

DCI CBRo1 Data Centre in Jerrabomberra Traffic Impact Assessment

Prepared for HDR Pty Limited

20/06/2025
Project Number S24140
Version E

OPPORTUNITIES
THROUGH
EXCELLENCE

bgeeng.com

BG
&E

Contents

1. Introduction	1
2. Secretary's Environmental Assessment Requirements	2
Background and Existing Conditions	3
2.1 Location and Land Use	3
2.2 Planning Zones	4
2.3 Surrounding Road Network	8
2.4 Public Transport Facilities	13
2.5 Existing Pedestrian Facilities	14
2.6 Existing Cyclists Facilities	15
3. Proposed Development	16
3.1 Parking and Access	16
4. Parking Provisions	18
4.1 Statutory Requirements	18
4.2 Car Parking Assessment	18
4.3 Bicycle Parking Requirements	19
5. Traffic Generation and Distribution	21
5.1 Traffic Generation	21
5.2 Traffic Distribution	22
6. Traffic Impact	25
6.1 Modelling Software	25
6.2 Performance Metrics	25
6.3 Existing Traffic Volumes	25
6.4 Demand Volumes	27
6.5 SIDRA Network Layout	29
6.6 Modelling Assumptions	30
6.7 Model Validation	31
6.8 SIDRA Results	34
7. Construction Traffic	36
8. Framework Construction Traffic Management Plan (CTMP)	37
8.1 Traffic Management Objectives	37
8.2 Traffic Management Principles	37
8.3 Existing User Group Hierarchy	37
8.4 Governance	38
8.5 Proposed working hours	38
8.6 Truck routes and controls	38
9. Access, Parking and Circulation	39
9.1 Driveways and Internal Roads	39
9.2 Sight Distance	40
9.3 Parking Dimensions	42
9.4 Swept Paths	42
10. Summary and Conclusions	46

Appendices

Appendix A - SIDRA Output

48

Appendix B - Turning Movement Survey

49

Document Control				
Revision	Date	Prepared	Reviewed	Approved
A	8/11/2024	Bing Lin / Leon Piedade	Adrian Wanasili	Mohammad Kazemi
B	22/11/2024	Bing Lin / Leon Piedade	Adrian Wanasili	Mohammad Kazemi
C	17/12/2024	Bing Lin / Leon Piedade	Adrian Wanasili	Mohammad Kazemi
D	24/01/2025	Leon Piedade	Adrian Wanasili	Mohammad Kazemi
E	20/06/2025	Leon Piedade	Adrian Wanasili	Mohammad Kazemi

A person using BG&E Pty Limited (BG&E) documents or data accepts the risks of:

- a) using the documents or data in electronic form without requesting and checking them for accuracy against the original hard copy version; and
- b) using the documents or data for any purpose not agreed to in writing by BG&E.

1. Introduction

BG&E has been engaged by HDR to undertake a Traffic Impact Assessment (TIA) for the proposed DCI CBR01 Data Centre located at No. 2 Wolseley Place Jerrabomberra.

The proposed DCI CBR01 data centre includes the following works:

- Site preparation works including demolition, tree and vegetation clearing and bulk earthworks.
- Construction, fit out and operation of single storey, 20MW data centre building with a maximum building height of 7.6m and total gross floor area of 5,826m² comprising:
 - Loading dock space.
 - Five (5) data halls.
 - Ancillary office space and amenities.
- Provision of required utilities including:
 - Two (2) 270kL above-ground combined fire sprinkler & hydrant tanks
 - Two (2) 11kV switch-rooms on site
- Vehicle and pedestrian access provided via Wolseley Place.
- Associated landscaping and site servicing.
- Installation of site services and drainage infrastructure.
- 60 at-grade parking spaces including 2 DDA spaces.

The TIA investigates the traffic and transport aspects associated with the proposed Data Centre and responds to the Traffic, Transport and Accessibility section of the Secretary's Environmental Assessment Requirements (SEARs). This includes the following:

- Review of the existing site conditions and transport infrastructure servicing the site.
- Review of the proposed data centre layout to ensure compliance with relevant standards, including the preparation of vehicle swept path diagrams to ensure satisfactory manoeuvring by design vehicles.
- A parking demand assessment for the data centre.
- An assessment of bicycle parking requirements.
- Review of internal traffic movements to ensure the safe and efficient movement of pedestrians, cyclists, and private vehicles.
- Traffic generation and distribution of generated traffic across all site entries / egresses.
- Traffic impact of the data centre including SIDRA intersection modelling of the following intersections:
 - Wolseley Place and Environa Drive.
 - Environa Drive and Tomsitt Drive.
 - Tomsitt Drive and Lanyon Drive.
 - Tomsitt Drive, Limestone Drive, Edwin Land Parkway and Jerrabomberra Parkway.

2. Secretary's Environmental Assessment Requirements

This TIA has been prepared to respond to the Traffic, Transport and Accessibility section of the SEARs as shown in Table 1.

Table 1 - SEARs

Item 6	SEARs	Section Reference (This Report)
Traffic, Transport and Accessibility	Details of all traffic types and volumes likely to be generated during construction and operation, including a description of key access and haul routes	Section 5 and Section 7
	An assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts on existing performance levels of nearby intersections (using industry standard modelling).	Section 6
	Plans demonstrating how all vehicles likely to be generated during construction and operation and awaiting loading, unloading or servicing can be accommodated on the site to avoid queuing in the street network.	Section 7 and Section 8
	Details and plans of any proposed internal road network, loading dock provision and servicing, on-site parking provisions, and sufficient pedestrian and cyclist facilities, in accordance with the relevant Australian Standards.	Section 9
	Swept path analysis for the largest vehicle requiring access to the development.	Section 9
	Details of road upgrades, infrastructure works, or new roads or access points required for the development if necessary.	This TIA has determined that no external road upgrade, infrastructure works, or new roads or access points are required (Section 6).

Background and Existing Conditions

2.1 Location and Land Use

The proposed DCI CBR01 Data Centre located at No. 2 Wolseley Place in Jerrabomberra, New South Wales. As shown in Figure 1, the site is surrounded by a predominantly rural area with residential blocks located to the east.



Figure 1 – Subject Site (NearMap, 2024)

2.2 Planning Zones

The subject site is zoned B7 – Business Park whilst the surrounding land use is mixed in nature as shown in Figure 2.



Figure 2 - Planning Zones (NSW Planning Portal, 2024)

A summary of the South Jerrabomberra DCP 2015 report, Poplars Innovation Hub and Services Precinct plan, South Jerrabomberra Regional Job Precinct Draft Master Plan 2023, and South Jerrabomberra Regional Job Precinct Traffic and Transport Technical Report 2023 is provided in Section 2.2.1, 2.2.2, 2.2.3, and 2.2.4.

2.2.1 South Jerrabomberra DCP 2015

The South Jerrabomberra DCP 2015 document sets out 5 key development areas of South Jerrabomberra that include Poplars, Environa, North Tralee, South Tralee, and South Tralee Extension. All 5 key development areas are located along the southeastern edge of the ACT and NSW border as shown in Figure 3.

The desired future character of the development areas is summarised below:

- **Poplars:** The desired outcome of the Poplars region is a mix of office, light industrial, small-scale retail, business and community uses that provide high quality urban design for people who work or live in the locality. This region consists of an area approximately 7 ha for a Neighbourhood Centre precinct to the north of Tomsitt Drive, and an area of approximately 30 ha for a Business Park precinct to the south of Tomsitt Drive.

- **Environa:** The desired outcome of the Environa region is a mix of industrial and employment opportunities. The area is restricted for residential development due to the high noise contours from flights to and from Canberra Airport.
- **North Tralee:** The desired outcome of the North Tralee region is a mix of business and employment uses, including light industrial to serve the local area whilst protecting and enhancing the Jerrabomberra Creek corridor.
- **South Tralee:** The desired outcome of the South Tralee region is for environmentally responsible development including high quality pathways, direct connections, attractive and safe streets to encourage walking and cycling. This region is planned to have a neighbourhood centre that provides a traditional main street shopping experience and a residential area with a diverse range of housing options.

The staging of development of the 5 key areas is expected to occur by 2038 and is expected to provide up to 2,748 dwellings in South Jerrabomberra.

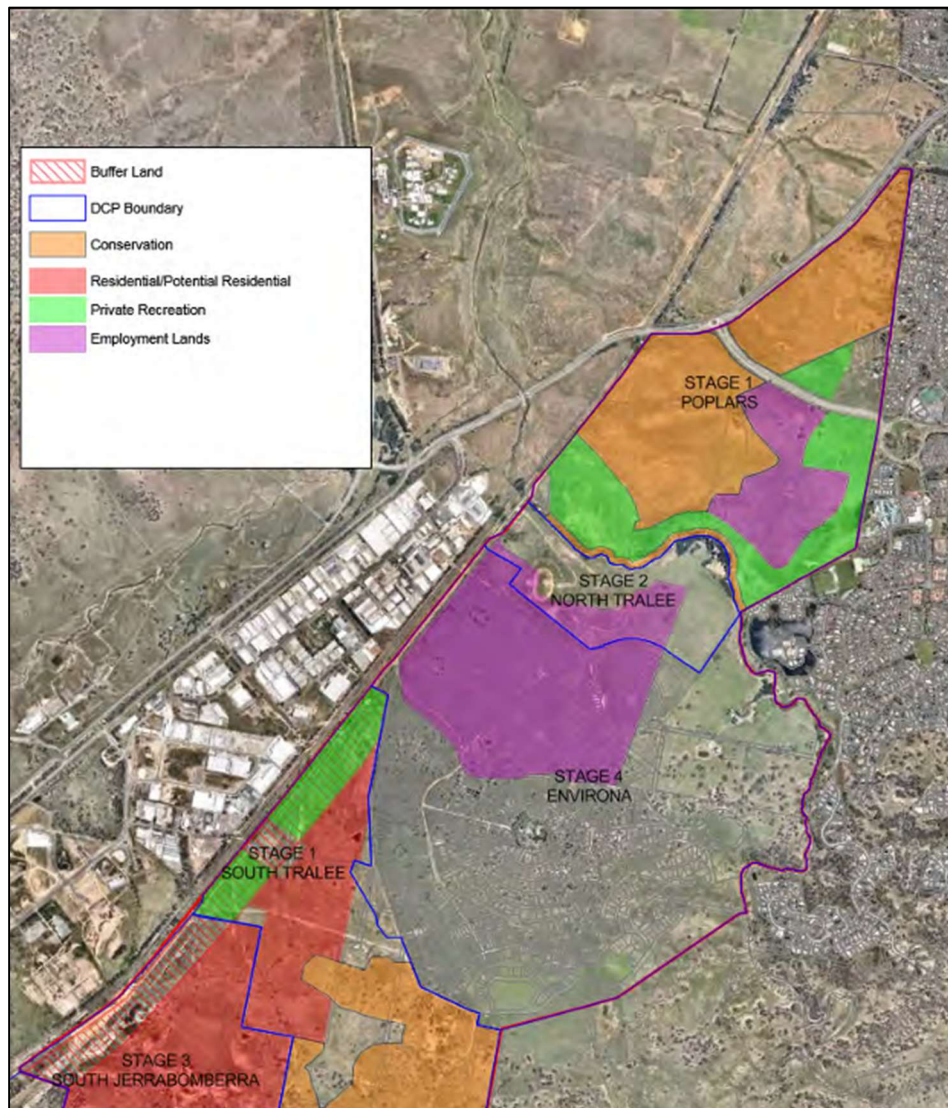


Figure 3 - South Jerrabomberra Staging Plan (South Jerrabomberra DCP 2015)

2.2.2 Poplars Innovation Hub and Services Precinct

The following summary of the Poplars Innovation Hub and Services precinct has been taken from the Riverview group website which was the project management company that previously managed the development. Black Mountain Project Management is the current development manager and shareholder of the Poplars Innovation Hub and services precinct. Black Mountain Project Management alongside local and state governments envisage the Poplars region to be an area for economic development and jobs growth. The ultimate plan proposes approximately 10 ha of retail area and 30 ha of business park and is expected to employ around 10,000 people. An early concept map of the Poplars region taken from the Riverview Group website is shown in Figure 4.

Subdivision work for the retail area is complete with construction of retail stores currently underway. The DCI CBRo1 Data Centre site is located within Innovation Precinct Stage 1 which currently has other sites under construction. The precinct is expected to be complete by 2027.



Figure 4 - Poplars Region Concept Map (Riverview Group Website, 2024)

2.2.3 South Jerrabomberra Regional Job Precinct Draft Master Plan 2023

The South Jerrabomberra Regional Job Precinct draft master plan has been prepared by the New South Wales government in consultation with Queanbeyan-Palerang Regional Council, NSW and ACT government agencies and key stakeholders to set out the key development opportunities. Figure 5 presents the South Jerrabomberra Regional Job Precinct plan.

The master plan proposes to open land in South Jerrabomberra to provide for up to 4,000 jobs in a variety of industries including advanced manufacturing, defence, aerospace, cyber security, and light industry. Additionally, it is planned that the precinct will provide up to 1,500 homes, a local centre, green spaces, a new high school, and a regional sports complex. A key focus of the master plan is for the developments to have a strong focus on amenity and liveability including the provision of a network of cycling and walking paths.

The master plan proposes the South Jerrabomberra development to occur in 4 stages each spanning 5 years each commencing in 2026 and completing in 2041.

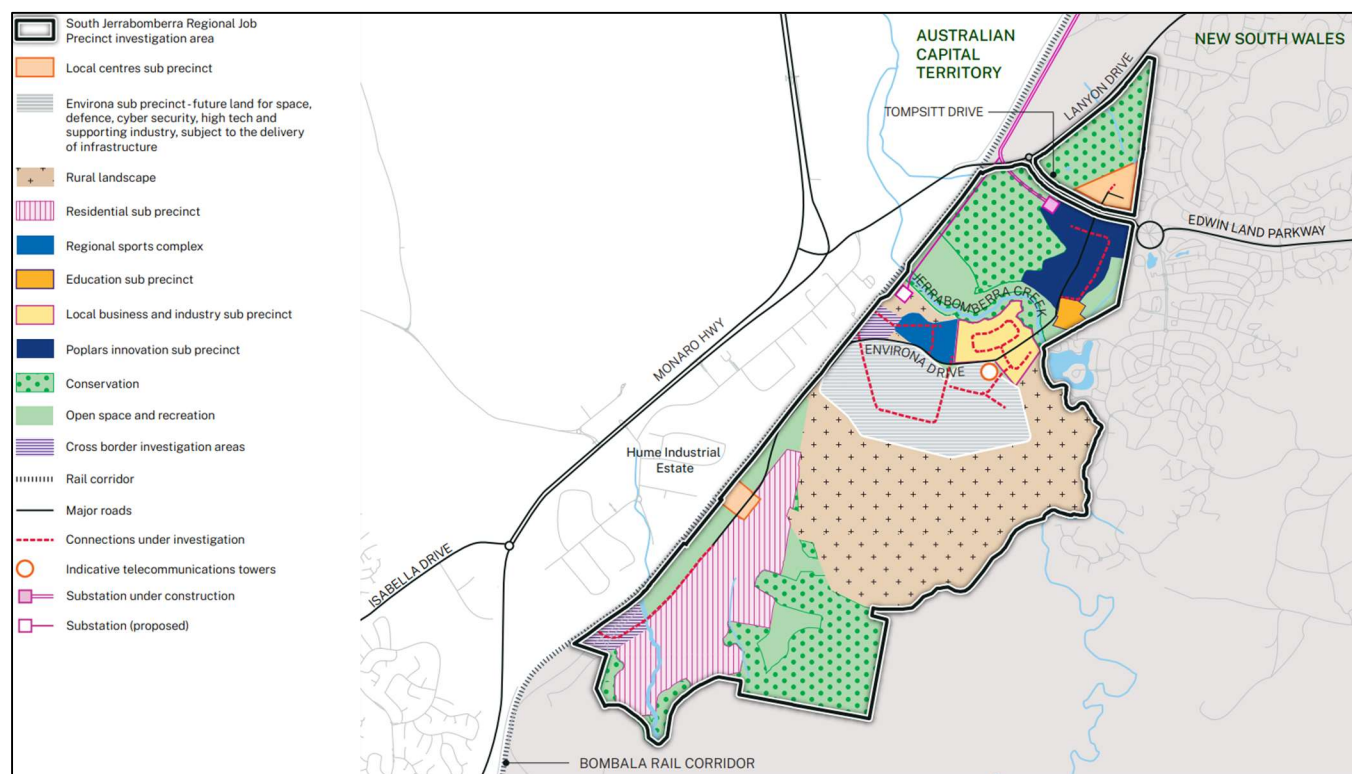


Figure 5 - Precinct Plan (South Jerrabomberra Regional Job Precinct Draft Master Plan, 2023)

2.2.4 South Jerrabomberra Regional Job Precinct Traffic and Transport Technical Report 2023

The South Jerrabomberra Regional Job Precinct traffic and transport technical report has been prepared by SMEC and is one of the technical reports that informed the development of the draft master plan. The traffic and transport technical report was prepared to assess the infrastructure needs to help attract new businesses to the South Jerrabomberra region.

The report identified that the existing road network would have insufficient capacity in the peak periods of the masterplan 2031 scenario. To mitigate the insufficient capacity of the existing network, the report identified the need to deliver additional connections into the existing road network to provide redundancy and resilience which includes:

- A connection into the precinct from Sheppard Street in the north inclusive of an upgrade to the Lanyon Drive interchange providing direct access to the Monaro Highway as shown in Figure 6
- A connection into the precinct from an extension of Isabella Drive in the south providing direct access to the Monaro Highway as shown in Figure 6

The study also states that upgrades to the public transport network would be required to support growth in the area, in addition to the already agreed plan for a park and ride facility in North Poplars.

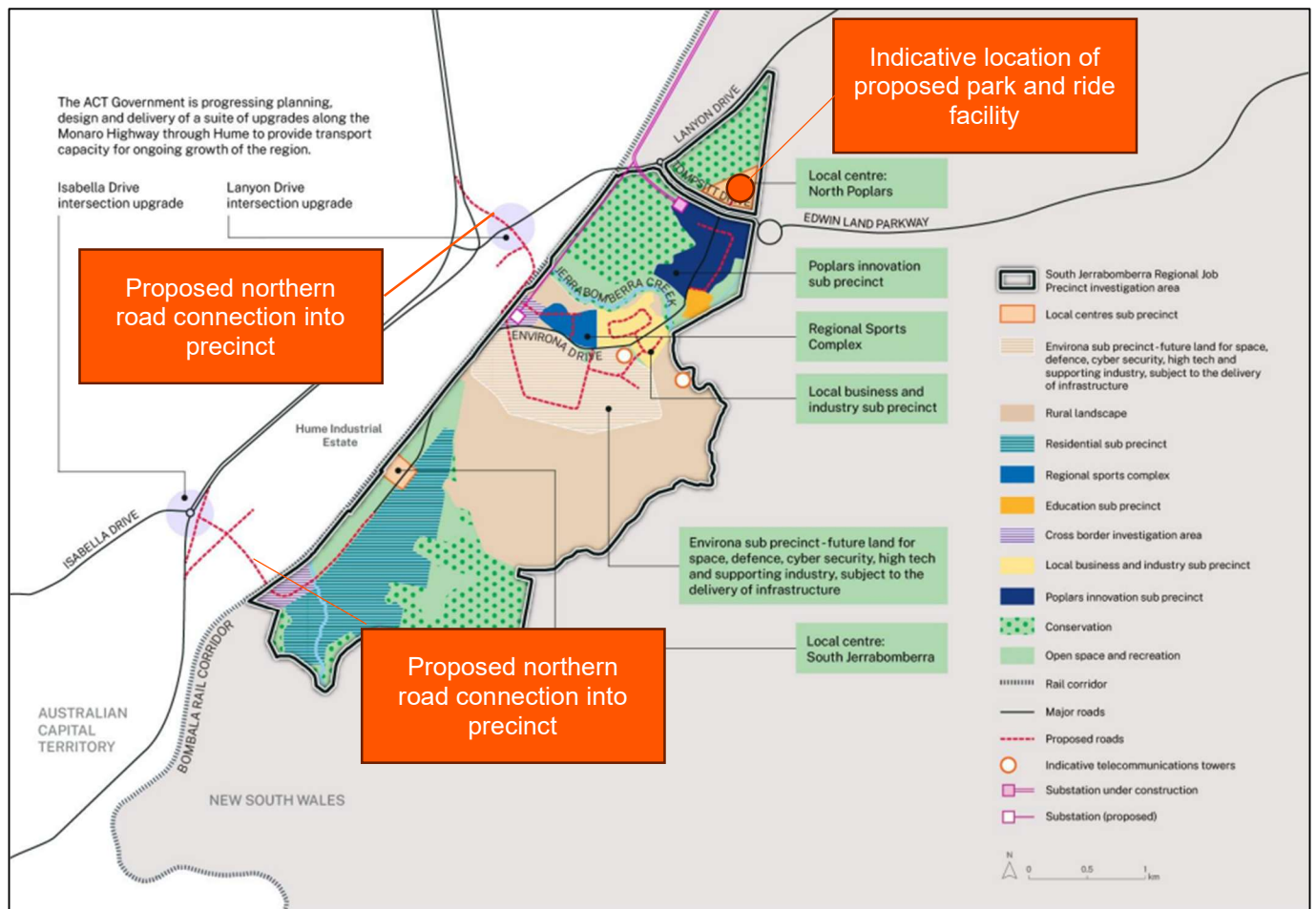


Figure 6 - Draft Master Plan (South Jerrabomberra Regional Job Precinct Traffic and Transport Technical Report 2023)

2.3 Surrounding Road Network

2.3.1 Tomsitt Drive

Tomsitt Drive is an arterial road under the authority of Queanbeyan-Palerang Regional Council. The road runs in an east-west direction and provides connections to Lanyon Drive to the west and Limestone Drive/Edwin Land Parkway/Jerrabomberra Parkway roundabout to the east.

The road features two traffic lanes in each direction with an average carriageway width of approximately 22m separated by a 7.5m wide median. Adjacent to the site, the road is subject to a posted speed limit of 80km/h. There are no footpaths located on either side of the road.

A street view representation of Tomsitt Drive adjacent to the subject site is presented in Figure 7.



Figure 7 - Tomsitt Drive (facing west)

2.3.2 Environa Drive

Environa Drive fits the classification of an arterial road and is under the authority of Queanbeyan-Palerang Regional Council. The road runs in a north-south direction and provides connections to Tomsitt Drive to the north and Anderson Place in Hume to the south.

The road features two traffic lanes in each direction with an average carriageway width of approximately 20m separated by a 6m median. Adjacent to the site, the road is subject to a posted speed limit of 70km/h. The road features footpaths on both sides of the road.

A street view representation of Environa Drive adjacent to the subject site is presented in Figure 8.



Figure 8 - Environa Drive (facing south)

2.3.3 Wolseley Place

Wolseley Place is a local road under the authority of Queanbeyan-Palerang Regional Council. The road runs in an east-west direction and connects to Environa Drive to the east.

The road features one traffic lane in each direction with an average carriageway width of 7m. Adjacent to the site, the road is subject to a speed limit of 50km/h. The road features footpaths on both sides of the road.

A street view representation of Wolseley Place adjacent to the subject site is presented in Figure 9.



Figure 9 - Wolseley Place (facing east)

2.3.4 Lanyon Drive

Lanyon Drive is a state highway under the authority of Transport for New South Wales (TfNSW). The road runs in a north-east to southwest direction and provides connections to Canberra Avenue to the north-east and Monaro Highway to the south-west.

The road features two traffic lanes in each direction with an average carriageway width of 20m separated by a 6.5m wide median. The road is subject to a posted speed limit of 80km/h. The road features short sections of footpath approximately 120m in total length on the southern side of the road adjacent to the intersection with Tomsitt Drive.

A street view representation of Lanyon Drive is presented in Figure 10.



Figure 10 - Lanyon Drive (facing north-east)

2.3.5 Limestone Drive

Limestone Drive is an arterial road under the authority of Queanbeyan-Palerang Regional Council. The road runs in a north-south direction providing connections to Halloran Drive to the north and Tomsitt Drive to the south.

The road features one traffic lane in each direction with an average carriageway width of 10.5m. The road is subject to a posted speed limit of 50km/h. There are footpath provisions on both sides of the road.

A street view representation of Limestone Drive is presented in Figure 11.



Figure 11 - Limestone Drive (facing south)

2.3.6 Edwin Land Parkway

Edwin Land Parkway is an arterial road under the authority of Queanbeyan-Palerang Regional Council. The road runs in an east-west direction and provides connections to Tomsitt Drive to the west and Ellerton Drive in Karabar to the east.

The road features one traffic lane in each direction with an average carriageway width of 7m. The road is subject to a posted speed limit of 50 km/h near the intersection with Limestone Drive and Tomsitt Drive and there is a footpath on the southern side of the road that extends the entire length of the road and a footpath on the northern side of the road between the roundabout and Unwin Avenue.

A street view representation of Edwin Land Parkway adjacent to the subject site is presented in Figure 12.



Figure 12 - Edwin Land Parkway (facing west)

2.3.7 Jerrabomberra Parkway

Jerrabomberra Parkway is a collector road under the authority of Queanbeyan-Palerang Regional Council. The road runs in a north-south direction and provides connections to Tomsitt Drive to the north and Bicentennial Drive to the south.

The road features one traffic lane in each direction with an average carriageway width of 8m. The road is subject to a posted speed limit of 50km/h. There is a footpath on the eastern side of the road.

A street view representation of Jerrabomberra Parkway adjacent to the subject site is presented in Figure 13.



Figure 13 - Jerrabomberra Parkway (facing north)

2.4 Public Transport Facilities

Bus routes No. 835, 836, and 840X operate along roads in close vicinity to the site as shown in Figure 14. The bus route origins, destinations, and frequencies are provided in Table 2.

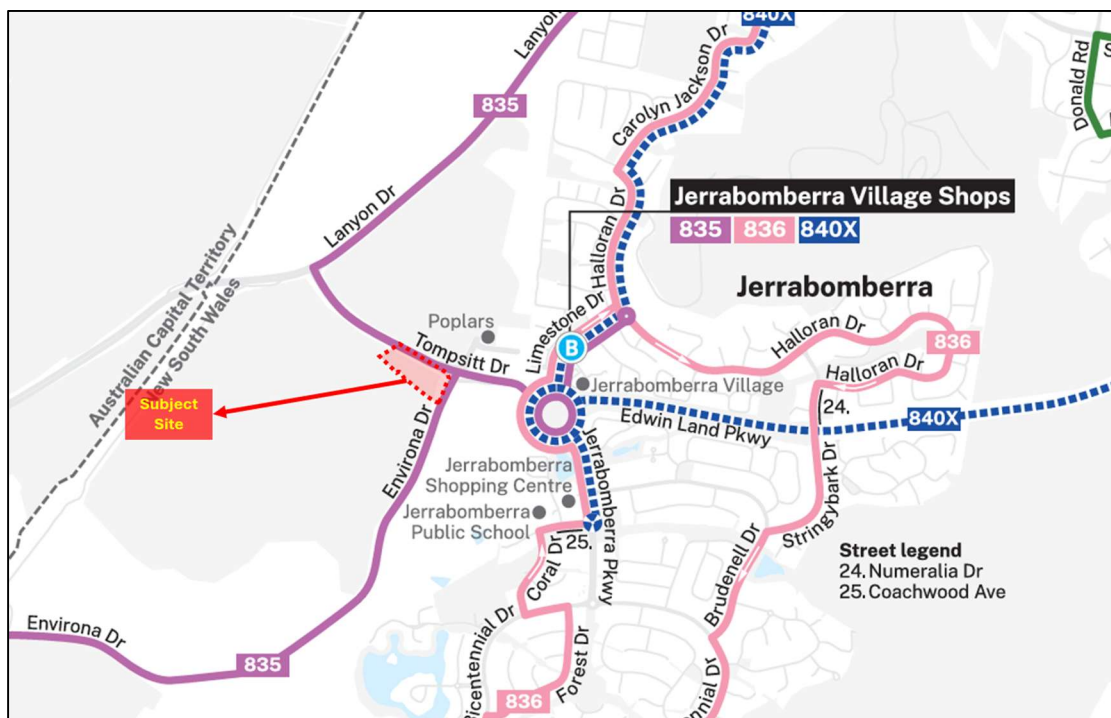


Figure 14 - Bus routes in close vicinity to the site (Queanbeyan bus network, Transport New South Wales)

Table 2 - Bus Service Frequency

Bus Route	Line	Frequency
835	Tralee to Queanbeyan via South Jerrabomberra and Queanbeyan West	MON to FRI: Every 1 hour to 2 hours (6:29am – 7:41pm) SAT: Every 2 hours (9:02am – 5:53pm)
836	Queanbeyan to Jerrabomberra via North Terrace	MON to FRI: Every 1 hour to 2 hours (6:15am – 8:08pm) SAT: Every 2 hours (8:04am – 6:48pm)
840X	Googong and Jerrabomberra to Canberra CBD Express	MON to FRI: 3 services in the morning toward Canberra CBD (7:17am – 7:57am) 3 services in the evening toward Googong (4:45pm – 5:45pm)

2.5 Existing Pedestrian Facilities

There are various segmented sections of unconnected footpath along Tomsitt Drive, Wolseley Place, and Environa Drive in close vicinity to the subject site as shown in Figure 15. There are also signalised pedestrian crosswalks provided at the following intersections:

- Tomsitt Drive / Lanyon Drive.
- Tomsitt Drive / Environa Drive.
- Environa Drive / Wolseley Place.

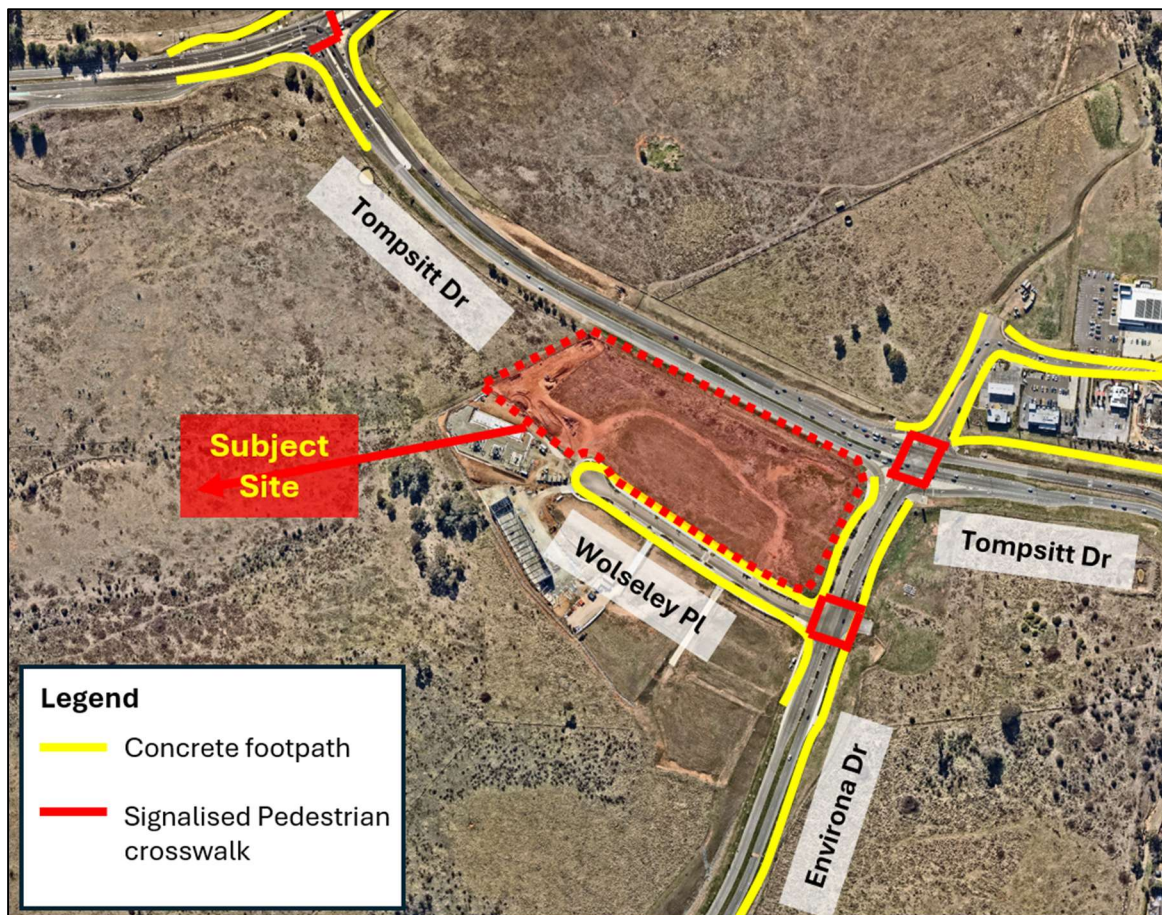


Figure 15 - Existing pedestrian facilities in close vicinity to the site

2.6 Existing Cyclists Facilities

Within the surrounding area, both on-road and off-road cycle paths are provided adjacent to the site providing excellent connectivity for cyclists.

On-road cycle lanes can be found along Lanyon Drive, Tomsitt Drive, and Environa Drive. Off-road cycle facilities in the form of shared paths can be found at the following locations:

- The Lanyon Drive / Tomsitt Drive intersection to allow cyclists to exit off-road to navigate through the intersection.
- At the Tomsitt Drive approach to the Tomsitt Drive / Jerrabomberra Parkway roundabout.
- Along sections of both sides of Environa Drive.

Figure 16 illustrates the formal cycle paths in the local area surrounding the site.



Figure 16 - Cycle Facilities

3. Proposed Development

The project proposes the construction of a single storey 20MW data centre located at No. 2 Wolseley Place in Jerrabomberra.

An architectural render of the proposed data centre is shown in Figure 17. The building is to have a maximum height of 7.6m and a total gross floor area of 5,826m² comprising of five data halls, ancillary office space and amenities.



Figure 17 - Architectural Render (HDR Concept Plans, 2024)

3.1 Parking and Access

The proposed project site layout is shown in Figure 18. This includes the following parking and access provisions:

- Internal circulation route of 6m in width providing access to two internal car parks and service area from two access points on Wolseley Place.
- A western parking area providing 20 parking spaces, an eastern parking area providing 24 parking spaces, and 16 parking spaces located on the southern edge of the internal circulation route.
- Central access road of 6m in width and turn around bay providing access to loading dock and waste bin area.

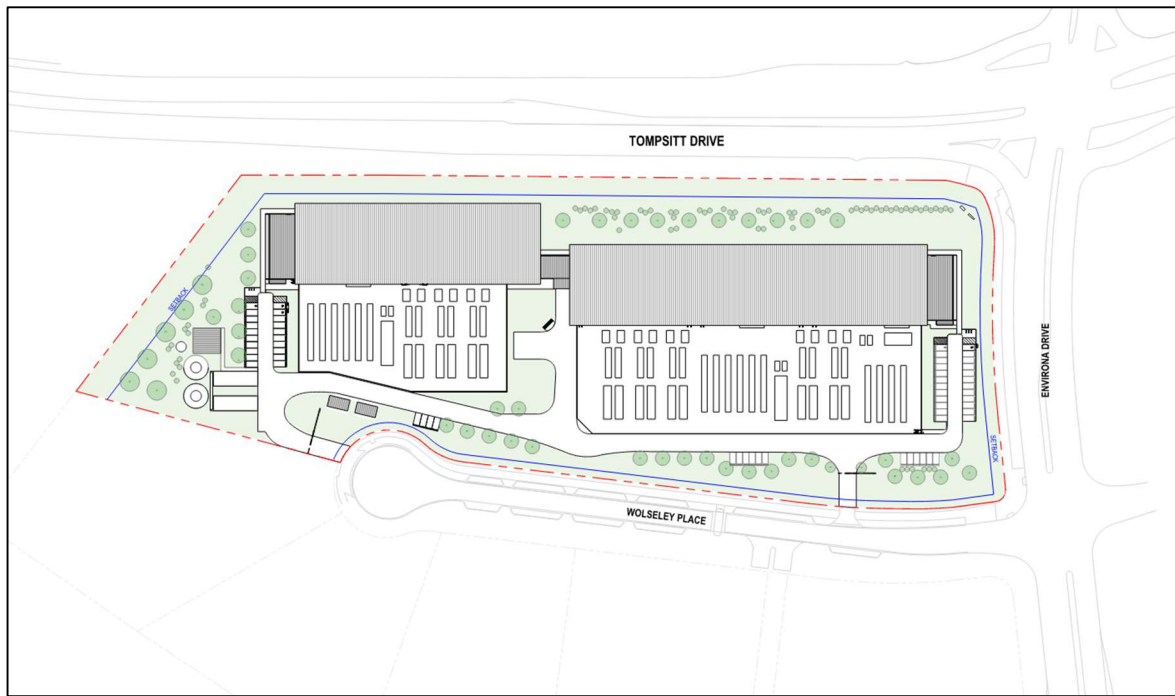


Figure 18 - Site Layout (HDR Concept Plans, 2024)

4. Parking Provisions

4.1 Statutory Requirements

The car parking requirements associated with the proposed data centre has been analysed based on the following:

- The floor area associated with the data centre space and ancillary office space.
- Although the development use is that of a Data Centre, the Queanbeyan Development Control Plan does not have exact parking requirements and thus 'industry use' was deemed the most appropriate.

Table 3 shows the statutory parking requirements for the data centre facility based of the office area and industry area.

Table 3 - Statutory Parking Requirements

Use	Area (m2)	Statutory Parking Requirement	Total
Office	626	1 space per 60m2 GFA	10
Industry	4305	1.3 space per 100m2 GFA	56
Total			66

The accessible parking space requirements are shown in Table 4 and has been analysed based on the following:

- The Queanbeyan Development Control Plan does not have accessible parking space requirements for industrial or office buildings, as such, the requirements set out in the Building Code of Australia (BCA) has been used.
- Table D3.5 of BCA sets out requirements for the number of accessible parking spaces for different classes of buildings. The two classes selected for the data centre are class 5 and class 7b, as the building closely matches the descriptions set out in BCA being:
 - Class 5 – “an office building used for professional or commercial purposes”.
 - Class 7b – “warehouses, storage buildings or buildings for the display of wholesale goods”.

Table 4 - Statutory Accessible Parking Requirements

Statutory Accessible Parking Requirement for class 5 and class 7 buildings	Total Car Parking Spaces Required	Required Accessible Parking spaces
1 space for every 100 car parking spaces or part thereof	66	1

4.2 Car Parking Assessment

The car parking assessment is summarised in Table 5 and demonstrates that the development does not meet statutory requirements with a shortfall of 8 car parking spaces. Although the development does not meet statutory requirements, the proposed number of car parking spaces is deemed appropriate due to the following reasons:

- Expected car parking demand
- Availability of public transport
- Cycle facilities
- No data centre specific statutory parking rates.

This is further outlined in sections 4.2.1, 4.2.2, 4.2.3, and 4.2.4.

Table 5 - Car Parking Assessment

Type	Proposed Parking Spaces	Statutory Parking Requirement	Surplus / Shortfall
Parking spaces	58	66	-8
Accessible parking spaces	2	1	+1

4.2.1 Expected Car Parking Demand

During peak operation of the Data Centre facility, it is expected that there will be a total of 24 staff and up to 6 visitors. Taking a conservative approach and assuming all staff members and visitors arrived at the same period and all people attending the site used a vehicle, there would be an estimated car parking demand of 30 parking spaces. This estimated car parking demand is much less than the provided car parking spaces of 58.

4.2.2 Availability of Public Transport

As outlined in Section 2.4, the site has access to two bus routes that provide connections to Queanbeyan with a frequency of one service per hour and an express bus route that provides connections in the morning and evening to Canberra. These bus route connections are considered to be an excellent alternative to private motor vehicles for staff and visitors attending the site.

4.2.3 Cycle Facilities

As described in Section 2.6, there are on-road cycle facilities provided along Lanyon Drive, Tomsitt Drive, and Environa Drive. Additionally, there are also short sections of shared paths provided at the Lanyon Drive / Tomsitt Drive intersection and Tomsitt Drive / Jerrabomberra roundabout that improve safety for cyclists navigating these intersections.

The presence of cycle routes in the vicinity of the site, along with the proposed safe and secure cycle parking facilities proposed, will make cycling a good alternative to private motor vehicles for staff members and visitors to the site.

4.2.4 No Specific Data Centre Statutory Parking Rates

The statutory parking rate selected for the Data Centre site is under the industrial classification due to the Queanbeyan Development Control Plan not having a specific rate for data centres. It is noted that the industrial classification encompasses a wide range of buildings such as warehouses and distribution facilities which are likely to generate a higher car parking demand than data centres due to its building use. As such, the statutory parking requirement of the proposed data centre facility should be considered in line with the expected car parking demand of 30 parking spaces.

4.3 Bicycle Parking Requirements

The bicycle parking requirements set out in AP-G88-17 Cycling Aspects of AUSTROADS Guides document provides the following:

Document	Use	Employee Bicycle Parking Requirement	Class	Visitor Bicycle Parking Requirement	Class
AP-G88-17 Cycling Aspects of AUSTROADS Guides	Office	1 per 200 m2 gfa	1 or 2	1 per 750 m2 over 1000 m2	3
	Light Industry	1 per 1000 m2 gfa	1 or 2	-	3

The development has a bicycle parking requirement of 7 User Class 1 or 2 spaces and 1 User Class 3 space.

Document	User Class	Employee Bicycle Parking Requirement	Class	Visitor Bicycle Parking Requirement	Class
AP-G88-17 Cycling Aspects of AUSTRROADS Guides	Office	3	1 or 2	1	3
	Light Industry	4	1 or 2	0	3

The development proposes 6 bicycle parking racks (12 parking spaces) which is considered to be User Class 3 according to guidance set out in AP-G88-17 Cycling Aspects of AUSTRROADS Guides shown in Figure 19.

For the development to meet requirements it will need:

- 7 User Class 1 or 2 parking facilities; and
- At least 1 User class 3 facility.

The design has 12 user class 3 facilities. It is noted that although the bicycle racks are not within a lockable enclosure, the entire data centre facility is gated with security and as such it is considered that both staff and guest bicycle parking will be secure.

Table 11.2: Classification of bicycle parking facilities				
Class	Security level	Description	Duration of parking	Main user type
1	High	Fully enclosed individual locker	All day and night	Bike-and-ride commuters at railway and bus stations
2	Medium	Lockable enclosure, shelter or compound fitted with class 3 facilities where cyclist is responsible for locking their bicycle within the communal enclosure	All day	Regular employees, students, regular bike-and-ride commuters
3	Low	Bicycle rails or racks to which both the bicycle frame and wheels can be locked	Short to medium term	Shoppers, visitors, employees of workplaces where security supervision of the facility is provided

Source: Austroads (2017d) Table C9 1, Commentary 9.

Figure 19 - Bicycle Parking Classifications

5. Traffic Generation and Distribution

To determine the traffic generation associated with the expansion of the development, the following assumptions have been adopted:

- Guidance from the RTA Guide to Traffic Generating Developments document has been adopted with respect to traffic generation for industry factories and office space.
- It is noted that though the development use is that of a Data Centre, the RTA Guide to Traffic Generating Developments does not have traffic generation factors for a Data Centre and industry factories were deemed the most appropriate.
- Traffic generation for both AM and PM peak periods has been estimated.
- The guide does not provide a traffic generation rate for the AM peak and as such is assumed to be equal to that of the PM peak.
- For the AM peak, a 100% inbound and 0% outbound split has been adopted.
- For the PM peak, a 0% inbound and 100% outbound split has been adopted.

5.1 Traffic Generation

5.1.1 RTA Guide to Traffic Generating Developments

Table 6 below presents the traffic generation for the development:

Table 6 – RTA Traffic Generation

Guide	Period	Industry Gross Floor Area (100m ²) (A ^I)	Office Gross Floor Area (100m ²) (A ^O)	Generation Formula	Total Generation	Inbound (veh)	Outbound (veh)
RTA Guide	Daily	4.3	0.6	$5 \times A^I + 10 \times A^O$	28	-	-
RTA Guide	Evening (PM) peak			$1 \times A^I + 2 \times A^O$	6	0	6
-	Morning (AM) peak			-	6	6	0

5.1.2 First Principles

The first principles approach estimates traffic generation during the morning and evening peak based of the following:

- The total number of staff is 24.
- The total number of visitors is expected to be between 3 to 6.

Taking a conservative approach, if all employees and visitors arrived and departed during the morning and evening peak, the traffic generation for both peaks would be 30 vehicles.

The first principles approach has been selected for the traffic generation as it is based on actual expected number of staff and visitors and produces a traffic generation greater than the estimate calculated from the RTA guide.

A summary of the traffic generation and inbound and outbound traffic is provided in Table 7.

Table 7 - First Principles Traffic Generation

Peak	Total generation	Inbound (veh)	Outbound (veh)
Morning	30	30	0
Evening	30	0	30

5.2 Traffic Distribution

In order to undertake the post construction traffic assessment, the peak hour traffic generation associated with the site must be distributed through the adjacent road network.

The inbound and outbound traffic distribution has primarily focused on major routes such as arterial and collector roads to ensure the potential impacts on the critical intersections has been adequately assessed. The traffic distribution has also been based on existing turning movement diagrams received from Trans Traffic Survey.

The estimated inbound and outbound distribution split is presented in Figure 20 and Figure 21 respectively.

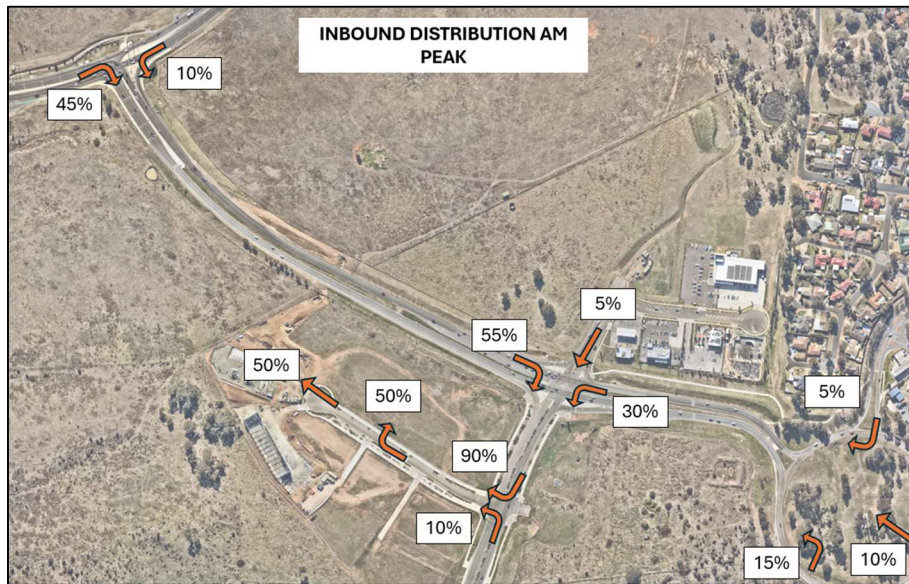


Figure 20 - Inbound Traffic Distribution

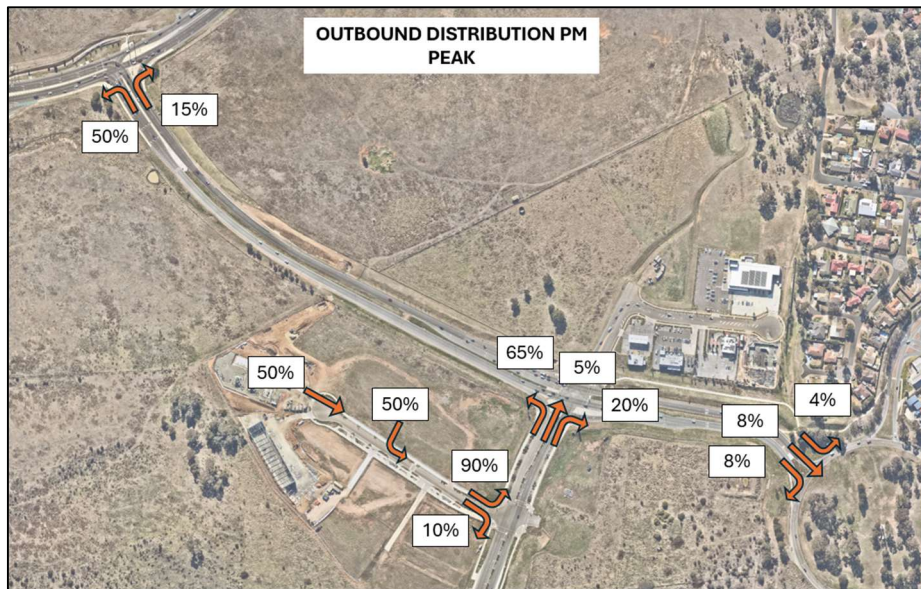


Figure 21 - Outbound Traffic Distribution

Considering both the estimated AM and PM traffic generation and distribution, the traffic generation associated with the proposed development has been outlined in Figure 22.

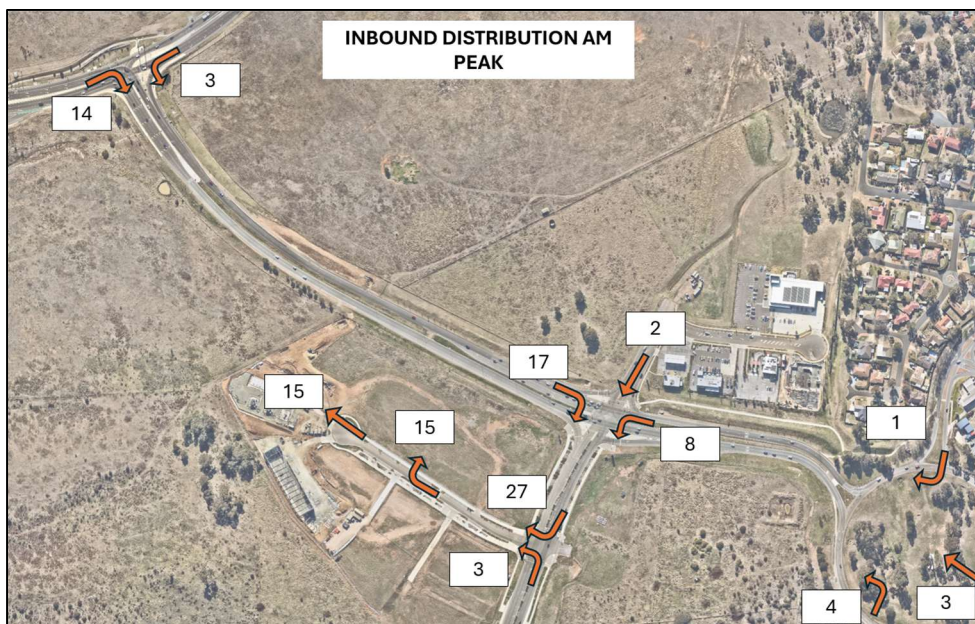


Figure 22 - Inbound Traffic Volumes AM Peak

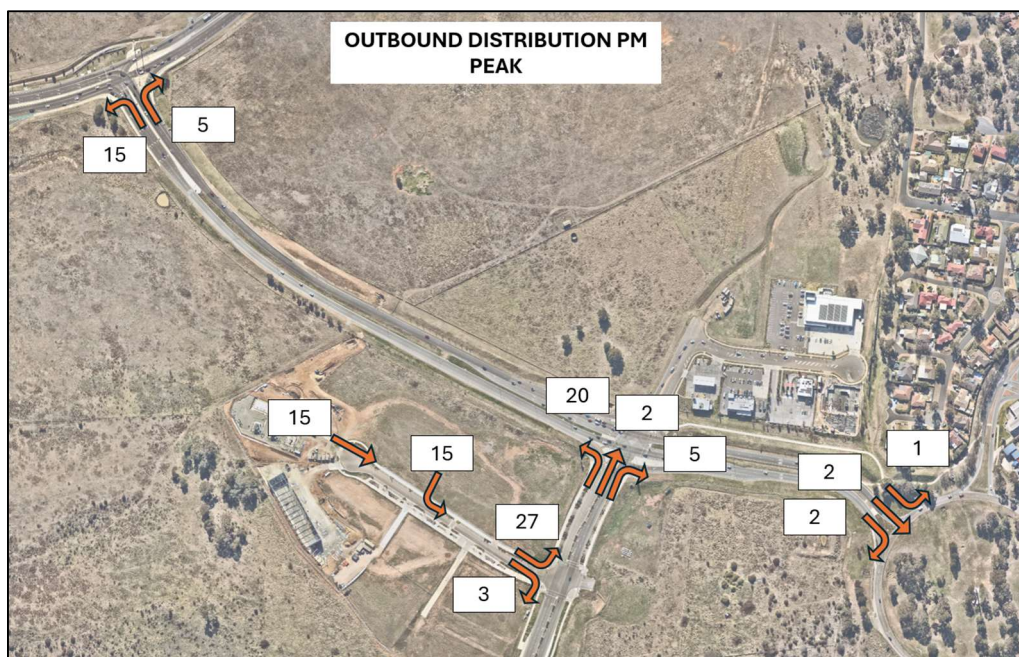


Figure 23 - Outbound Traffic Volumes PM Peak

6. Traffic Impact

To understand and quantify the traffic impact of the proposed development, a SIDRA network assessment has been undertaken considering adjacent intersections which may be impacted by the proposed development including:

- Wolseley Place and Environa Drive.
- Environa Drive and Tomsitt Drive.
- Tomsitt Drive and Lanyon Drive.
- Tomsitt Drive, Limestone Drive, Edwin Land Parkway and Jerrabomberra Parkway.

6.1 Modelling Software

The intersections have been analysed using the traffic modelling software, SIDRA. SIDRA is a micro-analytic software package which is widely used and accepted as a tool to evaluate signalised and unsignalised intersections.

6.2 Performance Metrics

Key performance metrics used to analyse the performance of the intersection assessed include the Degree of Saturation (DoS), Level of Service (LoS), Average Delay and 95th Percentile Queue.

For signalised intersections, the intersection DoS represents the flow to capacity ratio for the most critical movement. In accordance with the Austroads Guide to Traffic Management, Part 3, the operational characteristics are generally considered satisfactory when DoS is less than 0.90 (0.80 for sign-controlled intersections) as presented in Table 8.

Table 8 - Intersection DoS Rating

DoS	Operation
Less than 0.6	Excellent operating conditions
0.6-0.7	Very good operating conditions
0.7-0.8	Good operating conditions
0.8-0.9	Acceptable operating conditions
0.9 and greater	Poor operating conditions

6.3 Existing Traffic Volumes

The existing traffic volumes for the Lanyon Drive / Tomsitt Drive, Environa Drive / Tomsitt Drive, Wolseley Place / Environa Drive, and Tomsitt Drive / Limestone Drive intersections are presented in Figure 24 to Figure 27 respectively.

The existing traffic volumes have been adopted from traffic surveys undertaken on Thursday 17th October 2024 and are for the network AM and PM peak occurring between 7:45 – 8:45 am and 4:45 – 5:45 pm.

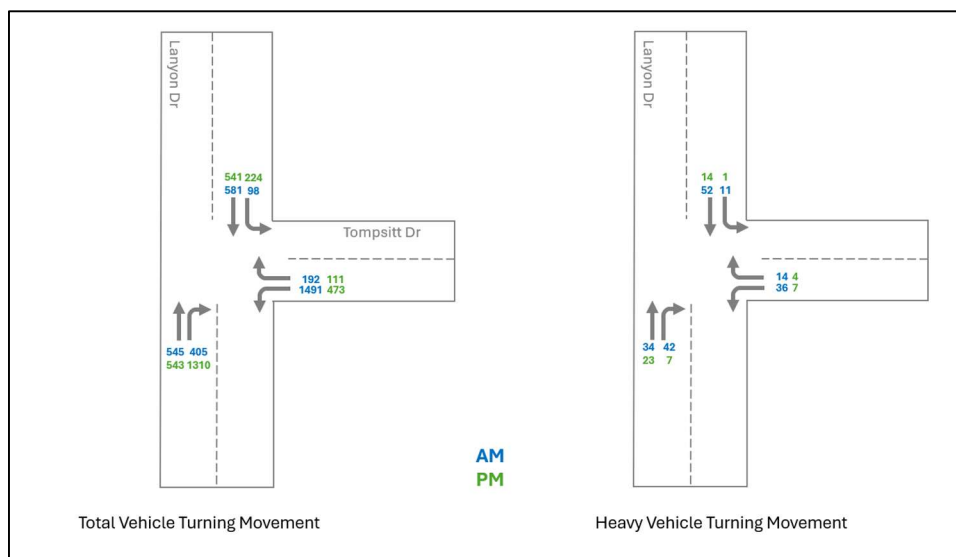


Figure 24 - Lanyon Drive / Tomsitt Drive Existing Volumes

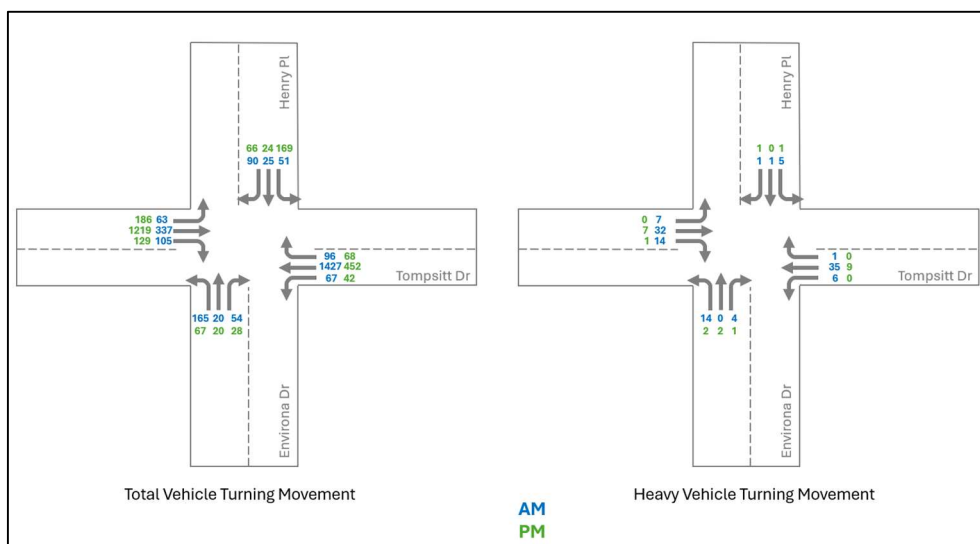


Figure 25 - Environa Drive / Tomsitt Drive Existing Traffic Volumes

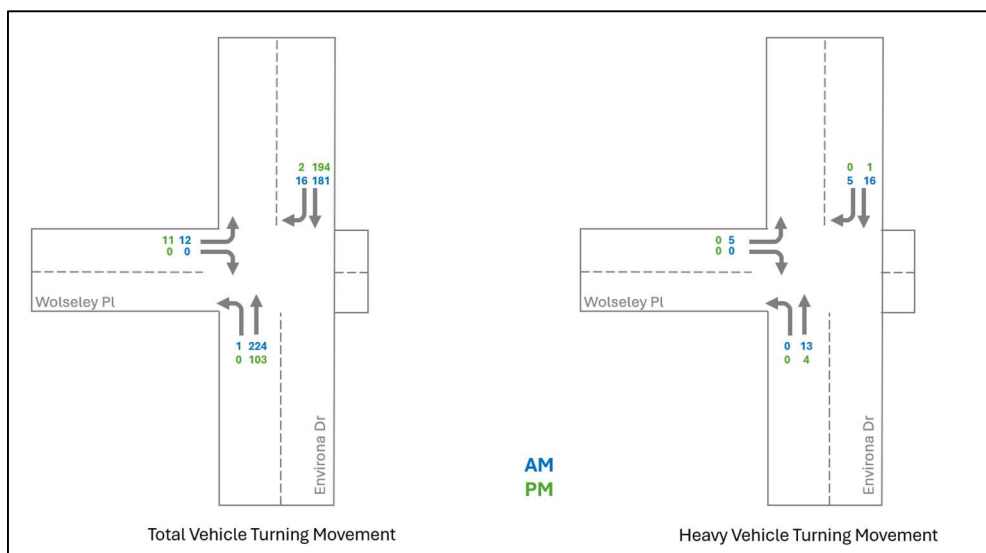


Figure 26 - Wolseley Place / Enviroana Drive Existing Traffic Volumes

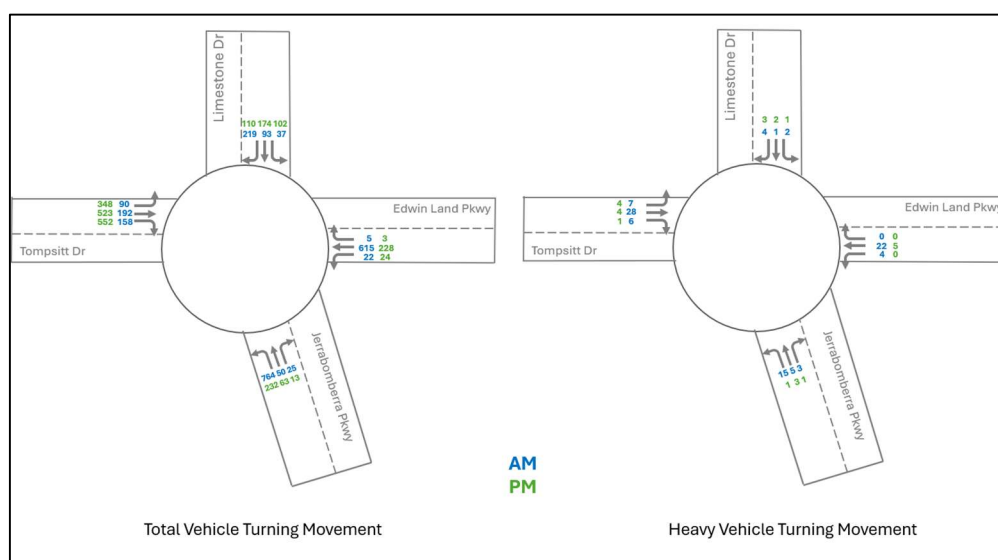


Figure 27 - Tomsitt Drive / Limestone Drive Existing Traffic Volumes

6.4 Demand Volumes

To estimate future year demand volumes, an opening year of 2026 has been assumed as well as a 2.5% compounded traffic growth rate. The 2.5% compounded growth rate has been based on the rate used in the South Jerrabomberra Regional Job Precinct traffic and transport technical report prepared by SMEC.

The traffic generation volumes outlined in Section 5 have been added to the 2026-year growth volumes to determine the post-development traffic demand at each intersection. Post-development turning movement diagrams are illustrated in Figure 28 to Figure 31.

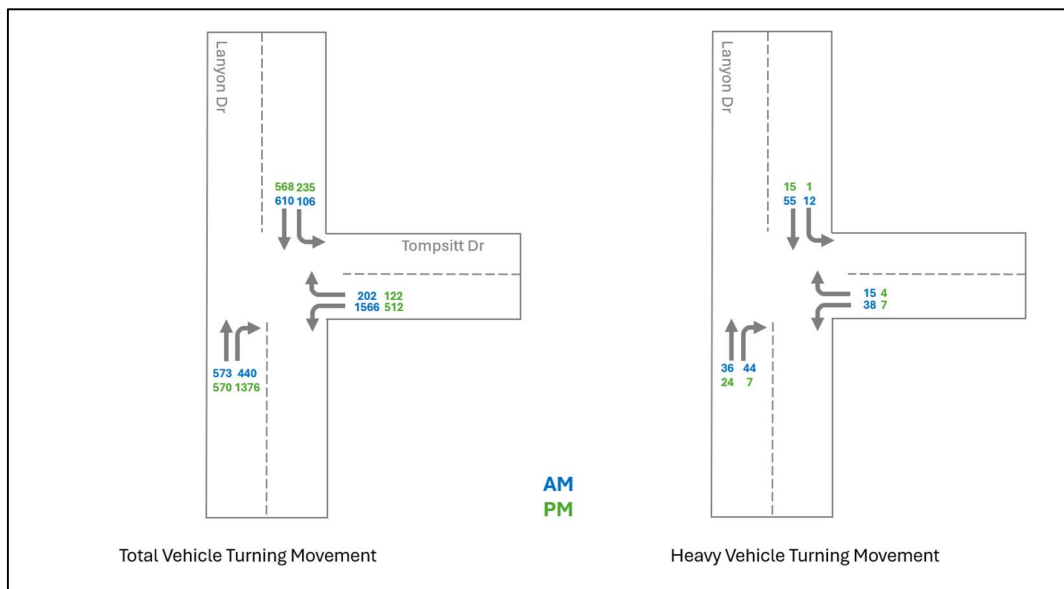


Figure 28 - Lanyon Drive / Tomsitt Drive Post-Development Traffic Volumes

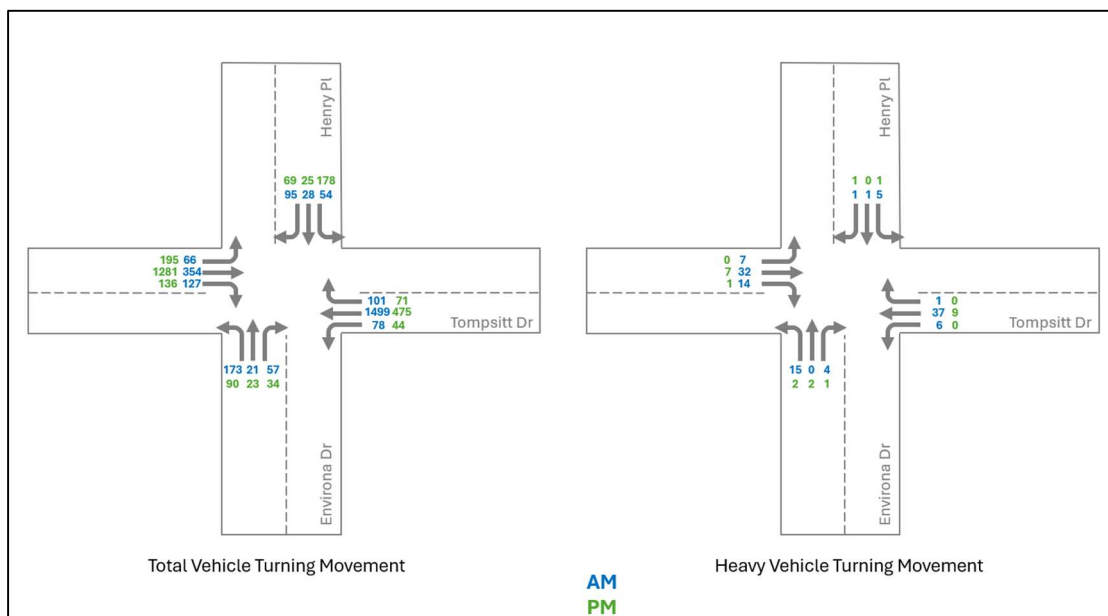


Figure 29 - Environa Drive / Tomsitt Drive Post-Development Traffic Volumes

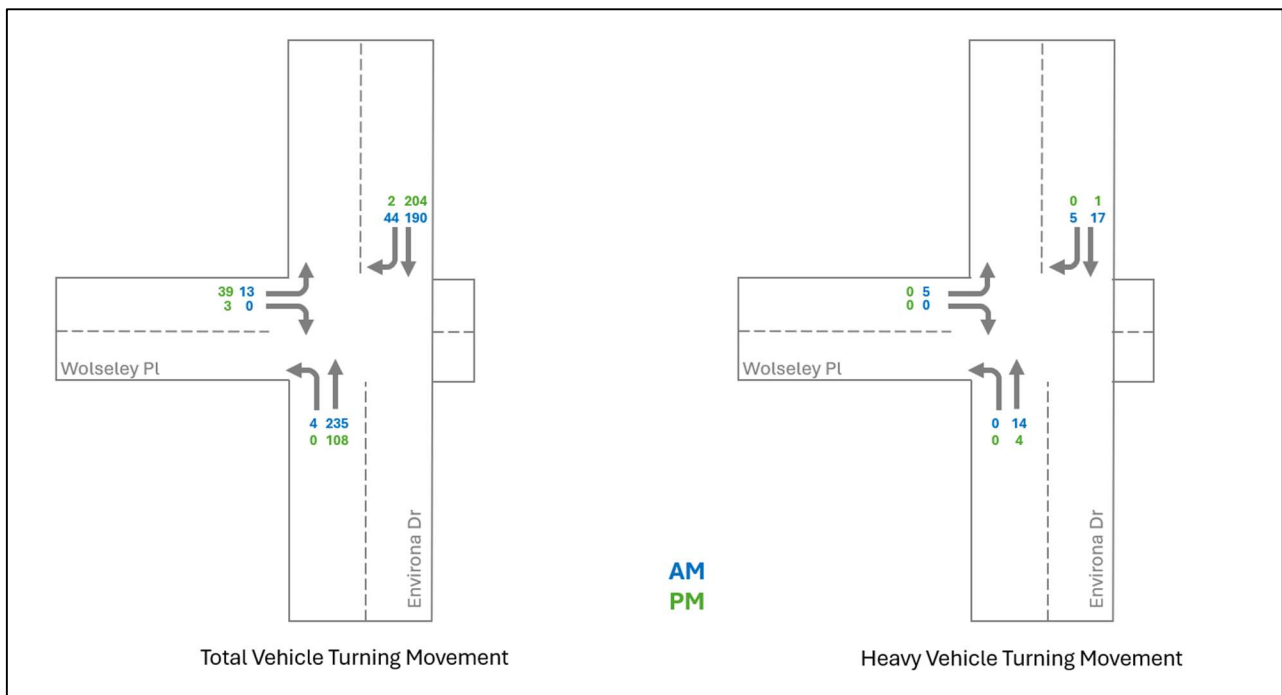


Figure 30 - Wolseley Place / Enviroña Drive Post-Development Traffic Volumes

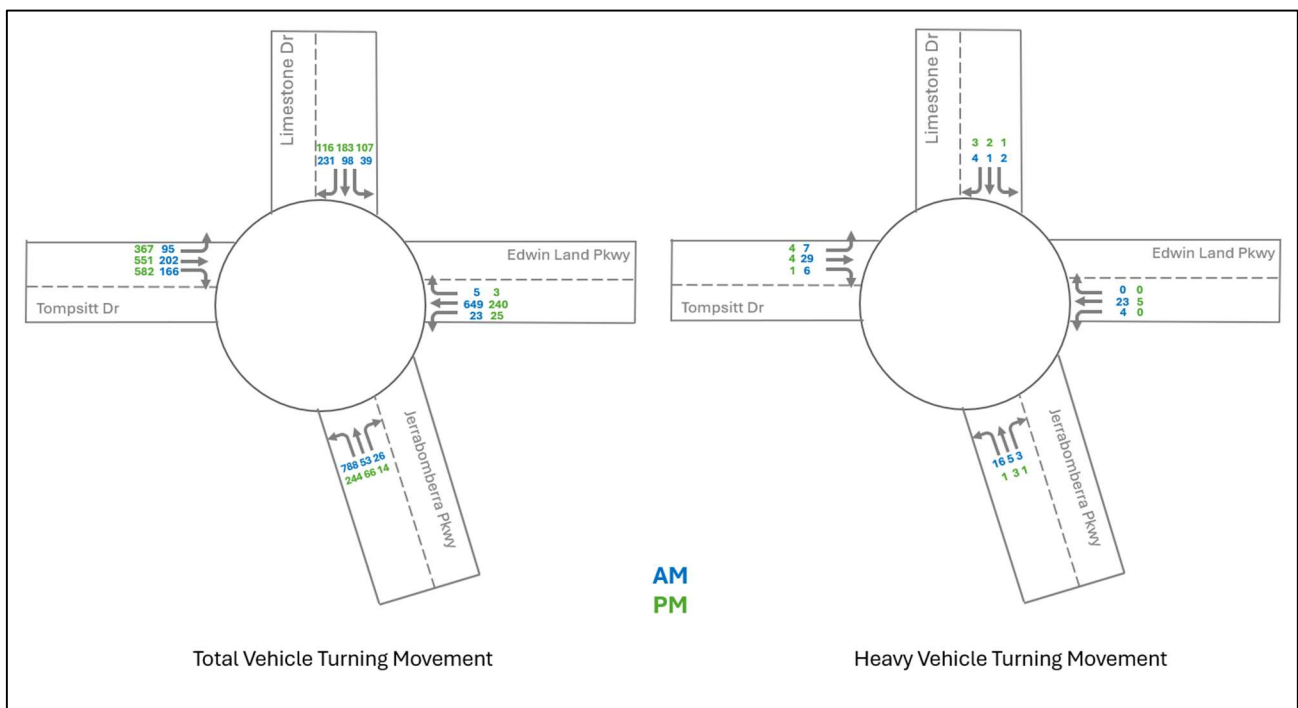


Figure 31 - Tomsitt Drive / Limestone Drive Post-development Traffic Volumes

6.5 SIDRA Network Layout

The adopted SIDRA network layout for both the existing and future scenario is presented in Figure 32.

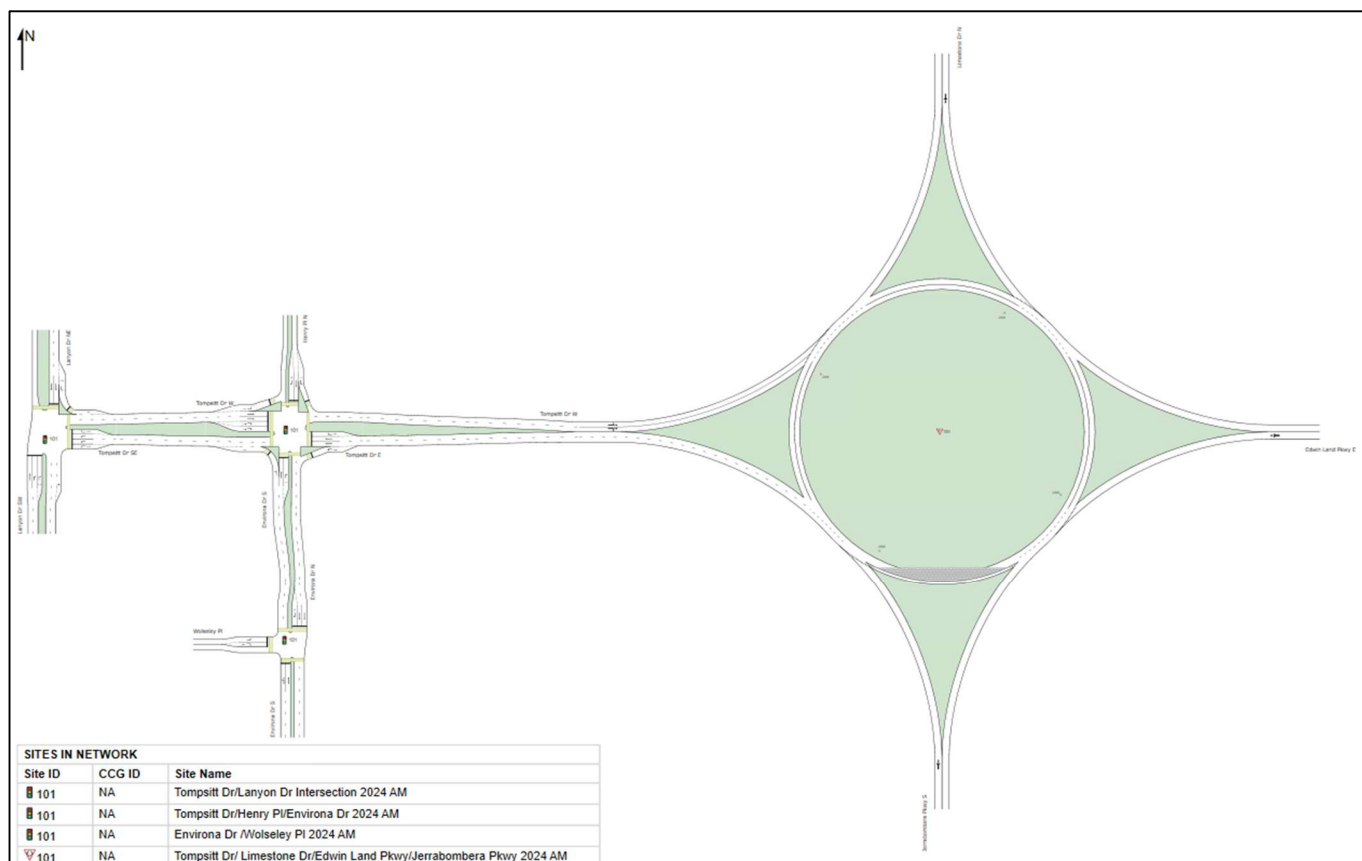


Figure 32 – SIDRA Network Diagram

6.6 Modelling Assumptions

The following assumptions have been adopted in the SIDRA analysis:

- The existing intersection configuration, layout and lane lengths/widths have been adopted as observed on aerial imagery.
- Adopted traffic volumes are in accordance with the calculations as presented in Section 4 and the surveys undertaken by Trans Traffic Survey.
- It has been assumed that the development will be operational in 2026.
- A 2.5% compounded traffic growth has been assumed and projected to the assumed opening year. This has been based on the rate used in the South Jerrabomberra Regional Job Precinct traffic and transport technical report prepared by SMEC.
- Level of Service (LoS) Method has been adopted as Delay (SIDRA) and therefore the delay experienced dictates the LoS of the intersection.
- Signalised intersection phasing has been assumed based on SCATS data received from TfNSW.
- Cycle and phase times have been based on periodic statistics for Tuesday 15th October 2024, provided by TfNSW.
- SIDRA default gap acceptance has been adopted for all intersections except the Jerrabomberra Parkway / Tomsitt Drive roundabout in the assessment.
- Peak Flow Period = 30mins.
- All other SIDRA default parameters have been maintained.

6.7 Model Validation

The calibration process undertaken for the existing 2024 scenario included the following:

- Signalised intersections: adjusting signal phase times in line with periodic statistics
- Roundabout: adjusting gap acceptance on all approaches.

The SIDRA model was validated based on 95th percentile queues surveyed by Trans Traffic on Thursday 17th October. Figure 33 to Figure 40 show bar graphs comparing the 95th percentile queues surveyed by Trans Traffic and the SIDRA model output for all intersections AM and PM peak. The graphs also include the acceptable validation error bars as per guidelines set out in table 28 of Transport Modelling Guidelines Volume 5: Intersection Modelling published by Department of Transport Victoria.

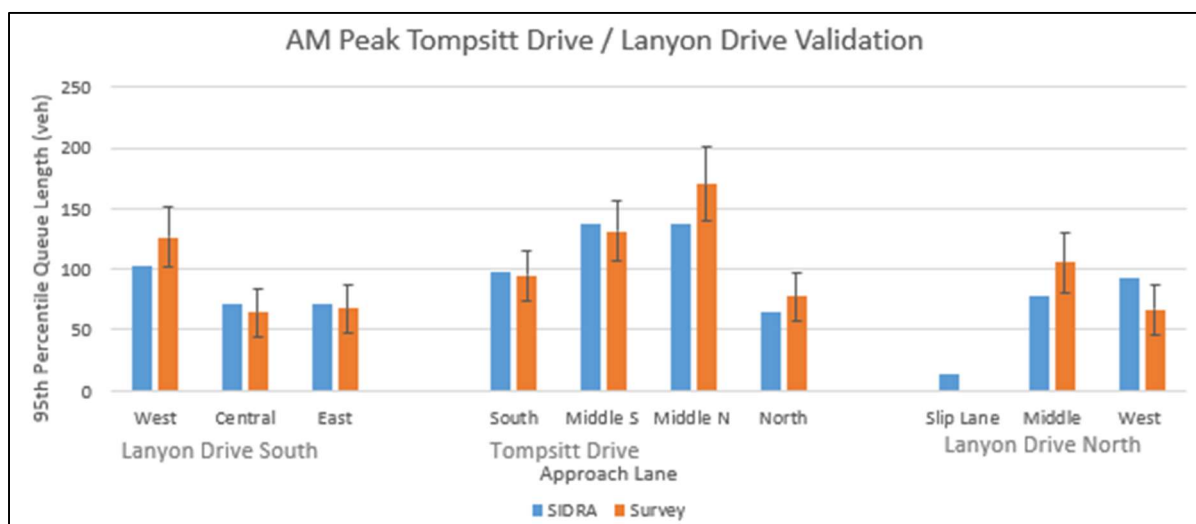


Figure 33 - AM Peak Tomsitt Drive / Lanyon Drive Validation

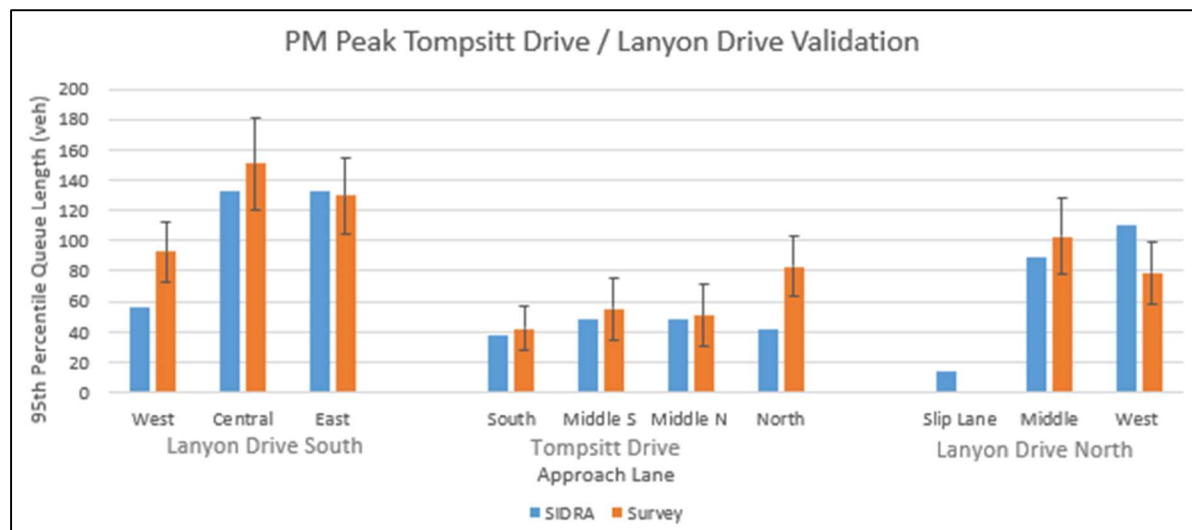


Figure 34 - PM Peak Tomsitt Drive / Lanyon Drive Validation

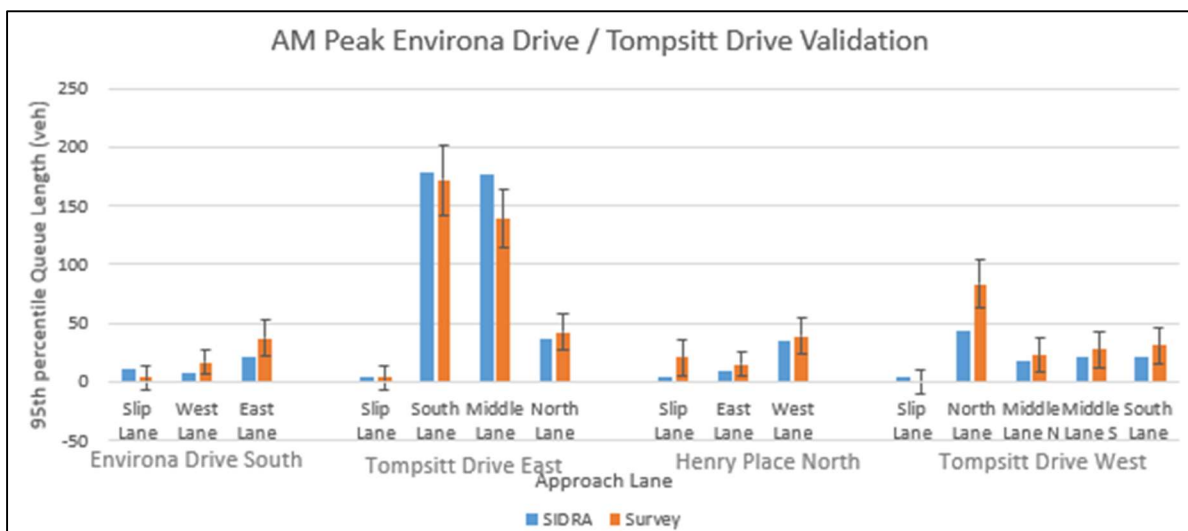


Figure 35 - AM Peak Environa Drive / Tomsitt Drive Validation

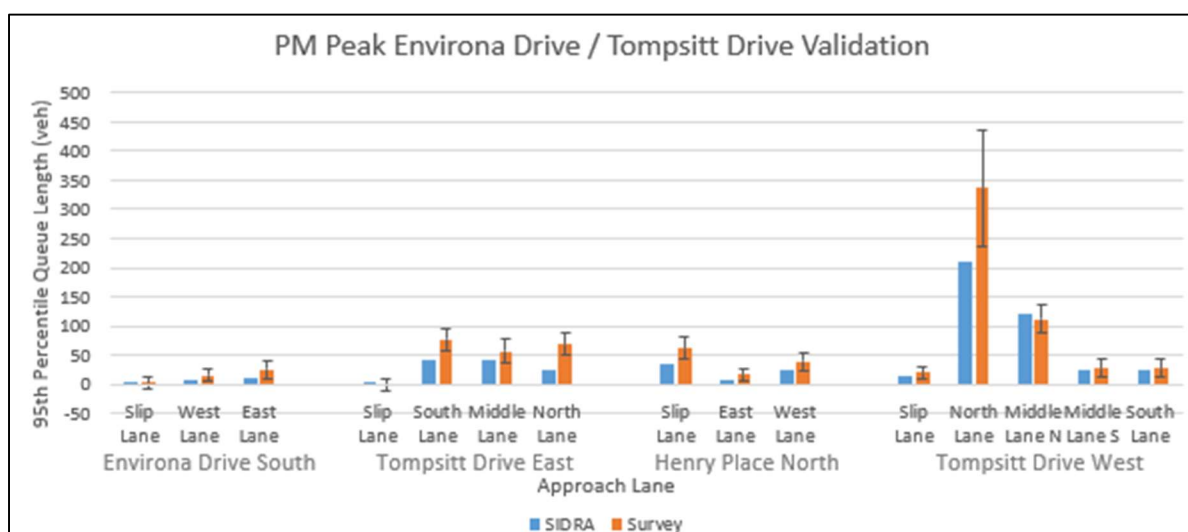


Figure 36 - Environa Drive / Tomsitt Drive Validation

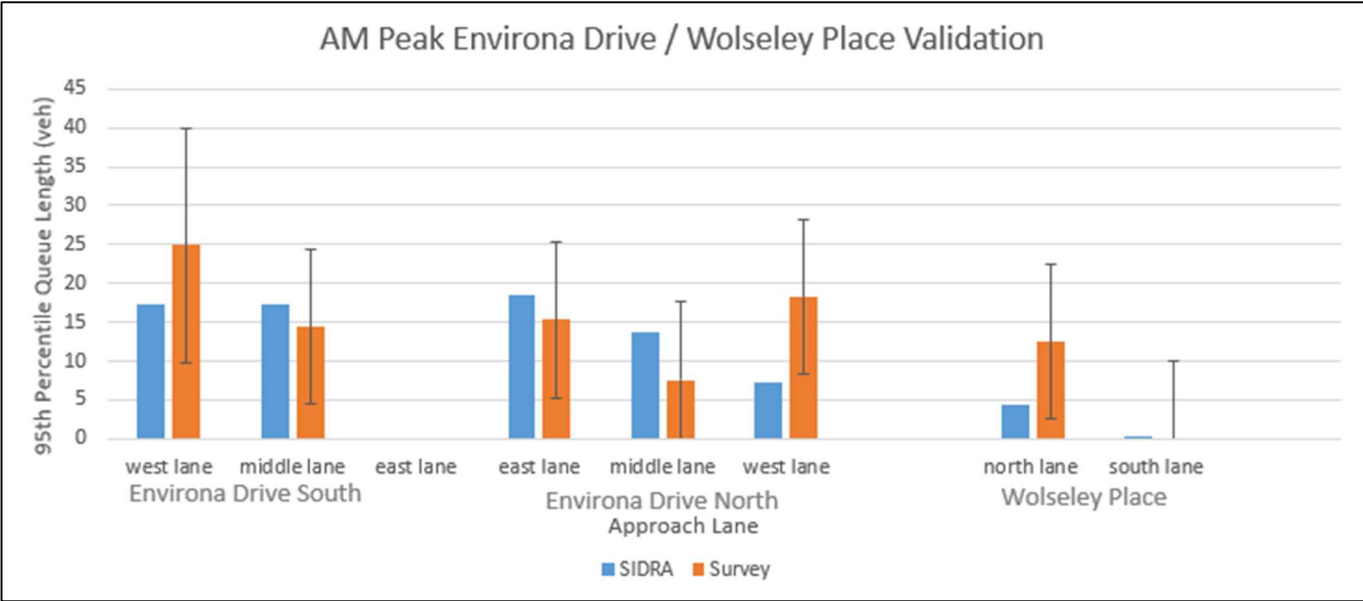


Figure 37 - AM Peak - Envirova Drive / Wolseley Place Validation

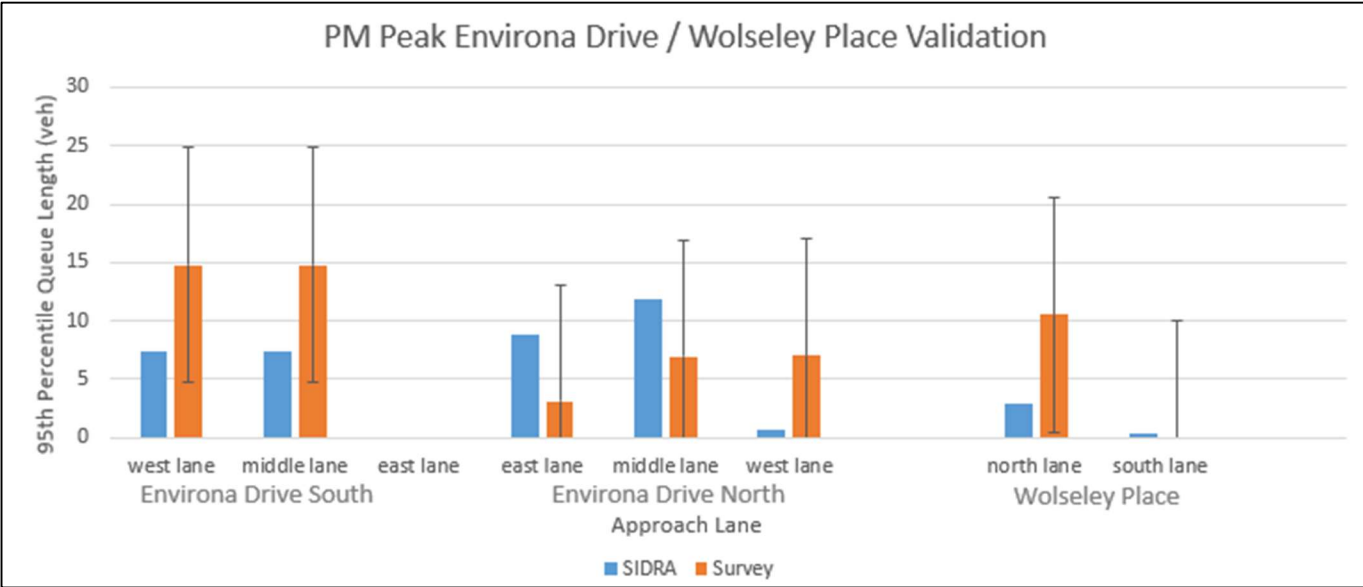


Figure 38 - PM Peak Envirova Drive / Wolseley Place Validation

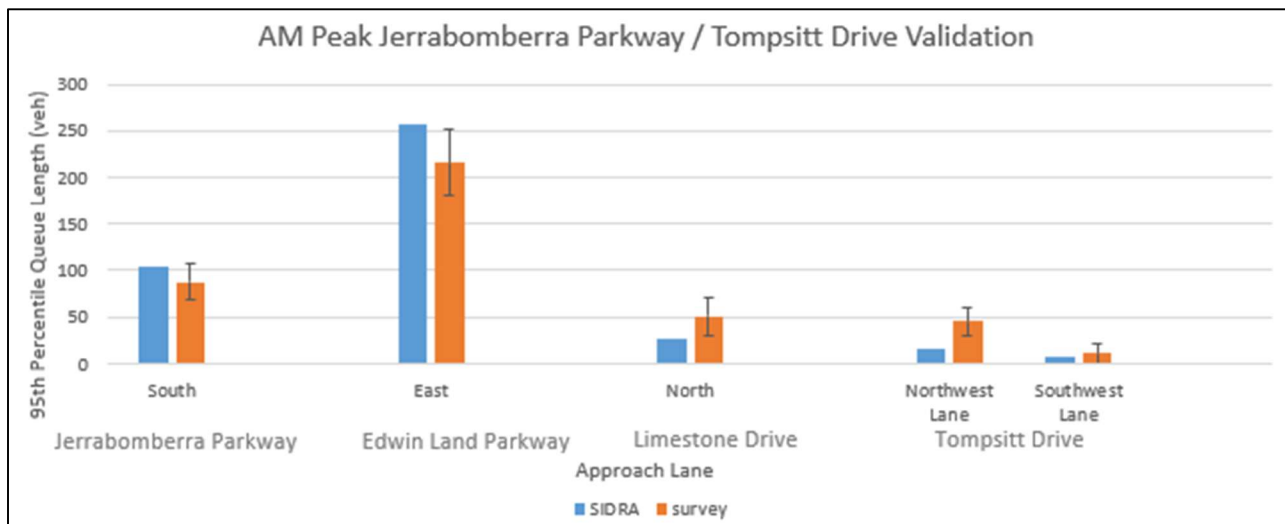


Figure 39 - PM Peak Jerrabomberra Parkway / Tomsitt Drive Validation

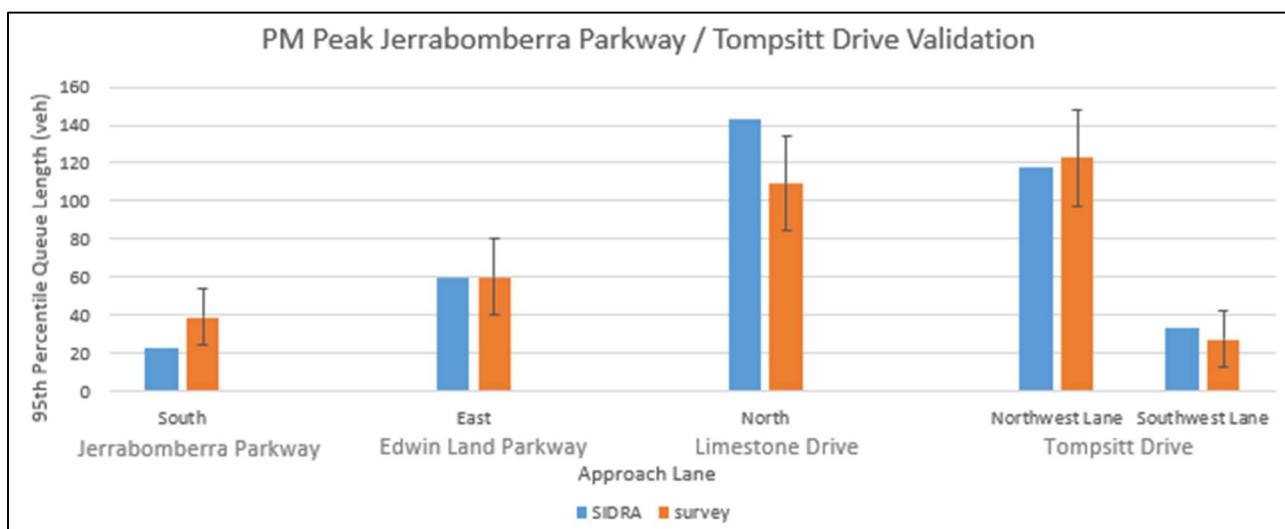


Figure 40 - PM Peak Jerrabomberra Parkway / Tomsitt Drive Validation

6.8 SIDRA Results

Results indicating the performance of the 2024 Existing, 2026 Do Nothing, and 2026 with Development scenarios are presented in Table 9.

The results indicate the following:

- The 2026 Do Nothing scenario results in all intersections experiencing negligible to moderate increases in average delay compared to the 2024 existing scenario. This decrease in intersection performance is due to the background traffic growth at a rate of 2.5% per year.
- The 2026 with development scenario results in negligible impact to the intersection performance of Tomsitt Drive / Lanyon Drive and Tomsitt Drive / Henry Drive / Environa Drive compared to the 2026 without development scenario.
- The 2026 with development scenario results in the Environa Drive / Wolseley Drive intersection and Tomsitt Drive / Limestone Drive Edwin Lan Parkway / Jerrabomberra Parkway roundabout experiencing marginal increases in delay compared to the 2026 Do Nothing scenario.

- Background traffic growth will result in the Tomsitt Drive / Limestone Drive Edwin Lan Parkway / Jerrabomberra Parkway roundabout decreasing from LOS C to LOS D in both the AM and PM peak. The estimated traffic generation associated with the data centre does not change the LOS.
- Overall, this indicates that the estimated traffic generation associated with the data centre will not adversely impact the surrounding network beyond the background traffic growth.

Table 9 - SIDRA Results

Year	Intersection	Peak	DoS	LoS	Average Delay	95 th Percentile Queue*
Existing 2024	Tomsitt Drive / Lanyon Drive	AM	0.598	C	29	137 - Southeast
		PM	0.796	C	23	132 - Southwest
	Tomsitt Drive / Henry Drive / Environa Drive	AM	0.676	C	23	179 - East
		PM	0.796	C	30	210 - West
	Environa Drive / Wolseley Drive	AM	0.102	B	12	21 - North
		PM	0.117	A	10	20 - North
	Tomsitt Drive / Limestone Drive Edwin Lan Parkway / Jerrabomberra Parkway	AM	1.008	C	21	258 - East
		PM	1.013	B	17	157 - North
2026 Do Nothing	Tomsitt Drive / Lanyon Drive	AM	0.611	C	32	142 - Southwest
		PM	0.836	C	23	147 - Southwest
	Tomsitt Drive / Henry Drive / Environa Drive	AM	0.689	C	26	185 - East
		PM	0.841	C	28	243 - West
	Environa Drive / Wolseley Drive	AM	0.107	B	12	21 - South
		PM	0.123	B	10	21 - South
	Tomsitt Drive / Limestone Drive Edwin Lan Parkway / Jerrabomberra Parkway	AM	1.096	D	38	436 - East
		PM	1.186	D	38	367 - North
2026 With Development	Tomsitt Drive / Lanyon Drive	AM	0.611	C	31	142 – Southeast
		PM	0.836	C	23	147 - Southwest
	Tomsitt Drive / Henry Drive / Environa Drive	AM	0.823	C	32	242 - East
		PM	0.841	C	28	243 - West
	Environa Drive / Wolseley Drive	AM	0.130	B	16	23 - North
		PM	0.123	B	11	21 - North
	Tomsitt Drive / Limestone Drive Edwin Lan Parkway / Jerrabomberra Parkway	AM	1.099	D	39	445 - East
		PM	1.196	D	39	373 - North

*Results are for worst performing approach to intersection. For full SIDRA results refer to Appendix A.

7. Construction Traffic

During the total construction period of approximately 24 – 30 months, the project is expected to generate construction related traffic. The section of the report explores the potential impact of construction related traffic on the surrounding network and any further works required.

The construction of the data centre building is planned to occur in three stages which consists of:

- **Stage 1:** Two data halls with nominal 8MW IT capacity, ancillary office and plant, primary and secondary site entrances incl. external carpark and loading, estimated 12 – 18 month construction period
- dock facility;
- **Stage 2:** One additional data hall with 4MW IT capacity, external plant, estimated 6 month construction period; and
- **Stage 3:** Two additional data halls with 8MW IT capacity, ancillary office and plant, and external carpark, estimated 6 month construction period.

The traffic assessment estimates that each construction phase would generate an average of approximately 4-5 heavy vehicle deliveries per day, and up to about 30 deliveries per day during short periods (eg. during concrete pours). It is expected that not all of the construction traffic generated will travel to site during peak periods and instead will be spread throughout the day resulting in a low volume of construction generated during the peak hours. All construction traffic generated is expected to access the site through Wolsey Place.

Due to the estimated low volume of construction-related traffic generated during peak periods, the construction phase is unlikely to result in any significant traffic or safety issues.

To identify and mitigate any further traffic and safety issues during construction, a Construction Traffic Management Plan (CTMP) is required to appropriately manage traffic during construction works.

8. Framework Construction Traffic Management Plan (CTMP)

This section of the report discusses the objectives and principles that can be applied to in the preparation of the CTMP.

8.1 Traffic Management Objectives

The key objective of the CTMP is to reduce impacts of the construction on the surrounding transport network. This overarching objective can be further broken down into the following:

- Ensure that construction works do not result in an unsafe environment for pedestrian, cyclists, construction workers, road users and the local community.
- Minimise adverse impacts to normal operation of road users including maintaining access for all road users.
- Minimise disruptions to public transport operations, including schedules, stop locations and routes
- Minimise disruption to residents and local businesses including appropriate consultation.
- Ensure all volumes generated by construction work and vehicle movements remain below volumes specified in the Environmental Impact Statement.
- Reduce impacts to existing road furniture and kerbside provisions including cycleways and on-street parking
- Comply with all relevant legislation and other requirements specified by relevant authorities.

8.2 Traffic Management Principles

The following key principles have been developed to guide the development and execution of the CTMP and achieve the objectives outlined above. To ensure smooth implementation of the CTMP, these principles should be communicated to any parties involved in the construction traffic management.

- Clear and timely communication regarding any disruptions and changes to the surrounding area provided to residents and businesses through various platforms such as project website, radio, newspapers, social media and community engagement.
- Propose appropriate traffic controls such as signage, line marking, and stop lights to guide all road users safely past the work site.
- Ensure all construction traffic and works are primarily contained within the designated site compound excluding travel to and from the site to minimise disruption on surrounding road network.
- Ensure safety of all vulnerable road users travelling along the surrounding network by considering desire lines and providing suitable measures to redirect flow safely away from the construction site.
- Consider scheduling construction traffic movements outside of network peak hours to reduce impact to travel time of other road users.
- Consider reducing private vehicle use by encouraging construction workers to travel to site by using other transport modes including carpooling.

8.3 Existing User Group Hierarchy

During the development of the CTMP, consideration should also be given to the prioritisation of potential user groups to ensure that appropriate construction traffic measures are chosen at the work site. The recommended hierarchy of users is provided below from highest to lowest:

- Pedestrians
- Cyclists
- Public transport users
- Service vehicles
- Private vehicles.

This road user hierarchy has been informed by the Future Transport Strategy prepared by Transport for New South Wales (TfNSW).

The preparation of the CTMP should also consider the road hierarchy set out by TfNSW. The road hierarchy provided from highest priority to lowest priority is provided below:

- Primary arterial roads
- Sub-arterial roads
- Collector roads
- Local roads.

8.4 Governance

During the procurement stage, a document owner will need to be assigned to each Construction Traffic Management Plan (CTMP). As the project advances, the governance of the construction traffic management process will need to be formulated and discussed with the Department of Planning, Housing, and Infrastructure.

8.5 Proposed working hours

The typical working hours for construction are 7:00am - 6:00pm with workers arriving to the site before 7:00am and leaving after 6:00pm.

If the construction is to occur during night to minimise disruption to traffic, further assessment will need to be undertaken during the detailed design stage. The night works will need to be in accordance with the TfNSW Environmental Noise Management Manual (2001)

8.6 Truck routes and controls

It is expected during construction that heavy vehicles will arrive via the Monaro Highway and access the site primarily from Lanyon Drive then turn into Tompsitt Drive and then into Environa Drive.

9. Access, Parking and Circulation

9.1 Driveways and Internal Roads

The proposed Data Centre facility has internal circulation roads that cater for commercial vehicles and light vehicles. As such, Section 9.1.1 outlines the requirements for circulation routes and driveways that cater to commercial vehicles and Section 9.1.2 outlines the requirements for circulation routes that cater to light vehicles.

9.1.1 Commercial Vehicles

An aisle width of 6.5m is required for circulation road to cater for HRV and MRV according to according to Table 3.1 in AS2890.2. The maximum grade allowed within circulation roadway and ramps that cater for MRV and HRV is 15.4%.

The recommended layout for an access driveway catering for HRV is set out in Section 3.4.3 of AS2890.2 and is shown in Figure 41.

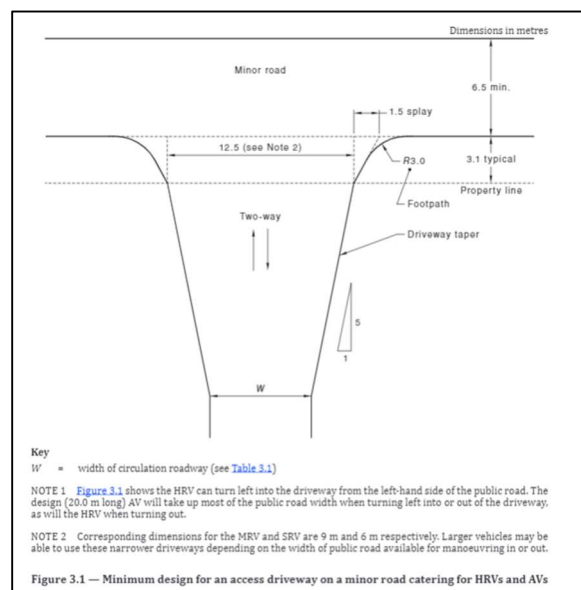


Figure 41 - Access Driveway Layout

9.1.2 Light Vehicles

An aisle width of 6.2m is required for circulation routes catering to light vehicles as per Figure 2.2 of AS2890.1 based on the classification of user class 1 which is described as “Employee and commuter parking (generally, all-day parking) in AS2890.1. The maximum grade allowed within circulation roadway and ramps that cater for MRV and HRV is 16.7% as per Section 2.5.3 of AS2890.1.

9.1.3 Loading Dock

Guidance provided in AS2890.2 section 4 sets out provisions service bays are required to adhere to which include:

- Manoeuvring area for the largest design vehicle likely to use the facility. This manoeuvring area is shown in Figure 42. A swept path analysis detailed in Section 7.4 shows that this space is sufficient for a MRV to turn around.
- An appropriate number of service bays to accommodate maintenance and other servicing activities. The design proposes a single service bay which is considered sufficient due to the low expected number of vehicles. It is not expected that there will be queueing of service vehicles.

The dimensions of the service bay are as shown in Table 10.

Table 10 - Service Bay Dimensions

Vehicle class	Bay Width (m)	Bay length (m)	Platform height (m)	Vertical clearance (m)
MRV	3.5	8.8	0.95-1.10	4.5

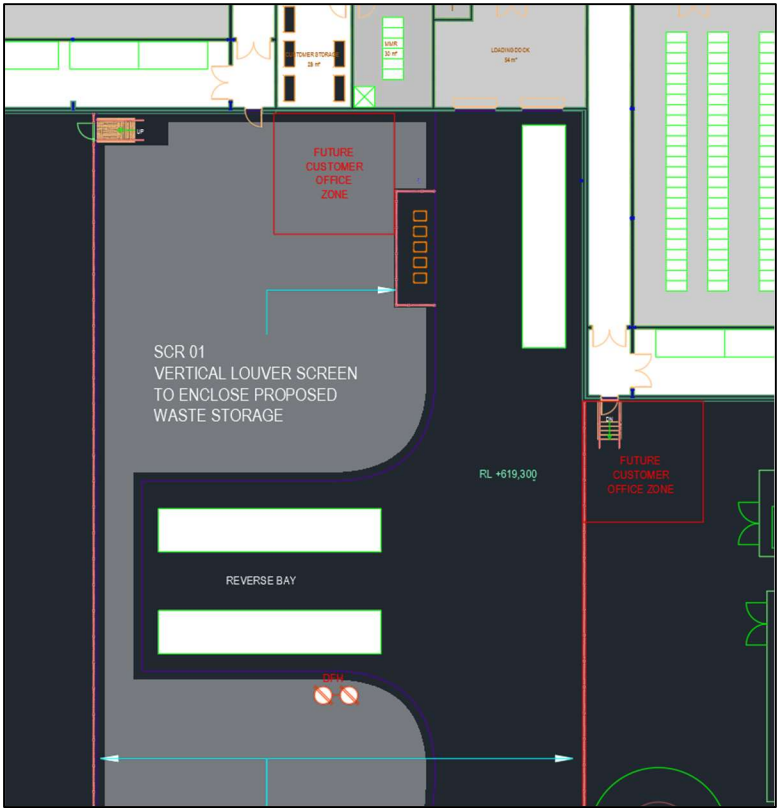


Figure 42 - Loading Dock Layout

9.2 Sight Distance

Figure 43 shows the sight distance requirements for commercial vehicles exiting an accessway as per Section 3.4.5 of AS2890.2.

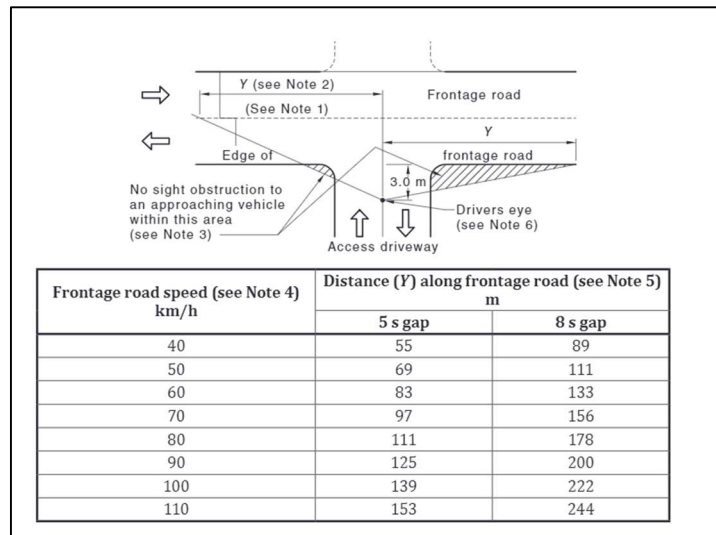


Figure 43 - Sight Distance requirements (AS2890.2)

According to AS2890.2, a sight distance of 69m is required for commercial vehicles exiting onto Wolseley place from both entrances based on a road speed of 50 km/h.

A sight distance check was not carried out for the primary entrance due to the geometric layout of the primary entrance allowing for an unobstructed head on view of the entire Wolseley Place.

A sight distance check carried out for the secondary entrance determined that there is sufficient sight distance available for commercial vehicles exiting to view vehicles travelling westbound on Wolseley Place. The check determined that existing indented car parks on the northern side of Wolseley Place may temporarily obstruct views towards eastbound traffic from the secondary exit resulting in insufficient sight distance. However, the sight distance not meeting is considered low risk due to the following:

- It is likely that the eye height of a commercial vehicle exiting the accessway is higher than the height of a B85 vehicle as the height of a B85 vehicle is around 1.4m and the eye height of a commercial vehicle is closer to 2.5m.
- Wolseley Place is a low volume road reducing the likelihood of a vehicle exiting colliding into a vehicle travelling eastbound on Wolseley Place.
- The raised speed table located on approach to the secondary access will result in vehicles travelling at speeds closer to 30 km/h reducing the severity of a crash if a collision were to occur.

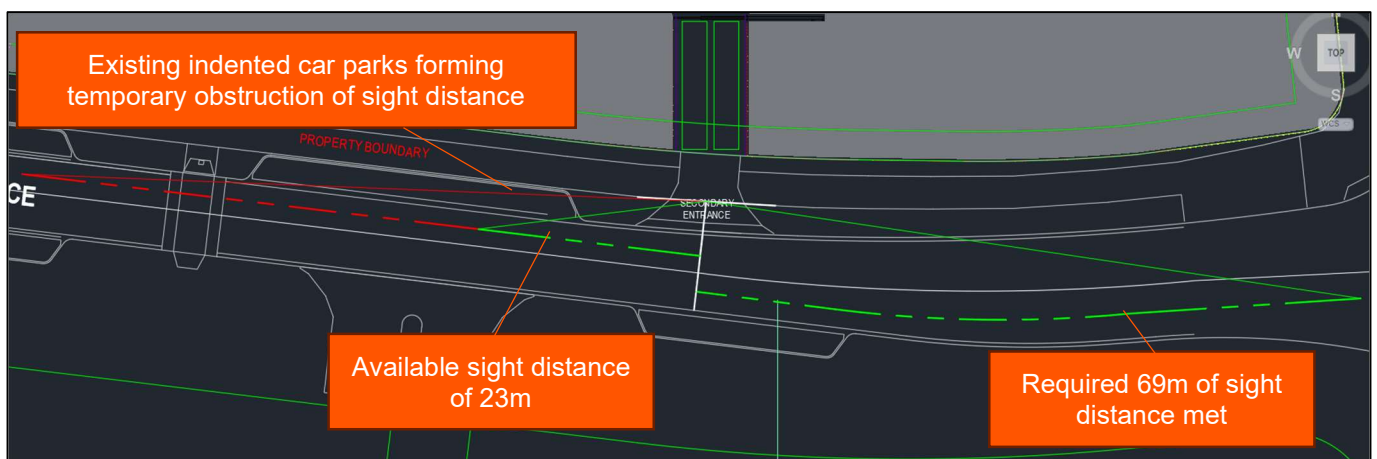


Figure 44 - Sight Distance Check

9.3 Parking Dimensions

A summary of the car park dimensions are provided in Table 11 and is based on the following:

- The normal car space dimensions are based on the classification of user class 1 which is described as “Employee and commuter parking (generally, all-day parking) in AS2890.1.
- The parking length of 4.8m for the normal car space is restricted to the scenario where parking is to a low kerb which allows 600mm overhang. If the parking has wheel stops the length has to be 5.4m.
- According to AS2890.6 Section 2.5, the accessible parking space is required to have two shared areas for accessible users to enter / exit the vehicle as specified in Table 11.

Table 11 - Parking Dimensions

	Width (m)	Length (m)	Shared Area
Normal Car Space	2.4	4.8	-
Accessible parking space	2.4	5.4	2.4 x 5.4 on left or right side of accessible space And 2.4 x 2.4 on the front or rear of accessible space

The data centre facility provides normal car spaces which are 2.6m wide and 5.4m in length which meet the statutory requirements.

The two accessible user spaces provided are 2.6m wide and 5.4m in length which meets the requirements of the parking space dimensions. The layout also provides both required shared areas specified in Table 11 of AS2890.2.

9.4 Swept Paths

For the swept path analysis, it is assumed that the MRV can be considered as a regular service vehicle and the HRV can be considered as an occasional service vehicle. A summary of swept path requirements set out in AS2890.2 for regular service vehicles and occasional service vehicles is provided in Section 9.4.1 and 9.4.2.

9.4.1 Regular Service Vehicle - MRV

- Swept path analysis has been carried out for two vehicles travelling in opposite directions with 300mm clearance and an additional 1m space.
- As Wolseley Place is considered a minor road, the design vehicle is allowed to occupy the entire width of a two-way access driveway when the vehicle is entering or leaving the minor road.

The swept path analysis determined:

- Two MRV can travel concurrently from the primary entrance to the service area as per AS2890.2 requirements as shown in Figure 45.

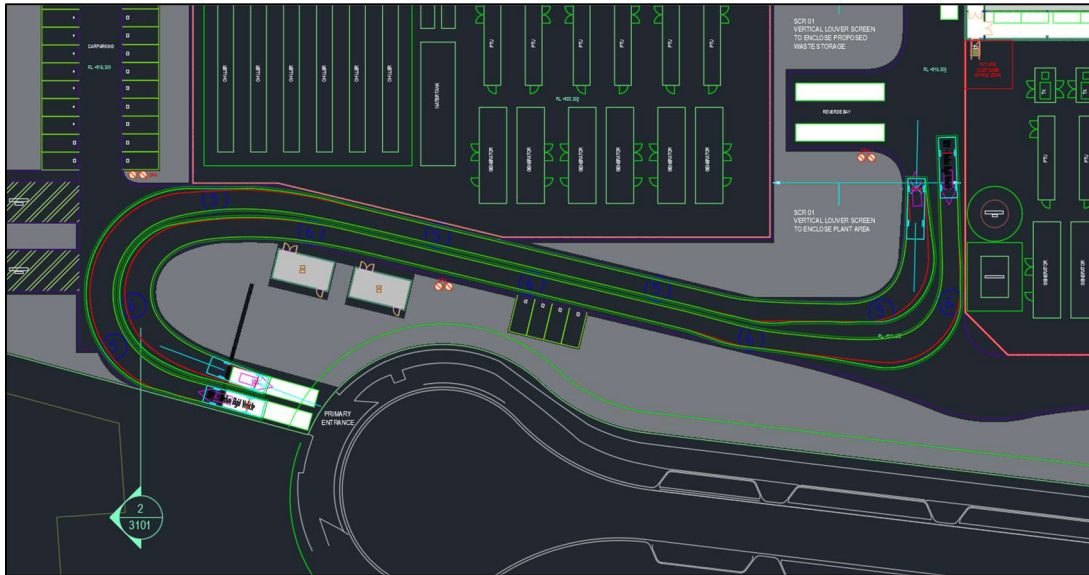


Figure 45 - Primary Entrance MRV Swept Path

- Two MRV can travel concurrently from the secondary entrance to the service area as per AS2890.2 requirements as shown in Figure 46.

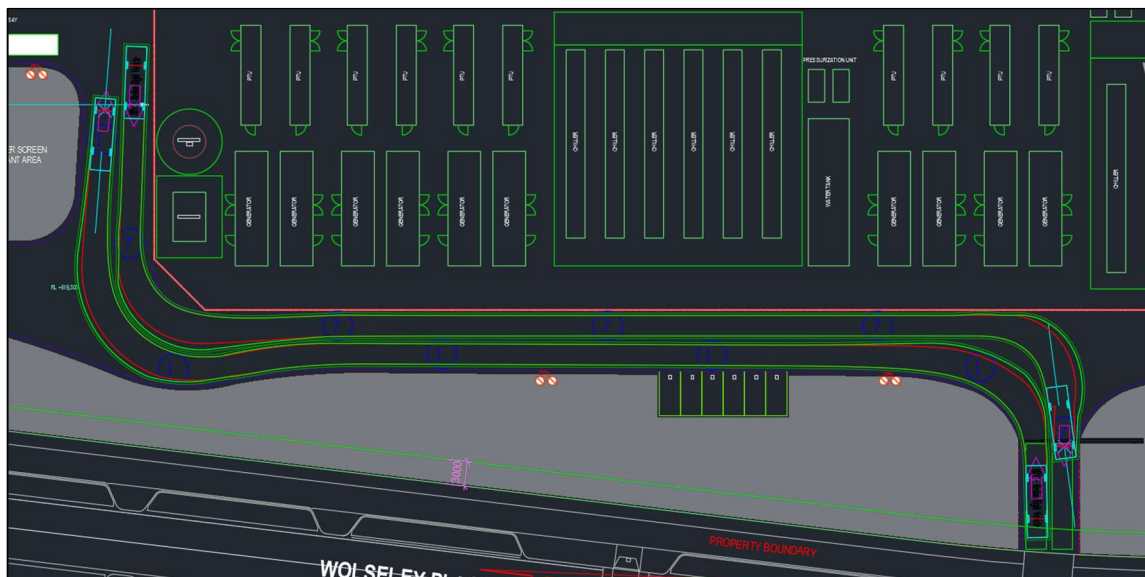


Figure 46 - Secondary Entrance MRV Swept Path

- There is sufficient manoeuvring room for a MRV to turn into the reverse bay and access the service area as shown in Figure 47.

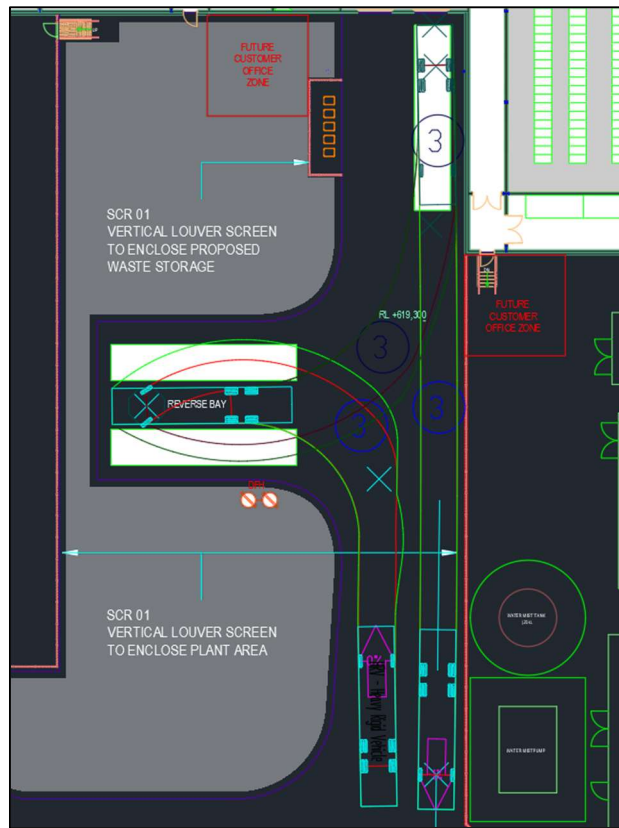


Figure 47 - Service Area MRV Swept Path

9.4.2 Occasional Service Vehicle - HRV

- The swept path plus clearances shall be accommodated within the access driveway or circulation roadway.

The swept path analysis has determined:

- The internal circulation route can cater for a HRV to enter through the primary entrance and exit through the secondary entrance as shown in Figure 48.

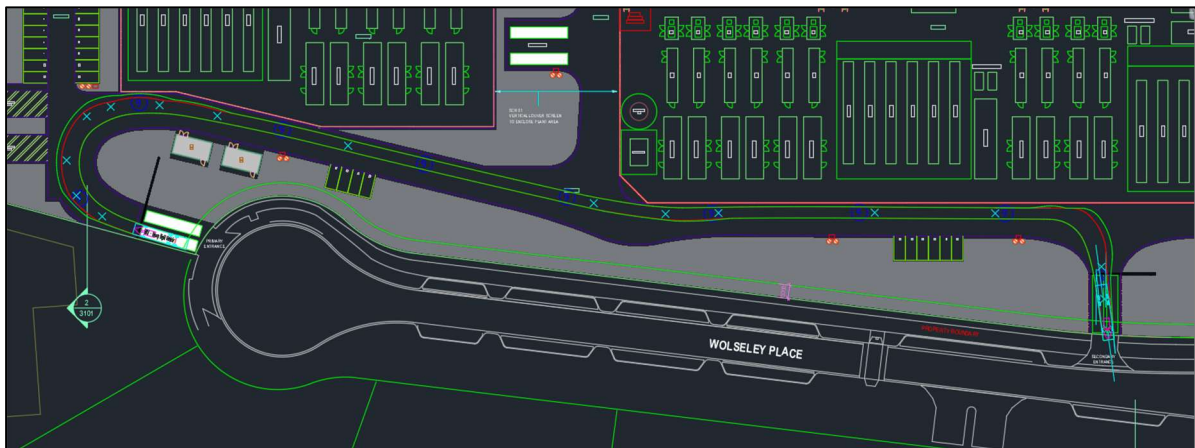


Figure 48 - HRV Eastbound Swept Path

- The internal circulation route can cater for a HRV to enter through the secondary entrance and exit through the primary entrance as shown in Figure 49.

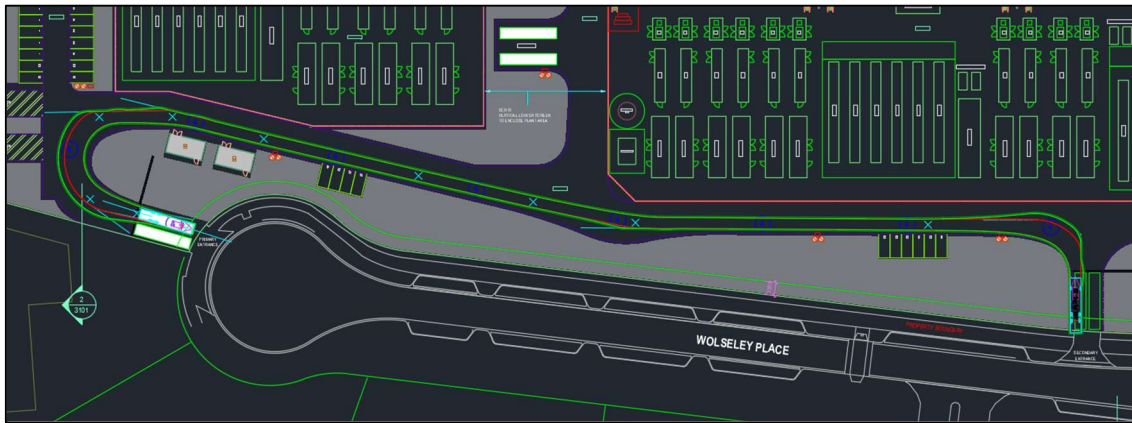


Figure 49 - HRV Westbound Swept Path

10. Summary and Conclusions

The key findings from the assessment are as follows:

- The development proposes 60 at-grade parking spaces including 2 DDA spaces. The car parking assessment demonstrates that the development does not meet statutory requirements with a shortfall of 8 car parking spaces. Although the development does not meet statutory requirements, the proposed number of car parking spaces is deemed appropriate due to the following reasons:
 - Expected car parking demand of 30 spaces in peak
 - Availability of public transport
 - Cycle facilities
 - No data centre specific statutory parking rates
- The development proposes 12 User Class 3 bicycle parking. It is noted that although the bicycle racks are not within a lockable enclosure, the entire data centre facility is gated with security and as such it is considered that both staff and guest bicycle parking will be secure.
- The sight distance assessment undertaken for the secondary access determined that there is sufficient sight distance available for vehicles exiting to sight westbound vehicles travelling along Wolseley Place. However, the indented parking located at to the west of the secondary accessway may result in temporary obstruction of eastbound sight lines.
- The proposed layout of car parking spaces meets statutory requirements.
- The proposed layout of accessible car parking spaces meets guidance set out in AS2890.2.
- The swept path analysis determined that the internal circulation route caters for the regular and occasional services vehicles being a MRV and HRV.
- The SIDRA modelling analysis determined the following:
 - The 2026 do nothing scenario results in all intersections experiencing negligible to moderate increases in average delay compared to the 2024 existing scenario.
 - The 2026 with development scenario indicates that the estimated traffic generation associated with the data centre will not adversely impact the surrounding network beyond the background traffic growth.
- The construction phase is unlikely to result in any significant traffic or safety issues due to the estimated low volume of construction-related traffic generated during peak periods

Appendices

Appendix A - SIDRA Output

LANE SUMMARY

Site: 101 [Tomsitt Dr/Lanyon Dr Intersection 2024 AM (Site Folder: 2024 AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [2024 AM (Network Folder: 2024)]

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

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				
South: Lanyon Dr SW															
Lane 1	574	6.2	574	6.2	1231	0.466	100	9.3	LOS A	13.9	102.1	Full	500	0.0	0.0
Lane 2	213	10.4	213	10.4	384	0.555	100	45.8	LOS D	9.4	71.9	Full	500	0.0	0.0
Lane 3	213	10.4	213	10.4	384	0.555	100	45.8	LOS D	9.4	71.9	Short	158	0.0	NA
Approach	1000	8.0	1000	8.0		0.555		24.9	LOS C	13.9	102.1				
East: Tomsitt Dr SE															
Lane 1	442	2.4	441	2.4	941	0.468	78 ⁶	37.0	LOS D	13.7	98.1	Short	103	0.0	NA
Lane 2	564	2.4	562	2.4	941	0.598	100	25.5	LOS C	19.2	137.3	Full	692	0.0	0.0
Lane 3	564	2.4	562	2.4	941	0.598	100	25.5	LOS C	19.2	137.3	Full	692	0.0	0.0
Lane 4	202	7.3	202	7.3	410	0.491	100	44.3	LOS D	8.7	64.6	Short	103	0.0	NA
Approach	1772	3.0	1767	3.0		0.598		30.5	LOS C	19.2	137.3				
North: Lanyon Dr NE															
Lane 1	103	11.2	103	11.2	1206	0.086	100	14.6	LOS B	1.8	13.6	Short	128	0.0	NA
Lane 2	284	9.0	284	9.0	689	0.412	86 ⁶	38.4	LOS D	10.3	77.5	Full	500	0.0	0.0
Lane 3	328	9.0	328	9.0	689	0.476	100	25.9	LOS C	12.2	92.3	Full	500	0.0	0.0
Approach	715	9.3	715	9.3		0.476		29.2	LOS C	12.2	92.3				
All Vehicles	3486	5.7	3482	5.7		0.598		28.6	LOS C	19.2	137.3				

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.

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.

6 Lane under-utilisation due to downstream effects

Approach Lane Flows (veh/h)										
South: Lanyon Dr SW										
Mov. From S To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	N	E								
Lane 1	574	-	574	6.2	1231	0.466	100	NA	NA	
Lane 2	-	213	213	10.4	384	0.555	100	NA	NA	
Lane 3	-	213	213	10.4	384	0.555	100	0.0	2	
Approach	574	426	1000	8.0		0.555				
East: Tomsitt Dr SE										
Mov. From E	L2	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	

To Exit:	S	N							
Lane 1	441	-	441	2.4	941	0.468	78 ⁶	0.6	2
Lane 2	562	-	562	2.4	941	0.598	100	NA	NA
Lane 3	562	-	562	2.4	941	0.598	100	NA	NA
Lane 4	-	202	202	7.3	410	0.491	100	0.0	3
Approach	1565	202	1767	3.0	0.598				
North: Lanyon Dr NE									
Mov.	L2	T1	Total	%HV		Deg.	Lane	Prob.	Ov.
From N					Cap.	Satn	Util.	SL Ov.	Lane
To Exit:	E	S			veh/h	v/c	%	%	No.
Lane 1	103	-	103	11.2	1206	0.086	100	0.0	2
Lane 2	-	284	284	9.0	689	0.412	86 ⁶	NA	NA
Lane 3	-	328	328	9.0	689	0.476	100	NA	NA
Approach	103	612	715	9.3	0.476				
Total		%HV Deg.Satn (v/c)							
All Vehicles	3482	5.7	0.598						

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

⁶ Lane under-utilisation due to downstream 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	
South Exit: Lanyon Dr SW Merge Type: Priority												
Exit Short Lane	1	145	0.0	890	912	3.07	2.05	724	794	0.912	2.4	13.2
Merge Lane	2	-	100.0	Merge Lane is not Opposed				890	1800	0.495	0.0	0.0
East Exit: Tompsitt Dr SE Merge Type: Priority												
Exit Short Lane	1	88	0.0	213	224	3.17	2.11	103	1472	0.070	0.4	0.4
Merge Lane	2	-	100.0	Merge Lane is not Opposed				213	1800	0.118	0.0	0.0

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Lanyon Dr SW				
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: Tompsitt Dr SE				
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: Lanyon Dr NE				
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: 101 [Tomsitt Dr/Henry PI/Environa Dr 2024 AM (Site Folder: 2024 AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [2024 AM (Network Folder: 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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				%
South: Environa Dr S															
Lane 1	174	8.5	174	8.5	1452	0.120	100	11.2	LOS B	1.5	11.5	Full	129	0.0	0.0
Lane 2	21	0.0	21	0.0	99	0.214	100	54.3	LOS D	1.1	7.6	Full	129	0.0	0.0
Lane 3	57	7.4	57	7.4	143	0.399	100	55.5	LOS E	2.8	21.1	Short	73	0.0	NA
Approach	252	7.5	252	7.5		0.399		24.8	LOS C	2.8	21.1				
East: Tomsitt Dr E															
Lane 1	71	9.0	70	8.9	1399	0.050	100	8.6	LOS A	0.6	4.5	Short	109	0.0	NA
Lane 2	756	2.5	754	2.4	1125	0.670	100	18.8	LOS B	25.0	178.7	Full	322	0.0	0.0
Lane 3	746	2.5	744	2.4	1110 ¹	0.670	100	20.3	LOS C	24.7	176.3	Full	322	0.0	0.0
Lane 4	101	1.0	101	1.0	149	0.676	100	58.2	LOS E	5.2	36.5	Short	90	0.0	NA
Approach	1674	2.6	1669	2.6		0.676		21.4	LOS C	25.0	178.7				
North: Henry Pl N															
Lane 1	54	9.8	54	9.8	861	0.062	100	7.7	LOS A	0.6	4.2	Short	56	0.0	NA
Lane 2	26	4.0	26	4.0	96	0.274	100	55.3	LOS E	1.3	9.6	Full	107	0.0	0.0
Lane 3	95	1.1	95	1.1	149	0.636	100	57.9	LOS E	4.8	34.0	Short	59	0.0	NA
Approach	175	4.2	175	4.2		0.636		42.1	LOS D	4.8	34.0				
West: Tomsitt Dr W															
Lane 1	66	11.1	66	11.1	1416	0.047	100	6.5	LOS A	0.6	4.3	Short	60	0.0	NA
Lane 2	248	9.5	248	9.5	1076	0.231	100	10.8	LOS B	5.8	43.8	Full	692	0.0	0.0
Lane 3	106	9.5	106	9.5	1076	0.099	43 ⁵	9.9	LOS A	2.3	17.2	Full	692	0.0	0.0
Lane 4	55	13.3	55	13.3	137	0.403	100	56.9	LOS E	2.7	21.3	Short	154	0.0	NA
Lane 5	55	13.3	55	13.3	137	0.403	100	56.9	LOS E	2.7	21.3	Short	154	0.0	NA
Approach	532	10.5	532	10.5		0.403		19.6	LOS B	5.8	43.8				
All Vehicles	2632	4.8	2626	4.8		0.676		22.8	LOS C	25.0	178.7				

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.

5 Lane under-utilisation found by the program

Approach Lane Flows (veh/h)										
South: Environa Dr S										
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	174	-	-	174	8.5	1452	0.120	100	NA	NA
Lane 2	-	21	-	21	0.0	99	0.214	100	NA	NA
Lane 3	-	-	57	57	7.4	143	0.399	100	0.0	2
Approach	174	21	57	252	7.5		0.399			
East: Tomsitt Dr 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	70	-	-	70	8.9	1399	0.050	100	0.0	2
Lane 2	-	754	-	754	2.4	1125	0.670	100	NA	NA
Lane 3	-	744	-	744	2.4	1110 ¹	0.670	100	NA	NA
Lane 4	-	-	101	101	1.0	149	0.676	100	0.0	3
Approach	70	1497	101	1669	2.6		0.676			
North: Henry Pl N										
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	54	-	-	54	9.8	861	0.062	100	0.0	2
Lane 2	-	26	-	26	4.0	96	0.274	100	NA	NA
Lane 3	-	-	95	95	1.1	149	0.636	100	0.0	2
Approach	54	26	95	175	4.2		0.636			
West: Tomsitt Dr 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	66	-	-	66	11.1	1416	0.047	100	0.0	2
Lane 2	-	248	-	248	9.5	1076	0.231	100	NA	NA
Lane 3	-	106	-	106	9.5	1076	0.099	43 ⁵	NA	NA
Lane 4	-	-	55	55	13.3	137	0.403	100	0.0	3
Lane 5	-	-	55	55	13.3	137	0.403	100	0.0	4
Approach	66	355	111	532	10.5		0.403			
Total %HV Deg.Satn (v/c)										
All Vehicles	2626	4.8		0.676						

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.
- ⁵ Lane under-utilisation found by the program

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane % veh/h	Flow Rate pcu/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
West Exit: Tomsitt Dr W Merge Type: Priority												
Exit Short Lane	1	60	0.0	754	763	3.13	2.08	174	920	0.189	1.8	2.4
Merge Lane	2	-	100.0	Merge Lane is not Opposed				754	1800	0.419	0.0	0.0

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

	Demand veh	Demand veh	Demand to Clear sec	Oversatn sec
South: Environa Dr S				
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: Tomsitt Dr 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: Henry Pl N				
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
West: Tomsitt Dr 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 5	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 101 [Environa Dr /Wolseley PI 2024 AM (Site Folder: 2024 AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [2024 AM (Network Folder: 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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: Environa Dr S															
Lane 1	118	5.8	118	5.8	1158	0.102	100	8.6	LOS A	2.4	17.3	Full	500	0.0	0.0
Lane 2	118	5.8	118	5.8	1158	0.102	100	8.5	LOS A	2.4	17.3	Full	500	0.0	0.0
Approach	237	5.8	237	5.8		0.102		8.6	LOS A	2.4	17.3				
North: Environa Dr N															
Lane 1	95	8.8	95	8.8	1137	0.084	100	12.5	LOS B	2.7	20.5	Full	129	0.0	0.0
Lane 2	95	8.8	95	8.8	1137	0.084	100	11.5	LOS B	2.5	18.9	Full	129	0.0	0.0
Lane 3	17	31.3	17	31.2	169	0.100	100	50.1	LOS D	0.8	6.9	Short	37	0.0	NA
Approach	207	10.7	207	10.7		0.100		15.1	LOS B	2.7	20.5				
West: Wolseley PI															
Lane 1	13	41.7	13	41.7	391	0.032	100	35.9	LOS D	0.5	4.3	Full	267	0.0	0.0
Lane 2	1	0.0	1	0.0	188	0.006	100	50.3	LOS D	0.0	0.3	Short	42	0.0	NA
Approach	14	38.5	14	38.5		0.032		37.0	LOS D	0.5	4.3				
All Vehicles	458	9.0	458	9.0		0.102		12.4	LOS B	2.7	20.5				

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.

Approach Lane Flows (veh/h)										
South: Environa Dr 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	1	117	118	5.8	1158	0.102	100	NA	NA	
Lane 2	-	118	118	5.8	1158	0.102	100	NA	NA	
Approach	1	236	237	5.8		0.102				
North: Environa Dr N										
Mov. From N To Exit:	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
	S	W			Cap. veh/h	v/c	%	%		
Lane 1	95	-	95	8.8	1137	0.084	100	NA	NA	
Lane 2	95	-	95	8.8	1137	0.084	100	NA	NA	
Lane 3	-	17	17	31.2	169	0.100	100	0.0	2	

Approach	190	17	207	10.7		0.100				
West: Wolseley PI										
Mov. From W To Exit:	L2	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	13	-	13	41.7	391	0.032	100	NA	NA	
Lane 2	-	1	1	0.0	188	0.006	100	0.0	1	
Approach	13	1	14	38.5		0.032				
Total %HV Deg.Satn (v/c)										
All Vehicles	458	9.0		0.102						

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 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: Environa Dr S				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: Environa Dr N				
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
West: Wolseley PI				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

LANE SUMMARY

 **Site: 101 [Tomsitt Dr/ Limestone Dr/Edwin Land Pkwy/ Jerrabombera Pkwy 2024 AM (Site Folder: 2024 AM)]**

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 **Network: N101 [2024 AM (Network Folder: 2024)]**

New Site
Site Category: (None)
Roundabout

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				%
South: Jerrabombera Pkwy S															
Lane 1 ^d	883	2.7	883	2.7	1248	0.708	100	12.8	LOS B	15.4	110.3	Full	500	0.0	0.0
Approach	883	2.7	883	2.7		0.708		12.8	LOS B	15.4	110.3				
East: Edwin Land Pkwy E															
Lane 1 ^d	676	4.0	676	4.0	670	1.008	100	54.3	LOS E	35.6	257.8	Full	500	0.0	0.0
Approach	676	4.0	676	4.0		1.008		54.3	LOS E	35.6	257.8				
North: Limestone Dr N															
Lane 1 ^d	367	2.0	367	2.0	734	0.501	100	5.8	LOS A	3.7	26.0	Full	500	0.0	0.0
Approach	367	2.0	367	2.0		0.501		5.8	LOS A	3.7	26.0				
West: Tomsitt Dr W															
Lane 1 ^d	297	12.4	297	12.4	983	0.302	100	1.2	LOS A	2.0	15.4	Full	322	0.0	0.0
Lane 2	166	3.8	166	3.8	1028	0.162	54 ⁵	1.9	LOS A	0.9	6.8	Full	322	0.0	0.0
Approach	463	9.3	463	9.3		0.302		1.4	LOS A	2.0	15.4				
All Vehicles	2389	4.3	2389	4.3		1.008		21.3	LOS C	35.6	257.8				

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

Roundabout LOS Method: SIDRA Roundabout LOS.

Lane LOS values are based on average delay per lane.

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

Roundabout 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.

5 Lane under-utilisation found by the program

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Jerrabombera Pkwy S											
Mov.	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
From S To Exit:	W	N	E								
Lane 1	804	53	26	883	2.7	1248	0.708	100	NA	NA	
Approach	804	53	26	883	2.7		0.708				
East: Edwin Land Pkwy E											
Mov.	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
From E To Exit:	S	W	N								
Lane 1	23	647	5	676	4.0	670	1.008	100	NA	NA	

Approach	23	647	5	676	4.0		1.008				
North: Limestone Dr N											
Mov. From N To Exit:	L2	T1	R2	Total	%HV		Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	E	S	W				Cap. veh/h				
Lane 1	39	98	231	367	2.0		734	0.501	100	NA	NA
Approach	39	98	231	367	2.0		0.501				
West: Tompsitt Dr W											
Mov. From W To Exit:	L2	T1	R2	Total	%HV		Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	N	E	S				Cap. veh/h				
Lane 1	95	202	-	297	12.4		983	0.302	100	NA	NA
Lane 2	-	-	166	166	3.8		1028	0.162	54 ⁵	NA	NA
Approach	95	202	166	463	9.3		0.302				
Total %HV Deg.Satn (v/c)											
All Vehicles	2389	4.3		1.008							

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

5 Lane under-utilisation found by the program

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	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: Jerrabombera Pkwy S				
Lane 1	0.0	0.0	0.0	0.0
East: Edwin Land Pkwy E				
Lane 1	0.0	2.7	14.5	NA
North: Limestone Dr N				
Lane 1	0.0	0.0	0.0	0.0
West: Tompsitt Dr W				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

LANE SUMMARY

 **Site: 101 [Tomsitt Dr/ Limestone Dr/Edwin Land Pkwy/ Jerrabombera Pkwy 2024 PM (Site Folder: 2024 PM)]**

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 **Network: N101 [2024 PM (Network Folder: 2024)]**

New Site
Site Category: (None)
Roundabout

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				
South: Jerrabombera Pkwy S															
Lane 1 ^d	324	1.6	324	1.6	721	0.449	100	4.4	LOS A	3.2	22.9	Full	500	0.0	0.0
Approach	324	1.6	324	1.6		0.449		4.4	LOS A	3.2	22.9				
East: Edwin Land Pkwy E															
Lane 1 ^d	268	2.0	268	2.0	399	0.672	100	29.3	LOS C	8.4	59.6	Full	500	0.0	0.0
Approach	268	2.0	268	2.0		0.672		29.3	LOS C	8.4	59.6				
North: Limestone Dr N															
Lane 1 ^d	406	1.6	406	1.6	401	1.013	100	69.6	LOS E	22.1	156.9	Full	500	0.0	0.0
Approach	406	1.6	406	1.6		1.013		69.6	LOS E	22.1	156.9				
West: Tomsitt Dr W															
Lane 1 ^d	917	0.9	917	0.9	1055	0.869	100	2.8	LOS A	16.7	117.5	Full	322	0.0	0.0
Lane 2	581	0.2	581	0.2	1059	0.549	63 ⁵	2.3	LOS A	4.8	33.3	Full	322	0.0	0.0
Approach	1498	0.6	1498	0.6		0.869		2.6	LOS A	16.7	117.5				
All Vehicles	2497	1.1	2497	1.1		1.013		16.6	LOS B	22.1	156.9				

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

Roundabout LOS Method: SIDRA Roundabout LOS.

Lane LOS values are based on average delay per lane.

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

Roundabout 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.

⁵ Lane under-utilisation found by the program

^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Jerrabombera Pkwy S											
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL	Ov. Lane	
From S						Cap. veh/h	v/c	%	%	No.	
To Exit:	W	N	E								
Lane 1	244	66	14	324	1.6	721	0.449	100	NA	NA	
Approach	244	66	14	324	1.6		0.449				
East: Edwin Land Pkwy E											
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL	Ov. Lane	
From E						Cap. veh/h	v/c	%	%	No.	
To Exit:	S	W	N								
Lane 1	25	240	3	268	2.0	399	0.672	100	NA	NA	

Approach	25	240	3	268	2.0		0.672				
North: Limestone Dr N											
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	107	183	116	406	1.6	401	1.013	100	NA	NA	
Approach	107	183	116	406	1.6		1.013				
West: Tompsitt Dr 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	366	551	-	917	0.9	1055	0.869	100	NA	NA	
Lane 2	-	-	581	581	0.2	1059	0.549	63 ⁵	NA	NA	
Approach	366	551	581	1498	0.6		0.869				
Total %HV Deg.Satn (v/c)											
All Vehicles	2497	1.1		1.013							

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

5 Lane under-utilisation found by the program

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: Jerrabombera Pkwy S				
Lane 1	0.0	0.0	0.0	0.0
East: Edwin Land Pkwy E				
Lane 1	0.0	0.0	0.0	0.0
North: Limestone Dr N				
Lane 1	0.0	2.6	23.0	NA
West: Tompsitt Dr W				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 101 [Tomsitt Dr/Lanyon Dr Intersection 2024 PM (Site Folder: 2024 PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [2024 PM (Network Folder: 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 101 seconds (Site User-Given Phase Times)

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: Lanyon Dr SW															
Lane 1	572	4.2	572	4.2	1538	0.372	100	3.0	LOS A	7.8	56.4	Full	500	0.0	0.0
Lane 2	689	0.5	689	0.5	962	0.716	100	21.4	LOS C	18.8	132.3	Full	500	0.0	0.0
Lane 3	689	0.5	689	0.5	962	0.716	100	21.4	LOS C	18.8	132.3	Short	158	0.0	NA
Approach	1951	1.6	1951	1.6		0.716		16.0	LOS B	18.8	132.3				
East: Tomsitt Dr SE															
Lane 1	140	1.5	140	1.5	1324	0.106	78 ⁶	20.9	LOS C	5.3	37.3	Short	103	0.0	NA
Lane 2	179	1.5	179	1.5	1324	0.135	100	19.8	LOS B	6.8	48.0	Full	692	0.0	0.0
Lane 3	179	1.5	179	1.5	1324	0.135	100	19.8	LOS B	6.8	48.0	Full	692	0.0	0.0
Lane 4	117	3.6	117	3.6	199	0.585	100	56.1	LOS E	5.7	41.5	Short	103	0.0	NA
Approach	615	1.9	614	1.9		0.585		27.0	LOS C	6.8	48.0				
North: Lanyon Dr NE															
Lane 1	236	0.4	236	0.4	1675	0.141	100	10.8	LOS B	1.9	13.4	Short	128	0.0	NA
Lane 2	264	2.6	264	2.6	384	0.688	86 ⁶	43.4	LOS D	12.5	89.4	Full	500	0.0	0.0
Lane 3	305	2.6	305	2.6	384	0.796	100	45.9	LOS D	15.5	110.9	Full	500	0.0	0.0
Approach	805	2.0	805	2.0		0.796		34.8	LOS C	15.5	110.9				
All Vehicles	3371	1.7	3369	1.7		0.796		22.5	LOS C	18.8	132.3				

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.

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.

6 Lane under-utilisation due to downstream effects

Approach Lane Flows (veh/h)										
South: Lanyon Dr SW										
Mov. From S To Exit:	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
	N	E			Cap. veh/h	v/c	%	%		
Lane 1	572	-	572	4.2	1538	0.372	100	NA	NA	
Lane 2	-	689	689	0.5	962	0.716	100	NA	NA	
Lane 3	-	689	689	0.5	962	0.716	100	0.0	2	
Approach	572	1379	1951	1.6		0.716				
East: Tomsitt Dr SE										
Mov. From E	L2	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
					Cap. veh/h	v/c	%	%		

To Exit:	S	N							
Lane 1	140	-	140	1.5	1324	0.106	78 ⁶	0.0	2
Lane 2	179	-	179	1.5	1324	0.135	100	NA	NA
Lane 3	179	-	179	1.5	1324	0.135	100	NA	NA
Lane 4	-	117	117	3.6	199	0.585	100	0.0	3
Approach	497	117	614	1.9	0.585				
North: Lanyon Dr NE									
Mov.	L2	T1	Total	%HV		Deg.	Lane	Prob.	Ov.
From N					Cap.	Satn	Util.	SL	Lane
To Exit:	E	S			veh/h	v/c	%	%	No.
Lane 1	236	-	236	0.4	1675	0.141	100	0.0	2
Lane 2	-	264	264	2.6	384	0.688	86 ⁶	NA	NA
Lane 3	-	305	305	2.6	384	0.796	100	NA	NA
Approach	236	569	805	2.0	0.796				
Total %HV Deg.Satn (v/c)									
All Vehicles	3369	1.7	0.796						

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

⁶ Lane under-utilisation due to downstream 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	
South Exit: Lanyon Dr SW Merge Type: Priority												
Exit Short Lane	1	145	0.0	484	489	3.03	2.02	404	1275	0.317	0.8	1.4
Merge Lane	2	-	100.0	Merge Lane is not Opposed				484	1800	0.269	0.0	0.0
East Exit: Tompsitt Dr SE Merge Type: Priority												
Exit Short Lane	1	88	0.0	689	691	3.01	2.00	236	1079	0.219	1.3	1.9
Merge Lane	2	-	100.0	Merge Lane is not Opposed				689	1800	0.383	0.0	0.0

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Lanyon Dr SW				
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: Tompsitt Dr SE				
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: Lanyon Dr NE				
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: 101 [Tompsett Dr/Henry PI/Environa Dr 2024 PM (Site Folder: 2024 PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [2024 PM (Network Folder: 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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				%
South: Environa Dr S															
Lane 1	71	3.0	71	3.0	1527	0.046	100	8.9	LOS A	0.5	3.8	Full	129	0.0	0.0
Lane 2	21	10.0	21	10.0	167	0.126	100	50.5	LOS D	1.0	8.0	Full	129	0.0	0.0
Lane 3	29	3.6	29	3.6	128	0.230	100	54.5	LOS D	1.4	10.4	Short	73	0.0	NA
Approach	121	4.3	121	4.3		0.230		27.2	LOS C	1.4	10.4				
East: Tompsitt Dr E															
Lane 1	44	0.0	44	0.0	1431	0.031	100	8.8	LOS A	0.4	2.8	Short	109	0.0	NA
Lane 2	238	2.0	237	2.0	1031	0.230	100	16.8	LOS B	6.1	43.5	Full	322	0.0	0.0
Lane 3	238	2.0	237	2.0	1031	0.230	100	16.8	LOS B	6.1	43.5	Full	322	0.0	0.0
Lane 4	72	0.0	71	0.0	131	0.544	100	56.3	LOS E	3.6	25.3	Short	90	0.0	NA
Approach	592	1.6	590	1.6		0.544		20.9	LOS C	6.1	43.5				
North: Henry Pl N															
Lane 1	178	0.6	178	0.6	554	0.321	100	19.0	LOS B	5.0	34.8	Short	56	0.0	NA
Lane 2	25	0.0	25	0.0	177	0.142	100	49.1	LOS D	1.2	8.3	Full	107	0.0	0.0
Lane 3	69	1.5	69	1.5	130	0.535	100	58.0	LOS E	3.5	24.9	Short	59	0.0	NA
Approach	273	0.8	273	0.8		0.535		31.7	LOS C	5.0	34.8				
West: Tompsitt Dr W															
Lane 1	196	0.0	196	0.0	1464	0.134	100	23.6	LOS C	2.0	13.8	Short	60	0.0	NA
Lane 2	731	0.6	731	0.6	918 ¹	0.796	100	30.3	LOS C	29.7	209.2	Full	692	0.0	0.0
Lane 3	552	0.6	552	0.6	1040	0.531	67 ⁵	16.4	LOS B	17.4	122.7	Full	692	0.0	0.0
Lane 4	68	0.8	68	0.8	131	0.520	100	58.3	LOS E	3.4	24.1	Short	154	0.0	NA
Lane 5	68	0.8	68	0.8	131	0.520	100	58.3	LOS E	3.4	24.1	Short	154	0.0	NA
Approach	1615	0.5	1615	0.5		0.796		27.1	LOS C	29.7	209.2				
All Vehicles	2600	1.0	2599	1.0		0.796		26.2	LOS C	29.7	209.2				

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.

⁵ Lane under-utilisation found by the program

Approach Lane Flows (veh/h)									
South: Environa Dr S									
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	71	-	-	71	3.0	1527	0.046	100	NA	NA
Lane 2	-	21	-	21	10.0	167	0.126	100	NA	NA
Lane 3	-	-	29	29	3.6	128	0.230	100	0.0	2
Approach	71	21	29	121	4.3		0.230			
East: Tomsitt Dr 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	44	-	-	44	0.0	1431	0.031	100	0.0	2
Lane 2	-	237	-	237	2.0	1031	0.230	100	NA	NA
Lane 3	-	237	-	237	2.0	1031	0.230	100	NA	NA
Lane 4	-	-	71	71	0.0	131	0.544	100	0.0	3
Approach	44	475	71	590	1.6		0.544			
North: Henry Pl N										
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	178	-	-	178	0.6	554	0.321	100	0.0	2
Lane 2	-	25	-	25	0.0	177	0.142	100	NA	NA
Lane 3	-	-	69	69	1.5	130	0.535	100	0.0	2
Approach	178	25	69	273	0.8		0.535			
West: Tomsitt Dr 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	196	-	-	196	0.0	1464	0.134	100	0.0	2
Lane 2	-	731	-	731	0.6	918 ¹	0.796	100	NA	NA
Lane 3	-	552	-	552	0.6	1040	0.531	67 ⁵	NA	NA
Lane 4	-	-	68	68	0.8	131	0.520	100	0.0	3
Lane 5	-	-	68	68	0.8	131	0.520	100	0.0	4
Approach	196	1283	136	1615	0.5		0.796			
Total %HV Deg.Satn (v/c)										
All Vehicles	2599	1.0		0.796						

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.
- ⁵ Lane under-utilisation found by the program

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane % veh/h	Flow Rate pcu/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
West Exit: Tomsitt Dr W Merge Type: Priority												
Exit Short Lane	1	60	0.0	237	240	3.04	2.03	71	1529	0.046	0.4	0.4
Merge Lane	2	-	100.0	Merge Lane is not Opposed				237	1800	0.132	0.0	0.0

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

	Demand veh	Demand veh	Demand to Clear sec	Oversatn sec
South: Environa Dr S				
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: Tomsitt Dr 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: Henry Pl N				
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
West: Tomsitt Dr 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 5	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 101 [Environa Dr /Wolseley PI 2024 PM (Site Folder: 2024 PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [2024 PM (Network Folder: 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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	%											
South: Environa Dr S															
Lane 1	55	3.8	55	3.8	1191	0.046	100	7.9	LOS A	1.0	7.4	Full	500	0.0	0.0
Lane 2	55	3.9	55	3.9	1191	0.046	100	7.8	LOS A	1.0	7.4	Full	500	0.0	0.0
Approach	109	3.8	109	3.8		0.046		7.8	LOS A	1.0	7.4				
North: Environa Dr N															
Lane 1	61	0.5	61	0.5	1217	0.050	43 ⁵	10.7	LOS B	1.5	10.9	Full	129	0.0	0.0
Lane 2	143	0.5	143	0.5	1217	0.117	100	8.4	LOS A	2.9	20.1	Full	129	0.0	0.0
Lane 3	2	0.0	2	0.0	188	0.011	100	49.8	LOS D	0.1	0.7	Short	37	0.0	NA
Approach	206	0.5	206	0.5		0.117		9.5	LOS A	2.9	20.1				
West: Wolseley PI															
Lane 1	12	0.0	12	0.0	488	0.024	100	35.7	LOS D	0.4	2.9	Full	267	0.0	0.0
Lane 2	1	0.0	1	0.0	188	0.006	100	50.3	LOS D	0.0	0.3	Short	42	0.0	NA
Approach	13	0.0	13	0.0		0.024		36.9	LOS D	0.4	2.9				
All Vehicles	328	1.6	328	1.6		0.117		10.0	LOS A	2.9	20.1				

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.

⁵ Lane under-utilisation found by the program

Approach Lane Flows (veh/h)										
South: Environa Dr S										
Mov. From S To Exit:	L2 W	T1 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	1	54	55	3.8	1191	0.046	100	NA	NA	
Lane 2	-	55	55	3.9	1191	0.046	100	NA	NA	
Approach	1	108	109	3.8		0.046				
North: Environa Dr N										
Mov. From N To Exit:	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	61	-	61	0.5	1217	0.050	43 ⁵	NA	NA	
Lane 2	143	-	143	0.5	1217	0.117	100	NA	NA	
Lane 3	-	2	2	0.0	188	0.011	100	0.0	2	

Approach	204	2	206	0.5	0.117				
West: Wolseley PI									
Mov. From W To Exit:	L2	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	12	-	12	0.0	488	0.024	100	NA	NA
Lane 2	-	1	1	0.0	188	0.006	100	0.0	1
Approach	12	1	13	0.0	0.024				
Total %HV Deg.Satn (v/c)									
All Vehicles	328	1.6	0.117						

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

5 Lane under-utilisation found by the program

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: Environa Dr S				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: Environa Dr N				
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
West: Wolseley PI				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	451	-	451	2.4	941	0.479	78 ⁶	3.3	2
Lane 2	575	-	575	2.4	941	0.611	100	NA	NA
Lane 3	575	-	575	2.4	941	0.611	100	NA	NA
Lane 4	-	206	206	7.4	410	0.504	100	0.0	3
Approach	1601	206	1807	3.0		0.611			
North: Lanyon Dr NE									
Mov. From N To Exit:	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	108	-	108	11.7	1202	0.090	100	0.0	2
Lane 2	-	298	298	9.0	689	0.432	86 ⁶	NA	NA
Lane 3	-	344	344	9.0	689	0.500	100	NA	NA
Approach	108	642	751	9.4		0.500			
Total %HV Deg.Satn (v/c)									
All Vehicles	3610	5.8		0.611					

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

⁶ Lane under-utilisation due to downstream 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
South Exit: Lanyon Dr SW Merge Type: Priority												
Exit Short Lane	1	145	0.0	919	942	3.08	2.05	748	761	0.983	2.5	26.8
Merge Lane	2	-	100.0	Merge Lane is not Opposed				919	1800	0.511	0.0	0.0
East Exit: Tompsitt Dr SE Merge Type: Priority												
Exit Short Lane	1	88	0.0	224	236	3.17	2.12	108	1456	0.074	0.4	0.5
Merge Lane	2	-	100.0	Merge Lane is not Opposed				224	1800	0.125	0.0	0.0

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Lanyon Dr SW				
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: Tompsitt Dr SE				
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: Lanyon Dr NE				
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
--------	-----	-----	-----	-----

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: BG&E PTY LIMITED | Licence: NETWORK / 1PC | Processed: Wednesday, 20 November 2024 6:31:41 AM

Project: C:\Users\leon.piedade\Downloads\Data Center SIDRA.sip9

LANE SUMMARY

 Site: 101 [Tomsitt Dr/Henry PI/Environa Dr 2024 AM (Site Folder: 2026 AM Without Development)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [2026 AM Without Development (Network Folder: 2026 Without Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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: Environa Dr S															
Lane 1	182	8.7	182	8.7	1450	0.126	100	11.3	LOS B	1.6	12.2	Full	129	0.0	0.0
Lane 2	22	0.0	22	0.0	99	0.224	100	54.3	LOS D	1.1	8.0	Full	129	0.0	0.0
Lane 3	60	7.0	60	7.0	143	0.420	100	55.6	LOS E	3.0	22.3	Short	73	0.0	NA
Approach	264	7.6	264	7.6		0.420		25.0	LOS C	3.0	22.3				
East: Tomsitt Dr E															
Lane 1	74	8.6	71	8.5	1403	0.051	100	8.5	LOS A	0.6	4.5	Short	109	0.0	NA
Lane 2	795	2.5	768	2.4	1125	0.683	100	19.0	LOS B	25.8	184.5	Full	322	0.0	0.0
Lane 3	782	2.5	756	2.4	1106 ¹	0.683	100	20.9	LOS C	25.4	181.4	Full	322	0.0	0.0
Lane 4	106	1.0	103	1.0	149	0.689	100	58.8	LOS E	5.3	37.3	Short	90	0.0	NA
Approach	1758	2.6	1698	2.6		0.689		21.8	LOS C	25.8	184.5				
North: Henry PI N															
Lane 1	57	9.3	57	9.3	851	0.067	100	7.7	LOS A	0.6	4.4	Short	56	0.0	NA
Lane 2	27	3.8	27	3.8	96	0.285	100	55.4	LOS E	1.4	10.0	Full	107	0.0	0.0
Lane 3	100	1.1	100	1.1	149	0.671	100	58.4	LOS E	5.1	36.2	Short	59	0.0	NA
Approach	184	4.0	184	4.0		0.671		42.3	LOS D	5.1	36.2				
West: Tomsitt Dr W															
Lane 1	69	10.6	69	10.6	1420	0.049	100	6.5	LOS A	0.6	4.5	Short	60	0.0	NA
Lane 2	261	9.6	261	9.6	1076	0.243	100	10.9	LOS B	6.1	46.4	Full	692	0.0	0.0
Lane 3	112	9.6	112	9.6	1076	0.104	43 ⁵	9.9	LOS A	2.4	18.1	Full	692	0.0	0.0
Lane 4	58	13.6	58	13.6	137	0.423	100	57.0	LOS E	2.9	22.4	Short	154	0.0	NA
Lane 5	58	13.6	58	13.6	137	0.423	100	57.0	LOS E	2.9	22.4	Short	154	0.0	NA
Approach	558	10.6	558	10.6		0.423		19.7	LOS B	6.1	46.4				
All Vehicles	2764	4.8	2704	4.9		0.689		23.1	LOS C	25.8	184.5				

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.

⁵ Lane under-utilisation found by the program

Approach Lane Flows (veh/h)

South: Enviroana Dr S										
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.
Lane 1	182	-	-	182	8.7	1450	0.126	100	NA	NA
Lane 2	-	22	-	22	0.0	99	0.224	100	NA	NA
Lane 3	-	-	60	60	7.0	143	0.420	100	0.0	2
Approach	182	22	60	264	7.6		0.420			
East: Tomsitt Dr E										
Mov. From E To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	71	-	-	71	8.5	1403	0.051	100	0.0	2
Lane 2	-	768	-	768	2.4	1125	0.683	100	NA	NA
Lane 3	-	756	-	756	2.4	1106 ¹	0.683	100	NA	NA
Lane 4	-	-	103	103	1.0	149	0.689	100	0.0	3
Approach	71	1524	103	1698	2.6		0.689			
North: Henry Pl N										
Mov. From N To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	57	-	-	57	9.3	851	0.067	100	0.0	2
Lane 2	-	27	-	27	3.8	96	0.285	100	NA	NA
Lane 3	-	-	100	100	1.1	149	0.671	100	0.0	2
Approach	57	27	100	184	4.0		0.671			
West: Tomsitt Dr W										
Mov. From W To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	69	-	-	69	10.6	1420	0.049	100	0.0	2
Lane 2	-	261	-	261	9.6	1076	0.243	100	NA	NA
Lane 3	-	112	-	112	9.6	1076	0.104	43 ⁵	NA	NA
Lane 4	-	-	58	58	13.6	137	0.423	100	0.0	3
Lane 5	-	-	58	58	13.6	137	0.423	100	0.0	4
Approach	69	373	116	558	10.6		0.423			
Total %HV Deg.Satn (v/c)										
All Vehicles	2704	4.9		0.689						

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.
- ⁵ Lane under-utilisation found by the program

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Capacity Flow Rate veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
West Exit: Tomsitt Dr W Merge Type: Priority												
Exit Short Lane	1	60	0.0	768	778	3.13	2.09	182	902	0.202	1.9	2.5
Merge Lane	2	-	100.0	Merge Lane is not Opposed				768	1800	0.427	0.0	0.0

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Environa Dr S				
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: Tomsitt Dr 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: Henry PI N				
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
West: Tomsitt Dr 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 5	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 101 [Environa Dr /Wolseley PI 2024 AM (Site Folder: 2026 AM Without Development)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [2026 AM Without Development (Network Folder: 2026 Without Development)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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: Environa Dr S															
Lane 1	124	5.9	124	5.9	1157	0.107	100	8.6	LOS A	2.5	18.2	Full	500	0.0	0.0
Lane 2	124	6.0	124	6.0	1157	0.107	100	8.6	LOS A	2.5	18.2	Full	500	0.0	0.0
Approach	248	5.9	248	5.9		0.107		8.6	LOS A	2.5	18.2				
North: Environa Dr N															
Lane 1	100	8.9	99	8.9	1136	0.087	100	12.6	LOS B	2.8	21.4	Full	129	0.0	0.0
Lane 2	100	8.9	99	8.9	1136	0.087	100	11.5	LOS B	2.6	19.7	Full	129	0.0	0.0
Lane 3	18	29.4	18	29.4	171	0.104	100	50.1	LOS D	0.8	7.1	Short	37	0.0	NA
Approach	218	10.6	215	10.6		0.104		15.2	LOS B	2.8	21.4				
West: Wolseley PI															
Lane 1	14	38.5	14	38.5	398	0.034	100	35.8	LOS D	0.5	4.6	Full	267	0.0	0.0
Lane 2	1	0.0	1	0.0	188	0.006	100	50.3	LOS D	0.0	0.3	Short	42	0.0	NA
Approach	15	35.7	15	35.7		0.034		36.9	LOS D	0.5	4.6				
All Vehicles	481	9.0	478	9.0		0.107		12.4	LOS B	2.8	21.4				

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.

Approach Lane Flows (veh/h)										
South: Environa Dr S										
Mov. From S To Exit:	L2	T1	Total	%HV		Deg. Satn	Lane Util.	Prob. SL	Ov.	
	W	N			Cap. veh/h	v/c	%	Ov. %	Lane No.	
Lane 1	1	123	124	5.9	1157	0.107	100	NA	NA	
Lane 2	-	124	124	6.0	1157	0.107	100	NA	NA	
Approach	1	247	248	5.9		0.107				
North: Environa Dr N										
Mov. From N To Exit:	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL	Ov.	
	S	W			Cap. veh/h	v/c	%	Ov. %	Lane No.	
Lane 1	99	-	99	8.9	1136	0.087	100	NA	NA	
Lane 2	99	-	99	8.9	1136	0.087	100	NA	NA	

Lane 3	-	18	18	29.4	171	0.104	100	0.0	2
Approach	198	18	215	10.6	0.104				
West: Wolseley PI									
Mov.	L2	R2	Total	%HV		Deg.	Lane	Prob.	Ov.
From W					Cap.	Satn	Util.	SL Ov.	Lane
To Exit:	N	S			veh/h	v/c	%	%	No.
Lane 1	14	-	14	38.5	398	0.034	100	NA	NA
Lane 2	-	1	1	0.0	188	0.006	100	0.0	1
Approach	14	1	15	35.7	0.034				
Total %HV Deg.Satn (v/c)									
All Vehicles	478	9.0		0.107					

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 %	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
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: Environa Dr S				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: Environa Dr N				
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
West: Wolseley PI				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

LANE SUMMARY

 **Site: 101 [Tomsitt Dr/ Limestone Dr/Edwin Land Pkwy/ Jerrabombera Pkwy 2024 AM (Site Folder: 2026 AM Without Development)]**

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 **Network: N101 [2026 AM Without Development (Network Folder: 2026 Without Development)]**

New Site
Site Category: (None)
Roundabout

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: Jerrabombera Pkwy S															
Lane 1 ^d	908	2.8	908	2.8	1263	0.719	100	13.2	LOS B	15.9	114.3	Full	500	0.0	0.0
Approach	908	2.8	908	2.8		0.719		13.2	LOS B	15.9	114.3				
East: Edwin Land Pkwy E															
Lane 1 ^d	709	4.0	709	4.0	647	1.096	100	113.3	LOS F	60.2	435.8	Full	500	0.0	1.1
Approach	709	4.0	709	4.0		1.096		113.3	LOS F	60.2	435.8				
North: Limestone Dr N															
Lane 1 ^d	386	1.9	386	1.9	717	0.539	100	6.6	LOS A	4.2	30.1	Full	500	0.0	0.0
Approach	386	1.9	386	1.9		0.539		6.6	LOS A	4.2	30.1				
West: Tomsitt Dr W															
Lane 1 ^d	313	12.1	313	12.1	978	0.320	100	1.2	LOS A	2.1	16.6	Full	322	0.0	0.0
Lane 2	175	3.6	175	3.6	1023	0.171	53 ⁵	1.9	LOS A	1.0	7.2	Full	322	0.0	0.0
Approach	487	9.1	487	9.1		0.320		1.5	LOS A	2.1	16.6				
All Vehicles	2492	4.2	2492	4.2		1.096		38.4	LOS D	60.2	435.8				

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

Roundabout LOS Method: SIDRA Roundabout LOS.

Lane LOS values are based on average delay per lane.

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

Roundabout 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.

- ⁵ Lane under-utilisation found by the program
- ^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Jerrabombera Pkwy S											
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	825	56	27	908	2.8	1263	0.719	100	NA	NA	
Approach	825	56	27	908	2.8		0.719				
East: Edwin Land Pkwy E											
Mov. From E	L2	T1	R2	Total	%HV	Cap.	Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane	

To Exit:	S	W	N			veh/h	v/c	%	%	No.
Lane 1	24	680	5	709	4.0	647	1.096	100	NA	NA
Approach	24	680	5	709	4.0		1.096			
North: Limestone Dr N										
Mov. From N To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	41	103	242	386	1.9	717	0.539	100	NA	NA
Approach	41	103	242	386	1.9		0.539			
West: Tomsitt Dr W										
Mov. From W To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	100	213	-	313	12.1	978	0.320	100	NA	NA
Lane 2	-	-	175	175	3.6	1023	0.171	53 ⁵	NA	NA
Approach	100	213	175	487	9.1		0.320			
Total %HV Deg.Satn (v/c)										
All Vehicles	2492	4.2		1.096						

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

5 Lane under-utilisation found by the program

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	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: Jerrabombera Pkwy S				
Lane 1	0.0	0.0	0.0	0.0
East: Edwin Land Pkwy E				
Lane 1	0.0	31.2	173.6	NA
North: Limestone Dr N				
Lane 1	0.0	0.0	0.0	0.0
West: Tomsitt Dr W				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

Approach Lane Flows (veh/h)									
South: Lanyon Dr SW									
Mov. From S To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	600	-	600	4.2	1538	0.390	100	NA	NA
Lane 2	-	724	724	0.5	963	0.752	100	NA	NA
Lane 3	-	724	724	0.5	963	0.752	100	0.0	2
Approach	600	1448	2048	1.6		0.752			
East: Tompsitt Dr SE									

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	144	-	144	1.4	1325	0.109	78 ⁶	0.0	2
Lane 2	184	-	184	1.4	1325	0.139	100	NA	NA
Lane 3	184	-	184	1.4	1325	0.139	100	NA	NA
Lane 4	-	120	120	3.4	200	0.602	100	0.0	3
Approach	511	120	631	1.8		0.602			
North: Lanyon Dr NE									
Mov. From N To Exit:	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	247	-	247	0.4	1675	0.148	100	0.0	2
Lane 2	-	277	277	2.6	384	0.723	86 ⁶	NA	NA
Lane 3	-	321	321	2.6	384	0.836	100	NA	NA
Approach	247	598	845	2.0		0.836			
Total %HV Deg.Satn (v/c)									
All Vehicles	3525	1.7		0.836					

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

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	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: Lanyon Dr SW Merge Type: Priority												
Exit Short Lane	1	145	0.0	504	510	3.03	2.02	421	1253	0.336	0.9	1.6
Merge Lane	2	-	100.0	Merge Lane is not Opposed				504	1800	0.280	0.0	0.0
East Exit: Tompsitt Dr SE Merge Type: Priority												
Exit Short Lane	1	88	0.0	724	726	3.01	2.00	247	1042	0.237	1.5	2.1
Merge Lane	2	-	100.0	Merge Lane is not Opposed				724	1800	0.402	0.0	0.0

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Lanyon Dr SW				
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: Tompsitt Dr SE				
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: Lanyon Dr NE				
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
--------	-----	-----	-----	-----

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: BG&E PTY LIMITED | Licence: NETWORK / 1PC | Processed: Wednesday, 20 November 2024 6:32:33 AM

Project: C:\Users\leon.piedade\Downloads\Data Center SIDRA.sip9

LANE SUMMARY

 Site: 101 [Tomsitt Dr/Henry PI/Environa Dr 2024 PM (Site Folder: 2026 PM Without Development)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [2026 PM Without Development (Network Folder: 2026 Without Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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: Environa Dr S															
Lane 1	74	2.9	74	2.9	1528	0.048	100	8.9	LOS A	0.5	3.9	Full	129	0.0	0.0
Lane 2	22	9.5	22	9.5	167	0.132	100	50.5	LOS D	1.1	8.3	Full	129	0.0	0.0
Lane 3	31	3.4	31	3.4	128	0.238	100	54.6	LOS D	1.5	10.8	Short	73	0.0	NA
Approach	126	4.2	126	4.2		0.238		27.2	LOS C	1.5	10.8				
East: Tomsitt Dr E															
Lane 1	46	0.0	45	0.0	1430	0.031	100	8.8	LOS A	0.4	2.9	Short	109	0.0	NA
Lane 2	250	1.9	242	1.9	1032	0.235	100	16.8	LOS B	6.3	44.5	Full	322	0.0	0.0
Lane 3	250	1.9	242	1.9	1032	0.235	100	16.8	LOS B	6.3	44.5	Full	322	0.0	0.0
Lane 4	75	0.0	72	0.0	131	0.552	100	56.4	LOS E	3.7	25.7	Short	90	0.0	NA
Approach	621	1.5	602	1.5		0.552		21.0	LOS C	6.3	44.5				
North: Henry PI N															
Lane 1	187	0.6	187	0.6	538	0.348	100	21.0	LOS C	5.7	39.8	Short	56	0.0	NA
Lane 2	26	0.0	26	0.0	177	0.148	100	49.1	LOS D	1.2	8.6	Full	107	0.0	0.0
Lane 3	73	1.4	73	1.4	130	0.559	100	58.2	LOS E	3.7	26.1	Short	59	0.0	NA
Approach	286	0.7	286	0.7		0.559		33.0	LOS C	5.7	39.8				
West: Tomsitt Dr W															
Lane 1	205	0.0	205	0.0	1463	0.140	100	25.9	LOS C	2.1	14.5	Short	60	0.0	NA
Lane 2	765	0.5	765	0.5	909 ¹	0.841	100	35.7	LOS D	34.5	242.5	Full	692	0.0	0.0
Lane 3	584	0.5	584	0.5	1041	0.561	67 ⁵	16.8	LOS B	18.9	132.7	Full	692	0.0	0.0
Lane 4	72	0.7	72	0.7	131	0.548	100	58.5	LOS E	3.6	25.5	Short	154	0.0	NA
Lane 5	72	0.7	72	0.7	131	0.548	100	58.5	LOS E	3.6	25.5	Short	154	0.0	NA
Approach	1697	0.5	1697	0.5		0.841		29.9	LOS C	34.5	242.5				
All Vehicles	2731	0.9	2712	0.9		0.841		28.1	LOS C	34.5	242.5				

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.

⁵ Lane under-utilisation found by the program

Approach Lane Flows (veh/h)

South: Enviroana Dr S										
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	74	-	-	74	2.9	1528	0.048	100	NA	NA
Lane 2	-	22	-	22	9.5	167	0.132	100	NA	NA
Lane 3	-	-	31	31	3.4	128	0.238	100	0.0	2
Approach	74	22	31	126	4.2		0.238			
East: Tomsitt Dr 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	45	-	-	45	0.0	1430	0.031	100	0.0	2
Lane 2	-	242	-	242	1.9	1032	0.235	100	NA	NA
Lane 3	-	242	-	242	1.9	1032	0.235	100	NA	NA
Lane 4	-	-	72	72	0.0	131	0.552	100	0.0	3
Approach	45	485	72	602	1.5		0.552			
North: Henry Pl N										
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	187	-	-	187	0.6	538	0.348	100	0.0	2
Lane 2	-	26	-	26	0.0	177	0.148	100	NA	NA
Lane 3	-	-	73	73	1.4	130	0.559	100	0.0	2
Approach	187	26	73	286	0.7		0.559			
West: Tomsitt Dr 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	205	-	-	205	0.0	1463	0.140	100	0.0	2
Lane 2	-	765	-	765	0.5	909 ¹	0.841	100	NA	NA
Lane 3	-	584	-	584	0.5	1041	0.561	67 ⁵	NA	NA
Lane 4	-	-	72	72	0.7	131	0.548	100	0.0	3
Lane 5	-	-	72	72	0.7	131	0.548	100	0.0	4
Approach	205	1348	143	1697	0.5		0.841			
Total %HV Deg.Satn (v/c)										
All Vehicles	2712	0.9		0.841						

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.
- 5 Lane under-utilisation found by the program

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Capacity Flow Rate veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
West Exit: Tomsitt Dr W Merge Type: Priority												
Exit Short Lane	1	60	0.0	242	245	3.04	2.03	74	1525	0.048	0.4	0.4
Merge Lane	2	-	100.0	Merge Lane is not Opposed				242	1800	0.135	0.0	0.0

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Environa Dr S				
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: Tomsitt Dr 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: Henry PI N				
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
West: Tomsitt Dr 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 5	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 101 [Environa Dr /Wolseley PI 2024 PM (Site Folder: 2026 PM Without Development)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [2026 PM Without Development (Network Folder: 2026 Without Development)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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: Environa Dr S															
Lane 1	57	3.6	57	3.6	1192	0.048	100	7.9	LOS A	1.1	7.7	Full	500	0.0	0.0
Lane 2	57	3.7	57	3.7	1193	0.048	100	7.8	LOS A	1.1	7.7	Full	500	0.0	0.0
Approach	115	3.7	115	3.7		0.048		7.8	LOS A	1.1	7.7				
North: Environa Dr N															
Lane 1	64	0.5	64	0.5	1218	0.053	43 ⁵	10.7	LOS B	1.6	11.4	Full	129	0.0	0.0
Lane 2	150	0.5	149	0.5	1218	0.123	100	8.4	LOS A	3.0	21.1	Full	129	0.0	0.0
Lane 3	2	0.0	2	0.0	188	0.011	100	49.8	LOS D	0.1	0.7	Short	37	0.0	NA
Approach	217	0.5	215	0.5		0.123		9.5	LOS A	3.0	21.1				
West: Wolseley PI															
Lane 1	13	0.0	13	0.0	488	0.026	100	35.7	LOS D	0.5	3.2	Full	267	0.0	0.0
Lane 2	1	0.0	1	0.0	188	0.006	100	50.3	LOS D	0.0	0.3	Short	42	0.0	NA
Approach	14	0.0	14	0.0		0.026		36.9	LOS D	0.5	3.2				
All Vehicles	345	1.5	344	1.5		0.123		10.0	LOS B	3.0	21.1				

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.

⁵ Lane under-utilisation found by the program

Approach Lane Flows (veh/h)										
South: Environa Dr S										
Mov. From S To Exit:	L2 W	T1 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	1	56	57	3.6	1192	0.048	100	NA	NA	
Lane 2	-	57	57	3.7	1193	0.048	100	NA	NA	
Approach	1	114	115	3.7		0.048				
North: Environa Dr N										
Mov. From N To Exit:	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	64	-	64	0.5	1218	0.053	43 ⁵	NA	NA	

Lane 2	149	-	149	0.5	1218	0.123	100	NA	NA
Lane 3	-	2	2	0.0	188	0.011	100	0.0	2
Approach	213	2	215	0.5		0.123			
West: Wolseley PI									
Mov.	L2	R2	Total	%HV		Deg.	Lane	Prob.	Ov.
From W					Cap.	Satn	Util.	SL Ov.	Lane
To Exit:	N	S			veh/h	v/c	%	%	No.
Lane 1	13	-	13	0.0	488	0.026	100	NA	NA
Lane 2	-	1	1	0.0	188	0.006	100	0.0	1
Approach	13	1	14	0.0		0.026			
Total %HV Deg.Satn (v/c)									
All Vehicles	344	1.5		0.123					

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

5 Lane under-utilisation found by the program

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: Environa Dr S				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: Environa Dr N				
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
West: Wolseley PI				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

LANE SUMMARY

 **Site: 101 [Tomsitt Dr/ Limestone Dr/Edwin Land Pkwy/ Jerrabombera Pkwy 2024 PM (Site Folder: 2026 PM Without Development)]**

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 **Network: N101 [2026 PM Without Development (Network Folder: 2026 Without Development)]**

New Site
Site Category: (None)
Roundabout

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: Jerrabombera Pkwy S															
Lane 1 ^d	341	1.5	341	1.5	717	0.476	100	4.8	LOS A	3.6	25.6	Full	500	0.0	0.0
Approach	341	1.5	341	1.5		0.476		4.8	LOS A	3.6	25.6				
East: Edwin Land Pkwy E															
Lane 1 ^d	282	1.9	282	1.9	404	0.698	100	31.5	LOS C	9.2	65.8	Full	500	0.0	0.0
Approach	282	1.9	282	1.9		0.698		31.5	LOS C	9.2	65.8				
North: Limestone Dr N															
Lane 1 ^d	427	1.5	427	1.5	360	1.186	100	195.1	LOS F	51.7	366.6	Full	500	0.0	0.0
Approach	427	1.5	427	1.5		1.186		195.1	LOS F	51.7	366.6				
West: Tomsitt Dr W															
Lane 1 ^d	963	0.9	963	0.9	1048	0.919	100	3.9	LOS A	21.9	154.5	Full	322	0.0	0.0
Lane 2	611	0.2	611	0.2	1052	0.580	63 ⁵	2.4	LOS A	5.3	37.1	Full	322	0.0	0.0
Approach	1574	0.6	1574	0.6		0.919		3.4	LOS A	21.9	154.5				
All Vehicles	2624	1.0	2624	1.0		1.186		37.8	LOS D	51.7	366.6				

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

Roundabout LOS Method: SIDRA Roundabout LOS.

Lane LOS values are based on average delay per lane.

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

Roundabout 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.

- ⁵ Lane under-utilisation found by the program
- ^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Jerrabombera Pkwy S											
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	257	69	15	341	1.5	717	0.476	100	NA	NA	
Approach	257	69	15	341	1.5		0.476				
East: Edwin Land Pkwy E											
Mov. From E	L2	T1	R2	Total	%HV	Cap.	Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane	

To Exit:	S	W	N			veh/h	v/c	%	%	No.
Lane 1	26	253	3	282	1.9	404	0.698	100	NA	NA
Approach	26	253	3	282	1.9		0.698			
North: Limestone Dr N										
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	113	193	122	427	1.5	360	1.186	100	NA	NA
Approach	113	193	122	427	1.5		1.186			
West: Tomsitt Dr 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	385	578	-	963	0.9	1048	0.919	100	NA	NA
Lane 2	-	-	611	611	0.2	1052	0.580	63 ⁵	NA	NA
Approach	385	578	611	1574	0.6		0.919			
Total %HV Deg.Satn (v/c)										
All Vehicles	2624	1.0		1.186						

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

5 Lane under-utilisation found by the program

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	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: Jerrabombera Pkwy S				
Lane 1	0.0	0.0	0.0	0.0
East: Edwin Land Pkwy E				
Lane 1	0.0	0.0	0.0	0.0
North: Limestone Dr N				
Lane 1	0.0	33.6	335.4	NA
West: Tomsitt Dr W				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	450	-	450	2.4	941	0.478	78 ⁶	3.1	2
Lane 2	574	-	574	2.4	941	0.611	100	NA	NA
Lane 3	574	-	574	2.4	941	0.611	100	NA	NA
Lane 4	-	206	206	7.4	410	0.503	100	0.0	3
Approach	1599	206	1805	3.0		0.611			
North: Lanyon Dr NE									
Mov. From N To Exit:	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	111	-	111	11.4	1204	0.092	100	0.0	2
Lane 2	-	298	298	9.0	689	0.432	86 ⁶	NA	NA
Lane 3	-	344	344	9.0	689	0.500	100	NA	NA
Approach	111	642	753	9.4		0.500			
Total %HV Deg.Satn (v/c)									
All Vehicles	3618	5.8		0.611					

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

⁶ Lane under-utilisation due to downstream 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
South Exit: Lanyon Dr SW Merge Type: Priority												
Exit Short Lane	1	145	0.0	919	941	3.08	2.05	748	762	0.981	2.5	26.2
Merge Lane	2	-	100.0	Merge Lane is not Opposed				919	1800	0.510	0.0	0.0
East Exit: Tompsitt Dr SE Merge Type: Priority												
Exit Short Lane	1	88	0.0	228	240	3.17	2.11	111	1454	0.076	0.4	0.5
Merge Lane	2	-	100.0	Merge Lane is not Opposed				228	1800	0.127	0.0	0.0

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Lanyon Dr SW				
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: Tompsitt Dr SE				
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: Lanyon Dr NE				
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
--------	-----	-----	-----	-----

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: BG&E PTY LIMITED | Licence: NETWORK / 1PC | Processed: Wednesday, 20 November 2024 6:27:30 AM

Project: C:\Users\leon.piedade\Downloads\Data Center SIDRA.sip9

LANE SUMMARY

 Site: 101 [Tomsitt Dr/Henry Pl/Environa Dr 2026 AM (Site Folder: 2026 AM With Development)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [2026 AM With Development (Network Folder: 2026 With Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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: Environa Dr S															
Lane 1	182	8.7	182	8.7	1450	0.126	100	10.6	LOS B	1.1	8.3	Full	129	0.0	0.0
Lane 2	22	0.0	22	0.0	99	0.224	100	54.3	LOS D	1.1	8.0	Full	129	0.0	0.0
Lane 3	60	7.0	60	7.0	143	0.420	100	57.8	LOS E	3.1	22.8	Short	73	0.0	NA
Approach	264	7.6	264	7.6		0.420		25.0	LOS C	3.1	22.8				
East: Tomsitt Dr E															
Lane 1	79	8.0	76	7.9	1407	0.054	100	8.5	LOS A	0.6	4.8	Short	109	0.0	NA
Lane 2	795	2.5	767	2.4	1125	0.682	100	19.0	LOS B	25.7	183.9	Full	322	0.0	0.0
Lane 3	783	2.5	755	2.4	1107 ¹	0.682	100	20.8	LOS C	25.3	180.9	Full	322	0.0	0.0
Lane 4	106	1.0	103	1.0	149	0.688	100	58.7	LOS E	5.3	37.3	Short	90	0.0	NA
Approach	1763	2.6	1700	2.6		0.688		21.7	LOS C	25.7	183.9				
North: Henry Pl N															
Lane 1	57	9.3	57	9.3	852	0.067	100	7.7	LOS A	0.6	4.4	Short	56	0.0	NA
Lane 2	28	3.7	28	3.7	96	0.295	100	55.4	LOS E	1.4	10.4	Full	107	0.0	0.0
Lane 3	100	1.1	100	1.1	149	0.671	100	58.4	LOS E	5.1	36.2	Short	59	0.0	NA
Approach	185	4.0	185	4.0		0.671		42.4	LOS D	5.1	36.2				
West: Tomsitt Dr W															
Lane 1	69	10.6	69	10.6	1420	0.049	100	6.5	LOS A	0.6	4.5	Short	60	0.0	NA
Lane 2	261	9.0	261	9.0	1079	0.242	100	10.9	LOS B	6.1	46.2	Full	692	0.0	0.0
Lane 3	112	9.0	112	9.0	1079	0.104	43 ⁵	9.9	LOS A	2.4	18.0	Full	692	0.0	0.0
Lane 4	63	11.7	63	11.7	139	0.456	100	57.1	LOS E	3.1	24.1	Short	154	0.0	NA
Lane 5	63	11.7	63	11.7	139	0.456	100	57.1	LOS E	3.1	24.1	Short	154	0.0	NA
Approach	568	9.8	568	9.8		0.456		20.4	LOS C	6.1	46.2				
All Vehicles	2781	4.7	2718	4.8		0.688		23.2	LOS C	25.7	183.9				

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.

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.

⁵ Lane under-utilisation found by the program

Approach Lane Flows (veh/h)

South: Environa Dr S										
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.
Lane 1	182	-	-	182	8.7	1450	0.126	100	NA	NA
Lane 2	-	22	-	22	0.0	99	0.224	100	NA	NA
Lane 3	-	-	60	60	7.0	143	0.420	100	0.0	2
Approach	182	22	60	264	7.6		0.420			
East: Tomsitt Dr E										
Mov. From E To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	76	-	-	76	7.9	1407	0.054	100	0.0	2
Lane 2	-	767	-	767	2.4	1125	0.682	100	NA	NA
Lane 3	-	755	-	755	2.4	1107 ¹	0.682	100	NA	NA
Lane 4	-	-	103	103	1.0	149	0.688	100	0.0	3
Approach	76	1522	103	1700	2.6		0.688			
North: Henry Pl N										
Mov. From N To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	57	-	-	57	9.3	852	0.067	100	0.0	2
Lane 2	-	28	-	28	3.7	96	0.295	100	NA	NA
Lane 3	-	-	100	100	1.1	149	0.671	100	0.0	2
Approach	57	28	100	185	4.0		0.671			
West: Tomsitt Dr W										
Mov. From W To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	69	-	-	69	10.6	1420	0.049	100	0.0	2
Lane 2	-	261	-	261	9.0	1079	0.242	100	NA	NA
Lane 3	-	112	-	112	9.0	1079	0.104	43 ⁵	NA	NA
Lane 4	-	-	63	63	11.7	139	0.456	100	0.0	3
Lane 5	-	-	63	63	11.7	139	0.456	100	0.0	4
Approach	69	373	126	568	9.8		0.456			
Total %HV Deg.Satn (v/c)										
All Vehicles	2718	4.8			0.688					

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.
- ⁵ Lane under-utilisation found by the program

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Capacity Flow Rate veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
West Exit: Tomsitt Dr W Merge Type: Priority												
Exit Short Lane	1	60	0.0	767	776	3.13	2.09	182	0.202	1.9	2.5	
Merge Lane	2	-	100.0	Merge Lane is not Opposed				767	1800	0.426	0.0	0.0

Variable Demand Analysis

	Initial Queued Demand	Residual Queued Demand	Time for Residual Demand to Clear	Duration of Oversatn
	veh	veh	sec	sec
South: Environa Dr S				
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: Tomsitt Dr 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: Henry PI N				
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
West: Tomsitt Dr 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 5	0.0	0.0	0.0	0.0

LANE SUMMARY

 Site: 101 [Environa Dr /Wolseley PI 2026 AM (Site Folder: 2026 AM With Development)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [2026 AM With Development (Network Folder: 2026 With Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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: Environa Dr S															
Lane 1	125	5.8	125	5.8	1043	0.120	100	11.6	LOS B	2.9	21.2	Full	500	0.0	0.0
Lane 2	125	6.0	125	6.0	1043	0.120	100	11.5	LOS B	2.9	21.3	Full	500	0.0	0.0
Approach	251	5.9	251	5.9		0.120		11.5	LOS B	2.9	21.3				
North: Environa Dr N															
Lane 1	100	8.9	99	8.9	1024	0.096	100	13.3	LOS B	2.6	19.8	Full	129	0.0	0.0
Lane 2	100	8.9	99	8.9	1024	0.096	100	12.7	LOS B	2.5	19.0	Full	129	0.0	0.0
Lane 3	35	15.2	34	15.1	288	0.119	100	45.3	LOS D	1.5	12.0	Short	37	0.0	NA
Approach	235	9.9	232	9.9		0.119		17.8	LOS B	2.6	19.8				
West: Wolseley PI															
Lane 1	14	38.5	14	38.5	486	0.028	100	31.1	LOS C	0.4	4.2	Full	267	0.0	0.0
Lane 2	1	0.0	1	0.0	188	0.006	100	50.3	LOS D	0.0	0.3	Short	42	0.0	NA
Approach	15	35.7	15	35.7		0.028		32.5	LOS C	0.4	4.2				
All Vehicles	500	8.6	497	8.7		0.120		15.1	LOS B	2.9	21.3				

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.

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.

Approach Lane Flows (veh/h)										
South: Environa Dr 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.	
Lane 1	3	122	125	5.8	1043	0.120	100	NA	NA	
Lane 2	-	125	125	6.0	1043	0.120	100	NA	NA	
Approach	3	247	251	5.9		0.120				
North: Environa Dr N										
Mov. From N To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	99	-	99	8.9	1024	0.096	100	NA	NA	
Lane 2	99	-	99	8.9	1024	0.096	100	NA	NA	

Lane 3	-	34	34	15.1	288	0.119	100	0.0	2
Approach	198	34	232	9.9	0.119				
West: Wolseley PI									
Mov.	L2	R2	Total	%HV		Deg.	Lane	Prob.	Ov.
From W					Cap.	Satn	Util.	SL Ov.	Lane
To Exit:	N	S			veh/h	v/c	%	%	No.
Lane 1	14	-	14	38.5	486	0.028	100	NA	NA
Lane 2	-	1	1	0.0	188	0.006	100	0.0	1
Approach	14	1	15	35.7	0.028				
Total %HV Deg.Satn (v/c)									
All Vehicles	497	8.7		0.120					

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 %	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
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: Environa Dr S				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: Environa Dr N				
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
West: Wolseley PI				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

LANE SUMMARY

 **Site: 101 [Tomsitt Dr/ Limestone Dr/Edwin Land Pkwy/ Jerrabombera Pkwy 2026 AM (Site Folder: 2026 AM With Development)]**

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 **Network: N101 [2026 AM With Development (Network Folder: 2026 With Development)]**

New Site
Site Category: (None)
Roundabout

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: Jerrabombera Pkwy S															
Lane 1 ^d	911	2.8	911	2.8	1264	0.721	100	13.3	LOS B	16.1	115.0	Full	500	0.0	0.0
Approach	911	2.8	911	2.8		0.721		13.3	LOS B	16.1	115.0				
East: Edwin Land Pkwy E															
Lane 1 ^d	712	4.0	712	4.0	646	1.101	100	117.1	LOS F	61.7	446.9	Full	500	0.0	1.8
Approach	712	4.0	712	4.0		1.101		117.1	LOS F	61.7	446.9				
North: Limestone Dr N															
Lane 1 ^d	387	1.9	387	1.9	717	0.540	100	6.6	LOS A	4.2	30.2	Full	500	0.0	0.0
Approach	387	1.9	387	1.9		0.540		6.6	LOS A	4.2	30.2				
West: Tomsitt Dr W															
Lane 1 ^d	313	12.1	313	12.1	978	0.320	100	1.2	LOS A	2.1	16.6	Full	322	0.0	0.0
Lane 2	175	3.6	175	3.6	1023	0.171	53 ⁵	1.9	LOS A	1.0	7.2	Full	322	0.0	0.0
Approach	487	9.1	487	9.1		0.320		1.5	LOS A	2.1	16.6				
All Vehicles	2497	4.2	2497	4.2		1.101		39.5	LOS D	61.7	446.9				

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

Roundabout LOS Method: SIDRA Roundabout LOS.

Lane LOS values are based on average delay per lane.

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

Roundabout 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.

- 5 Lane under-utilisation found by the program
- d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Jerrabombera Pkwy S											
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.
Lane 1	827	56	27	911	2.8		1264	0.721	100	NA	NA
Approach	827	56	27	911	2.8			0.721			
East: Edwin Land Pkwy E											
Mov. From E	L2	T1	R2	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

To Exit:	S	W	N			veh/h	v/c	%	%	No.
Lane 1	24	682	5	712	4.0	646	1.101	100	NA	NA
Approach	24	682	5	712	4.0		1.101			
North: Limestone Dr N										
Mov. From N To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	41	103	243	387	1.9	717	0.540	100	NA	NA
Approach	41	103	243	387	1.9		0.540			
West: Tomsitt Dr W										
Mov. From W To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	100	213	-	313	12.1	978	0.320	100	NA	NA
Lane 2	-	-	175	175	3.6	1023	0.171	53 ⁵	NA	NA
Approach	100	213	175	487	9.1		0.320			
Total %HV Deg. Satn (v/c)										
All Vehicles	2497	4.2		1.101						

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

5 Lane under-utilisation found by the program

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: Jerrabombera Pkwy S				
Lane 1	0.0	0.0	0.0	0.0
East: Edwin Land Pkwy E				
Lane 1	0.0	32.7	182.2	NA
North: Limestone Dr N				
Lane 1	0.0	0.0	0.0	0.0
West: Tomsitt Dr W				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

Approach Lane Flows (veh/h)									
South: Lanyon Dr SW									
Mov. From S To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	600	-	600	4.2	1538	0.390	100	NA	NA
Lane 2	-	724	724	0.5	963	0.752	100	NA	NA
Lane 3	-	724	724	0.5	963	0.752	100	0.0	2
Approach	600	1448	2048	1.6		0.752			
East: Tompsitt Dr SE									

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	146	-	146	1.4	1325	0.111	78 ⁶	0.0	2
Lane 2	187	-	187	1.4	1325	0.141	100	NA	NA
Lane 3	187	-	187	1.4	1325	0.141	100	NA	NA
Lane 4	-	123	123	3.3	200	0.617	100	0.0	3
Approach	520	123	643	1.7		0.617			
North: Lanyon Dr NE									
Mov. From N To Exit:	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	247	-	247	0.4	1675	0.148	100	0.0	2
Lane 2	-	277	277	2.6	384	0.723	86 ⁶	NA	NA
Lane 3	-	321	321	2.6	384	0.836	100	NA	NA
Approach	247	598	845	2.0		0.836			
Total %HV Deg.Satn (v/c)									
All Vehicles	3537	1.7		0.836					

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

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	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: Lanyon Dr SW Merge Type: Priority												
Exit Short Lane	1	145	0.0	507	513	3.03	2.02	424	1250	0.339	0.9	1.6
Merge Lane	2	-	100.0	Merge Lane is not Opposed				507	1800	0.282	0.0	0.0
East Exit: Tompsitt Dr SE Merge Type: Priority												
Exit Short Lane	1	88	0.0	724	726	3.01	2.00	247	1042	0.237	1.5	2.1
Merge Lane	2	-	100.0	Merge Lane is not Opposed				724	1800	0.402	0.0	0.0

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Lanyon Dr SW				
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: Tompsitt Dr SE				
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: Lanyon Dr NE				
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
--------	-----	-----	-----	-----

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: BG&E PTY LIMITED | Licence: NETWORK / 1PC | Processed: Wednesday, 20 November 2024 6:28:49 AM

Project: C:\Users\leon.piedade\Downloads\Data Center SIDRA.sip9

LANE SUMMARY

 Site: 101 [Tomsitt Dr/Henry PI/Environa Dr 2026 PM (Site Folder: 2026 PM With Development)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [2026 PM With Development (Network Folder: 2026 With Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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: Environa Dr S															
Lane 1	86	2.4	86	2.4	1532	0.056	100	8.9	LOS A	0.6	4.6	Full	129	0.0	0.0
Lane 2	23	9.1	23	9.1	167	0.138	100	50.6	LOS D	1.2	8.7	Full	129	0.0	0.0
Lane 3	34	3.1	34	3.1	128	0.262	100	54.7	LOS D	1.7	11.9	Short	73	0.0	NA
Approach	143	3.7	143	3.7		0.262		26.4	LOS C	1.7	11.9				
East: Tomsitt Dr E															
Lane 1	46	0.0	45	0.0	1430	0.031	100	8.8	LOS A	0.4	2.9	Short	109	0.0	NA
Lane 2	250	1.9	242	1.9	1032	0.235	100	16.8	LOS B	6.3	44.5	Full	322	0.0	0.0
Lane 3	250	1.9	242	1.9	1032	0.235	100	16.8	LOS B	6.3	44.5	Full	322	0.0	0.0
Lane 4	75	0.0	72	0.0	131	0.551	100	56.4	LOS E	3.7	25.7	Short	90	0.0	NA
Approach	621	1.5	602	1.5		0.551		21.0	LOS C	6.3	44.5				
North: Henry PI N															
Lane 1	187	0.6	187	0.6	538	0.348	100	21.0	LOS C	5.7	39.8	Short	56	0.0	NA
Lane 2	26	0.0	26	0.0	177	0.148	100	49.1	LOS D	1.2	8.6	Full	107	0.0	0.0
Lane 3	73	1.4	73	1.4	130	0.559	100	58.2	LOS E	3.7	26.1	Short	59	0.0	NA
Approach	286	0.7	286	0.7		0.559		33.0	LOS C	5.7	39.8				
West: Tomsitt Dr W															
Lane 1	205	0.0	205	0.0	1463	0.140	100	25.9	LOS C	2.1	14.5	Short	60	0.0	NA
Lane 2	765	0.5	765	0.5	909 ¹	0.841	100	35.7	LOS D	34.5	242.5	Full	692	0.0	0.0
Lane 3	584	0.5	584	0.5	1041	0.561	67 ⁵	16.8	LOS B	18.9	132.7	Full	692	0.0	0.0
Lane 4	72	0.7	72	0.7	131	0.548	100	58.5	LOS E	3.6	25.5	Short	154	0.0	NA
Lane 5	72	0.7	72	0.7	131	0.548	100	58.5	LOS E	3.6	25.5	Short	154	0.0	NA
Approach	1697	0.5	1697	0.5		0.841		29.9	LOS C	34.5	242.5				
All Vehicles	2747	0.9	2728	0.9		0.841		28.1	LOS C	34.5	242.5				

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.

⁵ Lane under-utilisation found by the program

Approach Lane Flows (veh/h)

South: Envirova Dr S										
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	86	-	-	86	2.4	1532	0.056	100	NA	NA
Lane 2	-	23	-	23	9.1	167	0.138	100	NA	NA
Lane 3	-	-	34	34	3.1	128	0.262	100	0.0	2
Approach	86	23	34	143	3.7		0.262			
East: Tompsitt Dr 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	45	-	-	45	0.0	1430	0.031	100	0.0	2
Lane 2	-	242	-	242	1.9	1032	0.235	100	NA	NA
Lane 3	-	242	-	242	1.9	1032	0.235	100	NA	NA
Lane 4	-	-	72	72	0.0	131	0.551	100	0.0	3
Approach	45	484	72	602	1.5		0.551			
North: Henry Pl N										
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	187	-	-	187	0.6	538	0.348	100	0.0	2
Lane 2	-	26	-	26	0.0	177	0.148	100	NA	NA
Lane 3	-	-	73	73	1.4	130	0.559	100	0.0	2
Approach	187	26	73	286	0.7		0.559			
West: Tompsitt Dr 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	205	-	-	205	0.0	1463	0.140	100	0.0	2
Lane 2	-	765	-	765	0.5	909 ¹	0.841	100	NA	NA
Lane 3	-	584	-	584	0.5	1041	0.561	67 ⁵	NA	NA
Lane 4	-	-	72	72	0.7	131	0.548	100	0.0	3
Lane 5	-	-	72	72	0.7	131	0.548	100	0.0	4
Approach	205	1348	143	1697	0.5		0.841			
Total %HV Deg.Satn (v/c)										
All Vehicles	2728	0.9		0.841						

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.
- ⁵ Lane under-utilisation found by the program

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	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
West Exit: Tompsitt Dr W Merge Type: Priority												
Exit Short Lane	1	60	0.0	242	244	3.04	2.02	86	1529	0.056	0.4	0.4
Merge Lane	2	-	100.0	Merge Lane is not Opposed			242	1800	0.135	0.0	0.0	

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Environa Dr S				
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: Tompsitt Dr 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: Henry Pl N				
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
West: Tompsitt Dr 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 5	0.0	0.0	0.0	0.0

LANE SUMMARY

 Site: 101 [Environa Dr /Wolseley PI 2026 PM (Site Folder: 2026 PM With Development)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [2026 PM With Development (Network Folder: 2026 With Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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: Environa Dr S															
Lane 1	125	1.7	125	1.7	1207	0.104	100	8.2	LOS A	2.4	17.2	Full	500	0.0	0.0
Lane 2	125	1.7	125	1.7	1208	0.104	100	8.1	LOS A	2.4	17.2	Full	500	0.0	0.0
Approach	251	1.7	251	1.7		0.104		8.2	LOS A	2.4	17.2				
North: Environa Dr N															
Lane 1	64	0.5	64	0.5	1218	0.053	43 ⁵	10.7	LOS B	1.6	11.4	Full	129	0.0	0.0
Lane 2	150	0.5	149	0.5	1218	0.123	100	8.4	LOS A	3.0	21.1	Full	129	0.0	0.0
Lane 3	2	0.0	2	0.0	188	0.011	100	49.8	LOS D	0.1	0.7	Short	37	0.0	NA
Approach	217	0.5	215	0.5		0.123		9.5	LOS A	3.0	21.1				
West: Wolseley PI															
Lane 1	29	0.0	29	0.0	488	0.060	100	36.2	LOS D	1.1	7.5	Full	267	0.0	0.0
Lane 2	2	0.0	2	0.0	188	0.011	100	50.6	LOS D	0.1	0.7	Short	42	0.0	NA
Approach	32	0.0	32	0.0		0.060		37.1	LOS D	1.1	7.5				
All Vehicles	499	1.1	498	1.1		0.123		10.6	LOS B	3.0	21.1				

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.

⁵ Lane under-utilisation found by the program

Approach Lane Flows (veh/h)										
South: Environa Dr S										
Mov. From S To Exit:	L2 W	T1 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	3	122	125	1.7	1207	0.104	100	NA	NA	
Lane 2	-	125	125	1.7	1208	0.104	100	NA	NA	
Approach	3	247	251	1.7		0.104				
North: Environa Dr N										
Mov. From N To Exit:	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	64	-	64	0.5	1218	0.053	43 ⁵	NA	NA	

Lane 2	149	-	149	0.5	1218	0.123	100	NA	NA
Lane 3	-	2	2	0.0	188	0.011	100	0.0	2
Approach	213	2	215	0.5		0.123			
West: Wolseley PI									
Mov. From W To Exit:	L2	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
	N	S							
Lane 1	29	-	29	0.0	488	0.060	100	NA	NA
Lane 2	-	2	2	0.0	188	0.011	100	0.0	1
Approach	29	2	32	0.0		0.060			
Total %HV Deg. Satn (v/c)									
All Vehicles	498	1.1		0.123					

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

5 Lane under-utilisation found by the program

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: Environa Dr S				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: Environa Dr N				
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
West: Wolseley PI				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

LANE SUMMARY

 **Site: 101 [Tomsitt Dr/ Limestone Dr/Edwin Land Pkwy/ Jerrabombera Pkwy 2026 PM (Site Folder: 2026 PM With Development)]**

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 **Network: N101 [2026 PM With Development (Network Folder: 2026 With Development)]**

New Site
Site Category: (None)
Roundabout

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: Jerrabombera Pkwy S															
Lane 1 ^d	341	1.5	341	1.5	717	0.476	100	4.8	LOS A	3.6	25.6	Full	500	0.0	0.0
Approach	341	1.5	341	1.5		0.476		4.8	LOS A	3.6	25.6				
East: Edwin Land Pkwy E															
Lane 1 ^d	282	1.9	282	1.9	404	0.698	100	31.4	LOS C	9.2	65.7	Full	500	0.0	0.0
Approach	282	1.9	282	1.9		0.698		31.4	LOS C	9.2	65.7				
North: Limestone Dr N															
Lane 1 ^d	427	1.5	427	1.5	359	1.192	100	199.7	LOS F	52.6	373.1	Full	500	0.0	0.0
Approach	427	1.5	427	1.5		1.192		199.7	LOS F	52.6	373.1				
West: Tomsitt Dr W															
Lane 1 ^d	965	0.9	965	0.9	1048	0.921	100	4.0	LOS A	22.2	156.8	Full	322	0.0	0.0
Lane 2	612	0.2	612	0.2	1052	0.581	63 ⁵	2.4	LOS A	5.3	37.3	Full	322	0.0	0.0
Approach	1577	0.6	1577	0.6		0.921		3.4	LOS A	22.2	156.8				
All Vehicles	2627	1.0	2627	1.0		1.192		38.5	LOS D	52.6	373.1				

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

Roundabout LOS Method: SIDRA Roundabout LOS.

Lane LOS values are based on average delay per lane.

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

Roundabout 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.

⁵ Lane under-utilisation found by the program

^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Jerrabombera Pkwy S											
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL	Ov. Lane	
From S						Cap. veh/h	v/c	%	Ov. %	No.	
To Exit:	W	N	E								
Lane 1	257	69	15	341	1.5	717	0.476	100	NA	NA	
Approach	257	69	15	341	1.5		0.476				
East: Edwin Land Pkwy E											
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL	Ov. Lane	
From E						Cap. veh/h	v/c	%	Ov. %	No.	

To Exit:	S	W	N			veh/h	v/c	%	%	No.
Lane 1	26	253	3	282	1.9	404	0.698	100	NA	NA
Approach	26	253	3	282	1.9		0.698			
North: Limestone Dr N										
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	113	193	122	427	1.5	359	1.192	100	NA	NA
Approach	113	193	122	427	1.5		1.192			
West: Tomsitt Dr 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	386	579	-	965	0.9	1048	0.921	100	NA	NA
Lane 2	-	-	612	612	0.2	1052	0.581	63 ⁵	NA	NA
Approach	386	579	612	1577	0.6		0.921			
Total %HV Deg.Satn (v/c)										
All Vehicles	2627	1.0		1.192						

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

5 Lane under-utilisation found by the program

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
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: Jerrabombera Pkwy S				
Lane 1	0.0	0.0	0.0	0.0
East: Edwin Land Pkwy E				
Lane 1	0.0	0.0	0.0	0.0
North: Limestone Dr N				
Lane 1	0.0	34.4	345.4	NA
West: Tomsitt Dr W				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

LANE SUMMARY

 Site: 101 [Tomsitt Dr/ Limestone Dr/Edwin Land Pkwy/ Jerrabombera Pkwy 2024 PM (Site Folder: 2024 PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [2024 PM (Network Folder: 2024)]

New Site
Site Category: (None)
Roundabout

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: Jerrabombera Pkwy S															
Lane 1 ^d	324	1.6	324	1.6	721	0.449	100	4.4	LOS A	3.2	22.9	Full	500	0.0	0.0
Approach	324	1.6	324	1.6		0.449		4.4	LOS A	3.2	22.9				
East: Edwin Land Pkwy E															
Lane 1 ^d	268	2.0	268	2.0	399	0.672	100	29.3	LOS C	8.4	59.6	Full	500	0.0	0.0
Approach	268	2.0	268	2.0		0.672		29.3	LOS C	8.4	59.6				
North: Limestone Dr N															
Lane 1 ^d	406	1.6	406	1.6	401	1.013	100	69.6	LOS E	22.1	156.9	Full	500	0.0	0.0
Approach	406	1.6	406	1.6		1.013		69.6	LOS E	22.1	156.9				
West: Tomsitt Dr W															
Lane 1 ^d	917	0.9	917	0.9	1055	0.869	100	2.8	LOS A	16.7	117.5	Full	322	0.0	0.0
Lane 2	581	0.2	581	0.2	1059	0.549	63 ⁵	2.3	LOS A	4.8	33.3	Full	322	0.0	0.0
Approach	1498	0.6	1498	0.6		0.869		2.6	LOS A	16.7	117.5				
All Vehicles	2497	1.1	2497	1.1		1.013		16.6	LOS B	22.1	156.9				

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

Roundabout LOS Method: SIDRA Roundabout LOS.

Lane LOS values are based on average delay per lane.

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

Roundabout 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.

5 Lane under-utilisation found by the program

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Jerrabombera Pkwy S											
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL	Ov. Lane	
From S						Cap. veh/h	v/c	%	%	No.	
To Exit:	W	N	E								
Lane 1	244	66	14	324	1.6	721	0.449	100	NA	NA	
Approach	244	66	14	324	1.6		0.449				
East: Edwin Land Pkwy E											
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL	Ov. Lane	
From E						Cap. veh/h	v/c	%	%	No.	
To Exit:	S	W	N								
Lane 1	25	240	3	268	2.0	399	0.672	100	NA	NA	

Approach	25	240	3	268	2.0		0.672				
North: Limestone Dr N											
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	107	183	116	406	1.6	401	1.013	100	NA	NA	
Approach	107	183	116	406	1.6		1.013				
West: Tompsitt Dr 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	366	551	-	917	0.9	1055	0.869	100	NA	NA	
Lane 2	-	-	581	581	0.2	1059	0.549	63 ⁵	NA	NA	
Approach	366	551	581	1498	0.6		0.869				
Total %HV Deg.Satn (v/c)											
All Vehicles	2497	1.1		1.013							

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

5 Lane under-utilisation found by the program

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	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: Jerrabombera Pkwy S				
Lane 1	0.0	0.0	0.0	0.0
East: Edwin Land Pkwy E				
Lane 1	0.0	0.0	0.0	0.0
North: Limestone Dr N				
Lane 1	0.0	2.6	23.0	NA
West: Tompsitt Dr W				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 101 [Tomsitt Dr/Lanyon Dr Intersection 2024 PM (Site Folder: 2024 PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [2024 PM (Network Folder: 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 101 seconds (Site User-Given Phase Times)

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				
South: Lanyon Dr SW															
Lane 1	572	4.2	572	4.2	1538	0.372	100	3.0	LOS A	7.8	56.4	Full	500	0.0	0.0
Lane 2	689	0.5	689	0.5	962	0.716	100	21.4	LOS C	18.8	132.3	Full	500	0.0	0.0
Lane 3	689	0.5	689	0.5	962	0.716	100	21.4	LOS C	18.8	132.3	Short	158	0.0	NA
Approach	1951	1.6	1951	1.6		0.716		16.0	LOS B	18.8	132.3				
East: Tomsitt Dr SE															
Lane 1	140	1.5	140	1.5	1324	0.106	78 ⁶	20.9	LOS C	5.3	37.3	Short	103	0.0	NA
Lane 2	179	1.5	179	1.5	1324	0.135	100	19.8	LOS B	6.8	48.0	Full	692	0.0	0.0
Lane 3	179	1.5	179	1.5	1324	0.135	100	19.8	LOS B	6.8	48.0	Full	692	0.0	0.0
Lane 4	117	3.6	117	3.6	199	0.585	100	56.1	LOS E	5.7	41.5	Short	103	0.0	NA
Approach	615	1.9	614	1.9		0.585		27.0	LOS C	6.8	48.0				
North: Lanyon Dr NE															
Lane 1	236	0.4	236	0.4	1675	0.141	100	10.8	LOS B	1.9	13.4	Short	128	0.0	NA
Lane 2	264	2.6	264	2.6	384	0.688	86 ⁶	43.4	LOS D	12.5	89.4	Full	500	0.0	0.0
Lane 3	305	2.6	305	2.6	384	0.796	100	45.9	LOS D	15.5	110.9	Full	500	0.0	0.0
Approach	805	2.0	805	2.0		0.796		34.8	LOS C	15.5	110.9				
All Vehicles	3371	1.7	3369	1.7		0.796		22.5	LOS C	18.8	132.3				

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.

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.

6 Lane under-utilisation due to downstream effects

Approach Lane Flows (veh/h)										
South: Lanyon Dr SW										
Mov. From S To Exit:	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
	N	E			Cap. veh/h	v/c	%	%		
Lane 1	572	-	572	4.2	1538	0.372	100	NA	NA	
Lane 2	-	689	689	0.5	962	0.716	100	NA	NA	
Lane 3	-	689	689	0.5	962	0.716	100	0.0	2	
Approach	572	1379	1951	1.6		0.716				
East: Tomsitt Dr SE										
Mov. From E	L2	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
					Cap. veh/h	v/c	%	%		

To Exit:	S	N							
Lane 1	140	-	140	1.5	1324	0.106	78 ⁶	0.0	2
Lane 2	179	-	179	1.5	1324	0.135	100	NA	NA
Lane 3	179	-	179	1.5	1324	0.135	100	NA	NA
Lane 4	-	117	117	3.6	199	0.585	100	0.0	3
Approach	497	117	614	1.9	0.585				
North: Lanyon Dr NE									
Mov.	L2	T1	Total	%HV		Deg.	Lane	Prob.	Ov.
From N					Cap.	Satn	Util.	SL Ov.	Lane
To Exit:	E	S			veh/h	v/c	%	%	No.
Lane 1	236	-	236	0.4	1675	0.141	100	0.0	2
Lane 2	-	264	264	2.6	384	0.688	86 ⁶	NA	NA
Lane 3	-	305	305	2.6	384	0.796	100	NA	NA
Approach	236	569	805	2.0	0.796				
Total %HV Deg.Satn (v/c)									
All Vehicles	3369	1.7	0.796						

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

⁶ Lane under-utilisation due to downstream 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
South Exit: Lanyon Dr SW Merge Type: Priority												
Exit Short Lane	1	145	0.0	484	489	3.03	2.02	404	1275	0.317	0.8	1.4
Merge Lane	2	-	100.0	Merge Lane is not Opposed				484	1800	0.269	0.0	0.0
East Exit: Tompsitt Dr SE Merge Type: Priority												
Exit Short Lane	1	88	0.0	689	691	3.01	2.00	236	1079	0.219	1.3	1.9
Merge Lane	2	-	100.0	Merge Lane is not Opposed				689	1800	0.383	0.0	0.0

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Lanyon Dr SW				
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: Tompsitt Dr SE				
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: Lanyon Dr NE				
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: 101 [Tompsett Dr/Henry PI/Environa Dr 2024 PM (Site Folder: 2024 PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [2024 PM (Network Folder: 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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: Environa Dr S															
Lane 1	71	3.0	71	3.0	1527	0.046	100	8.9	LOS A	0.5	3.8	Full	129	0.0	0.0
Lane 2	21	10.0	21	10.0	167	0.126	100	50.5	LOS D	1.0	8.0	Full	129	0.0	0.0
Lane 3	29	3.6	29	3.6	128	0.230	100	54.5	LOS D	1.4	10.4	Short	73	0.0	NA
Approach	121	4.3	121	4.3		0.230		27.2	LOS C	1.4	10.4				
East: Tompsitt Dr E															
Lane 1	44	0.0	44	0.0	1431	0.031	100	8.8	LOS A	0.4	2.8	Short	109	0.0	NA
Lane 2	238	2.0	237	2.0	1031	0.230	100	16.8	LOS B	6.1	43.5	Full	322	0.0	0.0
Lane 3	238	2.0	237	2.0	1031	0.230	100	16.8	LOS B	6.1	43.5	Full	322	0.0	0.0
Lane 4	72	0.0	71	0.0	131	0.544	100	56.3	LOS E	3.6	25.3	Short	90	0.0	NA
Approach	592	1.6	590	1.6		0.544		20.9	LOS C	6.1	43.5				
North: Henry Pl N															
Lane 1	178	0.6	178	0.6	554	0.321	100	19.0	LOS B	5.0	34.8	Short	56	0.0	NA
Lane 2	25	0.0	25	0.0	177	0.142	100	49.1	LOS D	1.2	8.3	Full	107	0.0	0.0
Lane 3	69	1.5	69	1.5	130	0.535	100	58.0	LOS E	3.5	24.9	Short	59	0.0	NA
Approach	273	0.8	273	0.8		0.535		31.7	LOS C	5.0	34.8				
West: Tompsitt Dr W															
Lane 1	196	0.0	196	0.0	1464	0.134	100	23.6	LOS C	2.0	13.8	Short	60	0.0	NA
Lane 2	731	0.6	731	0.6	918 ¹	0.796	100	30.3	LOS C	29.7	209.2	Full	692	0.0	0.0
Lane 3	552	0.6	552	0.6	1040	0.531	67 ⁵	16.4	LOS B	17.4	122.7	Full	692	0.0	0.0
Lane 4	68	0.8	68	0.8	131	0.520	100	58.3	LOS E	3.4	24.1	Short	154	0.0	NA
Lane 5	68	0.8	68	0.8	131	0.520	100	58.3	LOS E	3.4	24.1	Short	154	0.0	NA
Approach	1615	0.5	1615	0.5		0.796		27.1	LOS C	29.7	209.2				
All Vehicles	2600	1.0	2599	1.0		0.796		26.2	LOS C	29.7	209.2				

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.

5 Lane under-utilisation found by the program

Approach Lane Flows (veh/h)									
South: Environa Dr S									
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	71	-	-	71	3.0	1527	0.046	100	NA	NA
Lane 2	-	21	-	21	10.0	167	0.126	100	NA	NA
Lane 3	-	-	29	29	3.6	128	0.230	100	0.0	2
Approach	71	21	29	121	4.3		0.230			
East: Tomsitt Dr 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	44	-	-	44	0.0	1431	0.031	100	0.0	2
Lane 2	-	237	-	237	2.0	1031	0.230	100	NA	NA
Lane 3	-	237	-	237	2.0	1031	0.230	100	NA	NA
Lane 4	-	-	71	71	0.0	131	0.544	100	0.0	3
Approach	44	475	71	590	1.6		0.544			
North: Henry Pl N										
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	178	-	-	178	0.6	554	0.321	100	0.0	2
Lane 2	-	25	-	25	0.0	177	0.142	100	NA	NA
Lane 3	-	-	69	69	1.5	130	0.535	100	0.0	2
Approach	178	25	69	273	0.8		0.535			
West: Tomsitt Dr 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	196	-	-	196	0.0	1464	0.134	100	0.0	2
Lane 2	-	731	-	731	0.6	918 ¹	0.796	100	NA	NA
Lane 3	-	552	-	552	0.6	1040	0.531	67 ⁵	NA	NA
Lane 4	-	-	68	68	0.8	131	0.520	100	0.0	3
Lane 5	-	-	68	68	0.8	131	0.520	100	0.0	4
Approach	196	1283	136	1615	0.5		0.796			
Total %HV Deg.Satn (v/c)										
All Vehicles	2599	1.0		0.796						

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.
- ⁵ Lane under-utilisation found by the program

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane % veh/h	Flow Rate pcu/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
West Exit: Tomsitt Dr W Merge Type: Priority												
Exit Short Lane	1	60	0.0	237	240	3.04	2.03	71	1529	0.046	0.4	0.4
Merge Lane	2	-	100.0	Merge Lane is not Opposed				237	1800	0.132	0.0	0.0

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

	Demand veh	Demand veh	Demand to Clear sec	Oversatn sec
South: Environa Dr S				
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: Tomsitt Dr 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: Henry Pl N				
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
West: Tomsitt Dr 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 5	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: 101 [Environa Dr /Wolseley PI 2024 PM (Site Folder: 2024 PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [2024 PM (Network Folder: 2024)]

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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				
South: Environa Dr S															
Lane 1	55	3.8	55	3.8	1191	0.046	100	7.9	LOS A	1.0	7.4	Full	500	0.0	0.0
Lane 2	55	3.9	55	3.9	1191	0.046	100	7.8	LOS A	1.0	7.4	Full	500	0.0	0.0
Approach	109	3.8	109	3.8		0.046		7.8	LOS A	1.0	7.4				
North: Environa Dr N															
Lane 1	61	0.5	61	0.5	1217	0.050	43 ⁵	10.7	LOS B	1.5	10.9	Full	129	0.0	0.0
Lane 2	143	0.5	143	0.5	1217	0.117	100	8.4	LOS A	2.9	20.1	Full	129	0.0	0.0
Lane 3	2	0.0	2	0.0	188	0.011	100	49.8	LOS D	0.1	0.7	Short	37	0.0	NA
Approach	206	0.5	206	0.5		0.117		9.5	LOS A	2.9	20.1				
West: Wolseley PI															
Lane 1	12	0.0	12	0.0	488	0.024	100	35.7	LOS D	0.4	2.9	Full	267	0.0	0.0
Lane 2	1	0.0	1	0.0	188	0.006	100	50.3	LOS D	0.0	0.3	Short	42	0.0	NA
Approach	13	0.0	13	0.0		0.024		36.9	LOS D	0.4	2.9				
All Vehicles	328	1.6	328	1.6		0.117		10.0	LOS A	2.9	20.1				

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.

⁵ Lane under-utilisation found by the program

Approach Lane Flows (veh/h)										
South: Environa Dr S										
Mov. From S To Exit:	L2 W	T1 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	1	54	55	3.8	1191	0.046	100	NA	NA	
Lane 2	-	55	55	3.9	1191	0.046	100	NA	NA	
Approach	1	108	109	3.8		0.046				
North: Environa Dr N										
Mov. From N To Exit:	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	61	-	61	0.5	1217	0.050	43 ⁵	NA	NA	
Lane 2	143	-	143	0.5	1217	0.117	100	NA	NA	
Lane 3	-	2	2	0.0	188	0.011	100	0.0	2	

Approach	204	2	206	0.5		0.117				
West: Wolseley PI										
Mov.	L2	R2	Total	%HV		Deg.	Lane	Prob.	Ov.	
From W					Cap.	Satn	Util.	SL Ov.	Lane	
To Exit:	N	S			veh/h	v/c	%	%	No.	
Lane 1	12	-	12	0.0	488	0.024	100	NA	NA	
Lane 2	-	1	1	0.0	188	0.006	100	0.0	1	
Approach	12	1	13	0.0		0.024				
Total %HV Deg.Satn (v/c)										
All Vehicles	328	1.6		0.117						

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

5 Lane under-utilisation found by the program

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: Environa Dr S				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: Environa Dr N				
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
West: Wolseley PI				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

Site: 101 [Tomsitt Dr/Lanyon Dr Intersection 2026 AM (Site Folder: 2026 AM With Development)]

New Site

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: Lanyon Dr SW															
Lane 1	603	6.3	603	6.3	1230	0.490	100	9.5	LOS A	14.9	109.9	Full	500	0.0	0.0
Lane 2	232	10.0	232	10.0	385	0.601	100	46.2	LOS D	10.4	78.9	Full	500	0.0	0.0
Lane 3	232	10.0	232	10.0	385	0.601	100	46.2	LOS D	10.4	78.9	Short	158	0.0	NA
Approach	1066	7.9	1066	7.9		0.601		25.5	LOS C	14.9	109.9				
East: Tomsitt Dr SE															
Lane 1	464	2.4	450	2.4	941	0.479	78 ⁶	44.3	LOS D	14.1	101.0	Short	103	0.0	NA
Lane 2	592	2.4	575	2.4	941	0.611	100	25.6	LOS C	19.8	141.7	Full	692	0.0	0.0
Lane 3	592	2.4	575	2.4	941	0.611	100	25.6	LOS C	19.8	141.7	Full	692	0.0	0.0
Lane 4	213	7.4	206	7.4	410	0.503	100	44.4	LOS D	8.9	66.4	Short	103	0.0	NA
Approach	1861	3.0	1806	3.0		0.611		32.4	LOS C	19.8	141.7				
North: Lanyon Dr NE															
Lane 1	112	11.3	112	11.3	1205	0.093	100	14.7	LOS B	1.9	14.8	Short	128	0.0	NA
Lane 2	298	9.0	298	9.0	689	0.432	86 ⁶	45.8	LOS D	10.9	82.2	Full	500	0.0	0.0
Lane 3	344	9.0	344	9.0	689	0.500	100	26.2	LOS C	13.0	98.0	Full	500	0.0	0.0
Approach	754	9.4	754	9.4		0.500		32.2	LOS C	13.0	98.0				
All Vehicles	3681	5.7	3626	5.8		0.611		30.3	LOS C	19.8	141.7				

Approach Lane Flows (veh/h)									
South: Lanyon Dr SW									
Mov. From S To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. SL %	Prob. Ov. %	Ov. Lane No.
Lane 1	603	-	603	6.3	1230	0.490	100	NA	NA
Lane 2	-	232	232	10.0	385	0.601	100	NA	NA
Lane 3	-	232	232	10.0	385	0.601	100	0.0	2
Approach	603	463	1066	7.9	0.601				
East: Tompsitt Dr SE									

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	450	-	450	2.4	941	0.479	78 ⁶	3.2	2
Lane 2	575	-	575	2.4	941	0.611	100	NA	NA
Lane 3	575	-	575	2.4	941	0.611	100	NA	NA
Lane 4	-	206	206	7.4	410	0.503	100	0.0	3
Approach	1600	206	1806	3.0		0.611			
North: Lanyon Dr NE									
Mov. From N To Exit:	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	112	-	112	11.3	1205	0.093	100	0.0	2
Lane 2	-	298	298	9.0	689	0.432	86 ⁶	NA	NA
Lane 3	-	344	344	9.0	689	0.500	100	NA	NA
Approach	112	642	754	9.4		0.500			
Total %HV Deg.Satn (v/c)									
All Vehicles	3626	5.8		0.611					

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

⁶ Lane under-utilisation due to downstream 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
South Exit: Lanyon Dr SW Merge Type: Priority												
Exit Short Lane	1	145	0.0	919	941	3.08	2.05	748	778	0.961	2.5	20.3
Merge Lane	2	-	100.0	Merge Lane is not Opposed				919	1800	0.511	0.0	0.0
East Exit: Tompsitt Dr SE Merge Type: Priority												
Exit Short Lane	1	88	0.0	232	243	3.17	2.11	112	1457	0.077	0.4	0.5
Merge Lane	2	-	100.0	Merge Lane is not Opposed				232	1800	0.129	0.0	0.0

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Lanyon Dr SW				
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: Tompsitt Dr SE				
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: Lanyon Dr NE				
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
--------	-----	-----	-----	-----

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: BG&E PTY LIMITED | Licence: NETWORK / 1PC | Processed: Friday, 20 June 2025 10:27:29 AM

Project: C:\Users\Leon.Piedade\OneDrive - bgeeng.com\BGE Traffic Projects\Projects\Jerrabomberra Data Centre\working\Data Center
SIDRA.sip9

LANE SUMMARY

 Site: 101 [Tomsitt Dr/Henry Pl/Environa Dr 2026 AM (Site Folder: 2026 AM With Development)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

 Network: N101 [2026 AM With Development (Network Folder: 2026 With Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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: Environa Dr S																
Lane 1	182	8.7	182	8.7	1468	0.124	100	11.0	LOS B	1.5	11.0	Full	129	0.0	0.0	
Lane 2	22	0.0	22	0.0	256	0.086	100	47.2	LOS D	1.1	7.5	Full	129	0.0	0.0	
Lane 3	60	7.0	60	7.0	125	0.480	100	57.2	LOS E	3.1	22.7	Short	73	0.0	NA	
Approach	264	7.6	264	7.6		0.480		24.5	LOS C	3.1	22.7					
East: Tomsitt Dr E																
Lane 1	82	7.7	79	7.6	1341	0.059	100	15.6	LOS B	0.8	5.6	Short	109	0.0	NA	
Lane 2	796	2.5	768	2.4	933 ¹	0.823	100	33.0	LOS C	33.8	241.6	Full	322	0.0	0.0	
Lane 3	782	2.5	755	2.4	916 ¹	0.823	100	35.9	LOS D	33.3	237.9	Full	322	0.0	0.0	
Lane 4	106	1.0	103	1.0	130	0.787	100	66.3	LOS E	5.5	38.8	Short	90	0.0	NA	
Approach	1766	2.6	1705	2.6		0.823		35.5	LOS D	33.8	241.6					
North: Henry Pl N																
Lane 1	57	9.3	57	9.3	923	0.062	100	7.7	LOS A	0.5	4.1	Short	56	0.0	NA	
Lane 2	29	3.6	29	3.6	250	0.118	100	44.5	LOS D	1.3	9.4	Full	107	0.0	0.0	
Lane 3	100	1.1	100	1.1	130	0.767	100	61.3	LOS E	5.3	37.5	Short	59	0.0	NA	
Approach	186	4.0	186	4.0		0.767		42.3	LOS D	5.3	37.5					
West: Tomsitt Dr W																
Lane 1	69	10.6	69	10.6	1348	0.052	100	6.8	LOS A	0.7	5.0	Short	60	0.0	NA	
Lane 2	261	9.0	261	9.0	912	0.286	100	16.1	LOS B	7.5	56.4	Full	692	0.0	0.0	
Lane 3	112	9.0	112	9.0	912	0.123	43 ⁵	14.7	LOS B	2.9	22.0	Full	692	0.0	0.0	
Lane 4	67	11.0	67	11.0	122	0.549	100	58.9	LOS E	3.4	26.0	Short	154	0.0	NA	
Lane 5	67	11.0	67	11.0	122	0.549	100	58.9	LOS E	3.4	26.0	Short	154	0.0	NA	
Approach	576	9.7	576	9.7		0.549		24.7	LOS C	7.5	56.4					
All Vehicles	2793	4.6	2731	4.7		0.823		32.6	LOS C	33.8	241.6					

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.

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.

⁵ Lane under-utilisation found by the program

Approach Lane Flows (veh/h)

South: Enviroana Dr S										
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	182	-	-	182	8.7	1468	0.124	100	NA	NA
Lane 2	-	22	-	22	0.0	256	0.086	100	NA	NA
Lane 3	-	-	60	60	7.0	125	0.480	100	0.0	2
Approach	182	22	60	264	7.6		0.480			
East: Tompsitt Dr 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	79	-	-	79	7.6	1341	0.059	100	0.0	2
Lane 2	-	768	-	768	2.4	933 ¹	0.823	100	NA	NA
Lane 3	-	755	-	755	2.4	916 ¹	0.823	100	NA	NA
Lane 4	-	-	103	103	1.0	130	0.787	100	0.0	3
Approach	79	1523	103	1705	2.6		0.823			
North: Henry Pl N										
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	57	-	-	57	9.3	923	0.062	100	0.0	2
Lane 2	-	29	-	29	3.6	250	0.118	100	NA	NA
Lane 3	-	-	100	100	1.1	130	0.767	100	0.0	2
Approach	57	29	100	186	4.0		0.767			
West: Tompsitt Dr 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	69	-	-	69	10.6	1348	0.052	100	0.0	2
Lane 2	-	261	-	261	9.0	912	0.286	100	NA	NA
Lane 3	-	112	-	112	9.0	912	0.123	43 ⁵	NA	NA
Lane 4	-	-	67	67	11.0	122	0.549	100	0.0	3
Lane 5	-	-	67	67	11.0	122	0.549	100	0.0	4
Approach	69	373	134	576	9.7		0.549			
Total %HV Deg.Satn (v/c)										
All Vehicles	2731	4.7			0.823					

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.
- ⁵ Lane under-utilisation found by the program

Merge Analysis												
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane %	Opposing Flow Rate veh/h	pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Capacity Flow Rate veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
West Exit: Tompsitt Dr W Merge Type: Priority												
Exit Short Lane	1	60	0.0	768	778	3.13	2.09	182	0.197	1.8	2.4	
Merge Lane	2	-	100.0	Merge Lane is not Opposed				768	1800	0.427	0.0	0.0

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Environa Dr S				
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: Tomsitt Dr 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: Henry PI N				
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
West: Tomsitt Dr 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 5	0.0	0.0	0.0	0.0

LANE SUMMARY

 Site: 101 [Environa Dr /Wolseley PI 2026 AM (Site Folder: 2026 AM With Development)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

 Network: N101 [2026 AM With Development (Network Folder: 2026 With Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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: Environa Dr S															
Lane 1	126	5.8	126	5.8	967	0.130	100	13.8	LOS B	3.2	23.3	Full	500	0.0	0.0
Lane 2	126	6.0	126	6.0	967	0.130	100	13.6	LOS B	3.2	23.3	Full	500	0.0	0.0
Approach	252	5.9	252	5.9		0.130		13.7	LOS B	3.2	23.3				
North: Environa Dr N															
Lane 1	100	8.9	99	8.9	950	0.104	100	12.3	LOS B	2.3	17.0	Full	129	0.0	0.0
Lane 2	100	8.9	99	8.9	950	0.104	100	9.6	LOS A	1.8	13.6	Full	129	0.0	0.0
Lane 3	46	11.4	46	11.4	365	0.126	100	42.7	LOS D	2.0	15.2	Short	37	0.0	NA
Approach	246	9.4	243	9.4		0.126		16.9	LOS B	2.3	17.0				
West: Wolseley PI															
Lane 1	14	38.5	14	38.5	545	0.025	100	28.2	LOS C	0.4	3.9	Full	267	0.0	0.0
Lane 2	1	0.0	1	0.0	188	0.006	100	50.3	LOS D	0.0	0.3	Short	42	0.0	NA
Approach	15	35.7	15	35.7		0.025		29.8	LOS C	0.4	3.9				
All Vehicles	513	8.4	510	8.5		0.130		15.7	LOS B	3.2	23.3				

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.

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.

Approach Lane Flows (veh/h)										
South: Environa Dr S										
Mov. From S To Exit:	L2	T1	Total	%HV		Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	W	N			Cap. veh/h					
Lane 1	4	122	126	5.8	967	0.130	100	NA	NA	
Lane 2	-	126	126	6.0	967	0.130	100	NA	NA	
Approach	4	247	252	5.9		0.130				
North: Environa Dr N										
Mov. From N To Exit:	T1	R2	Total	%HV		Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
	S	W			Cap. veh/h					
Lane 1	99	-	99	8.9	950	0.104	100	NA	NA	
Lane 2	99	-	99	8.9	950	0.104	100	NA	NA	

Lane 3	-	46	46	11.4	365	0.126	100	0.0	2
Approach	198	46	243	9.4	0.126				
West: Wolseley PI									
Mov.	L2	R2	Total	%HV	Deg.	Lane	Prob.	Ov.	
From W					Cap.	Util.	SL	Lane	
To Exit:	N	S			veh/h	v/c	%	%	No.
Lane 1	14	-	14	38.5	545	0.025	100	NA	NA
Lane 2	-	1	1	0.0	188	0.006	100	0.0	1
Approach	14	1	15	35.7	0.025				
Total %HV Deg.Satn (v/c)									
All Vehicles	510	8.5		0.130					

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: Environa Dr S				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: Environa Dr N				
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
West: Wolseley PI				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

LANE SUMMARY

 Site: 101 [Tomsitt Dr/ Limestone Dr/Edwin Land Pkwy/ Jerrabombera Pkwy 2026 AM (Site Folder: 2026 AM With Development)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

 Network: N101 [2026 AM With Development (Network Folder: 2026 With Development)]

New Site
Site Category: (None)
Roundabout

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: Jerrabombera Pkwy S															
Lane 1 ^d	913	2.8	913	2.8	1259	0.725	100	13.7	LOS B	16.4	117.3	Full	500	0.0	0.0
Approach	913	2.8	913	2.8		0.725		13.7	LOS B	16.4	117.3				
East: Edwin Land Pkwy E															
Lane 1 ^d	713	4.0	713	4.0	648	1.099	100	115.7	LOS F	61.5	445.0	Full	500	0.0	1.7
Approach	713	4.0	713	4.0		1.099		115.7	LOS F	61.5	445.0				
North: Limestone Dr N															
Lane 1 ^d	387	1.9	387	1.9	725	0.534	100	6.4	LOS A	4.2	29.8	Full	500	0.0	0.0
Approach	387	1.9	387	1.9		0.534		6.4	LOS A	4.2	29.8				
West: Tomsitt Dr W															
Lane 1 ^d	313	12.1	313	12.1	978	0.320	100	1.2	LOS A	2.1	16.1	Full	322	0.0	0.0
Lane 2	175	3.6	175	3.6	1023	0.171	53 ⁵	1.9	LOS A	1.0	7.0	Full	322	0.0	0.0
Approach	487	9.1	487	9.1		0.320		1.5	LOS A	2.1	16.1				
All Vehicles	2500	4.2	2500	4.2		1.099		39.3	LOS D	61.5	445.0				

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

Roundabout LOS Method: SIDRA Roundabout LOS.

Lane LOS values are based on average delay per lane.

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

Roundabout 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.

- 5 Lane under-utilisation found by the program
- d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Jerrabombera Pkwy S											
Mov. From S To Exit:	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
	W	N	E			Cap. veh/h	v/c	%	%		
Lane 1	829	56	27	913	2.8	1259	0.725	100	NA	NA	
Approach	829	56	27	913	2.8		0.725				
East: Edwin Land Pkwy E											
Mov. From E	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane	
						Cap.					

To Exit:	S	W	N			veh/h	v/c	%	%	No.
Lane 1	24	683	5	713	4.0	648	1.099	100	NA	NA
Approach	24	683	5	713	4.0		1.099			
North: Limestone Dr N										
Mov. From N To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	41	103	243	387	1.9	725	0.534	100	NA	NA
Approach	41	103	243	387	1.9		0.534			
West: Tomsitt Dr W										
Mov. From W To Exit:	L2	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	100	213	-	313	12.1	978	0.320	100	NA	NA
Lane 2	-	-	175	175	3.6	1023	0.171	53 ⁵	NA	NA
Approach	100	213	175	487	9.1		0.320			
Total %HV Deg.Satn (v/c)										
All Vehicles	2500	4.2		1.099						

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

5 Lane under-utilisation found by the program

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	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: Jerrabombera Pkwy S				
Lane 1	0.0	0.0	0.0	0.0
East: Edwin Land Pkwy E				
Lane 1	0.0	32.1	178.5	NA
North: Limestone Dr N				
Lane 1	0.0	0.0	0.0	0.0
West: Tomsitt Dr W				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

Approach Lane Flows (veh/h)									
South: Lanyon Dr SW									
Mov. From S To Exit:	T1	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	600	-	600	4.2	1538	0.390	100	NA	NA
Lane 2	-	724	724	0.5	963	0.752	100	NA	NA
Lane 3	-	724	724	0.5	963	0.752	100	0.0	2
Approach	600	1448	2048	1.6		0.752			
East: Tompsitt Dr SE									

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	148	-	148	1.3	1325	0.112	78 ⁶	0.0	2
Lane 2	189	-	189	1.3	1325	0.143	100	NA	NA
Lane 3	189	-	189	1.3	1325	0.143	100	NA	NA
Lane 4	-	125	125	3.2	200	0.627	100	0.0	3
Approach	526	125	652	1.7		0.627			
North: Lanyon Dr NE									
Mov. From N To Exit:	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	247	-	247	0.4	1675	0.148	100	0.0	2
Lane 2	-	277	277	2.6	384	0.723	86 ⁶	NA	NA
Lane 3	-	321	321	2.6	384	0.836	100	NA	NA
Approach	247	598	845	2.0		0.836			
Total %HV Deg.Satn (v/c)									
All Vehicles	3545	1.7		0.836					

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

⁶ Lane under-utilisation due to downstream 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
South Exit: Lanyon Dr SW Merge Type: Priority												
Exit Short Lane	1	145	0.0	510	515	3.03	2.02	425	1251	0.340	0.9	1.6
Merge Lane	2	-	100.0	Merge Lane is not Opposed				510	1800	0.283	0.0	0.0
East Exit: Tompsitt Dr SE Merge Type: Priority												
Exit Short Lane	1	88	0.0	724	726	3.01	2.00	247	1043	0.237	1.5	2.1
Merge Lane	2	-	100.0	Merge Lane is not Opposed				724	1800	0.402	0.0	0.0

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Lanyon Dr SW				
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: Tompsitt Dr SE				
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: Lanyon Dr NE				
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
--------	-----	-----	-----	-----

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: BG&E PTY LIMITED | Licence: NETWORK / 1PC | Processed: Friday, 20 June 2025 10:27:35 AM

Project: C:\Users\Leon.Piedade\OneDrive - bgeeng.com\BGE Traffic Projects\Projects\Jerrabomberra Data Centre\working\Data Center
SIDRA.sip9

LANE SUMMARY

 Site: 101 [Tomsitt Dr/Henry PI/Environa Dr 2026 PM (Site Folder: 2026 PM With Development)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

 Network: N101 [2026 PM With Development (Network Folder: 2026 With Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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: Environa Dr S															
Lane 1	95	2.2	95	2.2	1535	0.062	100	8.8	LOS A	0.7	4.7	Full	129	0.0	0.0
Lane 2	24	8.7	24	8.7	168	0.144	100	50.6	LOS D	1.2	9.1	Full	129	0.0	0.0
Lane 3	36	2.9	36	2.9	129	0.278	100	54.8	LOS D	1.8	12.6	Short	73	0.0	NA
Approach	155	3.4	155	3.4		0.278		26.0	LOS C	1.8	12.6				
East: Tomsitt Dr E															
Lane 1	46	0.0	45	0.0	1430	0.031	100	8.8	LOS A	0.4	2.9	Short	109	0.0	NA
Lane 2	250	1.9	242	1.9	1032	0.235	100	16.8	LOS B	6.2	44.4	Full	322	0.0	0.0
Lane 3	250	1.9	242	1.9	1032	0.235	100	16.8	LOS B	6.2	44.4	Full	322	0.0	0.0
Lane 4	75	0.0	72	0.0	131	0.551	100	56.4	LOS E	3.7	25.6	Short	90	0.0	NA
Approach	621	1.5	601	1.5		0.551		21.0	LOS C	6.2	44.4				
North: Henry PI N															
Lane 1	187	0.6	187	0.6	538	0.348	100	21.0	LOS C	5.7	39.8	Short	56	0.0	NA
Lane 2	26	0.0	26	0.0	177	0.148	100	49.1	LOS D	1.2	8.6	Full	107	0.0	0.0
Lane 3	73	1.4	73	1.4	130	0.559	100	58.2	LOS E	3.7	26.1	Short	59	0.0	NA
Approach	286	0.7	286	0.7		0.559		33.0	LOS C	5.7	39.8				
West: Tomsitt Dr W															
Lane 1	205	0.0	205	0.0	1462	0.140	100	25.9	LOS C	2.1	14.5	Short	60	0.0	NA
Lane 2	765	0.5	765	0.5	909 ¹	0.841	100	35.7	LOS D	34.5	242.5	Full	692	0.0	0.0
Lane 3	584	0.5	584	0.5	1041	0.561	67 ⁵	16.8	LOS B	18.9	132.7	Full	692	0.0	0.0
Lane 4	72	0.7	72	0.7	131	0.548	100	58.5	LOS E	3.6	25.5	Short	154	0.0	NA
Lane 5	72	0.7	72	0.7	131	0.548	100	58.5	LOS E	3.6	25.5	Short	154	0.0	NA
Approach	1697	0.5	1697	0.5		0.841		29.9	LOS C	34.5	242.5				
All Vehicles	2759	0.9	2739	0.9		0.841		28.1	LOS C	34.5	242.5				

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.

⁵ Lane under-utilisation found by the program

Approach Lane Flows (veh/h)

South: Enviroana Dr S										
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	95	-	-	95	2.2	1535	0.062	100	NA	NA
Lane 2	-	24	-	24	8.7	168	0.144	100	NA	NA
Lane 3	-	-	36	36	2.9	129	0.278	100	0.0	2
Approach	95	24	36	155	3.4		0.278			
East: Tompsitt Dr 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	45	-	-	45	0.0	1430	0.031	100	0.0	2
Lane 2	-	242	-	242	1.9	1032	0.235	100	NA	NA
Lane 3	-	242	-	242	1.9	1032	0.235	100	NA	NA
Lane 4	-	-	72	72	0.0	131	0.551	100	0.0	3
Approach	45	484	72	601	1.5		0.551			
North: Henry Pl N										
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	187	-	-	187	0.6	538	0.348	100	0.0	2
Lane 2	-	26	-	26	0.0	177	0.148	100	NA	NA
Lane 3	-	-	73	73	1.4	130	0.559	100	0.0	2
Approach	187	26	73	286	0.7		0.559			
West: Tompsitt Dr 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	205	-	-	205	0.0	1462	0.140	100	0.0	2
Lane 2	-	765	-	765	0.5	909 ¹	0.841	100	NA	NA
Lane 3	-	584	-	584	0.5	1041	0.561	67 ⁵	NA	NA
Lane 4	-	-	72	72	0.7	131	0.548	100	0.0	3
Lane 5	-	-	72	72	0.7	131	0.548	100	0.0	4
Approach	205	1348	143	1697	0.5		0.841			
Total %HV Deg.Satn (v/c)										
All Vehicles	2739	0.9		0.841						

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.
- ⁵ Lane under-utilisation found by the program

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	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	
West Exit: Tompsitt Dr W Merge Type: Priority												
Exit Short Lane	1	60	0.0	242	244	3.03	2.02	95	1533	0.062	0.4	0.4
Merge Lane	2	-	100.0	Merge Lane is not Opposed			242	1800	0.134	0.0	0.0	

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Environa Dr S				
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: Tomsitt Dr 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: Henry PI N				
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
West: Tomsitt Dr 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 5	0.0	0.0	0.0	0.0

LANE SUMMARY

 Site: 101 [Environa Dr /Wolseley PI 2026 PM (Site Folder: 2026 PM With Development)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

 Network: N101 [2026 PM With Development (Network Folder: 2026 With Development)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 100 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: Environa Dr S															
Lane 1	125	1.7	125	1.7	1207	0.104	100	8.2	LOS A	2.4	17.2	Full	500	0.0	0.0
Lane 2	125	1.7	125	1.7	1208	0.104	100	8.1	LOS A	2.4	17.2	Full	500	0.0	0.0
Approach	251	1.7	251	1.7		0.104		8.2	LOS A	2.4	17.2				
North: Environa Dr N															
Lane 1	64	0.5	64	0.5	1218	0.053	43 ⁵	10.7	LOS B	1.6	11.4	Full	129	0.0	0.0
Lane 2	150	0.5	149	0.5	1218	0.123	100	8.4	LOS A	3.0	21.1	Full	129	0.0	0.0
Lane 3	2	0.0	2	0.0	188	0.011	100	49.8	LOS D	0.1	0.7	Short	37	0.0	NA
Approach	217	0.5	215	0.5		0.123		9.5	LOS A	3.0	21.1				
West: Wolseley PI															
Lane 1	41	0.0	41	0.0	488	0.084	100	36.4	LOS D	1.5	10.6	Full	267	0.0	0.0
Lane 2	3	0.0	3	0.0	188	0.017	100	50.7	LOS D	0.1	1.0	Short	42	0.0	NA
Approach	44	0.0	44	0.0		0.084		37.4	LOS D	1.5	10.6				
All Vehicles	512	1.0	510	1.0		0.123		11.3	LOS B	3.0	21.1				

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.

⁵ Lane under-utilisation found by the program

Approach Lane Flows (veh/h)										
South: Environa Dr S										
Mov. From S To Exit:	L2 W	T1 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	3	122	125	1.7	1207	0.104	100	NA	NA	
Lane 2	-	125	125	1.7	1208	0.104	100	NA	NA	
Approach	3	247	251	1.7		0.104				
North: Environa Dr N										
Mov. From N To Exit:	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.	
Lane 1	64	-	64	0.5	1218	0.053	43 ⁵	NA	NA	

Lane 2	149	-	149	0.5	1218	0.123	100	NA	NA
Lane 3	-	2	2	0.0	188	0.011	100	0.0	2
Approach	213	2	215	0.5		0.123			
West: Wolseley PI									
Mov. From W To Exit:	L2	R2	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
	N	S							
Lane 1	41	-	41	0.0	488	0.084	100	NA	NA
Lane 2	-	3	3	0.0	188	0.017	100	0.0	1
Approach	41	3	44	0.0		0.084			
Total %HV Deg. Satn (v/c)									
All Vehicles	510	1.0		0.123					

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

5 Lane under-utilisation found by the program

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: Environa Dr S				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
North: Environa Dr N				
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
West: Wolseley PI				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

LANE SUMMARY

 Site: 101 [Tomsitt Dr/ Limestone Dr/Edwin Land Pkwy/ Jerrabombera Pkwy 2026 PM (Site Folder: 2026 PM With Development)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

 Network: N101 [2026 PM With Development (Network Folder: 2026 With Development)]

New Site
Site Category: (None)
Roundabout

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: Jerrabombera Pkwy S															
Lane 1 ^d	341	1.5	341	1.5	717	0.475	100	4.8	LOS A	3.6	25.6	Full	500	0.0	0.0
Approach	341	1.5	341	1.5		0.475		4.8	LOS A	3.6	25.6				
East: Edwin Land Pkwy E															
Lane 1 ^d	282	1.9	282	1.9	404	0.697	100	31.4	LOS C	9.2	65.7	Full	500	0.0	0.0
Approach	282	1.9	282	1.9		0.697		31.4	LOS C	9.2	65.7				
North: Limestone Dr N															
Lane 1 ^d	427	1.5	427	1.5	357	1.196	100	203.2	LOS F	53.3	378.0	Full	500	0.0	0.0
Approach	427	1.5	427	1.5		1.196		203.2	LOS F	53.3	378.0				
West: Tomsitt Dr W															
Lane 1 ^d	966	0.9	966	0.9	1048	0.922	100	4.1	LOS A	22.4	158.0	Full	322	0.0	0.0
Lane 2	613	0.2	613	0.2	1052	0.582	63 ⁵	2.4	LOS A	5.3	37.4	Full	322	0.0	0.0
Approach	1579	0.6	1579	0.6		0.922		3.4	LOS A	22.4	158.0				
All Vehicles	2629	1.0	2629	1.0		1.196		39.1	LOS D	53.3	378.0				

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

Roundabout LOS Method: SIDRA Roundabout LOS.

Lane LOS values are based on average delay per lane.

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

Roundabout 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.

- ⁵ Lane under-utilisation found by the program
- ^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Jerrabombera Pkwy S											
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.
Lane 1	257	69	15	341	1.5		717	0.475	100	NA	NA
Approach	257	69	15	341	1.5			0.475			
East: Edwin Land Pkwy E											
Mov. From E	L2	T1	R2	Total	%HV		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

To Exit:	S	W	N			veh/h	v/c	%	%	No.
Lane 1	26	253	3	282	1.9	404	0.697	100	NA	NA
Approach	26	253	3	282	1.9		0.697			
North: Limestone Dr N										
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.
From N						Cap.	Satn	Util.	SL Ov.	Lane
To Exit:	E	S	W			veh/h	v/c	%	%	No.
Lane 1	113	193	122	427	1.5	357	1.196	100	NA	NA
Approach	113	193	122	427	1.5		1.196			
West: Tomsitt Dr W										
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.
From W						Cap.	Satn	Util.	SL Ov.	Lane
To Exit:	N	E	S			veh/h	v/c	%	%	No.
Lane 1	386	580	-	966	0.9	1048	0.922	100	NA	NA
Lane 2	-	-	613	613	0.2	1052	0.582	63 ⁵	NA	NA
Approach	386	580	613	1579	0.6		0.922			
Total %HV Deg.Satn (v/c)										
All Vehicles	2629	1.0		1.196						

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

5 Lane under-utilisation found by the program

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
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: Jerrabombera Pkwy S				
Lane 1	0.0	0.0	0.0	0.0
East: Edwin Land Pkwy E				
Lane 1	0.0	0.0	0.0	0.0
North: Limestone Dr N				
Lane 1	0.0	35.0	352.9	NA
West: Tomsitt Dr W				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0

Appendix B - Turning Movement Survey

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

Intersection of Lanyon Dr and Tompsett Dr, Jerrabombie

GPS -35.377352, 149.188995

Date: Thu 17/10/24
Weather: Fine
Suburban: Jerrabombie
Customer: BG&E

North: N/A
East: Lanyon Dr
South: Tompsett Dr
West: Lanyon Dr

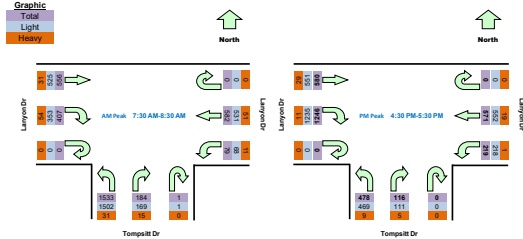
Survey Period: AM: 6:30 AM-9:30 AM
PM: 3:30 PM-6:30 PM
Traffic Peak: AM: 7:30 AM-8:30 AM
PM: 4:30 PM-5:30 PM

All Vehicles

Time	East Approach Lanyon Dr	South Approach Tompsett Dr	West Approach Lanyon Dr	Hourly Total	Peak					
Period Start/Period End	WB	L	U	R	EB	Hour	Total			
6:30 6:45	0	101	13	0	16	183	0	93	122	2437
6:45 7:00	0	139	13	0	30	187	0	122	157	2704
7:00 7:15	0	103	14	0	32	226	0	73	101	2628
7:15 7:30	0	141	18	0	33	291	0	92	137	3215
7:30 7:45	0	138	18	1	43	364	0	99	132	3342
7:45 8:00	0	141	21	0	52	375	0	110	171	3312
8:00 8:15	0	151	19	0	40	407	0	97	124	3155
8:15 8:30	0	152	21	0	49	387	0	101	129	2879
8:30 8:45	0	137	37	0	51	322	0	97	121	2534
8:45 9:00	0	116	33	0	45	295	0	103	121	
9:00 9:15	0	83	19	0	31	188	0	120	111	
9:15 9:30	0	74	27	0	32	144	0	98	119	
15:30 15:45	0	113	42	0	27	155	0	283	166	3120
15:45 16:00	0	154	50	0	37	135	0	291	138	3148
16:00 16:15	0	157	47	0	27	146	0	222	149	3070
16:15 16:30	0	141	56	0	21	136	0	274	153	3082
16:30 16:45	0	153	56	0	32	114	0	297	162	3210
16:45 17:00	0	111	49	0	27	122	0	297	121	3202
17:00 17:15	0	138	39	0	34	109	0	304	136	3170
17:15 17:30	0	169	75	0	23	133	0	348	161	2992
17:30 17:45	0	123	61	0	27	109	0	361	125	2568
17:45 18:00	0	99	55	0	29	117	0	286	109	
18:00 18:15	0	104	39	0	25	104	0	234	76	
18:15 18:30	0	76	43	0	24	78	0	167	97	

Peak Time		East Approach Lanyon Dr			South Approach Tompsett Dr			West Approach Lanyon Dr			Peak
Period Start	Period End	U	WB	L	U	R	L	U	R	EB	total
7:30	8:30	0	582	79	1	184	1533	0	407	556	3342
16:30	17:30	0	571	219	0	116	478	0	1246	580	3210

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.



Light Vehicles

Time		East Approach Lanyon Dr								South Approach Tompsett Dr		West Approach Lanyon Dr	
Period Start	Period End	U	WB	L	U	R	U	R	U	R	U	EB	
6:30	6:45	0	94	12	0	14	176	0	86	114			
6:45	7:00	0	123	9	0	29	182	0	112	138			
7:00	7:15	0	84	12	0	32	221	0	67	91			
7:15	7:30	0	129	12	0	31	288	0	81	124			
7:30	7:45	0	126	16	1	41	362	0	79	123			
7:45	8:00	0	128	17	0	48	369	0	102	158			
8:00	8:15	0	141	18	0	36	393	0	85	119			
8:15	8:30	0	136	17	0	44	378	0	87	125			
8:30	8:45	0	124	35	0	50	315	0	89	109			
8:45	9:00	0	105	29	0	43	285	0	94	114			
9:00	9:15	0	78	16	0	31	180	0	115	100			
9:15	9:30	0	67	24	0	29	136	0	90	107			
15:30	15:45	0	98	40	0	25	145	0	277	147			
15:45	16:00	0	143	49	0	36	127	0	284	127			
16:00	16:15	0	151	46	0	26	134	0	218	140			
16:15	16:30	0	135	55	0	21	130	0	273	144			
16:30	16:45	0	147	55	0	31	109	0	262	154			
16:45	17:00	0	109	49	0	24	121	0	296	116			
17:00	17:15	0	132	39	0	34	106	0	302	131			
17:15	17:30	0	164	75	0	22	133	0	345	150			
17:30	17:45	0	122	60	0	27	106	0	360	123			
17:45	18:00	0	99	55	0	29	114	0	284	109			
18:00	18:15	0	101	39	0	24	101	0	233	75			
18:15	18:30	0	76	43	0	24	76	0	166	94			

Peak Time		East Approach Lanyon Dr			South Approach Tompsett Dr			West Approach Lanyon Dr			Peak
Period Start	Period End	U	WB	L	U	R	L	U	R	EB	total
7:30	8:30	0	531	68	1	169	1502	0	353	525	3149
16:30	17:30	0	552	218	0	111	489	0	1235	551	3136

Heavy Vehicles

Time		East Approach Lanyon Dr										South Approach Tompsett Dr										West Approach Lanyon Dr									
Period	Start/Period End	U	WB	L	U	R	L	U	R	EB	U	WB	L	U	R	L	U	R	EB	U	WB	L	U	R	L	U	R	EB			
6:30	6:45	0	7	1	0	2	7	0	7	8	0	7	1	0	2	7	0	7	8		0	7	1	0	2	7	0	7	8		
6:45	7:00	0	16	4	0	1	5	0	10	19	0	16	4	0	1	5	0	10	19		0	16	4	0	1	5	0	10	19		
7:00	7:15	0	9	2	0	0	5	0	6	10	0	9	2	0	0	5	0	6	10		0	9	2	0	0	5	0	6	10		
7:15	7:30	0	12	6	0	2	3	0	11	13	0	12	6	0	2	3	0	11	13		0	12	6	0	2	3	0	11	13		
7:30	7:45	0	12	2	0	2	2	0	20	9	0	12	2	0	2	2	0	20	9		0	12	2	0	2	2	0	20	9		
7:45	8:00	0	13	4	0	4	6	0	8	13	0	13	4	0	4	6	0	8	13		0	13	4	0	4	6	0	8	13		
8:00	8:15	0	10	1	0	4	14	0	12	5	0	10	1	0	4	14	0	12	5		0	10	1	0	4	14	0	12	5		
8:15	8:30	0	16	4	0	5	9	0	14	4	0	16	4	0	5	9	0	14	4		0	16	4	0	5	9	0	14	4		
8:30	8:45	0	13	2	0	1	7	0	8	12	0	13	2	0	1	7	0	8	12		0	13	2	0	1	7	0	8	12		
8:45	9:00	0	11	4	0	2	10	0	9	7	0	11	4	0	2	10	0	9	7		0	11	4	0	2	10	0	9	7		
9:00	9:15	0	15	3	0	0	8	0	5	11	0	15	3	0	0	8	0	5	11		0	15	3	0	0	8	0	5	11		
9:15	9:30	0	7	3	0	3	8	0	8	12	0	7	3	0	3	8	0	8	12		0	7	3	0	3	8	0	8	12		
15:30	15:45	0	15	2	0	2	10	0	6	19	0	15	2	0	2	10	0	6	19		0	15	2	0	2	10	0	6	19		
15:45	16:00	0	11	1	0	1	8	0	7	11	0	11	1	0	1	8	0	7	11		0	11	1	0	1	8	0	7	11		
16:00	16:15	0	6	1	0	1	12	0	4	9	0	6	1	0	1	12	0	4	9		0	6	1	0	1	12	0	4	9		
16:15	16:30	0	6	1	0	0	6	0	1	9	0	6	1	0	0	6	0	1	9		0	6	1	0	0	6	0	1	9		
16:30	16:45	0	6	1	0	1	5	0	5	8	0	6	1	0	1	5	0	5	8		0	6	1	0	1	5	0	5	8		
16:45	17:00	0	2	0	0	3	1	0	1	5	0	2	0	0	3	1	0	1	5		0	2	0	0	3	1	0	1	5		
17:00	17:15	0	6	0	0	0	3	0	2	5	0	6	0	0	0	3	0	2	5		0	6	0	0	0	3	0	2	5		
17:15	17:30	0	5	0	0	1	0	0	3	11	0	5	0	0	1	0	0	3	11		0	5	0	0	0	1	0	0	3	11	
17:30	17:45	0	1	1	0	0	3	0	1	2	0	1	1	0	0	3	0	1	2		0	1	1	0	0	0	3	0	1	2	
17:45	18:00	0	0	0	0	0	3	0	2	0	0	0	0	0	0	3	0	2	0		0	0	0	0	0	0	0	3	2	0	
18:00	18:15	0	3	0	0	1	3	0	1	1	0	3	0	0	1	3	0	1	1		0	3	0	0	1	3	0	1	1	1	
18:15	18:30	0	0	0	0	0	2	0	1	3	0	0	0	0	0	2	0	1	3		0	0	0	0	0	0	0	2	0	1	

Peak Time		East Approach Lanyon Dr			South Approach Tompsett Dr			West Approach Lanyon Dr			Peak
Period Start	Period End	U	WB	L	U	R	L	U	R	EB	total
7:30	8:30	0	51	11	0	15	31	0	54	31	193
16:30	17:30	0	19	1	0	5	9	0	11	29	74

Oueves

Time	West Lane	East Lane	Slip Lane	North Lane	Middle Lane N	Middle Lane S	South Lane	East Lane	Middle Lane	West Lane
Period Start/Period End	U	WB	L	U	R	L	U	R	EB	total
6:30 6:35	4	5	0	2	6	4	2	2	2	3
6:35 6:40	3	4	0	3	7	4	2	4	6	0
6:40 6:45	7	12	0	4	5	8	2	3	5	1
6:45 6:50	12	14	0	5	12	10	5	4	4	6
6:50 6:55	8	13	0	5	3	5	1	7	5	7
6:55 7:00	3	10	0	5	8	7	3	4	4	0
7:00 7:05	7	6	0	5	9	3	3	5	5	4
7:05 7:10	4	7	0	5	6	5	5	4	6	8
7:10 7:15	3	9	0	3	8	7	4	4	4	1
7:15 7:20	6	11	0	5	10	8	4	2	2	6
7:20 7:25	6	8	0	4	10	15	4	3	4	7
7:25 7:30	4	6	0	4	5	3	2	5	5	5
7:30 7:35	6	8	0	5	3	5	2	3	4	8
7:35 7:40	7	9	0	6	11	8	7	6	4	9
7:40 7:45	5	11	0	5	22	15	11	7	9	21
7:45 7:50	6	10	0	6	2	3	2	8	6	9
7:50 7:55	4	8	0	8	25	19	15	8	8	19
7:55 8:00	6	8	0	7	16	13	12	2	5	15
8:00 8:05	5	7	0	3	15	13	10	3	5	1
8:05 8:10	6	10	0	4	20	10	8	4	4	11
8:10 8:15	6	14	0	8	17	14	7	2	7	9
8:15 8:20	8	9	0	3	10	10	8	4	6	12
8:20 8:25	5	9	0	6	20	12	9	5	9	10
8:25 8:30	6	14	0	3	6	8	3	8	5	18
8:30 8:35	6	6	0	2	23	18	10	6	6	14
8:35 8:40	10	10	0	2	14	14	4	5	5	7
8:40 8:45	5	7	0	11	12	15	10	5	3	11
8:45 8:50	4	5	0	10	13	11	6	10	7	12
8:50 8:55	4	8	0	8	4	5	3	4	4	13
8:55 9:00	3	9	0	5	3	5	3	3	4	7
9:00 9:05	2	5	0	3	6	4	3	6	7	
9:05 9:10	2	3	0	4	6	5	5	4	5	6
9:10 9:15	3	7	0	4	3	5	4	2	2	3
9:15 9:20	6	7	0	5	5	5	2	2	5	6
9:20 9:25	5	6	0	7	3	3	3	4	8	9
9:25 9:30	2	4	0	1	4	5	4	3	5	9
15:30 15:35	7	12	0	4	2	3	4	10	10	5
15:35 15:40	7	8	0	4	1	3	1	10	10	13
15:40 15:45	10	10	0	5	0	4	2	8	13	0
15:45 15:50	9	11	0	6	3	2	1	11	19	10
15:50 15:55	12	13	0	5	6	4	2	7	15	0
15:55 16:00	7	9	0	6	1	3	1	14	14	2
16:00 16:05	6	12	0	4	3	7	6	12	13	3
16:05 16:10	11	15	0	5	3	5	5	12	12	8
16:10 16:15	6	13	0	10	4	5	5	12	14	10

Intersection of Tompsett Dr and Henry Pl, Jerrabomberra GPS -35.381052 149.195272		North: Henry Pl East: Tompsett Dr South: Enslinora Dr West: Tompsett Dr		Survey Period AM: 6:30 AM-6:30 AM PM: 3:30 PM-6:30 PM Traffic AM: 7:45 AM-8:45 AM Peak PM: 5:00 PM-6:00 PM	
Date: Thu 17/10/24 Weather: Fine Suburb: Jerrabomberra Customer: BG&E					

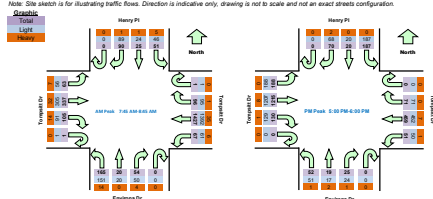
All Vehicles

[illegible]

2007

Peak Time		North Approach Henry PI				East Approach Tomsitt Dr				South Approach Environs Dr				West Approach Tomsitt Dr				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
7:45	8:45	0	90	25	51	1	96	1427	67	0	54	20	165	1	106	337	63	2502
17:00	18:00	0	70	20	187	0	71	459	51	0	25	19	52	0	130	1215	188	2487

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration



Light Vehicles

Time	North Approach Heavy PI			East Approach Trampolite			South Approach Trampolite			West Approach Trampolite							
6:30	6.45	0	27	33	11	0	19	149	8	0	1	3	18	0	23	50	23
6:45	7.02	0	11	11	14	0	9	16	17	0	1	2	24	0	38	67	18
7:00	7.15	0	20	8	5	0	13	215	0	0	2	5	16	0	17	48	14
7:15	7.30	0	24	8	5	0	13	215	0	0	4	5	19	0	19	17	48
7:30	7.45	0	24	2	2	0	25	333	4	0	9	4	32	0	9	63	22
7:45	8.00	0	26	10	11	0	24	363	5	0	11	5	42	0	21	62	32
8:00	8.15	0	23	5	11	0	19	367	8	0	9	4	34	0	19	70	14
8:15	8.30	0	22	3	9	1	24	364	18	0	12	2	40	0	28	83	15
8:30	8.45	0	20	3	10	0	20	368	26	0	13	3	39	0	23	79	17
8:45	9.00	0	19	6	21	0	15	274	29	0	33	4	38	1	15	88	17
9:00	9.15	0	22	2	16	0	19	173	11	0	16	3	13	0	14	97	21
9:15	9.30	0	17	3	17	0	24	126	8	0	7	4	23	0	17	79	19
9:30	9.45	0	24	6	41	0	22	120	10	0	4	3	27	0	16	249	29
9:45	10.00	0	24	8	38	0	22	108	0	0	10	5	32	0	18	262	38
10:00	10:15	0	23	1	50	0	21	114	12	0	9	4	25	0	21	201	42
10:15	10:30	0	19	1	60	0	22	100	9	0	10	5	32	0	22	277	26
10:30	10:45	0	16	5	36	0	22	98	9	0	9	1	26	0	33	274	36
10:45	11:00	0	17	5	34	0	23	110	11	0	10	1	25	0	24	274	29
11:00	11:15	0	16	6	34	0	19	105	10	0	10	1	25	0	24	274	29
11:15	11:30	0	17	7	32	0	12	127	11	0	5	5	13	0	32	342	51
11:30	11:45	0	18	6	51	0	14	101	11	0	7	3	12	0	44	327	44
11:45	12:00	0	17	1	50	0	28	119	11	0	8	1	8	0	25	271	43
12:00	12:15	0	16	1	50	0	18	119	11	0	4	4	3	0	24	271	43
12:15	12:30	0	10	9	30	0	26	76	11	0	4	4	3	0	16	188	25

Peak T

Peak Time		North Approach Henry PI				East Approach Tomspt Dr				South Approach Enclave Dr				West Approach Tomspt Dr				Peak Volume
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NS	L	U	R	EB	L	
7.45	8.45	0	89	24	46	1	95	1392	61	0	50	20	151	1	91	305	56	2382
17.00	18.00	0	68	20	187	0	71	452	50	0	24	17	51	0	129	1207	188	2404

Heavy Vehicle

[illegible]

Peak Time		North Approach Henry Pl				East Approach Tomsitt Dr				South Approach Environs Dr				West Approach Tomsitt Dr				Peak
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	total
7:45	8:45	0	1	1	5	0	1	35	6	0	4	0	14	0	14	32	7	120
8:00	8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Queues

Period	Time	North				East				South				West			
		West Lane	East Lane	Sp-Lane	North Lane	Middle Lane	South Lane	Sp-Lane	East Lane	West Lane	Sp-Lane	South Lane	West Lane	North Lane	Sp-Lane	West Lane	
6:35	6:40	2	2	1	4	3	4	0	0	0	0	0	2	2	1	4	0
6:40	6:45	5	1	2	4	8	10	1	2	0	0	0	2	1	5	0	
6:45	6:50	5	2	1	3	8	6	0	0	1	0	4	2	3	6	0	
6:50	6:55	2	1	1	8	11	8	0	2	2	0	3	1	3	3	0	
6:55	7:00	2	1	2	3	7	5	0	1	0	0	3	3	3	5	0	
7:00	7:05	2	0	1	2	7	7	0	0	0	0	2	1	0	3	0	
7:05	7:10	2	0	2	4	6	6	0	2	1	0	1	1	1	5	0	
7:10	7:15	2	1	2	3	11	7	0	3	8	2	1	1	2	2	0	
7:15	7:20	4	4	1	1	2	9	10	0	4	0	0	3	0	0	2	
7:20	7:25	2	1	1	5	15	17	0	5	0	0	0	1	1	3	3	0
7:25	7:30	3	0	1	1	10	10	0	2	1	0	0	2	2	1	3	0
7:30	7:35	3	0	2	3	11	10	1	1	0	0	0	2	1	2	7	0
7:35	7:40	4	2	2	2	3	13	13	0	2	2	0	2	2	0	6	0
7:40	7:45	2	1	3	2	17	18	0	2	0	0	0	1	1	4	4	0
7:45	7:50	6	2	2	4	18	23	0	2	1	1	5	3	2	9	0	
7:50	7:55	5	1	1	3	19	24	0	4	1	0	1	2	2	3	3	0
7:55	8:00	1	2	4	6	18	22	0	2	1	0	3	3	4	3	11	0
8:00	8:05	3	1	2	6	15	15	13	3	2	2	0	7	1	4	4	0
8:05	8:10	3	1	2	2	19	20	0	3	1	0	1	1	1	2	9	0
8:10	8:15	6	2	1	5	16	16	0	2	1	0	2	2	2	7	0	
8:15	8:20	3	2	1	3	20	23	0	3	1	0	2	3	2	6	0	
8:20	8:25	3	2	1	3	16	24	0	2	1	0	3	2	1	6	0	
8:25	8:30	4	3	1	4	14	22	0	1	2	0	0	2	1	8	0	
8:30	8:35	2	2	1	2	14	21	0	3	1	0	0	0	2	1	6	0
8:35	8:40	3	2	2	5	15	19	0	4	1	0	0	0	2	3	7	0
8:40	8:45	2	2	2	5	14	17	0	3	1	0	0	0	2	2	7	0
8:45	8:50	2	2	3	4	12	12	0	3	1	0	1	2	2	7	0	
8:50	8:55	4	2	2	4	12	9	0	5	1	0	1	1	3	7	0	
8:55	9:00	4	1	2	4	12	9	0	5	1	0	1	1	3	7	0	
9:00	9:05	4	1	2	4	12	9	0	5	1	0	1	1	3	7	0	
9:05	9:10	1	0	5	5	2	6	8	0	1	2	0	1	5	1	4	0
9:10	9:15	3	0	5	5	2	6	8	0	1	2	0	1	5	1	4	0
9:15	9:20	4	0	2	3	5	3	1	0	1	0	0	0	0	1	13	0
9:20	9:25	4	0	2	3	5	3	1	0	1	0	0	0	0	1	13	0
9:25	9:30	4	0	2	3	5	3	1	0	1	0	0	0	0	1	13	0
9:30	9:35	2	1	3	8	8	8	0	1	2	0	0	1	5	6	20	0
9:35	9:40	2	1	4	7	7	7	0	1	2	0	0	1	5	6	20	0
9:40	9:45	2	1	4	7	7	7	0	1	2	0	0	1	5	6	20	0
9:45	9:50	4	1	4	2	4	3	0	2	0	0	2	2	5	20	0	
9:50	9:55	4	1	4	2	4	3	0	2	0	0	2	2	5	20	0	
9:55	10:00	4	1	4	2	4	3	0	2	0	0	2	2	5	20	0	
10:00	10:05	4	2	2	2	4	5	0	1	2	0	0	1	7	15	0	
10:05	10:10	4	2	2	2	4	5	0	1	2	0	0	1	7	15	0	
10:10	10:15	4	1	3	8	8	7	1	0	0	1	0	4	1	6	28	1
10:15	10:20	4	1	3	8	8	7	1	0	0	1	0	4	1	6	28	1
10:20	10:25	7	2	4	10	5	5	0	2	1	0	3	2	5	18	0	
10:25	10:30	7	2	4	10	5	5	0	2	1	0	3	2	5	18	0	
10:30	10:35	4	0	5	6	4	8	0	0	2	0	5	4	10	17	0	
10:35	10:40	4	0	5	6	4	8	0	0	2	0	5	4	10	17	0	
10:40	10:45	4	0	11	3	3	5	0	0	1	0	5	3	10	22	0	
10:45	10:50	4	0	11	3	3	5	0	0	1	0	5	3	10	22	0	
10:50	10:55	4	1	7	6	6	3	0	3	0	0	3	4	15	20	0	
10:55	11:00	4	1	7	6	6	3	0	3	0	0	3	4	15	20	0	
11:00	11:05	6	2	7	4	8	13	0	2	2	0	2	1	12	34	0	
11:05	11:10	6	2	7	4	8	13	0	2	2	0	2	1	12	34	0	
11:10	11:15	2	0	7	11	7	9	0	0	1	1	1	6	2	12	20	0
11:15	11:20	2	0	7	11	7	9	0	0	1	1	1	6	2	12	20	0
11:20	11:25	6	2	6	5	8	7	0	2	1	0	3	3	4	18	0	
11:25	11:30	2	2	6	5	4	6	8	0	2	1	0	2	1	14	40	0
11:30	11:35	2	2	6	5	4	6	8	0	2	1	0	2	1	14	40	0
11:35	11:40	2	2	6	5	4	6	8	0	2	1	0	2	1	14	40	0
11:40	11:45	3	1	8	2	4	6	0	1	1	0	0	2	3	11	24	0
11:45	11:50	3	1	8	2	4	6	0	1	1	0	0	2	3	11	24	0
11:50	11:55	3	2	5	8	8	8	0	3	1	0	2	2	1	11	22	0
11:55	12:00	3	2	5	8	8	8	0	3	1	0	2	2	1	11	22	0
12:00	12:05	2	1	4	4	5	3	0	2	2	0	2	1	7	14	0	
12:05	12:10	3	1	6	4	6	4	0	3	2	0	3	2	6	22	0	
12:10	12:15	3	1	6	4	6	4	0	3	2	0	3	2	6	22	0	
12:15	12:20	3	1	6	4	6	4	0	3	2	0	3	2	6	22	0	
12:20	12:25	3	1	6	4	6	4	0	3	2	0	3	2	6	22	0	
12:25	12:30	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
12:30	12:35	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
12:35	12:40	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
12:40	12:45	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
12:45	12:50	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
12:50	12:55	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
12:55	13:00	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
13:00	13:05	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
13:05	13:10	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
13:10	13:15	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
13:15	13:20	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
13:20	13:25	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
13:25	13:30	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
13:30	13:35	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
13:35	13:40	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
13:40	13:45	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
13:45	13:50	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
13:50	13:55	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
13:55	14:00	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
14:00	14:05	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
14:05	14:10	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
14:10	14:15	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
14:15	14:20	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
14:20	14:25	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
14:25	14:30	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
14:30	14:35	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
14:35	14:40	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
14:40	14:45	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
14:45	14:50	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
14:50	14:55	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
14:55	15:00	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
15:00	15:05	1	2	4	4	5	7	0	1	3	0	1	4	5	12	0	
15:05	15:10	1	2	4	4	5											

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

Intersection of Wolsley P and Enivrona Dr, Jerrabombie

GPS -35.382404, 149.194456

Date: Thu 17/10/24
Weather: Fine
Suburban: Jerrabombie
Customer: BG&E

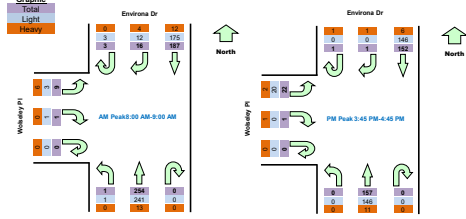
North: Enivrona Dr
East: N/A
South: Enivrona Dr
West: Wolsley P

Survey Period: AM 8:30 AM-9:30 AM
PM 3:30 PM-4:30 PM
Traffic Peak: AM 9:00 AM-9:30 AM
PM 3:45 PM-4:45 PM

All Vehicles		Time		North Approach		Enivrona Dr		South Approach		Enivrona Dr		West Approach		Wolsley P		Hourly Total	
Period Start	Period End	U	R	SB	U	NS	L	U	R	L	U	R	L	U	R	Hour	Peak
6:30	6:45	0	0	8	30	0	20	0	0	0	0	282					
6:45	7:00	0	13	61	0	26	0	0	1	1	305						
7:00	7:15	0	2	30	0	25	0	0	0	0	298						
7:15	7:30	0	4	27	0	33	1	0	0	0	336						
7:30	7:45	0	5	17	0	56	0	0	0	3	384						
7:45	8:00	0	4	40	0	46	0	0	0	5	436						
8:00	8:15	0	4	37	0	52	0	0	0	2	471						Peak
8:15	8:30	0	4	50	0	56	0	0	0	3	448						
8:30	8:45	2	4	54	0	70	1	0	0	2	405						
8:45	9:00	1	4	46	0	76	0	0	1	2							
9:00	9:15	0	5	27	1	33	0	0	0	6							
9:15	9:30	2	5	28	0	28	0	0	0	7							
9:30	15:45	0	0	34	0	38	0	0	0	6	325						
15:45	16:00	1	0	35	0	45	0	0	0	3	334						Peak
16:00	16:15	0	0	31	0	37	0	0	0	7	329						
16:15	16:30	0	0	39	0	42	0	0	1	6	328						
16:30	16:45	1	0	47	0	33	0	0	0	6	313						
16:45	17:00	0	1	39	0	33	0	0	0	6	310						
17:00	17:15	0	0	45	0	28	0	0	0	3	298						
17:15	17:30	0	1	49	0	21	0	0	0	2	275						
17:30	17:45	0	0	61	0	23	0	0	0	0	255						
17:45	18:00	0	0	44	0	19	0	0	0	2							
18:00	18:15	0	0	36	0	17	0	0	0	0							
18:15	18:30	2	0	33	0	16	1	0	0	1							

Peak Time		North Approach		Enivrona Dr		South Approach		Enivrona Dr		West Approach		Wolsley P		Peak total	
Period Start	Period End	U	R	SB	U	NS	L	U	R	L	U	R	L	Hour	Peak
8:00	9:00	3	18	187	0	254	1	0	1	9	471			534	
15:45	16:45	1	1	152	0	157	0	0	1	22				334	

Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.



Light Vehicles		Time		North Approach		Enivrona Dr		South Approach		Enivrona Dr		West Approach		Wolsley P	
Period Start	Period End	U	R	SB	U	NS	L	U	R	L	U	R	L	U	R
6:30	6:45	0	0	8	26	0	19	0	0	0	0	0	0	0	0
6:45	7:00	0	11	50	0	26	0	0	0	1	1	0	0	0	0
7:00	7:15	0	2	26	0	25	0	0	0	0	0	0	0	0	0
7:15	7:30	0	3	24	0	32	1	0	0	0	0	0	0	0	0
7:30	7:45	0	3	11	0	55	0	0	0	0	1	0	0	0	0
7:45	8:00	0	2	35	0	43	0	0	0	0	4	0	0	0	0
8:00	8:15	0	4	32	0	46	0	0	0	0	1	0	0	0	0
8:15	8:30	0	2	47	0	52	0	0	0	0	1	0	0	0	0
8:30	8:45	2	3	51	0	70	1	0	0	0	1	0	0	0	0
8:45	9:00	1	3	45	0	73	0	0	0	1	0	0	0	0	0
9:00	9:15	0	3	25	1	30	0	0	0	0	4	0	0	0	0
9:15	9:30	2	4	20	0	27	0	0	0	0	4	0	0	0	0
9:30	15:45	0	0	34	0	31	0	0	0	0	6	0	0	0	0
15:45	16:00	0	0	32	0	42	0	0	0	0	3	0	0	0	0
16:00	16:15	0	0	31	0	32	0	0	0	0	6	0	0	0	0
16:15	16:30	0	0	37	0	41	0	0	0	0	6	0	0	0	0
16:30	16:45	0	0	46	0	31	0	0	0	0	5	0	0	0	0
16:45	17:00	0	1	39	0	32	0	0	0	0	6	0	0	0	0
17:00	17:15	0	0	44	0	24	0	0	0	0	3	0	0	0	0
17:15	17:30	0	1	49	0	21	0	0	0	0	2	0	0	0	0
17:30	17:45	0	0	61	0	22	0	0	0	0	0	0	0	0	0
17:45	18:00	0	0	43	0	18	0	0	0	0	2	0	0	0	0
18:00	18:15	0	0	36	0	17	0	0	0	0	0	0	0	0	0
18:15	18:30	2	0	33	0	16	1	0	0	0	1	0	0	0	0

Peak Time		North Approach		Enivrona Dr		South Approach		Enivrona Dr		West Approach		Wolsley P		Peak total	
Period Start	Period End	U	R	SB	U	NS	L	U	R	L	U	R	L	Hour	Peak
8:00	9:00	3	12	175	0	241	1	0	1	3	436			534	
15:45	16:45	0	0	146	0	146	0	0	0	20				312	

Heavy Vehicles		Time		North Approach		Enivrona Dr		South Approach		Enivrona Dr		West Approach		Wolsley P	
Period Start	Period End	U	R	SB	U	NS	L	U	R	L	U	R	L	U	R
6:30	6:45	0	0	4	0	1	0	0	0	0	0	0	0	0	0
6:45	7:00	0	2	11	0	0	0	0	0	0	0	0	0	0	0
7:00	7:15	0	0	4	0	0	0	0	0	0	0	0	0	0	0
7:15	7:30	0	1	3	0	1	0	0	0	0	0	0	0	0	0
7:30	7:45	0	2	6	0	1	0	0	0	0	2	0	0	0	0
7:45	8:00	0	2	5	0	3	0	0	0	0	1	0	0	0	0
8:00	8:15	0	0	5	0	6	0	0	0	0	1	0	0	0	0
8:15	8:30	0	2	3	0	4	0	0	0	0	2	0	0	0	0
8:30	8:45	0	1	3	0	0	0	0	0	0	1	0	0	0	0
8:45	9:00	0	1	1	0	3	0	0	0	0	2	0	0	0	0
9:00	9:15	0	2	2	0	3	0	0	0	0	2	0	0	0	0
9:15	9:30	0	1	8	0	1	0	0	0	0	3	0	0	0	0
9:30	15:45	0	0	0	0	7	0	0	0	0	0	0	0	0	0
15:45	16:00	0	1	3	0	3	0	0	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	5	0	0	0	0	1	0	0	0	0
16:15	16:30	0	0	2	0	1	0	0	0	1	0	0	0	0	0
16:30	16:45	1	0	1	0	2	0	0	0	0	1	0	0	0	0
16:45	17:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0
17:00	17:15	0	0	1	0	2	0	0	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0
17:45	18:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0
18:00	18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Time		North Approach		Enivrona Dr		South Approach		Enivrona Dr		West Approach		Wolsley P		Peak total	
Period Start	Period End	U	R	SB	U	NS	L	U	R	L	U	R	L	Hour	Peak
8:00	9:00	0	4	12	0	13	0	0	0	6	35			49	
15:45	16:45	1	1	6	0	11	0	0	1	2				22	

Queues		Time		North		South		West	
Period Start	Period End	West Lane	Middle Lane	East Lane	East Lane	Middle Lane	West Lane	South Lane	North Lane
6:30	6:35	3	0	0	0	1	1	0	0
6:35	6:40	3	1	1	0	0	2	0	1
6:40	6:45	1	0	0	0	0	0	0	1
6:45	6:50	4	0	0	0	1	4	0	1
6:50	6:55	3	0	0	0	1	2	0	0
6:55	7:00	2	0	0	0	0	1	0	1
7:00	7:05	1	0	0	0	0	0	0	0
7:05	7:10	0	0	0	0	0	0	0	0
7:10	7:15	2	0	0	0	2	1	0	0
7:15	7:20	1	0	0	0	0	1	0	1
7:20	7:25	1	0	0	0	0	0	0	0
7:25	7:30	1	0	0	0	0	0	0	1

GPS -35.382452, 149.199585

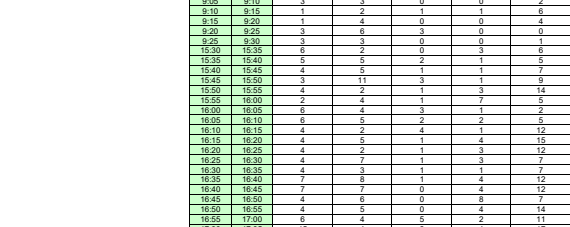
Date:	Thu 17/10/24
Page:	5

Survey Period	AM:	6:30 AM-9:30 AM
	PM:	3:30 PM-6:30 PM
Traffic Peak	AM:	8:00 AM-9:00 AM
	PM:	5:00 PM-6:00 PM

Queues	Time	Period				
		North	East	South	West	
	Star	Star	Period		South Lane	North Lane
6:30	6:35	1	1	0	0	0
6:35	6:40	1	2	0	0	0
6:40	6:45	2	3	0	0	1
6:45	6:50	2	2	0	0	0
6:50	6:55	1	2	1	0	2
6:55	7:00	0	3	1	0	2
7:00	7:05	3	2	0	0	2
7:05	7:10	2	4	0	0	0
7:10	7:15	2	5	1	0	0
7:15	7:20	1	4	1	0	2
7:20	7:25	1	5	0	0	0
7:25	7:30	2	4	0	0	1
7:30	7:35	3	8	0	0	2
7:35	7:40	3	16	12	0	1
7:40	7:45	2	15	0	0	2
7:45	7:50	2	28	1	0	5
7:50	7:55	7	32	7	0	7
7:55	8:00	3	22	7	0	4
8:00	8:05	1	10	0	0	3
8:05	8:10	6	20	8	2	7
8:10	8:15	7	10	4	1	5
8:15	8:20	2	6	0	1	4
8:20	8:25	4	14	15	1	3
8:25	8:30	4	16	2	1	2

8:30	8:35	3	14	0	0	2
8:35	8:40	5	8	10	1	5
8:40	8:45	4	18	3	0	2
8:45	8:50	2	24	6	0	5
8:50	8:55	5	15	0	2	6

8:55	9:00	2	4	2	1	2
9:00	9:05	2	2	7	0	3



17:05	17:19	14	4	3	3	14
17:10	17:19	13	6	0	4	12
17:15	17:25	14	7	0	1	18
17:20	17:25	11	7	2	3	5
17:25	17:30	9	3	0	4	9
17:30	17:35	12	9	0	3	12
17:35	17:40	15	5	6	3	10
17:40	17:45	16	4	2	4	6
17:45	17:55	11	8	0	2	7
17:50	17:55	14	9	0	2	3
17:55	18:00	7	5	1	3	6
18:00	18:05	4	2	2	3	6
18:05	18:10	7	5	2	4	6
18:10	18:15	5	1	2	0	9
18:15	18:20	6	3	0	1	10
18:20	18:25	13	8	0	1	4
18:25	18:30	5	2	2	2	9

At BG&E, we are united by a common purpose – we believe that truly great engineering takes curiosity, bravery and trust, and is the key to creating extraordinary built environments.

Our teams in Australia, New Zealand, South East Asia, the United Kingdom and the Middle East, design and deliver engineering solutions for clients in the Property, Transport, Ports and Marine, Water, Defence, Renewables and Resources sectors.

We collaborate with leading contractors, developers, architects, planners, financiers and government agencies, to create projects for today and future generations.

ABN 67 150 804 603

