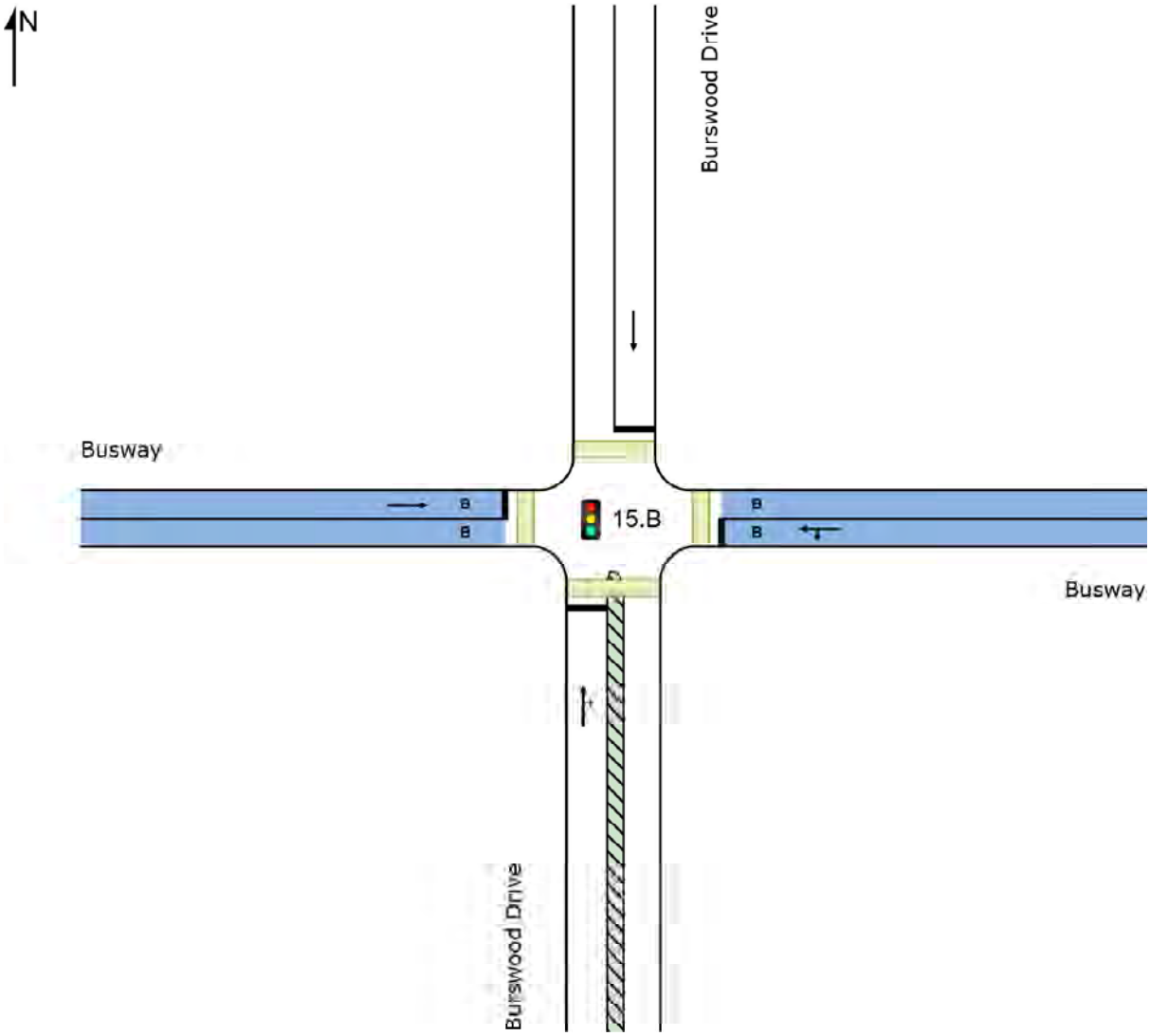
SITE LAYOUT

Site: 15.B [15.B Burwood Dr (West) / New Offline Busway 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.



LANE SUMMARY

Site: 15.B [15.B Burwood Dr (West) / New Offline Busway Rd (Site Folder: AM)]

Network: N101 [AM_Town centre drive four lanes (Network Folder: General)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 41 seconds (Site Practical Cycle Time)

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
South: Burswood Drive															
Lane 1	298	15.1	292	15.0	596	0.489	100	12.8	LOS B	4.4	34.9	Full	36	0.0	12.3
Approach	298	15.1	292[N1]	15.0		0.489		12.8	LOS B	4.4	34.9				
East: Busway															
Lane 1 (B)	33	100.0	33	100.0	437	0.076	100	4.5	LOS A	0.1	1.9	Full	571	0.0	0.0
Approach	33	100.0	33	100.0		0.076		4.5	LOS A	0.1	1.9				
North: Burswood Drive															
Lane 1	270	10.0	270	10.0	632	0.427	100	12.4	LOS B	4.0	30.3	Full	1859	0.0	0.0
Approach	270	10.0	270	10.0		0.427		12.4	LOS B	4.0	30.3				
West: Busway															
Lane 1 (B)	13	100.0	13	100.0	466	0.028	100	3.1	LOS A	0.1	0.7	Full	963	0.0	0.0
Approach	13	100.0	13	100.0		0.028		3.1	LOS A	0.1	0.7				
Intersection	614	19.2	608[N1]	19.4		0.489		12.0	LOS B	4.4	34.9				

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.

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

Approach Lane Flows (veh/h)

South: Burswood Drive

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	284	8	292	15.0	596	0.489	100	NA	NA
Approach	284	8	292	15.0		0.489			

East: Busway

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	8	25	33	100.0	437	0.076	100	NA	NA
Approach	8	25	33	100.0		0.076			

North: Burswood Drive

Mov. From N To Exit:	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	270	270	10.0	632	0.427	100	NA	NA

Approach	270	270	10.0		0.427				
West: Busway									
Mov. From W To Exit:	T1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	13	13	100.0	466	0.028	100	NA	NA	
Approach	13	13	100.0		0.028				
	Total	%HV	Deg.Satn (v/c)						
Intersection	608	19.4	0.489						

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

Merge Analysis

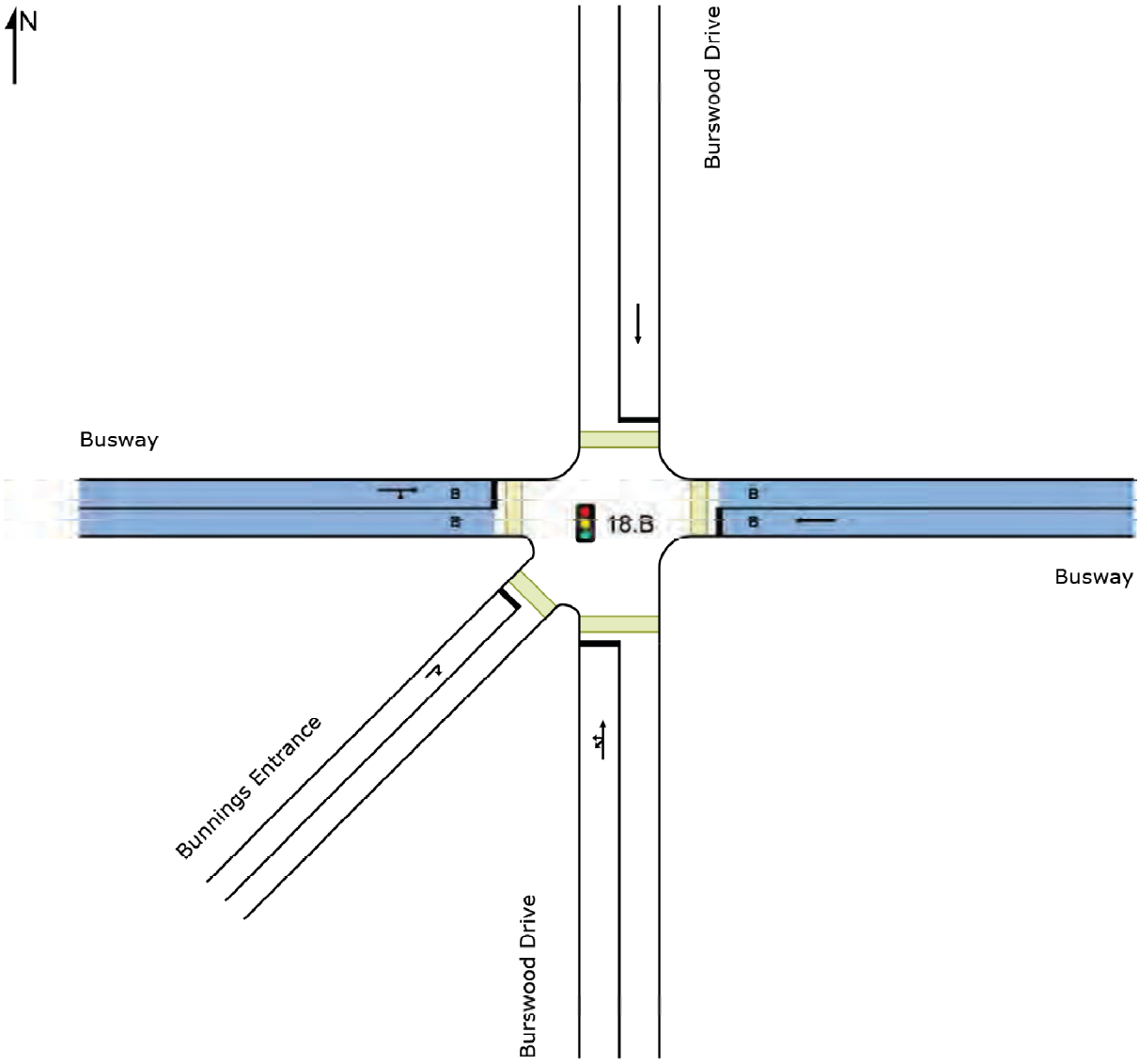
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate sec	Capacity veh/h	Deg. Satn veh/h	Min. Delay v/c	Merge Delay sec	sec
South Exit: Burswood Drive Merge Type: **Not Applied**												
Full Length Lane	1	Merge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

SITE LAYOUT

Site: 18.B [18.B Burswood Dr (East) / New Offline Busway Rd - V2 - Import (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.



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Project: C:\Users\jacques.vandenheever\Eastern Busway Alliance\PAA - 12 Transport\3-3. Integrated Transport Assessment\ITA 3 - EB2,3R,3C,4i\Version A1\SIDRA and AIMSUN\EB2,3R,3C,4i,4L Final\EB2,3R,3C,4i,4L Final AM 2028_JV Edits_Updates.sip9

LANE SUMMARY

Site: 18.B [18.B Burswood Dr (East) / New Offline Busway Rd - V2 - Import (Site Folder: AM)]

Network: N101 [AM_Town centre drive four lanes (Network Folder: General)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 49 seconds (Site Practical Cycle Time)

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
South: Burswood Drive															
Lane 1	180	16.6	175	16.7	487	0.360	100	17.8	LOS B	3.2	25.4	Full	199	0.0	0.0
Approach	180	16.6	175[N1]	16.7		0.360		17.8	LOS B	3.2	25.4				
East: Busway															
Lane 1 (B)	28	100.0	28	100.0	146	0.191	100	19.9	LOS B	0.5	6.9	Full	263	0.0	0.0
Approach	28	100.0	28	100.0		0.191		19.9	LOS B	0.5	6.9				
North: Burswood Drive															
Lane 1	218	16.1	218	16.1	510	0.428	100	16.7	LOS B	4.0	32.1	Full	1859	0.0	0.0
Approach	218	16.1	218	16.1		0.428		16.7	LOS B	4.0	32.1				
West: Busway															
Lane 1 (B)	21	100.0	21	100.0	140	0.152	100	21.4	LOS C	0.4	5.2	Full	571	0.0	0.0
Approach	21	100.0	21	100.0		0.152		21.4	LOS C	0.4	5.2				
SouthWest: Bunnings Entrance															
Lane 1	32	33.3	32	33.3	327	0.097	100	22.8	LOS C	0.5	4.9	Full	250	0.0	0.0
Approach	32	33.3	32	33.3		0.097		22.8	LOS C	0.5	4.9				
Intersection	479	26.0	474[N1]	26.3		0.428		17.9	LOS B	4.0	32.1				

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.

Approach Lane Flows (veh/h)

South: Burswood Drive

Mov. From S To Exit:	L3 SW	L2 W	T1 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	31	5	139	175	16.7	487	0.360	100	NA	NA
Approach	31	5	139	175	16.7		0.360			

East: Busway

Mov. From E To Exit:	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	28	28	100.0	146	0.191	100	NA	NA
Approach	28	28	100.0		0.191			

North: Burswood Drive

Mov. From N To Exit:	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	218	218	16.1	510	0.428	100	NA	NA
Approach	218	218	16.1		0.428			

West: Busway

Mov. From W To Exit:	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	16	5	21	100.0	140	0.152	100	NA	NA
Approach	16	5	21	100.0		0.152			

SouthWest: Bunnings Entrance

Mov. From SW To Exit:	R3 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	32	32	33.3	327	0.097	100	NA	NA
Approach	32	32	33.3		0.097			

	Total	%HV	Deg.Satn (v/c)
Intersection	474	26.3	0.428

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

Merge Analysis

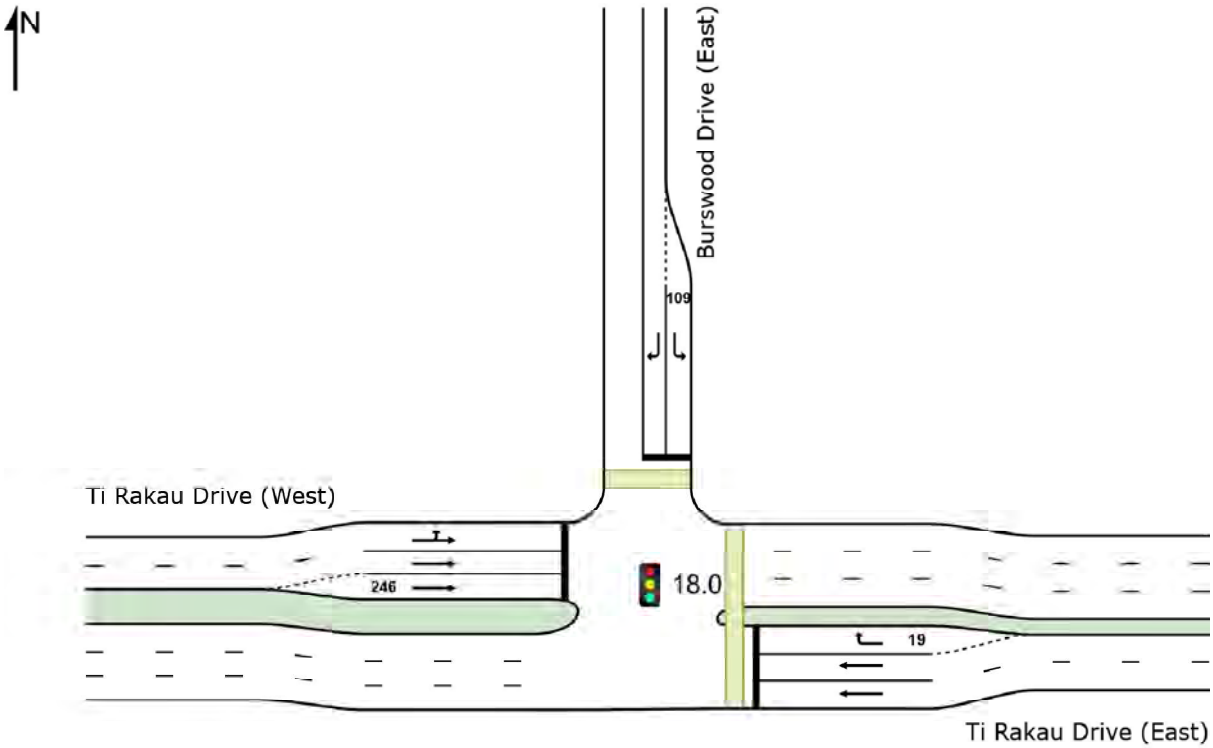
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: Burswood Drive Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
East Exit: Busway Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: Burswood Drive Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
West Exit: Busway Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
SouthWest Exit: Bunnings Entrance Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										

SITE LAYOUT

Site: 18.0 [18.0 Burswood Dr (East) / Ti Rakau Dr (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.



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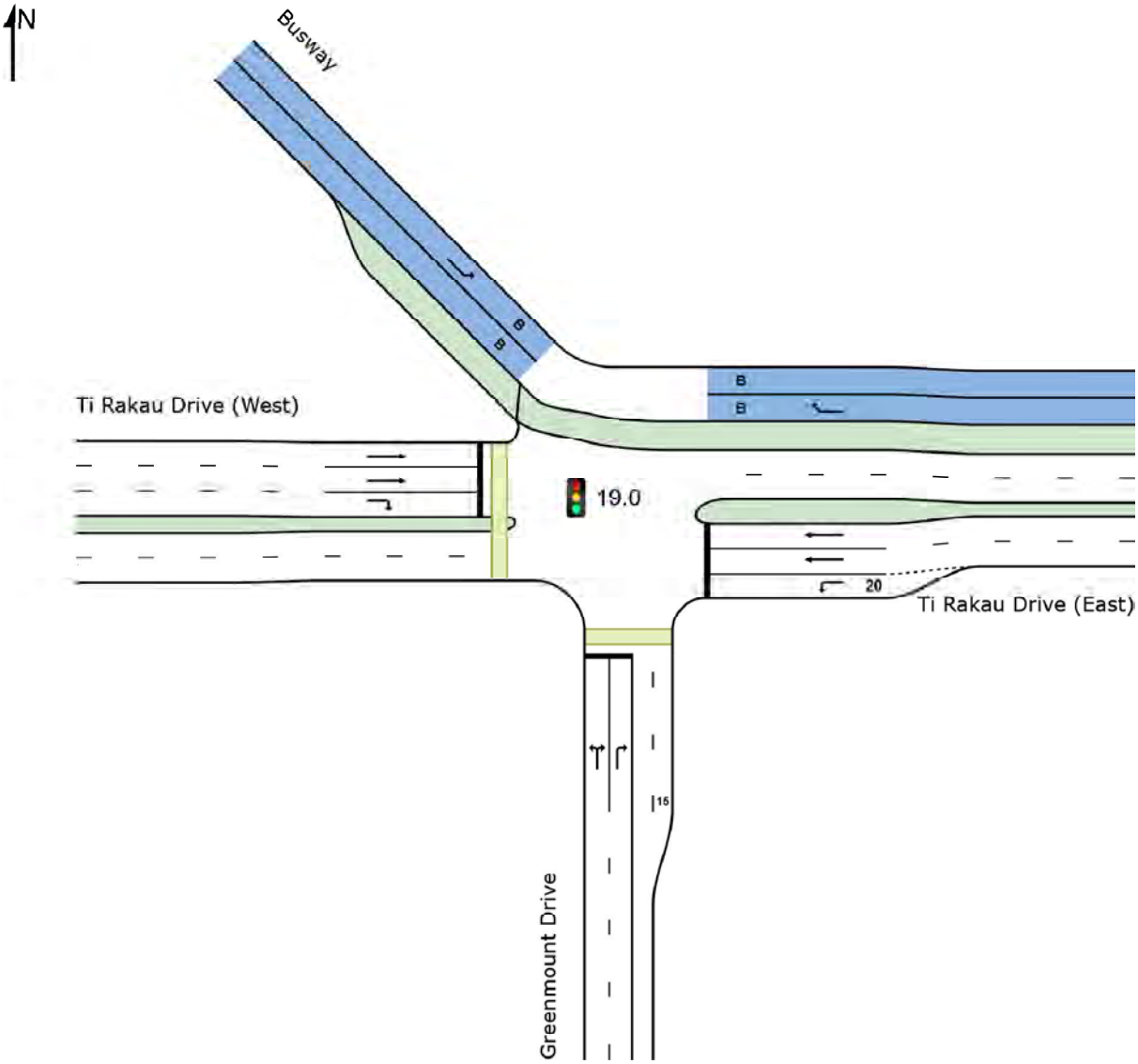
Project: C:\Users\jacques.vandenheever\Eastern Busway Alliance\PAA - 12 Transport\3-3. Integrated Transport Assessment\ITA 3 - EB2,3R,3C,4i\Version A1\SIDRA and AIMSUN\EB2,3R,3C,4i,4L Final\EB2,3R,3C,4i,4L Final AM 2028_JV Edits_Updates.sip9

SITE LAYOUT

Site: 19.0 [19.0 Greenmount Dr / Ti Rakau Dr (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.



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CCG LANE SUMMARY

Common Control Group: CCG1 [Burswood E/ Greenmount]

Network: N101 [AM_Town centre drive four lanes (Network Folder: General)]

EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network User-Given Cycle Time)

Lane Use and Performance (CCG)

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
Site: 18.0 [18.0 Burswood Dr (East) / Ti Rakau Dr]															
East: Ti Rakau Drive (East)															
Lane 1	679	7.2	679	7.2	1409	0.482	100	2.7	LOS A	6.2	45.9	Full	45	0.0	16.7
Lane 2	593	7.2	593	7.2	1231	0.482	100	0.7	LOS A	1.4	10.7	Full	45	-12.6 N3	0.0
Lane 3	10	0.0	10	0.0	74	0.135	100	82.5	LOS F	0.7	4.8	Short	19	0.0	NA
Approach	1282	7.1	1282	7.1		0.482		2.4	LOS A	6.2	45.9				
North: Burswood Drive (East)															
Lane 1	181	15.5	181	15.5	175	1.036	100	153.4	LOS F	19.2	151.8	Short	109	-50.0 N3	NA
Lane 2	41	29.7	41	29.7	209	0.198	100	64.7	LOS E	2.4	21.0	Full	199	-11.6 N3	0.0
Approach	222	18.1	222	18.1		1.036		136.9	LOS F	19.2	151.8				
West: Ti Rakau Drive (West)															
Lane 1	191	13.4	184	13.5	910	0.202	100	11.9	LOS B	4.2	32.9	Full	267	-23.4 N3	0.0
Lane 2	252	10.7	243	10.7	1201	0.202	100	9.3	LOS A	5.7	43.8	Full	267	0.0	0.0
Lane 3	196	10.7	189	10.7	935	0.202	100	9.4	LOS A	4.5	34.3	Short	246	-23.0 N3	NA
Approach	638	11.5	616 N1	11.5		0.202		10.1	LOS B	5.7	43.8				
Intersection	2143	9.5	2120 N 1	9.6		1.036		18.7	LOS B	19.2	151.8				
Site: 19.0 [19.0 Greenmount Dr / Ti Rakau Dr]															
South: Greenmount Drive															
Lane 1	82	15.0	82	15.0	277	0.296	100	61.0	LOS E	4.6	36.6	Full	1200	-11.5 N3	0.0
Lane 2	81	8.3	81	8.3	275	0.296	100	65.0	LOS E	4.7	35.5	Full	1200	0.0	0.0
Approach	163	11.7	163	11.7		0.296		63.0	LOS E	4.7	36.6				
East: Ti Rakau Drive (East)															
Lane 1	359	5.8	359	5.8	1466	0.245	100	5.8	LOS A	1.9	13.8	Short	20	0.0	NA
Lane 2	533	6.5	533	6.5	888 1	0.601	100	3.3	LOS A	4.5	32.9	Full	72	-16.5 N3	0.0
Lane 3	701	6.5	701	6.5	1166	0.601	100	6.4	LOS A	11.2	82.6	Full	72	0.0	27.5
Lane 4 (B)	28	100.0	28	100.0	1137	0.025	100	3.5	LOS A	0.0	0.0	Full	72	0.0	0.0
Approach	1621	8.0	1621	8.0		0.601		5.2	LOS A	11.2	82.6				
NorthWest: Busway															
Lane 1 (B)	15	100.0	15	100.0	1137	0.013	100	3.9	LOS A	0.0	0.0	Full	263	0.0	0.0
Approach	15	100.0	15	100.0		0.013		3.9	LOS A	0.0	0.0				
West: Ti Rakau Drive (West)															
Lane 1	295	11.4	287	11.4	1372	0.209	100	9.3	LOS A	8.6 N4	65.8 N4	Full	45	0.0	50.0
Lane 2	295	11.4	287	11.4	1372	0.209	100	0.9	LOS A	0.8	6.5	Full	45	0.0	0.0
Lane 3	97	15.5	94	15.5	155	0.608	100	77.0	LOS E	6.2	49.1	Full	45	0.0	23.0
Approach	686	12.0	668 N1	12.0		0.608		15.3	LOS B	8.6	65.8				
Intersection	2485	9.9	2467 N 1	9.9		0.608		11.7	LOS B	11.2	82.6				

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).
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.
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: 18.0 [18.0 Burswood Dr (East) / Ti Rakau Dr]

East: Ti Rakau Drive (East)

Mov. From E To Exit:	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	679	-	679	7.2	1409	0.482	100	NA	NA
Lane 2	593	-	593	7.2	1231	0.482	100	NA	NA
Lane 3	-	10	10	0.0	74	0.135	100	0.0	2
Approach	1272	10	1282	7.1		0.482			

North: Burswood Drive (East)

Mov. From N To Exit:	L2 E	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	181	-	181	15.5	175	1.036	100	45.5	2
Lane 2	-	41	41	29.7	209	0.198	100	NA	NA
Approach	181	41	222	18.1		1.036			

West: Ti Rakau Drive (West)

Mov. From W To Exit:	L2 N	T1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	128	56	184	13.5	910	0.202	100	NA	NA
Lane 2	-	243	243	10.7	1201	0.202	100	NA	NA
Lane 3	-	189	189	10.7	935	0.202	100	0.0	2
Approach	128	488	616	11.5		0.202			

	Total	%HV	Deg.Satn (v/c)
Intersection	2120	9.6	1.036

Site: 19.0 [19.0 Greenmount Dr / Ti Rakau Dr]

South: Greenmount Drive

Mov. From S To Exit:	L2 W	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	54	28	82	15.0	277	0.296	100	NA	NA
Lane 2	-	81	81	8.3	275	0.296	100	NA	NA
Approach	54	109	163	11.7		0.296			

East: Ti Rakau Drive (East)

Mov. From E To Exit:	L2 S	T1 W	R1 NW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	359	-	-	359	5.8	1466	0.245	100	0.0	2
Lane 2	-	533	-	533	6.5	888[1]	0.601	100	NA	NA

Lane 3	-	701	-	701	6.5		1166	0.601	100	NA	NA
Lane 4	-	-	28	28	100.0		1137	0.025	100	NA	NA
Approach	359	1234	28	1621	8.0			0.601			

NorthWest: Busway

Mov. From NW To Exit:	L1 E	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	15	15	100.0		1137	0.013	100	NA	NA
Approach	15	15	100.0			0.013			

West: Ti Rakau Drive (West)

Mov. From W To Exit:	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	287	-	287	11.4	1372	0.209	100	NA	NA
Lane 2	287	-	287	11.4	1372	0.209	100	NA	NA
Lane 3	-	94	94	15.5	155	0.608	100	NA	NA
Approach	573	94	668	12.0		0.608			

	Total	%HV	Deg.Satn (v/c)
Intersection	2467	9.9	0.608

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 (CCG)

	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 Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
Site: 18.0 [18.0 Burswood Dr (East) / Ti Rakau Dr]												
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.										
Full Length Lane	3	Merge Analysis not applied.										
North Exit: Burswood Drive (East) Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
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.										
Site: 19.0 [19.0 Greenmount Dr / Ti Rakau Dr]												
South Exit: Greenmount Drive Merge Type: **Zipper**												
Exit Short Lane	1	15	50.0	47	51	2.50	2.00	359	1743	0.206	0.0	0.0
Merge Lane	2	-	50.0	180	185	2.50	2.00	94	1583	0.060	0.0	0.1
East Exit: Ti Rakau Drive (East) Merge Type: **Not Applied**												

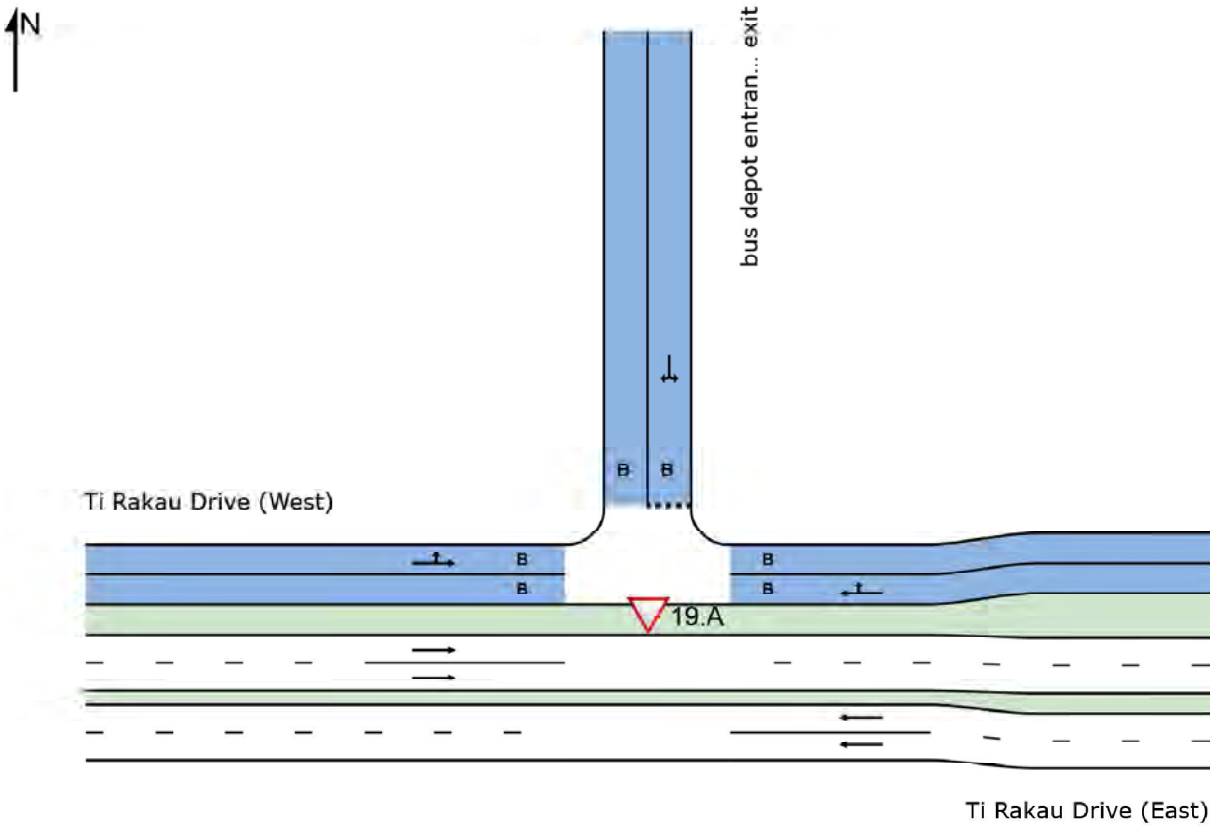
Full Length Lane	1	Merge Analysis not applied.
Full Length Lane	2	Merge Analysis not applied.
Full Length Lane	3	Merge Analysis not applied.
NorthWest Exit: Busway Merge Type: **Not Applied**		
Full Length Lane	1	Merge Analysis not applied.
West Exit: Ti Rakau Drive (West) Merge Type: **Not Applied**		
Full Length Lane	1	Merge Analysis not applied.
Full Length Lane	2	Merge Analysis not applied.

SITE LAYOUT

Site: 19.A [19.A Bus entrance to depot (Site Folder: AM)]

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

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



LANE SUMMARY

Site: 19.A [19.A Bus entrance to depot (Site Folder: AM)]

Network: N101 [AM_Town centre drive four lanes (Network Folder: General)]

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

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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: Ti Rakau Drive (East)															
Lane 1	948	6.3	948	6.3	1863	0.509	100	0.1	LOS A	0.0	0.0	Full	128	0.0	0.0
Lane 2	645	6.3	645	6.3	1268	0.509	100	0.1	LOS A	0.0	0.0	Full	128	-31.9 N7	0.0
Lane 3 (B)	38	100.0	38	100.0	1170	0.032	100	1.5	LOS A	0.1	0.8	Full	128	0.0	0.0
Approach	1631	8.5	1631	8.5		0.509		0.1	NA	0.1	0.8				
North: bus depot entrance exit															
Lane 1 (B)	20	100.0	20	100.0	737	0.027	100	0.4	LOS A	0.1	1.2	Full	40	0.0	0.0
Approach	20	100.0	20	100.0		0.027		0.4	LOS A	0.1	1.2				
West: Ti Rakau Drive (West)															
Lane 1 (B)	26	100.0	26	100.0	1154	0.023	100	1.9	LOS A	0.0	0.0	Full	72	0.0	0.0
Lane 2	349	10.9	341	10.9	1811	0.188	100	0.0	LOS A	0.0	0.0	Full	72	0.0	0.0
Lane 3	349	10.9	341	10.9	1811	0.188	100	0.0	LOS A	0.0	0.0	Full	72	0.0	0.0
Approach	724	14.1	708 N1	14.2		0.188		0.1	NA	0.0	0.0				
Intersection	2375	11.0	2359 N1	11.1		0.509		0.1	NA	0.1	1.2				

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.
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: Ti Rakau Drive (East)

Mov. From E To Exit:	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	948	-	948	6.3	1863	0.509	100	NA	NA
Lane 2	645	-	645	6.3	1268	0.509	100	NA	NA
Lane 3	28	10	38	100.0	1170	0.032	100	NA	NA
Approach	1621	10	1631	8.5		0.509			

North: bus depot entrance exit

Mov. From N To Exit:	L2 E	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	10	10	20	100.0	737	0.027	100	NA	NA

Approach	10	10	20	100.0		0.027			
West: Ti Rakau Drive (West)									
Mov. From W To Exit:	L2 N	T1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	10	16	26	100.0	1154	0.023	100	NA	NA
Lane 2	-	341	341	10.9	1811	0.188	100	NA	NA
Lane 3	-	341	341	10.9	1811	0.188	100	NA	NA
Approach	10	698	708	14.2		0.188			
	Total	%HV	Deg.Satn (v/c)						
Intersection	2359	11.1		0.509					

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

Merge Analysis

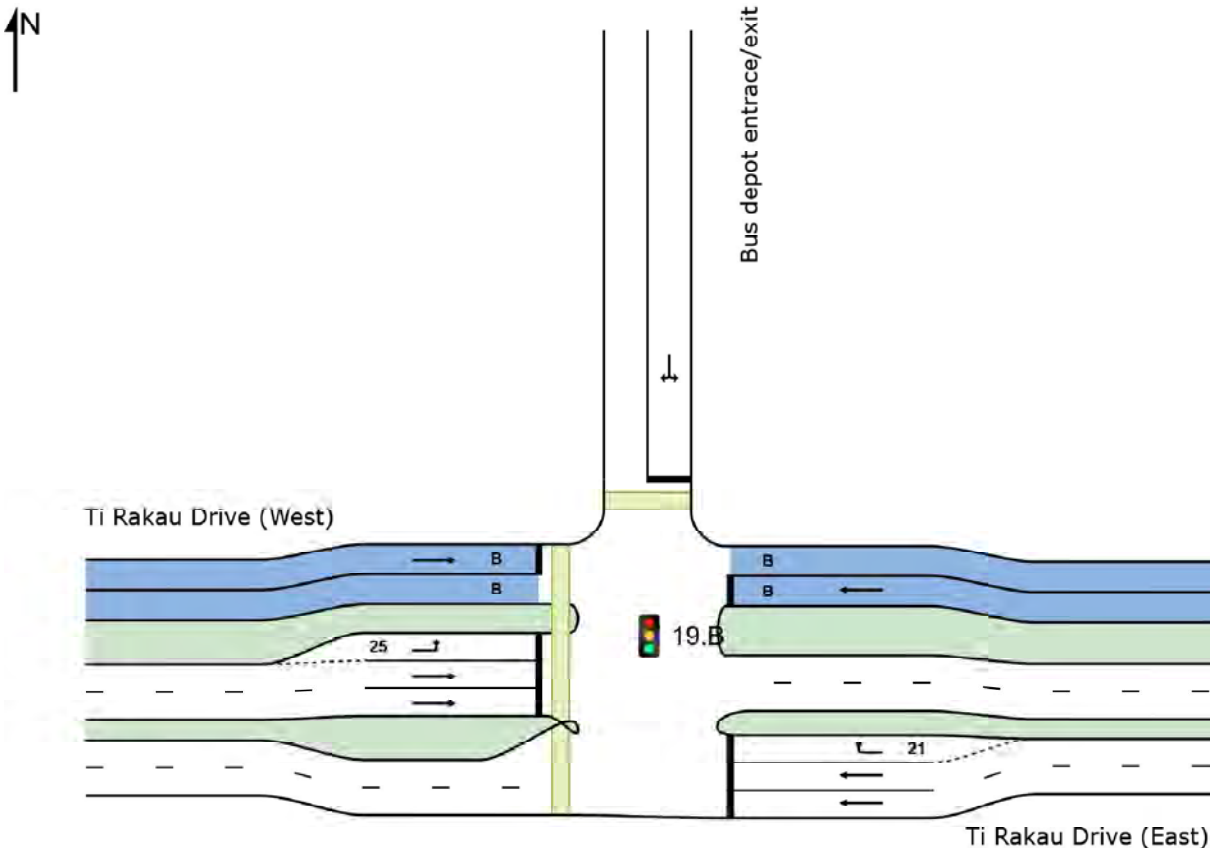
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
East Exit: Ti Rakau Drive (East) Merge Type: **Not Applied**										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

SITE LAYOUT

Site: 19.B [19.B Bus Depot Entrance (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.



Organisation: AECOM AUSTRALIA PTY LTD | Licence: NETWORK / Enterprise | Created: Friday, 18 August 2023 2:14:12 PM
Project: C:\Users\jacques.vandenheever\Eastern Busway Alliance\PAA - 12 Transport\3-3. Integrated Transport Assessment\ITA 3 - EB2,3R,3C,4i\Version A1\SIDRA and AIMSUN\EB2,3R,3C,4i,4L Final\EB2,3R,3C,4i,4L Final AM 2028_JV Edits_Updates.sip9

LANE SUMMARY

Site: 19.B [19.B Bus Depot Entrance (Site Folder: AM)]

Network: N101 [AM_Town centre drive four lanes (Network Folder: General)]

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

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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: Ti Rakau Drive (East)															
Lane 1	797	6.3	797	6.3	1292	0.617	100	11.3	LOS B	7.9[N4]	58.4[N4]	Full	40	0.0	50.0
Lane 2	797	6.3	797	6.3	1292	0.617	100	1.0	LOS A	2.6	19.0	Full	40	0.0	0.0
Lane 3	10	0.0	10	0.0	296	0.034	100	50.5	LOS D	0.5	3.2	Short	21	0.0	NA
Lane 4 (B)	28	100.0	28	100.0	693	0.040	100	0.4	LOS A	0.0	0.3	Full	40	0.0	0.0
Approach	1631	7.9	1631	7.9		0.617		6.3	LOS A	7.9	58.4				
North: Bus depot entrace/exit															
Lane 1	20	0.0	20	0.0	202	0.099	100	66.7	LOS E	1.2	8.4	Full	40	0.0	0.0
Approach	20	0.0	20	0.0		0.099		66.7	LOS E	1.2	8.4				
West: Ti Rakau Drive (West)															
Lane 1 (B)	16	100.0	16	100.0	693	0.023	100	0.4	LOS A	0.0	0.2	Full	128	0.0	0.0
Lane 2	10	0.0	10	0.0	185	0.053	100	75.3	LOS E	0.6	4.3	Short	25	0.0	NA
Lane 3	349	10.9	341	10.9	1051	0.325	100	4.5	LOS A	3.1	23.7	Full	128	0.0	0.0
Lane 4	349	10.9	341	10.9	1051	0.325	100	9.0	LOS A	6.1	46.5	Full	128	0.0	0.0
Approach	724	12.7	708[N1]	12.8		0.325		7.5	LOS A	6.1	46.5				
Intersection	2375	9.3	2359[N1]	9.4		0.617		7.2	LOS A	7.9	58.4				

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

Approach Lane Flows (veh/h)

East: Ti Rakau Drive (East)

Mov. From E To Exit:	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	797	-	797	6.3	1292	0.617	100	NA	NA
Lane 2	797	-	797	6.3	1292	0.617	100	NA	NA
Lane 3	-	10	10	0.0	296	0.034	100	0.0	2
Lane 4	28	-	28	100.0	693	0.040	100	NA	NA
Approach	1621	10	1631	7.9		0.617			

North: Bus depot entrace/exit

Mov. From N To Exit:	L2 E	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	10	10	20	0.0	202	0.099	100	NA	NA
Approach	10	10	20	0.0		0.099			

West: Ti Rakau Drive (West)

Mov. From W To Exit:	L2 N	T1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	-	16	16	100.0	693	0.023	100	NA	NA
Lane 2	10	-	10	0.0	185	0.053	100	0.0	3
Lane 3	-	341	341	10.9	1051	0.325	100	NA	NA
Lane 4	-	341	341	10.9	1051	0.325	100	NA	NA
Approach	10	699	708	12.8		0.325			

	Total	%HV	Deg.Satn (v/c)
Intersection	2359	9.4	0.617

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

Merge Analysis

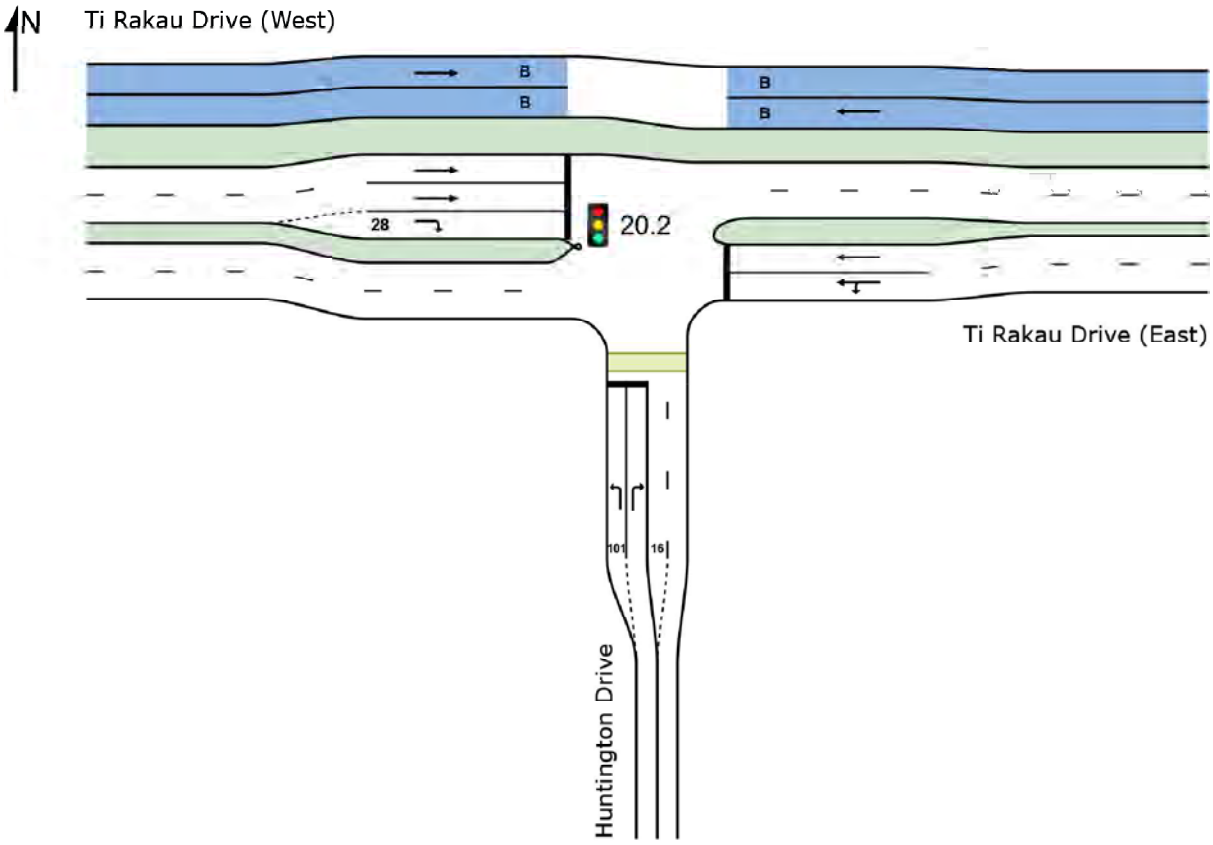
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
East Exit: Ti Rakau Drive (East) Merge Type: **Not Applied**											
Full Length Lane	1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

SITE LAYOUT

Site: 20.2 [20.2 Huntington Dr / Ti Rakau Dr (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.



Organisation: AECOM AUSTRALIA PTY LTD | Licence: NETWORK / Enterprise | Created: Friday, 18 August 2023 2:14:15 PM
Project: C:\Users\jacques.vandenheever\Eastern Busway Alliance\PAA - 12 Transport\3-3. Integrated Transport Assessment\ITA 3 - EB2,3R,3C,4i\Version A1\SIDRA and AIMSUN\EB2,3R,3C,4i,4L Final\EB2,3R,3C,4i,4L Final AM 2028_JV Edits_Updates.sip9

LANE SUMMARY

Site: 20.2 [20.2 Huntington Dr / Ti Rakau Dr (Site Folder: AM)]

Network: N101 [AM_Town centre drive four lanes (Network Folder: General)]

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

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
South: Huntington Drive															
Lane 1	181	6.6	181	6.6	197	0.918	100	95.7	LOS F	14.9	110.4	Short	101	-50.0 N3	NA
Lane 2	28	7.1	28	7.1	213	0.131	100	68.0	LOS E	1.6	12.2	Full	575	0.0	0.0
Approach	209	6.7	209	6.7		0.918		92.0	LOS F	14.9	110.4				
East: Ti Rakau Drive (East)															
Lane 1	486	6.4	486	6.4	654	0.744	100	15.9	LOS B	20.1	148.3	Full	106	-48.6 N3	45.9
Lane 2	952	6.3	952	6.3	1280	0.744	100	15.8	LOS B	21.0 N4	154.9 N4	Full	106	0.0	50.0
Lane 3 (B)	28	100.0	28	100.0	1194	0.023	100	0.0	LOS A	0.0	0.0	Full	106	0.0	0.0
Approach	1466	8.1	1466	8.1		0.744		15.5	LOS B	21.0	154.9				
West: Ti Rakau Drive (West)															
Lane 1 (B)	16	100.0	16	100.0	1194	0.013	100	0.0	LOS A	0.0	0.0	Full	40	0.0	0.0
Lane 2	328	11.3	320	11.3	1433	0.224	100	1.3	LOS A	1.5	11.2	Full	40	0.0	0.0
Lane 3	328	11.3	320	11.3	1433	0.224	100	1.3	LOS A	1.4	11.0	Full	40	0.0	0.0
Lane 4	41	2.4	40	2.4	114	0.350	100	74.2	LOS E	2.5	18.0	Short	28	0.0	NA
Approach	712	12.8	697 N1	12.9		0.350		5.4	LOS A	2.5	18.0				
Intersection	2387	9.4	2372 N1	9.4		0.918		19.3	LOS B	21.0	154.9				

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.

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 (veh/h)

South: Huntington Drive

Mov. From S To Exit:	L2 W	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	181	-	181	6.6	197	0.918	100	23.1	2
Lane 2	-	28	28	7.1	213	0.131	100	NA	NA
Approach	181	28	209	6.7		0.918			

East: Ti Rakau Drive (East)

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	26	460	486	6.4	654	0.744	100	NA	NA
Lane 2	-	952	952	6.3	1280	0.744	100	NA	NA

Lane 3	-	28	28	100.0	1194	0.023	100	NA	NA
Approach	26	1440	1466	8.1		0.744			

West: Ti Rakau Drive (West)

Mov. From W To Exit:	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	16	-	16	100.0	1194	0.013	100	NA	NA
Lane 2	320	-	320	11.3	1433	0.224	100	NA	NA
Lane 3	320	-	320	11.3	1433	0.224	100	NA	NA
Lane 4	-	40	40	2.4	114	0.350	100	0.0	3
Approach	657	40	697	12.9		0.350			

	Total	%HV	Deg.Satn (v/c)
Intersection	2372	9.4	0.918

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

Merge Analysis

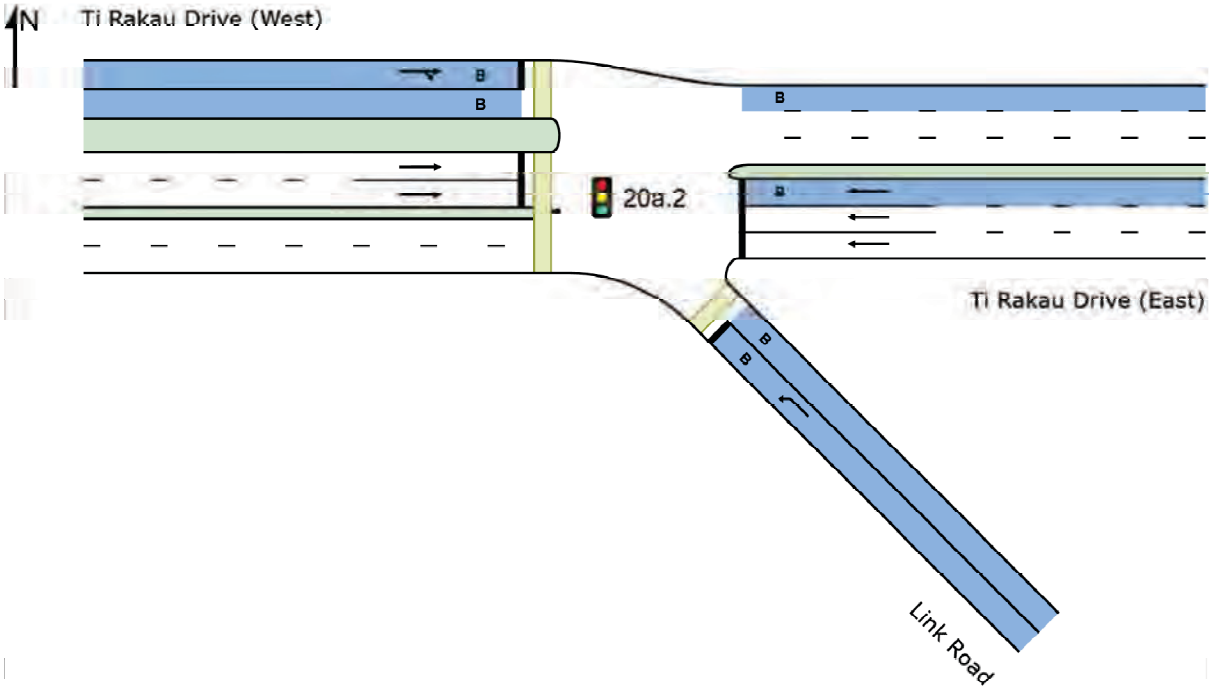
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: Huntington Drive Merge Type: **Zipper**												
Exit Short Lane	2	16	50.0	27	28	2.50	2.00	12	1769	0.007	0.0	0.0
Merge Lane	1	-	50.0	6	6	2.50	2.00	54	1793	0.030	0.0	0.0
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.										
Full Length Lane	3	Merge Analysis not applied.										
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.										

SITE LAYOUT

Site: 20a.2 [20a.2 Ti Rakau Dr Busway crossover - EB4i,EB4L (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.



Organisation: AECOM AUSTRALIA PTY LTD | Licence: NETWORK / Enterprise | Created: Friday, 18 August 2023 2:14:18 PM
Project: C:\Users\jacques.vandenheever\Eastern Busway Alliance\PAA - 12 Transport\3-3. Integrated Transport Assessment\ITA 3 - EB2,3R,3C,4i\Version A1\SIDRA and AIMSUN\EB2,3R,3C,4i,4L Final\EB2,3R,3C,4i,4L Final AM 2028_JV Edits_Updates.sip9

LANE SUMMARY

Site: 20a.2 [20a.2 Ti Rakau Dr Busway crossover - EB4i,EB4L (Site Folder: AM)]

Network: N101 [AM_Town centre drive four lanes (Network Folder: General)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 132 seconds (Site User-Given Phase Times)

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
SouthEast: Link Road															
Lane 1 (B)	21	100.0	21	100.0	171	0.123	100	33.2	LOS C	0.6	7.3	Full	450	0.0	0.0
Approach	21	100.0	21	100.0		0.123		33.2	LOS C	0.6	7.3				
East: Ti Rakau Drive (East)															
Lane 1	715	6.3	715	6.3	711	1.005	100	83.2	LOS F	31.7[N4]	233.8[N4]	Full	160	-49.6[N7]	50.0
Lane 2	709	6.3	709	6.3	706	1.005	100	83.5	LOS F	31.7[N4]	233.8[N4]	Full	160	-50.0[N7]	50.0
Lane 3 (B)	8	100.0	8	100.0	36	0.236	100	40.7	LOS D	0.3	3.7	Full	160	0.0	0.0
Approach	1432	6.9	1432	6.9		1.005		83.1	LOS F	31.7	233.8				
West: Ti Rakau Drive (West)															
Lane 1 (B)	17	100.0	17	100.0	172	0.098	100	32.5	LOS C	0.4	5.8	Full	106	0.0	0.0
Lane 2	341	11.1	334	11.2	1151	0.290	100	5.7	LOS A	4.3	32.8	Full	106	0.0	0.0
Lane 3	341	11.1	334	11.2	1151	0.290	100	5.7	LOS A	4.3	32.8	Full	106	0.0	0.0
Approach	699	13.3	685[N1]	13.4		0.290		6.4	LOS A	4.3	32.8				
Intersection	2152	9.9	2138[N1]	9.9		1.005		58.0	LOS E	31.7	233.8				

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.
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.
N4 Average back of queue has been restricted to the available queue storage space.
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)

SouthEast: Link Road

Mov. From SE To Exit:	L1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	21	21	100.0	171	0.123	100	NA	NA
Approach	21	21	100.0		0.123			

East: Ti Rakau Drive (East)

Mov. From E To Exit:	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	715	715	6.3	711	1.005	100	NA	NA
Lane 2	709	709	6.3	706	1.005	100	NA	NA
Lane 3	8	8	100.0	36	0.236	100	NA	NA
Approach	1432	1432	6.9		1.005			

West: Ti Rakau Drive (West)									
Mov. From W To Exit:	T1 E	R1 SE	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	-	17	17	100.0	172	0.098	100	NA	NA
Lane 2	334	-	334	11.2	1151	0.290	100	NA	NA
Lane 3	334	-	334	11.2	1151	0.290	100	NA	NA
Approach	668	17	685	13.4		0.290			
	Total	%HV	Deg.Satn (v/c)						
Intersection	2138	9.9		1.005					

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

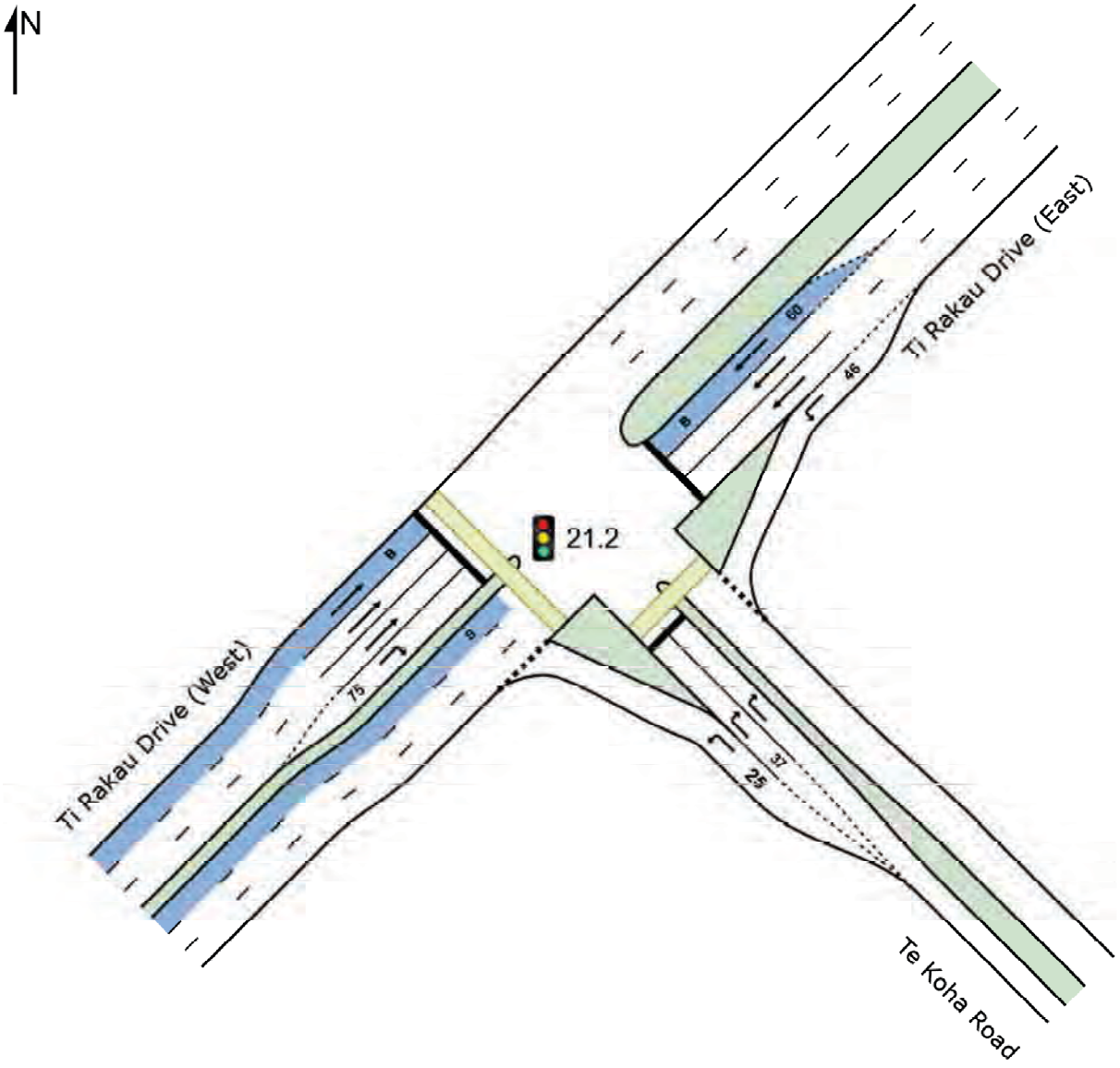
Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
SouthEast Exit: Link Road Merge Type: **Not Applied**											
Full 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.									
Full Length Lane	3	Merge Analysis not applied.									
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.									

SITE LAYOUT

Site: 21.2 [21.2 Te Koha Rd/ Ti Rakau Dr - EB4i (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.



Organisation: AECOM AUSTRALIA PTY LTD | Licence: NETWORK / Enterprise | Created: Friday, 18 August 2023 2:14:22 PM
Project: C:\Users\jacques.vandenheever\Eastern Busway Alliance\PAA - 12 Transport\3-3. Integrated Transport Assessment\ITA 3 - EB2,3R,3C,4i\Version A1\SIDRA and AIMSUN\EB2,3R,3C,4i,4L Final\EB2,3R,3C,4i,4L Final AM 2028_JV Edits_Updates.sip9

LANE SUMMARY

Site: 21.2 [21.2 Te Koha Rd/ Ti Rakau Dr - EB4i (Site Folder: AM)]

Network: N101 [AM_Town centre drive four lanes (Network Folder: General)]

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

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
SouthEast: Te Koha Road															
Lane 1	182	9.3	182	9.3	436	0.417	100	13.1	LOS B	5.1	38.2	Short	25	-21.2 N7	NA
Lane 2	107	7.6	107	7.6	139 1	0.770	100	77.2	LOS E	7.1	52.7	Short	37	0.0	NA
Lane 3	143	7.6	143	7.6	185 1	0.770	100	78.0	LOS E	9.6	71.4	Full	70	0.0	16.8
Approach	432	8.3	432	8.3		0.770		50.5	LOS D	9.6	71.4				
NorthEast: Ti Rakau Drive (East)															
Lane 1	124	8.9	124	8.9	1495	0.083	100	5.2	LOS A	0.7	5.4	Short	46	0.0	NA
Lane 2	725	5.9	725	5.9	1201 1	0.603	100	10.6	LOS B	21.7	159.3	Full	303	0.0	0.0
Lane 3	514	5.9	514	5.9	853	0.603	100	11.5	LOS B	16.7	123.0	Full	303	-35.0 N7	0.0
Lane 4 (B-..)	8	100.0	8	100.0	821	0.010	100	6.5	LOS A	0.1	1.9	Two Seg 9	303	0.0	0.0
Approach	1371	6.7	1371	6.7		0.603		10.4	LOS B	21.7	159.3				
SouthWest: Ti Rakau Drive (West)															
Lane 1 (B)	1	100.0	1	100.0	929	0.001	100	2.9	LOS A	0.0	0.2	Full	160	0.0	0.0
Lane 2	302	10.4	302	10.4	1356	0.223	100	5.1	LOS A	5.4	41.3	Full	160	0.0	0.0
Lane 3	301	10.4	301	10.4	1349	0.223	100	5.1	LOS A	5.4	41.1	Full	160	0.0	0.0
Lane 4	76	17.1	76	17.1	86	0.879	100	94.0	LOS F	5.6	45.3	Short	75	0.0	NA
Approach	680	11.3	680	11.3		0.879		15.1	LOS B	5.6	45.3				
Intersection	2483	8.3	2483	8.3		0.879		18.7	LOS B	21.7	159.3				

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.

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.
9 All Movement Classes allocated to Segment 1 are also allocated to Segment 2. This Two-Segment Lane has been modelled as a full-length lane.
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)

SouthEast: Te Koha Road

Mov. From SE To Exit:	L2 SW	R2 NE	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	182	-	182	9.3	436	0.417	100	54.3	2
Lane 2	-	107	107	7.6	139 1	0.770	100	47.7	3
Lane 3	-	143	143	7.6	185 1	0.770	100	NA	NA
Approach	182	250	432	8.3		0.770			

NorthEast: Ti Rakau Drive (East)									
Mov. From NE To Exit:	L2 SE	T1 SW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	124	-	124	8.9	1495	0.083	100	0.0	2
Lane 2	-	725	725	5.9	1201[1]	0.603	100	NA	NA
Lane 3	-	514	514	5.9	853	0.603	100	NA	NA
Lane 4	-	8	8	100.0	821	0.010	100	0.0	3
Approach	124	1247	1371	6.7		0.603			

SouthWest: Ti Rakau Drive (West)									
Mov. From SW To Exit:	T1 NE	R2 SE	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	-	1	100.0	929	0.001	100	NA	NA
Lane 2	302	-	302	10.4	1356	0.223	100	NA	NA
Lane 3	301	-	301	10.4	1349	0.223	100	NA	NA
Lane 4	-	76	76	17.1	86	0.879	100	0.0	3
Approach	604	76	680	11.3		0.879			

	Total	%HV	Deg.Satn (v/c)
Intersection	2483	8.3	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.

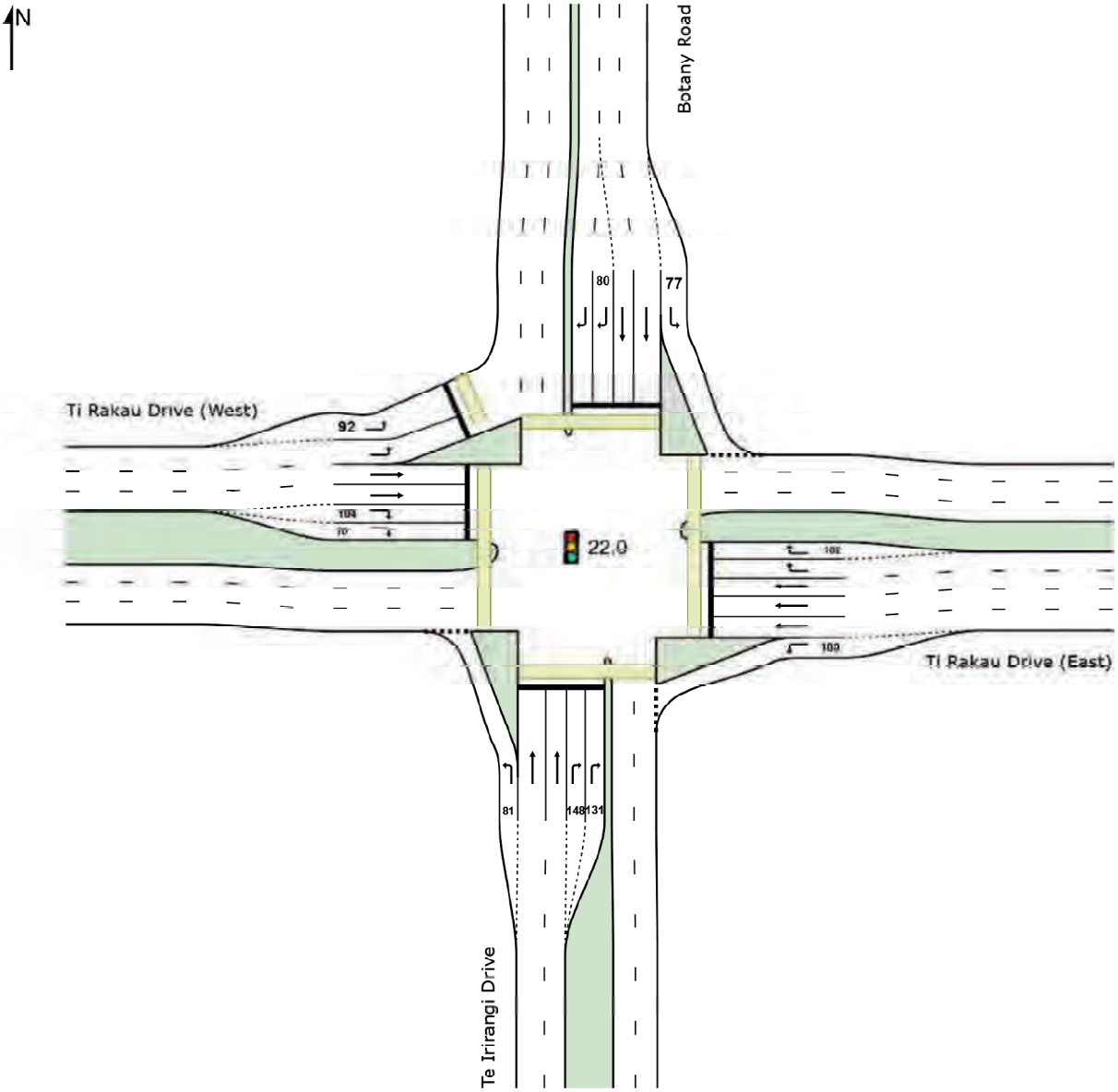
Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
SouthEast Exit: Te Koha Road Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
NorthEast 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.										
SouthWest 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.										

SITE LAYOUT

Site: 22.0 [22.0 Te Irirangi Dr / Ti Rakau Dr - EB4i (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.



Organisation: AECOM AUSTRALIA PTY LTD | Licence: NETWORK / Enterprise | Created: Friday, 18 August 2023 2:14:25 PM
Project: C:\Users\jacques.vandenheever\Eastern Busway Alliance\PAA - 12 Transport\3-3. Integrated Transport Assessment\ITA 3 - EB2,3R,3C,4i\Version A1\SIDRA and AIMSUN\EB2,3R,3C,4i,4L Final\EB2,3R,3C,4i,4L Final AM 2028_JV Edits_Updates.sip9

LANE SUMMARY

Site: 22.0 [22.0 Te Irirangi Dr / Ti Rakau Dr - EB4i (Site Folder: AM)]

Network: N101 [AM_Town centre drive four lanes (Network Folder: General)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 94 seconds (Site Practical Cycle Time)

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
South: Te Irirangi Drive															
Lane 1	106	7.5	106	7.5	962	0.110	100	11.1	LOS B	1.6	11.8	Short	81	0.0	NA
Lane 2	248	11.0	248	11.0	365	0.679	100	39.7	LOS D	9.8	75.4	Full	289	0.0	0.0
Lane 3	234	11.0	234	11.0	345	0.679	100	39.9	LOS D	9.3	71.6	Full	289	0.0	0.0
Lane 4	118	8.1	118	8.1	237	0.497	100	46.6	LOS D	4.7	34.9	Short	148	0.0	NA
Lane 5	118	8.1	118	8.1	238	0.497	100	46.6	LOS D	4.7	35.1	Short	131	0.0	NA
Approach	824	9.7	824	9.7		0.679		38.0	LOS D	9.8	75.4				
East: Ti Rakau Drive (East)															
Lane 1	247	12.1	247	12.1	830	0.298	100	12.9	LOS B	4.2	32.5	Short	100	-7.2 N3	NA
Lane 2	177	11.0	177	11.0	345	0.512	100	39.0	LOS D	6.7	51.2	Full	123	0.0	0.0
Lane 3	177	11.0	177	11.0	345	0.512	100	39.0	LOS D	6.7	51.2	Full	123	0.0	0.0
Lane 4	174	11.0	174	11.0	339	0.512	100	39.0	LOS D	6.6	50.4	Full	123	0.0	0.0
Lane 5	97	5.8	97	5.8	111	0.866	100	62.7	LOS E	4.6	33.7	Full	123	0.0	0.0
Lane 6	94	5.8	94	5.8	109	0.866	100	62.8	LOS E	4.5	33.1	Short	102	0.0	NA
Approach	965	10.3	965	10.3		0.866		37.0	LOS D	6.7	51.2				
North: Botany Road															
Lane 1	189	5.8	189	5.8	1231	0.154	100	7.5	LOS A	2.0	14.4	Short	77	0.0	NA
Lane 2	472	7.3	472	7.3	616 1	0.766	100	31.2	LOS C	18.0	133.6	Full	265	-7.2 N3	0.0
Lane 3	465	7.3	465	7.3	607	0.766	100	31.2	LOS C	17.7	131.7	Full	265	-2.9 N3	0.0
Lane 4	367	3.4	367	3.4	420	0.873	100	34.4	LOS C	11.2	80.6	Short	80	0.0	NA
Lane 5	367	3.4	367	3.4	420	0.873	100	34.4	LOS C	11.2	80.6	Full	265	0.0	0.0
Approach	1859	5.6	1859	5.6		0.873		30.0	LOS C	18.0	133.6				
West: Ti Rakau Drive (West)															
Lane 1	191	7.7	191	7.7	524	0.364	100	23.0	LOS C	4.9	36.4	Short	92	0.0	NA
Lane 2	188	7.7	188	7.7	516	0.364	100	23.0	LOS C	4.8	35.9	Full	303	0.0	0.0
Lane 3	188	8.6	188	8.6	350	0.536	100	37.8	LOS D	7.1	53.5	Full	303	0.0	0.0
Lane 4	186	8.6	186	8.6	346	0.536	100	37.9	LOS D	7.1	53.0	Full	303	0.0	0.0
Lane 5	49	22.0	49	22.0	92	0.532	100	55.3	LOS E	2.2	17.9	Short	104	-7.2 N3	NA
Lane 6	51	22.0	51	22.0	96	0.532	100	55.1	LOS E	2.2	18.6	Short	70	-2.9 N3	NA
Approach	852	9.8	852	9.8		0.536		33.3	LOS C	7.1	53.5				
Intersection	4501	8.1	4501	8.1		0.873		33.6	LOS C	18.0	133.6				

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

Approach Lane Flows (veh/h)

South: Te Irirangi Drive

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	106	-	-	106	7.5	962	0.110	100	0.0	2
Lane 2	-	248	-	248	11.0	365	0.679	100	NA	NA
Lane 3	-	234	-	234	11.0	345	0.679	100	NA	NA
Lane 4	-	-	118	118	8.1	237	0.497	100	0.0	3
Lane 5	-	-	118	118	8.1	238	0.497	100	0.0	4
Approach	106	482	236	824	9.7		0.679			

East: Ti Rakau Drive (East)

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	247	-	-	247	12.1	830	0.298	100	0.0	2
Lane 2	-	177	-	177	11.0	345	0.512	100	NA	NA
Lane 3	-	177	-	177	11.0	345	0.512	100	NA	NA
Lane 4	-	174	-	174	11.0	339	0.512	100	NA	NA
Lane 5	-	-	97	97	5.8	111	0.866	100	NA	NA
Lane 6	-	-	94	94	5.8	109	0.866	100	0.0	5
Approach	247	527	191	965	10.3		0.866			

North: Botany Road

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	189	-	-	189	5.8	1231	0.154	100	0.0	2
Lane 2	-	472	-	472	7.3	616[1]	0.766	100	NA	NA
Lane 3	-	465	-	465	7.3	607	0.766	100	NA	NA
Lane 4	-	-	367	367	3.4	420	0.873	100	15.7	3
Lane 5	-	-	367	367	3.4	420	0.873	100	NA	NA
Approach	189	937	733	1859	5.6		0.873			

West: Ti Rakau Drive (West)

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	191	-	-	191	7.7	524	0.364	100	0.0	2
Lane 2	188	-	-	188	7.7	516	0.364	100	NA	NA
Lane 3	-	188	-	188	8.6	350	0.536	100	NA	NA
Lane 4	-	186	-	186	8.6	346	0.536	100	NA	NA
Lane 5	-	-	49	49	22.0	92	0.532	100	0.0	3
Lane 6	-	-	51	51	22.0	96	0.532	100	0.0	3
Approach	379	373	100	852	9.8		0.536			

	Total	%HV	Deg.Satn (v/c)
Intersection	4501	8.1	0.873

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	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

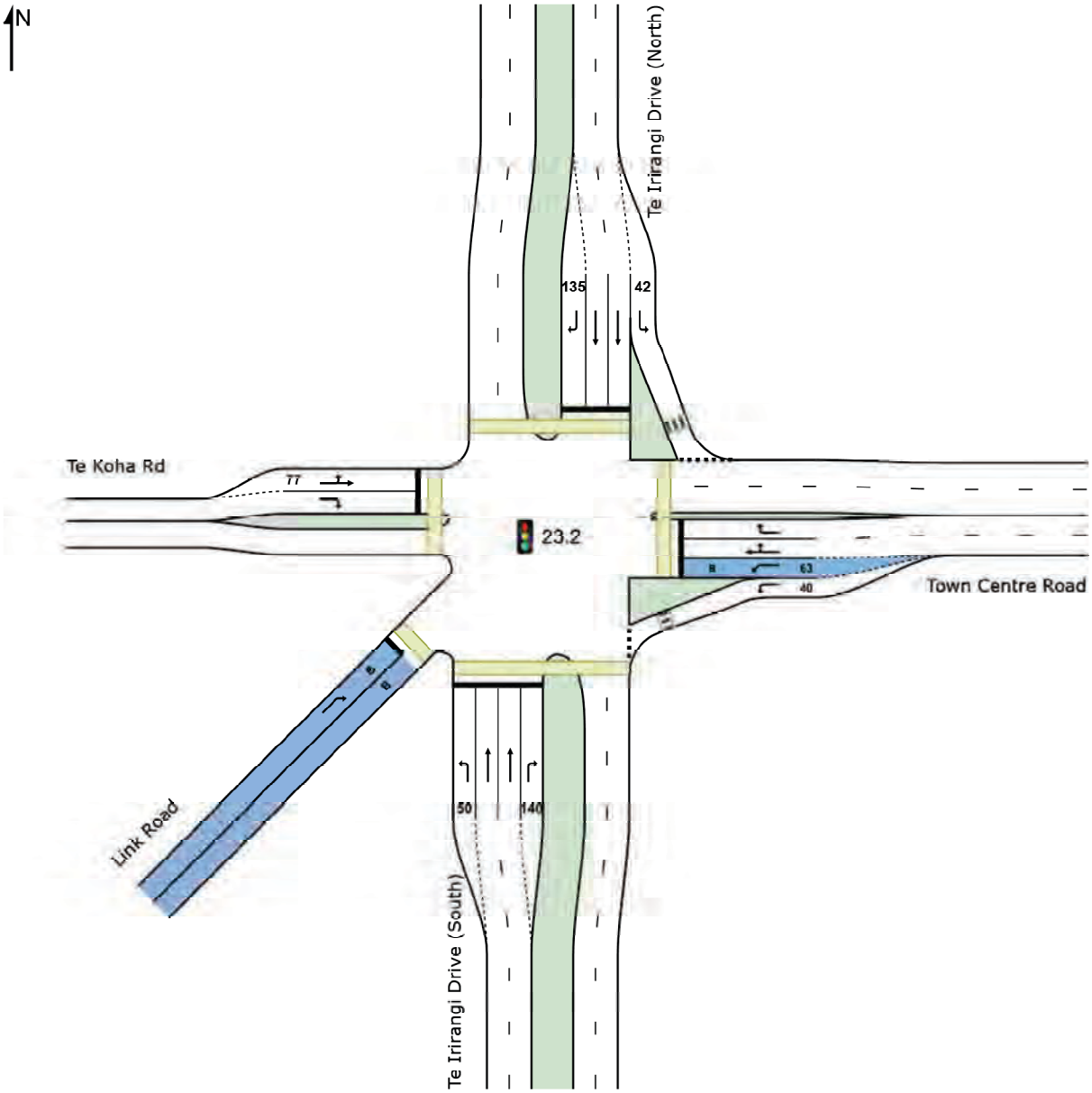
South Exit: Te Irirangi Drive Merge Type: **Not Applied**		
Full Length Lane	1	Merge Analysis not applied.
Full Length Lane	2	Merge Analysis not applied.
East Exit: Ti Rakau Drive (East) Merge Type: **Not Applied**		
Full Length Lane	1	Merge Analysis not applied.
Full Length Lane	2	Merge Analysis not applied.
Full Length Lane	3	Merge Analysis not applied.
North Exit: Botany Road 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.
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.

SITE LAYOUT

Site: 23.2 [23.2a Te Irirangi Dr / Te Koha Rd / Town Centre Dr - EB4i,EB4L_2 (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.



LANE SUMMARY

Site: 23.2 [23.2a Te Irirangi Dr / Te Koha Rd / Town Centre Dr - EB4i,EB4L_2 (Site Folder: AM)]

Network: N101 [AM_Town centre drive four lanes (Network Folder: General)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site User-Given Phase Times)

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
South: Te Irirangi Drive (South)															
Lane 1	375	7.0	375	7.0	594[1]	0.631	100	26.8	LOS C	11.4	84.9	Short	50	0.0	NA
Lane 2	308	6.7	308	6.7	458[1]	0.674	100	36.9	LOS D	14.4	106.4	Full	294	0.0	0.0
Lane 3	450	6.7	450	6.7	667	0.674	100	40.7	LOS D	23.1	171.1	Full	294	0.0	0.0
Lane 4	124	22.6	124	22.6	137	0.905	100	89.3	LOS F	8.8	73.5	Short	140	0.0	NA
Approach	1257	8.4	1257	8.4		0.905		40.4	LOS D	23.1	171.1				
East: Town Centre Road															
Lane 1	83	38.6	83	38.6	733	0.113	100	17.0	LOS B	2.1	19.5	Short	40	0.0	NA
Lane 2 (B)	21	100.0	21	100.0	299	0.070	100	26.9	LOS C	0.6	7.7	Short	63	0.0	NA
Lane 3	57	19.7	57	19.7	95	0.595	100	75.4	LOS E	3.6	29.6	Full	153	0.0	0.0
Lane 4	45	52.1	45	52.1	76	0.595	100	81.1	LOS F	2.9	29.7	Full	153	0.0	0.0
Approach	206	42.6	206	42.6		0.595		48.1	LOS D	3.6	29.7				
North: Te Irirangi Drive (North)															
Lane 1	67	38.7	67	38.7	820	0.082	100	11.8	LOS B	1.1	10.3	Short	42	0.0	NA
Lane 2	575	7.4	575	7.4	664	0.865	100	52.1	LOS D	35.6	265.2	Full	289	0.0	7.2
Lane 3	553	7.4	553	7.4	640[1]	0.865	100	51.8	LOS D	33.9	252.7	Full	289	0.0	2.9
Lane 4	73	14.5	73	14.5	305	0.238	100	36.0	LOS D	2.6	20.5	Short	135	0.0	NA
Approach	1268	9.5	1268	9.5		0.865		48.9	LOS D	35.6	265.2				
West: Te Koha Rd															
Lane 1	79	14.7	79	14.7	190	0.415	100	64.6	LOS E	4.6	36.3	Short	77	0.0	NA
Lane 2	119	13.3	119	13.3	133	0.892	100	88.4	LOS F	8.3	64.6	Full	200	0.0	0.0
Approach	198	13.8	198	13.8		0.892		78.9	LOS E	8.3	64.6				
SouthWest: Link Road															
Lane 1 (B)	17	100.0	17	100.0	201	0.084	100	34.7	LOS C	0.6	7.7	Full	450	0.0	0.0
Approach	17	100.0	17	100.0		0.084		34.7	LOS C	0.6	7.7				
Intersection	2945	12.1	2945	12.1		0.905		47.2	LOS D	35.6	265.2				

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.

Approach Lane Flows (veh/h)

South: Te Irirangi Drive (South)

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	375	-	-	375	7.0		594[1]	0.631	100	64.3	2
Lane 2	-	308	-	308	6.7		458[1]	0.674	100	NA	NA
Lane 3	-	450	-	450	6.7		667	0.674	100	NA	NA
Lane 4	-	-	124	124	22.6		137	0.905	100	0.0	3
Approach	375	758	124	1257	8.4			0.905			

East: Town Centre Road

Mov. From E To Exit:	L2 S	L1 SW	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	83	-	-	-	83	38.6	733	0.113	100	0.0	2
Lane 2	-	21	-	-	21	100.0	299	0.070	100	0.0	3
Lane 3	-	-	45	11	57	19.7	95	0.595	100	NA	NA
Lane 4	-	-	-	45	45	52.1	76	0.595	100	NA	NA
Approach	83	21	45	56	206	42.6		0.595			

North: Te Irirangi Drive (North)

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	67	-	-	67	38.7	820	0.082	100	0.0	3
Lane 2	-	575	-	575	7.4	664	0.865	100	NA	NA
Lane 3	-	553	-	553	7.4	640[1]	0.865	100	NA	NA
Lane 4	-	-	73	73	14.5	305	0.238	100	0.0	3
Approach	67	1128	73	1268	9.5		0.865			

West: Te Koha Rd

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	20	59	-	79	14.7	190	0.415	100	0.0	2
Lane 2	-	-	119	119	13.3	133	0.892	100	NA	NA
Approach	20	59	119	198	13.8		0.892			

SouthWest: Link Road

Mov. From SW To Exit:	R1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	17	17	100.0	201	0.084	100	NA	NA
Approach	17	17	100.0		0.084			

	Total	%HV	Deg.Satn (v/c)
Intersection	2945	12.1	0.905

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	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: Te Irirangi Drive (South) Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
East Exit: Town Centre Road Merge Type: **Not Applied**												

Full Length Lane	1	Merge Analysis not applied.
Full Length Lane	2	Merge Analysis not applied.
North Exit: Te Irirangi Drive (North) Merge Type: **Not Applied**		
Full Length Lane	1	Merge Analysis not applied.
Full Length Lane	2	Merge Analysis not applied.
West Exit: Te Koha Rd Merge Type: **Not Applied**		
Full Length Lane	1	Merge Analysis not applied.
SouthWest Exit: Link Road Merge Type: **Not Applied**		
Full Length Lane	1	Merge Analysis not applied.

LANE SUMMARY

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

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 96 seconds (Site Practical Cycle Time)

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
South: Ti Rakau Drive															
Lane 1	957	7.3	957	7.3	1075	0.890	100	25.6	LOS C	34.2[N4]	254.3[N4]	Full	174	0.0	50.0
Lane 2	175	4.6	175	4.6	503	0.348	100	34.4	LOS C	5.9	42.9	Full	174	0.0	0.0
Lane 3 (B)	23	100.0	23	100.0	290	0.079	100	24.9	LOS C	0.5	6.7	Full	174	0.0	0.0
Approach	1155	8.7	1155	8.7		0.890		26.9	LOS C	34.2	254.3				
East: Pakuranga Road (East)															
Lane 1	51	3.9	51	3.9	505	0.100	100	32.1	LOS C	1.6	11.3	Short	21	0.0	NA
Lane 2	279	4.1	276	4.1	481[1]	0.574	100	31.6	LOS C	9.9	71.4	Full	98	0.0	0.0
Lane 3	307	4.1	305	4.1	531	0.574	100	32.2	LOS C	11.1	80.3	Full	98	0.0	0.0
Approach	637	4.1	632[N1]	4.1		0.574		31.9	LOS C	11.1	80.3				
West: Pakuranga Road (West)															
Lane 1 (B)	53	100.0	53	100.0	274	0.194	100	26.2	LOS C	1.3	16.5	Full	380	0.0	0.0
Lane 2	458	5.1	458	5.1	528	0.867	100	44.6	LOS D	21.3	155.4	Full	380	0.0	0.0
Lane 3	458	5.1	458	5.1	528	0.867	100	44.6	LOS D	21.3	155.4	Full	380	0.0	0.0
Lane 4	376	8.2	376	8.2	436	0.862	100	51.2	LOS D	17.6	131.8	Short	178	0.0	NA
Lane 5	376	8.2	376	8.2	436	0.862	100	51.2	LOS D	17.6	131.8	Short	105	0.0	NA
Approach	1721	9.4	1721	9.4		0.867		46.9	LOS D	21.3	155.4				
Intersection	3513	8.2	3508[N1]	8.2		0.890		37.6	LOS D	34.2	254.3				

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.

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 W	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	957	-	957	7.3	1075	0.890	100	NA	NA
Lane 2	-	175	175	4.6	503	0.348	100	NA	NA
Lane 3	23	-	23	100.0	290	0.079	100	NA	NA
Approach	980	175	1155	8.7		0.890			

East: Pakuranga Road (East)

Mov. From E	L2	T1	Total	%HV	Cap.	Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane

To Exit:	S	W			veh/h	v/c	%	%	No.
Lane 1	51	-	51	3.9	505	0.100	100	0.0	2
Lane 2	-	276	276	4.1	481[1]	0.574	100	NA	NA
Lane 3	-	305	305	4.1	531	0.574	100	NA	NA
Approach	51	581	632	4.1		0.574			

West: Pakuranga Road (West)

Mov. From W To Exit:	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	-	53	53	100.0	274	0.194	100	NA	NA
Lane 2	458	-	458	5.1	528	0.867	100	NA	NA
Lane 3	458	-	458	5.1	528	0.867	100	NA	NA
Lane 4	-	376	376	8.2	436	0.862	100	0.0	3
Lane 5	-	376	376	8.2	436	0.862	100	35.8	4
Approach	916	805	1721	9.4		0.867			

	Total	%HV	Deg.Satn (v/c)
Intersection	3508	8.2	0.890

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	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 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.										
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 - Import (Site Folder: PM)]

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

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

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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	319	4.1	319	4.1	1816	0.175	100	0.5	LOS A	0.2	1.1	Full	121	0.0	0.0
Lane 2	331	4.2	331	4.2	1888	0.175	100	0.0	LOS A	0.0	0.0	Full	121	0.0	0.0
Approach	650	4.2	650	4.2		0.175		0.3	NA	0.2	1.1				
West: Pakuranga Road (West)															
Lane 1	551	5.1	551	5.1	1633	0.338	100	0.0	LOS A	0.0	0.0	Full	108	-13.0 N3	0.0
Lane 2	542	5.1	542	5.1	1605	0.338	100	0.0	LOS A	0.0	0.0	Full	108	-13.0 N3	0.0
Lane 3	24	0.0	24	0.0	847	0.029	100	9.4	LOS A	0.1	0.6	Short	30	0.0	NA
Approach	1117	5.0	1117	5.0		0.338		0.2	NA	0.1	0.6				
SouthWest: Pakuranga Plaza															
Lane 1	95	5.3	95	5.3	75	1.273	100	359.4	LOS F	13.3	97.4	Full	196	-9.4 N3	0.0
Approach	95	5.3	95	5.3		1.273		359.4	LOS F	13.3	97.4				
Intersection	1862	4.7	1862	4.7		1.273		18.6	NA	13.3	97.4				

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.

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

Approach Lane Flows (veh/h)

East: Pakuranga Road (East)

Mov. From E To Exit:	L1 SW	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	31	288	319	4.1	1816	0.175	100	NA	NA
Lane 2	-	331	331	4.2	1888	0.175	100	NA	NA
Approach	31	619	650	4.2		0.175			

West: Pakuranga Road (West)

Mov. From W To Exit:	T1 E	R3 SW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	551	-	551	5.1	1633	0.338	100	NA	NA
Lane 2	542	-	542	5.1	1605	0.338	100	NA	NA
Lane 3	-	24	24	0.0	847	0.029	100	0.0	2
Approach	1093	24	1117	5.0		0.338			

SouthWest: Pakuranga Plaza

Mov. From SW To Exit:	L3 W	R1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	29	66	95	5.3	75	1.273	100	NA	NA
Approach	29	66	95	5.3		1.273			

	Total	%HV	Deg.Satn (v/c)
Intersection	1862	4.7	1.273

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 - Import (Site Folder: PM)]

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 66 seconds (Site Practical Cycle Time)

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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 (B)	9	100.0	9	100.0	614	0.015	100	12.2	LOS B	0.1	1.5	Short	24	0.0	NA
Lane 2	483	5.5	483	5.5	1015[1]	0.476	100	12.8	LOS B	8.3	61.1	Full	183	0.0	0.0
Lane 3	488	5.5	488	5.5	1027	0.476	100	12.8	LOS B	8.5	62.1	Full	183	0.0	0.0
Lane 4	262	3.3	262	3.3	310	0.844	100	39.4	LOS D	8.6	62.2	Full	183	0.0	0.0
Lane 5	262	3.3	262	3.3	310	0.844	100	39.4	LOS D	8.6	62.2	Short	60	0.0	NA
Approach	1503	5.3	1503	5.3		0.844		22.1	LOS C	8.6	62.2				
NorthWest: Pakuranga Road (West)															
Lane 1	536	4.7	529	4.7	642	0.825	100	30.2	LOS C	16.3	118.4	Full	121	0.0	13.0
Lane 2	536	4.7	529	4.7	642	0.825	100	30.2	LOS C	16.3	118.4	Full	121	0.0	13.0
Lane 3	99	11.1	98	11.1	156	0.629	100	39.3	LOS D	3.0	23.1	Short	98	0.0	NA
Approach	1170	5.2	1157[N1]	5.2		0.825		31.0	LOS C	16.3	118.4				
West: Pakuranga Road Busway Link (Northbound)															
Lane 1 (B)	28	100.0	28	100.0	561	0.050	100	10.3	LOS B	0.4	5.7	Full	215	0.0	0.0
Approach	28	100.0	28	100.0		0.050		10.3	LOS B	0.4	5.7				
SouthWest: Flyover															
Lane 1	122	7.4	122	7.4	165	0.741	100	41.7	LOS D	3.9	28.9	Short	70	0.0	NA
Lane 2	762	3.9	762	3.9	843[1]	0.904	100	35.9	LOS D	26.8	194.0	Full	1162	0.0	0.0
Lane 3	811	3.9	811	3.9	897	0.904	100	35.9	LOS D	29.1	210.8	Full	1162	0.0	0.0
Approach	1695	4.2	1695	4.2		0.904		36.3	LOS D	29.1	210.8				
Intersection	4396	5.4	4383[N1]	5.5		0.904		29.9	LOS C	29.1	210.8				

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.
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.

Approach Lane Flows (veh/h)

East: Pakuranga Road (East)

Mov. From E To Exit:	L2 S	L1 SW	R1 NW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	-	-	9	100.0	614	0.015	100	0.0	2
Lane 2	-	483	-	483	5.5	1015[1]	0.476	100	NA	NA
Lane 3	-	488	-	488	5.5	1027	0.476	100	NA	NA
Lane 4	-	-	262	262	3.3	310	0.844	100	NA	NA

Lane 5	-	-	262	262	3.3	310	0.844	100	18.2	4
Approach	9	971	523	1503	5.3		0.844			
NorthWest: Pakuranga Road (West)										
Mov. From NW To Exit:	L1 E	R2 SW	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	529	-	529	4.7		642	0.825	100	NA	NA
Lane 2	529	-	529	4.7		642	0.825	100	NA	NA
Lane 3	-	98	98	11.1		156	0.629	100	0.0	2
Approach	1059	98	1157	5.2			0.825			
West: Pakuranga Road Busway Link (Northbound)										
Mov. From W To Exit:	T1 E	Total	%HV			Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	28	28	100.0			561	0.050	100	NA	NA
Approach	28	28	100.0				0.050			
SouthWest: Flyover										
Mov. From SW To Exit:	L2 NW	R1 E	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	122	-	122	7.4		165	0.741	100	0.0	2
Lane 2	-	762	762	3.9		843[1]	0.904	100	NA	NA
Lane 3	-	811	811	3.9		897	0.904	100	NA	NA
Approach	122	1573	1695	4.2			0.904			
	Total	%HV	Deg.Satn (v/c)							
Intersection	4383	5.5	0.904							

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	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: Pakuranga Road Busway Link (Southbound) Merge Type: **Not Applied**												
Full Length Lane	1	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.										
Full Length Lane	3	Merge Analysis not applied.										
NorthWest 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: Flyover Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										

CCG LANE SUMMARY

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

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 118 seconds (Network User-Given Cycle Time)

Lane Use and Performance (CCG)

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
Site: 5.2v [5.2 Aylesbury St/ Reeves Road/ Busway Link signalised - Import]															
SouthEast: Reeves Road (East)															
Lane 1	76	5.3	76	5.3	1791	0.042	100	1.9	LOS A	0.0	0.0	Full	27	0.0	0.0
Approach	76	5.3	76	5.3		0.042		1.9	LOS A	0.0	0.0				
East: Pakuranga Rd Busway Link (Southbound)															
Lane 1 (B)	9	100.0	9	100.0	135	0.067	100	56.0	LOS E	0.4	5.6	Full	203	0.0	0.0
Approach	9	100.0	9	100.0		0.067		56.0	LOS E	0.4	5.6				
NorthWest: Aylesbury Street															
Lane 1	108	3.7	108	3.7	124	0.869	100	69.3	LOS E	6.3	45.5	Full	284	0.0	0.0
Approach	108	3.7	108	3.7		0.869		69.3	LOS E	6.3	45.5				
SouthWest: Reeves Road (South)															
Lane 1	153	26.2	152	26.2	165	0.923	100	76.9	LOS E	9.5	81.4	Full	180	0.0	0.0
Approach	153	26.2	152	26.2		0.923		76.9	LOS E	9.5	81.4				
Intersection	346	16.5	345[N1]	16.5		0.923		57.5	LOS E	9.5	81.4				
Site: 7.3v [7.3 William Roberts Rd / Reeves Rd signalised - Import]															
SouthEast: Reeves Rd (East)															
Lane 1	119	4.2	119	4.2	140	0.847	100	70.7	LOS E	6.8	49.4	Full	810	0.0	0.0
Approach	119	4.2	119	4.2		0.847		70.7	LOS E	6.8	49.4				
NorthWest: Reeves Rd (West)															
Lane 1	211	7.6	211	7.6	699	0.302	100	12.6	LOS B	3.7	27.9	Full	27	0.0	18.1
Approach	211	7.6	211	7.6		0.302		12.6	LOS B	3.7	27.9				
SouthWest: William Roberts Road (South)															
Lane 1	364	6.3	354	6.3	392	0.904	100	65.8	LOS E	21.3	156.9	Full	223	0.0	0.0
Approach	364	6.3	354[N1]	6.3		0.904		65.8	LOS E	21.3	156.9				
Intersection	694	6.3	684[N1]	6.4		0.904		50.2	LOS D	21.3	156.9				

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).
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.

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

Approach Lane Flows (CCG) (veh/h)

Site: 5.2v [5.2 Aylesbury St/ Reeves Road/ Busway Link signalised - Import]

SouthEast: Reeves Road (East)

Mov.	L2	T1	Total	%HV	Deg.	Lane	Prob.	Ov.

From SE To Exit:	SW	NW			Cap. veh/h	Satn v/c	Util. %	SL Ov. %	Lane No.
Lane 1	58	18	76	5.3	1791	0.042	100	NA	NA
Approach	58	18	76	5.3		0.042			

East: Pakuranga Rd Busway Link (Southbound)

Mov. From E To Exit:	L1 SW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	9	100.0	135	0.067	100	NA	NA
Approach	9	9	100.0		0.067			

NorthWest: Aylesbury Street

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	98	10	108	3.7	124	0.869	100	NA	NA
Approach	98	10	108	3.7		0.869			

SouthWest: Reeves Road (South)

Mov. From SW To Exit:	L2 NW	T1 NE	R2 SE	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	11	28	114	152	26.2	165	0.923	100	NA	NA
Approach	11	28	114	152	26.2		0.923			

	Total	%HV	Deg.Satn (v/c)
Intersection	345	16.5	0.923

Site: 7.3v [7.3 William Roberts Rd / Reeves Rd signalised - Import]

SouthEast: Reeves Rd (East)

Mov. From SE To Exit:	L2 SW	T1 NW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	72	47	119	4.2	140	0.847	100	NA	NA
Approach	72	47	119	4.2		0.847			

NorthWest: Reeves Rd (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	165	46	211	7.6	699	0.302	100	NA	NA
Approach	165	46	211	7.6		0.302			

SouthWest: William Roberts Road (South)

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	29	325	354	6.3	392	0.904	100	NA	NA
Approach	29	325	354	6.3		0.904			

	Total	%HV	Deg.Satn (v/c)

Intersection	684	6.4	0.904

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

Merge Analysis (CCG)												
	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 Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
Site: 5.2v [5.2 Aylesbury St/ Reeves Road/ Busway Link signalised - Import]												
SouthEast Exit: Reeves Road (East) Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
NorthEast Exit: Pakuranga Rd Busway Link (Northbound) Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
NorthWest Exit: Aylesbury Street Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
SouthWest Exit: Reeves Road (South) Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Site: 7.3v [7.3 William Roberts Rd / Reeves Rd signalised - Import]												
SouthEast Exit: Reeves Rd (East) Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
NorthWest Exit: Reeves Rd (West) 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 Pl - Import (Site Folder: PM)]

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

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

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
NorthEast: William Roberts Road (North)															
Lane 1	130	6.9	130	6.9	1603	0.081	100	1.6	LOS A	0.2	1.5	Full	223	0.0	0.0
Approach	130	6.9	130	6.9		0.081		1.6	NA	0.2	1.5				
NorthWest: Cortina Place															
Lane 1	271	9.2	271	9.2	965	0.281	100	2.9	LOS A	1.0	7.4	Full	177	0.0	0.0
Approach	271	9.2	271	9.2		0.281		2.9	LOS A	1.0	7.4				
SouthWest: William Roberts Road (South)															
Lane 1	356	6.5	335	6.4	1596	0.210	100	0.9	LOS A	0.4	2.9	Full	110	0.0	0.0
Approach	356	6.5	335[N1]	6.4		0.210		0.9	NA	0.4	2.9				
Intersection	757	7.5	736[N1]	7.7		0.281		1.8	NA	1.0	7.4				

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 SW	R2 NW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	98	32	130	6.9	1603	0.081	100	NA	NA
Approach	98	32	130	6.9		0.081			

NorthWest: Cortina Place

Mov. From NW To Exit:	L2 NE	R2 SW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	122	149	271	9.2	965	0.281	100	NA	NA
Approach	122	149	271	9.2		0.281			

SouthWest: William Roberts Road (South)

Mov. From SW To Exit:	L2 NW	T1 NE	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	84	251	335	6.4	1596	0.210	100	NA	NA
Approach	84	251	335	6.4		0.210			

	Total	%HV	Deg.Satn (v/c)
Intersection	736	7.7	0.281

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	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
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.										
Full Length Lane	2	Merge Analysis not applied.										

LANE SUMMARY

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

Network: N101 [PM - Town Centre Drive four lanes (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 [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
South: Ti Rakau Drive (East)															
Lane 1	389	7.8	389	7.8	395	0.986	100	116.1	LOS F	21.5[N4]	160.7[N4]	Full	110	-43.1[N3]	50.0
Lane 2	715	6.8	715	6.8	725[1]	0.986	100	91.3	LOS F	21.7[N4]	160.7[N4]	Full	110	0.0	50.0
Lane 3	59	6.8	59	6.8	67	0.877	100	94.3	LOS F	4.4	32.6	Short	30	0.0	NA
Lane 4 (B)	23	100.0	23	100.0	613	0.038	100	4.4	LOS A	0.0	0.2	Full	110	0.0	0.0
Approach	1186	8.9	1186	8.9		0.986		97.9	LOS F	21.7	160.7				
East: Aylesbury Street															
Lane 1	27	11.1	27	11.1	79	0.343	100	43.6	LOS D	1.2	9.3	Short	30	-42.8[N7]	NA
Lane 2	114	8.8	114	8.8	184[1]	0.621	100	70.3	LOS E	7.3	54.7	Full	40	0.0	43.8
Approach	141	9.2	141	9.2		0.621		65.2	LOS E	7.3	54.7				
North: Ti Rakau Drive (West)															
Lane 1 (B)	53	100.0	53	100.0	613	0.086	100	4.4	LOS A	0.0	0.6	Full	174	0.0	0.0
Lane 2	260	8.8	260	8.8	862	0.301	100	25.3	LOS C	9.5	71.6	Short	50	0.0	NA
Lane 3	252	7.8	252	7.8	393[1]	0.641	100	37.3	LOS D	12.4	92.6	Full	174	-42.8[N7]	0.0
Lane 4	249	7.8	249	7.8	387	0.641	100	39.0	LOS D	12.8	95.9	Full	174	-50.0[N7]	0.0
Lane 5	39	7.7	39	7.7	67	0.583	100	86.5	LOS F	2.7	20.3	Short	64	0.0	NA
Approach	853	13.8	853	13.8		0.641		34.4	LOS C	12.8	95.9				
West: Palm Avenue															
Lane 1	86	4.7	86	4.7	142	0.606	100	72.1	LOS E	5.6	40.5	Full	87	-42.7[N7]	0.0
Approach	86	4.7	86	4.7		0.606		72.1	LOS E	5.6	40.5				
Intersection	2266	10.6	2266	10.6		0.986		71.0	LOS E	21.7	160.7				

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.
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.
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 (East)

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	94	295	-	389	7.8	395	0.986	100	NA	NA
Lane 2	-	715	-	715	6.8	725[1]	0.986	100	NA	NA

Lane 3	-	-	59	59	6.8	67	0.877	100	22.4	2
Lane 4	-	23	-	23	100.0	613	0.038	100	NA	NA
Approach	94	1033	59	1186	8.9		0.986			

East: Aylesbury Street

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	27	-	-	27	11.1	79	0.343	100	0.0	2
Lane 2	-	21	93	114	8.8	184[1]	0.621	100	NA	NA
Approach	27	21	93	141	9.2		0.621			

North: Ti Rakau Drive (West)

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	-	53	-	53	100.0	613	0.086	100	NA	NA
Lane 2	260	-	-	260	8.8	862	0.301	100	48.1	3
Lane 3	-	252	-	252	7.8	393[1]	0.641	100	NA	NA
Lane 4	-	249	-	249	7.8	387	0.641	100	NA	NA
Lane 5	-	-	39	39	7.7	67	0.583	100	0.0	4
Approach	260	554	39	853	13.8		0.641			

West: Palm Avenue

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	31	22	33	86	4.7	142	0.606	100	NA	NA
Approach	31	22	33	86	4.7		0.606			

	Total	%HV	Deg.Satn (v/c)
Intersection	2266	10.6	0.986

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 (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.									
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.									
Full Length Lane	3	Merge Analysis not applied.									
West Exit: Palm Avenue Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									

LANE SUMMARY

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

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

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

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
SouthEast: Ti Rakau Drive (East)															
Lane 1	778	8.6	778	8.6	1416	0.550	100	9.5	LOS A	16.8	126.0	Full	90	0.0	46.0
Lane 2	425	8.0	425	8.0	486	0.875	100	51.7	LOS D	17.6 N4	131.5 N4	Full	90	-50.0 N7	50.0
Lane 3	425	8.0	425	8.0	486	0.875	100	51.7	LOS D	17.6 N6	131.5 N6	Full	90	-50.0 N3	50.0
Lane 4 (B)	13	100.0	13	100.0	287	0.045	100	32.4	LOS C	0.5	6.2	Full	90	0.0	0.0
Approach	1641	9.0	1641	9.0		0.875		31.6	LOS C	17.6	131.5				
NorthEast: Reeves Road															
Lane 1 (B)	9	100.0	9	100.0	190	0.047	100	42.8	LOS D	0.4	5.1	Full	50	0.0	0.0
Approach	9	100.0	9	100.0		0.047		42.8	LOS D	0.4	5.1				
NorthWest: Ti Rakau Drive (West)															
Lane 1 (B)	53	100.0	53	100.0	326	0.162	100	33.1	LOS C	1.9	24.6	Full	110	0.0	0.0
Lane 2	247	6.9	246	6.9	285	0.865	100	52.2	LOS D	12.7	94.3	Full	110	0.0	1.0
Lane 3	247	6.9	246	6.9	285	0.865	100	52.2	LOS D	12.7	94.3	Full	110	0.0	1.0
Lane 4	83	12.0	83	12.1	136	0.610	100	80.3	LOS F	5.5	42.6	Short	70	0.0	NA
Approach	629	15.4	629	15.4		0.865		54.3	LOS D	12.7	94.3				
SouthWest: Pakuranga Highway															
Lane 1	320	4.7	320	4.7	345	0.928	100	89.6	LOS F	26.7	194.4	Short	125	-50.0 N7	NA
Lane 2	389	7.9	389	7.9	438	0.888	100	78.4	LOS E	27.9	208.3	Short	220	0.0	NA
Lane 3	389	7.9	389	7.9	438	0.888	100	78.4	LOS E	27.9	208.3	Full	623	0.0	0.0
Lane 4	389	7.9	389	7.9	438	0.888	100	78.4	LOS E	27.9	208.3	Short	195	0.0	NA
Approach	1488	7.2	1488	7.2		0.928		80.8	LOS F	27.9	208.3				
Intersection	3767	9.6	3767	9.6		0.928		54.8	LOS D	27.9	208.3				

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.

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.
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.
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)

SouthEast: Ti Rakau Drive (East)

Mov. From SE To Exit:	L2 SW	T1 NW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	778	-	778	8.6		1416	0.550	100	NA	NA
Lane 2	-	425	425	8.0		486	0.875	100	NA	NA
Lane 3	-	425	425	8.0		486	0.875	100	NA	NA
Lane 4	-	13	13	100.0		287	0.045	100	NA	NA
Approach	778	863	1641	9.0			0.875			

NorthEast: Reeves Road

Mov. From NE To Exit:	R2 NW	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	9	9	100.0		190	0.047	100	NA	NA
Approach	9	9	100.0			0.047			

NorthWest: Ti Rakau Drive (West)

Mov. From NW To Exit:	L2 NE	T1 SE	R2 SW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	28	25	-	53	100.0	326	0.162	100	NA	NA
Lane 2	-	246	-	246	6.9	285	0.865	100	NA	NA
Lane 3	-	246	-	246	6.9	285	0.865	100	NA	NA
Lane 4	-	-	83	83	12.1	136	0.610	100	0.0	3
Approach	28	518	83	629	15.4		0.865			

SouthWest: Pakuranga Highway

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	320	-	320	4.7	345	0.928	100	55.9	2
Lane 2	-	389	389	7.9	438	0.888	100	10.1	3
Lane 3	-	389	389	7.9	438	0.888	100	NA	NA
Lane 4	-	389	389	7.9	438	0.888	100	21.0	3
Approach	320	1168	1488	7.2		0.928			

	Total	%HV	Deg.Satn (v/c)
Intersection	3767	9.6	0.928

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 pcu/h	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.									
Full Length Lane	4	Merge Analysis not applied.									
NorthEast Exit: Reeves Road 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.									
SouthWest Exit: Pakuranga Highway											

Merge Type: **Zipper**												
Exit Short Lane	1	280	50.0	41	44	2.50	2.00	778	1751	0.444	0.0	0.0
Merge Lane	2	-	50.0	389	406	2.50	2.00	83	1278	0.065	0.4	0.4

LANE SUMMARY

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

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

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

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
SouthEast: Ti Rakau Drive (East)															
Lane 1	466	7.7	466	7.7	605	0.770	100	40.7	LOS D	22.5	167.7	Short	115	0.0	NA
Lane 2	590	8.2	590	8.2	767[1]	0.770	100	28.7	LOS C	25.0	187.0	Full	207	0.0	5.8
Lane 3	570	8.2	570	8.2	740[1]	0.770	100	28.5	LOS C	23.8	178.5	Full	207	0.0	1.6
Lane 4	83	3.7	83	3.7	170	0.487	100	62.5	LOS E	4.3	31.0	Short	45	0.0	NA
Lane 5 (B)	13	100.0	13	100.0	537	0.024	100	3.5	LOS A	0.1	0.9	Full	207	0.0	0.0
Approach	1722	8.5	1722	8.5		0.770		33.3	LOS C	25.0	187.0				
NorthEast: William Roberts Road Extention															
Lane 1	132	9.8	132	9.8	288	0.459	100	51.6	LOS D	6.4	48.4	Full	112	0.0	0.0
Lane 2	112	8.0	112	8.0	296	0.378	100	49.8	LOS D	5.3	39.8	Full	110	0.0	0.0
Approach	244	9.0	244	9.0		0.459		50.8	LOS D	6.4	48.4				
NorthWest: Ti Rakau Drive (West)															
Lane 1	267	7.9	241	7.9	423	0.570	100	48.1	LOS D	11.2	83.9	Full	107	0.0	0.0
Lane 2	721	7.8	651	7.8	831	0.783	100	30.2	LOS C	20.9[N4]	156.4[N4]	Full	107	0.0	50.0
Lane 3	672	7.8	607	7.8	775[1]	0.783	100	29.7	LOS C	20.9[N4]	156.4[N4]	Full	107	0.0	50.0
Lane 4	52	5.8	47	5.8	177	0.265	100	60.2	LOS E	2.4	17.3	Short	20	0.0	NA
Lane 5 (B)	25	100.0	25	100.0	537	0.047	100	3.6	LOS A	0.1	1.8	Full	107	0.0	0.0
Approach	1737	9.0	1570[N1]	9.2		0.783		33.2	LOS C	20.9	156.4				
SouthWest: Mattson Road															
Lane 1	17	5.9	17	5.9	89	0.191	100	67.3	LOS E	0.9	6.7	Short	20	0.0	NA
Lane 2	46	6.5	46	6.5	91	0.507	100	68.6	LOS E	2.5	18.7	Full	282	0.0	0.0
Approach	63	6.3	63	6.3		0.507		68.2	LOS E	2.5	18.7				
Intersection	3766	8.8	3599[N1]	9.2		0.783		35.1	LOS D	25.0	187.0				

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.

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)

SouthEast: Ti Rakau Drive (East)

Mov. From SE To Exit:	L2 SW	T1 NW	R2 NE	U SE	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	63	403	-	-	466	7.7	605	0.770	100	49.8	2

Lane 2	-	590	-	-	590	8.2	767[1]	0.770	100	NA	NA
Lane 3	-	570	-	-	570	8.2	740[1]	0.770	100	NA	NA
Lane 4	-	-	68	15	83	3.7	170	0.487	100	0.0	3
Lane 5	-	13	-	-	13	100.0	537	0.024	100	NA	NA
Approach	63	1576	68	15	1722	8.5		0.770			

NorthEast: William Roberts Road Extention

Mov. From NE To Exit:	L2 SE	T1 SW	R2 NW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	132	-	-	132	9.8	288	0.459	100	NA	NA
Lane 2	-	34	78	112	8.0	296	0.378	100	NA	NA
Approach	132	34	78	244	9.0		0.459			

NorthWest: Ti Rakau Drive (West)

Mov. From NW To Exit:	L2 NE	T1 SE	R2 SW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	241	-	-	241	7.9	423	0.570	100	NA	NA
Lane 2	-	651	-	651	7.8	831	0.783	100	NA	NA
Lane 3	-	607	-	607	7.8	775[1]	0.783	100	NA	NA
Lane 4	-	-	47	47	5.8	177	0.265	100	1.9	3
Lane 5	-	25	-	25	100.0	537	0.047	100	NA	NA
Approach	241	1283	47	1570	9.2		0.783			

SouthWest: Mattson Road

Mov. From SW To Exit:	L2 NW	T1 NE	R2 SE	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	17	-	-	17	5.9	89	0.191	100	0.0	2
Lane 2	-	20	26	46	6.5	91	0.507	100	NA	NA
Approach	17	20	26	63	6.3		0.507			

	Total	%HV	Deg.Satn (v/c)
Intersection	3599	9.2	0.783

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
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.									
NorthEast Exit: William Roberts Road Extention 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.									

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: PM)]

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 29 seconds (Site Practical Cycle Time)

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
SouthEast: Ti Rakau Drive (East)															
Lane 1	847	7.8	847	7.8	1846	0.459	100	0.1	LOS A	0.0	0.0	Full	147	0.0	0.0
Lane 2	847	7.8	847	7.8	1846	0.459	100	0.1	LOS A	0.0	0.0	Full	147	0.0	0.0
Lane 3	83	6.0	83	6.0	276	0.301	100	17.7	LOS B	1.0	7.3	Short	44	0.0	NA
Lane 4 (B)	13	100.0	13	100.0	535	0.024	100	0.9	LOS A	0.0	0.2	Full	147	0.0	0.0
Approach	1790	8.4	1790	8.4		0.459		0.9	LOS A	1.0	7.3				
NorthWest: Ti Rakau Drive (West)															
Lane 1	759	7.9	722	7.9	827	0.873	100	16.5	LOS B	12.4	92.7	Full	73	0.0	36.9
Lane 2	759	7.9	722	7.9	827	0.873	100	16.5	LOS B	12.4	92.7	Full	73	0.0	36.9
Lane 3 (B)	25	100.0	25	100.0	535	0.047	100	1.0	LOS A	0.0	0.5	Full	73	0.0	0.0
Approach	1542	9.4	1469 N1	9.5		0.873		16.3	LOS B	12.4	92.7				
Intersection	3332	8.9	3259 N1	9.1		0.873		7.8	LOS A	12.4	92.7				

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.

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:	T1 NW	U SE	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	847	-	847	7.8	1846	0.459	100	NA	NA
Lane 2	847	-	847	7.8	1846	0.459	100	NA	NA
Lane 3	-	83	83	6.0	276	0.301	100	0.0	2
Lane 4	13	-	13	100.0	535	0.024	100	NA	NA
Approach	1707	83	1790	8.4		0.459			

NorthWest: Ti Rakau Drive (West)

Mov. From NW To Exit:	T1 SE	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	722	722	7.9	827	0.873	100	NA	NA
Lane 2	722	722	7.9	827	0.873	100	NA	NA
Lane 3	25	25	100.0	535	0.047	100	NA	NA
Approach	1469	1469	9.5		0.873			

Total	%HV	Deg.Satn (v/c)

Intersection	3259	9.1	0.873

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 pcu/h	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: 9.1 [9.1 Staggered Crossing - East of Marriot Rd - Import (Site Folder: PM)]

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

Site Category: (None)
Pedestrian Crossing (Signalised) - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 42 seconds (Site Practical Cycle Time)

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
SouthEast: Ti Rakau Drive (East)															
Lane 1 (B)	13	100.0	13	100.0	434	0.030	100	3.5	LOS A	0.1	0.8	Full	45	0.0	0.0
Approach	13	100.0	13	100.0		0.030		3.5	LOS A	0.1	0.8				
NorthWest: Ti Rakau Drive (West)															
Lane 1	783	7.8	783	7.8	881	0.889	100	22.1	LOS C	2.3[N4]	17.5[N4]	Full	12	0.0	50.0
Lane 2	783	7.8	783	7.8	881	0.889	100	22.1	LOS C	2.3[N4]	17.5[N4]	Full	12	0.0	50.0
Lane 3 (B)	25	100.0	25	100.0	434	0.058	100	3.5	LOS A	0.1	1.5	Full	12	0.0	0.0
Approach	1590	9.2	1590	9.2		0.889		21.8	LOS C	2.3	17.5				
Intersection	1603	10.0	1603	10.0		0.889		21.7	LOS C	2.3	17.5				

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 NW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	13	13	100.0	434	0.030	100	NA	NA
Approach	13	13	100.0		0.030			

NorthWest: Ti Rakau Drive (West)

Mov. From NW To Exit:	T1 SE	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	783	783	7.8	881	0.889	100	NA	NA
Lane 2	783	783	7.8	881	0.889	100	NA	NA
Lane 3	25	25	100.0	434	0.058	100	NA	NA
Approach	1590	1590	9.2		0.889			

	Total	%HV	Deg.Satn (v/c)
Intersection	1603	10.0	0.889

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	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	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.										

LANE SUMMARY

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

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

Site Category: (None)
Pedestrian Crossing (Signalised) - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 49 seconds (Site Practical Cycle Time)

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
SouthEast: Ti Rakau Drive (East)															
Lane 1	886	7.7	886	7.7	1007	0.879	100	23.1	LOS C	8.8[N4]	65.8[N4]	Full	45	0.0	50.0
Lane 2	886	7.7	886	7.7	1007	0.879	100	23.1	LOS C	8.8[N4]	65.8[N4]	Full	45	0.0	50.0
Approach	1771	7.7	1771	7.7		0.879		23.1	LOS C	8.8	65.8				
Intersection	1771	7.7	1771	7.7		0.879		23.1	LOS C	8.8	65.8				

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.
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 NW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	886	886	7.7	1007	0.879	100	NA	NA
Lane 2	886	886	7.7	1007	0.879	100	NA	NA
Approach	1771	1771	7.7		0.879			

	Total	%HV	Deg.Satn (v/c)
Intersection	1771	7.7	0.879

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 pcu/h	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
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.									

EB2,3R,3C,4i\Version A1\SIDRA and AIMSUN\EB2,3R,3C,4i,4L Final\EB2,3R,3C,4i,4L Final PM 2028_EC - Copy.sip9

LANE SUMMARY

Site: 101 [12.0 Edgewater Dr (East) / Ti Rakau Dr -Signalised - Import - Import - Import (Site Folder: PM)]

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 150 seconds (Site Practical Cycle Time)

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
SouthEast: Ti Rakau Drive (East)															
Lane 1	863	7.6	863	7.6	1316	0.656	100	12.4	LOS B	29.7	221.7	Full	445	0.0	0.0
Lane 2	865	7.7	865	7.7	1318	0.656	100	12.2	LOS B	29.8	222.2	Full	445	0.0	0.0
Lane 3 (B)	13	100.0	13	100.0	852	0.015	100	6.5	LOS A	0.2	3.1	Full	445	0.0	0.0
Approach	1741	8.3	1741	8.3		0.656		12.2	LOS B	29.8	222.2				
NorthWest: Ti Rakau Drive (West)															
Lane 1	823	6.1	823	6.1	879	0.937	100	47.3	LOS D	21.6 N4	159.3 N4	Full	109	-34.0 N7	50.0
Lane 2	660	6.1	660	6.1	704 1	0.937	100	51.2	LOS D	21.6 N4	159.3 N4	Full	109	-40.4 N7	50.0
Lane 3	137	5.4	137	5.4	150	0.915	100	98.1	LOS F	10.6	77.4	Short	50	0.0	NA
Lane 4 (B)	26	100.0	26	100.0	852	0.031	100	6.6	LOS A	0.5	6.4	Full	109	0.0	0.0
Approach	1646	7.5	1646	7.5		0.937		52.4	LOS D	21.6	159.3				
SouthWest: Edgewater Drive (East)															
Lane 1	28	3.7	28	3.7	73	0.389	100	86.4	LOS F	1.9	14.0	Full	789	0.0	0.0
Approach	28	3.7	28	3.7		0.389		86.4	LOS F	1.9	14.0				
Intersection	3416	7.9	3416	7.9		0.937		32.2	LOS C	29.8	222.2				

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.
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)

SouthEast: Ti Rakau Drive (East)

Mov. From SE To Exit:	L2 SW	T1 NW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	35	828	863	7.6	1316	0.656	100	NA	NA
Lane 2	-	865	865	7.7	1318	0.656	100	NA	NA
Lane 3	-	13	13	100.0	852	0.015	100	NA	NA
Approach	35	1706	1741	8.3		0.656			

NorthWest: Ti Rakau Drive (West)

Mov. From NW To Exit:	T1 SE	R2 SW	U NW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	823	-	-	823	6.1	879	0.937	100	NA	NA

Lane 2	660	-	-	660	6.1	704[1]	0.937	100	NA	NA
Lane 3	-	25	112	137	5.4	150	0.915	100	55.4	2
Lane 4	26	-	-	26	100.0	852	0.031	100	NA	NA
Approach	1509	25	112	1646	7.5		0.937			

SouthWest: Edgewater Drive (East)									
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	11	18	28	3.7	73	0.389	100	NA	NA
Approach	11	18	28	3.7		0.389			

	Total	%HV	Deg.Satn (v/c)
Intersection	3416	7.9	0.937

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	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	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.										
SouthWest Exit: Edgewater Drive (East) Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										

LANE SUMMARY

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

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 152 seconds (Site User-Given Phase Times)

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
South: Fremantle Place															
Lane 1	12	8.3	12	8.3	78	0.155	100	82.7	LOS F	0.8	6.1	Short	9	0.0	NA
Lane 2	27	11.1	27	11.1	78	0.348	100	84.9	LOS F	1.9	14.2	Full	285	0.0	0.0
Approach	39	10.3	39	10.3		0.348		84.2	LOS F	1.9	14.2				
East: Ti Rakau Drive (East)															
Lane 1	883	7.6	883	7.6	914	0.966	100	76.8	LOS E	72.9	543.4	Full	636	0.0	0.8
Lane 2	808	7.7	808	7.7	837[1]	0.966	100	73.7	LOS E	63.7	474.9	Full	636	0.0	0.0
Lane 3	168	7.2	168	7.2	198	0.849	82[6]	84.0	LOS F	12.1	90.0	Short	150	0.0	NA
Lane 4	206	7.2	206	7.2	198	1.036	100	142.3	LOS F	20.1	149.4	Short	103	0.0	NA
Approach	2065	7.6	2065	7.6		1.036		82.7	LOS F	72.9	543.4				
NorthEast: Busway															
Lane 1 (B)	13	100.0	13	100.0	195	0.067	100	33.5	LOS C	0.5	6.0	Full	963	0.0	0.0
Approach	13	100.0	13	100.0		0.067		33.5	LOS C	0.5	6.0				
North: Gossamer Drive															
Lane 1	136	9.5	136	9.5	269	0.507	100	55.7	LOS E	7.2	54.1	Short	150	0.0	NA
Lane 2	138	9.5	138	9.5	271	0.507	100	55.6	LOS E	7.2	54.7	Full	1010	0.0	0.0
Lane 3	39	2.6	39	2.6	81	0.482	100	85.5	LOS F	2.7	19.3	Short	28	0.0	NA
Approach	313	8.6	313	8.6		0.507		59.4	LOS E	7.2	54.7				
West: Ti Rakau Drive (West)															
Lane 1	102	2.0	102	2.0	995	0.103	100	11.7	LOS B	1.6	11.5	Short	28	0.0	NA
Lane 2	652	8.6	652	8.6	610[1]	1.070	100	154.3	LOS F	72.9	547.4	Full	445	0.0	34.0
Lane 3	704	8.6	704	8.6	657[1]	1.070	100	152.7	LOS F	78.1	586.8	Full	445	0.0	40.4
Lane 4	36	5.6	36	5.6	180	0.200	100	70.5	LOS E	2.2	16.2	Short	23	0.0	NA
Lane 5 (B)	25	100.0	25	100.0	195	0.129	100	34.3	LOS C	0.9	11.9	Full	445	0.0	0.0
Approach	1519	9.5	1519	9.5		1.070		140.0	LOS F	78.1	586.8				
Intersection	3949	8.7	3949	8.7		1.070		102.7	LOS F	78.1	586.8				

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.
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.	L2	T1	R2	Total	%HV	Deg.	Lane	Prob.	Ov.

From S To Exit:	W	N	E			Cap. veh/h	Satn v/c	Util. %	SL Ov. %	Lane No.
Lane 1	12	-	-	12	8.3	78	0.155	100	0.0	2
Lane 2	-	11	16	27	11.1	78	0.348	100	NA	NA
Approach	12	11	16	39	10.3		0.348			

East: Ti Rakau Drive (East)

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	19	864	-	883	7.6	914	0.966	100	NA	NA
Lane 2	-	808	-	808	7.7	837[1]	0.966	100	NA	NA
Lane 3	-	-	168	168	7.2	198	0.849	82[6]	14.6	2
Lane 4	-	-	206	206	7.2	198	1.036	100	49.3	3
Approach	19	1672	374	2065	7.6		1.036			

NorthEast: Busway

Mov. From NE To Exit:	R1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	13	13	100.0	195	0.067	100	NA	NA
Approach	13	13	100.0		0.067			

North: Gossamer Drive

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	136	-	-	136	9.5	269	0.507	100	0.0	2
Lane 2	138	-	-	138	9.5	271	0.507	100	NA	NA
Lane 3	-	11	28	39	2.6	81	0.482	100	0.0	2
Approach	274	11	28	313	8.6		0.507			

West: Ti Rakau Drive (West)

Mov. From W To Exit:	L2 N	L1 NE	T1 E	R2 S	U W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	102	-	-	-	-	102	2.0	995	0.103	100	0.0	2
Lane 2	-	-	652	-	-	652	8.6	610[1]	1.070	100	NA	NA
Lane 3	-	-	704	-	-	704	8.6	657[1]	1.070	100	NA	NA
Lane 4	-	-	-	24	12	36	5.6	180	0.200	100	0.0	3
Lane 5	-	25	-	-	-	25	100.0	195	0.129	100	NA	NA
Approach	102	25	1356	24	12	1519	9.5		1.070			

	Total	%HV	Deg.Satn (v/c)
Intersection	3949	8.7	1.070

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

	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 sec veh/h	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.										
NorthEast Exit: Busway Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: Gossamer Drive Merge Type: **Zipper**												
Exit Short Lane	1	150	50.0	99	103	2.50	2.00	281	1683	0.167	0.0	0.0
Merge Lane	2	-	50.0	141	145	2.50	2.00	198	1633	0.122	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: 15.B [15.B Burwood Dr (West) / New Offline Busway Rd (Site Folder: PM)]

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 41 seconds (Site Practical Cycle Time)

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
South: Burswood Drive															
Lane 1	511	9.2	502	9.2	623	0.805	100	18.3	LOS B	7.0[N4]	52.6[N4]	Full	36	0.0	50.0
Approach	511	9.2	502[N1]	9.2		0.805		18.3	LOS B	7.0	52.6				
East: Busway															
Lane 1 (B)	21	100.0	21	100.0	420	0.050	100	6.0	LOS A	0.1	1.4	Full	571	0.0	0.0
Approach	21	100.0	21	100.0		0.050		6.0	LOS A	0.1	1.4				
North: Burswood Drive															
Lane 1	304	7.6	304	7.6	641	0.474	100	12.6	LOS B	4.6	34.0	Full	1859	0.0	0.0
Approach	304	7.6	304	7.6		0.474		12.6	LOS B	4.6	34.0				
West: Busway															
Lane 1 (B)	25	100.0	25	100.0	466	0.054	100	3.1	LOS A	0.1	1.4	Full	963	0.0	0.0
Approach	25	100.0	25	100.0		0.054		3.1	LOS A	0.1	1.4				
Intersection	861	13.5	852[N1]	13.6		0.805		15.5	LOS B	7.0	52.6				

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.

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: Burswood Drive

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	494	8	502	9.2	623	0.805	100	NA	NA
Approach	494	8	502	9.2		0.805			

East: Busway

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	8	13	21	100.0	420	0.050	100	NA	NA
Approach	8	13	21	100.0		0.050			

North: Burswood Drive

Mov. From N To Exit:	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	304	304	7.6	641	0.474	100	NA	NA	
Approach	304	304	7.6		0.474				
West: Busway									
Mov. From W To Exit:	T1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	25	25	100.0	466	0.054	100	NA	NA	
Approach	25	25	100.0		0.054				
	Total	%HV	Deg.Satn (v/c)						
Intersection	852	13.6	0.805						

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	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: Burswood Drive Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
East Exit: Busway Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: Burswood Drive Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
West Exit: Busway Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										

LANE SUMMARY

Site: 18.B [18.B Burswood Dr (East) / New Offline Busway Rd - V2 - Import (Site Folder: PM)]

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 52 seconds (Site Practical Cycle Time)

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
South: Burswood Drive															
Lane 1	157	15.8	153	16.0	564	0.272	100	16.7	LOS B	2.7	21.6	Full	199	0.0	0.0
Approach	157	15.8	153[N1]	16.0		0.272		16.7	LOS B	2.7	21.6				
East: Busway															
Lane 1 (B)	16	100.0	16	100.0	138	0.116	100	21.2	LOS C	0.3	4.1	Full	263	0.0	0.0
Approach	16	100.0	16	100.0		0.116		21.2	LOS C	0.3	4.1				
North: Burswood Drive															
Lane 1	258	11.6	258	11.6	304	0.850	100	29.7	LOS C	7.5	57.5	Full	1859	-50.0[N7]	0.0
Approach	258	11.6	258	11.6		0.850		29.7	LOS C	7.5	57.5				
West: Busway															
Lane 1 (B)	33	100.0	33	100.0	116	0.286	100	23.3	LOS C	0.7	9.2	Full	571	-13.7[N7]	0.0
Approach	33	100.0	33	100.0		0.286		23.3	LOS C	0.7	9.2				
SouthWest: Bunnings Entrance															
Lane 1	32	33.3	32	33.3	154	0.205	100	26.0	LOS C	0.6	5.8	Full	250	-50.0[N7]	0.0
Approach	32	33.3	32	33.3		0.205		26.0	LOS C	0.6	5.8				
Intersection	496	23.1	492[N1]	23.3		0.850		24.7	LOS C	7.5	57.5				

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.
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: Burswood Drive

Mov. From S To Exit:	L3 SW	L2 W	T1 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	31	5	117	153	16.0	564	0.272	100	NA	NA
Approach	31	5	117	153	16.0		0.272			

East: Busway

Mov. From E To Exit:	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	16	16	100.0	138	0.116	100	NA	NA

Approach	16	16	100.0			0.116			
North: Burswood Drive									
Mov. From N To Exit:	T1 S	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	258	258	11.6		304	0.850	100	NA	NA
Approach	258	258	11.6			0.850			
West: Busway									
Mov. From W To Exit:	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	28	5	33	100.0	116	0.286	100	NA	NA
Approach	28	5	33	100.0		0.286			
SouthWest: Bunnings Entrance									
Mov. From SW To Exit:	R3 S	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	32	32	33.3		154	0.205	100	NA	NA
Approach	32	32	33.3			0.205			
	Total	%HV	Deg.Satn (v/c)						
Intersection	492	23.3		0.850					

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 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: Burswood Drive Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									
East Exit: Busway Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									
North Exit: Burswood Drive Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									
West Exit: Busway Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									
SouthWest Exit: Bunnings Entrance Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									

CCG LANE SUMMARY

Common Control Group: CCG1 [Burswood E/ Greenmount]

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network User-Given Cycle Time)

Lane Use and Performance (CCG)

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
Site: 18.0 [18.0 Burswood Dr (East) / Ti Rakau Dr]															
East: Ti Rakau Drive (East)															
Lane 1	497	7.8	471	7.9	1255	0.376	100	10.8	LOS B	8.8 N4	65.8 N4	Full	45	0.0	50.0
Lane 2	440	7.8	417	7.9	1110	0.376	100	0.8	LOS A	0.8	6.3	Full	45	-11.5 N3	0.0
Lane 3	16	0.0	15	0.0	123	0.123	100	80.4	LOS F	1.0	7.0	Short	19	0.0	NA
Approach	953	7.7	904 N1	7.8		0.376		7.3	LOS A	8.8	65.8				
North: Burswood Drive (East)															
Lane 1	203	10.8	203	10.8	270	0.752	100	59.4	LOS E	38.0 N6	290.8 N6	Short	109	-50.0 N7	NA
Lane 2	61	21.6	61	21.6	333	0.184	100	53.6	LOS D	3.2	26.5	Full	199	-10.4 N3	50.0 8
Approach	264	13.3	264	13.3		0.752		58.1	LOS E	38.0	290.8				
West: Ti Rakau Drive (West)															
Lane 1	534	7.8	521	7.8	581	0.896	100	52.1	LOS D	52.2 N6	390.1 N6	Full	267	-44.3 N7	50.0
Lane 2	477	6.5	466	6.5	520	0.896	100	53.9	LOS D	52.8 N6	390.1 N6	Full	267	-50.0 N7	50.0
Lane 3	616	6.5	601	6.5	671	0.896	100	47.6	LOS D	41.7	307.8	Short	246	-36.2 N3	NA
Approach	1627	6.9	1588 N 1	6.9		0.896		51.0	LOS D	52.8	390.1				
Intersection	2845	7.8	2756 N 1	8.0		0.896		37.3	LOS D	52.8	390.1				
Site: 19.0 [19.0 Greenmount Dr / Ti Rakau Dr]															
South: Greenmount Drive															
Lane 1	290	5.9	290	5.9	281	1.033	100	144.9	LOS F	30.3	223.1	Full	1200	-41.5 N7	0.0
Lane 2	432	6.2	432	6.2	418	1.033	100	135.4	LOS F	42.7	314.5	Full	1200	0.0	0.0
Approach	722	6.1	722	6.1		1.033		139.2	LOS F	42.7	314.5				
East: Ti Rakau Drive (East)															
Lane 1	67	9.0	67	9.0	1436	0.047	100	4.9	LOS A	0.1	0.7	Short	20	0.0	NA
Lane 2	235	8.2	235	8.2	486 1	0.484	100	21.2	LOS C	9.8	73.6	Full	72	-50.0 N3	17.0
Lane 3	512	8.2	512	8.2	1056	0.484	100	22.8	LOS C	14.0 N4	105.2 N4	Full	72	0.0	50.0
Lane 4 (B)	16	100.0	16	100.0	1137	0.014	100	3.5	LOS A	0.0	0.0	Full	72	0.0	0.0
Approach	830	10.0	830	10.0		0.484		20.5	LOS C	14.0	105.2				
NorthWest: Busway															
Lane 1 (B)	28	100.0	28	100.0	1137	0.025	100	3.9	LOS A	0.0	0.0	Full	263	0.0	0.0
Approach	28	100.0	28	100.0		0.025		3.9	LOS A	0.0	0.0				
West: Ti Rakau Drive (West)															
Lane 1	809	6.7	791	6.7	1264	0.626	100	12.5	LOS B	8.9 N4	65.8 N4	Full	45	0.0	50.0
Lane 2	809	6.7	791	6.7	1264	0.626	100	1.0	LOS A	2.6	19.4	Full	45	0.0	0.0
Lane 3	109	11.0	107	11.0	114	0.934	100	95.9	LOS F	7.9	60.5	Full	45	0.0	42.2
Approach	1726	7.0	1689 N 1	7.0		0.934		12.4	LOS B	8.9	65.8				
Intersection	3306	8.3	3269 N 1	8.4		1.033		42.4	LOS D	42.7	314.5				

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).
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.
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.
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.
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.
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 (CCG) (veh/h)

Site: 18.0 [18.0 Burswood Dr (East) / Ti Rakau Dr]

East: Ti Rakau Drive (East)

Mov. From E To Exit:	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	471	-	471	7.9	1255	0.376	100	NA	NA
Lane 2	417	-	417	7.9	1110	0.376	100	NA	NA
Lane 3	-	15	15	0.0	123	0.123	100	0.0	2
Approach	889	15	904	7.8		0.376			

North: Burswood Drive (East)

Mov. From N To Exit:	L2 E	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	203	-	203	10.8	270	0.752	100	100.0	2
Lane 2	-	61	61	21.6	333	0.184	100	NA	NA
Approach	203	61	264	13.3		0.752			

West: Ti Rakau Drive (West)

Mov. From W To Exit:	L2 N	T1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	107	414	521	7.8	581	0.896	100	NA	NA
Lane 2	-	466	466	6.5	520	0.896	100	NA	NA
Lane 3	-	601	601	6.5	671	0.896	100	35.5	2
Approach	107	1481	1588	6.9		0.896			

	Total	%HV	Deg.Satn (v/c)
Intersection	2756	8.0	0.896

Site: 19.0 [19.0 Greenmount Dr / Ti Rakau Dr]

South: Greenmount Drive

Mov. From S To Exit:	L2 W	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	206	84	290	5.9	281	1.033	100	NA	NA
Lane 2	-	432	432	6.2	418	1.033	100	NA	NA
Approach	206	516	722	6.1		1.033			

East: Ti Rakau Drive (East)

Mov. From E To Exit:	L2 S	T1 W	R1 NW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	67	-	-	67	9.0	1436	0.047	100	0.0	2
Lane 2	-	235	-	235	8.2	486[1]	0.484	100	NA	NA
Lane 3	-	512	-	512	8.2	1056	0.484	100	NA	NA
Lane 4	-	-	16	16	100.0	1137	0.014	100	NA	NA
Approach	67	747	16	830	10.0		0.484			

NorthWest: Busway

Mov. From NW To Exit:	L1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	28	28	100.0	1137	0.025	100	NA	NA
Approach	28	28	100.0		0.025			

West: Ti Rakau Drive (West)

Mov. From W To Exit:	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	791	-	791	6.7	1264	0.626	100	NA	NA
Lane 2	791	-	791	6.7	1264	0.626	100	NA	NA
Lane 3	-	107	107	11.0	114	0.934	100	NA	NA
Approach	1582	107	1689	7.0		0.934			

	Total	%HV	Deg.Satn (v/c)
Intersection	3269	8.4	1.033

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 (CCG)

	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 Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
Site: 18.0 [18.0 Burswood Dr (East) / Ti Rakau Dr]												
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.										
Full Length Lane	3	Merge Analysis not applied.										
North Exit: Burswood Drive (East) Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
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.										
Site: 19.0 [19.0 Greenmount Dr / Ti Rakau Dr]												
South Exit: Greenmount Drive Merge Type: **Zipper**												

Exit Short Lane	1	15	50.0	53	56	2.50	2.00	67	1737	0.039	0.0	0.0
Merge Lane	2	-	50.0	34	35	2.50	2.00	107	1761	0.061	0.0	0.0
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.										
Full Length Lane	3	Merge Analysis not applied.										
NorthWest Exit: Busway Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
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.										

LANE SUMMARY

Site: 19.A [19.A Bus entrance to depot (Site Folder: PM)]

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

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

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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: Ti Rakau Drive (East)															
Lane 1	407	8.2	407	8.2	1841	0.221	100	0.0	LOS A	0.0	0.0	Full	128	0.0	0.0
Lane 2	407	8.2	407	8.2	1841	0.221	100	0.0	LOS A	0.0	0.0	Full	128	0.0	0.0
Lane 3 (B)	26	100.0	26	100.0	1165	0.022	100	2.2	LOS A	0.1	0.8	Full	128	0.0	0.0
Approach	840	11.1	840	11.1		0.221		0.1	NA	0.1	0.8				
North: bus depot entrance exit															
Lane 1 (B)	20	100.0	20	100.0	738	0.027	100	0.3	LOS A	0.1	1.2	Full	40	0.0	0.0
Approach	20	100.0	20	100.0		0.027		0.3	LOS A	0.1	1.2				
West: Ti Rakau Drive (West)															
Lane 1 (B)	38	100.0	38	100.0	1166	0.033	100	1.3	LOS A	0.0	0.0	Full	72	0.0	0.0
Lane 2	1066	6.6	987	6.6	1860	0.531	100	0.0	LOS A	0.0	0.0	Full	72	0.0	0.0
Lane 3	1066	6.6	987	6.6	1860	0.531	100	0.0	LOS A	0.0	0.0	Full	72	0.0	0.0
Approach	2170	8.2	2012 N1	8.4		0.531		0.1	NA	0.0	0.0				
Intersection	3030	9.6	2872 N1	10.1		0.531		0.1	NA	0.1	1.2				

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)

East: Ti Rakau Drive (East)

Mov. From E To Exit:	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	407	-	407	8.2	1841	0.221	100	NA	NA
Lane 2	407	-	407	8.2	1841	0.221	100	NA	NA
Lane 3	16	10	26	100.0	1165	0.022	100	NA	NA
Approach	830	10	840	11.1		0.221			

North: bus depot entrance exit

Mov. From N To Exit:	L2 E	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	10	10	20	100.0	738	0.027	100	NA	NA
Approach	10	10	20	100.0		0.027			

West: Ti Rakau Drive (West)									
Mov. From W To Exit:	L2 N	T1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	10	28	38	100.0	1166	0.033	100	NA	NA
Lane 2	-	987	987	6.6	1860	0.531	100	NA	NA
Lane 3	-	987	987	6.6	1860	0.531	100	NA	NA
Approach	10	2002	2012	8.4		0.531			
	Total	%HV	Deg.Satn (v/c)						
Intersection	2872	10.1		0.531					

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 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: 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.									
North Exit: bus depot entrance exit Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									
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: 19.B [19.B Bus Depot Entrance - Copy (Site Folder: PM)]

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

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

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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: Ti Rakau Drive (East)															
Lane 1	421	8.1	421	8.1	1340	0.314	100	5.8	LOS A	6.6	49.4	Full	40	0.0	34.2
Lane 2	411	8.1	411	8.1	1309[1]	0.314	100	6.2	LOS A	6.8	50.9	Full	40	0.0	37.2
Lane 3	10	0.0	10	0.0	222	0.045	100	73.9	LOS E	0.6	4.5	Short	21	0.0	NA
Lane 4 (B)	16	100.0	16	100.0	685	0.023	100	0.7	LOS A	0.0	0.3	Full	40	0.0	0.0
Approach	858	9.7	858	9.7		0.314		6.7	LOS A	6.8	50.9				
North: Bus depot entrace/exit															
Lane 1	20	0.0	20	0.0	189	0.106	100	67.9	LOS E	1.2	8.5	Full	40	0.0	0.0
Approach	20	0.0	20	0.0		0.106		67.9	LOS E	1.2	8.5				
West: Ti Rakau Drive (West)															
Lane 1 (B)	28	100.0	28	100.0	685	0.041	100	0.7	LOS A	0.0	0.5	Full	128	0.0	0.0
Lane 2	10	0.0	9	0.0	357	0.025	100	58.4	LOS E	0.5	3.7	Short	25	0.0	NA
Lane 3	1061	6.6	965	6.6	1254[1]	0.770	100	15.6	LOS B	25.3[N4]	187.0[N4]	Full	128	0.0	50.0
Lane 4	1071	6.6	974	6.6	1265	0.770	100	9.1	LOS A	25.3[N4]	187.0[N4]	Full	128	0.0	50.0
Approach	2170	7.7	1977[N1]	7.9		0.770		12.4	LOS B	25.3	187.0				
Intersection	3048	8.2	2855[N1]	8.8		0.770		11.0	LOS B	25.3	187.0				

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.

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)

East: Ti Rakau Drive (East)

Mov. From E To Exit:	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	421	-	421	8.1	1340	0.314	100	NA	NA
Lane 2	411	-	411	8.1	1309[1]	0.314	100	NA	NA
Lane 3	-	10	10	0.0	222	0.045	100	0.0	2
Lane 4	16	-	16	100.0	685	0.023	100	NA	NA
Approach	848	10	858	9.7		0.314			
North: Bus depot entrace/exit									
Mov.	L2	R2	Total	%HV		Deg.	Lane	Prob.	Ov.

From N To Exit:	E	W			Cap. veh/h	Satn v/c	Util. %	SL Ov. %	Lane No.
Lane 1	10	10	20	0.0	189	0.106	100	NA	NA
Approach	10	10	20	0.0		0.106			

West: Ti Rakau Drive (West)

Mov. From W To Exit:	L2 N	T1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	-	28	28	100.0	685	0.041	100	NA	NA
Lane 2	9	-	9	0.0	357	0.025	100	0.0	3
Lane 3	-	965	965	6.6	1254[1]	0.770	100	NA	NA
Lane 4	-	974	974	6.6	1265	0.770	100	NA	NA
Approach	9	1968	1977	7.9		0.770			

	Total	%HV	Deg.Satn (v/c)
Intersection	2855	8.8	0.770

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	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: 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.										
North Exit: Bus depot entrace/exit Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
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: 20.2 [20.2 Huntington Dr / Ti Rakau Dr (Site Folder: PM)]

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

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

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
South: Huntington Drive															
Lane 1	29	20.7	29	20.7	162	0.179	100	65.1	LOS E	1.7	13.9	Short	101	-34.4 N7	NA
Lane 2	33	6.1	33	6.1	38	0.864	100	99.9	LOS F	2.6	19.0	Full	575	-43.7 N3	0.0
Approach	62	12.9	62	12.9		0.864		83.6	LOS F	2.6	19.0				
East: Ti Rakau Drive (East)															
Lane 1	423	9.3	423	9.3	931	0.454	100	6.8	LOS A	8.3	62.5	Full	106	-32.7 N7	0.0
Lane 2	401	7.7	401	7.7	883	0.454	100	6.7	LOS A	8.1	60.8	Full	106	-37.1 N7	0.0
Lane 3 (B)	16	100.0	16	100.0	1194	0.013	100	0.0	LOS A	0.0	0.0	Full	106	0.0	0.0
Approach	840	10.2	840	10.2		0.454		6.7	LOS A	8.3	62.5				
West: Ti Rakau Drive (West)															
Lane 1 (B)	28	100.0	28	100.0	1194	0.023	100	0.0	LOS A	0.0	0.0	Full	40	0.0	0.0
Lane 2	1297	6.6	881	6.6	1546	0.570	100	0.4	LOS A	2.5	18.8	Full	40	-5.6 N3	0.0
Lane 3	773	6.6	525	6.6	922	0.570	100	0.4	LOS A	1.5	11.4	Full	40	-43.7 N3	0.0
Lane 4	90	6.7	61	6.7	132	0.463	100	82.3	LOS F	4.1	30.6	Short	28	0.0	NA
Approach	2188	7.8	1496 N1	8.3		0.570		3.8	LOS A	4.1	30.6				
Intersection	3090	8.5	2397 N1	11.0		0.864		6.8	LOS A	8.3	62.5				

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.
N3 Capacity Adjustment due to downstream lane blockage determined by the program.
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: Huntington Drive

Mov. From S To Exit:	L2 W	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	29	-	29	20.7	162	0.179	100	0.0	2
Lane 2	-	33	33	6.1	38	0.864	100	NA	NA
Approach	29	33	62	12.9		0.864			

East: Ti Rakau Drive (East)

Mov. From E To Exit:	L2 S	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	31	392	423	9.3	931	0.454	100	NA	NA

Lane 2	-	401	401	7.7	883	0.454	100	NA	NA
Lane 3	-	16	16	100.0	1194	0.013	100	NA	NA
Approach	31	809	840	10.2		0.454			

West: Ti Rakau Drive (West)

Mov. From W To Exit:	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	28	-	28	100.0	1194	0.023	100	NA	NA
Lane 2	881	-	881	6.6	1546	0.570	100	NA	NA
Lane 3	525	-	525	6.6	922	0.570	100	NA	NA
Lane 4	-	61	61	6.7	132	0.463	100	23.1	3
Approach	1435	61	1496	8.3		0.570			

	Total	%HV	Deg.Satn (v/c)
Intersection	2397	11.0	0.864

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	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: Huntington Drive Merge Type: **Zipper**												
Exit Short Lane	2	16	50.0	37	40	2.50	2.00	18	1756	0.010	0.0	0.0
Merge Lane	1	-	50.0	9	9	2.50	2.00	74	1790	0.041	0.0	0.0
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.										
Full Length Lane	3	Merge Analysis not applied.										
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: 20a.2 [20a.2 Ti Rakau Dr Busway crossover - EB4i,EB4L (Site Folder: PM)]

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

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

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
SouthEast: Link Road															
Lane 1 (B)	17	100.0	17	100.0	210	0.080	100	41.2	LOS D	0.7	9.3	Full	450	0.0	0.0
Approach	17	100.0	17	100.0		0.080		41.2	LOS D	0.7	9.3				
East: Ti Rakau Drive (East)															
Lane 1	412	8.5	411	8.5	1225	0.336	100	4.1	LOS A	4.4	32.8	Full	160	0.0	0.0
Lane 2	412	8.5	411	8.5	1225	0.336	100	4.1	LOS A	4.4	32.9	Full	160	0.0	0.0
Lane 3 (B)	1	100.0	1	100.0	219	0.005	100	35.2	LOS D	0.0	0.6	Full	160	0.0	0.0
Approach	824	8.6	824	8.6		0.336		4.1	LOS A	4.4	32.9				
West: Ti Rakau Drive (West)															
Lane 1 (B)	29	100.0	29	100.0	218	0.135	100	25.9	LOS C	0.8	10.1	Full	106	0.0	0.0
Lane 2	1058	6.6	748	6.6	1240	0.603	100	6.3	LOS A	11.2	83.0	Full	106	0.0	0.0
Lane 3	1058	6.6	748	6.6	1240	0.603	100	8.8	LOS A	14.5	107.4	Full	106	0.0	16.2
Approach	2145	7.9	1525 N1	8.4		0.603		7.9	LOS A	14.5	107.4				
Intersection	2986	8.6	2365 N1	10.8		0.603		6.8	LOS A	14.5	107.4				

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.

Approach Lane Flows (veh/h)

SouthEast: Link Road

Mov. From SE To Exit:	L1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	17	17	100.0	210	0.080	100	NA	NA
Approach	17	17	100.0		0.080			

East: Ti Rakau Drive (East)

Mov. From E To Exit:	T1 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	411	411	8.5	1225	0.336	100	NA	NA
Lane 2	411	411	8.5	1225	0.336	100	NA	NA
Lane 3	1	1	100.0	219	0.005	100	NA	NA
Approach	824	824	8.6		0.336			

West: Ti Rakau Drive (West)

Mov. From W To Exit:	T1 E	R1 SE	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	-	29	29	100.0	218	0.135	100	NA	NA
Lane 2	748	-	748	6.6	1240	0.603	100	NA	NA
Lane 3	748	-	748	6.6	1240	0.603	100	NA	NA
Approach	1495	29	1525	8.4		0.603			
	Total	%HV	Deg.Satn (v/c)						
Intersection	2365	10.8		0.603					

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	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: Link Road 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.										
Full Length Lane	3	Merge Analysis not applied.										
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: 21.2 [21.2 Te Koha Rd/ Ti Rakau Dr - EB4i (Site Folder: PM)]

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

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

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
SouthEast: Te Koha Road															
Lane 1	241	9.5	241	9.5	978	0.246	100	5.8	LOS A	2.2	16.4	Short	25	0.0	NA
Lane 2	105	8.2	105	8.2	149[1]	0.703	100	73.6	LOS E	6.7	50.0	Short	37	0.0	NA
Lane 3	139	8.2	139	8.2	198[1]	0.703	100	74.7	LOS E	9.1	67.9	Full	70	0.0	12.3
Approach	485	8.9	485	8.9		0.703		40.3	LOS D	9.1	67.9				
NorthEast: Ti Rakau Drive (East)															
Lane 1	41	9.8	41	9.8	1405	0.029	100	5.6	LOS A	0.3	2.2	Short	46	0.0	NA
Lane 2	295	8.0	295	8.0	1069	0.276	100	16.5	LOS B	9.4	70.5	Full	303	0.0	0.0
Lane 3	290	8.0	290	8.0	1053	0.276	100	16.5	LOS B	9.3	69.4	Full	303	0.0	0.0
Lane 4 (B-..)	1	100.0	1	100.0	668	0.001	100	13.7	LOS B	0.0	0.3	Two Seg[9]	303	0.0	0.0
Approach	627	8.3	627	8.3		0.276		15.8	LOS B	9.4	70.5				
SouthWest: Ti Rakau Drive (West)															
Lane 1 (B)	8	100.0	8	100.0	921	0.009	100	3.1	LOS A	0.1	1.3	Full	160	0.0	0.0
Lane 2	1024	6.3	750	6.3	1379	0.544	100	7.4	LOS A	17.0	125.5	Full	160	0.0	0.0
Lane 3	934	6.3	683	6.3	1257[1]	0.544	100	6.8	LOS A	15.8	116.9	Full	160	0.0	0.0
Lane 4	159	9.4	116	9.4	307	0.379	100	74.8	LOS E	7.6	57.5	Short	75	0.0	NA
Approach	2125	6.9	1558[N1]	7.0		0.544		12.2	LOS B	17.0	125.5				
Intersection	3237	7.4	2670[N1]	9.0		0.703		18.1	LOS B	17.0	125.5				

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.

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.
9 All Movement Classes allocated to Segment 1 are also allocated to Segment 2. This Two-Segment Lane has been modelled as a full-length lane.
N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Approach Lane Flows (veh/h)

SouthEast: Te Koha Road

Mov. From SE To Exit:	L2 SW	R2 NE	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	241	-	241	9.5	978	0.246	100	0.0	2
Lane 2	-	105	105	8.2	149[1]	0.703	100	42.7	3
Lane 3	-	139	139	8.2	198[1]	0.703	100	NA	NA
Approach	241	244	485	8.9		0.703			

NorthEast: Ti Rakau Drive (East)									
Mov. From NE To Exit:	L2 SE	T1 SW	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	41	-	41	9.8	1405	0.029	100	0.0	2
Lane 2	-	295	295	8.0	1069	0.276	100	NA	NA
Lane 3	-	290	290	8.0	1053	0.276	100	NA	NA
Lane 4	-	1	1	100.0	668	0.001	100	0.0	3
Approach	41	586	627	8.3		0.276			
SouthWest: Ti Rakau Drive (West)									
Mov. From SW To Exit:	T1 NE	R2 SE	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	8	-	8	100.0	921	0.009	100	NA	NA
Lane 2	750	-	750	6.3	1379	0.544	100	NA	NA
Lane 3	683	-	683	6.3	1257[1]	0.544	100	NA	NA
Lane 4	-	116	116	9.4	307	0.379	100	0.0	3
Approach	1441	116	1558	7.0		0.544			
	Total	%HV	Deg.Satn (v/c)						
Intersection	2670	9.0		0.703					

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	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: Te Koha Road Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
NorthEast 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.										
SouthWest 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: 22.0 [22.0 Te Irirangi Dr / Ti Rakau Dr - EB4i (Site Folder: PM)]

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 109 seconds (Site Practical Cycle Time)

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
South: Te Irirangi Drive															
Lane 1	85	7.1	85	7.1	1260	0.067	100	6.2	LOS A	0.7	4.9	Short	81	0.0	NA
Lane 2	404	8.8	404	8.8	397[1]	1.017	100	102.0	LOS F	30.1	226.8	Full	289	0.0	0.0
Lane 3	392	8.8	392	8.8	385	1.017	100	102.5	LOS F	29.3	220.7	Full	289	0.0	0.0
Lane 4	104	7.2	104	7.2	110	0.939	100	78.5	LOS E	6.1	45.3	Short	148	0.0	NA
Lane 5	104	7.2	104	7.2	111	0.939	100	78.4	LOS E	6.1	45.5	Short	131	0.0	NA
Approach	1089	8.4	1089	8.4		1.017		90.2	LOS F	30.1	226.8				
East: Ti Rakau Drive (East)															
Lane 1	222	8.6	222	8.6	683	0.325	100	13.5	LOS B	4.4	32.8	Short	100	-15.0[N3]	NA
Lane 2	117	8.9	117	8.9	285	0.411	100	47.1	LOS D	5.1	38.8	Full	123	0.0	0.0
Lane 3	117	8.9	117	8.9	285	0.411	100	47.1	LOS D	5.1	38.8	Full	123	0.0	0.0
Lane 4	115	8.9	115	8.9	280	0.411	100	47.2	LOS D	5.1	38.2	Full	123	0.0	0.0
Lane 5	235	5.2	235	5.2	274	0.859	100	63.5	LOS E	12.5	91.1	Full	123	0.0	0.0
Lane 6	230	5.2	230	5.2	268	0.859	100	63.6	LOS E	12.2	89.3	Short	102	0.0	NA
Approach	1036	7.1	1036	7.1		0.859		47.3	LOS D	12.5	91.1				
North: Botany Road															
Lane 1	361	5.0	361	5.0	1238	0.292	100	10.9	LOS B	6.4	46.4	Short	77	0.0	NA
Lane 2	343	9.5	343	9.5	611	0.561	100	29.0	LOS C	13.0	98.2	Full	265	-15.0[N3]	0.0
Lane 3	382	9.5	382	9.5	680	0.561	100	28.9	LOS C	14.4	108.8	Full	265	0.0	0.0
Lane 4	99	8.1	99	8.1	303	0.325	100	28.3	LOS C	2.7	20.3	Short	80	0.0	NA
Lane 5	99	8.1	99	8.1	303	0.325	100	28.3	LOS C	2.7	20.3	Full	265	0.0	0.0
Approach	1283	8.0	1283	8.0		0.561		23.8	LOS C	14.4	108.8				
West: Ti Rakau Drive (West)															
Lane 1	522	6.5	413	6.7	539	0.766	100	29.9	LOS C	12.1	89.6	Short	92	0.0	NA
Lane 2	514	6.5	407	6.7	531	0.766	100	30.0	LOS C	12.0	88.4	Full	303	0.0	0.0
Lane 3	401	7.5	318	7.7	334[1]	0.953	100	73.6	LOS E	19.7	147.1	Full	303	0.0	0.0
Lane 4	401	7.5	318	7.7	334	0.953	100	73.7	LOS E	19.7	147.3	Full	303	0.0	0.0
Lane 5	183	6.8	145	6.9	267	0.543	100	49.4	LOS D	6.5	48.0	Short	104	-15.0[N3]	NA
Lane 6	215	6.8	170	6.9	313	0.543	100	49.1	LOS D	7.5	55.8	Short	70	0.0	NA
Approach	2235	6.9	1772[N1]	7.1		0.953		49.1	LOS D	19.7	147.3				
Intersection	5643	7.5	5180[N1]	8.2		1.017		51.1	LOS D	30.1	226.8				

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.
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.

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

Approach Lane Flows (veh/h)

South: Te Irirangi Drive

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	85	-	-	85	7.1	1260	0.067	100	0.0	2
Lane 2	-	404	-	404	8.8	397[1]	1.017	100	NA	NA
Lane 3	-	392	-	392	8.8	385	1.017	100	NA	NA
Lane 4	-	-	104	104	7.2	110	0.939	100	0.0	3
Lane 5	-	-	104	104	7.2	111	0.939	100	0.0	4
Approach	85	796	208	1089	8.4		1.017			

East: Ti Rakau Drive (East)

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	222	-	-	222	8.6	683	0.325	100	0.0	2
Lane 2	-	117	-	117	8.9	285	0.411	100	NA	NA
Lane 3	-	117	-	117	8.9	285	0.411	100	NA	NA
Lane 4	-	115	-	115	8.9	280	0.411	100	NA	NA
Lane 5	-	-	235	235	5.2	274	0.859	100	NA	NA
Lane 6	-	-	230	230	5.2	268	0.859	100	3.0	5
Approach	222	349	465	1036	7.1		0.859			

North: Botany Road

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	361	-	-	361	5.0	1238	0.292	100	0.0	2
Lane 2	-	343	-	343	9.5	611	0.561	100	NA	NA
Lane 3	-	382	-	382	9.5	680	0.561	100	NA	NA
Lane 4	-	-	99	99	8.1	303	0.325	100	0.0	3
Lane 5	-	-	99	99	8.1	303	0.325	100	NA	NA
Approach	361	725	197	1283	8.0		0.561			

West: Ti Rakau Drive (West)

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	413	-	-	413	6.7	539	0.766	100	12.6	2
Lane 2	407	-	-	407	6.7	531	0.766	100	NA	NA
Lane 3	-	318	-	318	7.7	334[1]	0.953	100	NA	NA
Lane 4	-	318	-	318	7.7	334	0.953	100	NA	NA
Lane 5	-	-	145	145	6.9	267	0.543	100	0.0	3
Lane 6	-	-	170	170	6.9	313	0.543	100	0.0	3
Approach	821	636	315	1772	7.1		0.953			

	Total	%HV	Deg.Satn (v/c)
Intersection	5180	8.2	1.017

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	Short Lane	Percent Opng in	Opposing Flow Rate	Critical Gap	Follow-up Headway	Lane Capacity Flow	Deg. Satn	Min. Delay	Merge Delay

	Number	Length m	Lane %	veh/h	pcu/h	sec	Rate sec	veh/h	veh/h	v/c	sec	sec
South Exit: Te Irirangi Drive Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	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.										
Full Length Lane	3	Merge Analysis not applied.										
North Exit: Botany Road 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.										
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: 23.2 [23.2a Te Irirangi Dr / Te Koha Rd / Town Centre Dr - EB4i,EB4L_2 (Site Folder: PM)]

Network: N101 [PM - Town Centre Drive four lanes (Network Folder: General)]

Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 165 seconds (Site User-Given Phase Times)

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	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. %
South: Te Irirangi Drive (South)															
Lane 1	317	8.0	317	8.0	564	0.561	100	31.9	LOS C	10.5	78.2	Short	50	0.0	NA
Lane 2	369	6.5	369	6.5	401[1]	0.919	100	73.6	LOS E	27.5	203.5	Full	294	0.0	0.0
Lane 3	532	6.5	532	6.5	579[1]	0.919	100	72.6	LOS E	41.7	308.3	Full	294	0.0	19.3
Lane 4	122	21.3	122	21.3	127	0.961	100	116.0	LOS F	10.8	89.3	Short	140	0.0	NA
Approach	1340	8.2	1340	8.2		0.961		67.2	LOS E	41.7	308.3				
East: Town Centre Road															
Lane 1	98	25.6	98	25.6	848	0.116	100	16.9	LOS B	2.7	23.0	Short	40	0.0	NA
Lane 2 (B)	17	100.0	17	100.0	407	0.041	100	24.2	LOS C	0.5	6.4	Short	63	0.0	NA
Lane 3	100	12.6	100	12.6	125	0.797	100	90.6	LOS F	7.6	59.3	Full	153	0.0	0.0
Lane 4	92	20.1	92	20.1	116	0.797	100	93.9	LOS F	7.1	58.4	Full	153	0.0	0.0
Approach	307	23.8	307	23.8		0.797		64.4	LOS E	7.6	59.3				
North: Te Irirangi Drive (North)															
Lane 1	321	14.1	306	14.5	961	0.319	100	12.1	LOS B	5.7	44.8	Short	42	0.0	NA
Lane 2	572	6.3	542	6.3	624	0.869	100	62.1	LOS E	39.2	289.1	Full	289	0.0	15.0
Lane 3	352	6.3	335	6.3	385[1]	0.869	100	61.3	LOS E	22.5	166.0	Full	289	0.0	0.0
Lane 4	138	12.2	131	12.3	652	0.201	100	32.3	LOS C	5.3	40.9	Short	135	0.0	NA
Approach	1383	8.7	1314[N1]	8.8		0.869		47.2	LOS D	39.2	289.1				
West: Te Koha Rd															
Lane 1	143	9.6	143	9.6	213	0.671	100	78.5	LOS E	10.1	76.7	Short	77	0.0	NA
Lane 2	106	7.9	106	7.9	117	0.907	100	104.0	LOS F	8.7	65.0	Full	200	0.0	0.0
Approach	249	8.9	249	8.9		0.907		89.3	LOS F	10.1	76.7				
SouthWest: Link Road															
Lane 1 (B)	21	100.0	21	100.0	293	0.072	100	33.8	LOS C	0.8	10.5	Full	450	0.0	0.0
Approach	21	100.0	21	100.0		0.072		33.8	LOS C	0.8	10.5				
Intersection	3300	10.5	3231[N1]	10.7		0.961		60.3	LOS E	41.7	308.3				

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.

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.

Approach Lane Flows (veh/h)

South: Te Irirangi Drive (South)

Mov.	L2	T1	R2	Total	%HV	Deg.	Lane	Prob.	Ov.

From S To Exit:	W	N	E			Cap. veh/h	Satn v/c	Util. %	SL Ov. %	Lane No.
Lane 1	317	-	-	317	8.0	564	0.561	100	56.3	2
Lane 2	-	369	-	369	6.5	401[1]	0.919	100	NA	NA
Lane 3	-	532	-	532	6.5	579[1]	0.919	100	NA	NA
Lane 4	-	-	122	122	21.3	127	0.961	100	0.0	3
Approach	317	901	122	1340	8.2		0.961			

East: Town Centre Road

Mov. From E To Exit:	L2 S	L1 SW	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	98	-	-	-	98	25.6	848	0.116	100	0.0	2
Lane 2	-	17	-	-	17	100.0	407	0.041	100	0.0	3
Lane 3	-	-	58	42	100	12.6	125	0.797	100	NA	NA
Lane 4	-	-	-	92	92	20.1	116	0.797	100	NA	NA
Approach	98	17	58	134	307	23.8		0.797			

North: Te Irirangi Drive (North)

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	306	-	-	306	14.5	961	0.319	100	20.9	3
Lane 2	-	542	-	542	6.3	624	0.869	100	NA	NA
Lane 3	-	335	-	335	6.3	385[1]	0.869	100	NA	NA
Lane 4	-	-	131	131	12.3	652	0.201	100	0.0	3
Approach	306	877	131	1314	8.8		0.869			

West: Te Koha Rd

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	59	84	-	143	9.6	213	0.671	100	14.7	2
Lane 2	-	-	106	106	7.9	117	0.907	100	NA	NA
Approach	59	84	106	249	8.9		0.907			

SouthWest: Link Road

Mov. From SW To Exit:	R1 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	21	21	100.0	293	0.072	100	NA	NA
Approach	21	21	100.0		0.072			

	Total	%HV	Deg.Satn (v/c)
Intersection	3231	10.7	0.961

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 sec	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: Te Irirangi Drive (South) Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									
Full Length Lane	2	Merge Analysis not applied.									

East Exit: Town Centre Road Merge Type: **Not Applied**		
Full Length Lane	1	Merge Analysis not applied.
Full Length Lane	2	Merge Analysis not applied.
North Exit: Te Irirangi Drive (North) Merge Type: **Not Applied**		
Full Length Lane	1	Merge Analysis not applied.
Full Length Lane	2	Merge Analysis not applied.
West Exit: Te Koha Rd Merge Type: **Not Applied**		
Full Length Lane	1	Merge Analysis not applied.
SouthWest Exit: Link Road Merge Type: **Not Applied**		
Full Length Lane	1	Merge Analysis not applied.