

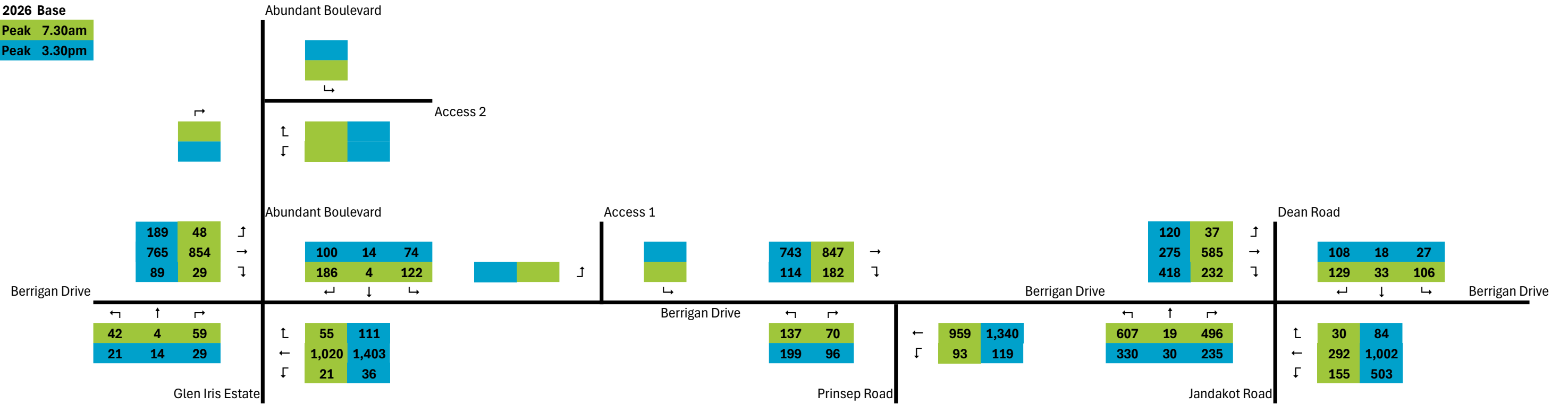
Appendix D

SIDRA Intersection Assessment Results

2026 Base

AM Peak 7.30am

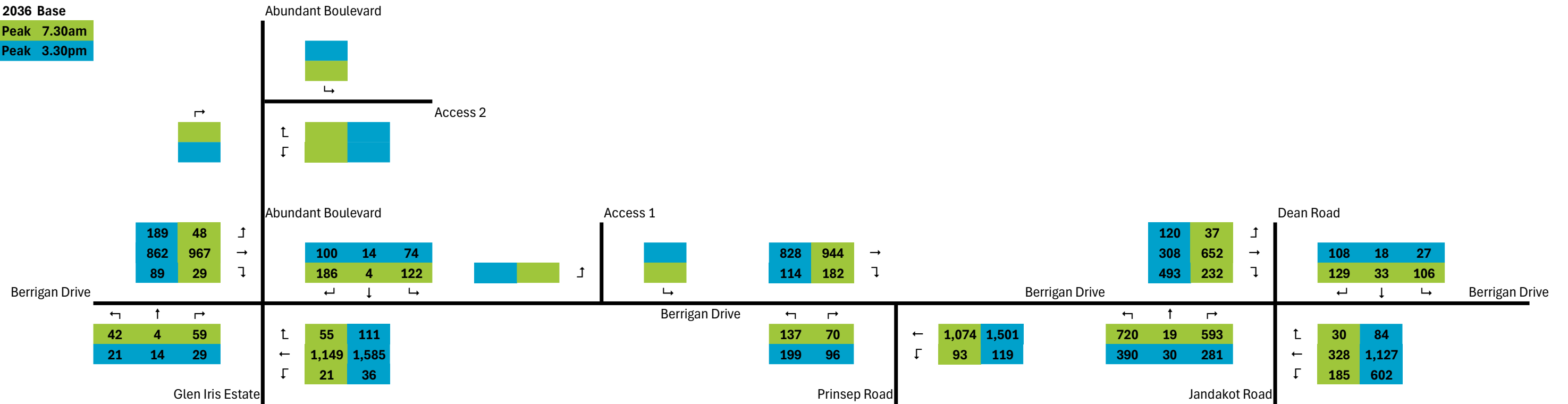
PM Peak 3.30pm



2036 Base

AM Peak 7.30am

PM Peak 3.30pm



LANE SUMMARY

 Site: 101 [Berrigan Drive / Turnbury Park Dr / Access - AM
2026 - TCS (Site Folder: LC Sidras)]

 Network: N101 [2026 AM
(Network Folder: LC)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 145 seconds (Network User-Given Cycle Time)

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]						[Veh	Dist]				
	veh/h	%	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
South: New South Access															
Lane 1	44	0.0	44	0.0	551	0.080	100	40.3	LOS D	2.1	14.7	Short	60	0.0	NA
Lane 2	67	4.8	67	4.8	312	0.216	100	53.7	LOS D	3.9	28.6	Full	500	0.0	0.0
Approach	112	2.9	112	2.9		0.216		48.4	LOS D	3.9	28.6				
East: Berrigan Drive (E)															
Lane 1	22	4.5	22	4.5	928	0.024	100	29.3	LOS C	0.6	4.8	Short	60	0.0	NA
Lane 2	532	6.3	532	6.3	964 ¹	0.552	100	29.0	LOS C	22.9	177.7	Full	190	0.0	0.0
Lane 3	541	6.3	541	6.3	980 ¹	0.552	100	11.6	LOS B	16.5	128.0	Full	190	0.0	0.0
Lane 4	60	20.8	60	20.8	115	0.521	100	82.1	LOS F	4.4	38.1	Short	74	0.0	NA
Approach	1156	7.0	1156	7.0		0.552		23.6	LOS C	22.9	177.7				
North: New North Access															
Lane 1	133	5.2	133	5.2	582	0.228	100	38.9	LOS D	6.3	47.1	Short	60	0.0	NA
Lane 2	204	0.0	204	0.0	378	0.540	100	55.3	LOS E	12.5	87.6	Full	500	0.0	0.0
Approach	337	2.0	337	2.0		0.540		48.8	LOS D	12.5	87.6				
West: Berrigan Drive (W)															
Lane 1	51	4.5	51	4.5	867	0.058	100	30.8	LOS C	1.8	13.5	Short	71	0.0	NA
Lane 2	449	3.7	449	3.7	902 ¹	0.498	100	28.9	LOS C	20.3	156.8	Full	300	0.0	0.0
Lane 3	450	3.7	450	3.7	904 ¹	0.498	100	31.7	LOS C	20.3	157.1	Full	300	0.0	0.0
Lane 4	31	4.5	31	4.5	73	0.416	100	91.6	LOS F	2.3	16.6	Short	60	0.0	NA
Approach	980	3.8	980	3.8		0.498		32.2	LOS C	20.3	157.1				
All Vehicles	2584	5.0	2584	5.0		0.552		31.2	LOS C	22.9	177.7				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

- ¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

Approach Lane Flows (veh/h)											
South: New South Access											
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL	Ov.	
From S To Exit:	W	N	E			Cap. veh/h	v/c	%	%	Lane No.	
Lane 1	44	-	-	44	0.0	551	0.080	100	0.0	2	
Lane 2	-	5	62	67	4.8	312	0.216	100	NA	NA	

Approach	44	5	62	112	2.9		0.216				
East: Berrigan Drive (E)											
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.	
From E							Satn	Util.	SL	Ov.	Lane
To Exit:	S	W	N			Cap.	v/c	%	%	No.	
						veh/h					
Lane 1	22	-	-	22	4.5	928	0.024	100	0.0	2	
Lane 2	-	532	-	532	6.3	964 ¹	0.552	100	NA	NA	
Lane 3	-	541	-	541	6.3	980 ¹	0.552	100	NA	NA	
Lane 4	-	-	60	60	20.8	115	0.521	100	0.0	3	
Approach	22	1074	60	1156	7.0		0.552				
North: New North Access											
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.	
From N							Satn	Util.	SL	Ov.	Lane
To Exit:	E	S	W			Cap.	v/c	%	%	No.	
						veh/h					
Lane 1	133	-	-	133	5.2	582	0.228	100	0.0	2	
Lane 2	-	7	197	204	0.0	378	0.540	100	NA	NA	
Approach	133	7	197	337	2.0		0.540				
West: Berrigan Drive (W)											
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.	
From W							Satn	Util.	SL	Ov.	Lane
To Exit:	N	E	S			Cap.	v/c	%	%	No.	
						veh/h					
Lane 1	51	-	-	51	4.5	867	0.058	100	0.0	2	
Lane 2	-	449	-	449	3.7	902 ¹	0.498	100	NA	NA	
Lane 3	-	450	-	450	3.7	904 ¹	0.498	100	NA	NA	
Lane 4	-	-	31	31	4.5	73	0.416	100	0.0	3	
Approach	51	899	31	980	3.8		0.498				
Total %HV Deg.Satn (v/c)											
All Vehicles	2584	5.0		0.552							

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

- ¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec		
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: New South Access				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Berrigan Drive (E)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
Lane 4	0.0	0.0	0.0	0.0

North: New North Access				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
West: Berrigan Drive (W)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
Lane 4	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 1 [Berrigan Drive / Princep Road - AM 2026 (Site Folder: LC Sidras)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [2026 AM (Network Folder: LC)]

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

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]						[Veh	Dist]				
	veh/h	%	veh/h	%											
South: Median															
Lane 1	74	33.3	74	33.3	280	0.263	100	16.1	LOS C	1.0	9.4	Full	7	0.0	14.6
Approach	74	33.3	74	33.3		0.263		16.1	LOS C	1.0	9.4				
West: Berrigan Drive (W)															
Lane 1	448	5.5	448	5.5	1802	0.249	100	0.0	LOS A	0.0	0.0	Full	190	0.0	0.0
Lane 2	448	5.5	448	5.5	1802	0.249	100	0.0	LOS A	0.0	0.0	Full	190	0.0	0.0
Lane 3	192	9.0	192	9.0	1601	0.120	100	5.6	LOS A	1.9 ^{N5}	16.2 ^{N5}	Short	74	0.0	NA
Approach	1087	6.1	1087	6.1		0.249		1.0	NA	1.9	16.2				
All Vehicles	1161	7.8	1161	7.8		0.263		2.0	NA	1.9	16.2				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

^{N5} Results for this lane are determined by Back of Queue values of downstream lanes (proportional to lane movement flows).

Approach Lane Flows (veh/h)										
South: Median										
Mov. From S To Exit:	R2	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	74	74	33.3		280	0.263	100	NA	NA	
Approach	74	74	33.3			0.263				
West: Berrigan Drive (W)										
Mov. From W To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	448	-	448	5.5	1802	0.249	100	NA	NA	
Lane 2	448	-	448	5.5	1802	0.249	100	NA	NA	
Lane 3	-	192	192	9.0	1601	0.120	100	0.0	2	
Approach	896	192	1087	6.1		0.249				
Total %HV Deg.Satn (v/c)										
All Vehicles	1161	7.8				0.263				

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Capacity Flow Rate veh/h	Deg. Satn veh/h	Min. Delay sec	Merge Delay sec	
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Median				
Lane 1	0.0	0.0	0.0	0.0
West: Berrigan Drive (W)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 1 [Berrigan Drive / Prinsep Road - AM 2026 (Site Folder: LC Sidras)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [2026 AM (Network Folder: LC)]

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

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]						[Veh	Dist]				
	veh/h	%	veh/h	%											
South: Princep Road (S)															
Lane 1	218	29.5	218	29.5	463	0.471	100	16.2	LOS C	2.7	25.7	Full	200	-5.5 ^{N3}	0.0
Approach	218	29.5	218	29.5		0.471		16.2	LOS C	2.7	25.7				
East: Berrigan Drive (E)															
Lane 1	98	8.9	98	8.9	1636	0.060	100	5.7	LOS A	0.0	0.0	Short	71	0.0	NA
Lane 2	506	4.2	506	4.2	1847	0.274	100	0.0	LOS A	0.0	0.0	Full	135	0.0	0.0
Lane 3	506	4.2	506	4.2	1847	0.274	100	0.0	LOS A	0.0	0.0	Full	135	0.0	0.0
Approach	1109	4.6	1109	4.6		0.274		0.5	NA	0.0	0.0				
North: Median															
Lane 1	192	9.0	192	9.0	268	0.714	100	28.5	LOS D	2.0 ^{N4}	17.4 ^{N4}	Full	7	0.0	49.9
Approach	192	9.0	192	9.0		0.714		28.5	LOS D	2.0	17.4				
All Vehicles	1519	8.7	1519	8.7		0.714		6.3	NA	2.7	25.7				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

^{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: Princep Road (S)										
Mov.	L2	T1	Total	%HV		Deg. Satn	Lane Util.	Prob. SL	Ov.	Ov. Lane No.
From S					Cap. veh/h	v/c	%	%		
To Exit:	W	N								
Lane 1	144	74	218	29.5	463	0.471	100	NA	NA	
Approach	144	74	218	29.5		0.471				
East: Berrigan Drive (E)										
Mov.	L2	T1	Total	%HV		Deg. Satn	Lane Util.	Prob. SL	Ov.	Ov. Lane No.
From E					Cap. veh/h	v/c	%	%		
To Exit:	S	W								
Lane 1	98	-	98	8.9	1636	0.060	100	0.0	2	
Lane 2	-	506	506	4.2	1847	0.274	100	NA	NA	
Lane 3	-	506	506	4.2	1847	0.274	100	NA	NA	

Approach	98	1012	1109	4.6	0.274				
North: Median									
Mov. From N To Exit:	T1	Total	%HV		Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	S								
Lane 1	192	192	9.0		268	0.714	100	NA	NA
Approach	192	192	9.0		0.714				
Total %HV Deg.Satn (v/c)									
All Vehicles	1519	8.7		0.714					

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Princep Road (S)				
Lane 1	0.0	0.0	0.0	0.0
East: Berrigan Drive (E)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
North: Median				
Lane 1	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: LM01173 [Berrigan Drive_Jandakot Road_AM 2026 (Site Folder: LC Sidras)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [2026 AM (Network Folder: LC)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 145 seconds (Network User-Given Cycle Time)

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]						[Veh	Dist]				
	veh/h	%	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
South: Jandakot Road															
Lane 1	639	5.2	639	5.2	1070	0.597	100	10.1	LOS B	11.5	86.7	Short	150	0.0	NA
Lane 2	272	5.1	272	5.1	523	0.520	100	50.8	LOS D	15.9	119.7	Full	230	0.0	0.0
Lane 3	270	5.2	270	5.2	520	0.520	100	51.2	LOS D	15.9	119.3	Short	130	0.0	NA
Approach	1181	5.2	1181	5.2		0.597		28.9	LOS C	15.9	119.7				
East: Berrigan Drive East															
Lane 1	163	23.3	163	23.3	1078	0.151	100	7.5	LOS A	1.7	17.1	Short	90	0.0	NA
Lane 2	154	23.3	154	23.3	326	0.474	100	52.0	LOS D	9.5	98.2	Full	125	0.0	0.0
Lane 3	153	23.3	153	23.3	323 ¹	0.474	100	56.2	LOS E	9.4	97.4	Full	125	0.0	0.0
Lane 4	21	4.5	21	4.5	74	0.284	100	87.2	LOS F	1.5	11.3	Short	50	0.0	NA
Approach	492	22.5	492	22.5		0.474		40.0	LOS D	9.5	98.2				
North: Dean Road															
Lane 1	112	5.2	112	5.2	775	0.144	100	12.5	LOS B	2.4	18.1	Short	66	0.0	NA
Lane 2	17	5.2	17	5.2	258	0.067	100	58.6	LOS E	1.1	7.9	Short	73	0.0	NA
Lane 3	17	5.2	17	5.2	258	0.067	100	58.6	LOS E	1.1	7.9	Full	110	0.0	0.0
Lane 4	137	0.0	137	0.0	259	0.529	100	69.3	LOS E	9.2	64.1	Short	90	0.0	NA
Approach	283	2.7	283	2.7		0.529		45.6	LOS D	9.2	64.1				
West: Berrigan Dr West															
Lane 1	42	4.5	42	4.5	1454	0.029	100	13.3	LOS B	0.1	0.8	Short	45	0.0	NA
Lane 2	302	4.6	302	4.6	586 ¹	0.516	100	35.5	LOS D	13.6	104.7	Full	135	0.0	0.0
Lane 3	315	4.6	315	4.6	611	0.516	100	27.8	LOS C	14.2	109.3	Full	135	0.0	0.0
Lane 4	122	4.6	122	4.6	248	0.491	100	77.1	LOS E	8.7	67.1	Short	100	0.0	NA
Lane 5	122	4.6	122	4.6	248	0.491	100	77.1	LOS E	8.7	67.1	Short	90	0.0	NA
Approach	903	4.6	903	4.6		0.516		43.0	LOS D	14.2	109.3				
All Vehicles	2859	7.7	2859	7.7		0.597		36.9	LOS D	15.9	119.7				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

Approach Lane Flows (veh/h)										
South: Jandakot Road										
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	639	-	-	639	5.2	1070	0.597	100	0.0	2
Lane 2	-	20	252	272	5.1	523	0.520	100	NA	NA
Lane 3	-	-	270	270	5.2	520	0.520	100	0.0	2
Approach	639	20	522	1181	5.2		0.597			
East: Berrigan 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	163	-	-	163	23.3	1078	0.151	100	0.0	2
Lane 2	-	154	-	154	23.3	326	0.474	100	NA	NA
Lane 3	-	153	-	153	23.3	323 ¹	0.474	100	NA	NA
Lane 4	-	-	21	21	4.5	74	0.284	100	0.0	3
Approach	163	307	21	492	22.5		0.474			
North: Dean 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	112	-	-	112	5.2	775	0.144	100	0.0	2
Lane 2	-	17	-	17	5.2	258	0.067	100	0.0	3
Lane 3	-	17	-	17	5.2	258	0.067	100	NA	NA
Lane 4	-	-	137	137	0.0	259	0.529	100	0.0	3
Approach	112	35	137	283	2.7		0.529			
West: Berrigan Dr 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	42	-	-	42	4.5	1454	0.029	100	0.0	2
Lane 2	-	302	-	302	4.6	586 ¹	0.516	100	NA	NA
Lane 3	-	315	-	315	4.6	611	0.516	100	NA	NA
Lane 4	-	-	122	122	4.6	248	0.491	100	0.0	3
Lane 5	-	-	122	122	4.6	248	0.491	100	0.0	4
Approach	42	617	244	903	4.6		0.516			
Total %HV Deg.Satn (v/c)										
All Vehicles	2859	7.7			0.597					

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

- ¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Capacity Flow Rate veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis			
Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec

South: Jandakot Road				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
East: Berrigan Drive East				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
Lane 4	0.0	0.0	0.0	0.0
North: Dean Road				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
Lane 4	0.0	0.0	0.0	0.0
West: Berrigan Dr West				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
Lane 4	0.0	0.0	0.0	0.0
Lane 5	0.0	0.0	0.0	0.0

LANE SUMMARY

 Site: 101 [Berrigan Drive / Turnbury Park Dr / Access - PM 2026
- TCS (Site Folder: LC Sidras)]

 Network: N101 [2026 PM
(Network Folder: LC)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 145 seconds (Network User-Given Cycle Time)

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]						[Veh	Dist]				
	veh/h	%	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
South: New South Access															
Lane 1	22	0.0	22	0.0	410	0.054	100	48.8	LOS D	1.2	8.2	Short	60	0.0	NA
Lane 2	58	2.7	58	2.7	227	0.256	100	63.3	LOS E	3.7	26.7	Full	500	0.0	0.0
Approach	80	2.0	80	2.0		0.256		59.3	LOS E	3.7	26.7				
East: Berrigan Drive (E)															
Lane 1	38	4.5	35	4.2	1066	0.033	100	34.3	LOS C	1.3	9.6	Short	60	0.0	NA
Lane 2	761	6.3	709	5.9	1085 ¹	0.653	100	35.7	LOS D	36.2	280.2	Full	190	0.0	40.5
Lane 3	716	6.3	667	5.9	1021 ¹	0.653	100	29.1	LOS C	31.6	244.9	Full	190	0.0	28.1
Lane 4	134	20.8	123	19.6	286	0.431	100	78.7	LOS E	8.4	71.9	Short	74	0.0	NA
Approach	1648	7.4	1534	6.9		0.653		36.3	LOS D	36.2	280.2				
North: New North Access															
Lane 1	87	5.2	87	5.2	570	0.153	100	39.4	LOS D	4.2	31.1	Short	60	0.0	NA
Lane 2	128	0.0	128	0.0	222	0.578	100	68.5	LOS E	8.7	60.9	Full	500	0.0	0.0
Approach	216	2.1	216	2.1		0.578		56.7	LOS E	8.7	60.9				
West: Berrigan Drive (W)															
Lane 1	202	4.5	202	4.5	880	0.230	100	29.2	LOS C	8.0	58.6	Short	71	0.0	NA
Lane 2	403	3.7	403	3.7	897 ¹	0.449	100	24.4	LOS C	17.4	134.5	Full	300	0.0	0.0
Lane 3	402	3.7	402	3.7	896 ¹	0.449	100	27.4	LOS C	17.4	134.4	Full	300	0.0	0.0
Lane 4	94	4.5	94	4.5	147	0.639	100	83.2	LOS F	6.7	49.6	Short	60	0.0	NA
Approach	1101	3.9	1101	3.9		0.639		31.4	LOS C	17.4	134.5				
All Vehicles	3045	5.6	2930	5.9		0.653		36.6	LOS D	36.2	280.2				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

- ¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

Approach Lane Flows (veh/h)											
South: New South Access											
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
From S To Exit:	W	N	E			Cap. veh/h	v/c	%	%		
Lane 1	22	-	-	22	0.0	410	0.054	100	0.0	2	
Lane 2	-	27	31	58	2.7	227	0.256	100	NA	NA	

Approach	22	27	31	80	2.0	0.256					
East: Berrigan Drive (E)											
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	35	-	-	35	4.2	1066	0.033	100	0.0	2	
Lane 2	-	709	-	709	5.9	1085 ¹	0.653	100	NA	NA	
Lane 3	-	667	-	667	5.9	1021 ¹	0.653	100	NA	NA	
Lane 4	-	-	123	123	19.6	286	0.431	100	2.4	3	
Approach	35	1375	123	1534	6.9	0.653					
North: New North Access											
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	87	-	-	87	5.2	570	0.153	100	0.0	2	
Lane 2	-	22	106	128	0.0	222	0.578	100	NA	NA	
Approach	87	22	106	216	2.1	0.578					
West: Berrigan Drive (W)											
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	202	-	-	202	4.5	880	0.230	100	0.0	2	
Lane 2	-	403	-	403	3.7	897 ¹	0.449	100	NA	NA	
Lane 3	-	402	-	402	3.7	896 ¹	0.449	100	NA	NA	
Lane 4	-	-	94	94	4.5	147	0.639	100	0.0	3	
Approach	202	805	94	1101	3.9	0.639					
Total %HV Deg.Satn (v/c)											
All Vehicles	2930	5.9	0.653								

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

- ¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: New South Access				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Berrigan Drive (E)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
Lane 4	0.0	0.0	0.0	0.0

North: New North Access				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
West: Berrigan Drive (W)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
Lane 4	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 1 [Berrigan Drive / Princep Road - PM 2026 (Site Folder: LC Sidras)]

Network: N101 [2026 PM (Network Folder: LC)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

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

Lane Use and Performance																
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.	
	[Total	HV]	[Total	HV]						[Veh	Dist]					
	veh/h	%	veh/h	%												veh/h
South: Median																
Lane 1	101	33.3	80	33.3	261	0.307	100	13.0	LOS B	0.9	8.9	Full	7	-26.0 ^{N3}	12.8	
Approach	101	33.3	80	33.3		0.307		13.0	LOS B	0.9	8.9					
West: Berrigan Drive (W)																
Lane 1	455	5.5	455	5.5	1802	0.252	100	0.0	LOS A	0.0	0.0	Full	190	0.0	0.0	
Lane 2	337	5.5	337	5.5	1333	0.252	100	0.0	LOS A	0.0	0.0	Full	190	-26.0 ^{N3}	0.0	
Lane 3	120	9.0	120	9.0	1601	0.075	100	5.6	LOS A	1.0 ^{N5}	8.5 ^{N5}	Short	74	0.0	NA	
Approach	912	6.0	912	6.0		0.252		0.8	NA	1.0	8.5					
All Vehicles	1013	8.7	992	8.9		0.307		1.8	NA	1.0	8.9					

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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

^{N5} Results for this lane are determined by Back of Queue values of downstream lanes (proportional to lane movement flows).

Approach Lane Flows (veh/h)									
South: Median									
Mov.	R2	Total	%HV						
From S					Cap.	Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
To Exit:	E				veh/h	v/c	%	%	
Lane 1	80	80	33.3		261	0.307	100	NA	NA
Approach	80	80	33.3			0.307			
West: Berrigan Drive (W)									
Mov.	T1	R2	Total	%HV					
From W					Cap.	Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
To Exit:	E	S			veh/h	v/c	%	%	
Lane 1	455	-	455	5.5	1802	0.252	100	NA	NA
Lane 2	337	-	337	5.5	1333	0.252	100	NA	NA
Lane 3	-	120	120	9.0	1601	0.075	100	0.0	2
Approach	792	120	912	6.0		0.252			
Total %HV Deg.Satn (v/c)									

All Vehicles	992	8.9	0.307
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Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Median				
Lane 1	0.0	0.0	0.0	0.0
West: Berrigan Drive (W)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 1 [Berrigan Drive / Prinsep Road - PM 2026 (Site Folder: LC Sidras)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [2026 PM (Network Folder: LC)]

New Site

Site Category: (None)

Give-Way (Two-Way)

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]						[Veh	Dist]				
	veh/h	%	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
South: Prinsep Road (S)															
Lane 1	311	29.5	311	29.5	242	1.281	100	281.6	LOS F	47.7	458.3	Full	200	-33.8 ^{N3}	41.9
Approach	311	29.5	311	29.5		1.281		281.6	LOS F	47.7	458.3				
East: Berrigan Drive (E)															
Lane 1	125	8.9	119	8.5	1645	0.072	100	5.7	LOS A	0.0	0.0	Short	71	0.0	NA
Lane 2	646	4.2	613	4.0	1099	0.558	100	0.1	LOS A	0.0	0.0	Full	135	-40.6 ^{N3}	0.0
Lane 3	782	4.2	742	4.0	1330	0.558	100	0.1	LOS A	0.0	0.0	Full	135	-28.2 ^{N3}	0.0
Approach	1553	4.6	1473	4.4		0.558		0.6	NA	0.0	0.0				
North: Median															
Lane 1	120	9.0	120	9.0	164	0.732	100	44.2	LOS E	2.0 ^{N4}	17.4 ^{N4}	Full	7	0.0	49.9
Approach	120	9.0	120	9.0		0.732		44.2	LOS E	2.0	17.4				
All Vehicles	1983	8.7	1904	9.1		1.281		49.1	NA	47.7	458.3				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

^{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: Prinsep Road (S)										
Mov.	L2	T1	Total	%HV		Deg. Satn	Lane Util.	Prob. SL	Ov.	Ov. Lane No.
From S					Cap. veh/h	v/c	%	%		
To Exit:	W	N								
Lane 1	209	101	311	29.5	242	1.281	100	NA	NA	
Approach	209	101	311	29.5		1.281				
East: Berrigan Drive (E)										
Mov.	L2	T1	Total	%HV		Deg. Satn	Lane Util.	Prob. SL	Ov.	Ov. Lane No.
From E					Cap. veh/h	v/c	%	%		
To Exit:	S	W								
Lane 1	119	-	119	8.5	1645	0.072	100	0.0	2	
Lane 2	-	613	613	4.0	1099	0.558	100	NA	NA	
Lane 3	-	742	742	4.0	1330	0.558	100	NA	NA	

Approach	119	1355	1473	4.4	0.558				
North: Median									
Mov. From N To Exit:	T1	Total	%HV		Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	120	120	9.0		164	0.732	100	NA	NA
Approach	120	120	9.0		0.732				
Total %HV Deg.Satn (v/c)									
All Vehicles	1904	9.1	1.281						

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Princep Road (S)				
Lane 1	0.0	34.1	506.3	NA
East: Berrigan Drive (E)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
North: Median				
Lane 1	0.0	0.0	0.0	0.0

LANE SUMMARY

 Site: LM01173 [Berrigan Drive_Jandakot Road_PM 2026 (Site Folder: LC Sidras)]

 Network: N101 [2026 PM (Network Folder: LC)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 145 seconds (Network User-Given Cycle Time)

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total veh/h]	HV %	[Total veh/h]	HV %						[Veh	Dist] m				
South: Jandakot Road															
Lane 1	349	5.2	349	5.2	632	0.553	100	31.3	LOS C	15.8	118.8	Short	150	0.0	NA
Lane 2	141	5.0	141	5.0	246	0.572	100	68.7	LOS E	9.5	71.2	Full	230	0.0	0.0
Lane 3	138	5.2	138	5.2	242	0.572	100	70.0	LOS E	9.4	70.5	Short	130	0.0	NA
Approach	628	5.2	628	5.2		0.572		48.2	LOS D	15.8	118.8				
East: Berrigan Drive East															
Lane 1	529	23.3	529	23.3	1045	0.507	100	25.2	LOS C	10.3	106.1	Short	90	0.0	NA
Lane 2	432	23.3	432	23.3	388 ¹	1.111	100	194.1	LOS F	53.2	549.1	Full	125	0.0	100.0
Lane 3	627	23.3	627	23.3	564 ¹	1.111	100	204.6	LOS F	75.4	778.5	Full	125	0.0	100.0
Lane 4	88	4.5	88	4.5	383	0.231	100	89.2	LOS F	5.2	38.0	Short	50	0.0	NA
Approach	1677	22.3	1677	22.3		1.111		139.2	LOS F	75.4	778.5				
North: Dean Road															
Lane 1	28	5.2	28	5.2	1144	0.025	100	7.6	LOS A	0.3	2.2	Short	66	0.0	NA
Lane 2	9	5.2	9	5.2	220	0.043	100	61.3	LOS E	0.6	4.4	Short	73	0.0	NA
Lane 3	9	5.2	9	5.2	220	0.043	100	61.3	LOS E	0.6	4.4	Full	110	0.0	0.0
Lane 4	125	0.0	125	0.0	220	0.569	100	72.4	LOS E	8.6	60.1	Short	90	0.0	NA
Approach	173	1.4	173	1.4		0.569		60.5	LOS E	8.6	60.1				
West: Berrigan Dr West															
Lane 1	133	4.5	130	4.1	1387	0.094	100	6.3	LOS A	0.7	4.8	Short	45	0.0	NA
Lane 2	146	4.6	143	4.2	625	0.228	100	23.6	LOS C	5.0	38.7	Full	135	0.0	0.0
Lane 3	146	4.6	143	4.2	625	0.228	100	23.4	LOS C	5.0	38.4	Full	135	0.0	25.9 ⁸
Lane 4	221	4.6	216	4.2	202	1.070	100	160.9	LOS F	22.1	169.9	Short	100	0.0	NA
Lane 5	221	4.6	216	4.2	202	1.070	100	160.9	LOS F	22.1	169.9	Short	90	0.0	NA
Approach	865	4.6	847	4.2		1.070		90.9	LOS F	22.1	169.9				
All Vehicles	3343	13.4	3325	13.5		1.111		105.6	LOS F	75.4	778.5				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.

Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

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

Approach Lane Flows (veh/h)															
South: Jandakot Road															

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	349	-	-	349	5.2	632	0.553	100	0.0	2
Lane 2	-	32	109	141	5.0	246	0.572	100	NA	NA
Lane 3	-	-	138	138	5.2	242	0.572	100	0.0	2
Approach	349	32	247	628	5.2		0.572			
East: Berrigan 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	529	-	-	529	23.3	1045	0.507	100	19.9	2
Lane 2	-	432	-	432	23.3	388 ¹	1.111	100	NA	NA
Lane 3	-	627	-	627	23.3	564 ¹	1.111	100	NA	NA
Lane 4	-	-	88	88	4.5	383	0.231	100	0.0	3
Approach	529	1059	88	1677	22.3		1.111			
North: Dean 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	28	-	-	28	5.2	1144	0.025	100	0.0	2
Lane 2	-	9	-	9	5.2	220	0.043	100	0.0	3
Lane 3	-	9	-	9	5.2	220	0.043	100	NA	NA
Lane 4	-	-	125	125	0.0	220	0.569	100	0.0	3
Approach	28	19	125	173	1.4		0.569			
West: Berrigan Dr 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	130	-	-	130	4.1	1387	0.094	100	0.0	2
Lane 2	-	143	-	143	4.2	625	0.228	100	NA	NA
Lane 3	-	143	-	143	4.2	625	0.228	100	NA	NA
Lane 4	-	-	216	216	4.2	202	1.070	100	53.8	3
Lane 5	-	-	216	216	4.2	202	1.070	100	63.8	4
Approach	130	285	432	847	4.2		1.070			
Total %HV Deg.Satn (v/c)										
All Vehicles	3325	13.5		1.111						

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

- ¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

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	
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec

South: Jandakot Road				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
East: Berrigan Drive East				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	21.6	200.6	NA
Lane 3	0.0	31.4	200.6	NA
Lane 4	0.0	0.0	0.0	0.0
North: Dean Road				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
Lane 4	0.0	0.0	0.0	0.0
West: Berrigan Dr West				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
Lane 4	0.0	7.1	126.1	NA
Lane 5	0.0	7.1	126.1	NA

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LANE SUMMARY

 Site: 101 [Berrigan Drive / Turnbury Park Dr / Access - AM
2036 - TCS (Site Folder: LC Sidras)]

 Network: N101 [2036 AM
(Network Folder: LC)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 145 seconds (Network User-Given Cycle Time)

Lane Use and Performance															
	Demand Flows [Total HV]		Arrival Flows [Total HV]		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue [Veh Dist]		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	veh/h	%	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
South: New South Access															
Lane 1	44	0.0	44	0.0	512	0.086	100	42.6	LOS D	2.2	15.2	Short	60	0.0	NA
Lane 2	67	4.8	67	4.8	285	0.236	100	56.6	LOS E	4.0	29.4	Full	500	0.0	0.0
Approach	112	2.9	112	2.9		0.236		51.0	LOS D	4.0	29.4				
East: Berrigan Drive (E)															
Lane 1	22	4.5	22	4.5	965	0.023	100	30.1	LOS C	0.6	4.7	Short	60	0.0	NA
Lane 2	604	6.3	604	6.3	999 ¹	0.605	100	30.8	LOS C	27.0	209.5	Full	190	0.0	13.8
Lane 3	605	6.3	605	6.3	1001 ¹	0.605	100	13.4	LOS B	19.5	151.9	Full	190	0.0	0.0
Lane 4	60	20.8	60	20.8	115	0.521	100	83.7	LOS F	4.4	38.0	Short	74	0.0	NA
Approach	1292	6.9	1292	6.9		0.605		25.1	LOS C	27.0	209.5				
North: New North Access															
Lane 1	133	5.2	133	5.2	546	0.243	100	41.2	LOS D	6.6	48.8	Short	60	0.0	NA
Lane 2	204	0.0	204	0.0	350	0.583	100	58.2	LOS E	12.9	90.2	Full	500	0.0	0.0
Approach	337	2.0	337	2.0		0.583		51.5	LOS D	12.9	90.2				
West: Berrigan Drive (W)															
Lane 1	51	4.5	51	4.5	904	0.056	100	31.0	LOS C	1.8	12.9	Short	71	0.0	NA
Lane 2	507	3.7	507	3.7	932 ¹	0.544	100	29.8	LOS C	23.0	178.0	Full	300	0.0	0.0
Lane 3	510	3.7	510	3.7	938 ¹	0.544	100	32.2	LOS C	23.2	179.0	Full	300	0.0	0.0
Lane 4	31	4.5	31	4.5	73	0.416	100	93.1	LOS F	2.3	16.6	Short	60	0.0	NA
Approach	1099	3.8	1099	3.8		0.544		32.7	LOS C	23.2	179.0				
All Vehicles	2839	5.0	2839	5.0		0.605		32.2	LOS C	27.0	209.5				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

- ¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

Approach Lane Flows (veh/h)											
South: New South Access											
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
From S To Exit:	W	N	E			Cap. veh/h	v/c	%	%		
Lane 1	44	-	-	44	0.0	512	0.086	100	0.0	2	
Lane 2	-	5	62	67	4.8	285	0.236	100	NA	NA	

Approach	44	5	62	112	2.9		0.236				
East: Berrigan Drive (E)											
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.	
From E							Satn	Util.	SL	Ov.	Lane
To Exit:	S	W	N			Cap.	v/c	%	%		No.
						veh/h					
Lane 1	22	-	-	22	4.5	965	0.023	100	0.0	2	
Lane 2	-	604	-	604	6.3	999 ¹	0.605	100	NA	NA	
Lane 3	-	605	-	605	6.3	1001 ¹	0.605	100	NA	NA	
Lane 4	-	-	60	60	20.8	115	0.521	100	0.0	3	
Approach	22	1209	60	1292	6.9		0.605				
North: New North Access											
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.	
From N							Satn	Util.	SL	Ov.	Lane
To Exit:	E	S	W			Cap.	v/c	%	%		No.
						veh/h					
Lane 1	133	-	-	133	5.2	546	0.243	100	0.0	2	
Lane 2	-	7	197	204	0.0	350	0.583	100	NA	NA	
Approach	133	7	197	337	2.0		0.583				
West: Berrigan Drive (W)											
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.	
From W							Satn	Util.	SL	Ov.	Lane
To Exit:	N	E	S			Cap.	v/c	%	%		No.
						veh/h					
Lane 1	51	-	-	51	4.5	904	0.056	100	0.0	2	
Lane 2	-	507	-	507	3.7	932 ¹	0.544	100	NA	NA	
Lane 3	-	510	-	510	3.7	938 ¹	0.544	100	NA	NA	
Lane 4	-	-	31	31	4.5	73	0.416	100	0.0	3	
Approach	51	1018	31	1099	3.8		0.544				
Total %HV Deg.Satn (v/c)											
All Vehicles	2839	5.0		0.605							

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

- ¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec		
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: New South Access				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Berrigan Drive (E)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
Lane 4	0.0	0.0	0.0	0.0

North: New North Access				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
West: Berrigan Drive (W)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
Lane 4	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 1 [Berrigan Drive / Princep Road - AM 2036 (Site Folder: LC Sidras)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [2036 AM (Network Folder: LC)]

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

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]						[Veh	Dist]				
	veh/h	%	veh/h	%											
South: Median															
Lane 1	74	33.3	74	33.3	222	0.332	100	20.3	LOS C	1.1	11.3	Full	7	-5.6 ^{N3}	21.5
Approach	74	33.3	74	33.3		0.332		20.3	LOS C	1.1	11.3				
West: Berrigan Drive (W)															
Lane 1	513	5.5	513	5.5	1799	0.285	100	0.0	LOS A	0.0	0.0	Full	190	-0.2 ^{N3}	0.0
Lane 2	485	5.5	485	5.5	1702	0.285	100	0.0	LOS A	0.0	0.0	Full	190	-5.6 ^{N3}	0.0
Lane 3	192	9.0	192	9.0	1601	0.120	100	5.6	LOS A	3.7 ^{N5}	31.8 ^{N5}	Short	74	0.0	NA
Approach	1189	6.1	1189	6.1		0.285		0.9	NA	3.7	31.8				
All Vehicles	1263	7.7	1263	7.7		0.332		2.1	NA	3.7	31.8				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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

^{N5} Results for this lane are determined by Back of Queue values of downstream lanes (proportional to lane movement flows).

Approach Lane Flows (veh/h)										
South: Median										
Mov.	R2	Total	%HV			Deg. Satn	Lane Util.	Prob. SL	Ov.	Ov.
From S					Cap. veh/h	v/c	%	%	Lane No.	
To Exit:	E									
Lane 1	74	74	33.3		222	0.332	100	NA	NA	
Approach	74	74	33.3			0.332				
West: Berrigan Drive (W)										
Mov.	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL	Ov.	Ov.
From W					Cap. veh/h	v/c	%	%	Lane No.	
To Exit:	E	S								
Lane 1	513	-	513	5.5	1799	0.285	100	NA	NA	
Lane 2	485	-	485	5.5	1702	0.285	100	NA	NA	
Lane 3	-	192	192	9.0	1601	0.120	100	0.0	2	
Approach	998	192	1189	6.1		0.285				
Total %HV Deg.Satn (v/c)										

All Vehicles	1263	7.7	0.332
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Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Median				
Lane 1	0.0	0.0	0.0	0.0
West: Berrigan Drive (W)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 1 [Berrigan Drive / Prinsep Road - AM 2036 (Site Folder: LC Sidras)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [2036 AM (Network Folder: LC)]

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

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]						[Veh	Dist]				
	veh/h	%	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
South: Princep Road (S)															
Lane 1	218	29.5	218	29.5	364	0.599	100	19.9	LOS C	3.3	32.0	Full	200	-16.6 ^{N3}	0.0
Approach	218	29.5	218	29.5		0.599		19.9	LOS C	3.3	32.0				
East: Berrigan Drive (E)															
Lane 1	98	8.9	98	8.9	1636	0.060	100	5.7	LOS A	0.0	0.0	Short	71	0.0	NA
Lane 2	524	4.2	524	4.2	1591	0.329	100	0.0	LOS A	0.0	0.0	Full	135	-13.8 ^{N3}	0.0
Lane 3	608	4.2	608	4.2	1847	0.329	100	0.0	LOS A	0.0	0.0	Full	135	0.0	0.0
Approach	1231	4.6	1231	4.6		0.329		0.5	NA	0.0	0.0				
North: Median															
Lane 1	192	9.0	192	9.0	220	0.871	100	48.5	LOS E	2.0 ^{N4}	17.4 ^{N4}	Full	7	0.0	49.9
Approach	192	9.0	192	9.0		0.871		48.5	LOS E	2.0	17.4				
All Vehicles	1640	8.4	1640	8.4		0.871		8.7	NA	3.3	32.0				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

^{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: Princep Road (S)										
Mov. From S To Exit:	L2	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	W	N								
Lane 1	144	74	218	29.5	364	0.599	100	NA	NA	
Approach	144	74	218	29.5		0.599				
East: Berrigan Drive (E)										
Mov. From E To Exit:	L2	T1	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	S	W								
Lane 1	98	-	98	8.9	1636	0.060	100	0.0	2	
Lane 2	-	524	524	4.2	1591	0.329	100	NA	NA	
Lane 3	-	608	608	4.2	1847	0.329	100	NA	NA	

Approach	98	1133	1231	4.6		0.329				
North: Median										
Mov. From N To Exit:	T1	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	192	192	9.0		220	0.871	100	NA	NA	
Approach	192	192	9.0			0.871				
Total %HV Deg.Satn (v/c)										
All Vehicles	1640	8.4		0.871						

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Princep Road (S)				
Lane 1	0.0	0.0	0.0	0.0
East: Berrigan Drive (E)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
North: Median				
Lane 1	0.0	0.0	0.0	0.0

LANE SUMMARY

 Site: LM01173 [Berrigan Drive_Jandakot Road_AM 2036 (Site Folder: LC Sidras)]

 Network: N101 [2036 AM (Network Folder: LC)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 145 seconds (Network User-Given Cycle Time)

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total veh/h	HV %	[Total veh/h	HV %	veh/h	v/c	%	sec		[Veh	Dist] m		m	%	%
South: Jandakot Road															
Lane 1	758	5.2	758	5.2	1045	0.726	100	11.8	LOS B	18.0	135.5	Short	150	0.0	NA
Lane 2	323	5.2	323	5.2	534	0.604	100	51.5	LOS D	19.4	146.0	Full	230	0.0	0.0
Lane 3	321	5.2	321	5.2	532	0.604	100	51.9	LOS D	19.3	145.5	Short	130	0.0	NA
Approach	1402	5.2	1402	5.2		0.726		30.2	LOS C	19.4	146.0				
East: Berrigan Drive East															
Lane 1	195	23.3	195	23.3	1080	0.180	100	7.5	LOS A	2.0	21.1	Short	90	0.0	NA
Lane 2	175	23.3	175	23.3	335	0.521	100	52.0	LOS D	10.9	112.0	Full	125	0.0	0.0
Lane 3	170	23.3	170	23.3	327 ¹	0.521	100	60.7	LOS E	10.6	109.3	Full	125	0.0	0.0
Lane 4	32	4.5	32	4.5	74	0.426	100	92.8	LOS F	2.3	17.2	Short	50	0.0	NA
Approach	572	22.3	572	22.3		0.521		41.7	LOS D	10.9	112.0				
North: Dean Road															
Lane 1	112	5.2	112	5.2	700	0.159	100	15.5	LOS B	3.0	21.9	Short	66	0.0	NA
Lane 2	17	5.2	17	5.2	245	0.071	100	59.7	LOS E	1.1	8.0	Short	73	0.0	NA
Lane 3	17	5.2	17	5.2	245	0.071	100	59.7	LOS E	1.1	8.0	Full	110	0.0	0.0
Lane 4	140	0.0	140	0.0	246	0.569	100	70.6	LOS E	9.5	66.4	Short	90	0.0	NA
Approach	286	2.7	286	2.7		0.569		47.8	LOS D	9.5	66.4				
West: Berrigan Dr West															
Lane 1	42	4.5	42	4.5	1445	0.029	100	19.6	LOS B	0.2	1.4	Short	45	0.0	NA
Lane 2	334	4.6	334	4.6	577 ¹	0.579	100	45.3	LOS D	16.6	127.9	Full	135	0.0	0.2
Lane 3	354	4.6	354	4.6	611	0.579	100	31.4	LOS C	17.6	135.8	Full	135	0.0	5.6
Lane 4	122	4.6	122	4.6	237	0.516	100	78.0	LOS E	8.7	67.4	Short	100	0.0	NA
Lane 5	122	4.6	122	4.6	237	0.516	100	78.0	LOS E	8.7	67.4	Short	90	0.0	NA
Approach	974	4.6	974	4.6		0.579		47.3	LOS D	17.6	135.8				
All Vehicles	3234	7.8	3234	7.8		0.726		38.9	LOS D	19.4	146.0				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

- ¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

Approach Lane Flows (veh/h)										
South: Jandakot Road										
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	758	-	-	758	5.2	1045	0.726	100	0.0	2
Lane 2	-	20	303	323	5.2	534	0.604	100	NA	NA
Lane 3	-	-	321	321	5.2	532	0.604	100	15.2	2
Approach	758	20	624	1402	5.2		0.726			
East: Berrigan 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	195	-	-	195	23.3	1080	0.180	100	0.0	2
Lane 2	-	175	-	175	23.3	335	0.521	100	NA	NA
Lane 3	-	170	-	170	23.3	327 ¹	0.521	100	NA	NA
Lane 4	-	-	32	32	4.5	74	0.426	100	0.0	3
Approach	195	345	32	572	22.3		0.521			
North: Dean 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	112	-	-	112	5.2	700	0.159	100	0.0	2
Lane 2	-	17	-	17	5.2	245	0.071	100	0.0	3
Lane 3	-	17	-	17	5.2	245	0.071	100	NA	NA
Lane 4	-	-	140	140	0.0	246	0.569	100	0.0	3
Approach	112	35	140	286	2.7		0.569			
West: Berrigan Dr 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	42	-	-	42	4.5	1445	0.029	100	0.0	2
Lane 2	-	334	-	334	4.6	577 ¹	0.579	100	NA	NA
Lane 3	-	354	-	354	4.6	611	0.579	100	NA	NA
Lane 4	-	-	122	122	4.6	237	0.516	100	0.0	3
Lane 5	-	-	122	122	4.6	237	0.516	100	0.0	4
Approach	42	687	244	974	4.6		0.579			
Total %HV Deg.Satn (v/c)										
All Vehicles	3234	7.8			0.726					

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

- ¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Capacity Flow Rate veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis			
Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec

South: Jandakot Road				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
East: Berrigan Drive East				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
Lane 4	0.0	0.0	0.0	0.0
North: Dean Road				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
Lane 4	0.0	0.0	0.0	0.0
West: Berrigan Dr West				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
Lane 4	0.0	0.0	0.0	0.0
Lane 5	0.0	0.0	0.0	0.0

LANE SUMMARY

 Site: 101 [Berrigan Drive / Turnbury Park Dr / Access - PM 2036
- TCS (Site Folder: LC Sidras)]

 Network: N101 [2036 PM
(Network Folder: LC)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]						[Veh	Dist]				
	veh/h	%	veh/h	%	veh/h	v/c	%	sec			m		m	%	%
South: New South Access															
Lane 1	22	0.0	22	0.0	409	0.054	100	50.5	LOS D	1.2	8.5	Short	60	0.0	NA
Lane 2	58	2.7	58	2.7	223	0.259	100	66.0	LOS E	3.8	27.7	Full	500	0.0	0.0
Approach	80	2.0	80	2.0		0.259		61.7	LOS E	3.8	27.7				
East: Berrigan Drive (E)															
Lane 1	38	4.5	35	4.6	1074	0.032	100	34.8	LOS C	1.2	9.1	Short	60	0.0	NA
Lane 2	864	6.3	787	6.4	1093 ¹	0.721	100	37.6	LOS D	39.9 ^{N4}	310.1 ^{N4}	Full	190	0.0	50.0
Lane 3	805	6.3	734	6.4	1018 ¹	0.721	100	31.4	LOS C	37.1	288.1	Full	190	0.0	43.1
Lane 4	135	20.8	123	21.2	252	0.489	100	83.1	LOS F	8.7	75.4	Short	74	0.0	NA
Approach	1841	7.3	1679	7.5		0.721		38.2	LOS D	39.9	310.1				
North: New North Access															
Lane 1	88	5.2	88	5.2	539	0.164	100	42.6	LOS D	4.5	33.5	Short	60	0.0	NA
Lane 2	138	0.0	138	0.0	225	0.613	100	70.9	LOS E	9.7	67.9	Full	500	0.0	0.0
Approach	226	2.0	226	2.0		0.613		59.8	LOS E	9.7	67.9				
West: Berrigan Drive (W)															
Lane 1	201	4.5	201	4.5	921	0.218	100	30.1	LOS C	7.8	57.3	Short	71	0.0	NA
Lane 2	448	3.7	448	3.7	893 ¹	0.502	100	26.4	LOS C	20.1	155.1	Full	300	0.0	0.0
Lane 3	459	3.7	459	3.7	915 ¹	0.502	100	29.5	LOS C	20.6	159.1	Full	300	0.0	0.0
Lane 4	94	4.5	94	4.5	142	0.661	100	88.8	LOS F	7.0	51.6	Short	60	0.0	NA
Approach	1202	3.9	1202	3.9		0.661		33.1	LOS C	20.6	159.1				
All Vehicles	3349	5.6	3188	5.9		0.721		38.4	LOS D	39.9	310.1				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.

Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

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

Approach Lane Flows (veh/h)										
South: New South Access										
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From S To Exit:	W	N	E			Cap. veh/h	v/c	%	%	
Lane 1	22	-	-	22	0.0	409	0.054	100	0.0	2

Lane 2	-	27	31	58	2.7	223	0.259	100	NA	NA
Approach	22	27	31	80	2.0		0.259			
East: Berrigan Drive (E)										
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.
From E						Cap.	Satn	Util.	SL	Lane
To Exit:	S	W	N			veh/h	v/c	%	%	No.
Lane 1	35	-	-	35	4.6	1074	0.032	100	0.0	2
Lane 2	-	787	-	787	6.4	1093 ¹	0.721	100	NA	NA
Lane 3	-	734	-	734	6.4	1018 ¹	0.721	100	NA	NA
Lane 4	-	-	123	123	21.2	252	0.489	100	6.7	3
Approach	35	1521	123	1679	7.5		0.721			
North: New North Access										
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.
From N						Cap.	Satn	Util.	SL	Lane
To Exit:	E	S	W			veh/h	v/c	%	%	No.
Lane 1	88	-	-	88	5.2	539	0.164	100	0.0	2
Lane 2	-	22	116	138	0.0	225	0.613	100	NA	NA
Approach	88	22	116	226	2.0		0.613			
West: Berrigan Drive (W)										
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.
From W						Cap.	Satn	Util.	SL	Lane
To Exit:	N	E	S			veh/h	v/c	%	%	No.
Lane 1	201	-	-	201	4.5	921	0.218	100	0.0	2
Lane 2	-	448	-	448	3.7	893 ¹	0.502	100	NA	NA
Lane 3	-	459	-	459	3.7	915 ¹	0.502	100	NA	NA
Lane 4	-	-	94	94	4.5	142	0.661	100	0.0	3
Approach	201	907	94	1202	3.9		0.661			
Total %HV Deg.Satn (v/c)										
All Vehicles	3188	5.9		0.721						

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

- ¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
There are no Exit Short Lanes for Merge Analysis at this Site.												

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: New South Access				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Berrigan Drive (E)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0

Lane 4	0.0	0.0	0.0	0.0
North: New North Access				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
West: Berrigan Drive (W)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
Lane 4	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 1 [Berrigan Drive / Princep Road - PM 2036 (Site Folder: LC Sidras)]

Network: N101 [2036 PM (Network Folder: LC)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

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

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]						[Veh	Dist]				
	veh/h	%	veh/h	%											
South: Median															
Lane 1	101	33.3	101	33.3	196	0.517	100	13.3	LOS B	1.2 ^{N6}	11.4 ^{N6}	Full	7	-50.0 ^{N3}	50.0
Approach	101	33.3	101	33.3		0.517		13.3	LOS B	1.2	11.4				
West: Berrigan Drive (W)															
Lane 1	441	5.5	441	5.5	1802	0.245	100	0.0	LOS A	0.0	0.0	Full	190	0.0	0.0
Lane 2	441	5.5	441	5.5	1802	0.245	100	0.0	LOS A	7.9 ^{N5}	63.3 ^{N5}	Full	190	0.0	0.0
Lane 3	120	9.0	120	9.0	1601	0.075	100	5.6	LOS A	2.8 ^{N5}	23.5 ^{N5}	Short	74	0.0	NA
Approach	1002	5.9	1002	5.9		0.245		0.7	NA	7.9	63.3				
All Vehicles	1103	8.4	1103	8.4		0.517		1.9	NA	7.9	63.3				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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

^{N5} Results for this lane are determined by Back of Queue values of downstream lanes (proportional to lane movement flows).

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

Approach Lane Flows (veh/h)									
South: Median									
Mov. From S To Exit:	R2	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	101	101	33.3		196	0.517	100	NA	NA
Approach	101	101	33.3			0.517			
West: Berrigan Drive (W)									
Mov. From W To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	441	-	441	5.5	1802	0.245	100	NA	NA
Lane 2	441	-	441	5.5	1802	0.245	100	NA	NA
Lane 3	-	120	120	9.0	1601	0.075	100	0.0	2
Approach	882	120	1002	5.9		0.245			

	Total	%HV	Deg.Satn (v/c)
All Vehicles	1103	8.4	0.517

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis										
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Capacity Flow Rate veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.										

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Median				
Lane 1	0.0	0.0	0.0	0.0
West: Berrigan Drive (W)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 1 [Berrigan Drive / Prinsep Road - PM 2036 (Site Folder: LC Sidras)]

Network: N101 [2036 PM (Network Folder: LC)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site

Site Category: (None)

Give-Way (Two-Way)

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total veh/h]	[HV %]	[Total veh/h]	[HV %]	veh/h	v/c	%	sec		[Veh]	[Dist m]		m	%	%
South: Princep Road (S)															
Lane 1	209	27.6	209	27.6	289	0.726	100	18.1	LOS C	2.7	25.6	Short	13	-50.0 ^{N3}	NA
Lane 2	101	33.3	101	33.3	116	0.871	100	40.3	LOS E	2.4	23.7	Full	200	-50.0 ^{N7}	0.0
Approach	311	29.5	311	29.5		0.871		25.4	LOS D	2.7	25.6				
East: Berrigan Drive (E)															
Lane 1	125	8.9	112	8.1	1654	0.068	100	5.7	LOS A	0.0	0.0	Short	71	0.0	NA
Lane 2	1019	4.2	915	3.8	1856	0.493	100	0.1	LOS A	2.0 ^{N5}	15.6 ^{N5}	Full	135	0.0	0.6
Lane 3	579	4.2	521	3.8	1056	0.493	100	0.1	LOS A	0.0	0.0	Full	135	-43.1 ^{N3}	0.0
Approach	1723	4.5	1548	4.1		0.493		0.5	NA	2.0	15.6				
North: Median															
Lane 1	192	9.0	192	9.0	222	0.862	100	48.1	LOS E	2.0 ^{N4}	17.4 ^{N4}	Full	7	0.0	49.9
Approach	192	9.0	192	9.0		0.862		48.1	LOS E	2.0	17.4				
All Vehicles	2225	8.4	2050	9.1		0.871		8.7	NA	2.7	25.6				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

^{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.

^{N5} Results for this lane are determined by Back of Queue values of downstream lanes (proportional to lane movement flows).

^{N7} The capacity reduction has been determined from the queue blockage probability based on the Back of Queue value of a Site further downstream.

Approach Lane Flows (veh/h)										
South: Princep Road (S)										
Mov. From S To Exit:	L2	T1	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
	W	N			Cap. veh/h	v/c	%	%		
Lane 1	209	-	209	27.6	289	0.726	100	31.4	2	
Lane 2	-	101	101	33.3	116	0.871	100	NA	NA	
Approach	209	101	311	29.5		0.871				
East: Berrigan Drive (E)										
Mov.	L2	T1	Total	%HV		Deg.	Lane	Prob.	Ov.	

From E To Exit:	S	W			Cap. veh/h	Satn v/c	Util. %	SL Ov. %	Lane No.
Lane 1	112	-	112	8.1	1654	0.068	100	0.0	2
Lane 2	-	915	915	3.8	1856	0.493	100	NA	NA
Lane 3	-	521	521	3.8	1056	0.493	100	NA	NA
Approach	112	1436	1548	4.1		0.493			
North: Median									
Mov. From N To Exit:	T1	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	192	192	9.0		222	0.862	100	NA	NA
Approach	192	192	9.0			0.862			
Total %HV Deg.Satn (v/c)									
All Vehicles	2050	9.1		0.871					

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Capacity Flow Rate veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Princep Road (S)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Berrigan Drive (E)				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
North: Median				
Lane 1	0.0	0.0	0.0	0.0

LANE SUMMARY

 Site: LM01173 [Berrigan Drive_Jandakot Road_PM 2036 (Site Folder: LC Sidras)]

 Network: N101 [2036 PM (Network Folder: LC)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 150 seconds (Network Practical Cycle Time)

Lane Use and Performance																
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.	
	[Total	HV]	[Total	HV]						[Veh	Dist]					
	veh/h	%	veh/h	%												veh/h
South: Jandakot Road																
Lane 1	413	5.2	413	5.2	616	0.669	100	34.2	LOS C	20.5	154.5	Short	150	-0.6 ^{N7}	NA	
Lane 2	165	5.1	165	5.1	249	0.662	100	72.0	LOS E	11.7	87.8	Full	230	0.0	0.0	
Lane 3	163	5.2	163	5.2	245	0.662	100	73.2	LOS E	11.6	87.0	Short	130	0.0	NA	
Approach	740	5.2	740	5.2		0.669		51.2	LOS D	20.5	154.5					
East: Berrigan Drive East																
Lane 1	634	23.3	634	23.3	1045	0.606	100	30.0	LOS C	14.5	150.1	Short	90	0.0	NA	
Lane 2	471	23.3	471	23.3	377 ¹	1.247	100	310.2	LOS F	71.2	734.7	Full	125	-0.6 ^{N7}	100.0	
Lane 3	719	23.3	719	23.3	576 ¹	1.247	100	320.4	LOS F	107.0	1104.7	Full	125	0.0	100.0	
Lane 4	88	4.5	88	4.5	358	0.247	100	95.7	LOS F	5.4	40.1	Short	50	0.0	NA	
Approach	1912	22.4	1912	22.4		1.247		211.2	LOS F	107.0	1104.7					
North: Dean Road																
Lane 1	28	5.2	28	5.2	1076	0.026	100	8.2	LOS A	0.4	2.7	Short	66	0.0	NA	
Lane 2	9	5.2	9	5.2	212	0.045	100	64.0	LOS E	0.6	4.6	Short	73	0.0	NA	
Lane 3	9	5.2	9	5.2	212	0.045	100	64.0	LOS E	0.6	4.6	Full	110	0.0	0.0	
Lane 4	134	0.0	134	0.0	213	0.629	100	75.7	LOS E	9.6	67.1	Short	90	0.0	NA	
Approach	181	1.4	181	1.4		0.629		63.9	LOS E	9.6	67.1					
West: Berrigan Dr West																
Lane 1	134	4.5	134	4.5	1393	0.096	100	6.4	LOS A	0.7	5.5	Short	45	0.0	NA	
Lane 2	163	4.6	163	4.6	663	0.246	100	23.8	LOS C	6.0	46.3	Full	135	0.0	0.0	
Lane 3	163	4.6	163	4.6	663	0.246	100	23.5	LOS C	5.9	45.9	Full	135	0.0	50.0 ⁸	
Lane 4	260	4.6	260	4.6	206	1.263	100	328.8	LOS F	28.5 ^{N4}	220.3 ^{N4}	Short	100	0.0	NA	
Lane 5	260	4.6	260	4.6	206	1.263	100	328.8	LOS F	28.5 ^{N4}	220.3 ^{N4}	Short	90	0.0	NA	
Approach	980	4.6	980	4.6		1.263		183.2	LOS F	28.5	220.3					
All Vehicles	3813	13.5	3813	13.5		1.263		165.9	LOS F	107.0	1104.7					

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data 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 (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.

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

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

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.

Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

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

^{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 based on the Back of Queue value of a Site further downstream.

Approach Lane Flows (veh/h)										
South: Jandakot Road										
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	413	-	-	413	5.2	616	0.669	100	7.7	2
Lane 2	-	32	133	165	5.1	249	0.662	100	NA	NA
Lane 3	-	-	163	163	5.2	245	0.662	100	0.0	2
Approach	413	32	296	740	5.2		0.669			
East: Berrigan 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	634	-	-	634	23.3	1045	0.606	100	52.0	2
Lane 2	-	471	-	471	23.3	377 ¹	1.247	100	NA	NA
Lane 3	-	719	-	719	23.3	576 ¹	1.247	100	NA	NA
Lane 4	-	-	88	88	4.5	358	0.247	100	0.0	3
Approach	634	1189	88	1912	22.4		1.247			
North: Dean 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	28	-	-	28	5.2	1076	0.026	100	0.0	2
Lane 2	-	9	-	9	5.2	212	0.045	100	0.0	3
Lane 3	-	9	-	9	5.2	212	0.045	100	NA	NA
Lane 4	-	-	134	134	0.0	213	0.629	100	0.0	3
Approach	28	19	134	181	1.4		0.629			
West: Berrigan Dr 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	134	-	-	134	4.5	1393	0.096	100	0.0	2
Lane 2	-	163	-	163	4.6	663	0.246	100	NA	NA
Lane 3	-	163	-	163	4.6	663	0.246	100	NA	NA
Lane 4	-	-	260	260	4.6	206	1.263	100	78.7	3
Lane 5	-	-	260	260	4.6	206	1.263	100	89.1	4
Approach	134	326	520	980	4.6		1.263			
Total %HV Deg.Satn (v/c)										
All Vehicles	3813	13.5		1.263						

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

- ¹ Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Capacity Flow Rate veh/h		Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis			
Initial Queued	Residual Queued	Time for Residual	Duration of

	Demand veh	Demand veh	Demand to Clear sec	Oversatn sec
South: Jandakot Road				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
East: Berrigan Drive East				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	46.7	445.4	NA
Lane 3	0.0	71.3	445.4	NA
Lane 4	0.0	0.0	0.0	0.0
North: Dean Road				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
Lane 4	0.0	0.0	0.0	0.0
West: Berrigan Dr West				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0
Lane 4	0.0	27.1	473.4	NA
Lane 5	0.0	27.1	473.4	NA

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