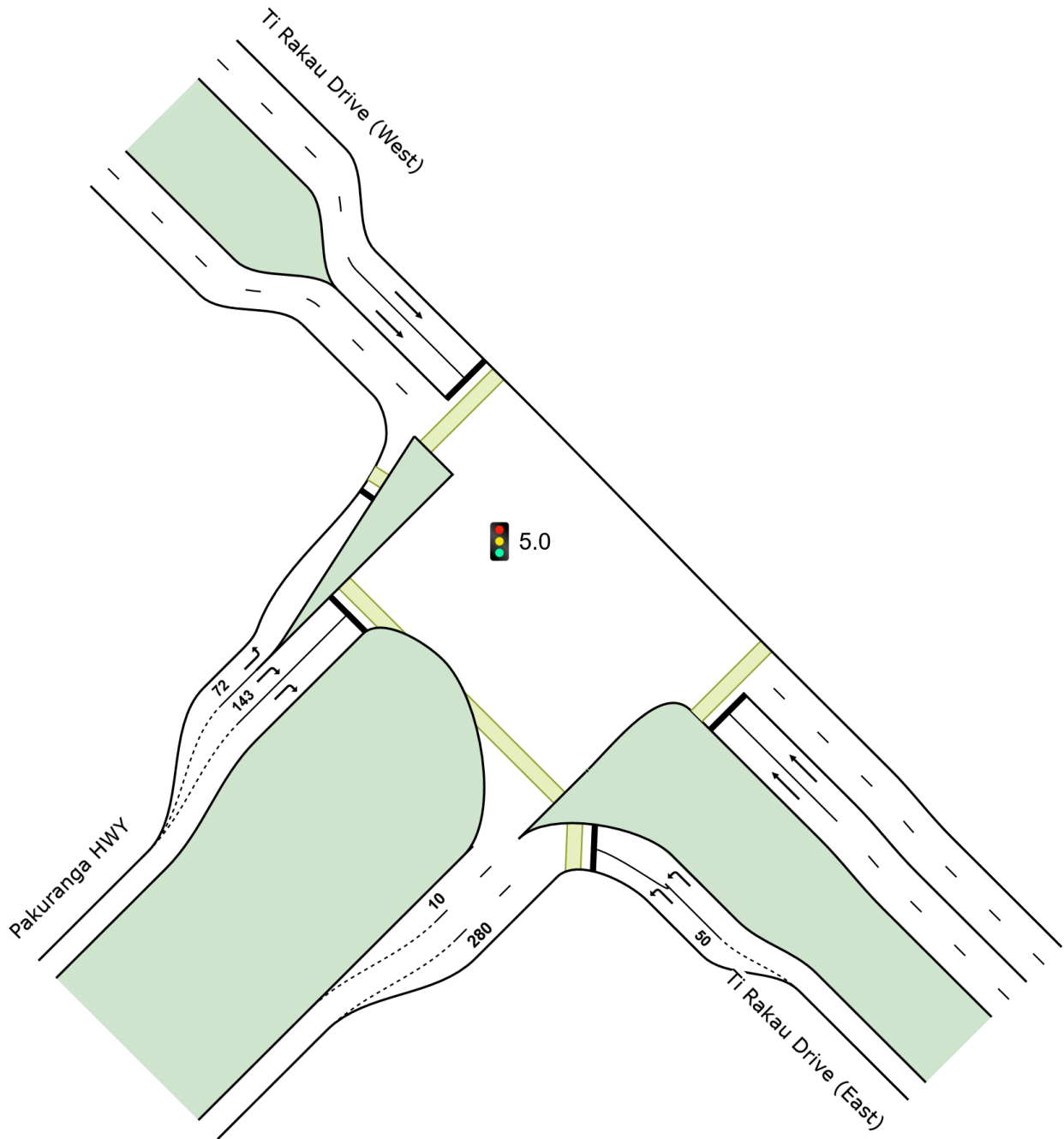
Project: C:\Users\jacques.vandenneever\Downloads\2028 Construction 2 AM - XL (1).sip9

SITE LAYOUT

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

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.

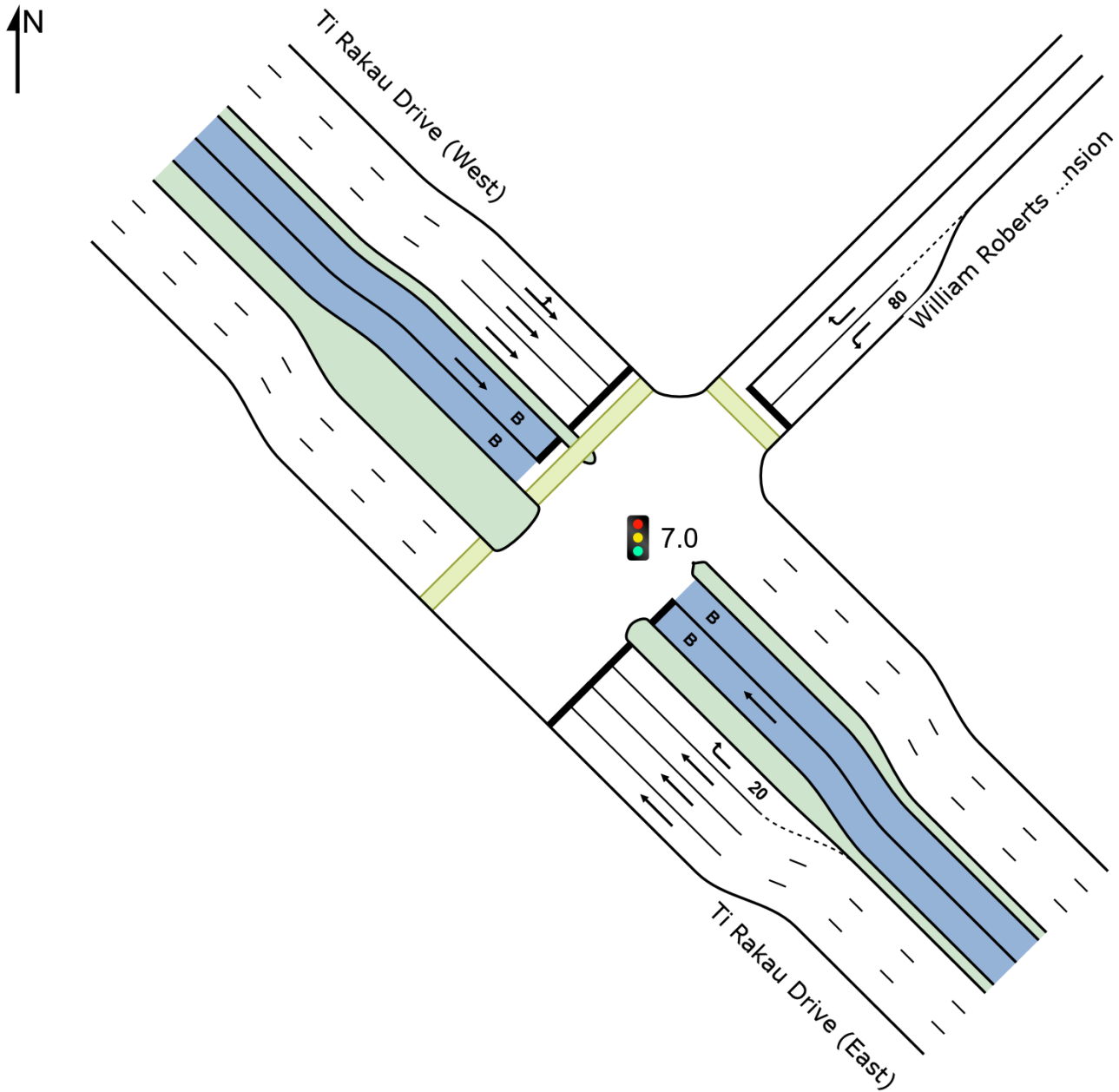


SITE LAYOUT

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

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



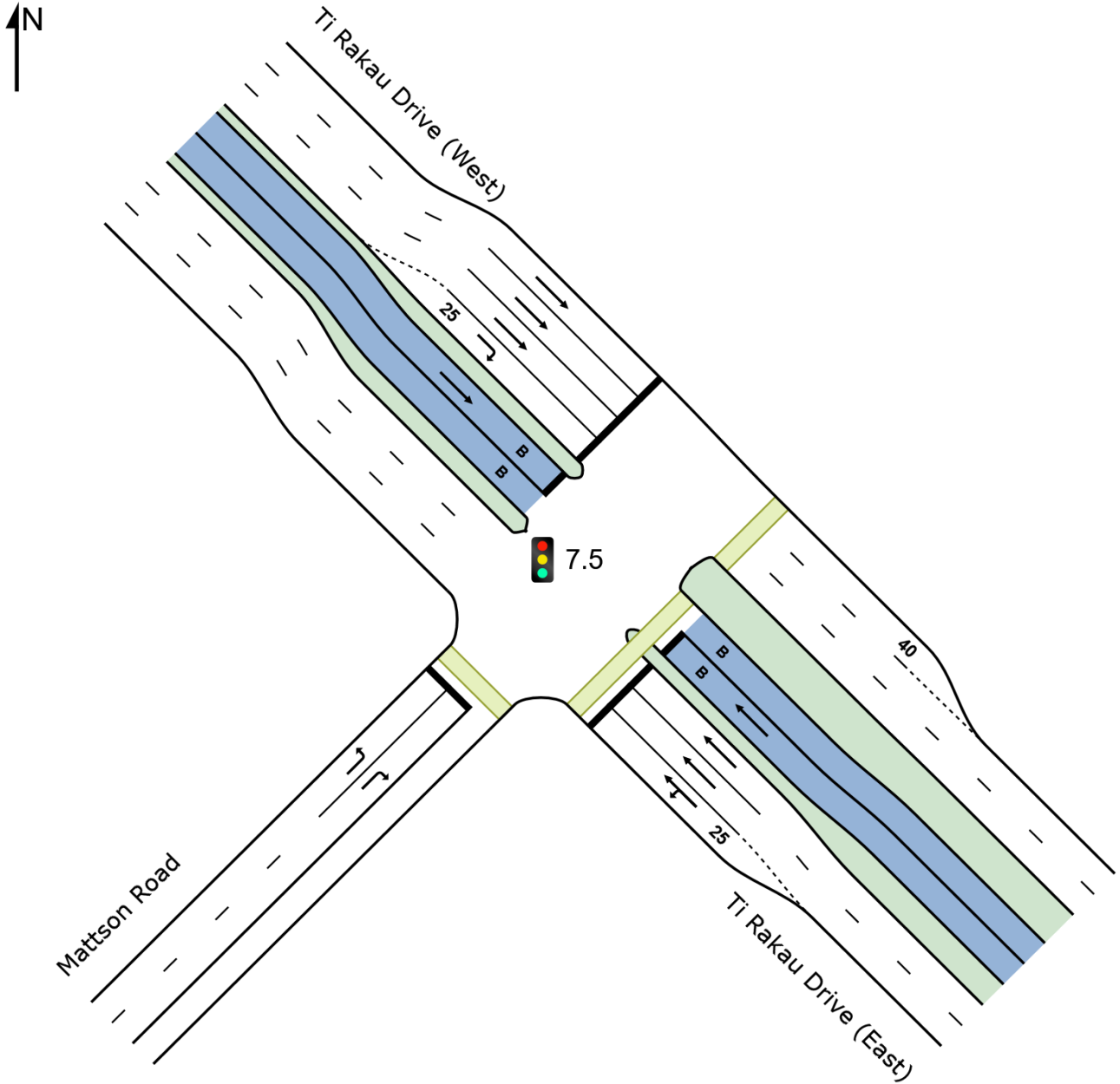
SITE LAYOUT

Site: 7.5 [7.5 Mattson Rd/ Ti Rakau Dr (Site Folder: AM)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



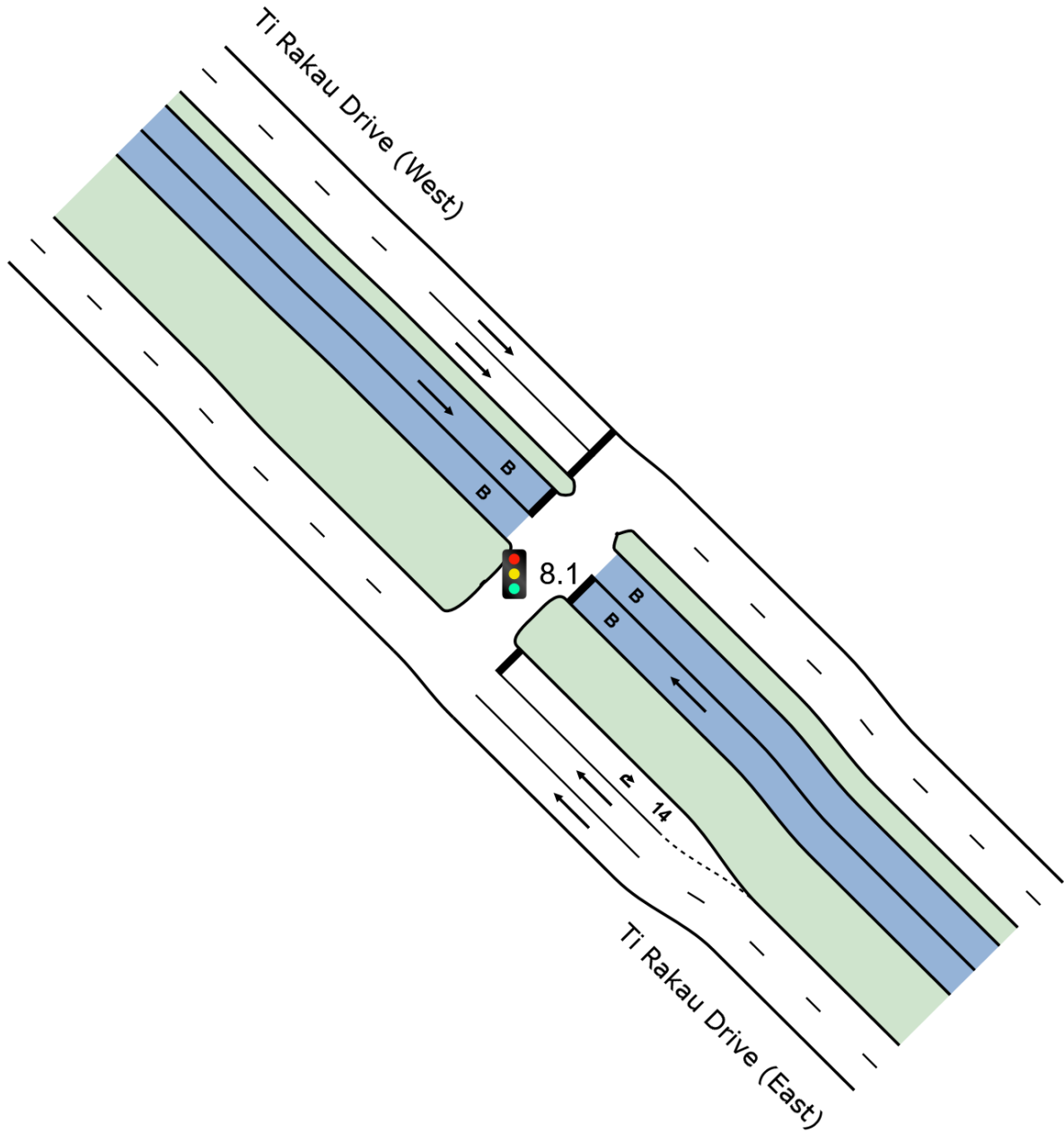
SITE LAYOUT

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

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.

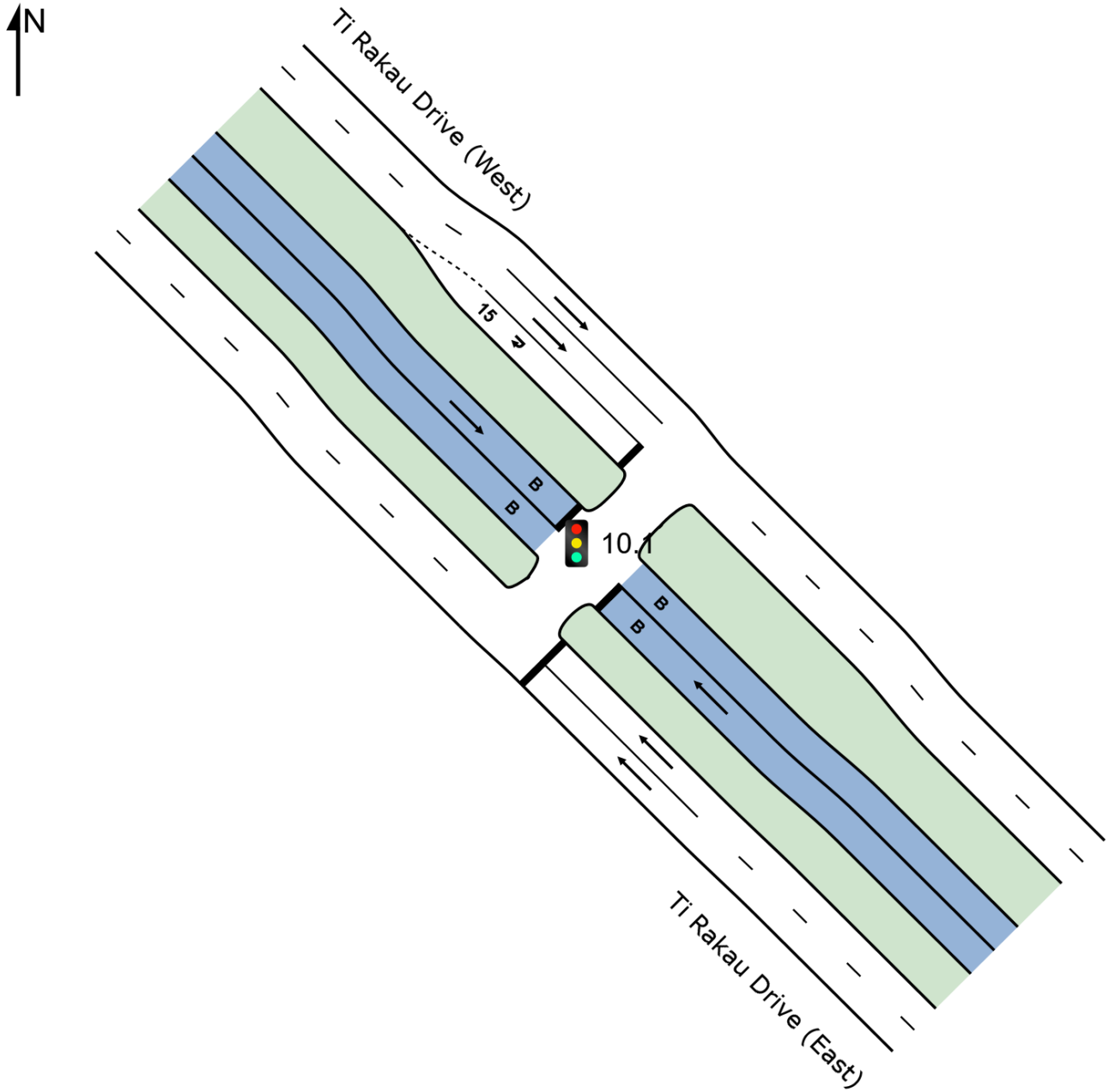


SITE LAYOUT

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

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



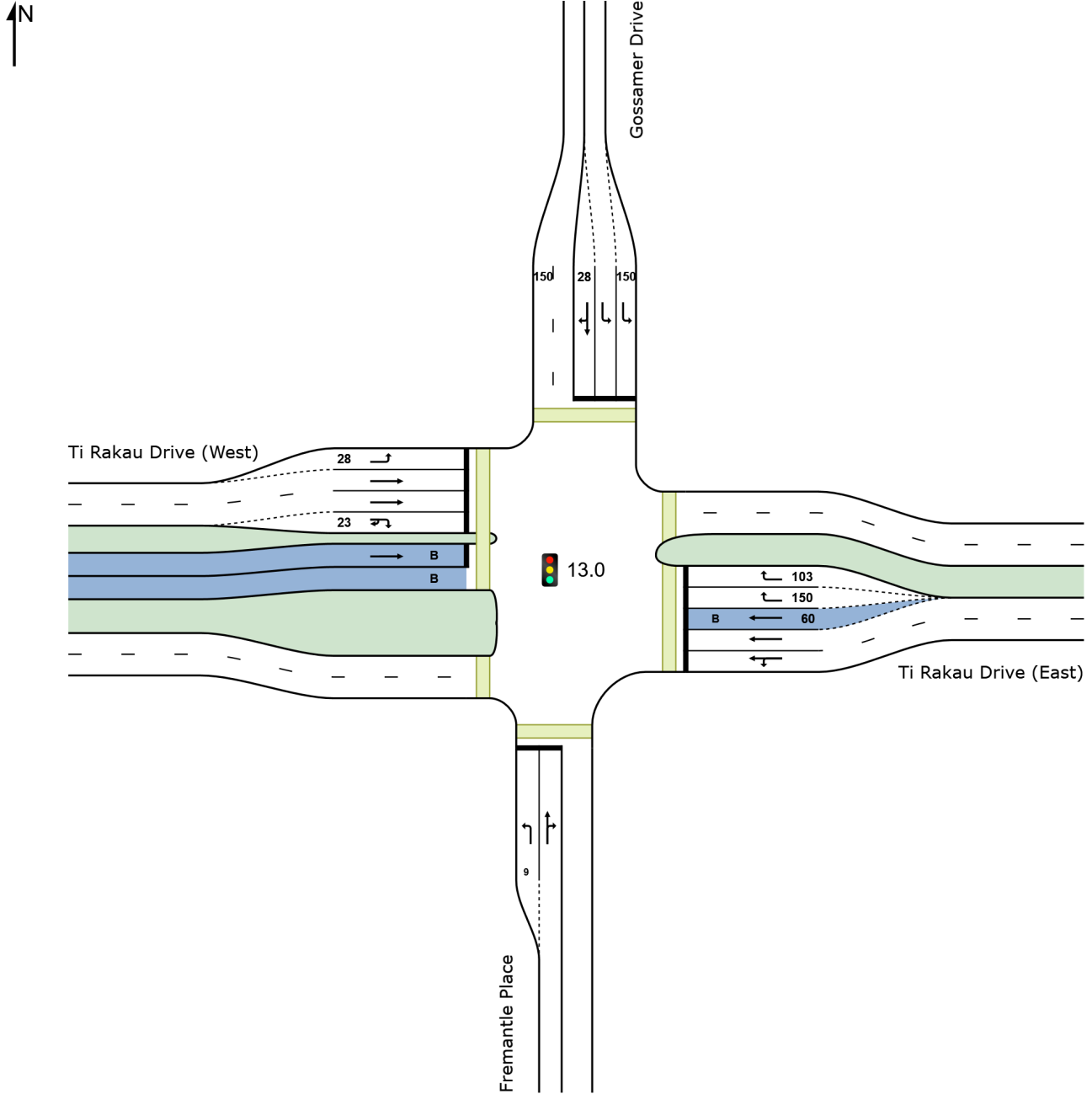
SITE LAYOUT

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

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.

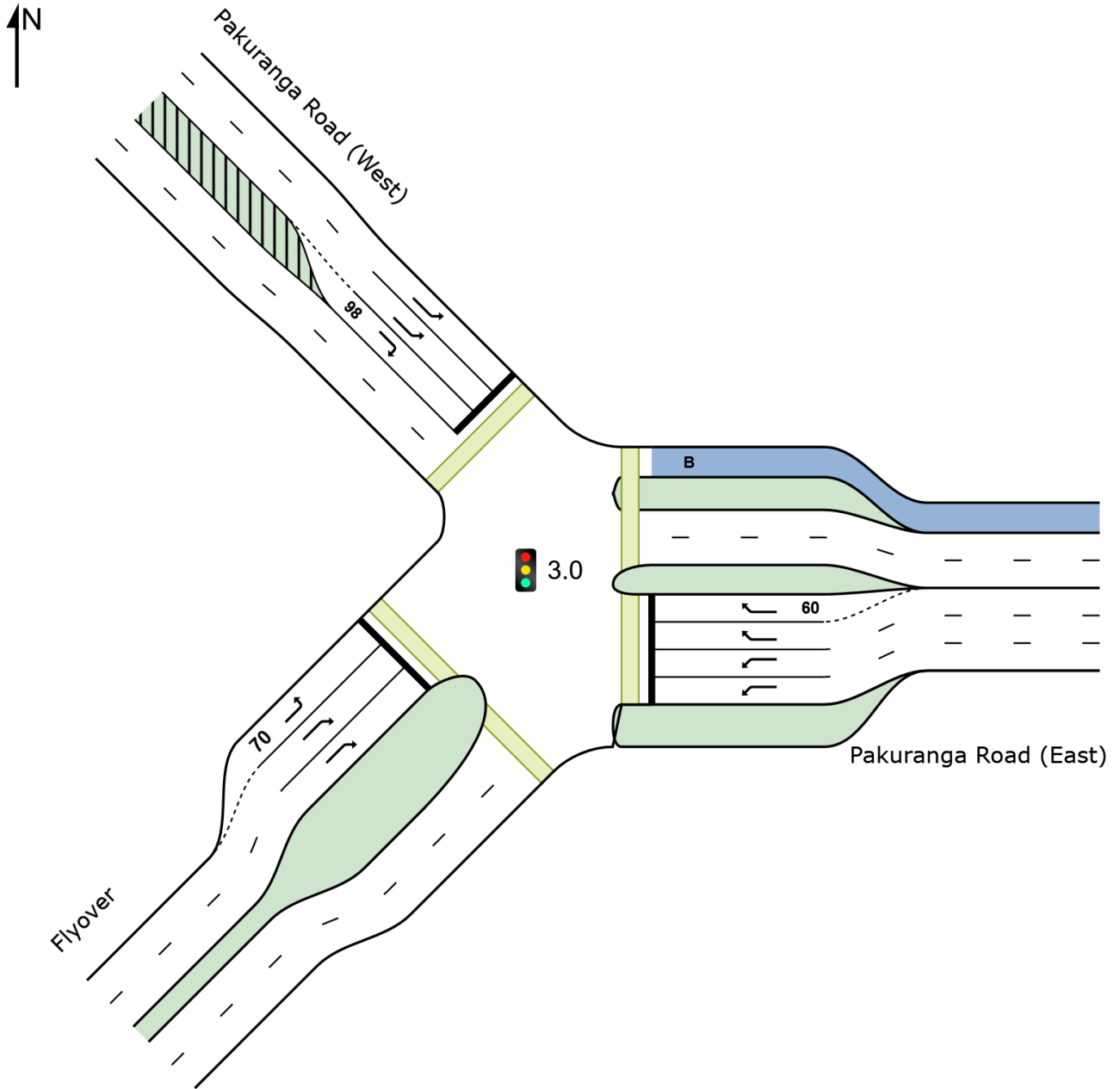


SITE LAYOUT

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

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



PHASING SUMMARY

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

Network: N101 [AM (Network Folder: General)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 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, D

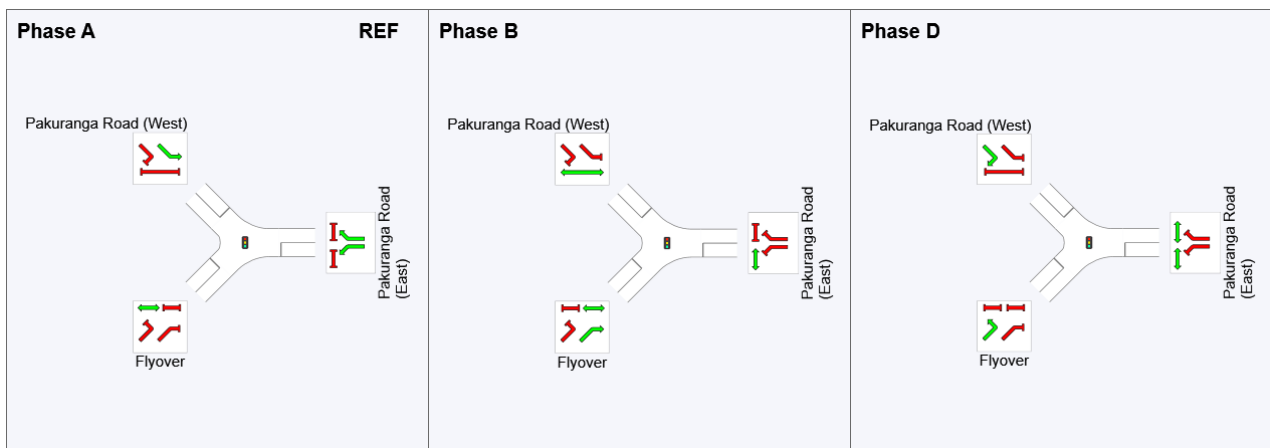
Output Phase Sequence: A, B, D

Phase Timing Summary

Phase	A	B	D
Phase Change Time (sec)	0	39	58
Green Time (sec)	33	13	16
Phase Time (sec)	39	19	22
Phase Split	49%	24%	28%

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

	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

PHASING SUMMARY

Site: 3.0 [3.0 Pakuranga Highway / Pakuranga Rd (Site Folder: **Network: N101 [PM (Network PM)]** Folder: General)]

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, D, B, C

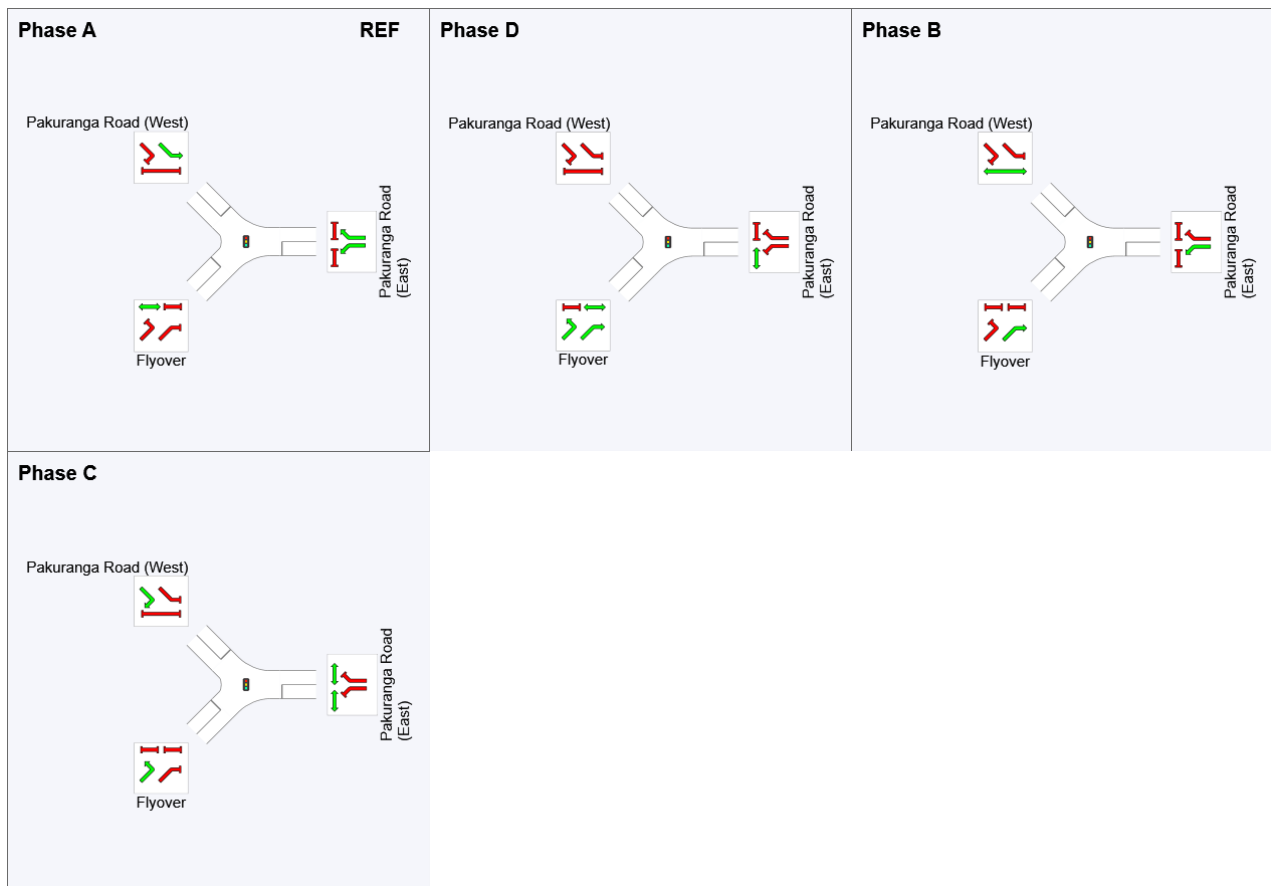
Output Phase Sequence: A, D, B, C

Phase Timing Summary

Phase	A	D	B	C
Phase Change Time (sec)	0	47	84	106
Green Time (sec)	44	31	16	9
Phase Time (sec)	50	37	21	12
Phase Split	42%	31%	18%	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



REF: Reference Phase

VAR: Variable Phase

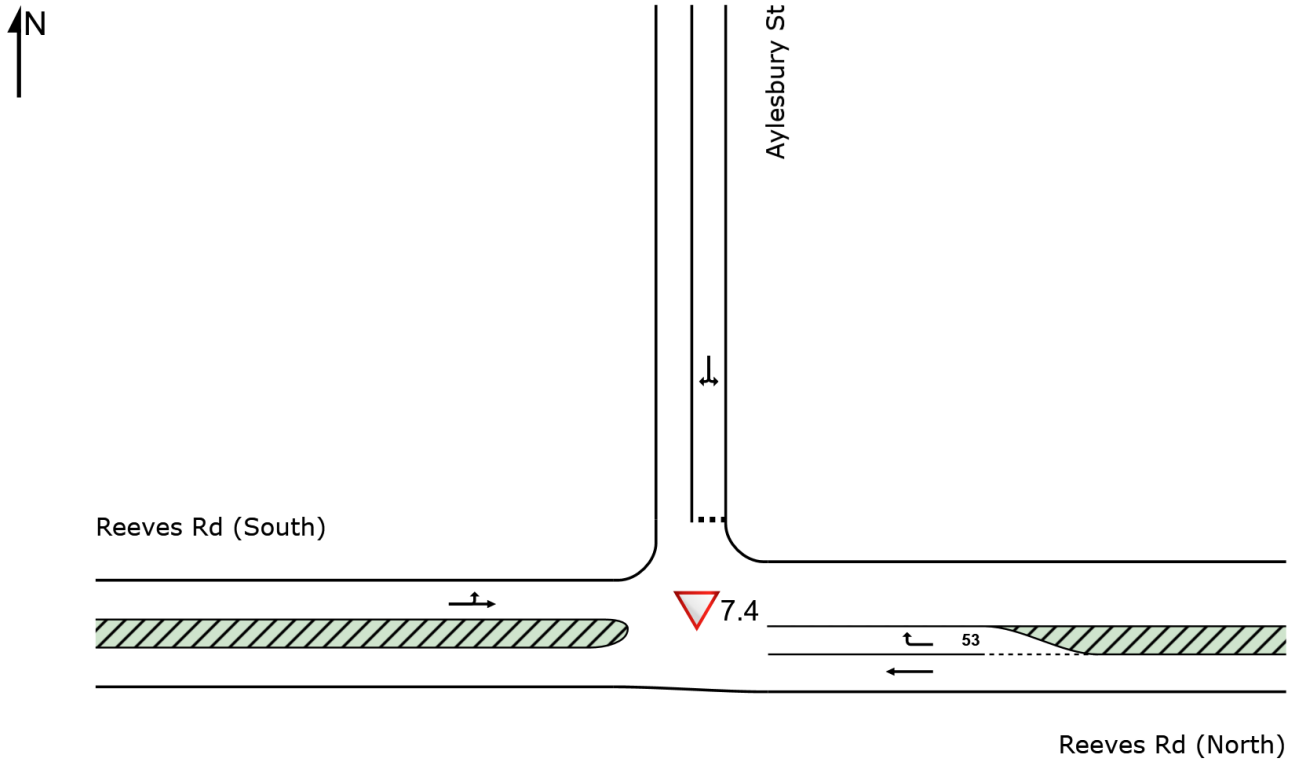
	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

SITE LAYOUT

▽ Site: 7.4 [7.4 Reeves Rd/ Aylesbury St - XL (Site Folder: AM)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.

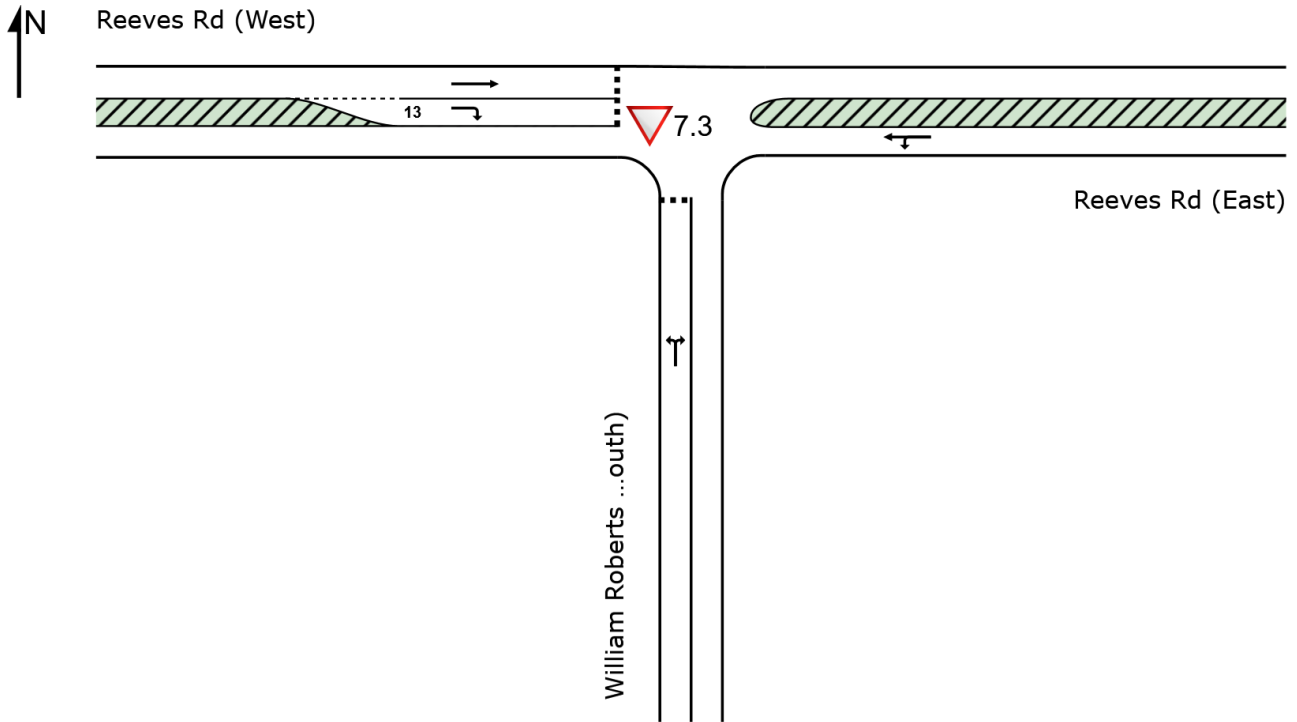


SITE LAYOUT

▽ Site: 7.3 [7.3 William Roberts Rd / Reeves Rd - XL (Site Folder: AM)]

Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.

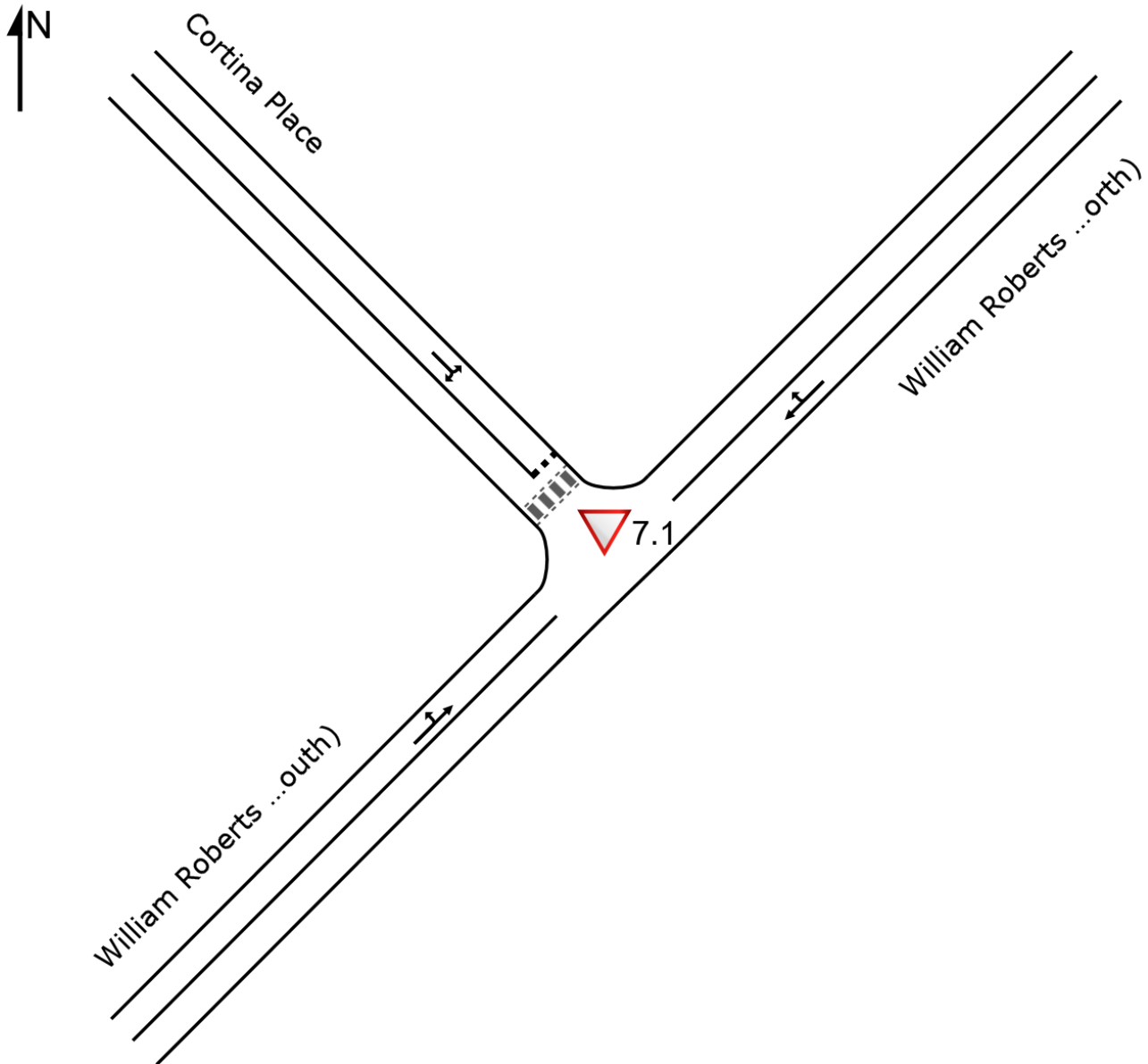


SITE LAYOUT

▼ Site: 7.1 [7.1 William Roberts Rd / Cortina PI (Site Folder: AM)]

Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



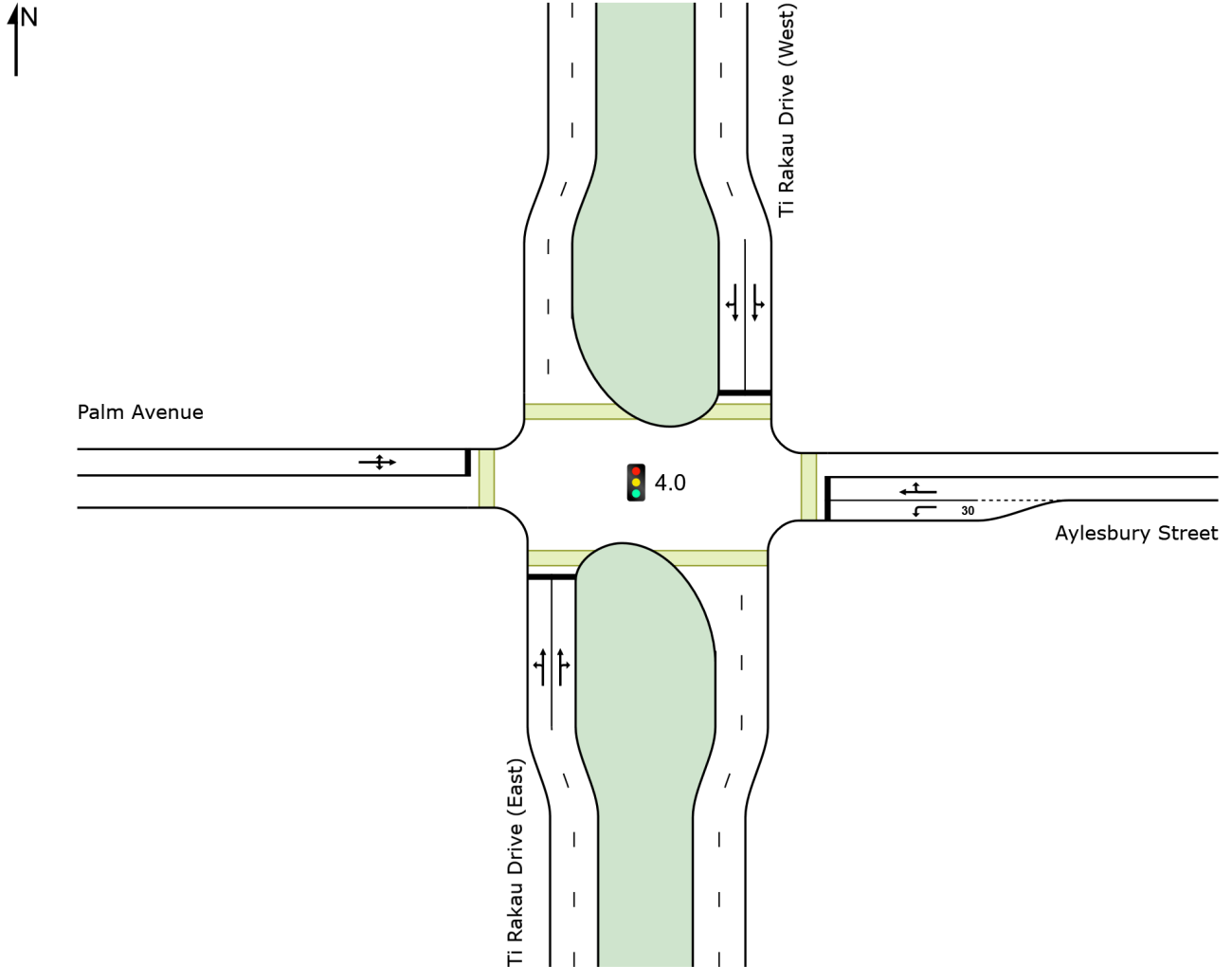
SITE LAYOUT

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

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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Project: C:\Users\jacques.vandenneever\Downloads\2028 Construction 2 AM - XL (1).sip9

PHASING SUMMARY

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

Network: N101 [AM
(Network Folder: General)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 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

Green Split Priority has been specified

Phase Sequence: Variable Phasing

Reference Phase: Phase A

Input Phase Sequence: A, B, C, D

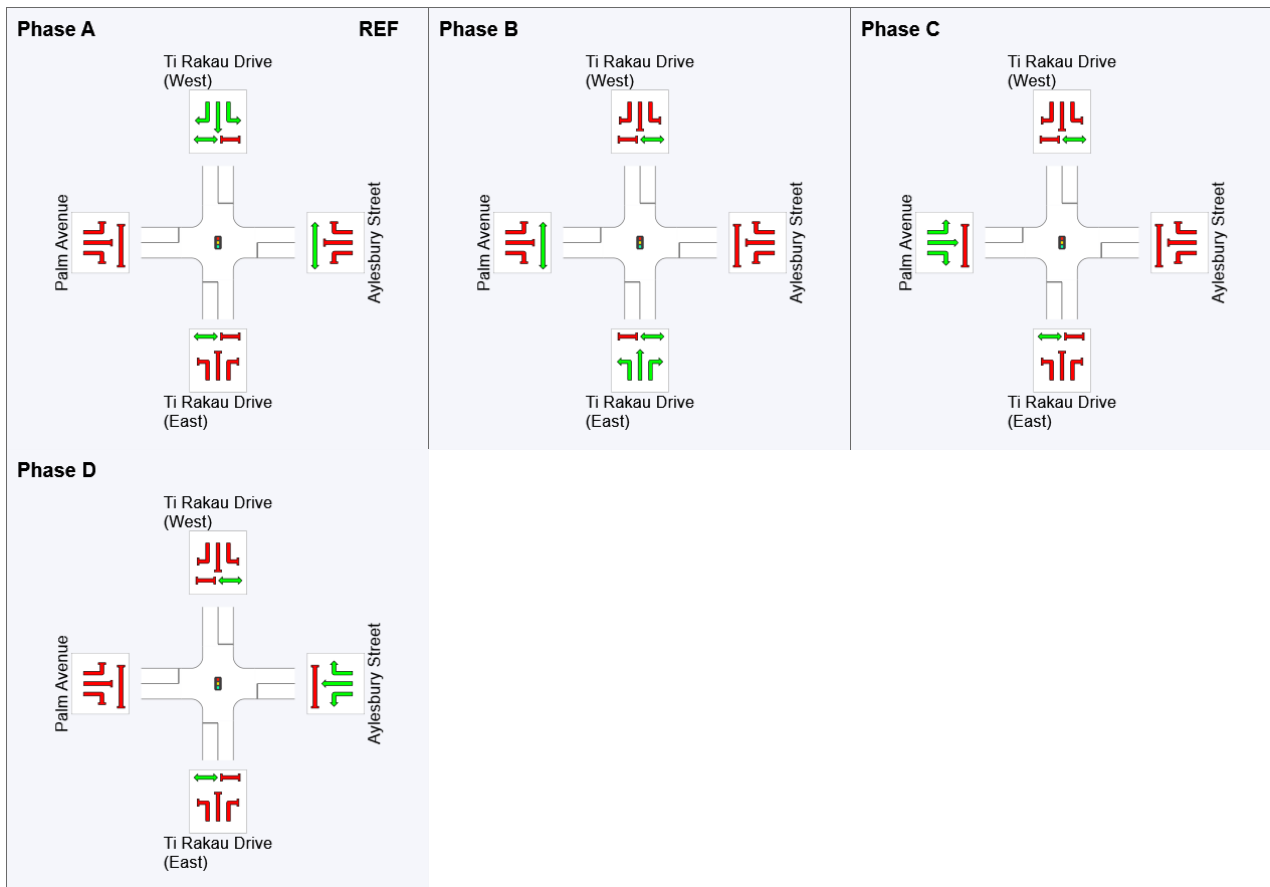
Output Phase Sequence: A, B, C, D

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	21	45	58
Green Time (sec)	15	18	7	6
Phase Time (sec)	21	24	13	12
Phase Split	30%	34%	19%	17%












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

	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

PHASING SUMMARY

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

Network: N101 [PM (Network Folder: General)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 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

Green Split Priority has been specified

Phase Sequence: Variable Phasing

Reference Phase: Phase A

Input Phase Sequence: A, B, C, D

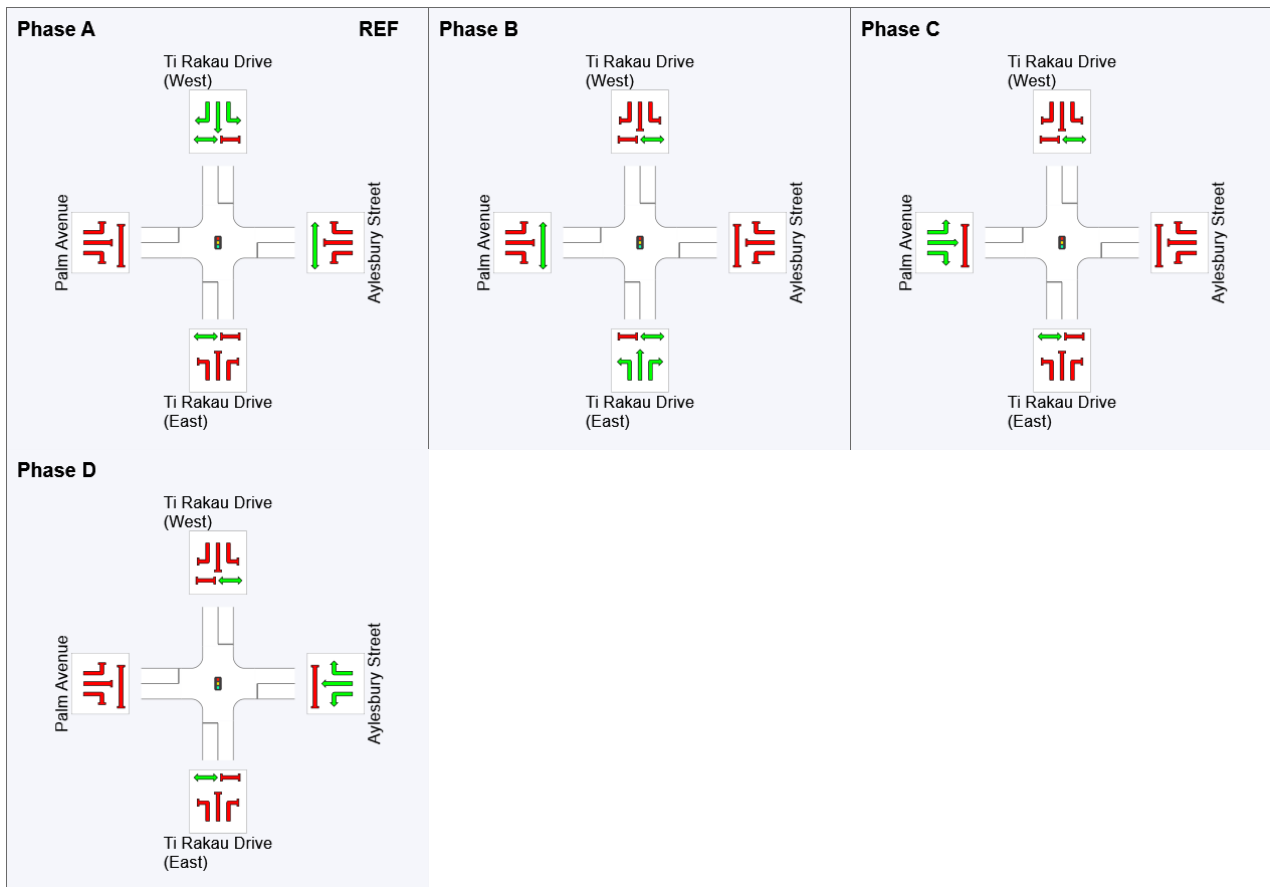
Output Phase Sequence: A, B, C, D

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	31	63	75
Green Time (sec)	25	26	6	9
Phase Time (sec)	31	32	12	15
Phase Split	34%	36%	13%	17%








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

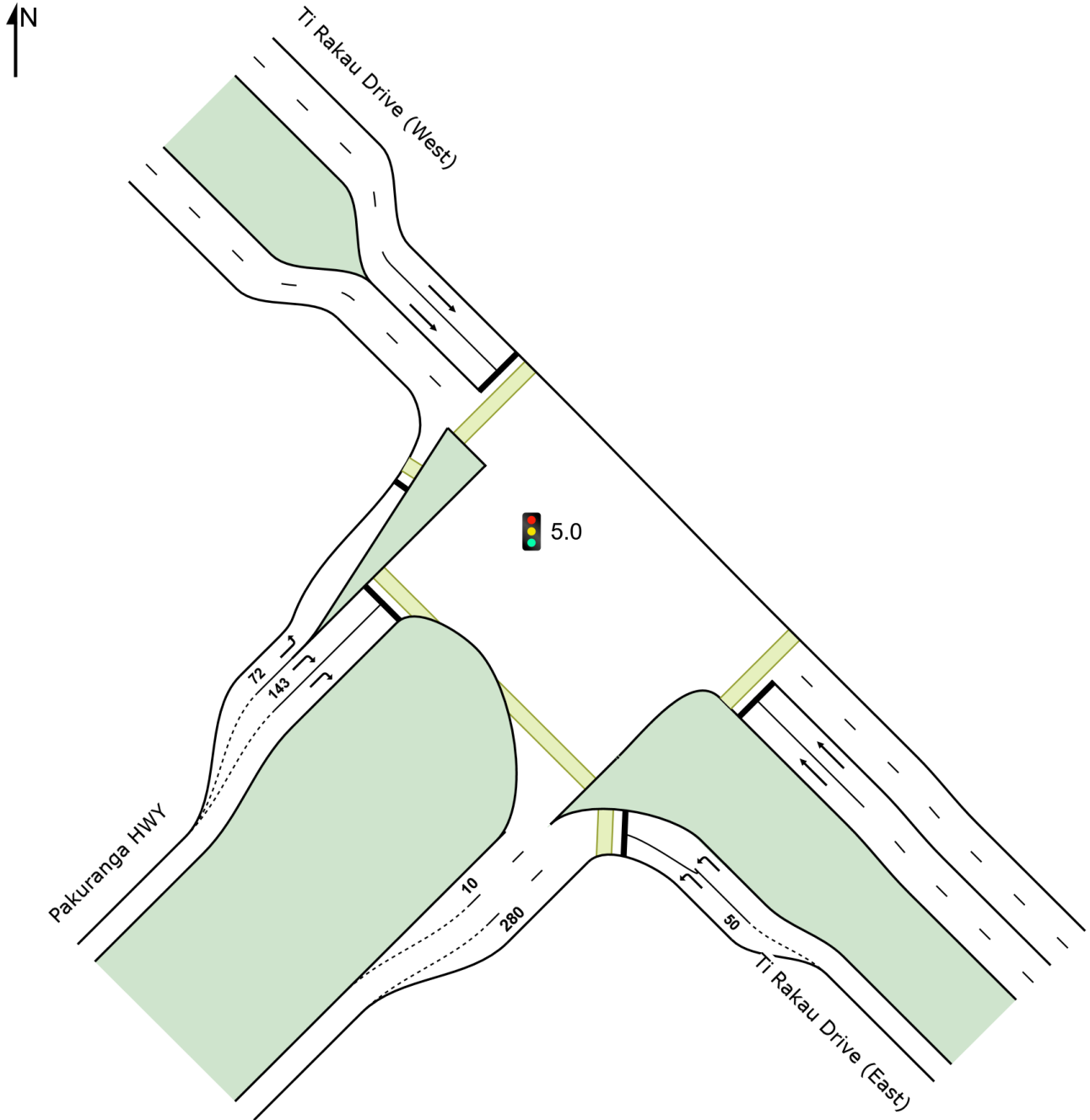
	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

SITE LAYOUT

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

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



PHASING SUMMARY

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

Network: N101 [AM (Network Folder: General)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated 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: Map Extract Default

Reference Phase: Phase A

Input Phase Sequence: A, B, C

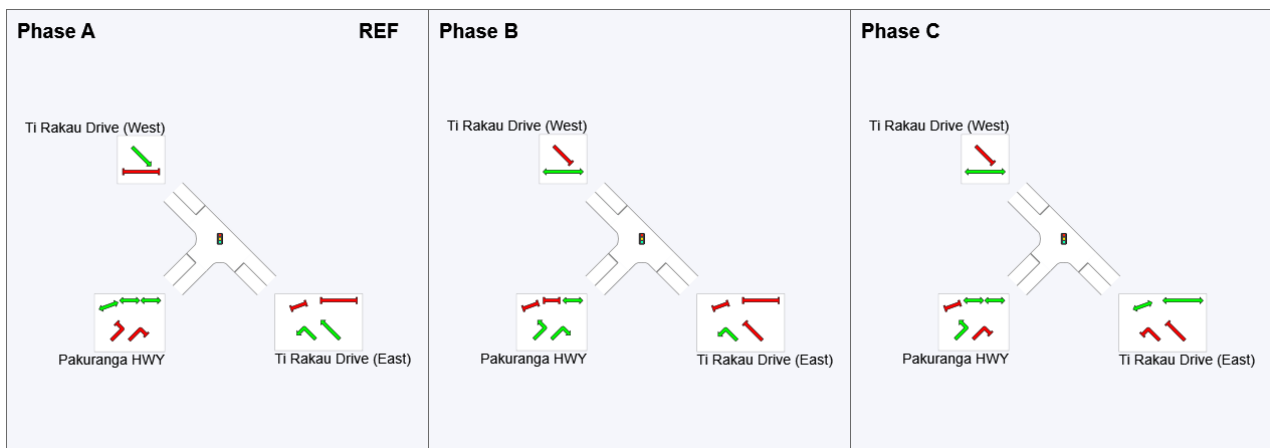
Output Phase Sequence: A, B, C

Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	14	26
Green Time (sec)	8	6	11
Phase Time (sec)	14	9	17
Phase Split	35%	23%	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%.

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase

	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

PHASING SUMMARY

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

Network: N101 [PM (Network Folder: General)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 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: Map Extract Default

Reference Phase: Phase A

Input Phase Sequence: A, B, C

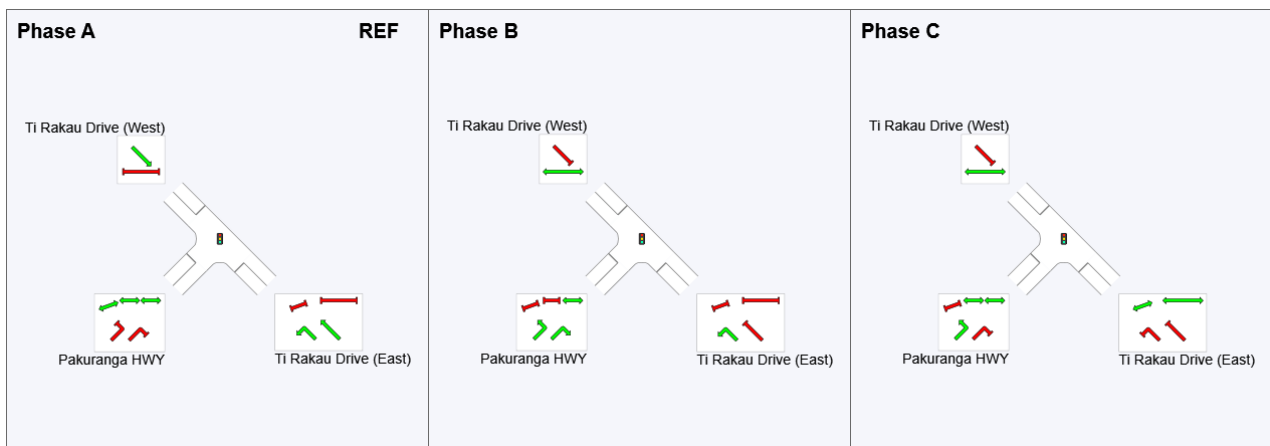
Output Phase Sequence: A, B, C

Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	0	30	56
Green Time (sec)	24	20	20
Phase Time (sec)	30	24	26
Phase Split	38%	30%	33%

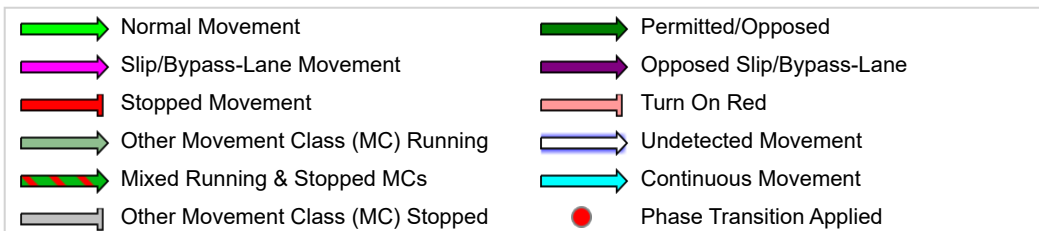
See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified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

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase



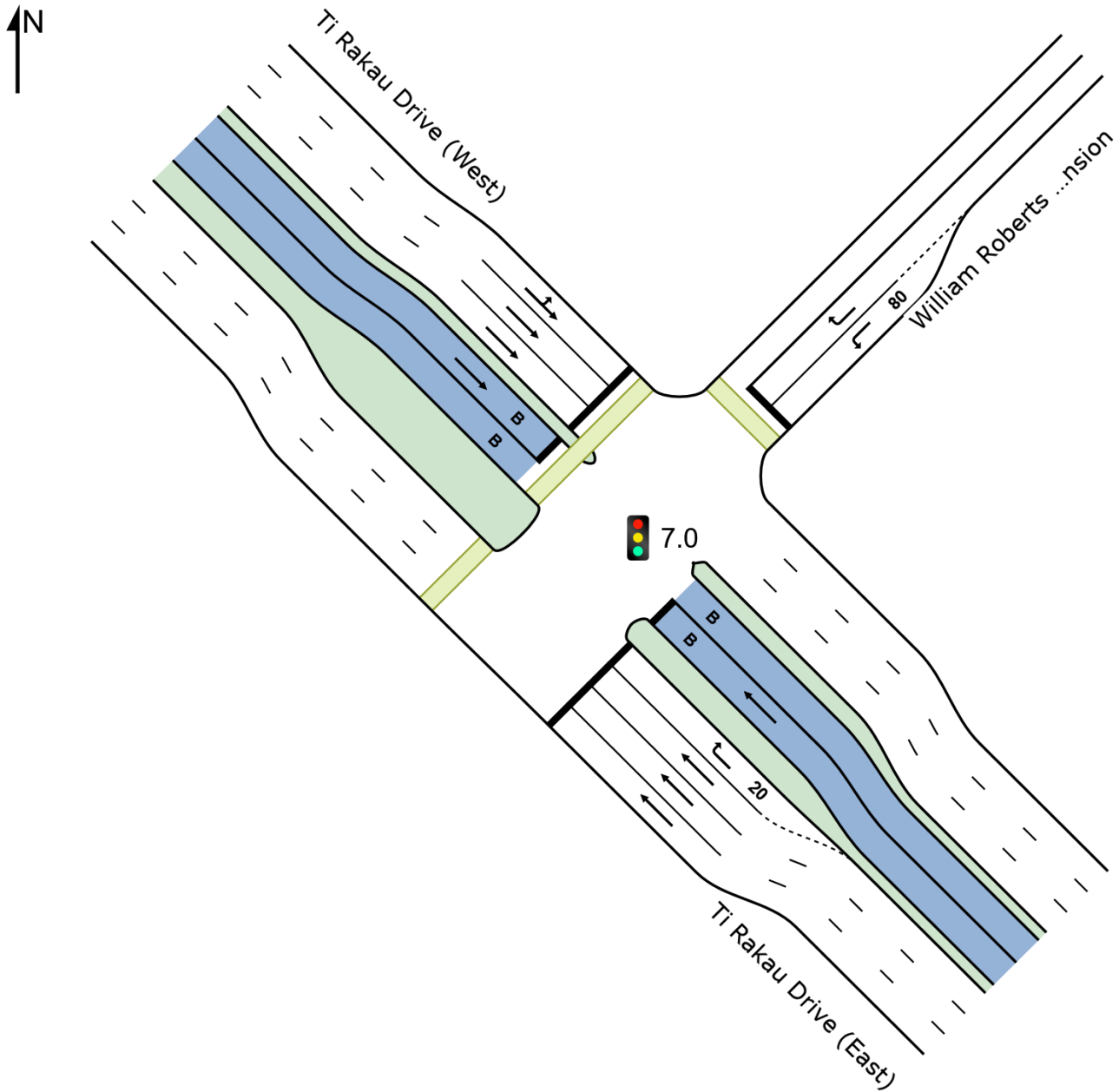
SITE LAYOUT

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

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



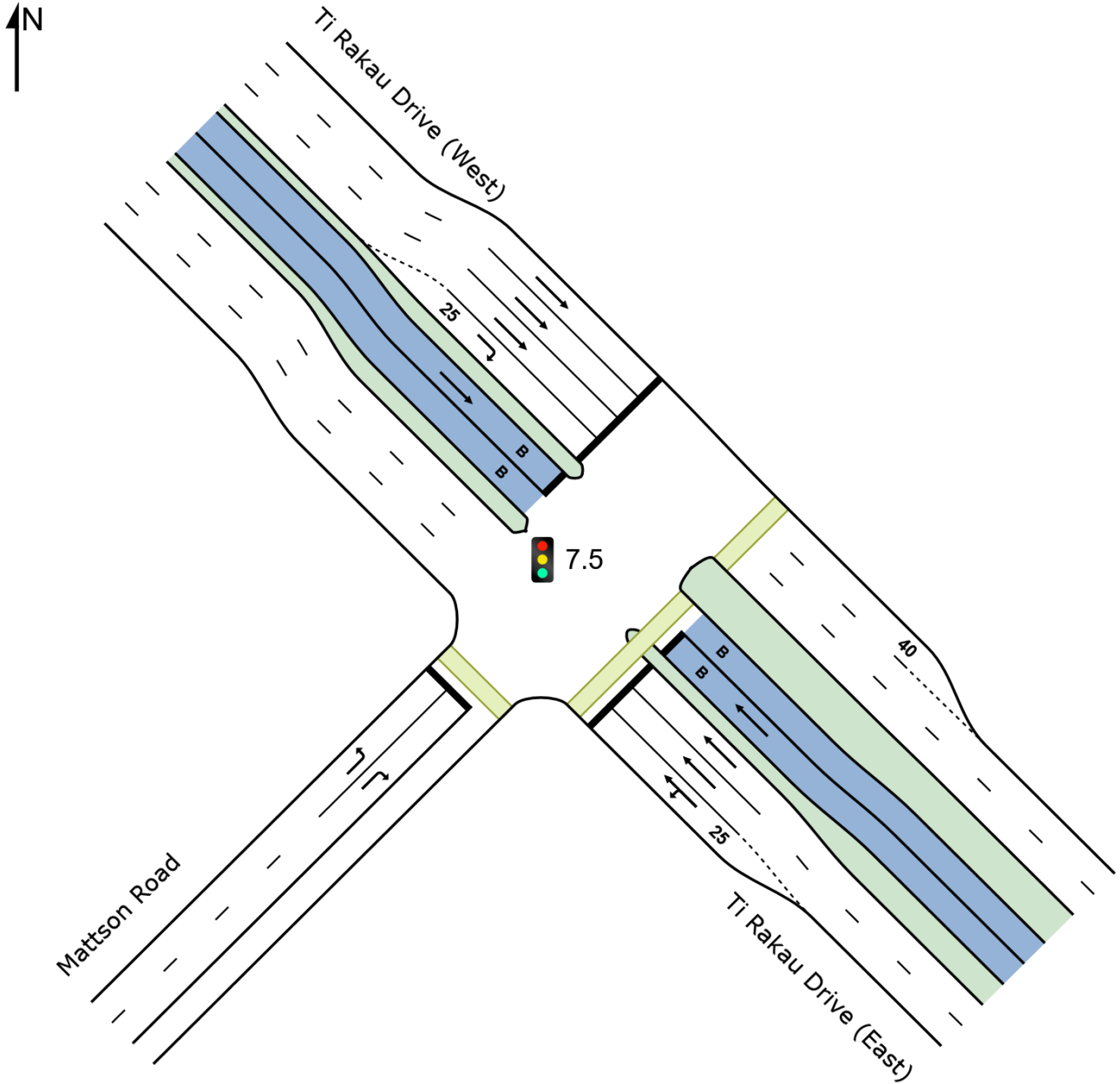
SITE LAYOUT

Site: 7.5 [7.5 Mattson Rd/ Ti Rakau Dr (Site Folder: AM)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



CCG PHASING SUMMARY

Common Control Group: CCG2 [WRR / Mattson]

Network: N101 [AM
(Network Folder: General)]

EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 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 (phase reduction applied)

Reference Phase: Phase A1

Input Phase Sequence: A1, A2, B, C, D

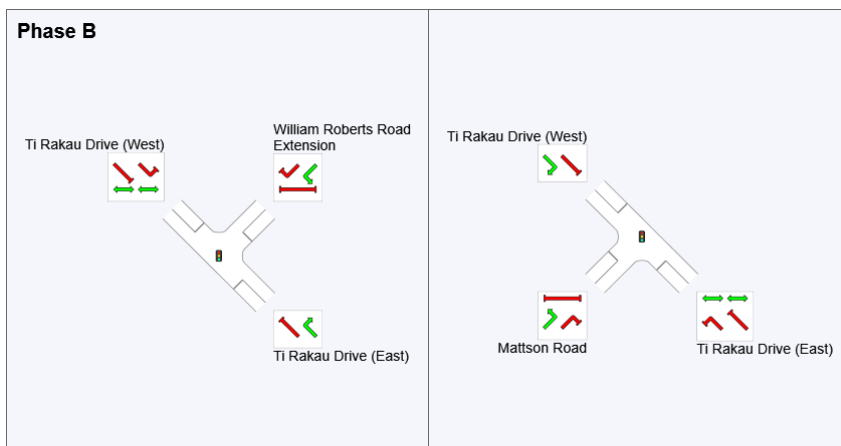
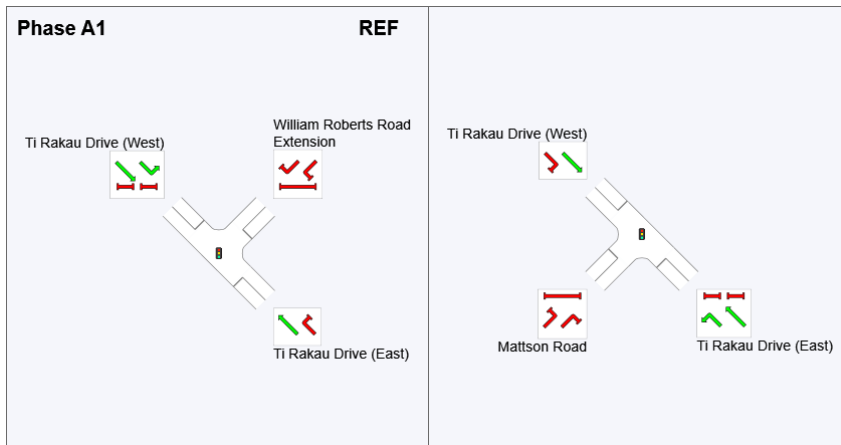
Output Phase Sequence: A1, B, C, D

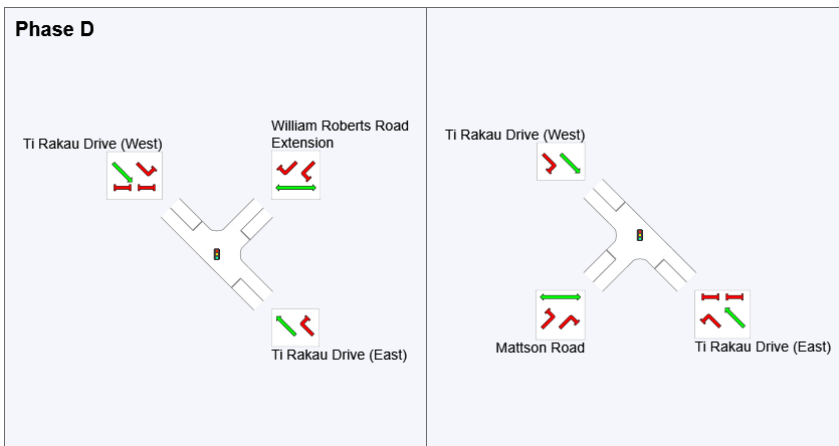
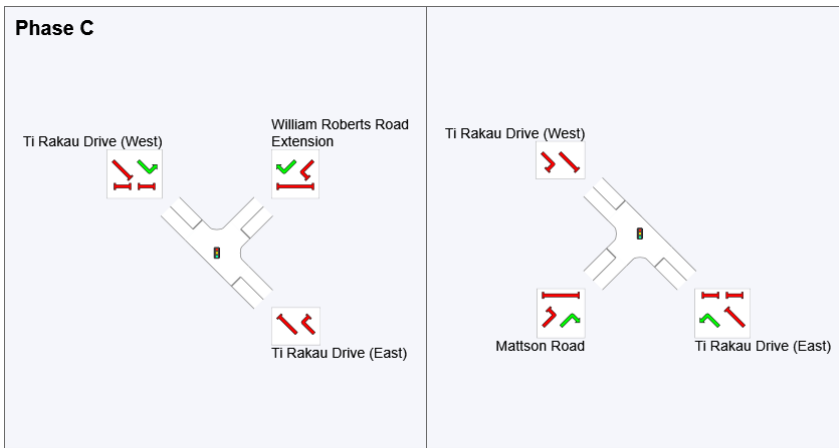
Phase Timing Summary (CCG)

Phase	A1	B	C	D
Phase Change Time (sec)	0	24	43	63
Green Time (sec)	18	13	14	31
Phase Time (sec)	24	19	20	37
Phase Split	24%	19%	20%	37%

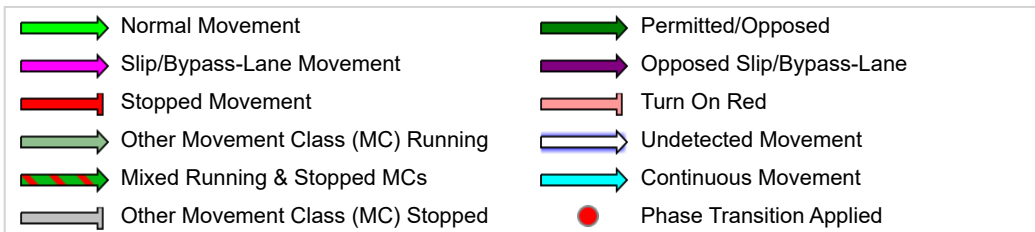
See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified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

Output Phase Sequence (CCG)





REF: Reference Phase
 VAR: Variable Phase



CCG PHASING SUMMARY

Common Control Group: CCG2 [WRR / Mattson]

Network: N101 [PM (Network Folder: General)]

EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 60 seconds (CCG User-Given Phase Times)

Timings based on settings in the Network Timing dialog

Phase Times specified by the user

Phase Sequence: CCG Phasing

Reference Phase: Phase A

Input Phase Sequence: A, B, C

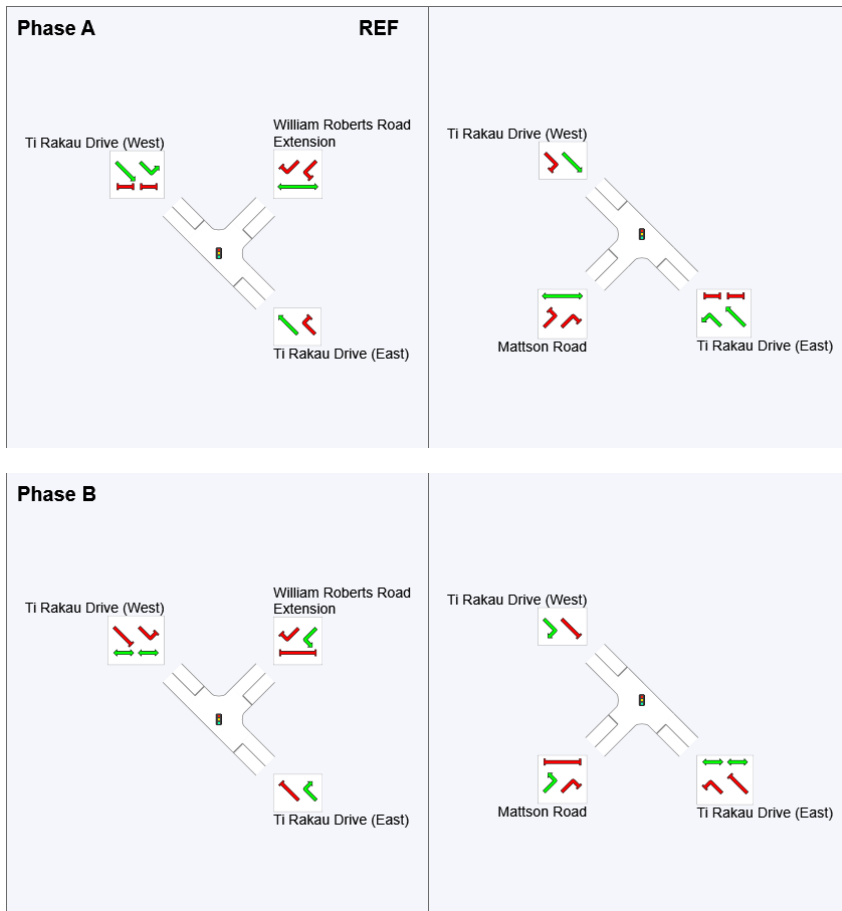
Output Phase Sequence: A, B, C

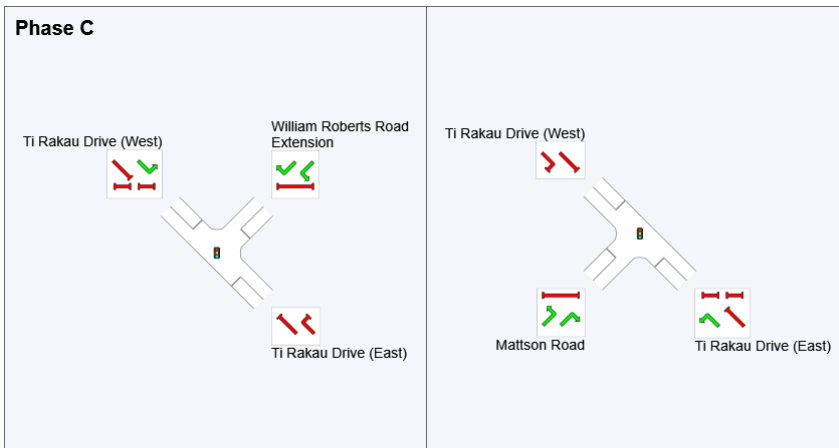
Phase Timing Summary (CCG)

Phase	A	B	C
Phase Change Time (sec)	0	34	51
Green Time (sec)	28	11	6
Phase Time (sec)	34	14	12
Phase Split	57%	23%	20%

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



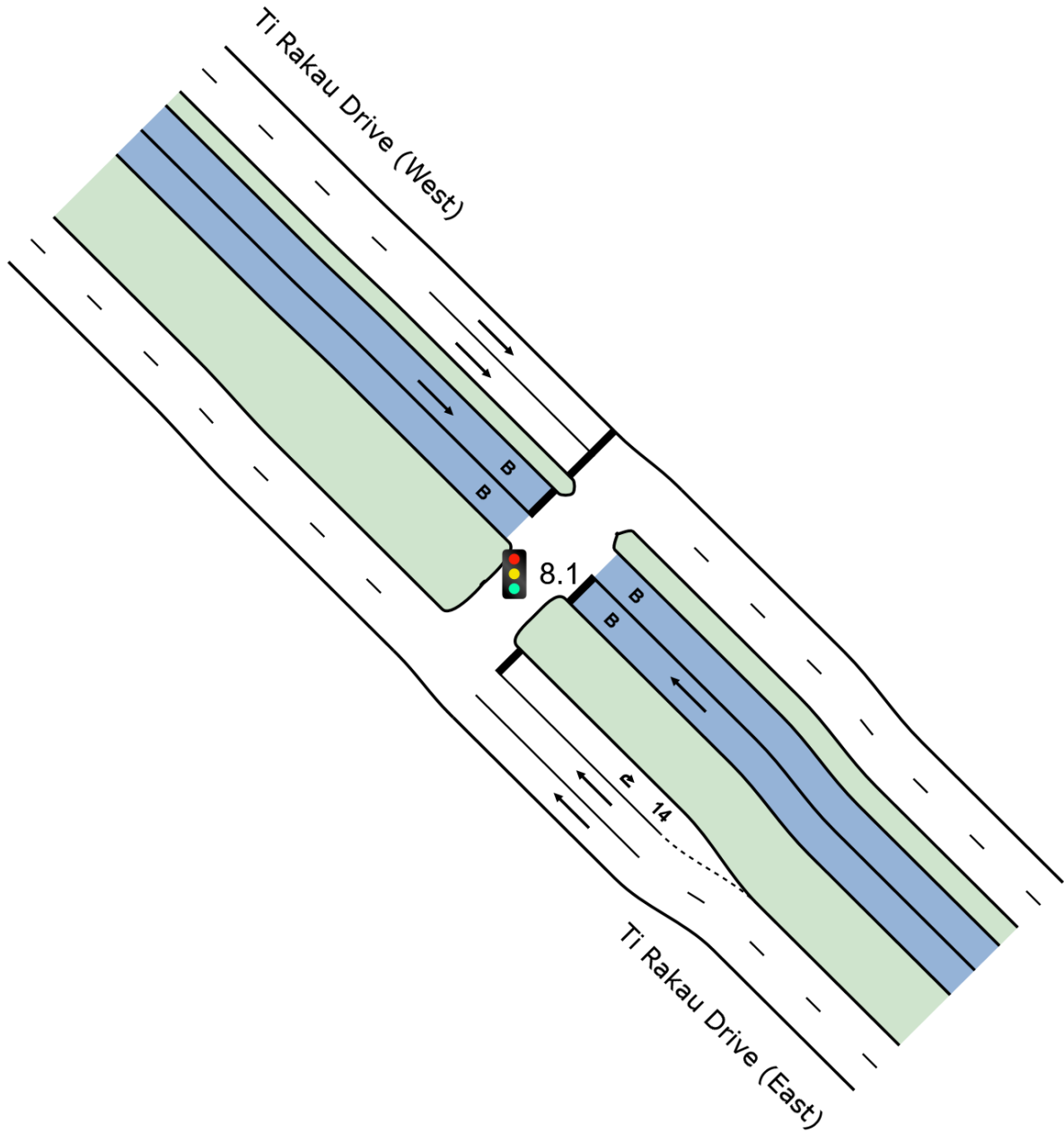
SITE LAYOUT

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

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



PHASING SUMMARY

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

Network: N101 [AM
(Network Folder: General)]

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

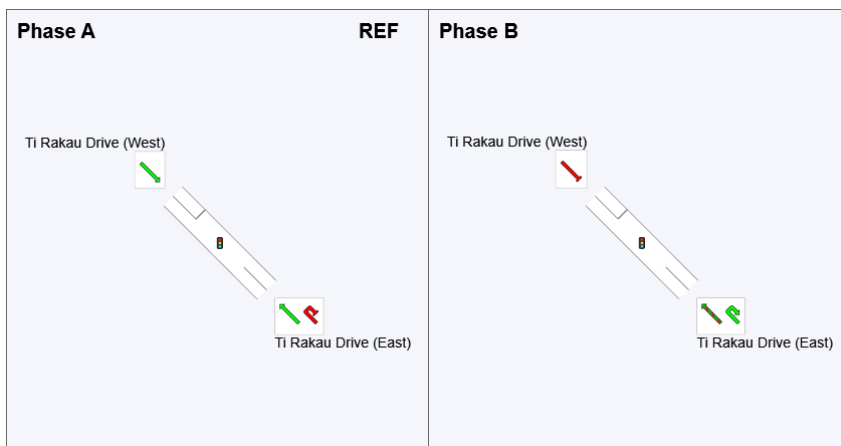
Output Phase Sequence: A, B

Phase Timing Summary

Phase	A	B
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

	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

PHASING SUMMARY

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

Network: N101 [PM (Network Folder: General)]

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

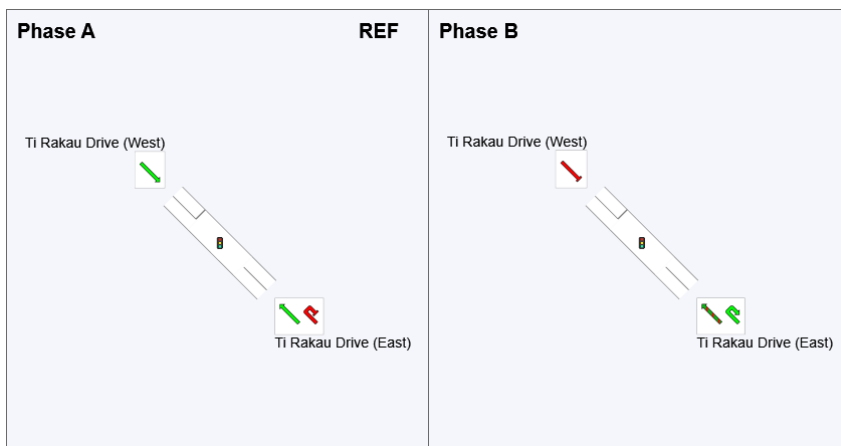
Output Phase Sequence: A, B

Phase Timing Summary

Phase	A	B
Phase Change Time (sec)	0	27
Green Time (sec)	21	7
Phase Time (sec)	27	13
Phase Split	68%	33%

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

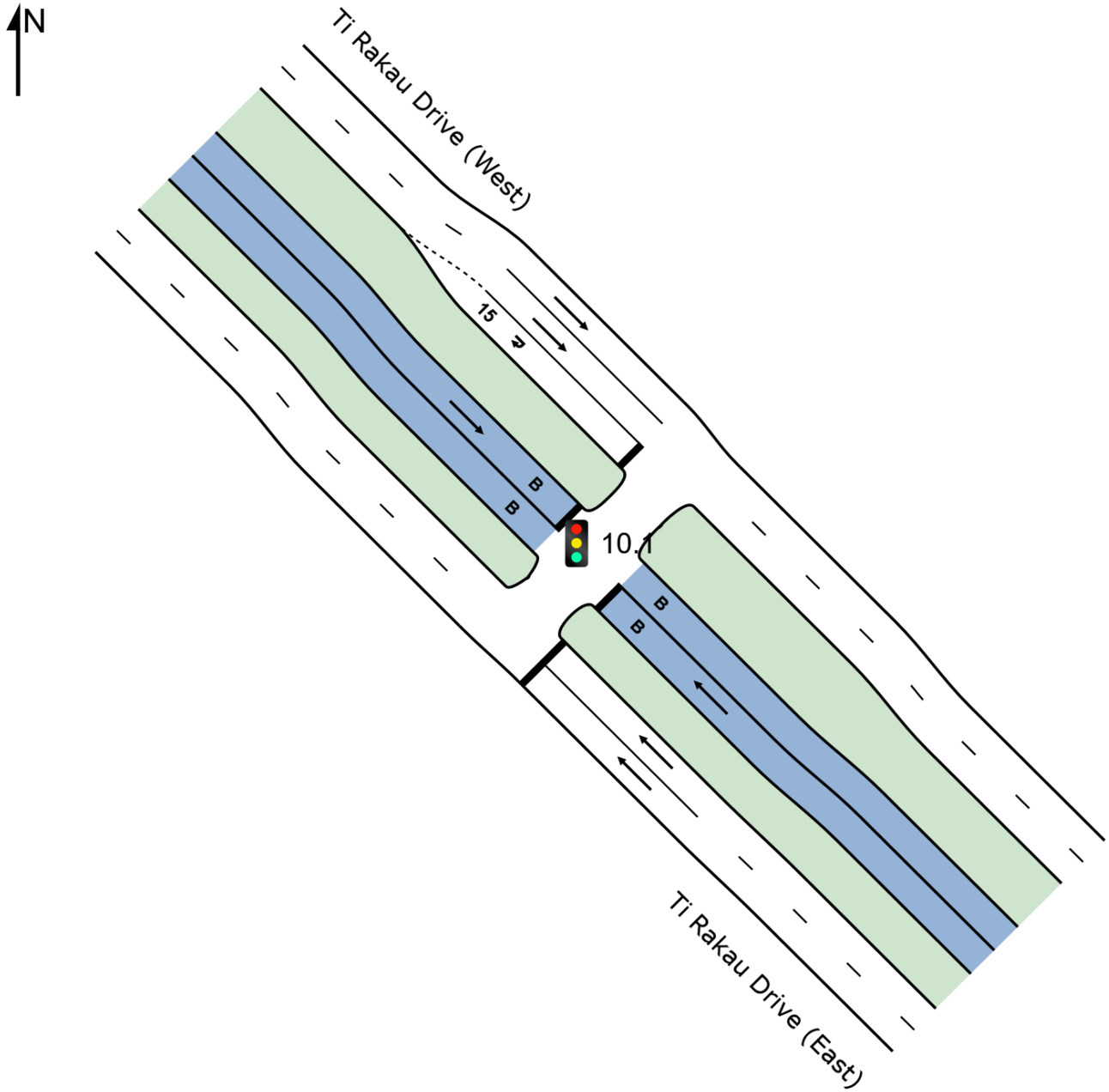
	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

SITE LAYOUT

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

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



PHASING SUMMARY

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

Network: N101 [AM (Network Folder: General)]

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

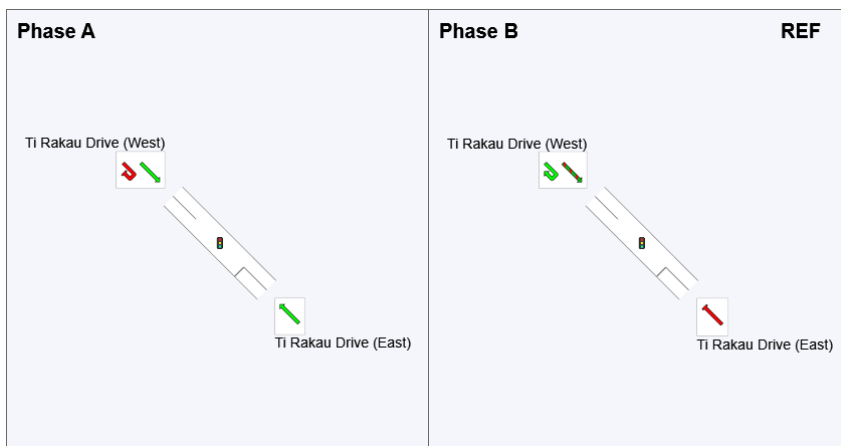
Output Phase Sequence: A, B

Phase Timing Summary

Phase	A	B
Phase Change Time (sec)	13	0
Green Time (sec)	21	7
Phase Time (sec)	27	13
Phase Split	68%	33%

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

	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

PHASING SUMMARY

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

Network: N101 [PM (Network Folder: General)]

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

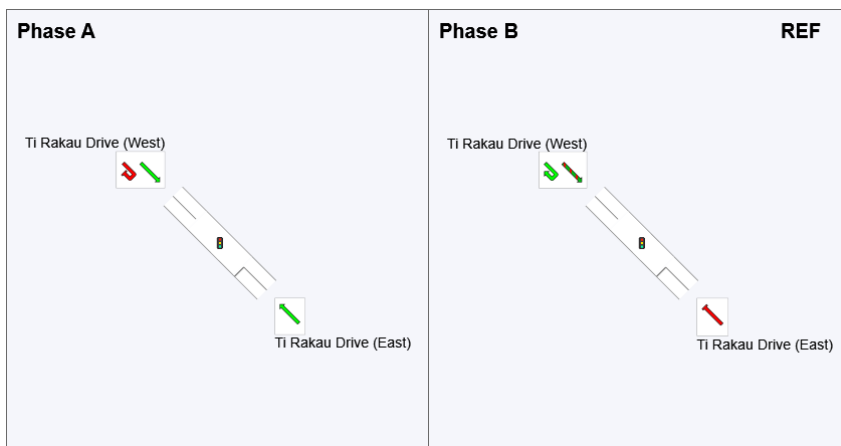
Output Phase Sequence: A, B

Phase Timing Summary

Phase	A	B
Phase Change Time (sec)	13	0
Green Time (sec)	31	7
Phase Time (sec)	37	13
Phase Split	74%	26%

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

	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

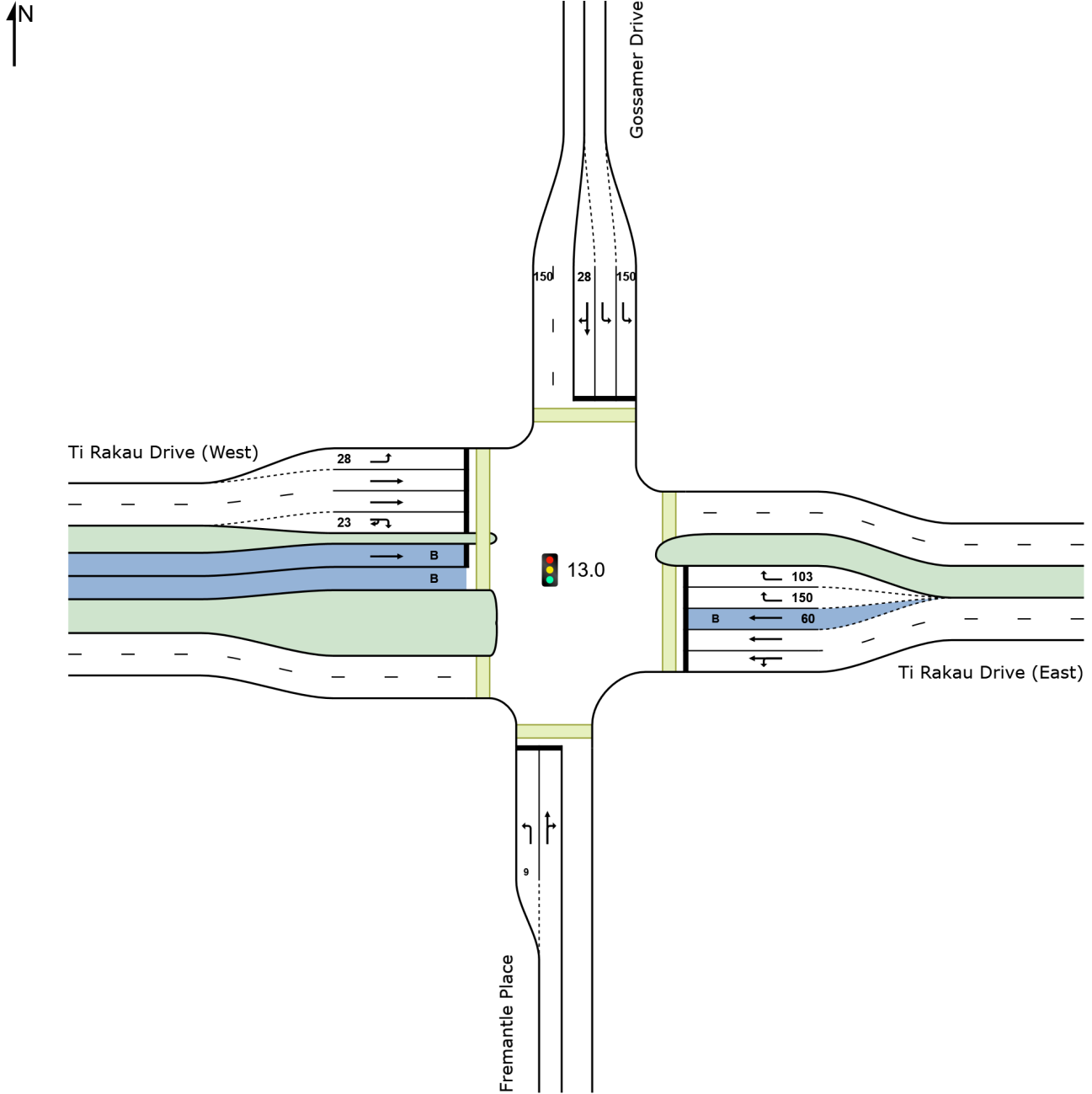
SITE LAYOUT

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

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



PHASING SUMMARY

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

Network: N101 [AM
(Network Folder: General)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 140 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, Bus, C, D, E, F

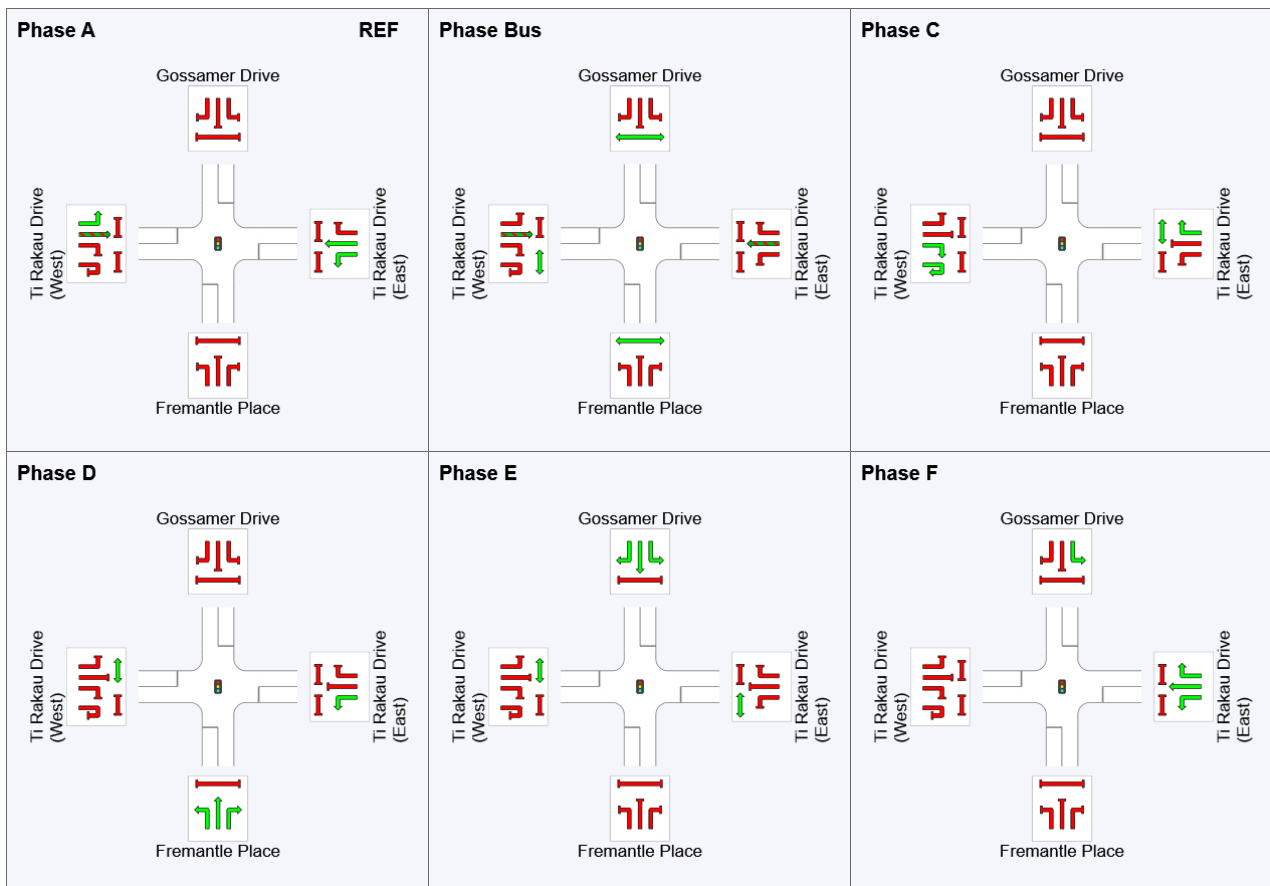
Output Phase Sequence: A, Bus, C, D, E, F

Phase Timing Summary

Phase	A	Bus	C	D	E	F
Phase Change Time (sec)	0	50	67	81	98	120
Green Time (sec)	44	11	10	11	16	15
Phase Time (sec)	50	15	16	17	21	21
Phase Split	36%	11%	11%	12%	15%	15%










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

	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

PHASING SUMMARY

Site: 13.0 [13.0 Gossamer Dr / Ti Rakau Dr (Site Folder: PM)] Network: N101 [PM (Network Folder: General)]

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, Bus, C, D, E, F

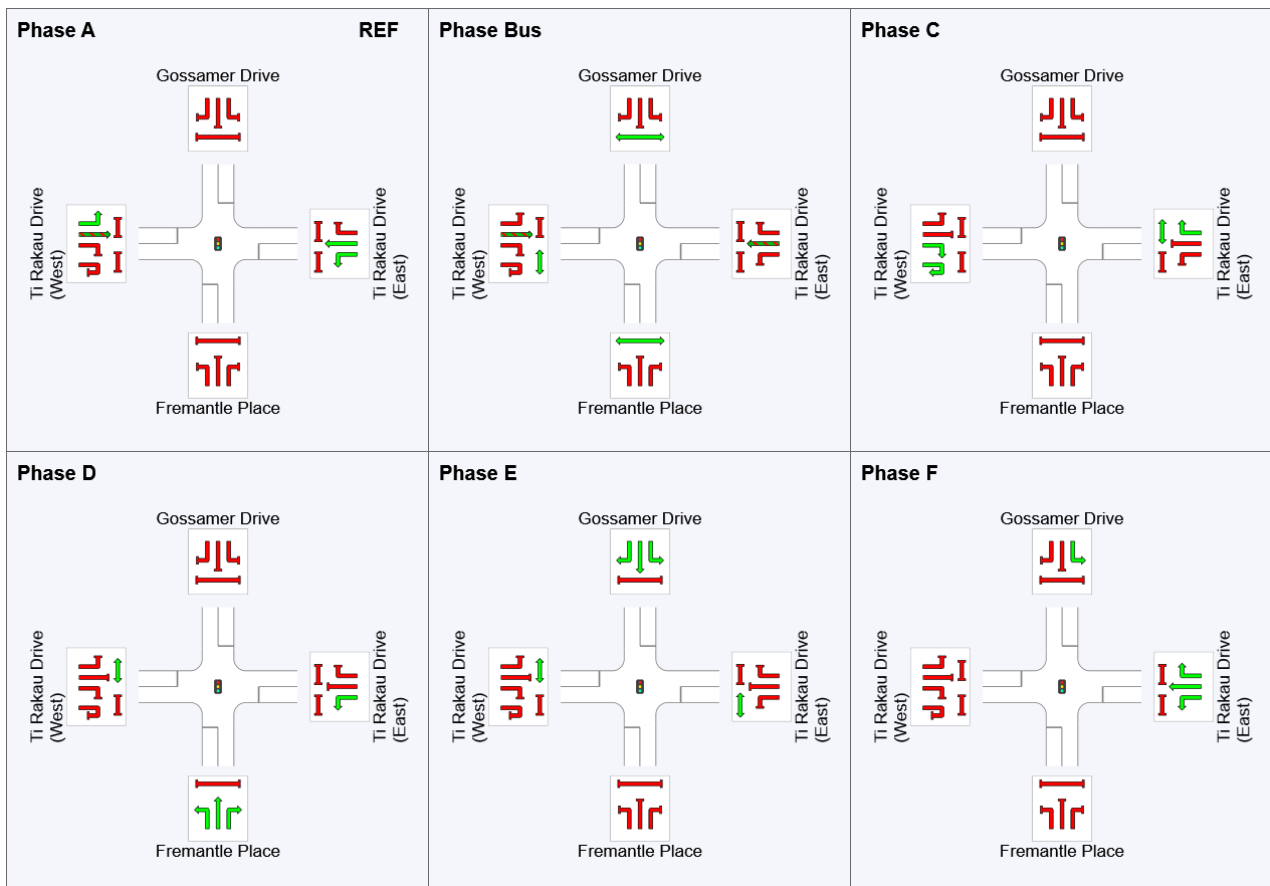
Output Phase Sequence: A, Bus, C, D, E, F

Phase Timing Summary

Phase	A	Bus	C	D	E	F
Phase Change Time (sec)	0	56	74	88	107	126
Green Time (sec)	50	12	10	14	13	20
Phase Time (sec)	56	16	15	20	17	26
Phase Split	37%	11%	10%	13%	11%	17%










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

	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

Appendix G

Construction Scenario 2 – Lane performance Summaries

LANE SUMMARY

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

Network: N101 [AM
(Network Folder: General)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 140 seconds (Site Practical Cycle Time)

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]						[Veh	Dist]				
	veh/h	%	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
South: Ti Rakau Drive															
Lane 1	596	9.6	596	9.6	825 ¹	0.722	100	18.5	LOS B	22.4	169.5	Full	174	0.0	12.6
Lane 2 (B)	21	100.0	21	100.0	71	0.298	100	76.9	LOS E	1.3	16.8	Short	16	0.0	NA
Lane 3	62	4.8	62	4.8	293	0.211	100	59.5	LOS E	3.3	24.1	Full	174	0.0	0.0
Lane 4	62	4.8	62	4.8	293	0.211	100	59.5	LOS E	3.3	24.1	Short	40	0.0	NA
Approach	741	11.3	741	11.3		0.722		27.0	LOS C	22.4	169.5				
East: Pakuranga Road (East)															
Lane 1	140	7.9	139	7.8	535 ¹	0.259	100	27.0	LOS C	4.8	35.6	Short	21	0.0	NA
Lane 2	606	5.3	601	5.2	730 ¹	0.824	100	33.7	LOS C	19.6 ^{N4}	143.2 ^{N4}	Full	98	0.0	50.0
Lane 3	515	9.9	510	9.9	619	0.824	100	49.4	LOS D	18.9 ^{N4}	143.2 ^{N4}	Full	98	0.0	50.0
Approach	1261	7.5	1250 ^{N1}	7.4		0.824		39.4	LOS D	19.6	143.2				
West: Pakuranga Road (West)															
Lane 1 (B)	26	100.0	26	100.0	48	0.538	100	80.0	LOS E	1.7	22.3	Full	380	0.0	0.0
Lane 2	430	7.6	430	7.6	515	0.835	100	56.4	LOS E	26.4	197.1	Full	380	0.0	0.0
Lane 3	430	7.6	430	7.6	515	0.835	100	56.4	LOS E	26.4	197.1	Full	380	0.0	0.0
Lane 4	204	18.1	204	18.1	245	0.831	100	74.8	LOS E	13.3	107.7	Short	178	0.0	NA
Lane 5	204	18.1	204	18.1	245	0.831	100	74.8	LOS E	13.3	107.7	Short	105	0.0	NA
Approach	1294	12.8	1294	12.8		0.835		62.7	LOS E	26.4	197.1				
Intersection	3296	10.4	3285 ^{N1}	10.4		0.835		45.8	LOS D	26.4	197.1				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

^{N1} Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

^{N4} Average back of queue has been restricted to the available queue storage space.

Approach Lane Flows (veh/h)										
South: Ti Rakau Drive										
Mov. From S To Exit:	L2	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	W	E								
Lane 1	596	-	596	9.6	825 ¹	0.722	100	NA	NA	
Lane 2	21	-	21	100.0	71	0.298	100	19.6	1	
Lane 3	-	62	62	4.8	293	0.211	100	NA	NA	
Lane 4	-	62	62	4.8	293	0.211	100	0.0	3	
Approach	617	124	741	11.3		0.722				
East: Pakuranga Road (East)										

Mov. From E To Exit:	L2	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	139	-	139	7.8	535 ¹	0.259	100	64.2	2
Lane 2	-	601	601	5.2	730 ¹	0.824	100	NA	NA
Lane 3	-	510	510	9.9	619	0.824	100	NA	NA
Approach	139	1111	1250	7.4		0.824			
West: Pakuranga Road (West)									
Mov. From W To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	17	26	100.0	48	0.538	100	NA	NA
Lane 2	430	-	430	7.6	515	0.835	100	NA	NA
Lane 3	430	-	430	7.6	515	0.835	100	NA	NA
Lane 4	-	204	204	18.1	245	0.831	100	0.0	3
Lane 5	-	204	204	18.1	245	0.831	100	17.3	4
Approach	869	425	1294	12.8		0.835			
Total %HV Deg. Satn (v/c)									
Intersection	3285	10.4		0.835					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

- ¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate % veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
South Exit: Ti Rakau Drive												
Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											
East Exit: Pakuranga Road (East)												
Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											
West Exit: Pakuranga Road (West)												
Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											
Full Length Lane	3											

LANE SUMMARY

Site: 1.0 [1.0 Pakuranga Rd / Ti Rakau Dr (Site Folder: PM)] Network: N101 [PM (Network Folder: General)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 130 seconds (Site User-Given Phase Times)

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[Total veh/h	HV %	[Total veh/h	HV %						[Veh	Dist] m				
South: Ti Rakau Drive															
Lane 1	709	14.8	709	14.8	906 ¹	0.783	100	11.1	LOS B	19.5	153.8	Full	174	0.0	3.9
Lane 2 (B)	13	100.0	13	100.0	99	0.131	100	64.7	LOS E	0.7	8.9	Short	16	0.0	NA
Lane 3	107	7.9	107	7.9	70	1.521	100	531.8	LOS F	20.4	152.9	Full	174	-34.6 ^{N7}	3.3 ⁸
Lane 4	107	7.9	107	7.9	70	1.521	100	531.8	LOS F	20.4	152.9	Short	40	-34.6 ^{N7}	NA
Approach	936	14.4	936	14.4		1.521		130.9	LOS F	20.4	153.8				
East: Pakuranga Road (East)															
Lane 1	377	1.3	370	1.3	656 ¹	0.564	100	20.0	LOS B	10.9	77.4	Short	21	0.0	NA
Lane 2	369	3.3	362	3.3	652 ¹	0.555	100	15.1	LOS B	10.5	75.8	Full	98	0.0	0.0
Lane 3	389	6.1	382	6.1	688	0.555	100	34.8	LOS C	17.1	126.0	Full	98	0.0	38.1
Approach	1135	3.6	1115 ^{N1}	3.6		0.564		23.5	LOS C	17.1	126.0				
West: Pakuranga Road (West)															
Lane 1 (B)	42	100.0	42	100.0	63	0.672	100	71.6	LOS E	2.6	33.6	Full	380	-20.9 ^{N7}	0.0
Lane 2	586	7.3	586	7.3	615	0.953	100	70.6	LOS E	44.6	331.6	Full	380	-34.6 ^{N7}	2.7
Lane 3	586	7.3	586	7.3	615	0.953	100	70.6	LOS E	44.6	331.6	Full	380	-34.6 ^{N7}	2.7
Lane 4	226	5.8	226	5.8	259	0.869	100	73.6	LOS E	14.2	104.1	Short	178	0.0	NA
Lane 5	226	5.8	226	5.8	259	0.869	100	73.6	LOS E	14.2	104.1	Short	105	0.0	NA
Approach	1665	9.2	1665	9.2		0.953		71.4	LOS E	44.6	331.6				
Intersection	3736	8.8	3716 ^{N1}	8.9		1.521		72.0	LOS E	44.6	331.6				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

- ¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.
- ⁸ Probability of Blockage has been set on the basis of a queue that overflows from a short lane.
- ^{N1} Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.
- ^{N7} The capacity reduction has been determined from the queue blockage probability of a Site further downstream due to intermediate continuous lanes.

Approach Lane Flows (veh/h)										
South: Ti Rakau Drive										
Mov. From S To Exit:	L2	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	W	E								
Lane 1	709	-	709	14.8	906 ¹	0.783	100	NA	NA	
Lane 2	13	-	13	100.0	99	0.131	100	0.0	1	
Lane 3	-	107	107	7.9	70	1.521	100	NA	NA	
Lane 4	-	107	107	7.9	70	1.521	100	100.0	3	

Approach	722	214	936	14.4		1.521				
East: Pakuranga Road (East)										
Mov. From E To Exit:	L2	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	S	W								
Lane 1	370	-	370	1.3	656 ¹	0.564	100	100.0	2	
Lane 2	-	362	362	3.3	652 ¹	0.555	100	NA	NA	
Lane 3	-	382	382	6.1	688	0.555	100	NA	NA	
Approach	370	744	1115	3.6		0.564				
West: Pakuranga Road (West)										
Mov. From W To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	E	S								
Lane 1	21	21	42	100.0	63	0.672	100	NA	NA	
Lane 2	586	-	586	7.3	615	0.953	100	NA	NA	
Lane 3	586	-	586	7.3	615	0.953	100	NA	NA	
Lane 4	-	226	226	5.8	259	0.869	100	0.0	3	
Lane 5	-	226	226	5.8	259	0.869	100	14.2	4	
Approach	1193	472	1665	9.2		0.953				
Total %HV Deg. Satn (v/c)										
Intersection	3716	8.9		1.521						

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

- ¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Capacity Flow Rate veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay Rate sec		
South Exit: Ti Rakau Drive												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
East Exit: Pakuranga Road (East)												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
West Exit: Pakuranga Road (West)												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										

LANE SUMMARY

Site: 2.1 [2.1 Pakuranga Plaza / Pakuranga Rd (Site Folder: AM)]

Network: N101 [AM (Network Folder: General)]

Site Category: (None)
Give-Way (Two-Way)

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[Total veh/h	[HV %	[Total veh/h	[HV %						[Veh	[Dist] m				
East: Pakuranga Road (East)															
Lane 1	680	8.7	680	8.7	1823	0.373	100	1.2	LOS A	0.0	0.0	Full	121	0.0	0.0
Lane 2	699	5.6	699	5.6	1872	0.373	100	0.0	LOS A	0.0	0.0	Full	121	0.0	0.0
Approach	1379	7.1	1379	7.1		0.373		0.6	NA	0.0	0.0				
West: Pakuranga Road (West)															
Lane 1	497	7.9	497	7.9	1845	0.269	100	0.0	LOS A	0.0	0.0	Full	108	0.0	0.0
Lane 2	497	7.9	497	7.9	1845	0.269	100	0.0	LOS A	0.0	0.0	Full	108	0.0	0.0
Approach	994	7.9	994	7.9		0.269		0.0	NA	0.0	0.0				
SouthWest: Pakuranga Plaza															
Lane 1	29	6.9	29	6.9	687	0.042	100	2.8	LOS A	0.1	0.8	Full	196	-11.2 ^{N7}	0.0
Approach	29	6.9	29	6.9		0.042		2.8	LOS A	0.1	0.8				
Intersection	2402	7.5	2402	7.5		0.373		0.4	NA	0.1	0.8				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

^{N7} The capacity reduction has been determined from the queue blockage probability of a Site further downstream due to intermediate continuous lanes.

Approach Lane Flows (veh/h)										
East: Pakuranga Road (East)										
Mov. From E To Exit:	L1	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	155	525	680	8.7	1823	0.373	100	NA	NA	
Lane 2	-	699	699	5.6	1872	0.373	100	NA	NA	
Approach	155	1224	1379	7.1		0.373				
West: Pakuranga Road (West)										
Mov. From W To Exit:	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.		
Lane 1	497	497	7.9	1845	0.269	100	NA	NA		
Lane 2	497	497	7.9	1845	0.269	100	NA	NA		
Approach	994	994	7.9		0.269					
SouthWest: Pakuranga Plaza										
Mov. From SW To Exit:	L3	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.		

W									
Lane 1	29	29	6.9		687	0.042	100	NA	NA
Approach	29	29	6.9			0.042			
Total	%HV	Deg.	Satn (v/c)						
Intersection	2402	7.5	0.373						

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
East Exit: Pakuranga Road (East)											
Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.
Full Length Lane	2										Merge Analysis not applied.
West Exit: Pakuranga Road (West)											
Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.
Full Length Lane	2										Merge Analysis not applied.
SouthWest Exit: Pakuranga Plaza											
Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.

LANE SUMMARY

Site: 2.1 [2.1 Pakuranga Plaza / Pakuranga Rd (Site Folder: **PM**)] Network: N101 [PM (Network Folder: General)]

Site Category: (None)
Give-Way (Two-Way)

Lane Use and Performance															
	DEMAND FLOWS [Total HV] veh/h %		ARRIVAL FLOWS [Total HV] veh/h %		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	85% BACK OF QUEUE [Veh Dist] m		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
East: Pakuranga Road (East)															
Lane 1	579	4.4	579	4.4	1877	0.309	100	0.8	LOS A	0.0	0.0	Full	121	0.0	0.0
Lane 2	589	2.6	589	2.6	1908	0.309	100	0.0	LOS A	0.0	0.0	Full	121	0.0	0.0
Approach	1168	3.5	1168	3.5		0.309		0.4	NA	0.0	0.0				
West: Pakuranga Road (West)															
Lane 1	708	8.8	706	8.8	1835	0.384	100	0.0	LOS A	21.0 ^{N6}	157.8 ^{N6}	Full	108	0.0	50.0 ^{N6}
Lane 2	708	8.8	706	8.8	1835	0.384	100	0.0	LOS A	21.0 ^{N6}	157.8 ^{N6}	Full	108	0.0	50.0 ^{N6}
Approach	1415	8.8	1411 ^{N1}	8.8		0.384		0.0	NA	21.0	157.8				
SouthWest: Pakuranga Plaza															
Lane 1	69	7.2	69	7.2	808	0.085	100	2.6	LOS A	0.3	2.0	Full	196	0.0	0.0
Approach	69	7.2	69	7.2		0.085		2.6	LOS A	0.3	2.0				
Intersection	2652	6.4	2648 ^{N1}	6.4		0.384		0.3	NA	21.0	157.8				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

^{N1} Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

^{N6} Continuous Lane results determined by Back of Queue values of downstream lanes (proportional to lane movement flows) but average back of queue has been restricted to the available queue storage space.

Approach Lane Flows (veh/h)										
East: Pakuranga Road (East)										
Mov. From E To Exit:	L1	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	SW	W								
Lane 1	91	488	579	4.4	1877	0.309	100	NA	NA	
Lane 2	-	589	589	2.6	1908	0.309	100	NA	NA	
Approach	91	1077	1168	3.5		0.309				
West: Pakuranga Road (West)										
Mov. From W To Exit:	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.		
	E									
Lane 1	706	706	8.8	1835	0.384	100	NA	NA		
Lane 2	706	706	8.8	1835	0.384	100	NA	NA		
Approach	1411	1411	8.8		0.384					
SouthWest: Pakuranga Plaza										
Mov.	L3	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.		

From SW To Exit:	W			Cap. veh/h	Satn v/c	Util. %	SL Ov. %	Lane No.
Lane 1	69	69	7.2	808	0.085	100	NA	NA
Approach	69	69	7.2		0.085			
Total %HV Deg. Satn (v/c)								
Intersection	2648	6.4			0.384			

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate % veh/h	pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
East Exit: Pakuranga Road (East)												
Merge Type: Not Applied												
Full Length Lane	1											Merge Analysis not applied.
Full Length Lane	2											Merge Analysis not applied.
West Exit: Pakuranga Road (West)												
Merge Type: Not Applied												
Full Length Lane	1											Merge Analysis not applied.
Full Length Lane	2											Merge Analysis not applied.
SouthWest Exit: Pakuranga Plaza												
Merge Type: Not Applied												
Full Length Lane	1											Merge Analysis not applied.

LANE SUMMARY

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

Network: N101 [AM (Network Folder: General)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site Practical Cycle Time)

Lane Use and Performance															
	DEMAND FLOWS [Total HV] veh/h %		ARRIVAL FLOWS [Total HV] veh/h %		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	85% BACK OF QUEUE [Veh Dist] m		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
East: Pakuranga Road (East)															
Lane 1	683	5.2	683	5.2	757	0.902	100	41.5	LOS D	28.8	210.4	Full	183	0.0	27.7
Lane 2	683	5.2	683	5.2	757	0.902	100	41.5	LOS D	28.8	210.4	Full	183	0.0	27.7
Lane 3	534	7.2	534	7.2	583 ¹	0.916	100	45.3	LOS D	22.3	165.9	Full	183	0.0	6.1 ⁸
Lane 4	535	7.2	535	7.2	583 ¹	0.916	100	45.3	LOS D	22.3	165.9	Short	60	0.0	NA
Approach	2434	6.1	2434	6.1		0.916		43.2	LOS D	28.8	210.4				
NorthWest: Pakuranga Road (West)															
Lane 1	369	9.2	369	9.2	737	0.501	100	22.3	LOS C	9.6	72.7	Full	121	0.0	0.0
Lane 2	375	6.9	375	6.9	748	0.501	100	22.3	LOS C	9.8	72.4	Full	121	0.0	0.0
Lane 3	241	7.5	241	7.5	351	0.687	100	38.7	LOS D	8.3	61.8	Short	98	0.0	NA
Approach	985	7.9	985	7.9		0.687		26.3	LOS C	9.8	72.7				
SouthWest: Flyover															
Lane 1	314	6.7	314	6.7	364	0.863	100	48.1	LOS D	12.6	93.2	Short	70	0.0	NA
Lane 2	264	5.3	264	5.3	307	0.857	100	48.0	LOS D	10.5	76.8	Full	1162	0.0	0.0
Lane 3	264	5.3	264	5.3	307	0.857	100	48.0	LOS D	10.5	76.8	Full	1162	0.0	0.0
Approach	841	5.8	841	5.8		0.863		48.0	LOS D	12.6	93.2				
Intersection	4260	6.5	4260	6.5		0.916		40.2	LOS D	28.8	210.4				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁸ Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

Approach Lane Flows (veh/h)										
East: Pakuranga Road (East)										
Mov. From E To Exit:	L1	R1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	SW	NW								
Lane 1	683	-	683	5.2	757	0.902	100	NA	NA	
Lane 2	683	-	683	5.2	757	0.902	100	NA	NA	
Lane 3	-	534	534	7.2	583 ¹	0.916	100	NA	NA	
Lane 4	-	535	535	7.2	583 ¹	0.916	100	100.0	3	
Approach	1365	1069	2434	6.1		0.916				
NorthWest: Pakuranga Road (West)										
Mov. From NW To Exit:	L1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	E	SW								
Lane 1	369	-	369	9.2	737	0.501	100	NA	NA	

Lane 2	375	-	375	6.9	748	0.501	100	NA	NA
Lane 3	-	241	241	7.5	351	0.687	100	0.0	2
Approach	744	241	985	7.9		0.687			
SouthWest: Flyover									
Mov. From SW To Exit:	L2	R1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
	NW	E							
Lane 1	314	-	314	6.7	364	0.863	100	41.3	2
Lane 2	-	264	264	5.3	307	0.857	100	NA	NA
Lane 3	-	264	264	5.3	307	0.857	100	NA	NA
Approach	314	527	841	5.8		0.863			
Total %HV Deg. Satn (v/c)									
Intersection	4260	6.5		0.916					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

- 1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate % veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
East Exit: Pakuranga Road (East)												
Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											
Full Length Lane	3											
NorthWest Exit: Pakuranga Road (West)												
Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											
SouthWest Exit: Flyover												
Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											

LANE SUMMARY

Site: 3.0 [3.0 Pakuranga Highway / Pakuranga Rd (Site Folder: Network: N101 [PM (Network PM)]) Folder: General]]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Phase Times)

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[Total veh/h	HV %	[Total veh/h	HV %						[Veh	Dist] m				
East: Pakuranga Road (East)															
Lane 1	378	4.2	378	4.2	924	0.409	100	16.0	LOS B	9.3	67.3	Full	183	0.0	0.0
Lane 2	378	4.2	378	4.2	924	0.409	100	16.0	LOS B	9.3	67.3	Full	183	0.0	0.0
Lane 3	382	4.7	382	4.7	544 ¹	0.701	100	36.1	LOS D	15.9	115.9	Full	183	0.0	0.0
Lane 4	382	4.7	382	4.7	544 ¹	0.701	100	36.1	LOS D	15.9	115.9	Short	60	0.0	NA
Approach	1519	4.5	1519	4.5		0.701		26.1	LOS C	15.9	115.9				
NorthWest: Pakuranga Road (West)															
Lane 1	668	9.4	668	9.4	654	1.021	100	107.2	LOS F	23.4 ^{N4}	176.8 ^{N4}	Full	121	0.0	50.0
Lane 2	639	6.5	639	6.5	626 ¹	1.021	100	108.0	LOS F	23.9 ^{N4}	176.8 ^{N4}	Full	121	0.0	50.0
Lane 3	102	19.6	102	19.6	122	0.839	100	73.2	LOS E	6.0	48.8	Short	98	0.0	NA
Approach	1409	8.8	1409	8.8		1.021		105.1	LOS F	23.9	176.8				
SouthWest: Flyover															
Lane 1	414	0.7	414	0.7	632	0.655	100	26.3	LOS C	12.4	87.1	Short	70	0.0	NA
Lane 2	611	2.3	611	2.3	625 ¹	0.978	100	78.8	LOS E	40.8	291.5	Full	1162	0.0	0.0
Lane 3	834	2.3	834	2.3	853	0.978	100	77.6	LOS E	60.3	430.7	Full	1162	0.0	0.0
Approach	1859	1.9	1859	1.9		0.978		66.5	LOS E	60.3	430.7				
Intersection	4787	4.8	4787	4.8		1.021		65.1	LOS E	60.3	430.7				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

^{N4} Average back of queue has been restricted to the available queue storage space.

Approach Lane Flows (veh/h)										
East: Pakuranga Road (East)										
Mov. From E To Exit:	L1	R1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL %	Ov. Lane No.	
	SW	NW								
Lane 1	378	-	378	4.2	924	0.409	100	NA	NA	
Lane 2	378	-	378	4.2	924	0.409	100	NA	NA	
Lane 3	-	382	382	4.7	544 ¹	0.701	100	NA	NA	
Lane 4	-	382	382	4.7	544 ¹	0.701	100	76.7	3	
Approach	756	763	1519	4.5		0.701				
NorthWest: Pakuranga Road (West)										
Mov. From NW To Exit:	L1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL %	Ov. Lane No.	
	E	SW								
Lane 1	668	-	668	9.4	654	1.021	100	NA	NA	

Lane 2	639	-	639	6.5	626 ¹	1.021	100	NA	NA
Lane 3	-	102	102	19.6	122	0.839	100	0.0	2
Approach	1307	102	1409	8.8		1.021			
SouthWest: Flyover									
Mov. From SW To Exit:	L2	R1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
	NW	E							
Lane 1	414	-	414	0.7	632	0.655	100	35.0	2
Lane 2	-	611	611	2.3	625 ¹	0.978	100	NA	NA
Lane 3	-	834	834	2.3	853	0.978	100	NA	NA
Approach	414	1445	1859	1.9		0.978			
Total %HV Deg. Satn (v/c)									
Intersection	4787	4.8		1.021					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

- ¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate % veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
East Exit: Pakuranga Road (East)												
Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											
Full Length Lane	3											
NorthWest Exit: Pakuranga Road (West)												
Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											
SouthWest Exit: Flyover												
Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											

LANE SUMMARY

Site: 7.4 [7.4 Reeves Rd/ Aylesbury St - XL (Site Folder: AM)]

Network: N101 [AM
(Network Folder: General)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[Total]	[HV]	[Total]	[HV]						[Veh]	[Dist]				
East: Reeves Rd (North)															
Lane 1	29	0.0	29	0.0	2014	0.015	100	0.0	LOS A	0.0	0.0	Full	55	0.0	0.0
Lane 2	45	0.0	45	0.0	1783	0.025	100	4.1	LOS A	0.1	0.6	Short	53	0.0	NA
Approach	75	0.0	75	0.0		0.025		2.5	NA	0.1	0.6				
North: Aylesbury St															
Lane 1	24	0.0	24	0.0	1341	0.018	100	4.8	LOS A	0.1	0.4	Full	193	0.0	0.0
Approach	24	0.0	24	0.0		0.018		4.8	LOS A	0.1	0.4				
West: Reeves Rd (South)															
Lane 1	12	0.0	12	0.0	2032	0.006	100	0.4	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	12	0.0	12	0.0		0.006		0.4	NA	0.0	0.0				
Intersection	111	0.0	111	0.0		0.025		2.8	NA	0.1	0.6				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Approach Lane Flows (veh/h)										
East: Reeves Rd (North)										
Mov.	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
From E To Exit:	W	N								
Lane 1	29	-	29	0.0	2014	0.015	100	NA	NA	
Lane 2	-	45	45	0.0	1783	0.025	100	0.0	1	
Approach	29	45	75	0.0		0.025				
North: Aylesbury St										
Mov.	L2	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
From N To Exit:	E	W								
Lane 1	14	11	24	0.0	1341	0.018	100	NA	NA	
Approach	14	11	24	0.0		0.018				
West: Reeves Rd (South)										
Mov.	L2	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
From W To Exit:	N	E								
Lane 1	1	11	12	0.0	2032	0.006	100	NA	NA	
Approach	1	11	12	0.0		0.006				

	Total	%HV	Deg.Satn (v/c)
Intersection	111	0.0	0.025

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
East Exit: Reeves Rd (North) Merge Type: Not Applied											
Full Length Lane	1		Merge Analysis not applied.								
North Exit: Aylesbury St Merge Type: Not Applied											
Full Length Lane	1		Merge Analysis not applied.								
West Exit: Reeves Rd (South) Merge Type: Not Applied											
Full Length Lane	1		Merge Analysis not applied.								

LANE SUMMARY

Site: 7.4 [7.4 Reeves Rd/ Aylesbury St - XL (Site Folder: PM)] Network: N101 [PM (Network Folder: General)]

New Site
 Site Category: (None)
 Give-Way (Two-Way)

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]	veh/h	v/c	%	sec		[Veh	Dist]		m	%	%
	veh/h	%	veh/h	%							m				
East: Reeves Rd (North)															
Lane 1	13	0.0	13	0.0	2009	0.006	100	0.0	LOS A	0.0	0.0	Full	55	0.0	0.0
Lane 2	16	0.0	16	0.0	1735	0.009	100	4.2	LOS A	0.0	0.2	Short	53	0.0	NA
Approach	28	0.0	28	0.0		0.009		2.3	NA	0.0	0.2				
North: Aylesbury St															
Lane 1	104	0.0	104	0.0	1351	0.077	100	4.8	LOS A	0.2	1.6	Full	193	0.0	0.0
Approach	104	0.0	104	0.0		0.077		4.8	LOS A	0.2	1.6				
West: Reeves Rd (South)															
Lane 1	43	0.0	43	0.0	2039	0.021	100	0.1	LOS A	0.0	0.0	Full	60	0.0	0.0
Approach	43	0.0	43	0.0		0.021		0.1	NA	0.0	0.0				
Intersection	176	0.0	176	0.0		0.077		3.2	NA	0.2	1.6				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Approach Lane Flows (veh/h)										
East: Reeves Rd (North)										
Mov.	T1	R2	Total	%HV	Cap.	Deg.	Lane	Prob.	Ov.	
From E					veh/h	Satn	Util.	SL	Ov.	Lane
To Exit:	W	N				v/c	%	%	%	No.
Lane 1	13	-	13	0.0	2009	0.006	100	NA	NA	
Lane 2	-	16	16	0.0	1735	0.009	100	0.0	1	
Approach	13	16	28	0.0		0.009				
North: Aylesbury St										
Mov.	L2	R2	Total	%HV	Cap.	Deg.	Lane	Prob.	Ov.	
From N					veh/h	Satn	Util.	SL	Ov.	Lane
To Exit:	E	W				v/c	%	%	%	No.
Lane 1	62	42	104	0.0	1351	0.077	100	NA	NA	
Approach	62	42	104	0.0		0.077				
West: Reeves Rd (South)										
Mov.	L2	T1	Total	%HV	Cap.	Deg.	Lane	Prob.	Ov.	
From W					veh/h	Satn	Util.	SL	Ov.	Lane
To Exit:	N	E				v/c	%	%	%	No.
Lane 1	1	42	43	0.0	2039	0.021	100	NA	NA	
Approach	1	42	43	0.0		0.021				

	Total	%HV	Deg.Satn (v/c)
Intersection	176	0.0	0.077

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
East Exit: Reeves Rd (North) Merge Type: Not Applied											
Full Length Lane	1		Merge Analysis not applied.								
North Exit: Aylesbury St Merge Type: Not Applied											
Full Length Lane	1		Merge Analysis not applied.								
West Exit: Reeves Rd (South) Merge Type: Not Applied											
Full Length Lane	1		Merge Analysis not applied.								

LANE SUMMARY

Site: 7.3 [7.3 William Roberts Rd / Reeves Rd - XL (Site Folder: AM)]

Network: N101 [AM (Network Folder: General)]

Site Category: (None)
Give-Way (Two-Way)

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[Total]	[HV]	[Total]	[HV]						[Veh]	[Dist]				
South: William Roberts Road (South)															
Lane 1	134	8.7	134	8.7	950	0.141	100	5.6	LOS A	0.4	2.8	Full	243	0.0	0.0
Approach	134	8.7	134	8.7		0.141		5.6	LOS A	0.4	2.8				
East: Reeves Rd (East)															
Lane 1	283	8.2	283	8.2	1743	0.162	100	4.4	LOS A	0.0	0.0	Full	266	0.0	0.0
Approach	283	8.2	283	8.2		0.162		4.4	NA	0.0	0.0				
West: Reeves Rd (West)															
Lane 1	15	7.1	15	7.1	1873	0.008	100	2.7	LOS A	0.0	0.0	Full	55	0.0	0.0
Lane 2	14	15.4	14	15.4	635	0.022	100	6.8	LOS A	0.1	0.4	Short	13	0.0	NA
Approach	28	11.1	28	11.1		0.022		4.7	LOS A	0.1	0.4				
Intersection	445	8.5	445	8.5		0.162		4.8	NA	0.4	2.8				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Approach Lane Flows (veh/h)										
South: William Roberts Road (South)										
Mov. From S To Exit:	L2	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	W	E								
Lane 1	24	109	134	8.7	950	0.141	100	NA	NA	
Approach	24	109	134	8.7		0.141				
East: Reeves Rd (East)										
Mov. From E To Exit:	L2	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	S	W								
Lane 1	229	54	283	8.2	1743	0.162	100	NA	NA	
Approach	229	54	283	8.2		0.162				
West: Reeves Rd (West)										
Mov. From W To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	E	S								
Lane 1	15	-	15	7.1	1873	0.008	100	NA	NA	
Lane 2	-	14	14	15.4	635	0.022	100	0.0	1	
Approach	15	14	28	11.1		0.022				

	Total	%HV	Deg.Satn (v/c)
Intersection	445	8.5	0.162

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: William Roberts Road (South) Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.
East Exit: Reeves Rd (East) Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.
West Exit: Reeves Rd (West) Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.

LANE SUMMARY

Site: 7.3 [7.3 William Roberts Rd / Reeves Rd - XL (Site Folder: PM)]

Network: N101 [PM (Network Folder: General)]

Site Category: (None)
Give-Way (Two-Way)

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[Total veh/h]	[HV %]	[Total veh/h]	[HV %]						[Veh]	[Dist m]				
South: William Roberts Road (South)															
Lane 1	323	14.3	323	14.4	972	0.332	100	5.4	LOS A	1.1	8.6	Full	243	0.0	0.0
Approach	323	14.3	323	14.4		0.332		5.4	LOS A	1.1	8.6				
East: Reeves Rd (East)															
Lane 1	112	6.6	112	6.6	1750	0.064	100	4.5	LOS A	0.0	0.0	Full	266	0.0	0.0
Approach	112	6.6	112	6.6		0.064		4.5	NA	0.0	0.0				
West: Reeves Rd (West)															
Lane 1	37	5.7	37	5.7	1890	0.019	100	2.7	LOS A	0.0	0.0	Full	55	0.0	0.0
Lane 2	75	7.0	75	7.0	649	0.115	100	7.1	LOS A	0.3	2.1	Short	13	0.0	NA
Approach	112	6.6	112	6.6		0.115		5.7	LOS A	0.3	2.1				
Intersection	546	11.2	546	11.2		0.332		5.3	NA	1.1	8.6				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Approach Lane Flows (veh/h)										
South: William Roberts Road (South)										
Mov. From S To Exit:	L2	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	W	E								
Lane 1	23	299	323	14.4	972	0.332	100	NA	NA	
Approach	23	299	323	14.4		0.332				
East: Reeves Rd (East)										
Mov. From E To Exit:	L2	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	S	W								
Lane 1	105	6	112	6.6	1750	0.064	100	NA	NA	
Approach	105	6	112	6.6		0.064				
West: Reeves Rd (West)										
Mov. From W To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	E	S								
Lane 1	37	-	37	5.7	1890	0.019	100	NA	NA	
Lane 2	-	75	75	7.0	649	0.115	100	0.0	1	
Approach	37	75	112	6.6		0.115				

	Total	%HV	Deg.Satn (v/c)
Intersection	546	11.2	0.332

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: William Roberts Road (South)											
Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.
East Exit: Reeves Rd (East)											
Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.
West Exit: Reeves Rd (West)											
Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.

LANE SUMMARY

Site: 7.1 [7.1 William Roberts Rd / Cortina PI (Site Folder: AM)]

Network: N101 [AM (Network Folder: General)]

Site Category: (None)
Give-Way (Two-Way)

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[Total veh/h	[HV %	[Total veh/h	[HV %						[Veh	[Dist] m				
NorthEast: William Roberts Road (North)															
Lane 1	267	8.3	267	8.3	1831	0.146	100	0.2	LOS A	0.1	0.5	Full	243	0.0	0.0
Approach	267	8.3	267	8.3		0.146		0.2	NA	0.1	0.5				
NorthWest: Cortina Place															
Lane 1	37	5.4	37	5.4	1136	0.033	100	3.0	LOS A	0.1	0.7	Full	177	0.0	0.0
Approach	37	5.4	37	5.4		0.033		3.0	LOS A	0.1	0.7				
SouthWest: William Roberts Road (South)															
Lane 1	97	7.2	97	7.2	1792	0.054	100	0.5	LOS A	0.0	0.0	Full	110	0.0	0.0
Approach	97	7.2	97	7.2		0.054		0.5	NA	0.0	0.0				
Intersection	401	7.7	401	7.7		0.146		0.5	NA	0.1	0.7				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Approach Lane Flows (veh/h)										
NorthEast: William Roberts Road (North)										
Mov.	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
From NE To Exit:	SW	NW								
Lane 1	257	10	267	8.3	1831	0.146	100	NA	NA	
Approach	257	10	267	8.3		0.146				
NorthWest: Cortina Place										
Mov.	L2	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
From NW To Exit:	NE	SW								
Lane 1	19	18	37	5.4	1136	0.033	100	NA	NA	
Approach	19	18	37	5.4		0.033				
SouthWest: William Roberts Road (South)										
Mov.	L2	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
From SW To Exit:	NW	NE								
Lane 1	23	74	97	7.2	1792	0.054	100	NA	NA	
Approach	23	74	97	7.2		0.054				
Total %HV Deg. Satn (v/c)										

Intersection	401	7.7	0.146
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Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
NorthEast Exit: William Roberts Road (North) Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.
NorthWest Exit: Cortina Place Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.
SouthWest Exit: William Roberts Road (South) Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.

LANE SUMMARY

Site: 7.1 [7.1 William Roberts Rd / Cortina PI (Site Folder: PM)]

Network: N101 [PM (Network Folder: General)]

Site Category: (None)
Give-Way (Two-Way)

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[Total veh/h	HV %	[Total veh/h	HV %						[Veh	Dist] m				
NorthEast: William Roberts Road (North)															
Lane 1	141	10.0	141	10.0	1754	0.080	100	0.5	LOS A	0.1	0.6	Full	243	0.0	0.0
Approach	141	10.0	141	10.0		0.080		0.5	NA	0.1	0.6				
NorthWest: Cortina Place															
Lane 1	64	6.3	64	6.3	898	0.071	100	4.2	LOS A	0.2	1.4	Full	177	0.0	0.0
Approach	64	6.3	64	6.3		0.071		4.2	LOS A	0.2	1.4				
SouthWest: William Roberts Road (South)															
Lane 1	367	10.9	366	10.9	1762	0.208	100	0.3	LOS A	0.0	0.0	Full	110	0.0	0.0
Approach	367	10.9	366 ^{N1}	10.9		0.208		0.3	NA	0.0	0.0				
Intersection	572	10.1	571 ^{N1}	10.2		0.208		0.8	NA	0.2	1.4				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

^{N1} Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Approach Lane Flows (veh/h)										
NorthEast: William Roberts Road (North)										
Mov. From NE To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	SW	NW								
Lane 1	131	10	141	10.0	1754	0.080	100	NA	NA	
Approach	131	10	141	10.0		0.080				
NorthWest: Cortina Place										
Mov. From NW To Exit:	L2	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	NE	SW								
Lane 1	19	45	64	6.3	898	0.071	100	NA	NA	
Approach	19	45	64	6.3		0.071				
SouthWest: William Roberts Road (South)										
Mov. From SW To Exit:	L2	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	NW	NE								
Lane 1	48	318	366	10.9	1762	0.208	100	NA	NA	
Approach	48	318	366	10.9		0.208				
Total %HV Deg. Satn (v/c)										

Intersection	571	10.2	0.208
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Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
NorthEast Exit: William Roberts Road (North) Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.
NorthWest Exit: Cortina Place Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.
SouthWest Exit: William Roberts Road (South) Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.

LANE SUMMARY

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

Network: N101 [AM
(Network Folder: General)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site Practical Cycle Time)

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[Total HV]	%	[Total HV]	%						[Veh]	[Dist]				
South: Ti Rakau Drive (East)															
Lane 1	314	12.1	314	12.1	403	0.781	100	31.3	LOS C	10.1	78.2	Full	110	-11.5 ^{N3}	0.0
Lane 2	359	12.6	359	12.6	459	0.781	100	30.6	LOS C	11.4	88.3	Full	110	0.0	0.0
Approach	673	12.3	673	12.3		0.781		30.9	LOS C	11.4	88.3				
East: Aylesbury Street															
Lane 1	32	6.3	32	6.3	148	0.217	100	36.5	LOS D	1.0	7.2	Short	30	0.0	NA
Lane 2	53	5.7	53	5.7	153	0.347	100	36.8	LOS D	1.7	12.1	Full	40	0.0	0.0
Approach	85	5.9	85	5.9		0.347		36.7	LOS D	1.7	12.1				
North: Ti Rakau Drive (West)															
Lane 1	275	16.9	275	16.9	365	0.752	100	32.4	LOS C	8.7	69.8	Full	174	0.0	0.0
Lane 2	283	18.5	282	18.5	375	0.752	100	31.7	LOS C	8.9	72.4	Full	174	0.0	0.0
Approach	558	17.7	557 ^{N1}	17.7		0.752		32.1	LOS C	8.9	72.4				
West: Palm Avenue															
Lane 1	121	4.1	121	4.1	165	0.732	100	42.1	LOS D	4.1	29.4	Full	87	-9.6 ^{N3}	0.0
Approach	121	4.1	121	4.1		0.732		42.1	LOS D	4.1	29.4				
Intersection	1437	13.4	1436 ^{N1}	13.4		0.781		32.6	LOS C	11.4	88.3				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

^{N1} Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

Approach Lane Flows (veh/h)											
South: Ti Rakau Drive (East)											
Mov. From S To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL %	Ov. Lane No.	
Lane 1	33	281	-	314	12.1	403	0.781	100	NA	NA	
Lane 2	-	329	30	359	12.6	459	0.781	100	NA	NA	
Approach	33	610	30	673	12.3		0.781				
East: Aylesbury Street											
Mov. From E To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL %	Ov. Lane No.	
Lane 1	32	-	-	32	6.3	148	0.217	100	0.0	2	
Lane 2	-	10	43	53	5.7	153	0.347	100	NA	NA	
Approach	32	10	43	85	5.9		0.347				

North: Ti Rakau Drive (West)										
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.
From N						Cap.	Satn	Util.	SL	Lane
To Exit:	E	S	W			veh/h	v/c	%	%	No.
Lane 1	61	214	-	275	16.9	365	0.752	100	NA	NA
Lane 2	-	257	25	282	18.5	375	0.752	100	NA	NA
Approach	61	471	25	557	17.7		0.752			
West: Palm Avenue										
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.
From W						Cap.	Satn	Util.	SL	Lane
To Exit:	N	E	S			veh/h	v/c	%	%	No.
Lane 1	89	10	22	121	4.1	165	0.732	100	NA	NA
Approach	89	10	22	121	4.1		0.732			
Total %HV Deg. Satn (v/c)										
Intersection	1436	13.4		0.781						

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate % veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: Ti Rakau Drive (East)											
Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.
Full Length Lane	2										Merge Analysis not applied.
East Exit: Aylesbury Street											
Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.
North Exit: Ti Rakau Drive (West)											
Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.
Full Length Lane	2										Merge Analysis not applied.
West Exit: Palm Avenue											
Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.

LANE SUMMARY

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

Network: N101 [PM (Network Folder: General)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 90 seconds (Site Practical Cycle Time)

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[Total veh/h	[HV %	[Total veh/h	[HV %						[Veh	[Dist] m				
South: Ti Rakau Drive (East)															
Lane 1	390	16.9	390	16.9	481	0.810	100	37.9	LOS D	15.9	127.3	Full	110	-3.5 ^{N3}	28.4
Lane 2	407	17.0	407	17.0	503	0.810	100	37.5	LOS D	16.5	132.4	Full	110	0.0	32.0
Approach	797	16.9	797	16.9		0.810		37.7	LOS D	16.5	132.4				
East: Aylesbury Street															
Lane 1	64	10.9	64	10.9	159	0.402	100	45.5	LOS D	2.5	19.2	Short	30	-4.5 ^{N3}	NA
Lane 2	153	3.3	153	3.3	180	0.849	100	53.4	LOS D	6.8	49.1	Full	40	0.0	33.8
Approach	217	5.5	217	5.5		0.849		51.0	LOS D	6.8	49.1				
North: Ti Rakau Drive (West)															
Lane 1	419	6.3	415	6.4	496	0.836	100	40.4	LOS D	17.5	129.1	Full	174	-4.0 ^{N3}	0.0
Lane 2	424	5.8	421	5.8	503	0.836	100	40.4	LOS D	17.7	130.0	Full	174	-3.9 ^{N3}	0.0
Approach	843	6.0	836 ^{N1}	6.1		0.836		40.4	LOS D	17.7	130.0				
West: Palm Avenue															
Lane 1	95	5.3	95	5.3	117	0.813	100	56.6	LOS E	4.2	30.8	Full	87	-3.6 ^{N3}	0.0
Approach	95	5.3	95	5.3		0.813		56.6	LOS E	4.2	30.8				
Intersection	1952	10.4	1945 ^{N1}	10.4		0.849		41.3	LOS D	17.7	132.4				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

^{N1} Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

Approach Lane Flows (veh/h)											
South: Ti Rakau Drive (East)											
Mov. From S To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL %	Ov. Lane No.	
Lane 1	37	353	-	390	16.9	481	0.810	100	NA	NA	
Lane 2	-	379	28	407	17.0	503	0.810	100	NA	NA	
Approach	37	732	28	797	16.9		0.810				
East: Aylesbury Street											
Mov. From E To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL %	Ov. Lane No.	
Lane 1	64	-	-	64	10.9	159	0.402	100	0.0	2	
Lane 2	-	10	143	153	3.3	180	0.849	100	NA	NA	
Approach	64	10	143	217	5.5		0.849				

North: Ti Rakau Drive (West)										
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.
From N						Cap.	Satn	Util.	SL	Lane
To Exit:	E	S	W			veh/h	v/c	%	%	No.
Lane 1	52	364	-	415	6.4	496	0.836	100	NA	NA
Lane 2	-	364	58	421	5.8	503	0.836	100	NA	NA
Approach	52	727	58	836	6.1		0.836			
West: Palm Avenue										
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.
From W						Cap.	Satn	Util.	SL	Lane
To Exit:	N	E	S			veh/h	v/c	%	%	No.
Lane 1	64	10	21	95	5.3	117	0.813	100	NA	NA
Approach	64	10	21	95	5.3		0.813			
Total %HV Deg. Satn (v/c)										
Intersection	1945	10.4		0.849						

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: Ti Rakau Drive (East)												
Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											
East Exit: Aylesbury Street												
Merge Type: Not Applied												
Full Length Lane	1											
North Exit: Ti Rakau Drive (West)												
Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											
West Exit: Palm Avenue												
Merge Type: Not Applied												
Full Length Lane	1											

LANE SUMMARY

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

Network: N101 [AM (Network Folder: General)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 40 seconds (Site Practical Cycle Time)

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]						[Veh	Dist]				
	veh/h	%	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
SouthEast: Ti Rakau Drive (East)															
Lane 1	689	9.4	689	9.4	865	0.795	100	21.9	LOS C	12.3	93.1	Short	50	0.0	NA
Lane 2	689	9.4	689	9.4	865	0.795	100	17.7	LOS B	12.3	93.1	Full	90	0.0	18.1 ⁸
Lane 3	303	12.7	303	12.7	358	0.844	100	23.1	LOS C	6.4	50.0	Full	90	0.0	0.0
Lane 4	303	12.7	303	12.7	358	0.844	100	23.1	LOS C	6.4	50.0	Full	90	0.0	0.0
Approach	1982	10.4	1982	10.4		0.844		20.8	LOS C	12.3	93.1				
NorthWest: Ti Rakau Drive (West)															
Lane 1	262	18.9	262	18.9	351	0.745	100	19.6	LOS B	5.0	40.7	Full	110	0.0	0.0
Lane 2	262	18.9	262	18.9	351	0.745	100	19.6	LOS B	5.0	40.7	Full	110	0.0	0.0
Approach	524	18.9	523 ^{N1}	18.9		0.745		19.6	LOS B	5.0	40.7				
SouthWest: Pakuranga HWY															
Lane 1	75	6.7	75	6.7	882	0.085	100	13.1	LOS B	0.7	5.1	Short	72	0.0	NA
Lane 2	226	8.2	226	8.2	262	0.861	100	32.7	LOS C	4.9	37.0	Short	143	0.0	NA
Lane 3	226	8.2	226	8.2	262	0.861	100	32.7	LOS C	4.9	37.0	Full	623	0.0	0.0
Approach	526	8.0	526	8.0		0.861		29.9	LOS C	4.9	37.0				
Intersection	3032	11.5	3031 ^{N1}	11.5		0.861		22.2	LOS C	12.3	93.1				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

⁸ Probability of Blockage has been set on the basis of a queue that overflows from a short lane.

^{N1} Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Approach Lane Flows (veh/h)										
SouthEast: Ti Rakau Drive (East)										
Mov. From SE To Exit:	L2	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	SW	NW								
Lane 1	689	-	689	9.4	865	0.795	100	73.1	2	
Lane 2	689	-	689	9.4	865	0.795	100	NA	NA	
Lane 3	-	303	303	12.7	358	0.844	100	NA	NA	
Lane 4	-	303	303	12.7	358	0.844	100	NA	NA	
Approach	1377	605	1982	10.4		0.844				
NorthWest: Ti Rakau Drive (West)										
Mov. From NW To Exit:	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.		
	SE									
Lane 1	262	262	18.9	351	0.745	100	NA	NA		
Lane 2	262	262	18.9	351	0.745	100	NA	NA		

Approach	523	523	18.9							0.745
SouthWest: Pakuranga HWY										
Mov. From SW To Exit:	L2 NW	R2 SE	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL %	Ov. Lane No.	
Lane 1	75	-	75	6.7	882	0.085	100	0.0	2	
Lane 2	-	226	226	8.2	262	0.861	100	0.0	3	
Lane 3	-	226	226	8.2	262	0.861	100	NA	NA	
Approach	75	451	526	8.0		0.861				
Total %HV Deg. Satn (v/c)										
Intersection	3031	11.5		0.861						

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
SouthEast Exit: Ti Rakau Drive (East)												
Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											
NorthWest Exit: Ti Rakau Drive (West)												
Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											
SouthWest Exit: Pakuranga HWY												
Merge Type: Priority												
Exit Short Lane	1	280	0.0	688	721	3.00	2.00	688	1052	0.654	1.4	4.2
Merge Lane	2	-	100.0	Merge Lane is not Opposed				688	1800	0.383	0.0	0.0
SouthWest Exit: Pakuranga HWY												
Merge Type: Priority												
Exit Short Lane	3	10	0.0	688	721	3.00	2.00	0	1052	0.000	1.4	1.4
Merge Lane	2	-	100.0	Merge Lane is not Opposed				688	1800	0.383	0.0	0.0

LANE SUMMARY

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

Network: N101 [PM (Network Folder: General)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 80 seconds (Site Practical Cycle Time)

Lane Use and Performance															
	DEMAND FLOWS [Total HV] veh/h %		ARRIVAL FLOWS [Total HV] veh/h %		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	85% BACK OF QUEUE [Veh Dist] m		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
					veh/h	v/c	%	sec					m	%	%
SouthEast: Ti Rakau Drive (East)															
Lane 1	523	6.7	523	6.7	1102	0.474	100	14.9	LOS B	9.7	71.7	Short	50	0.0	NA
Lane 2	523	6.7	523	6.7	1102	0.474	100	13.0	LOS B	9.7	71.7	Full	90	0.0	0.0
Lane 3	337	16.4	337	16.4	377	0.894	100	45.8	LOS D	14.9	119.1	Full	90	-28.3 ^{N3}	40.7
Lane 4	321	16.4	321	16.4	359	0.894	100	46.4	LOS D	14.3	114.3	Full	90	-31.7 ^{N3}	36.9
Approach	1703	10.5	1703	10.5		0.894		26.4	LOS C	14.9	119.1				
NorthWest: Ti Rakau Drive (West)															
Lane 1	408	7.1	405	7.1	565	0.717	100	28.3	LOS C	13.2	98.0	Full	110	0.0	4.5
Lane 2	408	7.1	405	7.1	565	0.717	100	28.3	LOS C	13.2	98.0	Full	110	0.0	4.5
Approach	816	7.1	810 ^{N1}	7.1		0.717		28.3	LOS C	13.2	98.0				
SouthWest: Pakuranga HWY															
Lane 1	141	19.9	141	19.9	638	0.221	100	17.6	LOS B	2.5	20.9	Short	72	-28.3 ^{N3}	NA
Lane 2	364	13.1	364	13.1	423	0.860	100	47.9	LOS D	14.5	113.1	Short	143	0.0	NA
Lane 3	364	13.1	364	13.1	423	0.860	100	47.9	LOS D	14.5	113.1	Full	623	0.0	0.0
Approach	868	14.2	868	14.2		0.860		43.0	LOS D	14.5	113.1				
Intersection	3387	10.6	3381 ^{N1}	10.6		0.894		31.1	LOS C	14.9	119.1				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

^{N1} Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

^{N3} Capacity Adjustment due to downstream lane blockage determined by the program.

Approach Lane Flows (veh/h)										
SouthEast: Ti Rakau Drive (East)										
Mov. From SE To Exit:	L2	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL %	Ov. %	Ov. Lane No.
	SW	NW								
Lane 1	523	-	523	6.7	1102	0.474	100	48.3		2
Lane 2	523	-	523	6.7	1102	0.474	100	NA		NA
Lane 3	-	337	337	16.4	377	0.894	100	NA		NA
Lane 4	-	321	321	16.4	359	0.894	100	NA		NA
Approach	1045	658	1703	10.5		0.894				
NorthWest: Ti Rakau Drive (West)										
Mov. From NW To Exit:	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL %	Ov. %	Ov. Lane No.	
	SE									
Lane 1	405	405	7.1	565	0.717	100	NA			NA
Lane 2	405	405	7.1	565	0.717	100	NA			NA

Approach	810	810	7.1		0.717					
SouthWest: Pakuranga HWY										
Mov. From SW To Exit:	L2 NW	R2 SE	Total	%HV	Deg. Satn veh/h	Lane Util. v/c	Prob. SL %	Ov. Lane No.		
Lane 1	141	-	141	19.9	638	0.221	100	0.0	2	
Lane 2	-	364	364	13.1	423	0.860	100	0.0	3	
Lane 3	-	364	364	13.1	423	0.860	100	NA	NA	
Approach	141	727	868	14.2		0.860				
Total %HV Deg. Satn (v/c)										
Intersection	3381	10.6		0.894						

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
SouthEast Exit: Ti Rakau Drive (East)												
Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											
NorthWest Exit: Ti Rakau Drive (West)												
Merge Type: Not Applied												
Full Length Lane	1											
Full Length Lane	2											
SouthWest Exit: Pakuranga HWY												
Merge Type: Priority												
Exit Short Lane	1	280	0.0	523	540	3.00	2.00	523	1244	0.420	0.9	1.9
Merge Lane	2	-	100.0	Merge Lane is not Opposed				523	1800	0.290	0.0	0.0
SouthWest Exit: Pakuranga HWY												
Merge Type: Priority												
Exit Short Lane	3	10	0.0	523	540	3.00	2.00	0	1244	0.000	0.9	0.9
Merge Lane	2	-	100.0	Merge Lane is not Opposed				523	1800	0.290	0.0	0.0

CCG LANE SUMMARY

Common Control Group: CCG2 [WRR / Mattson]

Network: N101 [AM
(Network Folder: General)]

EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (CCG Practical Cycle Time)

Lane Use and Performance (CCG)															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[Total veh/h]	[HV %]	[Total veh/h]	[HV %]						[Veh]	[Dist] m				
Site: 7.0 [7.0 William Roberts Rd / Ti Rakau Dr]															
SouthEast: Ti Rakau Drive (East)															
Lane 1	564	9.9	564	9.9	1003	0.563	100	8.8	LOS A	9.5	72.4	Full	60	0.0	32.2
Lane 2	564	9.9	564	9.9	1003	0.563	100	2.1	LOS A	3.1	23.7	Full	60	0.0	0.0
Lane 3	564	9.9	564	9.9	1003	0.563	100	2.1	LOS A	3.1	23.7	Full	60	0.0	0.0
Lane 4	37	5.4	37	5.4	231	0.160	100	52.4	LOS D	1.6	12.0	Short	20	0.0	NA
Lane 5 (B)	17	100.0	17	100.0	657	0.026	100	0.5	LOS A	0.0	0.2	Full	60	0.0	0.0
Approach	1746	10.7	1746	10.7		0.563		5.3	LOS A	9.5	72.4				
NorthEast: William Roberts Road Extension															
Lane 1	67	6.0	67	6.0	230	0.291	100	45.8	LOS D	2.7	20.2	Short	80	0.0	NA
Lane 2	208	9.2	208	9.2	243	0.858	100	56.5	LOS E	10.2	77.4	Full	110	0.0	0.0
Approach	275	8.4	275	8.4		0.858		53.9	LOS D	10.2	77.4				
NorthWest: Ti Rakau Drive (West)															
Lane 1	143	10.9	143	10.9	345	0.414	100	36.8	LOS D	4.4	34.0	Full	107	0.0	0.0
Lane 2	409	12.8	408	12.8	985	0.414	100	14.0	LOS B	10.3	80.0	Full	107	0.0	0.0
Lane 3	409	12.8	408	12.8	985	0.414	100	14.0	LOS B	10.3	80.0	Full	107	0.0	0.0
Lane 4 (B)	13	100.0	13	100.0	657	0.020	100	0.5	LOS A	0.0	0.1	Full	107	0.0	0.0
Approach	973	13.7	972 ^{N1}	13.7		0.414		17.1	LOS B	10.3	80.0				
Intersection	2994	11.4	2994	11.4		0.858		13.6	LOS B	10.3	80.0				
Site: 7.5 [7.5 Mattson Rd/ Ti Rakau Dr]															
SouthEast: Ti Rakau Drive (East)															
Lane 1	187	9.5	187	9.5	212	0.879	100	65.8	LOS E	9.7	73.3	Short	25	-36.1 ^{N3}	NA
Lane 2	640	9.9	640	9.9	728 ¹	0.879	100	30.4	LOS C	25.3	192.0	Full	143	0.0	42.1
Lane 3	881	9.9	881	9.9	1003	0.879	100	29.9	LOS C	27.5 ^{N4}	209.0 ^{N4}	Full	143	0.0	50.0
Lane 4 (B)	17	100.0	17	100.0	647	0.026	100	0.5	LOS A	0.0	0.2	Full	143	0.0	0.0
Approach	1725	10.7	1725	10.7		0.879		33.7	LOS C	27.5	209.0				
NorthWest: Ti Rakau Drive (West)															
Lane 1	112	12.2	111	12.2	988	0.113	27 ⁶	12.3	LOS B	2.4	18.8	Full	60	0.0	0.0
Lane 2	410	12.2	410	12.2	988	0.414	100	3.2	LOS A	2.9	22.4	Full	60	0.0	0.0
Lane 3	410	12.2	410	12.2	988	0.414	100	1.9	LOS A	1.8	13.5	Full	60	0.0	0.0
Lane 4	36	11.1	36	11.1	223	0.162	100	52.5	LOS D	1.6	12.2	Short	25	0.0	NA
Lane 5 (B)	13	100.0	13	100.0	647	0.020	100	0.5	LOS A	0.0	0.1	Full	60	0.0	0.0
Approach	980	13.4	980	13.4		0.414		5.5	LOS A	2.9	22.4				
SouthWest: Mattson Road															
Lane 1	48	4.2	48	4.2	140	0.342	100	50.1	LOS D	2.0	14.8	Full	282	-39.8 ^{N3}	0.0
Lane 2	64	6.3	64	6.3	248	0.258	100	47.2	LOS D	2.6	19.0	Full	282	0.0	0.0
Approach	112	5.4	112	5.4		0.342		48.4	LOS D	2.6	19.0				
Intersection	2817	11.4	2817	11.4		0.879		24.5	LOS C	27.5	209.0				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab). Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

- 1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.
- 6 Lane under-utilisation due to downstream effects
- N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.
- N3 Capacity Adjustment due to downstream lane blockage determined by the program.
- N4 Average back of queue has been restricted to the available queue storage space.

Approach Lane Flows (CCG) (veh/h)										
Site: 7.0 [7.0 William Roberts Rd / Ti Rakau Dr]										
SouthEast: Ti Rakau Drive (East)										
Mov. From To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	564	-	564	9.9	1003	0.563	100	NA	NA	
Lane 2	564	-	564	9.9	1003	0.563	100	NA	NA	
Lane 3	564	-	564	9.9	1003	0.563	100	NA	NA	
Lane 4	-	37	37	5.4	231	0.160	100	0.0	3	
Lane 5	17	-	17	100.0	657	0.026	100	NA	NA	
Approach	1709	37	1746	10.7		0.563				
NorthEast: William Roberts Road Extension										
Mov. From To Exit:	L2	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	67	-	67	6.0	230	0.291	100	0.0	2	
Lane 2	-	208	208	9.2	243	0.858	100	NA	NA	
Approach	67	208	275	8.4		0.858				
NorthWest: Ti Rakau Drive (West)										
Mov. From To Exit:	L2	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	60	83	143	10.9	345	0.414	100	NA	NA	
Lane 2	-	408	408	12.8	985	0.414	100	NA	NA	
Lane 3	-	408	408	12.8	985	0.414	100	NA	NA	
Lane 4	-	13	13	100.0	657	0.020	100	NA	NA	
Approach	60	912	972	13.7		0.414				
Total %HV Deg.Satn (v/c)										
Intersection	2994	11.4		0.858						
Site: 7.5 [7.5 Mattson Rd/ Ti Rakau Dr]										
SouthEast: Ti Rakau Drive (East)										
Mov. From To Exit:	L2	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	27	160	187	9.5	212	0.879	100	100.0	2	
Lane 2	-	640	640	9.9	728 ¹	0.879	100	NA	NA	
Lane 3	-	881	881	9.9	1003	0.879	100	NA	NA	
Lane 4	-	17	17	100.0	647	0.026	100	NA	NA	

Approach	27	1698	1725	10.7		0.879				
NorthWest: Ti Rakau Drive (West)										
Mov. From NW To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL %	Ov. Lane No.	
	SE	SW								
Lane 1	111	-	111	12.2	988	0.113	27 ⁶	NA	NA	
Lane 2	410	-	410	12.2	988	0.414	100	NA	NA	
Lane 3	410	-	410	12.2	988	0.414	100	NA	NA	
Lane 4	-	36	36	11.1	223	0.162	100	0.0	3	
Lane 5	13	-	13	100.0	647	0.020	100	NA	NA	
Approach	944	36	980	13.4		0.414				
SouthWest: Mattson Road										
Mov. From SW To Exit:	L2	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL %	Ov. Lane No.	
	NW	SE								
Lane 1	48	-	48	4.2	140	0.342	100	NA	NA	
Lane 2	-	64	64	6.3	248	0.258	100	NA	NA	
Approach	48	64	112	5.4		0.342				
Total %HV Deg.Satn (v/c)										
Intersection	2817	11.4		0.879						

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

- 1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.
- 6 Lane under-utilisation due to downstream effects

Merge Analysis (CCG)												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
Site: 7.0 [7.0 William Roberts Rd / Ti Rakau Dr]												
SouthEast Exit: Ti Rakau Drive (East)												
Merge Type: Not Applied												
Full Length Lane	1											Merge Analysis not applied.
Full Length Lane	2											Merge Analysis not applied.
Full Length Lane	3											Merge Analysis not applied.
Full Length Lane	4											Merge Analysis not applied.
NorthEast Exit: William Roberts Road Extension												
Merge Type: Not Applied												
Full Length Lane	1											Merge Analysis not applied.
NorthWest Exit: Ti Rakau Drive (West)												
Merge Type: Not Applied												
Full Length Lane	1											Merge Analysis not applied.
Full Length Lane	2											Merge Analysis not applied.
Full Length Lane	3											Merge Analysis not applied.
Full Length Lane	4											Merge Analysis not applied.
Site: 7.5 [7.5 Mattson Rd/ Ti Rakau Dr]												
SouthEast Exit: Ti Rakau Drive (East)												
Merge Type: Priority												

Exit Short Lane	1	40	0.0	410	435	3.00	2.00	111	1355	0.082	0.7	0.9
Merge Lane	2	-	100.0	Merge Lane is not Opposed				410	1800	0.228	0.0	0.0
NorthWest Exit: Ti Rakau Drive (West)												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
Full Length Lane	4	Merge Analysis not applied.										
SouthWest Exit: Mattson Road												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										

CCG LANE SUMMARY

Common Control Group: CCG2 [WRR / Mattson]

Network: N101 [PM (Network Folder: General)]

EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 60 seconds (CCG User-Given Phase Times)

Lane Use and Performance (CCG)															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[Total veh/h]	[HV %]	[Total veh/h]	[HV %]						[Veh]	[Dist m]				
Site: 7.0 [7.0 William Roberts Rd / Ti Rakau Dr]															
SouthEast: Ti Rakau Drive (East)															
Lane 1	547	9.3	547	9.3	854	0.641	100	3.3	LOS A	4.3	32.5	Full	60	0.0	0.0
Lane 2	547	9.3	547	9.3	854	0.641	100	2.8	LOS A	3.7	28.3	Full	60	0.0	0.0
Lane 3	547	9.3	547	9.3	854	0.641	100	2.6	LOS A	3.5	26.5	Full	60	0.0	0.0
Lane 4	145	2.8	145	2.8	332	0.437	100	33.8	LOS C	4.0	28.3	Short	20	0.0	NA
Lane 5 (B)	13	100.0	13	100.0	557	0.023	100	1.2	LOS A	0.0	0.3	Full	60	0.0	0.0
Approach	1799	9.4	1799	9.4		0.641		5.3	LOS A	4.3	32.5				
NorthEast: William Roberts Road Extension															
Lane 1	46	4.3	46	4.3	597	0.077	100	16.9	LOS B	0.8	6.1	Short	80	0.0	NA
Lane 2	132	10.7	132	10.7	172	0.769	100	35.3	LOS D	3.9	29.8	Full	110	0.0	0.0
Approach	178	9.0	178	9.0		0.769		30.5	LOS C	3.9	29.8				
NorthWest: Ti Rakau Drive (West)															
Lane 1	490	11.5	488	11.6	819	0.596	100	14.6	LOS B	9.2	71.0	Full	107	0.0	0.0
Lane 2	516	7.7	514	7.7	862	0.596	100	12.9	LOS B	10.1	75.4	Full	107	0.0	0.0
Lane 3	516	7.7	514	7.7	862	0.596	100	12.9	LOS B	10.1	75.4	Full	107	0.0	0.0
Lane 4 (B)	17	100.0	17	100.0	557	0.031	100	1.2	LOS A	0.0	0.4	Full	107	0.0	0.0
Approach	1538	9.9	1532 ^N	10.0		0.596		13.3	LOS B	10.1	75.4				
Intersection	3515	9.6	3510 ^N	9.7		0.769		10.1	LOS B	10.1	75.4				
Site: 7.5 [7.5 Mattson Rd/ Ti Rakau Dr]															
SouthEast: Ti Rakau Drive (East)															
Lane 1	690	8.6	690	8.6	855	0.807	100	18.8	LOS B	17.3	129.8	Short	25	0.0	NA
Lane 2	409	8.8	409	8.8	507 ¹	0.807	100	19.0	LOS B	9.4	70.8	Full	143	0.0	6.2 ⁸
Lane 3	691	8.8	691	8.8	856	0.807	100	19.1	LOS B	17.9	134.4	Full	143	0.0	9.4
Lane 4 (B)	13	100.0	13	100.0	549	0.024	100	1.2	LOS A	0.0	0.3	Full	143	0.0	0.0
Approach	1802	9.4	1802	9.4		0.807		18.8	LOS B	17.9	134.4				
NorthWest: Ti Rakau Drive (West)															
Lane 1	151	7.8	150	7.8	861	0.174	27 ⁶	5.9	LOS A	1.1	8.2	Full	60	0.0	0.0
Lane 2	553	7.8	551	7.8	861	0.640	100	3.6	LOS A	4.6	34.7	Full	60	0.0	0.0
Lane 3	553	7.8	551	7.8	861	0.640	100	2.5	LOS A	3.5	25.9	Full	60	0.0	0.0
Lane 4	87	4.6	87	4.6	328	0.264	100	32.7	LOS C	2.3	17.0	Short	25	0.0	NA
Lane 5 (B)	17	100.0	17	100.0	549	0.031	100	1.2	LOS A	0.0	0.4	Full	60	0.0	0.0
Approach	1361	8.7	1356 ^N	8.8		0.640		5.2	LOS A	4.6	34.7				
SouthWest: Mattson Road															
Lane 1	21	4.8	21	4.8	596	0.035	100	19.2	LOS B	0.4	2.7	Full	282	0.0	0.0
Lane 2	50	4.0	50	4.0	180	0.278	100	33.6	LOS C	1.3	9.5	Full	282	0.0	0.0
Approach	71	4.2	71	4.2		0.278		29.3	LOS C	1.3	9.5				
Intersection	3234	9.0	3229 ^N	9.0		0.807		13.3	LOS B	17.9	134.4				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

- 1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.
- 6 Lane under-utilisation due to downstream effects
- 8 Probability of Blockage has been set on the basis of a queue that overflows from a short lane.
- N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Approach Lane Flows (CCG) (veh/h)										
Site: 7.0 [7.0 William Roberts Rd / Ti Rakau Dr]										
SouthEast: Ti Rakau Drive (East)										
Mov. From SE To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	547	-	547	9.3	854	0.641	100	NA	NA	
Lane 2	547	-	547	9.3	854	0.641	100	NA	NA	
Lane 3	547	-	547	9.3	854	0.641	100	NA	NA	
Lane 4	-	145	145	2.8	332	0.437	100	47.0	3	
Lane 5	13	-	13	100.0	557	0.023	100	NA	NA	
Approach	1654	145	1799	9.4		0.641				
NorthEast: William Roberts Road Extension										
Mov. From NE To Exit:	L2	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	46	-	46	4.3	597	0.077	100	0.0	2	
Lane 2	-	132	132	10.7	172	0.769	100	NA	NA	
Approach	46	132	178	9.0		0.769				
NorthWest: Ti Rakau Drive (West)										
Mov. From NW To Exit:	L2	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	222	266	488	11.6	819	0.596	100	NA	NA	
Lane 2	-	514	514	7.7	862	0.596	100	NA	NA	
Lane 3	-	514	514	7.7	862	0.596	100	NA	NA	
Lane 4	-	17	17	100.0	557	0.031	100	NA	NA	
Approach	222	1310	1532	10.0		0.596				
Total %HV Deg.Satn (v/c)										
Intersection	3510	9.7		0.769						
Site: 7.5 [7.5 Mattson Rd/ Ti Rakau Dr]										
SouthEast: Ti Rakau Drive (East)										
Mov. From SE To Exit:	L2	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	35	655	690	8.6	855	0.807	100	100.0	2	
Lane 2	-	409	409	8.8	507 ¹	0.807	100	NA	NA	
Lane 3	-	691	691	8.8	856	0.807	100	NA	NA	

Lane 4	-	13	13	100.0	549	0.024	100	NA	NA
Approach	35	1767	1802	9.4		0.807			
NorthWest: Ti Rakau Drive (West)									
Mov. From NW To Exit:	T1 SE	R2 SW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	150	-	150	7.8	861	0.174	27 ⁶	NA	NA
Lane 2	551	-	551	7.8	861	0.640	100	NA	NA
Lane 3	551	-	551	7.8	861	0.640	100	NA	NA
Lane 4	-	87	87	4.6	328	0.264	100	0.0	3
Lane 5	17	-	17	100.0	549	0.031	100	NA	NA
Approach	1270	87	1356	8.8		0.640			
SouthWest: Mattson Road									
Mov. From SW To Exit:	L2 NW	R2 SE	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	21	-	21	4.8	596	0.035	100	NA	NA
Lane 2	-	50	50	4.0	180	0.278	100	NA	NA
Approach	21	50	71	4.2		0.278			
Total %HV Deg.Satn (v/c)									
Intersection	3229	9.0		0.807					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

- 1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.
- 6 Lane under-utilisation due to downstream effects

Merge Analysis (CCG)												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
Site: 7.0 [7.0 William Roberts Rd / Ti Rakau Dr]												
SouthEast Exit: Ti Rakau Drive (East)												
Merge Type: Not Applied												
Full Length Lane	1											Merge Analysis not applied.
Full Length Lane	2											Merge Analysis not applied.
Full Length Lane	3											Merge Analysis not applied.
Full Length Lane	4											Merge Analysis not applied.
NorthEast Exit: William Roberts Road Extension												
Merge Type: Not Applied												
Full Length Lane	1											Merge Analysis not applied.
NorthWest Exit: Ti Rakau Drive (West)												
Merge Type: Not Applied												
Full Length Lane	1											Merge Analysis not applied.
Full Length Lane	2											Merge Analysis not applied.
Full Length Lane	3											Merge Analysis not applied.
Full Length Lane	4											Merge Analysis not applied.
Site: 7.5 [7.5 Mattson Rd/ Ti Rakau Dr]												
SouthEast Exit: Ti Rakau Drive (East)												

Merge Type: Priority												
Exit Short Lane	1	40	0.0	551	573	3.00	2.00	150	1210	0.124	1.0	1.3
Merge Lane	2	-	100.0	Merge Lane is not Opposed				551	1800	0.306	0.0	0.0
NorthWest Exit: Ti Rakau Drive (West)												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
Full Length Lane	4	Merge Analysis not applied.										
SouthWest Exit: Mattson Road												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										

LANE SUMMARY

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

Network: N101 [AM
(Network Folder: General)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 30 seconds (Site Practical Cycle Time)

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[Total veh/h]	[HV %]	[Total veh/h]	[HV %]						[Veh]	[Dist m]				
SouthEast: Ti Rakau Drive (East)															
Lane 1	849	10.0	849	10.0	1822	0.466	100	0.1	LOS A	0.0	0.0	Full	147	0.0	0.0
Lane 2	849	10.0	849	10.0	1822	0.466	100	0.1	LOS A	0.0	0.0	Full	147	0.0	0.0
Lane 3	84	6.0	84	6.0	267	0.315	100	18.4	LOS B	1.1	7.7	Short	14	0.0	NA
Lane 4 (B)	17	100.0	17	100.0	478	0.036	100	2.1	LOS A	0.0	0.6	Full	147	0.0	0.0
Approach	1799	10.6	1799	10.6		0.466		0.9	LOS A	1.1	7.7				
NorthWest: Ti Rakau Drive (West)															
Lane 1	500	11.9	500	11.9	720	0.694	100	9.7	LOS A	6.2	48.0	Full	73	0.0	0.0
Lane 2	500	11.9	500	11.9	720	0.694	100	9.7	LOS A	6.2	48.0	Full	73	0.0	0.0
Lane 3 (B)	13	100.0	13	100.0	478	0.027	100	2.1	LOS A	0.0	0.5	Full	73	0.0	0.0
Approach	1013	13.0	1013	13.0		0.694		9.6	LOS A	6.2	48.0				
Intersection	2812	11.5	2812	11.5		0.694		4.1	LOS A	6.2	48.0				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Approach Lane Flows (veh/h)										
SouthEast: Ti Rakau Drive (East)										
Mov. From SE To Exit:	T1	U	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	NW	SE								
Lane 1	849	-	849	10.0	1822	0.466	100	NA	NA	
Lane 2	849	-	849	10.0	1822	0.466	100	NA	NA	
Lane 3	-	84	84	6.0	267	0.315	100	0.0	2	
Lane 4	17	-	17	100.0	478	0.036	100	NA	NA	
Approach	1715	84	1799	10.6		0.466				
NorthWest: Ti Rakau Drive (West)										
Mov. From NW To Exit:	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.		
	SE									
Lane 1	500	500	11.9	720	0.694	100	NA	NA		
Lane 2	500	500	11.9	720	0.694	100	NA	NA		
Lane 3	13	13	100.0	478	0.027	100	NA	NA		
Approach	1013	1013	13.0		0.694					
Total %HV Deg. Satn (v/c)										
Intersection	2812	11.5		0.694						

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Capacity Flow Rate veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
SouthEast Exit: Ti Rakau Drive (East)											
Merge Type: Not Applied											
Full Length Lane	1	Merge Analysis not applied.									
Full Length Lane	2	Merge Analysis not applied.									
Full Length Lane	3	Merge Analysis not applied.									
NorthWest Exit: Ti Rakau Drive (West)											
Merge Type: Not Applied											
Full Length Lane	1	Merge Analysis not applied.									
Full Length Lane	2	Merge Analysis not applied.									
Full Length Lane	3	Merge Analysis not applied.									

LANE SUMMARY

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

Network: N101 [PM (Network Folder: General)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 40 seconds (Site Practical Cycle Time)

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]	veh/h	v/c	%	sec		[Veh	Dist]		m	%	%
SouthEast: Ti Rakau Drive (East)															
Lane 1	903	8.7	903	8.7	1836	0.492	100	0.1	LOS A	0.0	0.0	Full	147	0.0	0.0
Lane 2	904	8.7	903	8.7	1836	0.492	100	0.1	LOS A	0.0	0.0	Full	147	0.0	0.0
Lane 3	137	5.1	137	5.1	235	0.584	100	24.6	LOS C	2.5	18.2	Short	14	0.0	NA
Lane 4 (B)	13	100.0	13	100.0	627	0.021	100	0.2	LOS A	0.0	0.1	Full	147	0.0	0.0
Approach	1957	9.0	1957	9.0		0.584		1.8	LOS A	2.5	18.2				
NorthWest: Ti Rakau Drive (West)															
Lane 1	652	7.7	650	7.7	970	0.670	100	8.1	LOS A	8.8	65.5	Full	73	0.0	5.1
Lane 2	652	7.7	650	7.7	970	0.670	100	8.1	LOS A	8.8	65.5	Full	73	0.0	5.1
Lane 3 (B)	17	100.0	17	100.0	627	0.027	100	0.2	LOS A	0.0	0.1	Full	73	0.0	0.0
Approach	1321	8.9	1317 ^N	8.9		0.670		8.0	LOS A	8.8	65.5				
Intersection	3278	9.0	3274 ^N	9.0		0.670		4.3	LOS A	8.8	65.5				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Approach Lane Flows (veh/h)										
SouthEast: Ti Rakau Drive (East)										
Mov.	T1	U	Total	%HV	Cap.	Deg. Satn	Lane Util.	Prob. SL	Ov.	Ov. Lane No.
From SE					veh/h	v/c	%	%		
To Exit:	NW	SE								
Lane 1	903	-	903	8.7	1836	0.492	100	NA	NA	
Lane 2	903	-	903	8.7	1836	0.492	100	NA	NA	
Lane 3	-	137	137	5.1	235	0.584	100	39.2	2	
Lane 4	13	-	13	100.0	627	0.021	100	NA	NA	
Approach	1820	137	1957	9.0		0.584				
NorthWest: Ti Rakau Drive (West)										
Mov.	T1	Total	%HV	Cap.	Deg. Satn	Lane Util.	Prob. SL	Ov.	Ov. Lane No.	
From NW				veh/h	v/c	%	%			
To Exit:	SE									
Lane 1	650	650	7.7	970	0.670	100	NA	NA		
Lane 2	650	650	7.7	970	0.670	100	NA	NA		
Lane 3	17	17	100.0	627	0.027	100	NA	NA		
Approach	1317	1317	8.9		0.670					
Total %HV Deg. Satn (v/c)										
Intersection	3274	9.0		0.670						

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
SouthEast Exit: Ti Rakau Drive (East)											
Merge Type: Not Applied											
Full Length Lane	1	Merge Analysis not applied.									
Full Length Lane	2	Merge Analysis not applied.									
Full Length Lane	3	Merge Analysis not applied.									
NorthWest Exit: Ti Rakau Drive (West)											
Merge Type: Not Applied											
Full Length Lane	1	Merge Analysis not applied.									
Full Length Lane	2	Merge Analysis not applied.									
Full Length Lane	3	Merge Analysis not applied.									

LANE SUMMARY

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

Network: N101 [AM (Network Folder: General)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 40 seconds (Site Practical Cycle Time)

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[Total HV]	%	[Total HV]	%						[Veh]	Dist] m				
SouthEast: Ti Rakau Drive (East)															
Lane 1	799	9.6	799	9.6	959	0.833	100	14.8	LOS B	12.3 ^{N4}	93.5 ^{N4}	Full	64	0.0	50.0
Lane 2	799	9.6	799	9.6	959	0.833	100	14.8	LOS B	12.3 ^{N4}	93.5 ^{N4}	Full	64	0.0	50.0
Lane 3 (B)	17	100.0	17	100.0	627	0.027	100	0.2	LOS A	0.0	0.1	Full	64	0.0	0.0
Approach	1615	10.5	1615	10.5		0.833		14.7	LOS B	12.3	93.5				
NorthWest: Ti Rakau Drive (West)															
Lane 1	555	11.5	555	11.5	1805	0.308	100	0.0	LOS A	0.0	0.0	Full	81	0.0	0.0
Lane 2	555	11.5	555	11.5	1805	0.308	100	0.0	LOS A	0.0	0.0	Full	81	0.0	0.0
Lane 3	179	12.3	179	12.3	225	0.797	100	28.9	LOS C	3.8	29.1	Short	15	0.0	NA
Lane 4 (B)	13	100.0	13	100.0	627	0.021	100	0.2	LOS A	0.0	0.1	Full	81	0.0	0.0
Approach	1302	12.5	1302	12.5		0.797		4.0	LOS A	3.8	29.1				
Intersection	2917	11.4	2917	11.4		0.833		9.9	LOS A	12.3	93.5				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

^{N4} Average back of queue has been restricted to the available queue storage space.

Approach Lane Flows (veh/h)										
SouthEast: Ti Rakau Drive (East)										
Mov. From SE To Exit:	T1	Total	%HV		Deg. Cap. veh/h	Lane Satn v/c	Prob. Util. %	SL Ov. %	Ov. Lane No.	
	NW									
Lane 1	799	799	9.6		959	0.833	100	NA	NA	
Lane 2	799	799	9.6		959	0.833	100	NA	NA	
Lane 3	17	17	100.0		627	0.027	100	NA	NA	
Approach	1615	1615	10.5			0.833				
NorthWest: Ti Rakau Drive (West)										
Mov. From NW To Exit:	T1	U	Total	%HV		Deg. Cap. veh/h	Lane Satn v/c	Prob. Util. %	SL Ov. %	Ov. Lane No.
	SE	NW								
Lane 1	555	-	555	11.5		1805	0.308	100	NA	NA
Lane 2	555	-	555	11.5		1805	0.308	100	NA	NA
Lane 3	-	179	179	12.3		225	0.797	100	76.9	2
Lane 4	13	-	13	100.0		627	0.021	100	NA	NA
Approach	1123	179	1302	12.5			0.797			
Total %HV Deg. Satn (v/c)										
Intersection	2917	11.4		0.833						

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
SouthEast Exit: Ti Rakau Drive (East)											
Merge Type: Not Applied											
Full Length Lane	1	Merge Analysis not applied.									
Full Length Lane	2	Merge Analysis not applied.									
Full Length Lane	3	Merge Analysis not applied.									
NorthWest Exit: Ti Rakau Drive (West)											
Merge Type: Not Applied											
Full Length Lane	1	Merge Analysis not applied.									
Full Length Lane	2	Merge Analysis not applied.									
Full Length Lane	3	Merge Analysis not applied.									

LANE SUMMARY

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

Network: N101 [PM (Network Folder: General)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 50 seconds (Site Practical Cycle Time)

Lane Use and Performance															
	DEMAND FLOWS [Total HV]		ARRIVAL FLOWS [Total HV]		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	85% BACK OF QUEUE [Veh Dist]		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	veh/h	%	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
SouthEast: Ti Rakau Drive (East)															
Lane 1	925	8.4	925	8.4	1141	0.811	100	12.1	LOS B	12.5 ^{N4}	93.5 ^{N4}	Full	64	0.0	50.0
Lane 2	925	8.4	925	8.4	1141	0.811	100	12.1	LOS B	12.5 ^{N4}	93.5 ^{N4}	Full	64	0.0	50.0
Lane 3 (B)	13	100.0	13	100.0	740	0.018	100	0.2	LOS A	0.0	0.1	Full	64	0.0	0.0
Approach	1863	9.0	1863	9.0		0.811		12.0	LOS B	12.5	93.5				
NorthWest: Ti Rakau Drive (West)															
Lane 1	566	5.5	566	5.5	1873	0.302	100	0.0	LOS A	0.0	0.0	Full	81	0.0	0.0
Lane 2	566	5.5	566	5.5	1873	0.302	100	0.0	LOS A	0.0	0.0	Full	81	0.0	0.0
Lane 3	145	7.6	145	7.6	185	0.784	100	34.2	LOS C	3.7	27.5	Short	15	0.0	NA
Lane 4 (B)	17	100.0	17	100.0	740	0.023	100	0.2	LOS A	0.0	0.1	Full	81	0.0	0.0
Approach	1294	7.0	1294	7.0		0.784		3.9	LOS A	3.7	27.5				
Intersection	3157	8.2	3157	8.2		0.811		8.7	LOS A	12.5	93.5				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

^{N4} Average back of queue has been restricted to the available queue storage space.

Approach Lane Flows (veh/h)										
SouthEast: Ti Rakau Drive (East)										
Mov. From SE To Exit:	T1	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL %	Ov. Lane No.	
Lane 1	925	925	8.4		1141	0.811	100	NA	NA	
Lane 2	925	925	8.4		1141	0.811	100	NA	NA	
Lane 3	13	13	100.0		740	0.018	100	NA	NA	
Approach	1863	1863	9.0			0.811				
NorthWest: Ti Rakau Drive (West)										
Mov. From NW To Exit:	T1	U	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL %	Ov. Lane No.	
Lane 1	566	-	566	5.5	1873	0.302	100	NA	NA	
Lane 2	566	-	566	5.5	1873	0.302	100	NA	NA	
Lane 3	-	145	145	7.6	185	0.784	100	71.8	2	
Lane 4	17	-	17	100.0	740	0.023	100	NA	NA	
Approach	1149	145	1294	7.0		0.784				
Total %HV Deg. Satn (v/c)										
Intersection	3157	8.2		0.811						

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
SouthEast Exit: Ti Rakau Drive (East)											
Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.
Full Length Lane	2										Merge Analysis not applied.
Full Length Lane	3										Merge Analysis not applied.
NorthWest Exit: Ti Rakau Drive (West)											
Merge Type: Not Applied											
Full Length Lane	1										Merge Analysis not applied.
Full Length Lane	2										Merge Analysis not applied.
Full Length Lane	3										Merge Analysis not applied.

LANE SUMMARY

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

Network: N101 [AM
(Network Folder: General)]

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 140 seconds (Site User-Given Phase Times)

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]						[Veh	Dist]				
	veh/h	%	veh/h	%	veh/h	v/c	%	sec			m	m	%	%	
South: Fremantle Place															
Lane 1	20	10.0	20	10.0	137	0.146	100	71.4	LOS E	1.2	8.9	Short	9	0.0	NA
Lane 2	28	7.1	28	7.1	142	0.197	100	69.9	LOS E	1.7	12.3	Full	285	0.0	0.0
Approach	48	8.3	48	8.3		0.197		70.6	LOS E	1.7	12.3				
East: Ti Rakau Drive (East)															
Lane 1	775	10.3	775	10.3	844	0.919	100	57.7	LOS E	52.2	397.9	Full	636	0.0	0.0
Lane 2	756	10.5	756	10.5	823 ¹	0.919	100	53.1	LOS D	50.4	384.1	Full	636	0.0	0.0
Lane 3 (B)	17	100.0	17	100.0	672	0.025	100	0.6	LOS A	0.0	0.3	Short	60	0.0	NA
Lane 4	201	9.2	201	9.2	310	0.649	82 ⁶	36.8	LOS D	7.5	56.7	Short	150	0.0	NA
Lane 5	245	9.2	245	9.2	310	0.792	100	45.7	LOS D	9.9	75.0	Short	103	0.0	NA
Approach	1994	10.9	1994	10.9		0.919		51.9	LOS D	52.2	397.9				
North: Gossamer Drive															
Lane 1	412	7.3	412	7.3	447	0.922	100	78.6	LOS E	29.6	220.1	Short	150	0.0	NA
Lane 2	341	7.3	341	7.3	370 ¹	0.922	100	78.4	LOS E	23.8	177.3	Full	1010	0.0	0.0
Lane 3	101	8.9	101	8.9	199	0.506	100	68.7	LOS E	6.0	45.0	Short	28	0.0	NA
Approach	854	7.5	854	7.5		0.922		77.4	LOS E	29.6	220.1				
West: Ti Rakau Drive (West)															
Lane 1	100	8.0	100	8.0	549	0.182	100	41.9	LOS D	4.4	32.9	Short	28	0.0	NA
Lane 2	449	11.9	449	11.9	480 ¹	0.936	100	72.8	LOS E	32.0	246.4	Full	479	0.0	0.0
Lane 3	470	11.9	470	11.9	502 ¹	0.936	100	72.7	LOS E	33.7	260.0	Full	479	0.0	0.0
Lane 4	53	11.3	53	11.3	97	0.547	100	78.1	LOS E	3.4	25.7	Short	23	0.0	NA
Lane 5 (B)	13	100.0	13	100.0	94	0.139	100	62.3	LOS E	0.7	9.4	Full	479	0.0	0.0
Approach	1085	12.5	1085	12.5		0.936		70.0	LOS E	33.7	260.0				
Intersection	3981	10.6	3981	10.6		0.936		62.5	LOS E	52.2	397.9				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁶ Lane under-utilisation due to downstream effects

Approach Lane Flows (veh/h)													
South: Fremantle Place													
Mov. From S To Exit:	L2		T1		R2		Total	%HV	Cap.	Deg. Satn	Lane Util.	Prob. SL	Ov. Lane No.
	W	N	E			v/c							
Lane 1	20	-	-	20	10.0		137	0.146	100	14.4	2		
Lane 2	-	11	17	28	7.1		142	0.197	100	NA	NA		

Approach	20	11	17	48	8.3						0.197
East: Ti Rakau Drive (East)											
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.	
From E						Cap.	Satn	Util.	SL Ov.	Lane	
To Exit:	S	W	N			veh/h	v/c	%	%	No.	
Lane 1	20	755	-	775	10.3	844	0.919	100	NA	NA	
Lane 2	-	756	-	756	10.5	823 ¹	0.919	100	NA	NA	
Lane 3	-	17	-	17	100.0	672	0.025	100	0.0	2	
Lane 4	-	-	201	201	9.2	310	0.649	82 ⁶	0.0	2	
Lane 5	-	-	245	245	9.2	310	0.792	100	0.0	4	
Approach	20	1528	446	1994	10.9						0.919
North: Gossamer Drive											
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.	
From N						Cap.	Satn	Util.	SL Ov.	Lane	
To Exit:	E	S	W			veh/h	v/c	%	%	No.	
Lane 1	412	-	-	412	7.3	447	0.922	100	50.4	2	
Lane 2	341	-	-	341	7.3	370 ¹	0.922	100	NA	NA	
Lane 3	-	10	91	101	8.9	199	0.506	100	59.1	2	
Approach	753	10	91	854	7.5						0.922
West: Ti Rakau Drive (West)											
Mov.	L2	T1	R2	U	Total	%HV		Deg.	Lane	Prob.	Ov.
From W							Cap.	Satn	Util.	SL Ov.	Lane
To Exit:	N	E	S	W			veh/h	v/c	%	%	No.
Lane 1	100	-	-	-	100	8.0	549	0.182	100	29.8	2
Lane 2	-	449	-	-	449	11.9	480 ¹	0.936	100	NA	NA
Lane 3	-	470	-	-	470	11.9	502 ¹	0.936	100	NA	NA
Lane 4	-	-	10	43	53	11.3	97	0.547	100	25.2	3
Lane 5	-	13	-	-	13	100.0	94	0.139	100	NA	NA
Approach	100	932	10	43	1085	12.5					0.936
Total %HV Deg. Satn (v/c)											
Intersection	3981	10.6									0.936

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

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- 6 Lane under-utilisation due to downstream effects

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Capacity Flow Rate veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
South Exit: Fremantle Place												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
East Exit: Ti Rakau Drive (East)												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
North Exit: Gossamer Drive												
Merge Type: Zipper												
Exit Short Lane	1	150	50.0	123	128	2.50	2.00	312	1653	0.189	0.0	0.1
Merge Lane	2	-	50.0	156	163	2.50	2.00	245	1611	0.152	0.0	0.1
West Exit: Ti Rakau Drive (West)												
Merge Type: Not Applied												

Full Length Lane	1	Merge Analysis not applied.
Full Length Lane	2	Merge Analysis not applied.
Full Length Lane	3	Merge Analysis not applied.

LANE SUMMARY

Site: 13.0 [13.0 Gossamer Dr / Ti Rakau Dr (Site Folder: PM)] Network: N101 [PM (Network Folder: General)]

Site Category: (None)

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

Lane Use and Performance															
	DEMAND FLOWS		ARRIVAL FLOWS		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	85% BACK OF QUEUE		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	[Total]	[HV]	[Total]	[HV]						[Veh]	[Dist]				
South: Fremantle Place															
Lane 1	11	0.0	11	0.0	175	0.063	100	72.1	LOS E	0.7	4.7	Short	9	0.0	NA
Lane 2	27	3.7	27	3.7	173	0.156	100	71.6	LOS E	1.7	12.0	Full	285	0.0	0.0
Approach	38	2.6	38	2.6		0.156		71.7	LOS E	1.7	12.0				
East: Ti Rakau Drive (East)															
Lane 1	905	8.3	905	8.3	932	0.971	100	76.3	LOS E	74.8	561.1	Full	636	0.0	3.7
Lane 2	888	8.5	888	8.5	915 ¹	0.971	100	71.9	LOS E	72.7	545.9	Full	636	0.0	1.2
Lane 3 (B)	13	100.0	13	100.0	721	0.018	100	0.6	LOS A	0.0	0.2	Short	60	0.0	NA
Lane 4	302	2.8	302	2.8	362	0.835	82 ⁶	56.8	LOS E	13.7	98.2	Short	150	0.0	NA
Lane 5	369	2.8	369	2.8	362	1.018	100	93.4	LOS F	25.3	181.4	Short	103	0.0	NA
Approach	2477	7.4	2477	7.4		1.018		74.5	LOS E	74.8	561.1				
North: Gossamer Drive															
Lane 1	206	15.1	206	15.1	407	0.507	100	57.2	LOS E	11.7	92.3	Short	150	0.0	NA
Lane 2	166	15.1	166	15.1	327 ¹	0.507	100	55.6	LOS E	9.1	71.7	Full	1010	0.0	0.0
Lane 3	96	4.2	96	4.2	156	0.614	100	78.1	LOS E	6.3	45.8	Short	28	0.0	NA
Approach	468	12.8	468	12.8		0.614		60.9	LOS E	11.7	92.3				
West: Ti Rakau Drive (West)															
Lane 1	47	2.1	47	2.1	607	0.077	100	40.8	LOS D	2.1	14.7	Short	28	0.0	NA
Lane 2	548	5.6	548	5.6	582 ¹	0.943	100	75.9	LOS E	42.2	309.4	Full	479	0.0	0.0
Lane 3	515	5.6	515	5.6	546 ¹	0.943	100	75.9	LOS E	39.1	286.8	Full	479	0.0	0.0
Lane 4	67	3.0	67	3.0	98	0.687	100	85.4	LOS F	4.6	33.3	Short	23	0.0	NA
Lane 5 (B)	17	100.0	17	100.0	96	0.178	100	66.5	LOS E	1.0	13.2	Full	479	0.0	0.0
Approach	1194	6.6	1194	6.6		0.943		74.9	LOS E	42.2	309.4				
Intersection	4177	7.7	4177	7.7		1.018		73.1	LOS E	74.8	561.1				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Lane LOS values are based on average delay per lane.

Intersection and Approach LOS values are based on average delay for all lanes.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Some upstream delays at entry to short lanes are not included.

⁶ Lane under-utilisation due to downstream effects

Approach Lane Flows (veh/h)										
South: Fremantle Place										
Mov. From S To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
	W	N	E							
Lane 1	11	-	-	11	0.0	175	0.063	100	0.0	2
Lane 2	-	10	17	27	3.7	173	0.156	100	NA	NA

Approach	11	10	17	38	2.6						0.156
East: Ti Rakau Drive (East)											
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.	
From E						Cap.	Satn	Util.	SL	Ov.	Lane
To Exit:	S	W	N			veh/h	v/c	%	%	%	No.
Lane 1	21	884	-	905	8.3	932	0.971	100	NA	NA	
Lane 2	-	888	-	888	8.5	915 ¹	0.971	100	NA	NA	
Lane 3	-	13	-	13	100.0	721	0.018	100	0.0	2	
Lane 4	-	-	302	302	2.8	362	0.835	82 ⁶	32.4	2	
Lane 5	-	-	369	369	2.8	362	1.018	100	67.7	4	
Approach	21	1785	671	2477	7.4						1.018
North: Gossamer Drive											
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.	
From N						Cap.	Satn	Util.	SL	Ov.	Lane
To Exit:	E	S	W			veh/h	v/c	%	%	%	No.
Lane 1	206	-	-	206	15.1	407	0.507	100	0.0	2	
Lane 2	166	-	-	166	15.1	327 ¹	0.507	100	NA	NA	
Lane 3	-	10	86	96	4.2	156	0.614	100	60.7	2	
Approach	372	10	86	468	12.8						0.614
West: Ti Rakau Drive (West)											
Mov.	L2	T1	R2	U	Total	%HV		Deg.	Lane	Prob.	Ov.
From W							Cap.	Satn	Util.	SL	Ov.
To Exit:	N	E	S	W			veh/h	v/c	%	%	No.
Lane 1	47	-	-	-	47	2.1	607	0.077	100	0.0	2
Lane 2	-	548	-	-	548	5.6	582 ¹	0.943	100	NA	NA
Lane 3	-	515	-	-	515	5.6	546 ¹	0.943	100	NA	NA
Lane 4	-	-	19	48	67	3.0	98	0.687	100	49.1	3
Lane 5	-	17	-	-	17	100.0	96	0.178	100	NA	NA
Approach	47	1080	19	48	1194	6.6					0.943
Total %HV Deg. Satn (v/c)											
Intersection	4177	7.7									1.018

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- 6 Lane under-utilisation due to downstream effects

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Capacity veh/h	Lane Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: Fremantle Place												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
East Exit: Ti Rakau Drive (East)												
Merge Type: Not Applied												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
North Exit: Gossamer Drive												
Merge Type: Zipper												
Exit Short Lane	1	150	50.0	181	184	2.50	2.00	359	1584	0.227	0.0	0.1
Merge Lane	2	-	50.0	180	182	2.50	2.00	362	1586	0.228	0.0	0.1
West Exit: Ti Rakau Drive (West)												
Merge Type: Not Applied												

Full Length Lane	1	Merge Analysis not applied.
Full Length Lane	2	Merge Analysis not applied.
Full Length Lane	3	Merge Analysis not applied.