

Central Coast Quarter – Stage 2 SSD

Transport Impact Assessment

February 2026

Prepared for: Urban Property Group



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Acknowledgment of Country

Urbis acknowledges the Traditional Custodians of the lands we operate on. We recognise that First Nations sovereignty was never ceded and respect First Nations peoples continuing connection to these lands, waterways and ecosystems for over 60,000 years. We pay our respects to First Nations Elders, past and present.

Urbis is committed to incorporating our respect for First Nations cultures, peoples and storytelling in our work across the Country. We are proud to have partnered with Darug Nation artist, **Hayley Pigram**, and to profile her artwork – **Sacred River Dreaming**.



The river is the symbol of the Dreaming and the journey of life. The circles and lines represent people meeting and connections across time and space. When we are working in different places, we can still be connected and work towards the same goal.

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Contents

1	Introduction	1
1.1	Background	1
1.2	Response to SEARs	2
1.3	Stakeholder Engagement	3
1.4	Scope of the Study	3
1.5	References	3
2	Strategic Context	5
2.1	State Government Policies	5
2.2	Local Government Policies	6
3	Proposed Development	8
3.1	Study Area	8
3.2	Land Uses	8
3.3	Site Plan	10
4	Existing Conditions	11
4.1	Active Transport	11
4.2	Public Transport	11
4.3	Road Network	13
4.4	Crash History	16
5	Parking Provision and Design	18
5.1	Car Parking	18
5.2	Accessible Parking	21
5.3	Bicycle Parking	21
5.4	Motorcycle Parking	22
5.5	Delivery, Servicing and Waste Collection	22
5.6	Car Park Design Review	22
6	Traffic Assessment	23
6.1	Analysis Scenarios	23
6.2	Background Traffic Growth	23
6.3	Cumulative Traffic-Generating Developments	23
6.4	Development Traffic Generation	25
6.5	Trip Distribution and Assignment	26
6.6	Analysis Assumptions	27
6.7	Future Intersection Performance	27
6.8	Analysis Results Summary	32

6.9	Potential Future Traffic Restrictions	33
7	Operational Impacts	34
7.1	Active Transport	34
7.2	Public Transport	34
8	Preliminary Construction Traffic Management Plan	35
8.1	Overview	35
8.2	Principles of Traffic Management	35
8.3	Construction Staging	35
8.4	Work Hours	36
8.5	Site Access and Loading	36
8.6	Construction Staff Parking	36
8.7	Heavy Vehicle Traffic Generation	37
8.8	Heavy Vehicle Access Routes	37
8.9	Swept Paths	38
8.10	Pedestrian and Cyclist Access	38
8.11	Future CTMP Requirements	38
9	Preliminary Green Travel Plan	40
9.1	Purpose	40
9.2	Key Principles	40
9.3	Travel Demand Management	41
9.4	Existing Travel Behaviour	41
9.5	Mode Share Target	43
9.6	Travel Access Guide (TAG)	44
9.7	Information and Communication	44
9.8	GTP Monitoring	44
9.9	Summary	44
10	Conclusion	46
	Disclaimer	47
	Appendix A Plans – Parking and Access	48
	Appendix B Traffic Data and Surveys	49
	Appendix C SIDRA Results	51

Figures

Figure 1 Aerial Photograph of the Site	1
Figure 2 Six Cities Region Integrated Transport Network (Focus on Gosford)	5
Figure 3 Study Area and Subject Site.....	8
Figure 4 Ground Floor Site Plan.....	10
Figure 5 Active Transport Infrastructure	11
Figure 6 Surrounding Bus Network Map (Busways)	12
Figure 7 Surrounding Bus Network Map (Red Bus CDC NSW).....	13
Figure 8 Map of Crash History (2020 – 2024).....	17
Figure 9 Cumulative Development	24
Figure 10 Proposed modifications to Vaughan Avenue	33
Figure 11 Concept Plan.....	34
Figure 12 Proposed Construction Vehicle Routes	38
Figure 13 Location of DZN 110326135	41
Figure 14 Location of SA1 Zone 10201103224	43

Tables

Table 1 SEARs Compliance.....	2
Table 2 Development Schedule.....	9
Table 3 Public Transport Provision	12
Table 4 Level of Service Criteria for Intersections	15
Table 5 Existing Intersection Performance	16
Table 6 Crash History (2020 – 2024)	17
Table 7 Car Parking Requirements	19
Table 8 Proposed Car Parking Allocation.....	20
Table 9 Bicycle Parking Requirements	21
Table 10 Motorcycle Parking Requirements.....	22
Table 11 Growth Rates.....	23
Table 12 Development Traffic Generation.....	26
Table 13 Sidra Results – Central Coast Highway/ Dane Drive	27
Table 14 Sidra Results – Georgiana Terrace/ Dane Drive	28
Table 15 Sidra Results – Georgiana Terrace/ Baker Street	28
Table 16 Sidra Results – Georgiana Terrace/ Mann Street	29
Table 17 Sidra Results – Donnison Street/ Mann Street	29
Table 18 Sidra Results – Donnison Street/ Henry Parry Drive	30
Table 19 Sidra Results – Vaughan Avenue/ Baker Street	30
Table 20 Sidra Results – Mann Street/ Vaughan Avenue.....	31
Table 21 Sidra Results – Central Coast Highway/ Mann Street	31
Table 22 Sidra Results – Central Coast Highway/ Vaughan Avenue.....	32
Table 23 Travel Mode Share for Workers Travelling to Gosford.....	42
Table 24 Travel Mode Share for Workers Living in Gosford.....	43

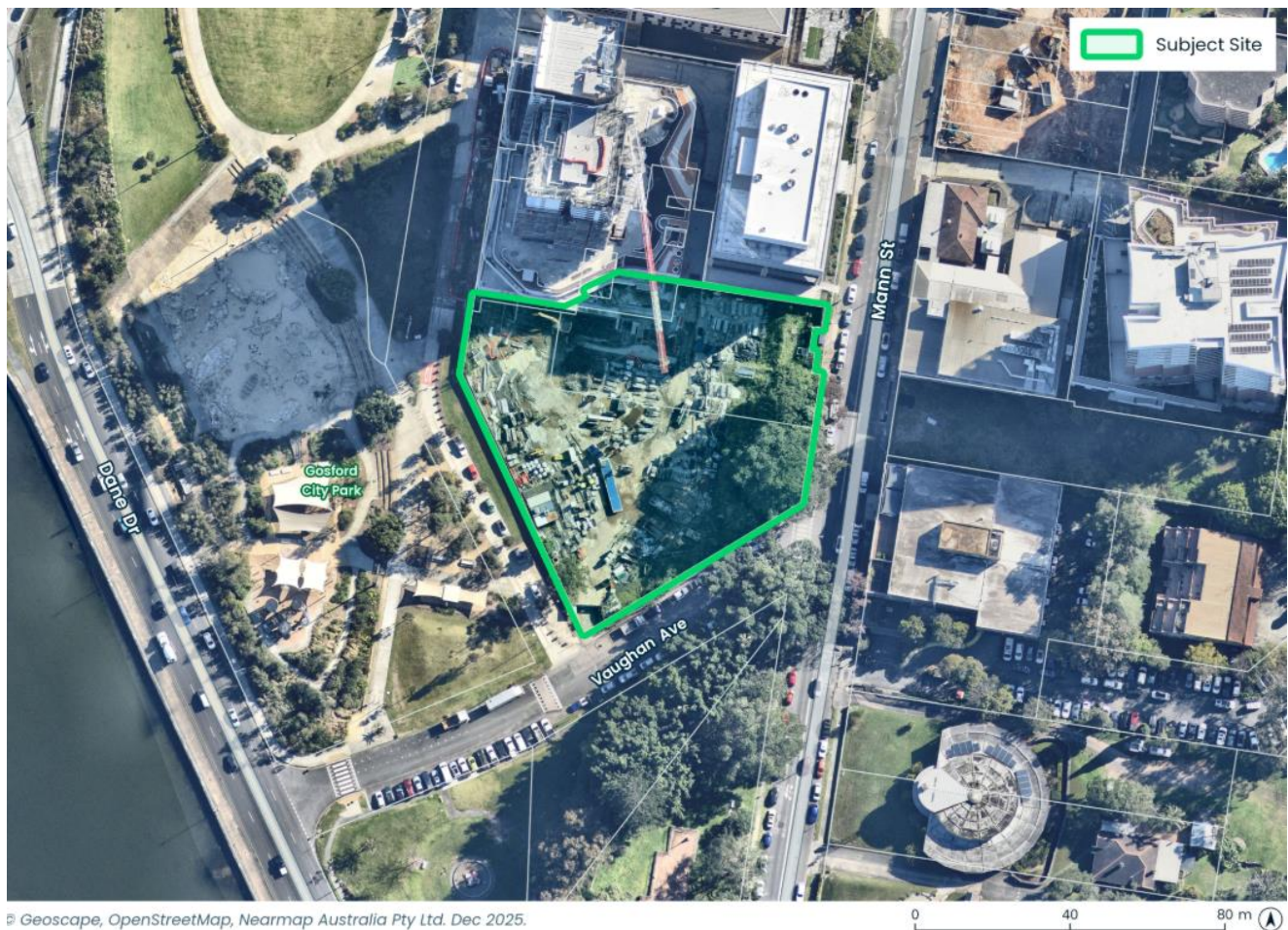
1 Introduction

1.1 Background

This Transport Impact Assessment (TIA) has been prepared by Urbis on behalf of UPG Waterfront Pty Ltd (**the Applicant**) to accompany a concurrent rezoning and State Significant Development Application (SSDA) at 26–30 Mann Street, Gosford, also known as ‘Central Coast Quarter’ (**the site**).

The site is located on the Stage 2 component of the Central Coast Quarter site in Gosford City Centre, within the Central Coast Local Government Area (LGA). The Stage 2 site is legally described as Lots 3 and 4 in Deposited Plan 1319239.

Figure 1 Aerial Photograph of the Site



SSD-90960208 seeks consent for the detailed design, construction and operation of a mixed-use development comprising:

- Construction of two towers (36 and 42 storeys in height) above a retail podium (including pavilion building), comprising:
 - Retail, residential and hotel gross floor area (GFA).
 - 394 apartments
 - 152 hotel keys (eastern tower).
- Five parking levels, with vehicular access from Vaughan Avenue.
- Storage areas and services.
- Communal open space and deep soil planting (including retention of the Port Jackson Fig).

- Publicly accessible through site links, including stairs, walkways public art and landscaping.
- Provision of utilities and services infrastructure, as required.

To facilitate the built form proposed under SSD-90960208, concurrent amendments are sought to the *State Environmental Planning Policy (Precincts – Regional) 2021 (Regional SEPP)* pursuant to the concurrent SEPP Amendment process facilitated by the HDA planning pathway.

1.2 Response to SEARs

This report has been prepared in response to the requirements contained within the Secretary's Environmental Assessment Requirements (**SEARs**) dated 20 August 2025 issued for the SSDA (SSD-90960208). Specifically, this report has been prepared to respond to the SEARS requirement issued below.

Table 1 SEARs Compliance

Item	Description of Requirement	Section Reference (this Report)
10. Traffic, Transport and Accessibility	<u>Transport and Accessibility Impact Assessment</u> Provide a transport and accessibility impact assessment, which includes: ▪ An analysis of the existing transport network, including the road hierarchy and any pedestrian, bicycle or public transport infrastructure, current daily and peak hour vehicle movements, and existing performance levels of nearby intersections. ▪ Details of the proposed development, including pedestrian and vehicular access arrangements (including swept path analysis of the largest vehicle and height clearances), parking arrangements and rates (including bicycle and end-of-trip facilities), drop-off/pick-up-zone(s) and bus bays (if applicable), and provisions for servicing and loading/unloading. ▪ Analysis of the impacts of the proposed development during construction and operation (including justification for the methodology used), including predicted modal split, a forecast of additional daily and peak hour multimodal network flows as a result of the development (using industry standard modelling), identification of potential traffic impacts on road capacity, intersection performance and road safety (including pedestrian and cyclist conflict) and any cumulative impact from surrounding approved developments. ▪ Measures to mitigate any traffic impacts, including details of any new or upgraded infrastructure to achieve acceptable performance and safety, and the timing, viability and mechanisms of delivery (including proposed arrangements with local councils or government agencies) of any infrastructure improvements in accordance with relevant standards	Section 4 Section 3 and 5 Section 6 Section 6
	<u>Construction Traffic Management Plan</u> Provide a Construction Traffic Management Plan detailing predicted construction vehicle routes, access and parking arrangements, coordination with other construction occurring in the area, and how impacts on existing traffic, pedestrian and bicycle networks would be managed and mitigated.	Section 8
	<u>Green Travel Plan</u> Provide a transport and accessibility impact assessment, which includes: ▪ Proposals to promote sustainable travel choices for employees, residents, guests and visitors, such as connections into existing walking and cycling networks, minimising car parking provision, encouraging car share and public transport, providing adequate bicycle parking and high quality end-of-trip facilities, and implementing a Green Travel Plan.	Section 9

1.3 Stakeholder Engagement

Stakeholder engagement for the project involved ongoing consultation with Central Coast Council and Transport for NSW (**TfNSW**) throughout 2020 and 2021, undertaken as part of the broader Concept State Significant Development Application (**SSDA**) and the Northern Tower Stage 1 SSDA. These discussions were aimed at ensuring alignment with local and state transport planning priorities and addressing potential impacts on the surrounding network.

On 24 March 2021, Central Coast Council confirmed that the Gosford City Centre Transport Plan project was on hold, with no fixed date for resumption. Based on this, the transport modelling for Stage 2 focused on the existing arrangements on the surrounding road network and focused on the cumulative impacts of approved developments in the surrounding area.

1.4 Scope of the Study

The purpose of this study is to assess the implications of the proposed development on the surrounding transport networks including pedestrians, cyclists, motorists, public transport users and freight and servicing vehicles.

This report considers the following elements:

- existing traffic and parking conditions surrounding the site
- suitability of the proposed parking in terms of supply (quantum) and layout
- service vehicle requirements
- pedestrian and bicycle requirements
- the traffic generating characteristics of the proposed development
- suitability of the proposed access arrangements for the site
- the transport impact of the development proposal on the surrounding road network.

1.5 References

In preparing this report, reference has been made to the following:

- Guide to Transport Impact Assessment (Transport for NSW, 2024)
- Austroads Guide to Traffic Management Part 12: Integrated Transport Assessment for Developments (2020)
- TS 05394.12 Austroads Supplement for Guide to Traffic Management Part 12 Traffic Impacts of Development (Transport for NSW, 2013)
- Central Coast Council Development Control Plan (**DCP**) 2022
- Australian/New Zealand Standard, Parking Facilities (AS 2890)
- traffic surveys undertaken by Matrix as referenced in the context of this report
- plans for the proposed development prepared by DKO Furtado Sullivan, Drawing Number DA2000 – DA2027, Revision 02, dated 28 November 2025
- Central Coast Quarter – 26 Mann Street, Gosford: Staged Concept Masterplan Transport Impact Assessment Rev E (GTA Consultants, 2020)
- Central Coast Quarter – 26–32 Mann Street, Gosford – Transport Assessment Addendum letter (Stantec, dated 15 August 2022)

- Central Coast Quarter – 26–32 Mann Street, Gosford – Transport Assessment Addendum, Eastern Tower letter (Stantec, dated 24 May 2023)
- Central Coast Quarter – 26–30 Mann Street, Gosford: Stage 1 – North Tower State Significant Development Application Transport Impact Assessment Rev A (GTA Consultants, 2021)
- Central Coast Quarter Stage 1 – Northern Tower Modification 3 to SSD-23588910 Amendment Report (Urbis, dated 15 August 2024)
- References for cumulative development assessment:
 - Union Hotel Traffic and Parking Impact Assessment Report S96 (DA46256/2014) (Baker Ryan Steward, October 2016)
 - Gosford Alive Stage 1 Development Application TIA (GTA Consultants, August 2019)
 - Mann Street Traffic Addendum Ver A (Cardno, August 2016)
- 26–32 Mann Street, Gosford – Central Coast Quarter Northern Tower – Construction Certificate letter (Stantec, dated 1 June 2022)
- Car Parking Study and Implementation Plan (Central Coast Council, 2021)
- Central Coast Bike Plan 2019–2029 (Bitzios Consulting and Zwart Transport Planning, 2019)
- Central Coast Pedestrian Access and Mobility Plan 2019–2029 (Bitzios Consulting, 2019)
- other documents and data as referenced in this report.

2 Strategic Context

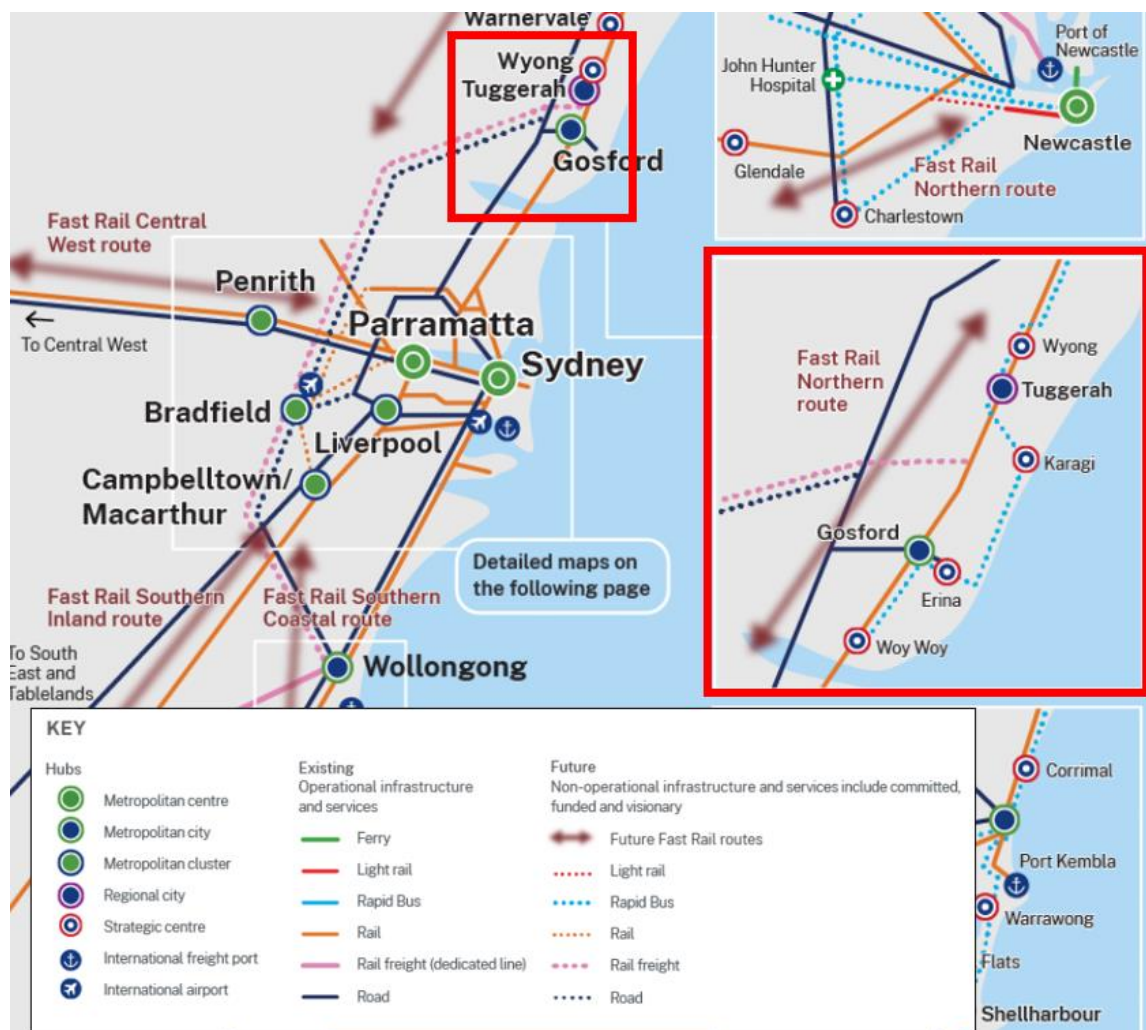
2.1 State Government Policies

2.1.1 Future Transport Strategy

The Future Transport Strategy identifies Gosford as a key metropolitan city within the Six Cities Region, emphasizing its role in enhancing connectivity, economic development, and liveability. As a central hub for the Central Coast, Gosford will benefit from major transport upgrades, improving its accessibility to Greater Sydney and surrounding areas. A major initiative is the Fast Rail project, which aims to reduce travel time between Sydney and Gosford to around 25 minutes, strengthening regional links and expanding employment, education, and lifestyle opportunities. The strategy also highlights the need for seamless public transport integration, ensuring that trains, buses, cycling, and walking infrastructure work together to create a more efficient, multimodal system.

Beyond transport improvements, the strategy envisions Gosford as a thriving urban centre with economic expansion, new industries, and better housing accessibility. The 30-minute city concept ensures quick and reliable public transport access to jobs and services, while initiatives like place-making, smart infrastructure, and environmental sustainability enhance its liveability. Investments in walkability, cycling networks, and green urban spaces will improve the city's environmental footprint, supported by smart transport technology and data-driven planning. With these developments, Gosford is set to become a model for sustainable, well-connected urban growth in NSW.

Figure 2 Six Cities Region Integrated Transport Network (Focus on Gosford)



Source: Future Transport Strategy (Transport for NSW, 2022)

2.1.2 Active Transport Strategy

The NSW Active Transport Strategy outlines the state's ambition to enable active transport as the mode of choice. The strategy aims to double the number of active transport trips in 20 years by focusing on the following areas:

- Enable 15-minute neighbourhoods
- Deliver connected and continuous cycling networks
- Provide safer and better precincts and main streets
- Promote walking and riding and encourage behaviour change
- Support partners and accelerate change

The strategy ultimately intends to increase active transport mode share, which translates to a reduced number of car trips and parking demand.

2.1.3 Central Coast Regional Plan 2041

The Central Coast Regional Plan 2041 is a land use plan applying to the Central Coast Local Government Area, prepared in accordance with the *Environmental Planning and Assessment Act 1979*. The plan sets the framework for growth and change in the Central Coast over a 20-year period and will guide how the Department of Planning and Environment will collaborate with stakeholders, including the Central Coast Council, Darkinjung Local Aboriginal Land Council and state agencies. Some of the plan's objectives include creating 15-minute neighbourhoods to support mixed and multimodal communities, creating a more interconnected region to move away from car-dependency, and reaching net zero with sustainable infrastructure.

Another relevant strategy is to consider maximum parking limits in neighbourhoods well served by walking, cycling and public transport, and to consider opportunities for park and ride, carpooling and car sharing to reduce car dependency.

2.1.4 NSW Movement and Place Framework

The NSW Movement and Place Framework is a strategic approach to urban planning and transport network design that integrates mobility with placemaking. It acknowledges that roads and streets serve both as movement corridors and as public spaces, requiring a balanced approach to infrastructure planning. The framework employs the "vision and validate" methodology, which prioritizes desired urban outcomes over traditional "predict and provide" models. This method ensures that transport solutions align with long-term sustainability goals, fostering communities that are accessible, efficient, and vibrant. Additionally, built environment performance indicators are used to evaluate the effectiveness of projects in achieving movement and place objectives.

By applying this framework, urban planners, transport professionals, and policymakers can design environments that optimize transport functionality while enhancing the social and economic value of public spaces. The framework categorizes streets based on their movement function (ranging from local roads to arterial corridors) and their place function (from quiet neighbourhoods to bustling activity centres), guiding the selection of appropriate infrastructure and policy interventions. This integrated approach supports a people-centric urban design philosophy, promoting walkability, public transport use, and environmental sustainability while ensuring efficient movement of goods and services across New South Wales.

2.2 Local Government Policies

2.2.1 Car Parking Study and Implementation Plan

The Car Parking Study and Implementation Plan was created in response to consistent population growth in the Central Coast Region and provides Council with the framework for strategic land management, specifically in terms of transport and parking solutions. Objectives of the plan are for Council to invest in smart parking technologies and initiatives, to implement policies to discourage the use of single occupant

private vehicles and reduce parking demand, and to create management policies to alter parking supply to encourage alternate transport options.

2.2.2 Central Coast Bike Plan 2019–2029

The Central Coast Bike Plan details part of the Council’s initiative to provide an active transport network in the Central Coast region. The objectives of the plan are to sustainably support the active transport network, provide supporting facilities and promote them, plan for active transport in future development, encourage the choice to cycle or walk, and to monitor participation in the active transport network. Projects that will aid the Council in delivering this plan include providing shared pathways, bicycle wayfinding signage, and including cycling and pedestrian considerations in new developments, among other initiatives.

2.2.3 Central Coast Pedestrian Access and Mobility Plan 2019–2029

The Central Coast Pedestrian Access and Mobility Plan details part of the Council’s initiative to provide an active transport network in the Central Coast region. The objectives of the plan include providing connected, safe and convenient pedestrian routes, with a specific focus on high demand areas in the Central Coast region. Implementation of the plan includes creating new pathways and upgrading facilities on priority routes, initiatives to promote active transport networks and to sustainably develop these networks.

3 Proposed Development

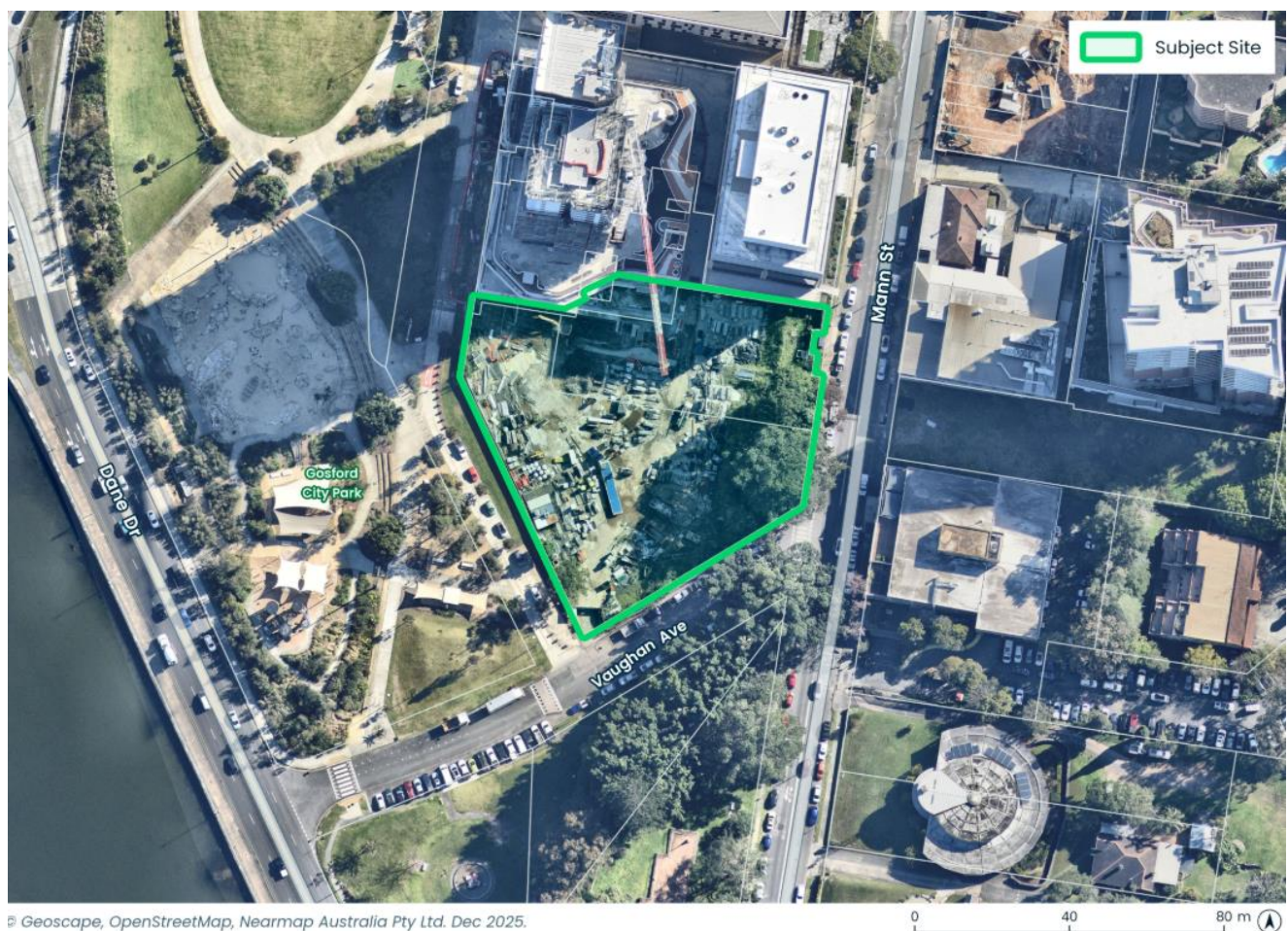
3.1 Study Area

The subject site is located at 26–30 Mann Street, Gosford, within the wider Central Coast Quarter site. The northern part of the Central Coast Quarter site is currently under construction and not subject to assessment as part of this application. The subject site, which will primarily consist of two towers, has a frontage of around 50 metres to Mann Street (to the east) and 65 metres to Vaughan Avenue (to the south), and borders with Gosford Waterfront Park to the west.

The site is currently vacant and has a land use classification as B4 Mixed Use. The surrounding properties predominantly include commercial, mixed use and recreational uses.

The location of the subject site and its surrounding environs is shown in Figure 3.

Figure 3 Study Area and Subject Site



3.2 Land Uses

The proposed development seeks approval of a mixed-use development at 26–30 Mann Street, Gosford, consisting of various high-density residential, hotel and retail/ commercial land uses.

The proposed development yields are detailed in Table 2.

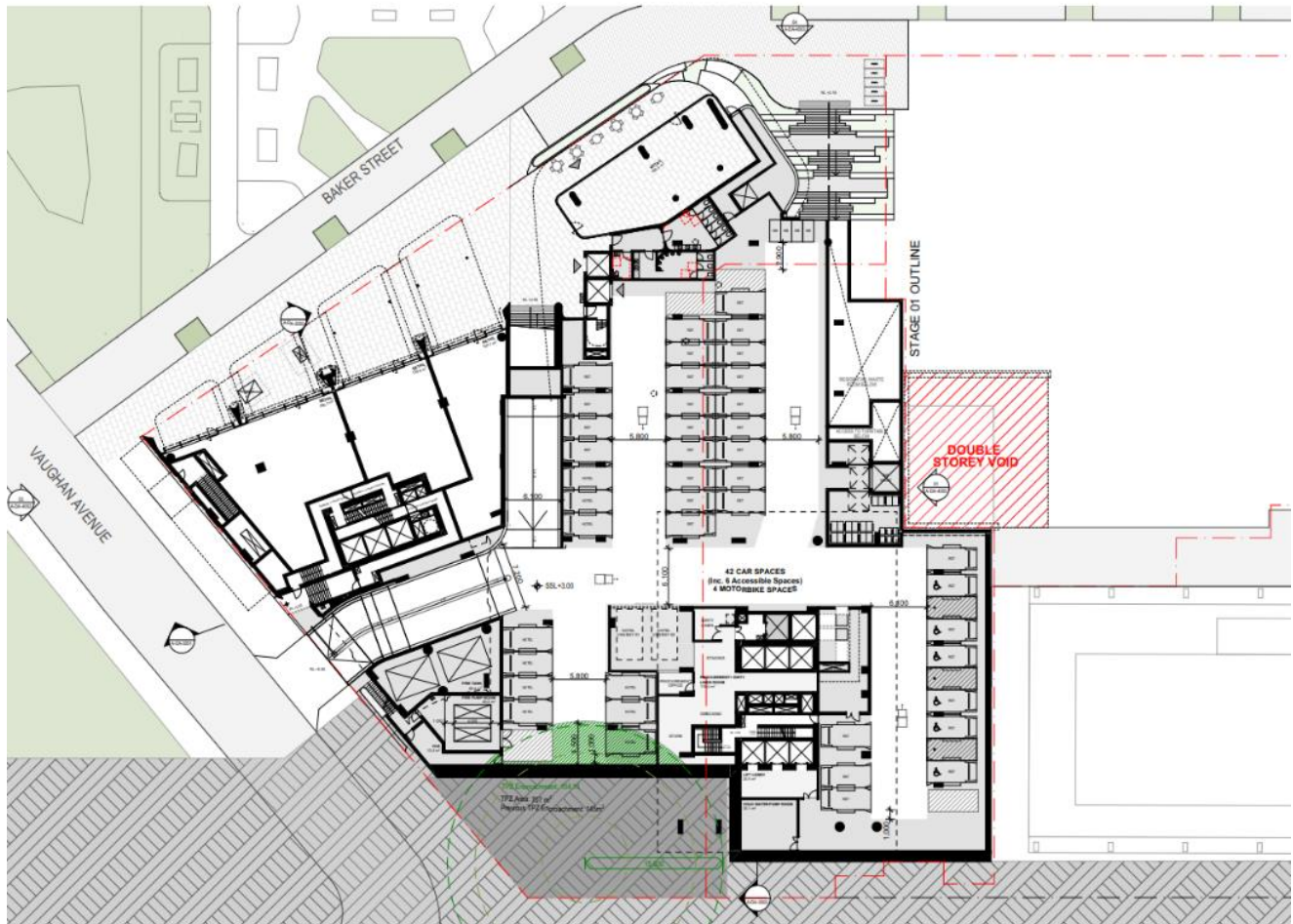
Table 2 Development Schedule

Land Use		Proposed Size
Southern Tower		
Retail		509m ²
Residential	2-bed	124 units
	3-bed	70 units
	4-bed	2 units
	Sub-total	196 units
Eastern Tower		
Retail		596m ²
Commercial (including hotel bar and dining)		1,205m ²
Hotel		152 rooms (6,911m ²)
Residential	Studio	2 units
	1-bed	94 units
	2-bed	96 units (including 24 adaptable)
	3-bed	4 units
	4-bed	2 units
	Sub-total	198 units
Pavilion		
Retail		1,064m ²

3.3 Site Plan

The ground floor plan for the site is shown in Figure 4.

Figure 4 Ground Floor Site Plan



Source: DKO and Furtado Sullivan 11 February 2026

The plan shows that one vehicle access is proposed from Vaughan Avenue. The car park proposes to provide 473 spaces in Stage 2 to accommodate both the Eastern and Southern Towers.

A centralised loading and waste collection area for the entire site which was approved as part of the Stage 1 Northern Tower SSD will not change. Access to the loading area will be off Baker Street and is currently under construction. The loading area will be able to accommodate vehicles up to and including a 12.5 metre Heavy Rigid Vehicle (HRV).

4 Existing Conditions

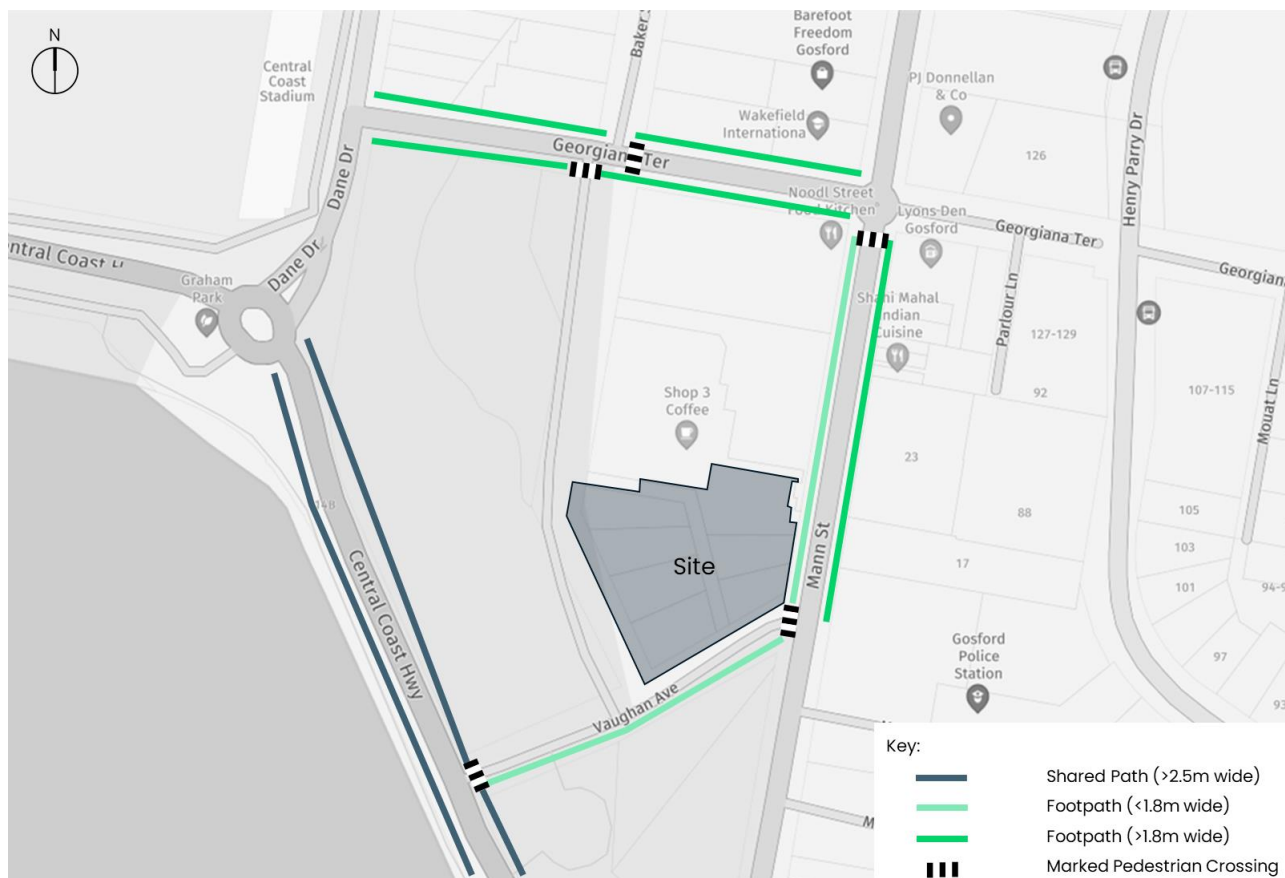
4.1 Active Transport

The site is generally well connected by pedestrian paths and crossing infrastructure. Footpaths are located on both sides of Mann Street and Georgiana Terrace and on the southern side of Vaughan Avenue.

These footpaths, shared paths and pedestrian crossings are shown in Figure 5.

There are no on-street cycle lanes surrounding the site. The nearest off-road cycle route runs along Central Coast Highway near the site and along the waterfront.

Figure 5 Active Transport Infrastructure



Base image source: Nearmap

4.2 Public Transport

The site is generally well serviced by public transport, with the nearest bus stop only 50 metres from the site. There are at least 18 bus services available which generally operate every 30-60 minutes. Gosford Train Station is also highly accessible via a 10-minute walk from the site, or the frequent bus services along Mann Street.

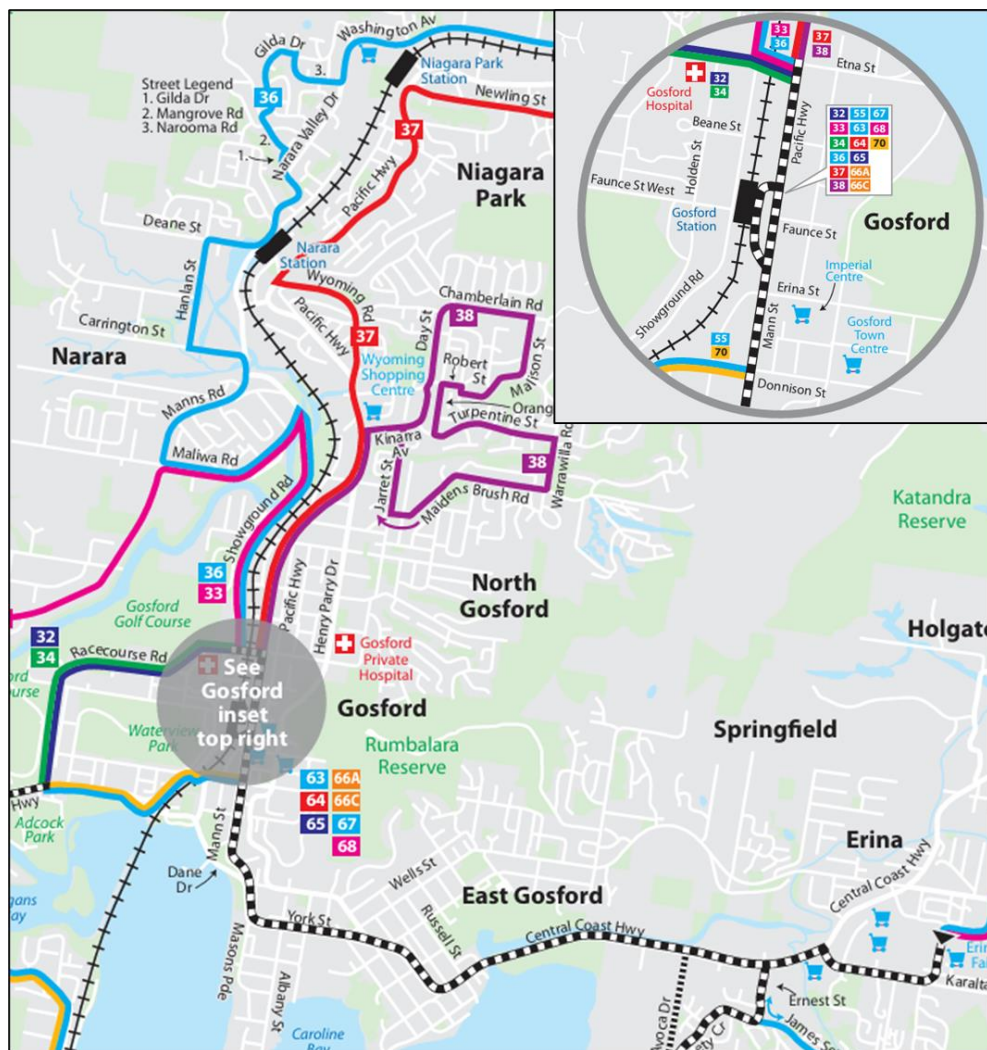
A review of the public transport available in the vicinity of the site is summarised in Table 3, with the bus operator maps of the bus routes shown in Figure 6 and Figure 7.

Table 3 Public Transport Provision

Service	Route	Route Description	Location of Stop	Distance to Nearest Stop	Frequency On/Off Peak
Bus	See maps below	Gosford to/from the Greater Central Coast region	Mann St before Georgiana Tce (northbound) Mann St after Georgiana Tce (southbound)	50m	18 services, generally every 30-60 minutes
Train	CCN	Central Coast and Newcastle Line	Gosford Station	700m (10-min walk)	Peak: every 7-10 minutes Off-peak: every 30 minutes

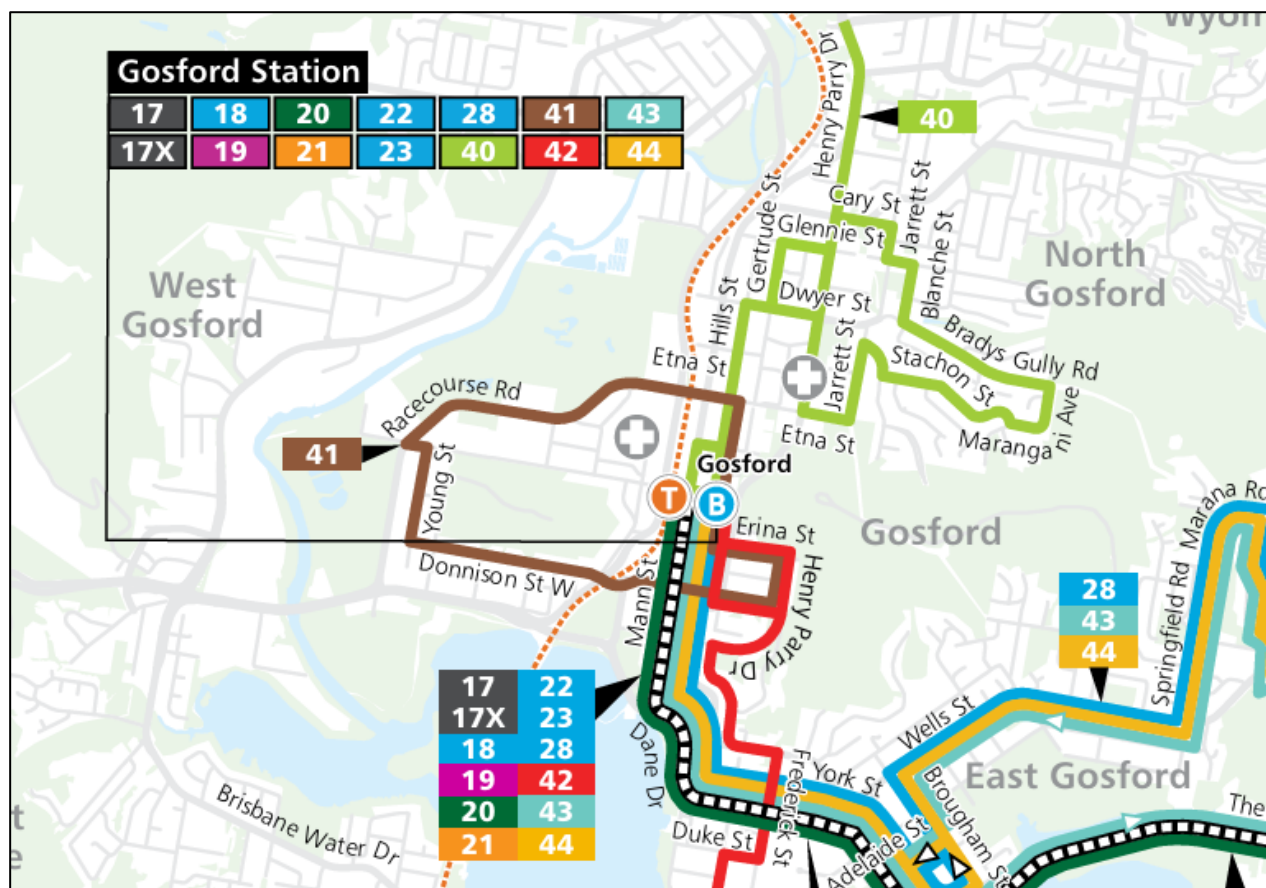
Source: Transport for NSW Trip Planner

Figure 6 Surrounding Bus Network Map (Busways)



Source: Bus Network and Operator Maps (Transport for NSW)

Figure 7 Surrounding Bus Network Map (Red Bus CDC NSW)



Source: Bus Network and Operator Maps (Transport for NSW)

4.3 Road Network

4.3.1 Road Hierarchy

Central Coast Highway (MR30)

Central Coast Highway is classified as a State Road near the site and is aligned in an east-west direction. Between Dane Drive and Mann Street, it is a two-way divided road configured with two lanes in each direction, a 1.5m centre median island and a carriageway of approximately 15 metres. No kerbside parking is permitted.

Central Coast Highway has a posted speed limit of 60km/h and carries approximately 30,000 vehicles per day and around 3,300 vehicles in the network peak hours.

Mann Street

Mann Street is classified as a Local Road; however, it functions as a collector road between the Pacific Highway and Central Coast Highway. Near the site, Mann Street is aligned in a north-south direction. It is a two-way road configured with one lane in each direction and a carriageway of around 13 metres. It has a posted speed limit of 40km/h and carries approximately 8,000 vehicles per day and around 700 vehicles in the network peak hours.

Kerbside parking is permitted for one hour on the western side and four hours on the eastern side of Mann Street, near the site on weekdays (8:30am to 6:00pm) and on Saturdays (8:30am to 12:30pm). Parking on Mann Street is unrestricted at other times.

Georgiana Terrace

Georgiana Terrace is classified as a Local Road; however, it functions as a collector road between Mann Street and Dane Drive. Near the site, Georgiana Terrace is aligned in an east-west direction. It is a two-way road configured with one lane in each direction and a carriageway of approximately 12 metres. It has a posted speed limit of 40km/h and carries approximately 3,000 vehicles per day and around 400 vehicles in the network peak hours.

Kerbside parking is permitted for two hours between Dane Drive and Baker Street, and one hour between Baker Street and Mann Street on weekdays (8:30am to 6:00pm) and on Saturdays (8:30am to 12:30pm). Parking on Georgiana Terrace is unrestricted at other times.

Vaughan Avenue

Vaughan Avenue is classified and functions as a Local Road and is aligned in an east-west direction. It is a two-way road configured with one lane in each direction and a carriageway of approximately 12 metres. It has a default urban speed limit of 50km/h and carries approximately 50 vehicles in the network peak hours.

At the western end of Vaughan Avenue, perpendicular parking is permitted on the southern side only for up to four hours on weekdays (8:30am to 6:00pm) and on Saturdays (8:30am to 12:30pm). At the eastern end of Vaughan Avenue, parallel parking is permitted on both sides for up to four hours on weekdays (8:30am to 6:00pm) and on Saturdays (8:30am to 12:30pm). Parking on Vaughan Avenue is unrestricted at other times.

It is also noted that the intersection of Central Coast Highway/ Vaughan Avenue is left-in/ left-out only.

Baker Street

Baker Street is classified as a Local Road and functions as a local access laneway. Near the site, Baker Street is aligned in a north-south direction. It is a one-way laneway (travelling southbound only) with a narrow travel lane of approximately 3.5 metres. It is signposted as a 10km/h Shared Zone and carries approximately 30 vehicles in the network peak hours.

A limited number of parallel parking bays are provided on the eastern side of the laneway.

4.3.2 Traffic Volumes

Traffic surveys at key intersections surrounding the site have been sourced from surveys undertaken on Wednesday 14 September 2022 during the following peak periods:

- 7:00am – 10:00am
- 3:00pm – 7:00pm.

The surveys revealed that the AM peak hour was 8:00am – 9:00am and PM peak hour was 4:30pm – 5:30pm.

The AM and PM peak hour traffic volumes are summarised in Appendix A.

4.3.3 Existing Intersection Performance

The operation of key intersections within the study area has been assessed using SIDRA INTERSECTION (SIDRA), a modelling software package that calculates intersection performance.

The commonly used measure of intersection performance, as defined by Transport for NSW, is vehicle delay. SIDRA determines the average delay that vehicles encounter and provides a measure of the level of service.

Table 4 shows the criteria that SIDRA adopts in assessing the level of service.

Table 4 Level of Service Criteria for Intersections

Level of Service	Average Delay per vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way & Stop signs
A	0-14	Good operation	Good operation
B	15-28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	29-42	Satisfactory	Satisfactory, but accident study required
D	43-56	Operating near capacity	Near capacity and accident study required
E	57-70	At capacity	At capacity, requires other control mode
F	>70	Over capacity	Over capacity

Source: TS 05461 Traffic Modelling Guidelines (Transport for NSW)

Table 5 presents a summary of the existing operation of the intersection, with full results presented in Appendix B of this report.

Table 5 Existing Intersection Performance

Intersection Approach	AM Peak				PM Peak			
	DOS	Delay (s)	LOS	95% Queue (m)	DOS	Delay (s)	LOS	95% Queue (m)
Central Coast Highway/ Dane Drive (Roundabout)	1.00	66	E	128	1.10	130	F	186
Georgiana Terrace/ Dane Drive (Priority controlled)	0.22	10	A	5	0.21	7	A	3
Georgiana Terrace/ Baker Street (Priority controlled)	0.08	7	A	2	0.11	5	A	3
Georgiana Terrace/ Mann Street (Roundabout)	0.17	8	A	6	0.21	8	A	8
Donnison Street/ Mann Street (Signalised)	0.66	20	B	97	0.68	21	B	102
Donnison Street/ Henry Parry Drive (Signalised)	0.87	40	C	263	0.75	34	C	157
Vaughan Avenue/ Baker Street (Priority controlled)	0.01	0	A	0	0.03	0	A	1
Mann Street/ Vaughan Avenue (Priority controlled)	0.03	10	A	1	0.04	7	A	1
Central Coast Highway/ Mann Street (Signalised)	0.47	16	B	140	0.61	16	B	193
Central Coast Highway/ Vaughan Avenue (Priority controlled)	0.04	10	A	1	0.14	15	B	2

Note: Results for priority controlled intersections and roundabouts shown above is for the worst movement.

Overall, with the exception of the PM peak at the Central Coast Highway/ Dane Drive roundabout, the current performance of the assessed intersections is an acceptable level of service with noted spare capacity within most intersections. The Central Coast Highway/Dane Drive roundabout is noted to be operating at capacity in the PM peak period.

4.4 Crash History

An analysis of the most recent five-year period of available crash data (2020 – 2024) has been undertaken based on crash data obtained from the Transport for NSW Centre for Road Safety in the vicinity of the subject site. The locations and severity of the crashes for the five-year period recorded are summarised in Table 6 and shown in Figure 8.

Table 6 Crash History (2020 – 2024)

Location	Reporting Year	Crash ID	Degree of Crash	RUM Code	Description	Vehicles
Mann Street/ Georgiana Terrace	2020	1239733	Serious injury	10	Cross traffic	Car (north) / motorcycle (west)
Central Coast Highway/ Vaughan Avenue	2022	1296282	Serious injury	73	Off road right into object (night)	Car (south)
Georgiana Terrace/ Baker Street	2022	1305969	Moderate injury	13	Right near	Car (south) / Car (east)
Mann Street, 7m south of Georgiana Terrace	2024	1352473	Moderate injury	0	Pedestrian near side	Car (north) / pedestrian

Source: Transport for NSW Centre for Road Safety

Figure 8 Map of Crash History (2020 – 2024)



Base image source: Transport for NSW Centre for Road Safety

The two crashes on Georgiana Terrace have been crashes at intersections involving cross traffic. There has also been one southbound crash on Central Coast Highway involving a car veering off the road into an object during night conditions, and one pedestrian crash on a marked pedestrian crossing on Mann Street.

There are no clear trends in the crash data to suggest that the proposed development may lead to an increase in crashes on roads surrounding the site.

5 Parking Provision and Design

5.1 Car Parking

Residential

The minimum car parking requirements for regular residential apartments are referenced from the 2024 Guide to Transport Impact Assessment (**Transport for NSW Guide**), and the maximum car parking rates are referenced from the 2018 Gosford City Centre Development Control Plan. This aligns with the Consent Conditions issued in June 2023 for the most recent approval of the Concept Plan (SSD-10114-Mod-2).

Given that Gosford is a strategic regional centre which is well connected to several transport modes and medium car mode share, it is appropriate to categorise Gosford as a “Category 2” zone in the Transport for NSW Guide. Examples of similarly sized regional centres in NSW are Wollongong and Newcastle.

The previously adopted minimum residential visitor parking rate in the Concept Plan approval of 1 space per 7 units will continue to be used in this assessment. This rate aligns with the definition of a “Category 1” zone in the Transport for NSW Guide. As per previous assessments, it has been accepted that this rate is more aligned with the expected residential visitor parking demands for the development, whilst still retaining a level of conservatism which includes, but is not limited to, the ability to utilise retail visitor parking spaces at times when peaks do not overlap.

Commercial and Retail

Since the previous Concept Plan approval, the *State Environmental Planning Policy Gosford City Centre 2018* has been superseded and updated by the *State Environmental Planning Policy (Precincts—Regional) 2021 (Regional SEPP)*. Part 5.8 of the new SEPP (Precincts – Regional) defines the car parking rates for commercial activities and retail premises as follows:

- Commercial Activities (which notably includes hotel accommodation): 1 space per 75 square metres of gross floor area.
- Retail Premises: 1 space per 40 square metres of gross floor area.

Adaptable Units

Australian Standard AS4299 generally states that one car parking space should be provided per adaptable unit and be able to be used by people with disabilities.

Summary

In considering all the proposed individual uses, Table 7 calculates that the Stage 2 subject site has a suggested parking requirement range of between 579–703 car parking spaces.

Table 7 Car Parking Requirements

Component	Land Use	Size	Minimum Parking Rate	Minimum Parking Requirement	Maximum Parking Rate	Maximum Parking Requirement	Parking Rate Source	Parking Provision	
Southern Tower	Retail	509m ²	1 space/ 40m ² GFA	13	Nil		Regional SEPP ¹	473	
	Residential	2-bed	124 units	0.9 spaces/ unit	112	1.2 spaces/ unit	148		Min.: Transport for NSW Guide ² Max.: Gosford City Centre DCP ³
		3-bed	70 units	1.4 spaces/ unit	98	1.5 spaces/ unit	105		
		4-bed	2 units	1.4 spaces/ unit	3	1.5 spaces/ unit	3		
		Visitor	196 units	1 space/ 7 units	28	0.2 spaces/ unit	39		
	Sub-Total:			254	Sub-Total:		308		
Eastern Tower	Retail	596m ²	1 space/ 40m ² GFA	15	Nil		Regional SEPP ¹	473	
	Commercial	1,205m ²	1 space/ 75m ² GFA	8 ⁵	Nil				
	Hotel	6,911m ²		92	Nil				
	Residential	1-bed	96 units	0.6 spaces/ unit	58	1 space/ unit	96		Min.: Transport for NSW Guide ²
		2-bed	72 units	0.9 spaces/ unit	64	1.2 spaces/ unit	86		Max.: Gosford City Centre DCP ³
		2-bed	24 adaptable units	1 space/ unit	24	Nil			AS4299 ⁴
		3-bed	4 units	1.4 spaces/ unit	6	1.5 spaces/ unit	6		Min.: Transport for NSW Guide ² Max.: Gosford City Centre DCP ³
		4-bed	2 units	1.4 spaces/ unit	3	1.5 spaces/ unit	3		
		Visitor	198 units	1 space/ 7 units	29	0.2 spaces/ unit	39		
	Sub-Total:			Sub-Total:	299	Sub-Total:			369
Pavilion	Retail	1,064m ²	1 space/ 40m ² GFA	27	Nil		Regional SEPP ¹		
	Sub-Total:			Sub-Total:	27	Sub-Total:		26	
Total:				580	Total:		703	473	

¹ Source: Clause 5.47, State Environmental Planning Policy (Precincts – Regional) 2021² Source: Guide to Transport Impact Assessment (Transport for NSW, 2024)³ Source: Table 2, Gosford City Centre Development Control Plan 2018⁴ Source: Section 3.7, Australian Standard AS4299-1995⁵ Factor of 0.5 applied to commercial uses, based on the assumption that half of these users are hotel guests

Adequacy of Car Parking

Overall, the Stage 2 development proposes 473 car parking spaces, which is a shortfall from the suggested minimum parking calculation by 100 spaces.

In terms of car parking allocations, it is intended to nearly meet the minimum requirements for the residential component of the development, with the majority of the shortfall to come from the hotel and retail parking spaces. This is shown below in Table 8.

Table 8 Proposed Car Parking Allocation

User Type	Minimum Parking Requirement	Maximum Parking Requirement	Proposed Provision	Parking Shortfall (from minimum)
Residential	425	549	423	-2
Hotel/ Commercial	100	<i>Nil</i>	40	-60
Retail	54	<i>Nil</i>	10	-44
Total:	579	703	473	-106

There are a number of reasons why this shortfall can be supported, and why the shortfall is proposed to come from the hotel and retail parking:

- As identified in Sections 4.1 and 4.2, the site has excellent access to both active transport and public transport options. There are shared paths on Central Coast Highway along the waterfront, high-frequency bus services at bus stops on Mann Street only 50 metres away, and Gosford Train Station is within a 10-minute walk from the site. It is intended that staff of the hotel and retail components, in particular, will be strongly encouraged to leverage these existing active transport facilities and public transport services. Most hotel and retail staff are not expected to have any allocated car parking spaces to support this mode share shift.
- The calculated car parking rates typically consider each individual land use in isolation. However in mixed-used developments, applying each car parking rate individually generally results in overly conservative estimates due to the following factors:
 - Internal trips: Some of the trips to the retail and commercial components of the development are likely to originate from the residential and hotel components of the development. These trips, therefore, will not generate a parking demand.
 - Non-overlapping peak demands: The parking demand for residential and commercial visitors are anticipated to peak during evenings, whereas demand for retail parking spaces is highest in the morning. By designating generic visitor parking spaces for all visitors, the overall number of required parking spaces can be reduced. This is due to the non-overlapping peak demand periods of these uses, allowing for more efficient utilisation of the available parking spaces.
- Given the development's prime location in the Gosford CBD where there are a growing number of other retail developments, it is expected that some retail shoppers would already be parked in other nearby retail car parks and walk up to the retail shops offered as part of the subject development. This therefore reduces the amount of retail visitor parking required.
- The applicant is in discussions with a prospective hotel operator to manage the hotel use. Car parking for hotel guests is to be pre-booked with the prospective hotel operator prior to arrival, which therefore controls and restricts the car parking demand generated by hotel guests.
- A reduced supply of parking can result in improved land use efficiency, reduced traffic on the surrounding roads, an increased uptake of walking and cycling, and enhanced environmental sustainability.

Given the arguments presented above, the proposed Stage 2 parking supply of 473 car parking spaces can be supported and is deemed satisfactory to meet the estimated parking demand generated by the development.

5.2 Accessible Parking

Accessible parking rates have been sourced from the Gosford City Centre DCP 2018. The accessible parking requirements indicate that for developments in the Gosford City Centre, a minimum of four per cent of the required parking spaces shall be appropriately designated and signposted as accessible parking spaces.

Based on a car parking provision of 449 parking spaces (excluding the 24 accessible spaces for the 24 adaptable units), a further 18 accessible parking spaces would be required to support the rest of the development.

The development provides 42 accessible parking spaces in the Stage 2 development, which meets the Gosford City Centre DCP requirements.

5.3 Bicycle Parking

Bicycle parking provision requirements for the Gosford City Centre are identified in the Gosford City Centre DCP 2018. A review of the bicycle parking requirement rates results in a suggested parking provision as shown in Table 9.

It is noted that no bicycle parking rates are specified in the DCP for the hotel land uses.

Table 9 Bicycle Parking Requirements

Land Use	Size	Gosford DCP Rate	Bicycle Requirement
Retail & Commercial	3,358m ² (509m ² Southern Tower, 1,801m ² Eastern Tower, 1,064m ² Pavilion)	Staff: 1 per 200m ² GFA	Staff: 17
		Visitor: 1 per 750m ² GFA	Visitor: 5
Residential	394 units (196 units Southern Tower, 198 units Eastern Tower)	Resident: 1 per 3 units	Resident: 132
		Visitor: 1 per 12 units	Visitor: 33
Stage 2 Total:			Resident/ staff: 149 Visitor: 38

Based on the above, the proposed Stage 2 development should provide a total of 187 bicycle parking spaces.

A minimum of 149 spaces should be designed as long-term bicycle parking for residents and staff, where bicycles can be stored securely. 38 spaces should be designed as short-term bicycle parking for visitors which are convenient to access from the street.

The development proposes 140 secure residential bicycle parking spaces on basement levels two, three and four, resulting in a shortfall of nine bicycle spaces. For retail and residential visitors, 10 publicly accessible bicycle hoops (which can accommodate two bicycles per hoop) are also proposed at various locations in the public open space surrounding the development, which is considered adequate for when the development opens to the public. If there is demand for further visitor bicycle parking, these can be easily added within the public domain at a later date if required.

5.4 Motorcycle Parking

Motorcycle parking provision requirements for the Gosford City Centre are identified in the Gosford City Centre DCP 2018. A review of the motorcycle parking requirement rates results in a suggested parking provision as shown in Table 10.

Table 10 Motorcycle Parking Requirements

Land Use	Size	Gosford DCP Rate	Motorcycle Requirement
Retail, Commercial & Hotel	84 car parking spaces	1 per 25 car parking spaces	4
Residential	389 units	1 per 15 units	26
Stage 2 Total:			30

Based on the above, the proposed Stage 2 development should provide 30 motorcycle parking spaces.

The development proposes a total of 35 motorcycle parking spaces split across all four basement levels and therefore complies with the DCP requirements.

5.5 Delivery, Servicing and Waste Collection

There is one centralised loading and waste collection area for the entire site, this is located within Stage 1 and was approved as part of the Stage 1 Northern Tower SSD.

Vehicle access to the loading area will be off Baker Street and is currently under construction. The loading area will be able to accommodate vehicles up to and including a 12.5 metre HRV.

Bins rooms are provided within Stage 2 with internal access through to the loading area in Stage 1.

No changes are proposed to the approved loading area.

5.6 Car Park Design Review

The proposed access arrangements and car parking layout are still in design progression and have been reviewed in accordance with the requirements of Australian Standard AS2890. This included an assessment of the following aspects:

- aisle widths
- bicycle parking
- blind aisle turning bays
- height clearances
- parking for persons with disabilities
- parking space dimensions and grades
- ramp grades
- sight distances
- site access arrangements.

The design plans for the parking levels are attached in Appendix C. The following items are to be addressed as part of further detailed design development to ensure compliance with AS2890 and functional operation:

- access width and access control
- confirmation of accessible bay widths associated with adaptable units by the accessibility consultant.
- retail space widths are considered acceptable for staff use only and to be confirmed as part of design development.

6 Traffic Assessment

6.1 Analysis Scenarios

The following scenarios were considered in the analysis:

1. 2022 Base Scenario
2. 2027 Opening Year including Cumulative Developments
3. 2027 Opening Year including Cumulative Developments and Proposed Development
4. 2037 Future Year including Cumulative Developments
5. 2037 Future Year including Cumulative Developments and Proposed Development

The analysis has been undertaken for the following periods:

- AM Peak – 8:00am – 9:00am
- PM Peak – 4:30pm – 5:30pm.

6.2 Background Traffic Growth

A summary of growth rates used in various traffic studies for developments in the area surrounding the site is presented in Table 11.

Table 11 Growth Rates

Development	Year of Study	Growth Rate Used
Central Coast Quarter – 26 Mann Street, Gosford Rev E (original masterplan)	2020	2.0%
Gosford Alive Stage 1 Development Application TIA Rev A (GTA Consultants)	2019	1.5%
118 Mann Street Mixed Use Development TIA Rev 4 (Barker Ryan Stewart)	2016	2.0%
Central Coast Quarter – 32 Mann Street Rev D, Gosford (Cardno)	2016	2.0%

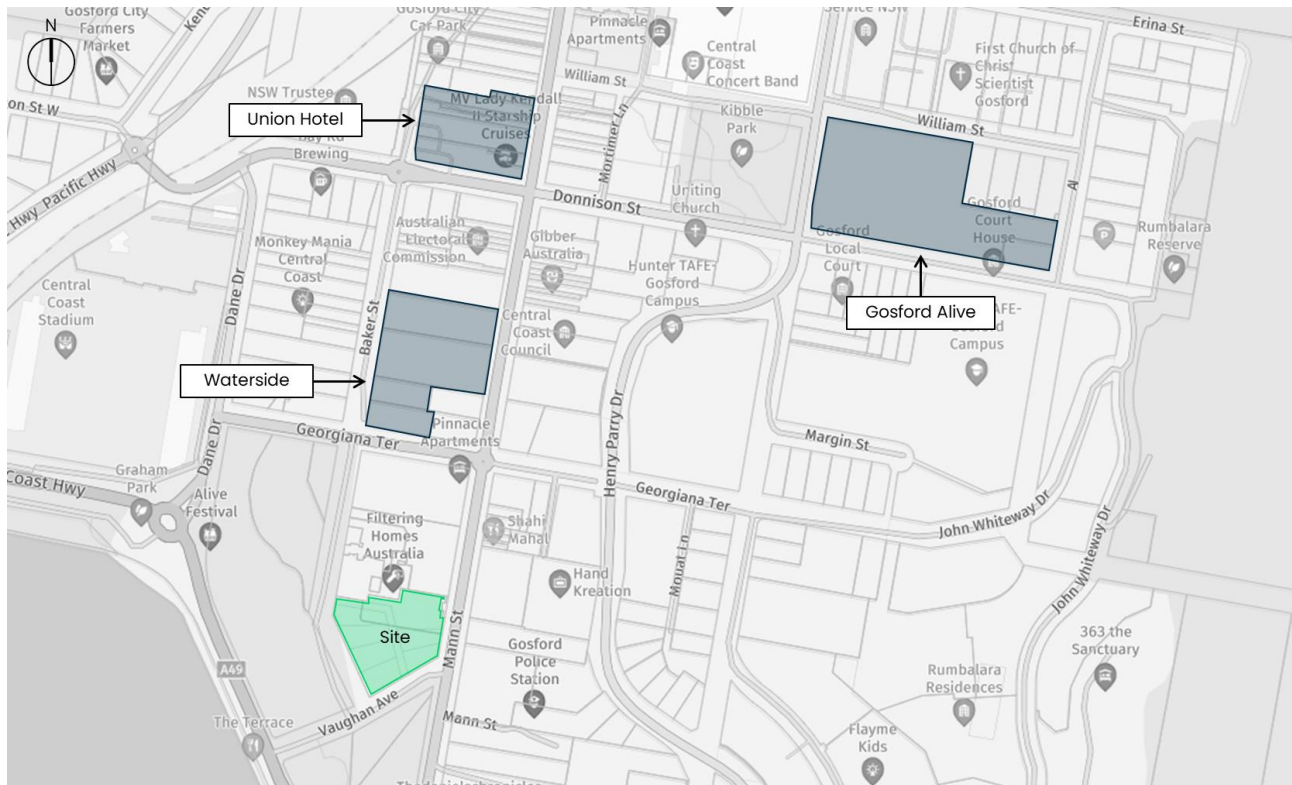
With the exception of the growth rate used for the 2019 Study for Gosford Alive, the growth rate used in most studies is two per cent. As such, a background growth of two per cent was used for the analysis to be consistent with the approved reports of the original masterplan and surrounding cumulative developments.

6.3 Cumulative Traffic-Generating Developments

As discussed in Section 4.3.2, the base traffic data used in this study is from 2022. This section discusses the significant traffic generators that were not captured during the 2022 traffic survey and are anticipated to generate traffic on the road network near the site. Figure 9 illustrates the locations of the cumulative traffic-generating developments relative to the site.

The trips generated by the developments discussed in this section were added to the analysis trips for Scenarios 2, 3, 4, and 5 based on the assumption that these cumulative developments will be operational during the 2027 opening and 2037 future years.

Figure 9 Cumulative Development



Base image source: Nearmap

6.3.1 ALAND – Archibald Development (Union Hotel)

The ALAND Archibald development is located at 108–118 Mann Street, Gosford and construction has recently been completed. Based on the TIA report prepared for the development in 2016¹, this development is anticipated to generate 375 vehicle trips during the peak period.

6.3.2 Gosford Alive

Gosford Alive is located at 136 to 146 and 148 Donnison Street, Gosford, and is proposed to include a residential/retail development with a total of 378 vehicles during the peak period as outlined in the TIA prepared for Gosford Alive on 22 August 2019².

6.3.3 ALAND – Amalfi Development (Waterside)

The ALAND Amalfi development is a mixed-use development located at 50–70 Mann Street, Gosford. The proposed mixed-use development is anticipated to generate 412 vehicle trips during both the AM and PM peak periods, per the technical memorandum prepared by Cardno on 12 August 2016³.

¹ Traffic and Parking Impact Assessment Report S96 (DA46256/2014), October 2016, Barker Ryan Stewart

² Gosford Alive Stage 1 Development Application TIA, August 2019, GTA Consultants

³ Mann Street Traffic Addendum Ver A, August 2016, Cardno

6.4 Development Traffic Generation

The traffic generation rates used in estimating the trips to be generated by the proposed development were sourced from the Transport for NSW Guide and from the previous TIA reports for the proposed development. The trip rates used, and their sources are detailed below:

- Residential – based on rates from the TIA for the approved Concept SSDA (SSD-10114-Mod-2)
 - AM peak – 0.53 trips per unit; PM peak – 0.32 trips per unit
- Commercial/Retail – based on rates from the TIA for the approved Concept SSDA (SSD-10114-Mod-2)
 - AM peak – 4.6 trips per 100 sqm; PM peak – 4.6 trips per 100 sqm
- Hotel – based on rates from the Transport for NSW Guide. Note that the Guide does not prescribe rates for Hotels. For this report, the rates for ‘motels’ were used instead.
 - PM peak – 0.4 trips per unit. No rates are available for AM peak. It was assumed that the morning peak has the same rate as the PM peak for a robust assessment.
- Meeting rooms and hotel bar – based on rates from the Transport for NSW Guide for restaurants.
 - PM peak – 5 trips per 100 sqm. No rates are available for AM peak. It is assumed that the meeting rooms and hotel bar do not operate during the AM peak. It is also assumed that 50 per cent of the patrons are hotel guests during the PM peak.
- All-day dining – based on rates from the Transport for NSW Guide for restaurants.
 - PM peak – 5 trips per 100 sqm. No rates are available for AM peak. It is assumed that this only serves hotel guests in the morning peak. It is also assumed that 50 per cent of the patrons are hotel guests during the PM peak.

The directional distribution is based on an 80-20 split for residential and commercial/retail (the larger proportion is allocated to the busier movement of the peak period), and a 50-50 split for restaurant use.

The calculated directional trip generation based on the development yields is presented in Table 12.

It should be noted that as Stage 1 (Northern Tower) is still under construction at the time of this analysis, Table 12 also shows the yields of the northern tower to consider its cumulative impact.

Table 12 Development Traffic Generation

Tower	Land Use	Yield	Trip Generation Rate		Directional Trip Generation			
			(per 100 sqm or per unit)		AM Peak		PM Peak	
			AM Peak	PM Peak	In	Out	In	Out
Northern (under construction)	Residential	134 units	0.53	0.32	14	57	34	9
	Commercial/ Retail	654 sqm	4.6	4.6	24	6	6	24
	In/Out Total				38	63	40	33
Northern Tower Total					101	73		
Southern	Residential	196 units	0.53	0.32	20	82	49	12
	Commercial/ Retail	509 sqm	4.6	4.6	19	5	5	19
	Subtotal				39	87	54	31
Eastern	Residential	198 units	0.53	0.32	21	84	51	13
	Hotel	152 units	0.4	0.4	12	49	49	12
	Retail	596 sqm	4.6	4.6	22	5	5	22
	Meeting Rooms and Hotel Bar	542 sqm	0	2.5*	0	0	7	7
	All Day Dining	663 sqm	0	2.5*	0	0	8	8
	Subtotal				55	138	120	62
Pavilion	Retail	1,064 sqm	4.6	4.6	39	10	10	39
	Subtotal				39	10	10	39
In/Out Total					133	234	184	131
Eastern, Southern and Pavilion Total					367	315		

*50% discount factor applied based on the assumption that half of the hotel bar and all-day dining patrons are hotel guests

The total peak hour trip generation of the site is anticipated to be approximately **367** trips during the AM peak and **315** trips during the PM peak. The performance of the surrounding road network has been assessed based on the increased trip generation above.

6.5 Trip Distribution and Assignment

6.5.1 Central Coast Quarter

Consistent with the previous TIA for the Concept DA and Stage 1 Northern Tower, the following directional distribution of the trips generated by the proposed development was utilised for this study:

- North – 20%
- West – 30%
- East – 50%

The above distribution is based on access arrangements, configuration of the road network, and journey-to-work data, which are all still relevant to the Stage 2 development. The resulting trip distribution of the traffic generated by the site is presented in Appendix A.

6.5.2 Cumulative Developments

The trip distribution for the cumulative developments as discussed in Section 6.3 is detailed below:

- ALAND Archibald (Union Hotel) – assumed to be similar to the Central Coast Quarter distribution shown in Section 6.5.1.
- Gosford Alive – based on the distribution used in the Gosford Alive TIA⁴.
- ALAND Amalfi (Waterside) – based on the distribution used in the technical memorandum for Central Coast Quarter⁵.

6.6 Analysis Assumptions

This section summarises the assumptions used in the analysis of the transport network surrounding the site.

- Five per cent of the trips generated by the development are comprised of heavy vehicles.
- No changes in the turning movement restrictions at intersections are anticipated.
- The northern tower is accessed via Baker Street, while the southern and eastern towers are accessed via Vaughan Avenue.

6.7 Future Intersection Performance

The comparison of the intersection performance across the different scenarios is presented in the following subsections.

6.7.1 Central Coast Highway/ Dane Drive

Table 13 Sidra Results – Central Coast Highway/ Dane Drive

Scenario	AM Peak				PM Peak			
	DOS	Delay (s)	LOS	95% Queue (m)	DOS	Delay (s)	LOS	95% Queue (m)
Scenario 1 – 2022 Base	0.89	33	C	70	0.99	70	E	119
Scenario 2 – 2027 no Development	1.34	320	F	>500	1.37	351	F	>500
Scenario 3 – 2027 with Development	1.37	354	F	>500	1.42	393	F	>500
Scenario 4 – 2037 no Development	1.66	607	F	>500	1.74	682	F	>500
Scenario 5 – 2037 with Development	1.65	600	F	>500	1.80	731	F	>500

As results outlined in Table 13 show that the Central Coast Highway/Dane Drive roundabout is currently operating at capacity under existing conditions in the PM peak period. The Degree of Saturation (DOS) for a roundabout is noted to be close to capacity if operating at DOS 0.8 or above. With the existing DOS being 0.89 and 0.99 in the AM and PM peaks respectively it is noted that only minor traffic increases result in the

⁴ Gosford Alive Stage 1 Development Application TIA, August 2019, GTA Consultants

⁵ Mann Street Traffic Addendum Ver A, August 2016, Cardno

roundabout operating over capacity, as observed during current peak periods. This is further demonstrated by the 2027 results which outline the intersection operating over capacity for all future scenarios.

6.7.2 Georgiana Terrace/ Dane Drive

Table 14 Sidra Results – Georgiana Terrace/ Dane Drive

Scenario	AM Peak				PM Peak			
	DOS	Delay (s)	LOS	95% Queue (m)	DOS	Delay (s)	LOS	95% Queue (m)
Scenario 1 – 2022 Base	0.22	10	A	5	0.21	7	A	3
Scenario 2 – 2027 no Development	0.53	20	B	13	0.51	12	A	249
Scenario 3 – 2027 with Development	0.71	27	B	249	0.62	15	A	249
Scenario 4 – 2037 no Development	0.65	25	B	17	0.61	15	B	249
Scenario 5 – 2037 with Development	0.81	31	C	31	0.71	18	B	23

The results outlined in Table 14 show that the performance of the intersection is currently operating well and will continue to operate satisfactory in both the AM and PM peaks through to the 10 year horizon of 2037 including the trips generated by this development.

6.7.3 Georgiana Terrace/ Baker Street

Table 15 Sidra Results – Georgiana Terrace/ Baker Street

Scenario	AM Peak				PM Peak			
	DOS	Delay (s)	LOS	95% Queue (m)	DOS	Delay (s)	LOS	95% Queue (m)
Scenario 1 – 2022 Base	0.08	7	A	2	0.11	5	A	3
Scenario 2 – 2027 no Development	0.19	14	A	5	0.28	11	A	9
Scenario 3 – 2027 with Development	0.30	18	B	7	0.30	12	A	28
Scenario 4 – 2037 no Development	0.24	15	B	6	0.34	12	A	20
Scenario 5 – 2037 with Development	0.27	19	B	8	0.28	13	A	8

The results in Table 15, show that the performance of the intersection is currently operating well and will continue to operate well with spare capacity in both the AM and PM peaks through to the 10 year horizon of 2037 including the trips generated by this development.

6.7.4 Georgiana Terrace/ Mann Street

Table 16 Sidra Results - Georgiana Terrace/ Mann Street

Scenario	AM Peak				PM Peak			
	DOS	Delay (s)	LOS	95% Queue (m)	DOS	Delay (s)	LOS	95% Queue (m)
Scenario 1 - 2022 Base	0.17	8	A	6	0.21	8	A	8
Scenario 2 - 2027 no Development	0.24	9	A	10	0.38	9	A	17
Scenario 3 - 2027 with Development	0.26	9	A	12	0.39	9	A	18
Scenario 4 - 2037 no Development	0.27	9	A	12	0.43	9	A	20
Scenario 5 - 2037 with Development	0.28	10	A	13	0.43	10	A	20

The results in Table 16 show that the performance of the intersection is currently operating well and will continue to operate well with spare capacity in both the AM and PM peaks through to the 10 year horizon of 2037 including the trips generated by this development.

6.7.5 Donnison Street/ Mann Street

Table 17 Sidra Results - Donnison Street/ Mann Street

Scenario	AM Peak				PM Peak			
	DOS	Delay (s)	LOS	95% Queue (m)	DOS	Delay (s)	LOS	95% Queue (m)
Scenario 1 - 2022 Base	0.66	20	B	97	0.68	21	B	102
Scenario 2 - 2027 no Development	1.03	42	C	263	1.08	53	D	323
Scenario 3 - 2027 with Development	1.03	42	C	263	1.08	53	D	323
Scenario 4 - 2037 no Development	1.23	90	F	514	1.34	115	F	639
Scenario 5 - 2037 with Development	1.23	89	F	514	1.37	121	F	667

As shown in Table 17 show that this intersection is likely to be operating near capacity in 2027 PM peak and overcapacity in both the AM and PM peaks in 2037 with background traffic growth and the surrounding cumulative developments. The additional trips generated by the proposed development will have negligible impact on the performance of this intersection as indicated by the minimal change in the results between Scenarios 2 and 3, and between Scenarios 4 and 5.

6.7.6 Donnison Street/ Henry Parry Drive

Table 18 Sidra Results - Donnison Street/ Henry Parry Drive

Scenario	AM Peak				PM Peak			
	DOS	Delay (s)	LOS	95% Queue (m)	DOS	Delay (s)	LOS	95% Queue (m)
Scenario 1 - 2022 Base	0.87	40	C	263	0.75	34	C	157
Scenario 2 - 2027 no Development	1.15	75	F	457	1.05	51	D	291
Scenario 3 - 2027 with Development	1.17	77	F	457	1.10	55	D	338
Scenario 4 - 2037 no Development	1.27	121	F	786	1.18	78	F	483
Scenario 5 - 2037 with Development	1.31	123	F	786	1.18	80	F	492

As shown in Table 18 show that this intersection is likely to be operating over capacity in 2027 AM peak and near capacity in the PM peak. Both the AM and PM peak periods are expected to be operating over capacity in 2037 with background traffic growth and the surrounding cumulative developments. The additional trips generated by the proposed development will have minimal impact on the performance of this intersection as indicated by the minor change in the results of Scenarios 2 and 3, and between Scenarios 4 and 5.

6.7.7 Vaughan Avenue/ Baker Street

Table 19 Sidra Results - Vaughan Avenue/ Baker Street

Scenario	AM Peak				PM Peak			
	DOS	Delay (s)	LOS	95% Queue (m)	DOS	Delay (s)	LOS	95% Queue (m)
Scenario 1 - 2022 Base	0.01	0	A	0	0.03	0	A	1
Scenario 2 - 2027 no Development	0.01	0	A	0	0.03	0	A	1
Scenario 3 - 2027 with Development	0.06	0	A	2	0.06	0	A	1
Scenario 4 - 2037 no Development	0.01	0	A	0	0.03	0	A	1
Scenario 5 - 2037 with Development	0.06	0	A	2	0.06	0	A	2

The results in Table 19 show that the performance of the intersection is currently operating well and will continue to operate well with spare capacity in both the AM and PM peaks through to the 10 year horizon of 2037 including the trips generated by this development.

6.7.8 Mann Street/Vaughan Avenue

Table 20 Sidra Results - Mann Street/ Vaughan Avenue

Scenario	AM Peak				PM Peak			
	DOS	Delay (s)	LOS	95% Queue (m)	DOS	Delay (s)	LOS	95% Queue (m)
Scenario 1 - 2022 Base	0.03	10	A	1	0.04	7	A	1
Scenario 2 - 2027 no Development	0.04	15	B	1	0.05	9	A	1
Scenario 3 - 2027 with Development	0.32	15	A	11	0.15	11	A	5
Scenario 4 - 2037 no Development	0.05	17	B	1	0.06	10	A	2
Scenario 5 - 2037 with Development	0.35	17	B	12	0.16	12	A	5

The results in Table 20 show that the performance of the intersection is currently operating well and will continue to operate well with spare capacity in both the AM and PM peaks through to the 10 year horizon of 2037 including the trips generated by this development.

6.7.9 Central Coast Highway/ Mann Street

Table 21 Sidra Results - Central Coast Highway/ Mann Street

Scenario	AM Peak				PM Peak			
	DOS	Delay (s)	LOS	95% Queue (m)	DOS	Delay (s)	LOS	95% Queue (m)
Scenario 1 - 2022 Base	0.47	16	B	140	0.61	16	B	193
Scenario 2 - 2027 no Development	0.48	22	B	244	0.58	19	B	183
Scenario 3 - 2027 with Development	0.57	27	B	311	0.70	23	B	221
Scenario 4 - 2037 no Development	1.08	96	F	>500	0.58	20	B	187
Scenario 5 - 2037 with Development	1.08	96	F	>500	0.81	34	C	347

The results in Table 21 show that the performance of the intersection is currently operating well, under the base scenario and opening year scenarios even when including the development. However, by 2037 with the additional background growth the AM peak will be operating over capacity at LOS F. It should be noted that this operation is without including the proposed development, however, the difference between the outputs with and without the development is minimal. Under the 2037 with development Scenario PM peak, the intersection will operate at LOS C which is considered satisfactory.

6.7.10 Central Coast Highway/ Vaughan Avenue

Table 22 Sidra Results – Central Coast Highway/ Vaughan Avenue

Scenario	AM Peak				PM Peak			
	DOS	Delay (s)	LOS	95% Queue (m)	DOS	Delay (s)	LOS	95% Queue (m)
Scenario 1 – 2022 Base	0.04	10	A	1	0.14	15	B	2
Scenario 2 – 2027 no Development	0.04	8	A	1	0.07	7	A	1
Scenario 3 – 2027 with Development	0.33	7	A	5	0.50	15	A	7
Scenario 4 – 2037 no Development	0.03	6	A	0	0.14	12	A	2
Scenario 5 – 2037 with Development	0.31	6	A	5	0.48	14	A	7

The results in Table 22 show that the performance of the intersection is currently operating well and will continue to operate well with spare capacity in both the AM and PM peaks through to the 10 year horizon of 2037 including the trips generated by this development.

6.8 Analysis Results Summary

The results of the SIDRA analysis are summarised below:

- The following intersections would be operating over capacity in the future without including the Stage 2 development:
 - Central Coast Highway/Dane Drive
 - Donnison Street/Mann Street
 - Donnison Street/Henry Parry Drive
 - Central Coast Highway/Mann Street

This is attributed to the background growth of traffic on the current network and surrounding approved developments within the Gosford CBD.

- The remaining six analysed intersections operate at satisfactory levels when including the traffic generation from Stage 2.

Section 9 outlines potential initiatives to reduce the demand for driving and ease the anticipated congestion at key intersections.

6.9 Potential Future Traffic Restrictions

A public domain plan has been prepared by Central Coast Council that indicates a potential plan to remove the left turn movement from Central Coast Highway into Vaughan Avenue (see Figure 10).

Figure 10 Proposed modifications to Vaughan Avenue



Source: Central Coast Council

A technical memorandum prepared by Stantec in October 2024⁶ outlines the analysis results of removing the left-turn movement from Central Coast Highway to Vaughan Avenue. The analysis compared the SIDRA results between *with* and *without* the left-turn ban under the '2036 with development' scenario. The results showed that removing the left-turn had minimal impact on the performance of the analysed surrounding road network.

While some of the inputs in the technical memorandum are different from the inputs in this report (e.g., 2036 future year vs 2037 future year in this report), the results are anticipated to be similar. Urbis are not aware of any timeframe for when this may progress. However, if implemented, the left-turn ban from Central Coast Highway to Vaughan Avenue is not expected to have a significant impact on the analysis results presented in this report.

⁶ Central Coast Quarter Stages 2 & 3 – Traffic Modelling Assessment, Stantec, 22 October 2024.

7 Operational Impacts

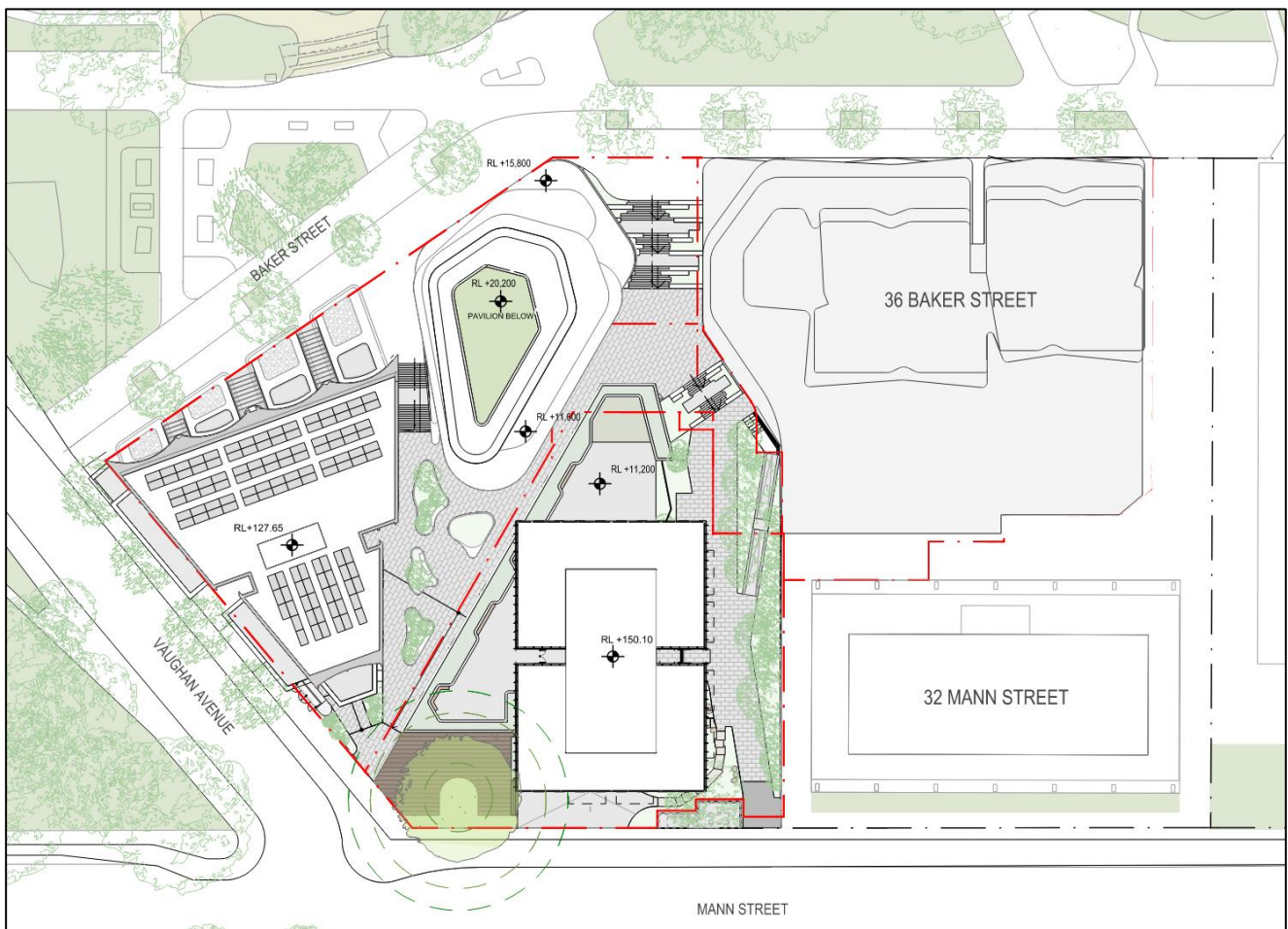
7.1 Active Transport

There are multiple pedestrian and cyclist connections both through and around the site. Wide, open pathways (greater than three metres in width) are proposed on Vaughan Avenue and Mann Street adjacent to the development, and the development's interface with Baker Street creates a pedestrian-friendly environment with landscaping and outdoor dining.

Multiple accessible entry points to the development on Baker Street, Vaughan Avenue and Mann Street will allow pedestrians to freely walk through the development.

These pedestrian connections are shown in Figure 11.

Figure 11 Concept Plan



Source: Central Coast Quarter Stage 2 – DKO/ Furtado Sullivan 11 February 2026

7.2 Public Transport

As previously identified, the site is generally well serviced by public transport with over 18 existing bus routes which service a bus stop only 50 metres from the site and a 10 minute walk from Gosford Train Station. Therefore no changes are required to the current public transport frequency or infrastructure.

8 Preliminary Construction Traffic Management Plan

8.1 Overview

This section seeks to provide a preliminary overview of the Construction Traffic Management Plan (CTMP) initiatives to be implemented as part of the construction works associated with the proposed development.

Specifically, this preliminary CTMP considers the following:

- construction site access arrangements
- anticipated truck volumes during construction stages
- truck routes to/ from the site
- requirements for works zones
- pedestrian and cyclist access
- site personnel parking
- traffic control measures
- overview of CTMP requirements.

8.2 Principles of Traffic Management

The general principles of traffic management during construction activities are as follows:

- minimise the impact on pedestrian and cyclist movements
- maintain appropriate public transport access
- minimise the loss of on-street parking
- minimise the impact on adjacent and surrounding buildings
- maintain access to/ from adjacent buildings
- restrict construction vehicle movements to designated routes to/ from the site
- manage and control construction vehicle activity near the site
- carry out construction activity in accordance with approved hours of works.

8.3 Construction Staging

The construction of the Stage 1 Northern Tower commenced in mid-2022 and is nearing completion.

The Early Works excavation stage for the Eastern and Southern Towers is anticipated to commence in early 2026. The overall construction of the Eastern and Southern Towers are scheduled for completion by early 2029.

An Early Works CTMP⁷ was prepared in December 2024 and is referenced throughout this section.

8.4 Work Hours

The works will be carried out during Council's normal construction hours unless otherwise permitted. Indicative work hours are as follows:

- Weekdays: 7:00am – 6:00pm
- Saturdays: 8:00am – 4:00pm
- Sundays and public holidays: no work permitted.

Workers would be advised of the approved work hours during induction. Any work outside of the approved work hours would be subject to specific prior approval from the appropriate authorities. Such work may include delivery of cranes, large plant or equipment required on the site that require oversize vehicle access.

8.5 Site Access and Loading

Similar to the Stage 2 Early Works CPTMP, a left-in/ left-out construction vehicle access is expected to be retained on Vaughan Avenue. All loading is expected to occur on-site or on-street within a dedicated works zone. An application will be lodged for a 45-metre work zone along the Vaughan Avenue site frontage and a 45-metre work zone along the Mann Street site frontage.

As part of the detailed CTMP, Traffic Guidance Schemes (previously referred to as Traffic Control Plans) will be prepared in accordance with the principles of the Traffic Control at Work Sites manual (Transport for NSW, 2022). The Traffic Guidance Schemes primarily show where construction signs will be located at specific locations (such as uncontrolled intersections) along the approved truck routes to warn other road users of the increase in construction vehicle movements. TGS plans have already been prepared and approved for Stage 1 and Stage 2 early works, these will be modified as necessary for Stage 2 as required for Construction Certification.

Access to the neighbouring sites by emergency vehicles would not be affected by the works, as the road and footpath frontages would be unaffected. Emergency protocols on the site would include a requirement for site personnel to assist with emergency access from the street. All truck movements to the site and/or incident point would be suspended and cleared.

8.6 Construction Staff Parking

It is anticipated that there could be, on average, up to 200 workers on-site at any given time during construction activities, with up to a maximum of 300 workers on-site during peak activities.

Given the close proximity to Gosford Station and availability of well-connected bus services, it is expected that the majority of the staff/ workers would travel via public transport to the site.

During site inductions, workers will be encouraged to use public transport to access the site and informed of their public transport options. Appropriate arrangements will be made for any equipment/ tool storage and drop-off requirements.

⁷ SSD-76788277 Proposed Mixed-Use Development, Central Coast Quarter – 26-30 Mann Street, Gosford Early Works Construction Pedestrian and Traffic Management Plan, 11 December 2024, Varga Traffic Planning Pty Ltd

Any construction worker arrivals and departures by vehicle would be outside of road network peak hours (i.e. before the AM and PM network peaks) and, as such, are unlikely to impact the surrounding road network peak hours.

8.7 Heavy Vehicle Traffic Generation

Construction vehicles generated by the site would generally include vehicles up to 19-metre semi-trailers. On average, there are expected to be approximately 10-12 trucks (20-24 movements) per day.

It is expected that the peak construction vehicle activity will result in up to 35 trucks (70 two-way movements) in and out of the site per day. Conservatively assuming 20 per cent of the daily generation arriving within the network peak periods, approximately 14 of these two-way movements are assumed to coincide with the network peak hour.

8.8 Heavy Vehicle Access Routes

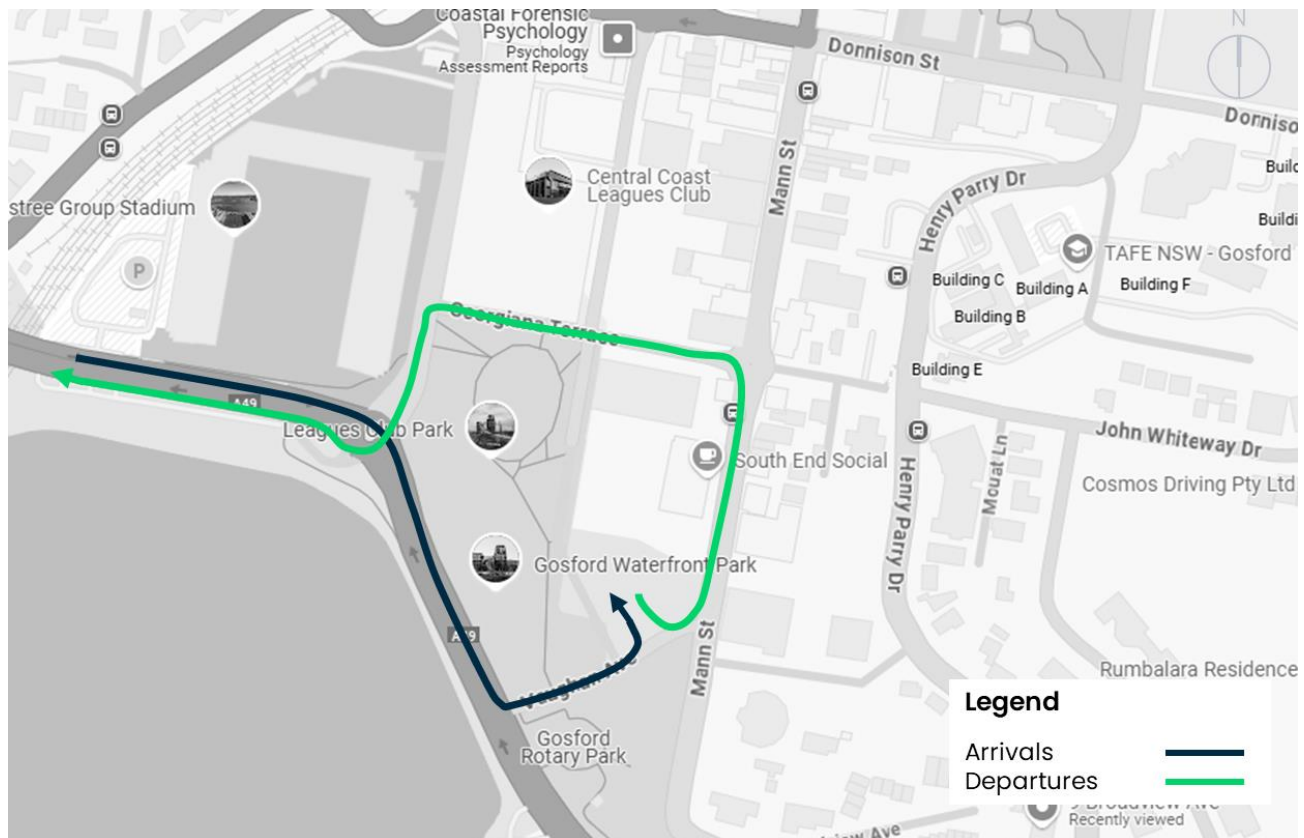
Heavy vehicle movements would be restricted to designated routes and confined to the arterial road network wherever feasible. Truck routes to/ from the site have been identified with the aim of providing the most direct routes to/ from the site as well as minimising the impact of heavy vehicles on local roads.

It is anticipated that construction vehicles will approach the site via the M1 through the Gosford Interchange and the State Road network (Central Coast Highway) to Vaughan Avenue. It is noted that vehicles must turn left into Vaughan Avenue from Central Coast Highway, given the centre median island at this intersection removes all right turns.

To depart the site, construction vehicles will turn left out of the site onto Vaughan Avenue and use an anticlockwise route to return back to the State Road network via Mann Street, Georgiana Terrace and Dane Drive.

Truck drivers will be advised of these designated truck routes to/ from the site as outlined in Figure 12 during induction.

Figure 12 Proposed Construction Vehicle Routes



Basemap Source: Google Maps

8.9 Swept Paths

The swept path analysis will be prepared as part of the detailed CTMP once a builder has been engaged. It is noted that the TIA report for Stage 1 (Northern Tower) of the Central Coast Quarter site previously assessed the swept paths of a 19-metre AV and truck-and-dog on the surrounding intersections. It showed that most intersections can accommodate the design trucks, with only one intersection potentially requiring traffic control.

8.10 Pedestrian and Cyclist Access

Overall, it is not expected that pedestrians or cyclists would be impacted by the construction works, with the exception of the public domain works, where footpath works may be occurring. Pedestrian movements will be maintained through the provision of a mixture of Class A and Class B hoardings along the perimeter of the site. B-Class hoarding will be installed over the Mann Street site footpath, allowing the footpath to remain open to pedestrians at all times.

Alternative pedestrian routes would be established to divert pedestrians/ cyclists to use alternative footpaths on the other side of the road if and as required.

8.11 Future CTMP Requirements

This preliminary CTMP should be used to develop a more detailed CTMP. The detailed CTMP should be completed by a qualified traffic consultant prior to any construction works commencing.

This detailed CTMP should include the following information:

- Description of construction activities and duration
- Approved construction work hours
- Detailed assessment of construction traffic impacts including any cumulative impacts
- Swept path analysis of heavy vehicle access to the site and works zone
- Detailed assessment of on-street parking impacts
- Emergency vehicle access and impacts to public transport services
- Traffic Guidance Scheme(s)
- Contact details of key project personnel.

9 Preliminary Green Travel Plan

Transport is integral to how residents connect with their neighbourhoods, workplaces and services, yet it also carries economic, health and environmental impacts.

For residential developments, integrating a mix of travel options, with a strong emphasis on walking, cycling and public transport, not only supports environmental goals but also enhances community wellbeing and long-term economic vitality. These choices foster healthier lifestyles, reduce congestion, and strengthen the sense of place.

While high-quality physical infrastructure is an important step, it is only part of the solution. Embedding a Green Travel Plan (GTP) into the development strategy ensures that transport infrastructure, services and policies, both within the site and in its surrounding context are designed around residents' needs and coordinated to deliver the most sustainable outcomes possible. This approach aligns with broader urban planning objectives and helps create communities that are resilient, connected and future-ready.

9.1 Purpose

A Green Travel Plan (GTP) is a coordinated set of measures designed to promote sustainable travel choices and reduce reliance on private cars. In the context of residential development, it is not about being 'anti-car' but about enabling residents to meet their daily needs in ways that are more sustainable, convenient and aligned with community aspirations.

A well-designed GTP combines measures that discourage unnecessary car use with initiatives that actively support walking, cycling, public transport and other low-impact modes of travel. These can include both 'sticks', such as parking management and 'carrots', such as improved pedestrian links, cycling facilities, and public transport incentives.

For residents, a GTP provides genuine choice in how they travel to and from their homes, making sustainable options more attractive and practical. This approach not only reduces environmental impacts but also supports healthier lifestyles, strengthens local connections, and contributes to the overall liveability of the development.

Given the range of non-car transport options already available in and around the site, implementing a GTP would be a valuable step in achieving the proposal's goal of reducing private car use while enhancing accessibility and community wellbeing.

9.2 Key Principles

The aim of the GTP is to create better, more sustainable transport arrangements for residents living within the development. By embedding these measures into the planning and operation of the site, the GTP supports a community that is well-connected, healthy and environmentally responsible.

Key objectives of the GTP in a residential context are to:

- encourage walking as a safe, convenient and enjoyable way to access local destinations
- promote cycling through high-quality infrastructure and facilities
- increase the use of public transport by improving access and service awareness
- reduce reliance on private cars, particularly single-occupancy trips
- where car use is necessary, promote more efficient and shared travel options

Through these objectives, the GTP is designed to deliver tangible benefits for residents and the broader community, including:

- achieving higher public and active transport mode share targets
- reducing greenhouse gas emissions and minimising the development's carbon footprint

- supporting healthier lifestyles and active living
- improving social equity by ensuring transport options are accessible to all
- building awareness and knowledge around sustainable travel choices

This approach aligns with Urban Property Group's commitment to shaping places that are liveable, inclusive and future-ready, ensuring the transport network within the development contributes positively to both environmental outcomes and community wellbeing

9.3 Travel Demand Management

Examples of travel demand management measures and initiatives which could be implemented at Central Coast Quarter to encourage a shift to sustainable transport modes include:

- Inclusion of supporting infrastructure such as end-of-trip facilities (showers, changing rooms and lockers) and bicycle parking for staff of the retail and hotel, including highly visible bicycle racks for visitors.
- Improvements to the 'last mile' pedestrian and cycle access: direct routes, clear signage, suitable lighting, accessible to all users, clear of obstructions, safe and secure.
- A small reduction in car parking supply to make driving less attractive for staff and visitors.
- Future-proofing the car park design to include some level of Electric Vehicle capable parking spaces.
- Providing information about travel choices (for example, a Travel Access Guide contained within a 'Welcome Pack' or on a website).
- Wayfinding signage to the closest public transport stops.
- Social/ behavioural marketing campaigns (for example, promoting state and national sustainable events such as 'Walk to Work' day and 'Ride to Work' day).
- Promote bicycle share schemes.
- Providing on site bicycle workshop to encourage residents and staff to use bicycles for their short trips.
- Providing a regular newsletter to all residents and staff bringing the latest news on sustainable travel initiatives in the area.
- Review condition of footpaths onsite around the site, if required, upgrade footpaths to meet residents', staff and visitors' needs. Negotiate with Central Coast Council for improvements to footpaths used by residents, staff, visitors.
- Encouraging promotional campaigns and a framework for the implementation, monitoring and communication of the Green Travel Plan.
- Provide free Opal Cards with \$10 balance for the initial occupation of the dwellings so that residents would be encouraged to make public transport their modal choice from the day they moved into their new dwelling.

It is noted there are no car share companies currently in Gosford, however this may change in the future.

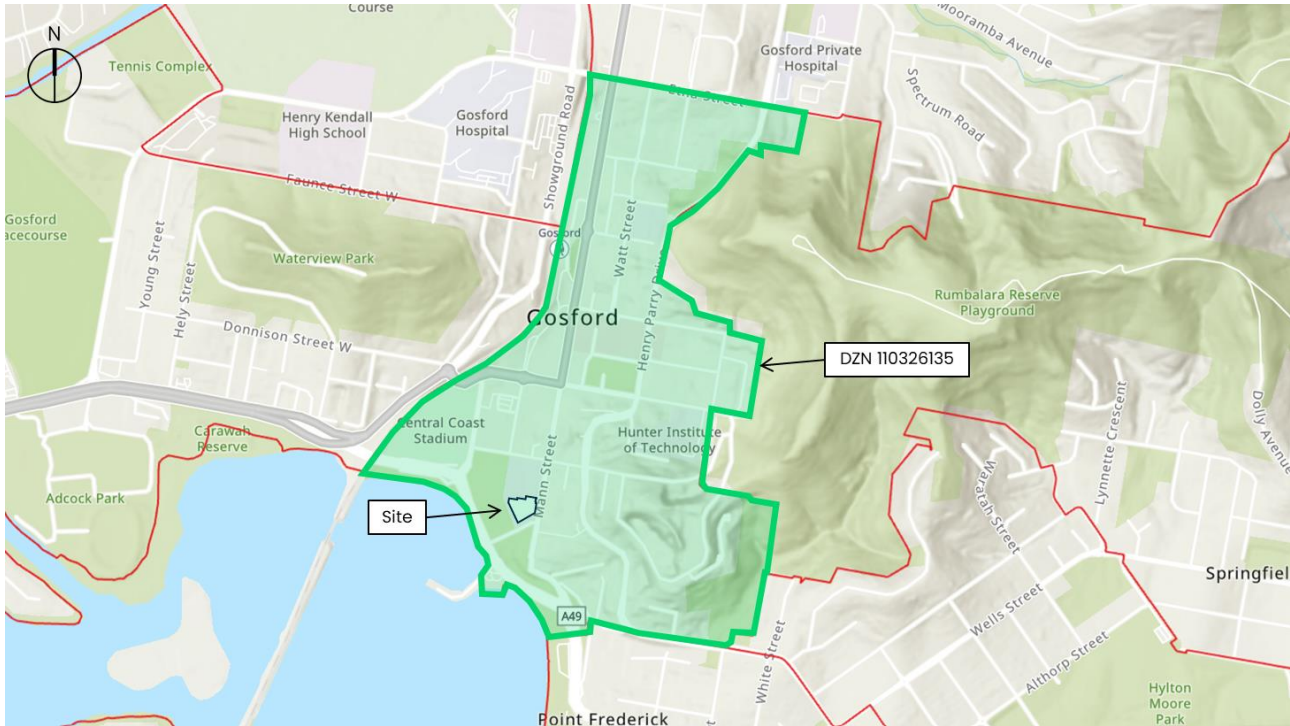
9.4 Existing Travel Behaviour

9.4.1 Place of Work

2016 Census data from the Australian Bureau of Statistics (**ABS**) has been used to determine travel mode share for those travelling into Gosford as a Place of Work. It is noted that 2016 Census data has been used for this assessment as the 2021 Census occurred during strict COVID-19 lockdown restrictions in NSW and is not considered representative of typical travel patterns.

The subject site is located in Destination Zone (**DZN**) 110326135 as shown in Figure 13.

Figure 13 Location of DZN 110326135



Source: ABS Maps

The Census data shown in Table 23 shows that the predominant mode of travel for workers in Gosford is by private car, with 83 per cent driving themselves to work and an additional four per cent being a passenger in a private car. The public transport mode share was approximately seven per cent and walking only two per cent.

The data also shows that there are very few Gosford workers who cycle to work (if any).

Table 23 Travel Mode Share for Workers Travelling to Gosford

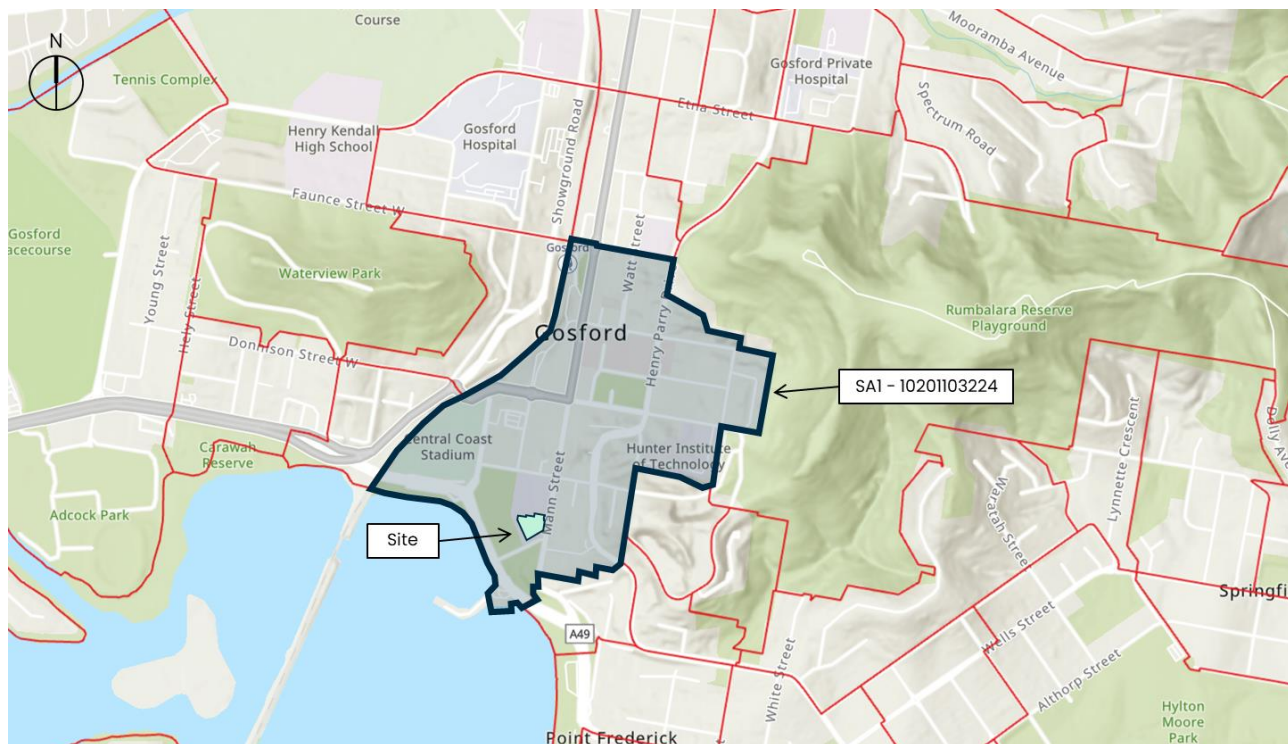
Transport Mode	Mode Share
Car (as driver)	83%
Train	5%
Car (as passenger)	4%
Bus	2%
Walk	2%
Other	2%
Motorcycle/ scooter	1%
Bicycle	0%

Source: ABS Table Builder

9.4.2 Place of Usual Residence

2016 Census data from the ABS has also been used to determine travel mode share for those travelling from Gosford as their usual Place of Residence. The subject site is located in the Statistical Area Level 1 (SA1) zone of 10201103224. This is shown in Figure 14.

Figure 14 Location of SAI Zone 10201103224



Source: ABS Maps

The Census data shown in Table 24 shows that the predominant mode of travel to work for residents living in Gosford is by private car, with 59 per cent driving themselves to work and an additional six per cent being a passenger in a private car. The public transport mode share was approximately 22 per cent and walking was around 11 per cent, indicating that Gosford residents have a strong uptake of sustainable modes of transport to work.

However the data also shows that there are very few Gosford residents who cycle to work (if any).

Table 24 Travel Mode Share for Workers Living in Gosford

Transport Mode	Mode Share
Car (as driver)	59%
Train	18%
Walk	11%
Car (as passenger)	6%
Bus	4%
Other	2%
Bicycle	0%

Source: ABS Table Builder

9.5 Mode Share Target

Considering the proximity of the site to frequent public transport and attractive active transport facilities, an aspirational mode change between 5 and 10 percent from car to public and active transport for staff and residents should be achievable. This location is very walkable so most errands can be accomplished on foot.

9.6 Travel Access Guide (TAG)

A Travel Access Guide (TAG) is a practical tool that helps residents, visitors and staff understand how to reach the site using sustainable transport options such as walking, cycling and public transport. In a residential development context, a TAG supports community connectivity by making it easy for people to choose active and low-impact travel modes.

The guide is typically presented visually as a map or digital app showing the site's location in relation to nearby public transport stops, pedestrian links and cycle routes. It highlights key connections to local amenities, transport hubs and recreational areas, making sustainable travel both accessible and appealing.

A TAG can be distributed in welcome packs for new residents, provided to visitors, or integrated into digital platforms and community communications. In some cases, it may also be printed on development marketing materials or community newsletters. By making sustainable travel information clear and visible, a TAG helps embed active and public transport use into everyday life, supporting the long-term liveability and environmental performance of the neighbourhood.

9.7 Information and Communication

There are multiple opportunities to provide residents, visitors and service providers with clear, accessible information about nearby transport options. Making this information readily available supports journey planning, increases awareness of convenient and affordable travel choices, and encourages shifts towards more sustainable modes of transport.

For example, Transport for NSW offers comprehensive bus, train and ferry route maps, timetables and journey planning tools through its Transport Info website: <http://www.transportnsw.info>. Linking residents and visitors to these resources, whether through welcome packs, community newsletters, or digital platforms this can make public and active transport options more visible and easier to use.

In addition, using community social media channels or resident portals can provide a space to share transport updates, pilot new initiatives, or create informal networks such as travel-buddy programs. These platforms can help foster a culture of shared, sustainable travel within the neighbourhood, strengthening connections between residents and supporting the long-term liveability of the development.

9.8 GTP Monitoring

There is no single standard approach to monitoring a GTP, but regular review is essential to ensure it is delivering the intended benefits and remains responsive to the needs of the community. In a residential development context, this process helps maintain momentum, supports ongoing behaviour change, and ensures transport initiatives continue to align with sustainability and liveability objectives.

It is recommended that the GTP be monitored annually through resident and visitor travel surveys. These surveys will identify which initiatives are most effective, and highlight where measures could be refined or replaced to achieve better results. Understanding the reasons behind people's travel choices – including any barriers to change and their willingness to adopt new behaviours will be critical to shaping strategies that work in practice.

To ensure successful delivery, a dedicated Travel Plan Coordinator (TPC) should be appointed. In a residential setting, this role could be undertaken by the building or strata manager, providing a clear point of responsibility for implementing initiatives, engaging with residents, and tracking progress over time.

By embedding structured monitoring and a dedicated coordinator role, the GTP can remain dynamic and adaptable supporting the long-term sustainability, connectivity and liveability of the neighbourhood.

9.9 Summary

The proposed development has the opportunity to design and implement a GTP that actively encourages greater use of sustainable transport modes among residents, visitors and service providers. While it is not possible at this stage to predict the exact measures that will be achievable once the development is

complete, the outlined travel demand management strategies and monitoring approach provide a clear framework for delivering a responsive and effective GTP.

In a residential context, this framework will allow the GTP to evolve alongside the community, adapting to changing needs, transport networks and lifestyle patterns. By embedding sustainable travel initiatives from the outset, the development can foster long-term behaviour change, reduce reliance on private vehicles, and enhance the overall liveability and environmental performance of the neighbourhood.

10 Conclusion

Based on the analysis and assessment presented in this report, the following conclusions are made:

- The existing site is well connected to pedestrian paths, pedestrian crossing infrastructure and bus stops and located a 10 minute walk from the Gosford Train Station.
- The Stage 2 development generates a car parking requirement of between 580–703 spaces, with at least four per cent of these spaces designated as accessible parking spaces.
- The proposed supply of 473 car parking spaces for the Stage 2 development represents a shortfall of parking from the suggested minimum provision. However, this can be supported given the excellent access to both active and public transport, internal trips within the mixed-use development, non-overlapping peak demands for the different uses, and location relative to other retail developments.
- The development proposes 140 secure bicycle parking spaces, 20 visitor bicycle parking spaces and 35 motorcycle parking spaces, opportunities for further spaces within the basement and public domain will progress as part of the design development to comply with the Gosford City Centre DCP requirements.
- The site is expected to generate up to 367 and 315 vehicle movements in the AM peak and PM peak periods, respectively.
- The results of the SIDRA analysis of surrounding intersections are summarised below:
 - A Level of Service (LOS) F was noted at four assessed intersections. This is attributed to existing conditions and/ or the background growth of traffic on the current network and surrounding approved developments and not specifically to the proposed development since the LOS F is noted under the '*without development*' scenarios.
 - The remaining six assessed intersections operate at satisfactory levels under all scenarios.
- As outlined above, intersections operating over capacity are not solely attributed to this development and are a result of cumulative impact from background traffic growth and already approved developments within the Gosford CBD.
- A detailed Construction Traffic Management Plan should be prepared for the development prior to the commencement of construction.
- A detailed Green Travel Plan should be prepared for the development prior to the development opening.

Overall, the proposed development can be supported from a traffic and transport perspective.

Disclaimer

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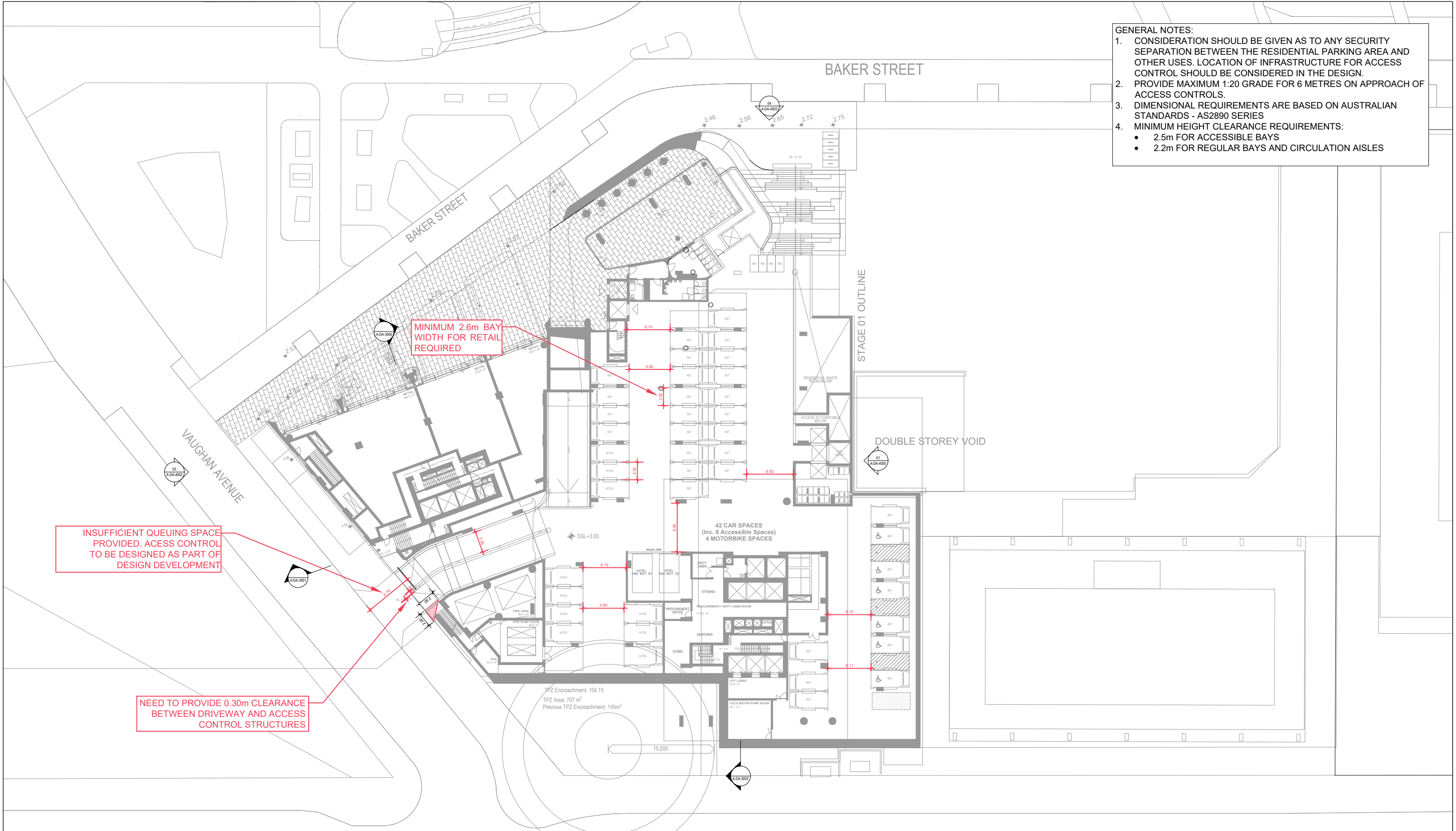
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Appendix A Plans – Parking and Access

- GENERAL NOTES:
1. CONSIDERATION SHOULD BE GIVEN AS TO ANY SECURITY SEPARATION BETWEEN THE RESIDENTIAL PARKING AREA AND OTHER USES. LOCATION OF INFRASTRUCTURE FOR ACCESS CONTROL SHOULD BE CONSIDERED IN THE DESIGN.
 2. PROVIDE MAXIMUM 1:20 GRADE FOR 6 METRES ON APPROACH OF ACCESS CONTROLS.
 3. DIMENSIONAL REQUIREMENTS ARE BASED ON AUSTRALIAN STANDARDS - AS2890 SERIES
 4. MINIMUM HEIGHT CLEARANCE REQUIREMENTS:
 - 2.5m FOR ACCESSIBLE BAYS
 - 2.2m FOR REGULAR BAYS AND CIRCULATION AISLES



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CENTRAL COAST QUARTER STAGE 2 DESIGN REVIEW

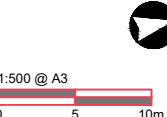
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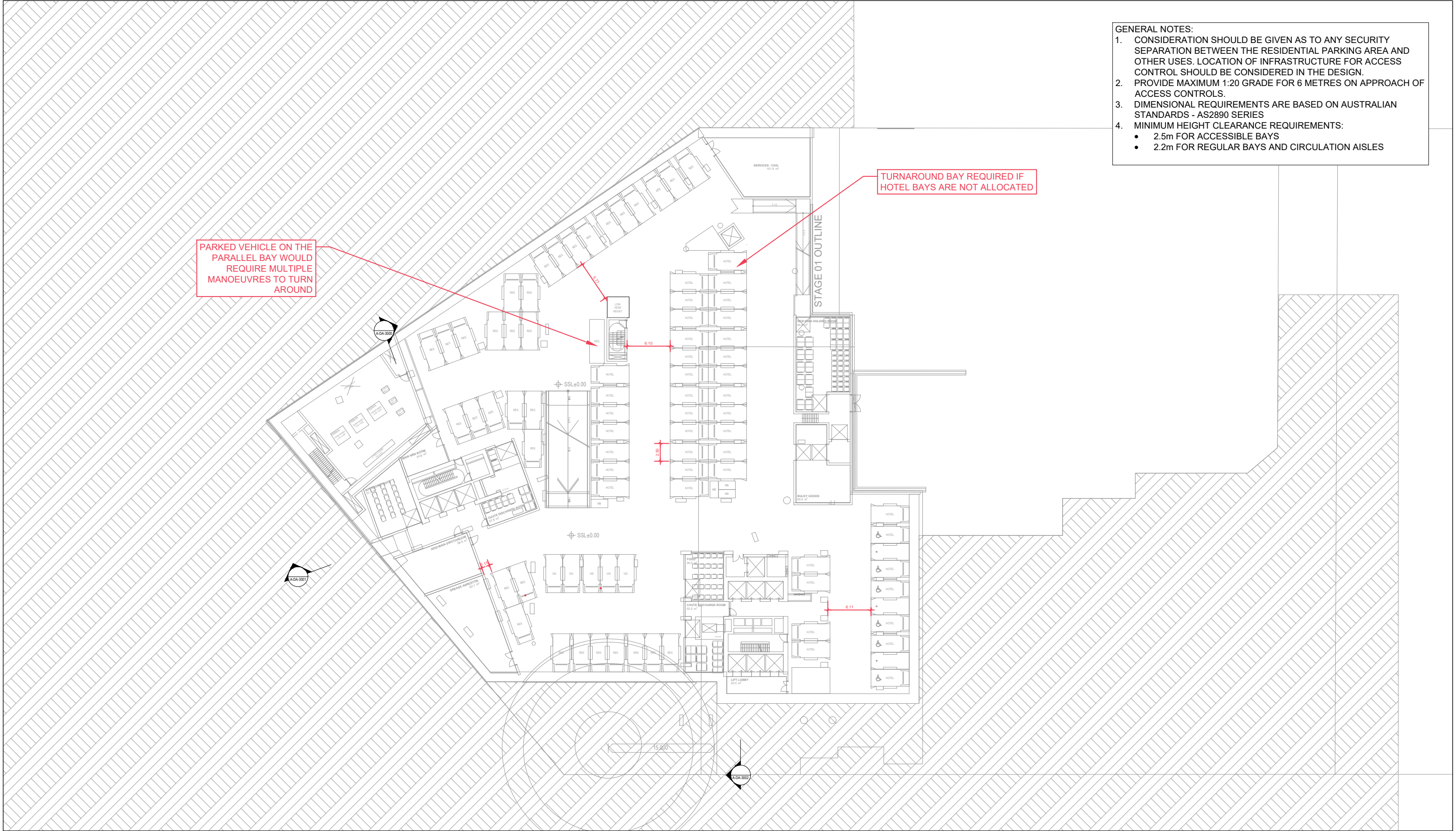
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B	UPDATED	SA	KM	10/02/26
A	DRAFT	SA	KM	13/08/25

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BASEMENT 1

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CENTRAL COAST QUARTER STAGE 2 DESIGN REVIEW

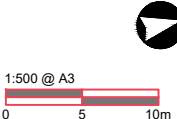
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DATE:	

REV	DESCRIPTION	DWN	CHK	DATE
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B	UPDATED	SA	KM	10/02/26
A	DRAFT	SA	KM	13/08/25

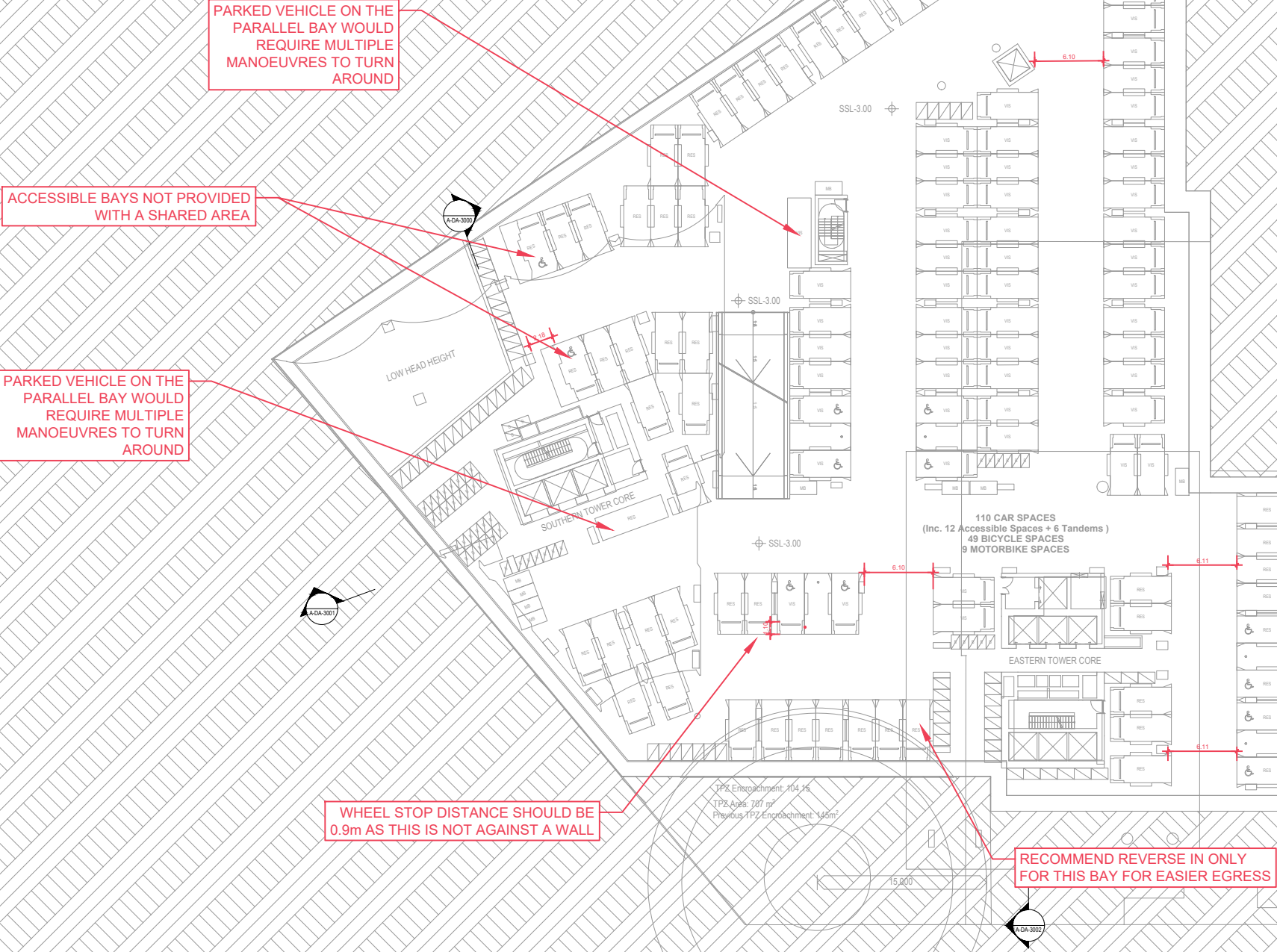
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PROJECT NO.
P0061198
SHEET NO.
02 OF 08
DATE
18/02/26
REVISION
C

- GENERAL NOTES:
1. CONSIDERATION SHOULD BE GIVEN AS TO ANY SECURITY SEPARATION BETWEEN THE RESIDENTIAL PARKING AREA AND OTHER USES. LOCATION OF INFRASTRUCTURE FOR ACCESS CONTROL SHOULD BE CONSIDERED IN THE DESIGN.
 2. PROVIDE MAXIMUM 1:20 GRADE FOR 6 METRES ON APPROACH OF ACCESS CONTROLS.
 3. DIMENSIONAL REQUIREMENTS ARE BASED ON AUSTRALIAN STANDARDS - AS2890 SERIES
 4. MINIMUM HEIGHT CLEARANCE REQUIREMENTS:
 - 2.5m FOR ACCESSIBLE BAYS
 - 2.2m FOR REGULAR BAYS AND CIRCULATION AISLES



BASEMENT 2

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CENTRAL COAST QUARTER STAGE 2
DESIGN REVIEW

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DWG NAME: SD 10 01 TO 10 03 REV 03
DATE: 16/12/2025

NEARMAP IMAGE
DATE:

REV	DESCRIPTION	DWN	CHK	DATE
C	SSDA DRAWINGS	SA	KM	18/02/26
B	UPDATED	SA	KM	10/02/26
A	DRAFT	SA	KM	13/08/25

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1:500 @ A3
0 5 10m

PROJECT NO.
P0061198

SHEET NO.
03 OF 08

DATE
18/02/26

REVISION
C

- GENERAL NOTES:
1. CONSIDERATION SHOULD BE GIVEN AS TO ANY SECURITY SEPARATION BETWEEN THE RESIDENTIAL PARKING AREA AND OTHER USES. LOCATION OF INFRASTRUCTURE FOR ACCESS CONTROL SHOULD BE CONSIDERED IN THE DESIGN.
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 4. MINIMUM HEIGHT CLEARANCE REQUIREMENTS:
 - 2.5m FOR ACCESSIBLE BAYS
 - 2.2m FOR REGULAR BAYS AND CIRCULATION AISLES

PARKED VEHICLE ON THE PARALLEL BAY WOULD REQUIRE MULTIPLE MANOEUVRES TO TURN AROUND

ACCESSIBLE BAYS NOT PROVIDED WITH A SHARED AREA TO SATISFY THE REQUIREMENTS OF AS2890.6 FOR ACCESSIBLE PARKING. IF THESE SPACES ARE BASED ON AS4299-1995, THE REQUIRED DIMENSIONS ARE 3.8m x 6.0m. ACCESS CONSULTANT TO CONFIRM SUITABILITY OF THESE SPACES FOR ADAPTABLE UNITS

PARKED VEHICLE ON THE PARALLEL BAY WOULD REQUIRE MULTIPLE MANOEUVRES TO TURN AROUND

RECOMMEND REVERSE IN ONLY FOR THIS BAY FOR EASIER EGRESS

BASEMENT 3

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CENTRAL COAST QUARTER STAGE 2
DESIGN REVIEW

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ARCHITECTURAL DRAWING REF
DWG NAME: SD 10 01 TO 10 03 REV 03
DATE: 16/12/2025

NEARMAP IMAGE
DATE:

C	SSDA DRAWINGS
B	UPDATED
A	DRAFT
REV	DESCRIPTION

SA	KM	18/02/26
SA	KM	10/02/26
SA	KM	13/08/25
DWN	CHK	DATE

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1:500 @ A3
0 5 10m

PROJECT NO.
P0061198
SHEET NO.
04 OF 08
DATE
18/02/26
REVISION
C

- GENERAL NOTES:
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PARKED VEHICLE ON THE PARALLEL BAY WOULD REQUIRE MULTIPLE MANOEUVRES TO TURN AROUND

CONFIRM THAT SUFFICIENT VERTICAL CLEARANCE IS AVAILABLE ON THESE TWO BAYS UNDER THE RAMP

SOUTHERN TOWER CORE

122 CAR SPACES
(Inc. 6 Accessible Spaces + 7 Tandems)
45 BICYCLE SPACES
9 MOTORBIKE SPACES

EASTERN TOWER CORE

BASEMENT 4

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CENTRAL COAST QUARTER STAGE 2
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ARCHITECTURAL DRAWING REF
DWG NAME: SD 10 01 TO 10 03 REV 03
DATE: 16/12/2025

NEARMAP IMAGE
DATE:

C	SSDA DRAWINGS
B	UPDATED
A	DRAFT
REV	DESCRIPTION

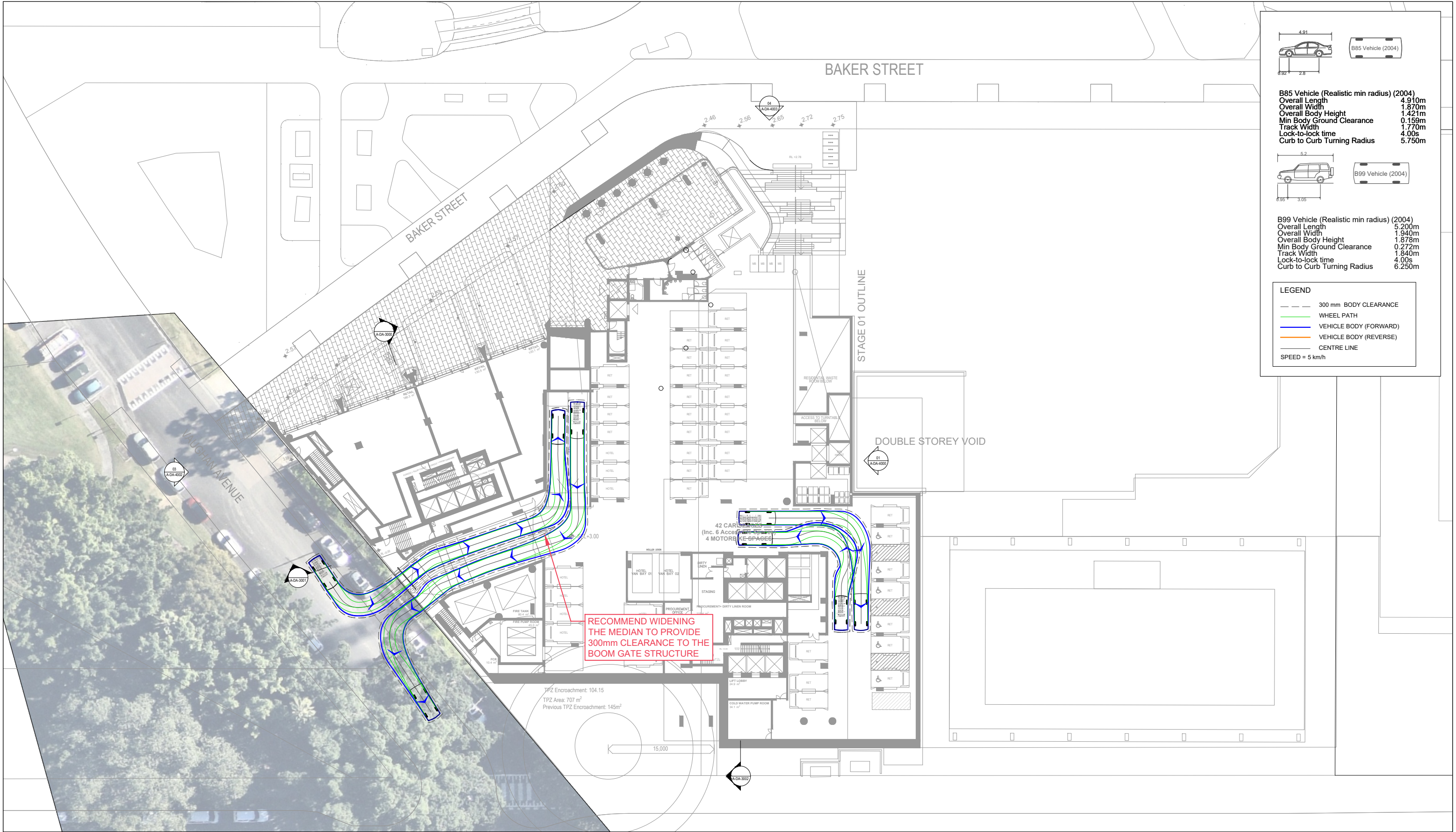
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SA	KM	10/02/26
SA	KM	13/08/25
DWN	CHK	DATE

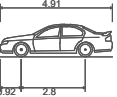
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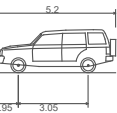
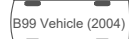
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1:500 @ A3
0 5 10m

PROJECT NO.
P0061198
SHEET NO.
05 OF 08
DATE
18/02/26
REVISION
C



	
B85 Vehicle (Realistic min radius) (2004)	
Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5.750m

	
B99 Vehicle (Realistic min radius) (2004)	
Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	1.878m
Min Body Ground Clearance	0.272m
Track Width	1.840m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.250m

LEGEND

- 300 mm BODY CLEARANCE
- WHEEL PATH
- VEHICLE BODY (FORWARD)
- VEHICLE BODY (REVERSE)
- CENTRE LINE

SPEED = 5 km/h

GROUND LEVEL

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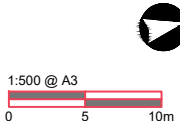
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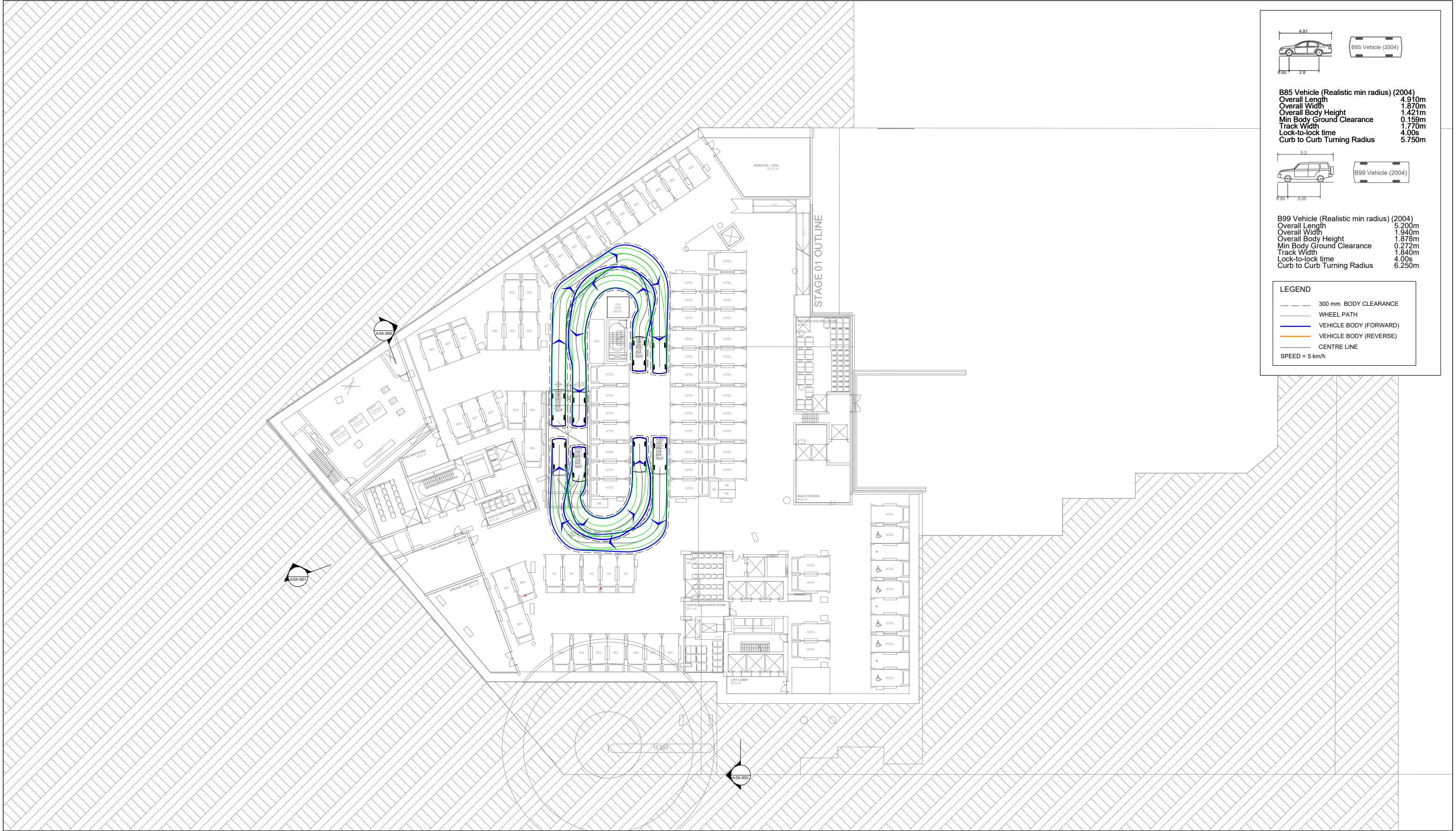
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C	SSDA DRAWINGS	SA	KM	18/02/26
B	UPDATED	SA	KM	10/02/26
A	DRAFT	SA	KM	13/08/25
DWN/CHK		DATE		

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BASEMENT 1

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CENTRAL COAST QUARTER STAGE 2 SWEPT PATHS

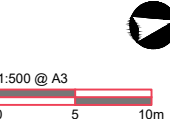
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ARCHITECTURAL DRAWING REF	
DWG NAME: SD 10 04 REV 03	
DATE: 16/12/2025	
NEARMAP IMAGE	
DATE:	

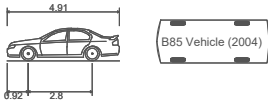
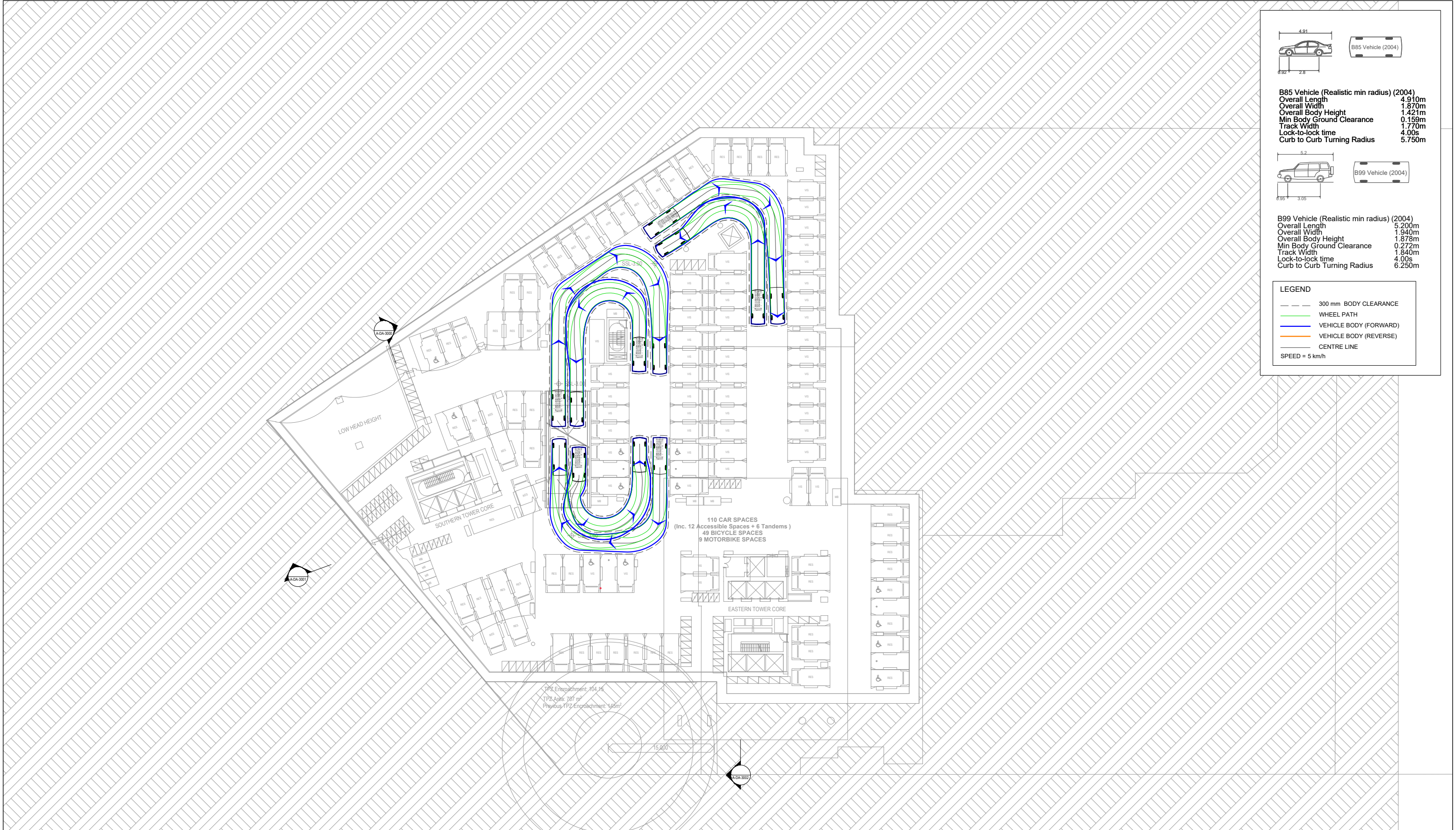
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B	UPDATED	SA	KM	10/02/26
A	DRAFT	SA	KM	13/08/25
DWN		CHK	DATE	

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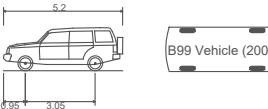
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PROJECT NO.
P0061198
SHEET NO.
07 OF 08
DATE
18/02/26
REVISION
C



B85 Vehicle (Realistic min radius) (2004)
Overall Length 4.910m
Overall Width 1.870m
Overall Body Height 1.421m
Min Body Ground Clearance 0.159m
Track Width 1.770m
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 5.750m



B99 Vehicle (Realistic min radius) (2004)
Overall Length 5.200m
Overall Width 1.940m
Overall Body Height 1.878m
Min Body Ground Clearance 0.272m
Track Width 1.840m
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 6.250m

LEGEND
--- 300 mm BODY CLEARANCE
--- WHEEL PATH
--- VEHICLE BODY (FORWARD)
--- VEHICLE BODY (REVERSE)
--- CENTRE LINE
SPEED = 5 km/h

BASEMENTS 2-4

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CENTRAL COAST QUARTER STAGE 2 SWEEP PATHS

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ARCHITECTURAL DRAWING REF
DWG NAME: SD 10 01 TO 10 03 REV 03
DATE: 16/12/2025

NEARMAP IMAGE
DATE:

C	SSDA DRAWINGS
B	UPDATED
A	DRAFT
REV	DESCRIPTION

SA	KM	18/02/26
SA	KM	10/02/26
SA	KM	13/08/25
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1:500 @ A3
0 5 10m

PROJECT NO. P0061198
SHEET NO. 08 OF 08
DATE 18/02/26
REVISION C

Appendix B Traffic Data and Surveys

Gosford IC - Traffic Flows



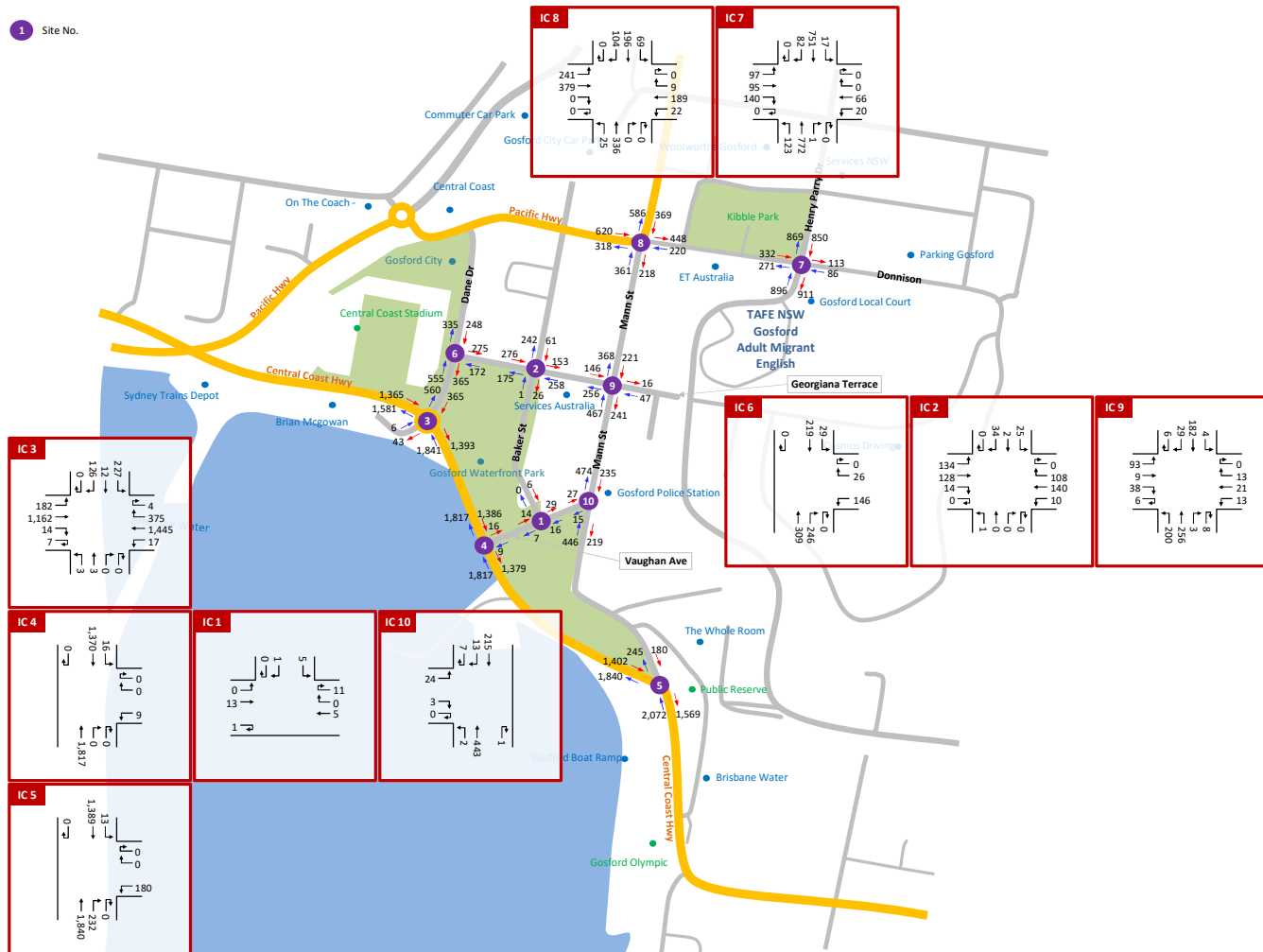
Search By Time and Classification

Day: AM Start Time: 8:00 End Time: 9:00 Classification: All vehicles

Volume Forecasting

0% * 0 = original survey data
(e.g. input 20 for volume increase 20% or -20 for volume decrease 20%)

1 Site No.



Gosford IC - Traffic Flows



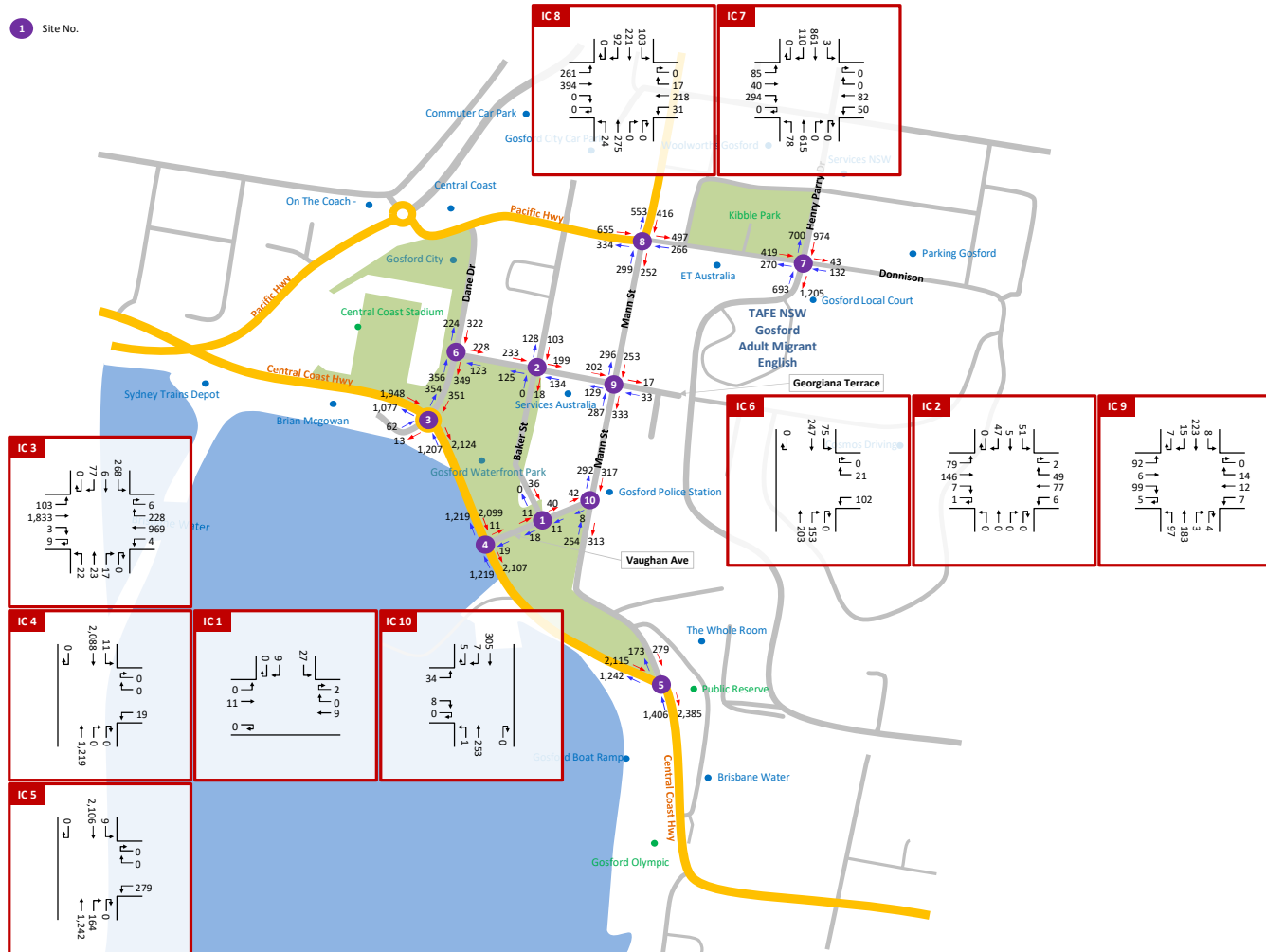
Search By Time and Classification

Day: PM Start Time: 16:30 End Time: 17:30 Classification: All vehicles

Volume Forecasting

0% * 0 = original survey data
(e.g. input 20 for volume increase 20% or -20 for volume decrease 20%)

1 Site No.



Appendix C SIDRA Results

MOVEMENT SUMMARY

 Site: 1 [1. Central Coast Hwy/ Dane Drv - AM (Site Folder: 1_2022 Base - AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101 [EX_AM
(Network Folder: 1_2022 Base)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec			m				km/h
SouthEast: Central Coast Hwy (SE)															
21	L2	All MCs	18	0.0	18	0.0	0.774	6.3	LOS A	11.3	81.6	0.85	0.57	0.86	43.3
22	T1	All MCs	1521	3.7	1521	3.7	0.774	6.9	LOS A	11.9	85.3	0.87	0.58	0.88	47.6
23	R2	All MCs	395	2.4	395	2.4	0.774	11.6	LOS A	11.9	85.3	0.89	0.61	0.93	33.8
23u	U	All MCs	4	0.0	4	0.0	0.774	13.5	LOS A	11.9	85.3	0.89	0.61	0.93	33.8
Approach			1938	3.4	1938	3.4	0.774	7.9	LOS A	11.9	85.3	0.87	0.59	0.89	46.2
NorthEast: Dane Drive (NE)															
24	L2	All MCs	239	1.3	239	1.3	1.003	62.2	LOS E	18.1	128.3	1.00	1.94	3.52	5.1
25	T1	All MCs	13	0.0	13	0.0	1.003	62.1	LOS E	18.1	128.3	1.00	1.94	3.52	20.1
26	R2	All MCs	133	1.6	133	1.6	1.003	66.3	LOS E	18.1	128.3	1.00	1.94	3.52	20.9
Approach			384	1.4	384	1.4	1.003	63.6	LOS E	18.1	128.3	1.00	1.94	3.52	12.5
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	192	1.6	192	1.6	1.005	54.7	LOS D	35.9	262.5	1.00	1.87	3.09	21.8
28	T1	All MCs	1210	6.5	1210	6.5	1.005	54.6	LOS D	35.9	265.6	1.00	1.86	3.07	22.0
29	R2	All MCs	15	0.0	15	0.0	1.005	57.8	LOS E	35.8	265.6	1.00	1.86	3.06	29.9
29u	U	All MCs	7	57.1	7	57.1	1.005	64.2	LOS E	35.8	265.6	1.00	1.86	3.06	30.4
Approach			1424	6.0	1424	6.0	1.005	54.7	LOS D	35.9	265.6	1.00	1.86	3.08	22.2
SouthWest: Dane Drive (SW)															
30	L2	All MCs	3	0.0	3	0.0	0.024	10.8	LOS A	0.1	0.8	0.83	0.84	0.83	45.5
31	T1	All MCs	3	0.0	3	0.0	0.024	10.9	LOS A	0.1	0.8	0.83	0.84	0.83	38.4
32	R2	All MCs	1	0.0	1	0.0	0.024	14.9	LOS B	0.1	0.8	0.83	0.84	0.83	38.4
Approach			7	0.0	7	0.0	0.024	11.4	LOS A	0.1	0.8	0.83	0.84	0.83	42.3
All Vehicles			3753	4.2	3753	4.2	1.005	31.4	LOS C	35.9	265.6	0.93	1.21	1.99	30.0

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

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Organisation: URBIS | Licence: NETWORK / 1PC | Processed: Thursday, 27 March 2025 5:08:26 PM

Project: C:\Users\saralar\Urbis Ltd\P0061198 UPG - Central Coast Quarter Stage 2 - Transport Advisory - General\03_Workspace\01_Analysis
\\Sidra\December 2025 Modelling\P0061198 CCQ Sidra Model 251202 Revised Yields.sip9

MOVEMENT SUMMARY

Site: 2 [2. Georgiana Tce/ Dane Drv - AM (Site Folder: 1_2022 Base - AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [EX_AM (Network Folder: 1_2022 Base)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec							km/h
South: Dane Drive (S)															
2	T1	All MCs	325	2.6	325	2.6	0.358	0.8	LOS A	1.9	13.6	0.37	0.40	0.37	42.9
3	R2	All MCs	259	1.6	258	1.6	0.358	5.8	LOS A	1.9	13.6	0.37	0.40	0.37	31.9
Approach			584	2.2	583	2.2	0.358	3.0	NA	1.9	13.6	0.37	0.40	0.37	40.3
East: Georgiana Tce (E)															
4	L2	All MCs	154	2.1	154	2.1	0.219	4.3	LOS A	0.7	5.1	0.41	0.55	0.41	26.7
6	R2	All MCs	27	3.8	27	3.8	0.219	10.0	LOS A	0.7	5.1	0.41	0.55	0.41	35.4
Approach			181	2.3	181	2.3	0.219	5.2	LOS A	0.7	5.1	0.41	0.55	0.41	29.1
North: Dane Drive (N)															
7	L2	All MCs	31	0.0	31	0.0	0.174	4.6	LOS A	0.0	0.0	0.00	0.06	0.00	48.2
8	T1	All MCs	231	0.9	231	0.9	0.174	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	48.2
Approach			261	0.8	261	0.8	0.174	0.6	NA	0.0	0.0	0.00	0.06	0.00	48.2
All Vehicles			1026	1.8	1025	1.8	0.358	2.8	NA	1.9	13.6	0.28	0.34	0.28	40.1

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

▼ Site: 3 [3. Georgiana Tce/ Baker St - AM (Site Folder: 1_2022 Base - AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101 [EX_AM (Network Folder: 1_2022 Base)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				
			veh/h	%	veh/h	%	v/c	sec							km/h
East: Georgiana Terrace (E)															
4	L2	All MCs	11	0.0	11	0.0	0.226	7.7	LOS A	1.2	8.4	0.26	0.30	0.26	30.7
5	T1	All MCs	147	0.7	147	0.7	0.226	0.4	LOS A	1.2	8.4	0.26	0.30	0.26	30.7
6	R2	All MCs	114	0.0	114	0.0	0.226	5.0	LOS A	1.2	8.4	0.26	0.30	0.26	34.8
Approach			272	0.4	272	0.4	0.226	2.6	NA	1.2	8.4	0.26	0.30	0.26	33.4
North: Baker Street (N)															
7	L2	All MCs	26	0.0	26	0.0	0.080	4.0	LOS A	0.3	2.0	0.41	0.58	0.41	30.9
8	T1	All MCs	2	0.0	2	0.0	0.080	8.5	LOS A	0.3	2.0	0.41	0.58	0.41	30.9
9	R2	All MCs	36	8.8	36	8.8	0.080	7.0	LOS A	0.3	2.0	0.41	0.58	0.41	30.9
Approach			64	4.9	64	4.9	0.080	5.8	LOS A	0.3	2.0	0.41	0.58	0.41	30.9
West: Georgiana Terrace (W)															
10	L2	All MCs	141	1.5	141	1.5	0.206	3.8	LOS A	1.2	8.7	0.20	0.29	0.20	35.3
11	T1	All MCs	135	1.6	135	1.6	0.206	0.4	LOS A	1.2	8.7	0.20	0.29	0.20	31.5
12	R2	All MCs	15	0.0	15	0.0	0.206	6.5	LOS A	1.2	8.7	0.20	0.29	0.20	31.5
Approach			291	1.4	290	1.4	0.206	2.4	NA	1.2	8.7	0.20	0.29	0.20	34.2
All Vehicles			626	1.3	626	1.3	0.226	2.8	NA	1.2	8.7	0.25	0.32	0.25	33.5

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

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Project: C:\Users\saralar\Urbis Ltd\PO061198 UPG - Central Coast Quarter Stage 2 - Transport Advisory - General\03_Workspace\01_Analysis\Sidra\December 2025 Modelling\PO061198 CCQ Sidra Model 251202 Revised Yields.sip9

MOVEMENT SUMMARY

Site: 4 [4. Mann St/ Georgina Tce - AM (Site Folder: 1_2022 Base - AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [EX_AM (Network Folder: 1_2022 Base)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				
			veh/h		veh/h		v/c	sec							km/h
South: Mann Street (S)															
1	L2	All MCs	211	0.5	210	0.5	0.392	3.7	LOS A	3.2	23.5	0.35	0.41	0.35	31.0
2	T1	All MCs	269	8.6	269	8.6	0.392	3.3	LOS A	3.2	23.5	0.35	0.41	0.35	31.0
3	R2	All MCs	3	0.0	3	0.0	0.392	6.0	LOS A	3.2	23.5	0.35	0.41	0.35	31.7
3u	U	All MCs	8	0.0	8	0.0	0.392	7.2	LOS A	3.2	23.5	0.35	0.41	0.35	31.0
Approach			492	4.9	491	4.9	0.392	3.6	LOS A	3.2	23.5	0.35	0.41	0.35	31.0
East: Georgiana Terrace (E)															
4	L2	All MCs	14	0.0	14	0.0	0.053	5.0	LOS A	0.3	2.2	0.49	0.53	0.49	24.4
5	T1	All MCs	22	0.0	22	0.0	0.053	4.5	LOS A	0.3	2.2	0.49	0.53	0.49	24.4
6	R2	All MCs	14	0.0	14	0.0	0.053	7.3	LOS A	0.3	2.2	0.49	0.53	0.49	24.4
Approach			49	0.0	49	0.0	0.053	5.4	LOS A	0.3	2.2	0.49	0.53	0.49	24.4
North: Mann Street (N)															
7	L2	All MCs	4	0.0	4	0.0	0.196	3.5	LOS A	1.1	8.4	0.23	0.42	0.23	33.5
8	T1	All MCs	192	12.1	192	12.1	0.196	3.2	LOS A	1.1	8.4	0.23	0.42	0.23	33.2
9	R2	All MCs	31	0.0	31	0.0	0.196	5.8	LOS A	1.1	8.4	0.23	0.42	0.23	33.2
9u	U	All MCs	6	0.0	6	0.0	0.196	7.0	LOS A	1.1	8.4	0.23	0.42	0.23	33.2
Approach			233	10.0	233	10.0	0.196	3.6	LOS A	1.1	8.4	0.23	0.42	0.23	33.2
West: Georgiana Terrace (W)															
10	L2	All MCs	98	1.1	98	1.1	0.165	5.1	LOS A	0.9	6.4	0.50	0.58	0.50	24.8
11	T1	All MCs	9	11.1	9	11.1	0.165	4.8	LOS A	0.9	6.4	0.50	0.58	0.50	28.7
12	R2	All MCs	40	0.0	40	0.0	0.165	7.3	LOS A	0.9	6.4	0.50	0.58	0.50	24.8
12u	U	All MCs	6	0.0	6	0.0	0.165	8.4	LOS A	0.9	6.4	0.50	0.58	0.50	24.8
Approach			154	1.4	153	1.4	0.165	5.8	LOS A	0.9	6.4	0.50	0.58	0.50	25.1
All Vehicles			927	5.3	927	5.3	0.392	4.0	LOS A	3.2	23.5	0.35	0.45	0.35	30.6

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Mann Street											
P1	Full	43	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
East: Donnison Street											
P2	Full	43	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
North: Mann Street											

P3 Full	9	34.2	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
West: Pacific Highway										
P4 Full	23	34.3	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
All Pedestrians	119	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

 Site: 6 [6. Henry Parry Drive/ Donnison Street - AM (Site Folder: 1_2022 Base - AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101 [EX_AM (Network Folder: 1_2022 Base)]

Site Category: NA

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 110 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				
South: Henry Parry Drive (S)															
1	L2	All MCs	129	0.8	129	0.8	0.866	54.4	LOS D	37.2	263.3	0.94	0.98	1.04	24.4
2	T1	All MCs	814	1.3	814	1.3	* 0.866	51.2	LOS D	37.2	263.3	0.83	0.84	0.90	34.8
Approach			943	1.2	943	1.2	0.866	51.7	LOS D	37.2	263.3	0.84	0.86	0.92	28.5
East: Donnison Street (E)															
4	L2	All MCs	21	0.0	21	0.0	0.078	50.2	LOS D	1.0	6.9	0.89	0.70	0.89	25.2
5	T1	All MCs	69	0.0	69	0.0	* 0.245	47.0	LOS D	3.4	23.6	0.93	0.73	0.93	12.5
Approach			91	0.0	91	0.0	0.245	47.7	LOS D	3.4	23.6	0.92	0.72	0.92	16.7
North: Henry Parry Drive (N)															
7	L2	All MCs	18	0.0	18	0.0	0.464	14.1	LOS A	14.6	103.9	0.52	0.48	0.52	40.9
8	T1	All MCs	791	2.4	791	2.4	0.774	14.4	LOS A	17.0	122.0	0.67	0.63	0.69	39.3
9	R2	All MCs	86	3.7	86	3.7	* 0.774	103.0	LOS F	17.0	122.0	1.00	0.97	1.08	23.0
Approach			895	2.5	895	2.5	0.774	22.9	LOS B	17.0	122.0	0.70	0.66	0.73	37.9
West: Donnison Street (W)															
10	L2	All MCs	102	0.0	102	0.0	0.347	35.7	LOS C	5.9	41.8	0.88	0.85	0.88	27.0
11	T1	All MCs	100	2.1	100	2.1	0.868	50.8	LOS D	11.9	84.4	0.95	1.01	1.13	17.5
12	R2	All MCs	147	1.4	147	1.4	* 0.868	62.9	LOS E	11.9	84.4	1.00	1.12	1.30	21.8
Approach			349	1.2	349	1.2	0.868	51.5	LOS D	11.9	84.4	0.95	1.01	1.13	22.2
All Vehicles			2278	1.7	2278	1.7	0.868	40.2	LOS C	37.2	263.3	0.81	0.80	0.88	30.4

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Henry Parry Drive (S)											
P1	Full	43	49.3	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
East: Donnison Street (E)											
P2	Full	28	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98

North: Henry Parry Drive (N)											
P3	Full	41	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
West: Donnison Street (W)											
P4	Full	20	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
All Pedestrians		133	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

 Site: 7 [7. Vaughan Ave/ Baker St - AM (Site Folder: 1_2022 Base - AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ ■ Network: N101 [EX_AM
(Network Folder: 1_2022 Base)]

NA
Site Category: NA
Stop (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]					[Veh. veh	Dist]					km/h
			veh/h	%	veh/h	%	v/c	sec							
NorthEast: Vaughan Avenue (NE)															
25	T1	All MCs	17	6.3	17	6.3	0.009	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			17	6.3	17	6.3	0.009	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
NorthWest: Baker Street (N)															
27	L2	All MCs	9	55.6	9	55.6	0.008	0.0	LOS A	0.0	0.3	0.07	0.01	0.07	10.0
29	R2	All MCs	1	0.0	1	0.0	0.008	0.1	LOS A	0.0	0.3	0.07	0.01	0.07	10.0
Approach			11	50.0	11	50.0	0.008	0.1	LOS A	0.0	0.3	0.07	0.01	0.07	10.0
SouthWest: Vaughan Avenue (SW)															
31	T1	All MCs	15	0.0	15	0.0	0.008	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			15	0.0	15	0.0	0.008	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
All Vehicles			42	15.0	42	15.0	0.009	0.0	NA	0.0	0.3	0.02	0.00	0.02	15.8

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

Site: 8 [8. Mann St/ Vaughan Ave - AM (Site Folder: 1_2022 Base - AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [EX_AM (Network Folder: 1_2022 Base)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec							km/h
South: Mann Street (S)															
1b	L3	All MCs	250.0		250.0		0.250	4.4	LOS A	0.0	0.2	0.00	0.00	0.00	40.0
2	T1	All MCs	467	5.0	467	5.0	0.250	0.0	LOS A	0.0	0.2	0.00	0.00	0.00	40.0
Approach			469	5.2	469	5.2	0.250	0.0	NA	0.0	0.2	0.00	0.00	0.00	40.0
North: Mann Street (N)															
8	T1	All MCs	234	10.4	234	10.4	0.140	0.2	LOS A	0.2	1.2	0.08	0.08	0.08	38.7
9a	R1	All MCs	14	0.0	14	0.0	0.140	4.7	LOS A	0.2	1.2	0.08	0.08	0.08	38.7
Approach			247	9.8	247	9.8	0.140	0.5	NA	0.2	1.2	0.08	0.08	0.08	38.7
SouthWest: Vaughan Avenue (SW)															
30a	L1	All MCs	25	4.2	25	4.2	0.033	5.4	LOS A	0.1	0.9	0.49	0.61	0.49	20.7
32b	R3	All MCs	3	33.3	3	33.4	0.033	10.3	LOS A	0.1	0.9	0.49	0.61	0.49	20.7
Approach			28	7.4	28	7.4	0.033	6.0	LOS A	0.1	0.9	0.49	0.61	0.49	20.7
All Vehicles			745	6.8	745	6.8	0.250	0.4	NA	0.2	1.2	0.05	0.05	0.05	39.3

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

 Site: 9 [9. Central Coast Hwy/ Mann St - AM (Site Folder: 1_2022 Base - AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101 [EX_AM (Network Folder: 1_2022 Base)]

NA

Site Category: NA

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

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Central Coast Hwy (S)															
1a	L1	All MCs	1878	3.7	1878	3.7	0.332	10.4	LOS A	19.3	139.5	0.37	0.68	0.37	44.9
2	T1	All MCs	244	9.5	244	9.5	* 0.457	55.2	LOS D	13.9	105.5	0.96	0.80	0.96	21.5
Approach			2122	4.4	2122	4.4	0.457	15.5	LOS B	19.3	139.5	0.43	0.69	0.43	39.9
North: Mann Street (N)															
8	T1	All MCs	188	12.8	187	12.8	0.322	52.6	LOS D	5.3	41.4	0.93	0.73	0.93	25.8
Approach			188	12.8	187	12.8	0.322	52.6	LOS D	5.3	41.4	0.93	0.73	0.93	25.8
NorthWest: Central Coast Hwy (NW)															
27b	L3	All MCs	14	0.0	14	0.0	0.474	8.3	LOS A	17.7	129.2	0.42	0.70	0.42	34.1
29a	R1	All MCs	1462	5.4	1455	5.4	* 0.474	11.7	LOS A	17.8	130.5	0.43	0.70	0.43	45.8
Approach			1476	5.3	1469	5.3	0.474	11.7	LOS A	17.8	130.5	0.43	0.70	0.43	45.8
All Vehicles			3785	5.2	3778	5.2	0.474	15.9	LOS B	19.3	139.5	0.46	0.70	0.46	41.0

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Central Coast Hwy (S)											
P1S	Slip/ Bypass	17	59.2	LOS E	0.1	0.1	0.95	0.95	520.7	600.0	1.15
North: Mann Street (N)											
P3	Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	213.0	200.0	0.94
NorthWest: Central Coast Hwy (NW)											
P71	Stage 1	17	59.2	LOS E	0.1	0.1	0.95	0.95	520.7	600.0	1.15
All Pedestrians		44	59.2	LOS E	0.1	0.1	0.95	0.95	447.5	504.8	1.13

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 10 [10. Central Coast Hwy/ Vaughan St - AM (Site Folder: 1_2022 Base - AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [EX_AM (Network Folder: 1_2022 Base)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec			m				km/h
SouthEast: Central Coast Hwy (SE)															
22	T1	All MCs	1913	3.4	1913	3.4	0.501	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.6
Approach			1913	3.4	1913	3.4	0.501	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.6
NorthEast: Vaughan Avenue (NE)															
24	L2	All MCs	9	11.1	9	11.1	0.043	9.6	LOS A	0.1	0.7	0.64	0.79	0.64	19.0
Approach			9	11.1	9	11.1	0.043	9.6	LOS A	0.1	0.7	0.64	0.79	0.64	19.0
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	17	0.0	17	0.0	0.387	5.6	LOS A	9.8	71.8	0.01	0.01	0.01	59.1
28	T1	All MCs	1442	5.5	1435	5.5	0.387	0.0	LOS A	9.8	71.8	0.00	0.01	0.00	59.4
Approach			1459	5.4	1452	5.4	0.387	0.1	NA	9.8	71.8	0.01	0.01	0.01	59.4
All Vehicles			3381	4.3	3374	4.3	0.501	0.1	NA	9.8	71.8	0.00	0.01	0.00	59.1

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

 Site: 1 [1. Central Coast Hwy/ Dane Drv - PM (Site Folder: 1_2022 Base - PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101 [EX_PM
(Network Folder: 1_2022 Base)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec			m				km/h
SouthEast: Central Coast Hwy (SE)															
21	L2	All MCs	4	0.0	4	0.0	0.446	5.0	LOS A	4.4	31.5	0.42	0.44	0.42	45.1
22	T1	All MCs	989	2.4	989	2.4	0.446	5.1	LOS A	4.4	31.5	0.43	0.46	0.43	49.8
23	R2	All MCs	240	0.9	240	0.9	0.446	9.2	LOS A	4.3	30.6	0.44	0.51	0.44	37.4
23u	U	All MCs	6	0.0	6	0.0	0.446	11.1	LOS A	4.3	30.6	0.44	0.51	0.44	37.4
Approach			1239	2.1	1239	2.1	0.446	6.0	LOS A	4.4	31.5	0.43	0.47	0.43	48.6
NorthEast: Dane Drive (NE)															
24	L2	All MCs	282	0.0	282	0.0	1.097	126.3	LOS F	26.6	186.4	1.00	2.67	5.48	2.6
25	T1	All MCs	6	0.0	6	0.0	1.097	126.4	LOS F	26.6	186.4	1.00	2.67	5.48	12.6
26	R2	All MCs	81	0.0	81	0.0	1.097	130.4	LOS F	26.6	186.4	1.00	2.67	5.48	12.9
Approach			369	0.0	369	0.0	1.097	127.2	LOS F	26.6	186.4	1.00	2.67	5.48	5.4
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	108	1.0	108	1.0	1.105	115.4	LOS F	83.5	590.8	1.00	2.96	5.16	12.9
28	T1	All MCs	1870	1.4	1870	1.4	1.105	115.8	LOS F	85.2	604.0	1.00	2.96	5.17	12.9
29	R2	All MCs	3	0.0	3	0.0	1.105	119.9	LOS F	85.2	604.0	1.00	2.96	5.18	20.0
29u	U	All MCs	9	11.1	9	11.1	1.105	122.7	LOS F	85.2	604.0	1.00	2.96	5.18	20.5
Approach			1991	1.4	1991	1.4	1.105	115.8	LOS F	85.2	604.0	1.00	2.96	5.17	13.0
SouthWest: Dane Drive (SW)															
30	L2	All MCs	23	0.0	23	0.0	0.111	7.1	LOS A	0.4	3.1	0.67	0.79	0.67	47.4
31	T1	All MCs	24	0.0	24	0.0	0.111	7.1	LOS A	0.4	3.1	0.67	0.79	0.67	41.1
32	R2	All MCs	18	0.0	18	0.0	0.111	11.1	LOS A	0.4	3.1	0.67	0.79	0.67	41.1
Approach			65	0.0	65	0.0	0.111	8.2	LOS A	0.4	3.1	0.67	0.79	0.67	44.1
All Vehicles			3666	1.5	3665	1.5	1.105	77.9	LOS F	85.2	604.0	0.80	2.05	3.52	17.3

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

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Project: C:\Users\saralar\Urbis Ltd\P0061198 UPG - Central Coast Quarter Stage 2 - Transport Advisory - General\03_Workspace\01_Analysis
\\Sidra\December 2025 Modelling\P0061198 CCQ Sidra Model 251202 Revised Yields.sip9

MOVEMENT SUMMARY

Site: 2 [2. Georgiana Tce/ Dane Drv - PM (Site Folder: 1_2022 Base - PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [EX_PM (Network Folder: 1_2022 Base)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Dane Drive (S)															
2	T1	All MCs	214	1.5	208	1.5	0.230	1.0	LOS A	1.1	7.9	0.38	0.42	0.38	42.9
3	R2	All MCs	161	0.7	157	0.7	0.230	6.0	LOS A	1.1	7.9	0.38	0.42	0.38	32.0
Approach			375	1.1	364	1.1	0.230	3.1	NA	1.1	7.9	0.38	0.42	0.38	40.4
East: Georgiana Tce (E)															
4	L2	All MCs	107	0.0	107	0.0	0.211	4.4	LOS A	0.5	3.4	0.41	0.56	0.41	26.8
6	R2	All MCs	22	0.0	22	0.0	0.211	7.3	LOS A	0.5	3.4	0.41	0.56	0.41	35.6
Approach			129	0.0	129	0.0	0.211	4.9	LOS A	0.5	3.4	0.41	0.56	0.41	29.5
North: Dane Drive (N)															
7	L2	All MCs	79	0.0	79	0.0	0.310	4.6	LOS A	0.0	0.0	0.00	0.13	0.00	46.6
8	T1	All MCs	260	0.0	260	0.0	0.310	0.1	LOS A	0.0	0.0	0.00	0.13	0.00	46.6
Approach			339	0.0	339	0.0	0.310	1.1	NA	0.0	0.0	0.00	0.13	0.00	46.6
All Vehicles			843	0.5	832	0.5	0.310	2.6	NA	1.1	7.9	0.23	0.32	0.23	41.0

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

Site: 3 [3. Georgiana Tce/ Baker St - PM (Site Folder: 1_2022 Base - PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [EX_PM (Network Folder: 1_2022 Base)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h		veh/h		v/c	sec		veh	m				km/h
East: Georgiana Terrace (E)															
4	L2	All MCs	6	0.0	6	0.0	0.116	7.6	LOS A	0.6	3.9	0.23	0.28	0.23	31.2
5	T1	All MCs	81	0.0	81	0.0	0.116	0.4	LOS A	0.6	3.9	0.23	0.28	0.23	31.2
6	R2	All MCs	54	0.0	53	0.0	0.116	4.6	LOS A	0.6	3.9	0.23	0.28	0.23	35.0
Approach			141	0.0	140	0.0	0.116	2.3	NA	0.6	3.9	0.23	0.28	0.23	33.6
North: Baker Street (N)															
7	L2	All MCs	54	0.0	54	0.0	0.108	4.1	LOS A	0.4	2.8	0.35	0.56	0.35	31.9
8	T1	All MCs	5	0.0	5	0.0	0.108	7.4	LOS A	0.4	2.8	0.35	0.56	0.35	31.9
9	R2	All MCs	49	0.0	49	0.0	0.108	5.4	LOS A	0.4	2.8	0.35	0.56	0.35	31.9
Approach			108	0.0	108	0.0	0.108	4.9	LOS A	0.4	2.8	0.35	0.56	0.35	31.9
West: Georgiana Terrace (W)															
10	L2	All MCs	84	0.0	83	0.0	0.184	3.8	LOS A	1.1	7.7	0.22	0.23	0.22	35.9
11	T1	All MCs	154	0.7	151	0.7	0.184	0.4	LOS A	1.1	7.7	0.22	0.23	0.22	32.9
12	R2	All MCs	7	0.0	7	0.0	0.184	6.1	LOS A	1.1	7.7	0.22	0.23	0.22	32.9
Approach			245	0.4	241	0.4	0.184	1.8	NA	1.1	7.7	0.22	0.23	0.22	34.6
All Vehicles			495	0.2	490	0.2	0.184	2.6	NA	1.1	7.7	0.25	0.32	0.25	33.6

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

Site: 4 [4. Mann St/ Georgina Tce - PM (Site Folder: 1_2022 Base - PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [EX_PM (Network Folder: 1_2022 Base)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				
			veh/h		veh/h		v/c	sec							km/h
South: Mann Street (S)															
1	L2	All MCs	102	0.0	102	0.0	0.237	3.4	LOS A	1.6	12.0	0.25	0.39	0.25	31.7
2	T1	All MCs	193	7.7	192	7.7	0.237	3.0	LOS A	1.6	12.0	0.25	0.39	0.25	31.7
3	R2	All MCs	3	0.0	3	0.0	0.237	5.7	LOS A	1.6	12.0	0.25	0.39	0.25	32.2
3u	U	All MCs	4	0.0	4	0.0	0.237	6.9	LOS A	1.6	12.0	0.25	0.39	0.25	31.7
Approach			302	4.9	301	4.9	0.237	3.2	LOS A	1.6	12.0	0.25	0.39	0.25	31.7
East: Georgiana Terrace (E)															
4	L2	All MCs	7	0.0	7	0.0	0.040	5.6	LOS A	0.2	1.7	0.55	0.57	0.55	23.1
5	T1	All MCs	13	0.0	13	0.0	0.040	5.1	LOS A	0.2	1.7	0.55	0.57	0.55	23.1
6	R2	All MCs	15	0.0	15	0.0	0.040	7.9	LOS A	0.2	1.7	0.55	0.57	0.55	23.1
Approach			35	0.0	35	0.0	0.040	6.4	LOS A	0.2	1.7	0.55	0.57	0.55	23.1
North: Mann Street (N)															
7	L2	All MCs	8	0.0	8	0.0	0.242	4.0	LOS A	1.4	10.3	0.32	0.45	0.32	33.3
8	T1	All MCs	235	7.2	235	7.2	0.242	3.6	LOS A	1.4	10.3	0.32	0.45	0.32	32.8
9	R2	All MCs	16	0.0	16	0.0	0.242	6.3	LOS A	1.4	10.3	0.32	0.45	0.32	32.8
9u	U	All MCs	7	0.0	7	0.0	0.242	7.5	LOS A	1.4	10.3	0.32	0.45	0.32	32.8
Approach			266	6.3	266	6.3	0.242	3.9	LOS A	1.4	10.3	0.32	0.45	0.32	32.8
West: Georgiana Terrace (W)															
10	L2	All MCs	97	1.1	96	1.1	0.208	4.6	LOS A	1.1	8.0	0.44	0.57	0.44	24.9
11	T1	All MCs	6	0.0	6	0.0	0.208	4.0	LOS A	1.1	8.0	0.44	0.57	0.44	28.8
12	R2	All MCs	104	0.0	103	0.0	0.208	6.8	LOS A	1.1	8.0	0.44	0.57	0.44	24.9
12u	U	All MCs	5	0.0	5	0.0	0.208	8.0	LOS A	1.1	8.0	0.44	0.57	0.44	24.9
Approach			213	0.5	210	0.5	0.208	5.8	LOS A	1.1	8.0	0.44	0.57	0.44	25.0
All Vehicles			816	4.0	811	4.0	0.242	4.2	LOS A	1.6	12.0	0.33	0.46	0.33	30.5

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Mann Street											
P1	Full	46	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
East: Donnison Street											
P2	Full	42	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
North: Mann Street											

P3 Full	16	34.2	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
West: Pacific Highway										
P4 Full	59	34.3	LOS D	0.1	0.1	0.93	0.93	188.2	200.0	1.06
All Pedestrians	163	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
 Pedestrian movement LOS values are based on average delay per pedestrian movement.
 Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

 Site: 6 [6. Henry Parry Drive/ Donnison Street - PM (Site Folder: 1_2022 Base - PM)]

 Network: N101 [EX_PM (Network Folder: 1_2022 Base)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

AM peak

Site Category: NA

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 110 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Henry Parry Drive (S)															
1	L2	All MCs	82	0.0	82	0.0	0.692	27.4	LOS B	22.1	155.8	0.85	0.80	0.85	28.1
2	T1	All MCs	647	0.8	647	0.8	* 0.692	39.0	LOS C	22.1	155.8	0.78	0.71	0.78	37.1
Approach			729	0.7	729	0.7	0.692	37.7	LOS C	22.1	155.8	0.78	0.72	0.78	32.4
East: Donnison Street (E)															
4	L2	All MCs	53	0.0	53	0.0	0.260	57.4	LOS E	2.7	18.7	0.95	0.74	0.95	23.9
5	T1	All MCs	86	1.2	86	1.2	* 0.409	52.2	LOS D	4.5	31.7	0.97	0.76	0.97	11.5
Approach			139	0.8	139	0.8	0.409	54.2	LOS D	4.5	31.7	0.97	0.75	0.97	17.6
North: Henry Parry Drive (N)															
7	L2	All MCs	3	0.0	3	0.0	0.602	24.8	LOS B	22.3	156.9	0.69	0.62	0.69	37.6
8	T1	All MCs	906	0.8	906	0.8	0.753	19.6	LOS B	22.3	156.9	0.76	0.70	0.78	38.8
9	R2	All MCs	116	0.9	116	0.9	* 0.753	65.6	LOS E	18.3	128.8	0.97	0.89	1.02	25.0
Approach			1025	0.8	1025	0.8	0.753	24.8	LOS B	22.3	156.9	0.79	0.72	0.81	37.5
West: Donnison Street (W)															
10	L2	All MCs	89	2.4	89	2.4	0.209	28.5	LOS B	4.8	34.2	0.75	0.75	0.75	29.8
11	T1	All MCs	42	2.5	42	2.5	0.731	32.2	LOS C	14.9	104.7	0.78	0.78	0.78	22.9
12	R2	All MCs	309	0.7	309	0.7	* 0.731	49.4	LOS D	14.9	104.7	0.98	1.10	1.02	24.2
Approach			441	1.2	441	1.2	0.731	43.5	LOS D	14.9	104.7	0.91	1.00	0.94	25.1
All Vehicles			2335	0.9	2335	0.9	0.753	34.1	LOS C	22.3	156.9	0.82	0.77	0.83	32.4

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Henry Parry Drive (S)											
P1	Full	8	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
East: Donnison Street (E)											
P2	Full	5	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99

North: Henry Parry Drive (N)											
P3	Full	11	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
West: Donnison Street (W)											
P4	Full	4	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
All Pedestrians		28	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
 Pedestrian movement LOS values are based on average delay per pedestrian movement.
 Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

 Site: 7 [7. Vaughan Ave/ Baker St - PM (Site Folder: 1_2022 Base - PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101 [EX_PM
(Network Folder: 1_2022 Base)]

NA
Site Category: NA
Stop (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec							km/h
NorthEast: Vaughan Avenue (NE)															
25	T1	All MCs	12	0.0	12	0.0	0.006	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			12	0.0	12	0.0	0.006	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
NorthWest: Baker Street (N)															
27	L2	All MCs	28	0.0	28	0.0	0.025	0.0	LOS A	0.1	0.7	0.05	0.01	0.05	10.0
29	R2	All MCs	9	0.0	9	0.0	0.025	0.0	LOS A	0.1	0.7	0.05	0.01	0.05	10.0
Approach			38	0.0	38	0.0	0.025	0.0	LOS A	0.1	0.7	0.05	0.01	0.05	10.0
SouthWest: Vaughan Avenue (SW)															
31	T1	All MCs	12	0.0	11	0.0	0.005	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			12	0.0	11	0.0	0.005	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
All Vehicles			61	0.0	60	0.0	0.025	0.0	NA	0.1	0.7	0.03	0.01	0.03	11.4

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

▼ Site: 8 [8. Mann St/ Vaughan Ave - PM (Site Folder: 1_2022 Base - PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101 [EX_PM (Network Folder: 1_2022 Base)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Mann Street (S)															
1b	L3	All MCs	1	0.0	1	0.0	0.143	4.1	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
2	T1	All MCs	266	6.3	266	6.3	0.143	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			267	6.3	267	6.3	0.143	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
North: Mann Street (N)															
8	T1	All MCs	326	5.2	325	5.2	0.177	0.0	LOS A	0.1	0.5	0.02	0.02	0.02	39.6
9a	R1	All MCs	7	0.0	7	0.0	0.177	3.2	LOS A	0.1	0.5	0.02	0.02	0.02	39.6
Approach			334	5.0	332	5.1	0.177	0.1	NA	0.1	0.5	0.02	0.02	0.02	39.6
SouthWest: Vaughan Avenue (SW)															
30a	L1	All MCs	36	0.0	35	0.0	0.038	4.4	LOS A	0.2	1.1	0.38	0.53	0.38	22.5
32b	R3	All MCs	8	0.0	8	0.0	0.038	6.9	LOS A	0.2	1.1	0.38	0.53	0.38	22.5
Approach			44	0.0	43	0.0	0.038	4.8	LOS A	0.2	1.1	0.38	0.53	0.38	22.5
All Vehicles			645	5.2	642	5.2	0.177	0.4	NA	0.2	1.1	0.04	0.05	0.04	39.1

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

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\\Sidra\December 2025 Modelling\P0061198 CCQ Sidra Model 251202 Revised Yields.sip9

MOVEMENT SUMMARY

 Site: 9 [9. Central Coast Hwy/ Mann St - PM (Site Folder: 1_2022 Base - PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101 [EX_PM (Network Folder: 1_2022 Base)]

NA

Site Category: NA

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

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Central Coast Hwy (S)															
1a	L1	All MCs	1307	2.0	1307	2.0	0.222	8.9	LOS A	11.1	78.8	0.30	0.65	0.30	46.5
2	T1	All MCs	173	9.1	173	9.1	0.376	57.0	LOS E	9.9	74.9	0.96	0.78	0.96	21.1
Approach			1480	2.8	1480	2.8	0.376	14.5	LOS A	11.1	78.8	0.38	0.67	0.38	40.7
North: Mann Street (N)															
8	T1	All MCs	285	5.7	283	5.8	* 0.545	57.4	LOS E	8.6	62.9	0.98	0.79	0.98	24.7
Approach			285	5.7	283	5.8	0.545	57.4	LOS E	8.6	62.9	0.98	0.79	0.98	24.7
NorthWest: Central Coast Hwy (NW)															
27b	L3	All MCs	9	0.0	9	0.0	0.613	8.2	LOS A	27.1	191.7	0.48	0.72	0.48	34.1
29a	R1	All MCs	2194	1.1	2010	1.1	* 0.613	11.7	LOS A	27.2	192.5	0.48	0.72	0.48	46.0
Approach			2203	1.1	2018	1.1	0.613	11.7	LOS A	27.2	192.5	0.48	0.72	0.48	45.9
All Vehicles			3968	2.1	3782	2.2	0.613	16.2	LOS B	27.2	192.5	0.47	0.70	0.47	41.3

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Central Coast Hwy (S)											
P1S	Slip/ Bypass	5	59.2	LOS E	0.0	0.0	0.95	0.95	520.7	600.0	1.15
North: Mann Street (N)											
P3	Full	5	59.2	LOS E	0.0	0.0	0.95	0.95	213.0	200.0	0.94
NorthWest: Central Coast Hwy (NW)											
P71	Stage 1	5	59.2	LOS E	0.0	0.0	0.95	0.95	520.7	600.0	1.15
All Pedestrians		16	59.2	LOS E	0.0	0.0	0.95	0.95	418.1	466.7	1.12

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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\Sidra\December 2025 Modelling\P0061198 CCQ Sidra Model 251202 Revised Yields.sip9

MOVEMENT SUMMARY

Site: 10 [10. Central Coast Hwy/ Vaughan St - PM (Site Folder: 1_2022 Base - PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [EX_PM (Network Folder: 1_2022 Base)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec			m				km/h
SouthEast: Central Coast Hwy (SE)															
22	T1	All MCs	1283	2.1	1283	2.1	0.334	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach			1283	2.1	1283	2.1	0.334	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.8
NorthEast: Vaughan Avenue (NE)															
24	L2	All MCs	20	0.0	20	0.0	0.143	15.2	LOS B	0.3	2.4	0.81	0.91	0.83	14.5
Approach			20	0.0	20	0.0	0.143	15.2	LOS B	0.3	2.4	0.81	0.91	0.83	14.5
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	12	0.0	11	0.0	0.520	5.6	LOS A	25.9	182.8	0.01	0.01	0.01	59.5
28	T1	All MCs	2198	1.1	1996	1.1	0.520	0.0	LOS A	25.9	182.8	0.00	0.00	0.00	59.6
Approach			2209	1.1	2006	1.1	0.520	0.1	NA	25.9	182.8	0.00	0.00	0.00	59.6
All Vehicles			3513	1.5	3309	1.6	0.520	0.1	NA	25.9	182.8	0.01	0.01	0.01	58.8

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

Site: 1 [1. Central Coast Hwy/ Dane Drv - AM (Site Folder: 2_2027 Opening AM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101
[Opening_AM (Network Folder: 2_2027 Opening with Other Dev no CCQ)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist] m				km/h
			veh/h	%	veh/h	%	v/c	sec							
SouthEast: Central Coast Hwy (SE)															
21	L2	All MCs	20	0.0	20	0.0	0.902	12.2	LOS A	23.5	169.8	1.00	0.89	1.24	41.1
22	T1	All MCs	1673	3.7	1673	3.7	0.902	13.2	LOS A	23.9	171.2	1.00	0.90	1.27	44.2
23	R2	All MCs	466	2.3	466	2.3	0.902	18.7	LOS B	23.9	171.2	1.00	0.93	1.32	26.9
23u	U	All MCs	4	0.0	4	0.0	0.902	20.6	LOS B	23.9	171.2	1.00	0.93	1.32	26.9
Approach			2163	3.3	2163	3.3	0.902	14.4	LOS A	23.9	171.2	1.00	0.91	1.28	42.0
NorthEast: Dane Drive (NE)															
24	L2	All MCs	317	1.0	316	1.0	1.172	177.3	LOS F	26.4	186.4	1.00	3.97	8.66	2.0
25	T1	All MCs	14	0.0	14	0.0	1.172	177.3	LOS F	26.4	186.4	1.00	3.97	8.66	9.7
26	R2	All MCs	208	1.0	208	1.0	1.172	181.4	LOS F	26.4	186.4	1.00	3.97	8.66	9.9
Approach			539	1.0	538	1.0	1.172	178.9	LOS F	26.4	186.4	1.00	3.97	8.66	5.5
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	348	0.9	348	0.9	1.336	319.2	LOS F	148.8	1079.2	1.00	5.24	11.21	5.4
28	T1	All MCs	1332	6.5	1332	6.5	1.336	320.1	LOS F	148.8	1079.2	1.00	5.24	11.17	5.4
29	R2	All MCs	16	0.0	16	0.0	1.336	323.8	LOS F	145.2	1075.9	1.00	5.24	11.15	9.5
29u	U	All MCs	7	57.1	7	57.1	1.336	330.5	LOS F	145.2	1075.9	1.00	5.24	11.15	9.6
Approach			1704	5.5	1704	5.5	1.336	320.0	LOS F	148.8	1079.2	1.00	5.24	11.18	5.4
SouthWest: Dane Drive (SW)															
30	L2	All MCs	3	0.0	3	0.0	0.033	14.7	LOS B	0.2	1.1	0.88	0.89	0.88	43.4
31	T1	All MCs	3	0.0	3	0.0	0.033	14.7	LOS B	0.2	1.1	0.88	0.89	0.88	35.6
32	R2	All MCs	1	0.0	1	0.0	0.033	18.7	LOS B	0.2	1.1	0.88	0.89	0.88	35.6
Approach			7	0.0	7	0.0	0.033	15.3	LOS B	0.2	1.1	0.88	0.89	0.88	39.9
All Vehicles			4413	3.9	4412	3.9	1.336	152.5	LOS F	148.8	1079.2	1.00	2.95	6.00	10.5

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

MOVEMENT SUMMARY

Site: 2 [2. Georgiana Tce/ Dane Drv - AM (Site Folder: 2_2027 Opening AM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101
[Opening_AM (Network Folder: 2_2027 Opening with Other Dev no CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h		veh/h		v/c	sec		veh	m				km/h
South: Dane Drive (S)															
2	T1	All MCs	409	2.3	366	2.4	0.540	4.0	LOS A	5.4	38.6	0.59	0.74	0.94	38.0
3	R2	All MCs	403	1.0	360	1.1	0.540	9.2	LOS A	5.4	38.6	0.59	0.74	0.94	24.2
Approach			813	1.7	726	1.8	0.540	6.6	NA	5.4	38.6	0.59	0.74	0.94	33.7
East: Georgiana Tce (E)															
4	L2	All MCs	199	1.6	197	1.6	0.526	6.1	LOS A	1.8	12.5	0.67	0.80	0.91	22.3
6	R2	All MCs	36	2.9	35	3.0	0.526	20.3	LOS B	1.8	12.5	0.67	0.80	0.91	32.3
Approach			235	1.8	233	1.8	0.526	8.2	LOS A	1.8	12.5	0.67	0.80	0.91	24.8
North: Dane Drive (N)															
7	L2	All MCs	178	0.0	178	0.0	0.449	4.7	LOS A	0.0	0.0	0.00	0.19	0.00	45.1
8	T1	All MCs	341	0.6	341	0.6	0.449	0.1	LOS A	0.0	0.0	0.00	0.19	0.00	45.1
Approach			519	0.4	519	0.4	0.449	1.7	NA	0.0	0.0	0.00	0.19	0.00	45.1
All Vehicles			1566	1.3	1477	1.4	0.540	5.1	NA	5.4	38.6	0.40	0.55	0.61	35.8

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

▼ Site: 3 [3. Georgiana Tce/ Baker St - AM (Site Folder: 2_2027 Opening AM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Opening_AM (Network Folder: 2_2027 Opening with Other Dev no CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h		veh/h		v/c	sec		veh	m				km/h
East: Georgiana Terrace (E)															
4	L2	All MCs	12	0.0	11	0.0	0.408	7.9	LOS A	2.6	18.0	0.36	0.34	0.36	27.9
5	T1	All MCs	222	0.5	220	0.5	0.408	0.5	LOS A	2.6	18.0	0.36	0.34	0.36	27.9
6	R2	All MCs	200	0.0	198	0.0	0.408	7.5	LOS A	2.6	18.0	0.36	0.34	0.36	33.5
Approach			434	0.2	429	0.2	0.408	3.9	NA	2.6	18.0	0.36	0.34	0.36	31.7
North: Baker Street (N)															
7	L2	All MCs	76	0.0	76	0.0	0.193	5.2	LOS A	0.7	4.9	0.59	0.73	0.59	28.4
8	T1	All MCs	2	0.0	2	0.0	0.193	13.2	LOS A	0.7	4.9	0.59	0.73	0.59	28.4
9	R2	All MCs	39	8.1	39	8.1	0.193	13.6	LOS A	0.7	4.9	0.59	0.73	0.59	28.4
Approach			117	2.7	117	2.7	0.193	8.1	LOS A	0.7	4.9	0.59	0.73	0.59	28.4
West: Georgiana Terrace (W)															
10	L2	All MCs	155	1.4	143	1.4	0.426	4.0	LOS A	3.3	23.2	0.27	0.21	0.27	36.0
11	T1	All MCs	412	0.5	381	0.5	0.426	0.6	LOS A	3.3	23.2	0.27	0.21	0.27	33.0
12	R2	All MCs	16	0.0	15	0.0	0.426	7.3	LOS A	3.3	23.2	0.27	0.21	0.27	33.0
Approach			582	0.7	539	0.7	0.426	1.7	NA	3.3	23.2	0.27	0.21	0.27	34.4
All Vehicles			1133	0.7	1085	0.8	0.426	3.3	NA	3.3	23.2	0.34	0.32	0.34	32.4

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

Site: 4 [4. Mann St/ Georgina Tce - AM (Site Folder: 2_2027 Opening AM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101
[Opening_AM (Network Folder: 2_2027 Opening with Other Dev no CCQ)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h		veh/h		v/c	sec			m				km/h
South: Mann Street (S)															
1	L2	All MCs	337	0.3	333	0.3	0.554	4.3	LOS A	5.6	40.5	0.51	0.44	0.51	29.9
2	T1	All MCs	328	7.7	325	7.8	0.554	3.9	LOS A	5.6	40.5	0.51	0.44	0.51	29.9
3	R2	All MCs	3	0.0	3	0.0	0.554	6.6	LOS A	5.6	40.5	0.51	0.44	0.51	30.9
3u	U	All MCs	9	0.0	9	0.0	0.554	7.8	LOS A	5.6	40.5	0.51	0.44	0.51	29.9
Approach			678	3.9	671	3.9	0.554	4.2	LOS A	5.6	40.5	0.51	0.44	0.51	29.9
East: Georgiana Terrace (E)															
4	L2	All MCs	15	0.0	15	0.0	0.061	5.6	LOS A	0.4	2.6	0.55	0.55	0.55	23.6
5	T1	All MCs	24	0.0	24	0.0	0.061	5.1	LOS A	0.4	2.6	0.55	0.55	0.55	23.6
6	R2	All MCs	15	0.0	15	0.0	0.061	7.9	LOS A	0.4	2.6	0.55	0.55	0.55	23.6
Approach			54	0.0	54	0.0	0.061	6.0	LOS A	0.4	2.6	0.55	0.55	0.55	23.6
North: Mann Street (N)															
7	L2	All MCs	4	0.0	4	0.0	0.246	3.7	LOS A	1.5	11.1	0.27	0.46	0.27	33.1
8	T1	All MCs	211	12.0	210	12.0	0.246	3.4	LOS A	1.5	11.1	0.27	0.46	0.27	32.6
9	R2	All MCs	61	0.0	61	0.0	0.246	6.0	LOS A	1.5	11.1	0.27	0.46	0.27	32.6
9u	U	All MCs	7	0.0	7	0.0	0.246	7.2	LOS A	1.5	11.1	0.27	0.46	0.27	32.6
Approach			283	8.9	282	8.9	0.246	4.0	LOS A	1.5	11.1	0.27	0.46	0.27	32.7
West: Georgiana Terrace (W)															
10	L2	All MCs	138	0.8	129	0.8	0.236	5.6	LOS A	1.4	9.8	0.59	0.62	0.59	23.9
11	T1	All MCs	11	10.0	10	10.0	0.236	5.4	LOS A	1.4	9.8	0.59	0.62	0.59	28.0
12	R2	All MCs	64	0.0	60	0.0	0.236	7.8	LOS A	1.4	9.8	0.59	0.62	0.59	23.9
12u	U	All MCs	7	0.0	7	0.0	0.236	9.0	LOS A	1.4	9.8	0.59	0.62	0.59	23.9
Approach			220	1.0	206	1.0	0.236	6.4	LOS A	1.4	9.8	0.59	0.62	0.59	24.2
All Vehicles			1235	4.3	1213	4.4	0.554	4.6	LOS A	5.6	40.5	0.47	0.48	0.47	29.7

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE [Ped Dist]		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		ped	m			sec	m	m/sec
South: Mann Street											
P1	Full	43	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
East: Donnison Street											

P2 Full	43	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
North: Mann Street										
P3 Full	9	34.2	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
West: Pacific Highway										
P4 Full	23	34.3	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
All Pedestrians	119	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Henry Parry Drive (S)											
P1	Full	43	49.3	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
East: Donnison Street (E)											

P2 Full	28	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
North: Henry Parry Drive (N)										
P3 Full	41	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
West: Donnison Street (W)										
P4 Full	20	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
All Pedestrians	133	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

 **Site: 7 [7. Vaughan Ave/ Baker St - AM (Site Folder: 2_2027 Opening AM with Other Dev no CCQ)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 **Network: N101**
[Opening_AM (Network Folder: 2_2027 Opening with Other Dev no CCQ)]

NA
Site Category: NA
Stop (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec							km/h
NorthEast: Vaughan Avenue (NE)															
25	T1	All MCs	19	5.6	19	5.6	0.010	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			19	5.6	19	5.6	0.010	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
NorthWest: Baker Street (N)															
27	L2	All MCs	11	60.0	10	61.1	0.009	0.0	LOS A	0.0	0.4	0.06	0.01	0.06	10.0
29	R2	All MCs	1	0.0	1	0.0	0.009	0.1	LOS A	0.0	0.4	0.06	0.01	0.06	10.0
Approach			12	54.5	11	55.7	0.009	0.0	LOS A	0.0	0.4	0.06	0.01	0.06	10.0
SouthWest: Vaughan Avenue (SW)															
31	T1	All MCs	16	0.0	12	0.0	0.006	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			16	0.0	12	0.0	0.006	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
All Vehicles			46	15.9	42	17.5	0.010	0.0	NA	0.0	0.4	0.02	0.00	0.02	15.3

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

▼ Site: 8 [8. Mann St/ Vaughan Ave - AM (Site Folder: 2_2027 Opening AM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Opening_AM (Network Folder: 2_2027 Opening with Other Dev no CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h		veh/h		v/c	sec			m				km/h
South: Mann Street (S)															
1b	L3	All MCs	250.0		250.1		0.343	4.4	LOS A	0.0	0.2	0.00	0.00	0.00	40.0
2	T1	All MCs	652	3.9	648	3.9	0.343	0.0	LOS A	0.0	0.2	0.00	0.00	0.00	40.0
Approach			654	4.0	650	4.0	0.343	0.0	NA	0.0	0.2	0.00	0.00	0.00	40.0
North: Mann Street (N)															
8	T1	All MCs	277	9.5	272	9.6	0.164	0.3	LOS A	0.2	1.6	0.09	0.10	0.09	38.3
9a	R1	All MCs	15	0.0	14	0.0	0.164	6.0	LOS A	0.2	1.6	0.09	0.10	0.09	38.3
Approach			292	9.0	287	9.1	0.164	0.6	NA	0.2	1.6	0.09	0.10	0.09	38.3
SouthWest: Vaughan Avenue (SW)															
30a	L1	All MCs	27	3.8	24	4.4	0.040	6.7	LOS A	0.1	1.1	0.57	0.69	0.57	18.3
32b	R3	All MCs	3	33.3	3	36.6	0.040	14.7	LOS B	0.1	1.1	0.57	0.69	0.57	18.3
Approach			31	6.9	27	7.9	0.040	7.5	LOS A	0.1	1.1	0.57	0.69	0.57	18.3
All Vehicles			976	5.6	964	5.7	0.343	0.4	NA	0.2	1.6	0.04	0.05	0.04	39.3

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

 Site: 9 [9. Central Coast Hwy/ Mann St - AM (Site Folder: 2_2027 Opening AM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101
[Opening_AM (Network Folder: 2_2027 Opening with Other Dev no CCQ)]

NA

Site Category: NA

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

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Central Coast Hwy (S)															
1a	L1	All MCs	2097	3.6	2097	3.6	0.453	18.0	LOS B	33.9	244.4	0.54	0.75	0.54	39.0
2	T1	All MCs	406	6.2	406	6.2	* 0.470	48.2	LOS D	21.3	157.2	0.90	0.80	0.90	24.4
Approach			2503	4.1	2503	4.1	0.470	22.9	LOS B	33.9	244.4	0.60	0.75	0.60	34.4
North: Mann Street (N)															
8	T1	All MCs	226	11.5	222	11.7	0.234	40.5	LOS C	5.5	42.6	0.83	0.67	0.83	29.0
Approach			226	11.5	222	11.7	0.234	40.5	LOS C	5.5	42.6	0.83	0.67	0.83	29.0
NorthWest: Central Coast Hwy (NW)															
27b	L3	All MCs	15	0.0	11	0.0	0.484	9.3	LOS A	20.6	150.5	0.56	0.75	0.56	27.8
29a	R1	All MCs	1663	5.3	1290	5.1	* 0.484	17.7	LOS B	20.8	151.7	0.56	0.75	0.56	41.7
Approach			1678	5.2	1301	5.1	0.484	17.6	LOS B	20.8	151.7	0.56	0.75	0.56	41.6
All Vehicles			4407	4.9	4027	5.3	0.484	22.2	LOS B	33.9	244.4	0.60	0.75	0.60	36.5

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Central Coast Hwy (S)											
P1S	Slip/ Bypass	17	59.2	LOS E	0.1	0.1	0.95	0.95	520.7	600.0	1.15
North: Mann Street (N)											
P3	Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	213.0	200.0	0.94
NorthWest: Central Coast Hwy (NW)											
P71	Stage 1	17	59.2	LOS E	0.1	0.1	0.95	0.95	520.7	600.0	1.15
All Pedestrians		44	59.2	LOS E	0.1	0.1	0.95	0.95	447.5	504.8	1.13

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: C:\Users\saralar\Urbis Ltd\P0061198 UPG - Central Coast Quarter Stage 2 - Transport Advisory - General\03_Workspace\01_Analysis
\Sidra\December 2025 Modelling\P0061198 CCQ Sidra Model 251202 Revised Yields.sip9

MOVEMENT SUMMARY

▼ Site: 10 [10. Central Coast Hwy/ Vaughan St - AM (Site Folder: 2_2027 Opening AM with Other Dev no CCQ)]
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Opening_AM (Network Folder: 2_2027 Opening with Other Dev no CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec			m				km/h
SouthEast: Central Coast Hwy (SE)															
22	T1	All MCs	2136	3.4	2136	3.4	0.570	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.4
Approach			2136	3.4	2136	3.4	0.570	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.4
NorthEast: Vaughan Avenue (NE)															
24	L2	All MCs	11	10.0	10	10.2	0.039	8.2	LOS A	0.1	0.6	0.58	0.72	0.58	20.5
Approach			11	10.0	10	10.2	0.039	8.2	LOS A	0.1	0.6	0.58	0.72	0.58	20.5
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	19	0.0	15	0.0	0.340	5.6	LOS A	6.7	49.0	0.01	0.01	0.01	59.1
28	T1	All MCs	1641	5.3	1264	5.2	0.340	0.0	LOS A	6.7	49.0	0.00	0.01	0.00	59.5
Approach			1660	5.3	1279	5.1	0.340	0.1	NA	6.7	49.0	0.00	0.01	0.00	59.5
All Vehicles			3806	4.2	3425	4.7	0.570	0.1	NA	6.7	49.0	0.00	0.00	0.00	59.1

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

Site: 1 [1. Central Coast Hwy/ Dane Drv - PM (Site Folder: 2_2027 Opening PM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101
[Opening_PM (Network Folder: 2_2027 Opening with Other Dev no CCQ)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				km/h
			veh/h	%	veh/h	%	v/c	sec			m				
SouthEast: Central Coast Hwy (SE)															
21	L2	All MCs	4	0.0	4	0.0	0.567	5.7	LOS A	6.1	43.7	0.65	0.51	0.65	44.1
22	T1	All MCs	1088	2.3	1088	2.3	0.567	5.9	LOS A	6.1	43.7	0.65	0.53	0.65	48.7
23	R2	All MCs	317	0.7	317	0.7	0.567	10.1	LOS A	5.9	42.1	0.67	0.57	0.67	35.5
23u	U	All MCs	7	0.0	7	0.0	0.567	12.0	LOS A	5.9	42.1	0.67	0.57	0.67	35.5
Approach			1416	2.0	1416	2.0	0.567	6.9	LOS A	6.1	43.7	0.66	0.54	0.66	47.2
NorthEast: Dane Drive (NE)															
24	L2	All MCs	357	0.0	356	0.0	1.510	475.2	LOS F	26.6	186.4	1.00	6.60	15.81	0.8
25	T1	All MCs	7	0.0	7	0.0	1.510	475.3	LOS F	26.6	186.4	1.00	6.60	15.81	4.2
26	R2	All MCs	236	0.0	235	0.0	1.510	479.2	LOS F	26.6	186.4	1.00	6.60	15.81	4.2
Approach			600	0.0	599	0.0	1.510	476.8	LOS F	26.6	186.4	1.00	6.60	15.81	2.2
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	176	0.6	176	0.6	1.373	350.4	LOS F	206.7	1462.2	1.00	6.08	12.35	5.0
28	T1	All MCs	2058	1.4	2058	1.4	1.373	350.7	LOS F	206.7	1462.2	1.00	6.08	12.35	5.0
29	R2	All MCs	3	0.0	3	0.0	1.373	354.7	LOS F	205.1	1453.8	1.00	6.08	12.35	8.8
29u	U	All MCs	11	10.0	11	10.0	1.373	357.5	LOS F	205.1	1453.8	1.00	6.08	12.35	8.9
Approach			2248	1.4	2248	1.4	1.373	350.7	LOS F	206.7	1462.2	1.00	6.08	12.35	5.0
SouthWest: Dane Drive (SW)															
30	L2	All MCs	25	0.0	25	0.0	0.153	8.2	LOS A	0.7	4.8	0.75	0.85	0.75	46.7
31	T1	All MCs	26	0.0	26	0.0	0.153	8.3	LOS A	0.7	4.8	0.75	0.85	0.75	40.1
32	R2	All MCs	20	0.0	20	0.0	0.153	12.2	LOS A	0.7	4.8	0.75	0.85	0.75	40.1
Approach			72	0.0	72	0.0	0.153	9.4	LOS A	0.7	4.8	0.75	0.85	0.75	43.3
All Vehicles			4335	1.3	4334	1.3	1.510	250.2	LOS F	206.7	1462.2	0.88	4.25	8.82	6.7

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

MOVEMENT SUMMARY

Site: 2 [2. Georgiana Tce/ Dane Drv - PM (Site Folder: 2_2027 Opening PM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101
[Opening_PM (Network Folder: 2_2027 Opening with Other Dev no CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h		veh/h		v/c	sec		veh	m				km/h
South: Dane Drive (S)															
2	T1	All MCs	319	1.0	290	1.0	0.317	1.5	LOS A	1.6	11.3	0.44	0.49	0.44	42.6
3	R2	All MCs	202	0.5	184	0.5	0.317	6.9	LOS A	1.6	11.3	0.44	0.49	0.44	31.4
Approach			521	0.8	473	0.8	0.317	3.6	NA	1.6	11.3	0.44	0.49	0.44	40.3
East: Georgiana Tce (E)															
4	L2	All MCs	237	0.0	236	0.0	0.513	5.9	LOS A	35.5	248.5	0.62	0.77	0.81	24.1
6	R2	All MCs	38	0.0	38	0.0	0.513	12.3	LOS A	35.5	248.5	0.62	0.77	0.81	33.8
Approach			275	0.0	274	0.0	0.513	6.8	LOS A	35.5	248.5	0.62	0.77	0.81	26.4
North: Dane Drive (N)															
7	L2	All MCs	113	0.0	113	0.0	0.245	4.6	LOS A	64.7	453.2	0.00	0.13	0.00	46.7
8	T1	All MCs	360	0.0	360	0.0	0.245	0.0	LOS A	64.7	453.2	0.00	0.13	0.00	46.7
Approach			473	0.0	473	0.0	0.245	1.1	NA	64.7	453.2	0.00	0.13	0.00	46.7
All Vehicles			1268	0.3	1219	0.3	0.513	3.4	NA	64.7	453.2	0.31	0.41	0.35	39.2

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik 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.

MOVEMENT SUMMARY

▼ Site: 3 [3. Georgiana Tce/ Baker St - PM (Site Folder: 2_2027 Opening PM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Opening_PM (Network Folder: 2_2027 Opening with Other Dev no CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h		veh/h		v/c	sec		veh	m				km/h
East: Georgiana Terrace (E)															
4	L2	All MCs	7	0.0	7	0.0	0.393	7.8	LOS A	5.8	40.5	0.33	0.31	0.33	30.3
5	T1	All MCs	260	0.0	259	0.0	0.393	0.6	LOS A	5.8	40.5	0.33	0.31	0.33	30.3
6	R2	All MCs	198	0.0	197	0.0	0.393	5.6	LOS A	5.8	40.5	0.33	0.31	0.33	34.6
Approach			465	0.0	463	0.0	0.393	2.8	NA	5.8	40.5	0.33	0.31	0.33	33.2
North: Baker Street (N)															
7	L2	All MCs	101	0.0	101	0.0	0.278	4.7	LOS A	1.2	8.6	0.53	0.67	0.58	29.6
8	T1	All MCs	6	0.0	6	0.0	0.278	11.7	LOS A	1.2	8.6	0.53	0.67	0.58	29.6
9	R2	All MCs	55	0.0	55	0.0	0.278	10.5	LOS A	1.2	8.6	0.53	0.67	0.58	29.6
Approach			162	0.0	162	0.0	0.278	6.9	LOS A	1.2	8.6	0.53	0.67	0.58	29.6
West: Georgiana Terrace (W)															
10	L2	All MCs	93	0.0	88	0.0	0.252	3.9	LOS A	1.6	11.1	0.23	0.21	0.23	36.1
11	T1	All MCs	236	0.4	223	0.4	0.252	0.5	LOS A	1.6	11.1	0.23	0.21	0.23	33.4
12	R2	All MCs	8	0.0	8	0.0	0.252	7.0	LOS A	1.6	11.1	0.23	0.21	0.23	33.4
Approach			337	0.3	318	0.3	0.252	1.6	NA	1.6	11.1	0.23	0.21	0.23	34.7
All Vehicles			964	0.1	943	0.1	0.393	3.1	NA	5.8	40.5	0.33	0.34	0.34	32.8

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

 Site: 4 [4. Mann St/ Georgina Tce - PM (Site Folder: 2_2027 Opening PM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101
[Opening_PM (Network Folder: 2_2027 Opening with Other Dev no CCQ)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Mann Street (S)															
1	L2	All MCs	153	0.0	150	0.0	0.378	3.6	LOS A	2.7	19.7	0.33	0.40	0.33	31.1
2	T1	All MCs	264	6.0	261	6.1	0.378	3.2	LOS A	2.7	19.7	0.33	0.40	0.33	31.1
3	R2	All MCs	3	0.0	3	0.0	0.378	5.9	LOS A	2.7	19.7	0.33	0.40	0.33	31.8
3u	U	All MCs	4	0.0	4	0.0	0.378	7.1	LOS A	2.7	19.7	0.33	0.40	0.33	31.1
Approach			424	3.7	418	3.8	0.378	3.4	LOS A	2.7	19.7	0.33	0.40	0.33	31.2
East: Georgiana Terrace (E)															
4	L2	All MCs	8	0.0	8	0.0	0.056	6.7	LOS A	0.3	2.1	0.64	0.62	0.64	21.6
5	T1	All MCs	14	0.0	14	0.0	0.056	6.2	LOS A	0.3	2.1	0.64	0.62	0.64	21.6
6	R2	All MCs	16	0.0	16	0.0	0.056	9.0	LOS A	0.3	2.1	0.64	0.62	0.64	21.6
Approach			38	0.0	38	0.0	0.056	7.4	LOS A	0.3	2.1	0.64	0.62	0.64	21.6
North: Mann Street (N)															
7	L2	All MCs	9	0.0	9	0.0	0.328	4.9	LOS A	2.0	14.4	0.42	0.53	0.42	32.6
8	T1	All MCs	259	7.3	258	7.3	0.328	4.5	LOS A	2.0	14.4	0.42	0.53	0.42	32.0
9	R2	All MCs	28	0.0	28	0.0	0.328	7.2	LOS A	2.0	14.4	0.42	0.53	0.42	32.0
9u	U	All MCs	8	0.0	8	0.0	0.328	8.3	LOS A	2.0	14.4	0.42	0.53	0.42	32.0
Approach			305	6.2	304	6.2	0.328	4.9	LOS A	2.0	14.4	0.42	0.53	0.42	32.0
West: Georgiana Terrace (W)															
10	L2	All MCs	159	0.7	153	0.6	0.376	5.4	LOS A	2.4	16.8	0.58	0.61	0.58	23.7
11	T1	All MCs	7	0.0	7	0.0	0.376	4.8	LOS A	2.4	16.8	0.58	0.61	0.58	27.8
12	R2	All MCs	195	0.0	188	0.0	0.376	7.6	LOS A	2.4	16.8	0.58	0.61	0.58	23.7
12u	U	All MCs	6	0.0	6	0.0	0.376	8.8	LOS A	2.4	16.8	0.58	0.61	0.58	23.7
Approach			367	0.3	354	0.3	0.376	6.6	LOS A	2.4	16.8	0.58	0.61	0.58	23.8
All Vehicles			1135	3.2	1115	3.2	0.378	5.0	LOS A	2.7	19.7	0.45	0.51	0.45	29.2

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE [Ped Dist] ped m		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec						sec	m	m/sec
South: Mann Street											
P1	Full	46	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
East: Donnison Street											

P2 Full	42	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
North: Mann Street										
P3 Full	16	34.2	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
West: Pacific Highway										
P4 Full	59	34.3	LOS D	0.1	0.1	0.93	0.93	188.2	200.0	1.06
All Pedestrians	163	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Henry Parry Drive (S)											
P1	Full	8	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
East: Donnison Street (E)											

P2	Full	5	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
North: Henry Parry Drive (N)											
P3	Full	11	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
West: Donnison Street (W)											
P4	Full	4	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
All Pedestrians		28	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

 Site: 7 [7. Vaughan Ave/ Baker St - PM (Site Folder: 2_2027 Opening PM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ ■ Network: N101
[Opening_PM (Network Folder: 2_2027 Opening with Other Dev no CCQ)]

NA
Site Category: NA
Stop (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec							km/h
NorthEast: Vaughan Avenue (NE)															
25	T1	All MCs	13	0.0	12	0.0	0.006	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			13	0.0	12	0.0	0.006	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
NorthWest: Baker Street (N)															
27	L2	All MCs	32	0.0	31	0.0	0.027	0.0	LOS A	0.1	0.7	0.05	0.01	0.05	10.0
29	R2	All MCs	11	0.0	10	0.0	0.027	0.0	LOS A	0.1	0.7	0.05	0.01	0.05	10.0
Approach			42	0.0	42	0.0	0.027	0.0	LOS A	0.1	0.7	0.05	0.01	0.05	10.0
SouthWest: Vaughan Avenue (SW)															
31	T1	All MCs	13	0.0	9	0.0	0.005	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			13	0.0	9	0.0	0.005	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
All Vehicles			67	0.0	63	0.0	0.027	0.0	NA	0.1	0.7	0.03	0.00	0.03	11.2

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

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Project: C:\Users\saralar\Urbis Ltd\P0061198 UPG - Central Coast Quarter Stage 2 - Transport Advisory - General\03_Workspace\01_Analysis
\Sidra\December 2025 Modelling\P0061198 CCQ Sidra Model 251202 Revised Yields.sip9

MOVEMENT SUMMARY

▼ Site: 8 [8. Mann St/ Vaughan Ave - PM (Site Folder: 2_2027 Opening PM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Opening_PM (Network Folder: 2_2027 Opening with Other Dev no CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Mann Street (S)															
1b	L3	All MCs	1	0.0	1	0.0	0.204	4.1	LOS A	0.0	0.1	0.00	0.00	0.00	40.0
2	T1	All MCs	386	4.9	383	4.9	0.204	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	40.0
Approach			387	4.9	385	4.9	0.204	0.0	NA	0.0	0.1	0.00	0.00	0.00	40.0
North: Mann Street (N)															
8	T1	All MCs	439	4.3	432	4.4	0.234	0.0	LOS A	0.1	0.7	0.03	0.02	0.03	39.6
9a	R1	All MCs	8	0.0	8	0.0	0.234	3.9	LOS A	0.1	0.7	0.03	0.02	0.03	39.6
Approach			447	4.2	440	4.3	0.234	0.1	NA	0.1	0.7	0.03	0.02	0.03	39.6
SouthWest: Vaughan Avenue (SW)															
30a	L1	All MCs	39	0.0	36	0.0	0.047	4.9	LOS A	0.2	1.3	0.46	0.59	0.46	21.3
32b	R3	All MCs	9	0.0	9	0.0	0.047	8.6	LOS A	0.2	1.3	0.46	0.59	0.46	21.3
Approach			48	0.0	45	0.0	0.047	5.6	LOS A	0.2	1.3	0.46	0.59	0.46	21.3
All Vehicles			883	4.3	869	4.4	0.234	0.4	NA	0.2	1.3	0.04	0.04	0.04	39.2

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

 Site: 9 [9. Central Coast Hwy/ Mann St - PM (Site Folder: 2_2027 Opening PM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101
[Opening_PM (Network Folder: 2_2027 Opening with Other Dev no CCQ)]

NA

Site Category: NA

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

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Central Coast Hwy (S)															
1a	L1	All MCs	1492	2.0	1492	2.0	0.266	10.6	LOS A	15.2	108.1	0.36	0.67	0.36	44.6
2	T1	All MCs	283	6.3	283	6.3	0.475	53.7	LOS D	16.0	118.1	0.95	0.80	0.95	21.9
Approach			1775	2.7	1775	2.7	0.475	17.5	LOS B	16.0	118.1	0.46	0.70	0.46	38.2
North: Mann Street (N)															
8	T1	All MCs	391	4.7	384	4.8	* 0.574	53.5	LOS D	11.3	82.4	0.97	0.80	0.97	25.6
Approach			391	4.7	384	4.8	0.574	53.5	LOS D	11.3	82.4	0.97	0.80	0.97	25.6
NorthWest: Central Coast Hwy (NW)															
27b	L3	All MCs	11	0.0	8	0.0	0.575	8.7	LOS A	25.8	181.9	0.50	0.73	0.50	31.9
29a	R1	All MCs	2458	1.1	1792	1.1	* 0.575	13.5	LOS A	25.8	182.6	0.51	0.73	0.51	44.6
Approach			2469	1.1	1799	1.1	0.575	13.5	LOS A	25.8	182.6	0.51	0.73	0.51	44.6
All Vehicles			4634	2.0	3958	2.3	0.575	19.1	LOS B	25.8	182.6	0.53	0.72	0.53	39.0

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Central Coast Hwy (S)											
P1S	Slip/ Bypass	5	59.2	LOS E	0.0	0.0	0.95	0.95	520.7	600.0	1.15
North: Mann Street (N)											
P3	Full	5	59.2	LOS E	0.0	0.0	0.95	0.95	213.0	200.0	0.94
NorthWest: Central Coast Hwy (NW)											
P71	Stage 1	5	59.2	LOS E	0.0	0.0	0.95	0.95	520.7	600.0	1.15
All Pedestrians		16	59.2	LOS E	0.0	0.0	0.95	0.95	418.1	466.7	1.12

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: C:\Users\saralar\Urbis Ltd\P0061198 UPG - Central Coast Quarter Stage 2 - Transport Advisory - General\03_Workspace\01_Analysis
\Sidra\December 2025 Modelling\P0061198 CCQ Sidra Model 251202 Revised Yields.sip9

MOVEMENT SUMMARY

▼ Site: 10 [10. Central Coast Hwy/ Vaughan St - PM (Site Folder: 2_2027 Opening PM with Other Dev no CCQ)]
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Opening_PM (Network Folder: 2_2027 Opening with Other Dev no CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec			m				km/h
SouthEast: Central Coast Hwy (SE)															
22	T1	All MCs	1464	2.1	1464	2.1	0.381	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
Approach			1464	2.1	1464	2.1	0.381	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.7
NorthEast: Vaughan Avenue (NE)															
24	L2	All MCs	22	0.0	22	0.0	0.072	7.4	LOS A	0.1	0.8	0.56	0.74	0.56	21.5
Approach			22	0.0	22	0.0	0.072	7.4	LOS A	0.1	0.8	0.56	0.74	0.56	21.5
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	13	0.0	9	0.0	0.618	5.6	LOS A	0.2	1.1	0.01	0.01	0.02	59.2
28	T1	All MCs	2463	1.1	1787	1.1	0.618	0.1	LOS A	13.0	91.7	0.00	0.00	0.00	59.3
Approach			2476	1.1	1796	1.1	0.618	0.1	NA	13.0	91.7	0.00	0.00	0.01	59.3
All Vehicles			3962	1.5	3282	1.8	0.618	0.1	NA	13.0	91.7	0.01	0.01	0.01	58.9

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

Site: 1 [1. Central Coast Hwy/ Dane Drv - AM (Site Folder: 3_2027 Opening AM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101
[Opening_AM_DEV (Network Folder: 3_2027 Opening with Other Dev and CCQ)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				km/h
			veh/h	%	veh/h	%	v/c	sec			m				
SouthEast: Central Coast Hwy (SE)															
21	L2	All MCs	20	0.0	20	0.0	0.948	19.7	LOS B	32.7	235.9	1.00	1.21	1.61	36.7
22	T1	All MCs	1673	3.7	1673	3.7	0.948	21.0	LOS B	32.7	235.9	1.00	1.23	1.64	39.0
23	R2	All MCs	466	2.3	466	2.3	0.948	27.3	LOS B	32.2	231.3	1.00	1.25	1.72	20.9
23u	U	All MCs	4	0.0	4	0.0	0.948	29.1	LOS C	32.2	231.3	1.00	1.25	1.72	20.9
Approach			2163	3.3	2163	3.3	0.948	22.4	LOS B	32.7	235.9	1.00	1.23	1.66	36.5
NorthEast: Dane Drive (NE)															
24	L2	All MCs	317	1.0	315	1.0	1.386	363.2	LOS F	26.3	186.4	1.00	6.26	14.53	1.0
25	T1	All MCs	14	0.0	14	0.0	1.386	363.3	LOS F	26.3	186.4	1.00	6.26	14.53	5.3
26	R2	All MCs	305	2.4	304	2.4	1.386	367.5	LOS F	26.3	186.4	1.00	6.26	14.53	5.4
Approach			636	1.7	632	1.7	1.386	365.3	LOS F	26.3	186.4	1.00	6.26	14.53	3.3
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	367	1.1	367	1.1	1.374	353.4	LOS F	164.3	1191.9	1.00	5.59	12.03	4.9
28	T1	All MCs	1368	6.4	1368	6.4	1.374	354.3	LOS F	164.3	1191.9	1.00	5.59	11.99	4.9
29	R2	All MCs	16	0.0	16	0.0	1.374	358.0	LOS F	160.5	1188.1	1.00	5.59	11.97	8.7
29u	U	All MCs	7	57.1	7	57.1	1.374	364.7	LOS F	160.5	1188.1	1.00	5.59	11.97	8.8
Approach			1758	5.5	1758	5.5	1.374	354.2	LOS F	164.3	1191.9	1.00	5.59	12.00	5.0
SouthWest: Dane Drive (SW)															
30	L2	All MCs	3	0.0	3	0.0	0.034	15.3	LOS B	0.2	1.2	0.88	0.90	0.88	43.1
31	T1	All MCs	3	0.0	3	0.0	0.034	15.3	LOS B	0.2	1.2	0.88	0.90	0.88	35.2
32	R2	All MCs	1	0.0	1	0.0	0.034	19.3	LOS B	0.2	1.2	0.88	0.90	0.88	35.2
Approach			7	0.0	7	0.0	0.034	15.9	LOS B	0.2	1.2	0.88	0.90	0.88	39.5
All Vehicles			4564	3.9	4561	3.9	1.386	197.8	LOS F	164.3	1191.9	1.00	3.61	7.43	8.5

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

MOVEMENT SUMMARY

Site: 2 [2. Georgiana Tce/ Dane Drv - AM (NEW) (Site Folder: 3_2027 Opening AM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101
[Opening_AM_DEV (Network Folder: 3_2027 Opening with Other Dev and CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Dane Drive (S)															
2	T1	All MCs	409	2.3	361	2.4	0.566	4.4	LOS A	6.1	43.2	0.61	0.78	1.02	37.4
3	R2	All MCs	440	1.4	388	1.5	0.566	9.5	LOS A	6.1	43.2	0.61	0.78	1.02	23.3
Approach			849	1.9	749	2.0	0.566	7.0	NA	6.1	43.2	0.61	0.78	1.02	32.7
East: Georgiana Tce (E)															
4	L2	All MCs	296	2.8	292	2.9	0.705	7.4	LOS A	34.7	248.5	0.80	0.96	1.25	20.9
6	R2	All MCs	36	2.9	35	3.0	0.705	26.5	LOS B	34.7	248.5	0.80	0.96	1.25	31.3
Approach			332	2.9	328	2.9	0.705	9.5	LOS A	34.7	248.5	0.80	0.96	1.25	22.8
North: Dane Drive (N)															
7	L2	All MCs	178	0.0	178	0.0	0.271	4.6	LOS A	49.8	349.8	0.00	0.19	0.00	45.3
8	T1	All MCs	341	0.6	341	0.6	0.271	0.0	LOS A	49.8	349.8	0.00	0.19	0.00	45.3
Approach			519	0.4	519	0.4	0.271	1.6	NA	49.8	349.8	0.00	0.19	0.00	45.3
All Vehicles			1700	1.6	1596	1.7	0.705	5.8	NA	49.8	349.8	0.45	0.62	0.74	34.0

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

▼ Site: 3 [3. Georgiana Tce/ Baker St - AM (NEW) (Site Folder: 3_2027 Opening AM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Opening_AM_DEV (Network Folder: 3_2027 Opening with Other Dev and CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h		veh/h		v/c	sec		veh	m				km/h
East: Georgiana Terrace (E)															
4	L2	All MCs	12	0.0	11	0.0	0.491	8.0	LOS A	7.7	54.2	0.38	0.31	0.38	28.6
5	T1	All MCs	317	2.0	313	2.0	0.491	0.6	LOS A	7.7	54.2	0.38	0.31	0.38	28.6
6	R2	All MCs	200	0.0	197	0.0	0.491	8.0	LOS A	7.7	54.2	0.38	0.31	0.38	33.9
Approach			528	1.2	521	1.2	0.491	3.6	NA	7.7	54.2	0.38	0.31	0.38	31.8
North: Baker Street (N)															
7	L2	All MCs	76	0.0	76	0.0	0.297	5.7	LOS A	1.0	6.8	0.65	0.82	0.77	26.6
8	T1	All MCs	2	0.0	2	0.0	0.297	16.3	LOS B	1.0	6.8	0.65	0.82	0.77	26.6
9	R2	All MCs	39	8.1	39	8.1	0.297	17.9	LOS B	1.0	6.8	0.65	0.82	0.77	26.6
Approach			117	2.7	117	2.7	0.297	10.0	LOS A	1.0	6.8	0.65	0.82	0.77	26.6
West: Georgiana Terrace (W)															
10	L2	All MCs	155	1.4	142	1.4	0.452	4.2	LOS A	3.6	25.2	0.29	0.25	0.29	35.6
11	T1	All MCs	412	0.5	377	0.5	0.452	0.6	LOS A	3.6	25.2	0.29	0.25	0.29	32.2
12	R2	All MCs	53	4.0	48	4.0	0.452	8.3	LOS A	3.6	25.2	0.29	0.25	0.29	32.2
Approach			619	1.0	567	1.0	0.452	2.2	NA	3.6	25.2	0.29	0.25	0.29	33.7
All Vehicles			1264	1.2	1205	1.3	0.491	3.5	NA	7.7	54.2	0.37	0.33	0.38	31.8

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

Site: 4 [4. Mann St/ Georgina Tce - AM (Site Folder: 3_2027 Opening AM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101
[Opening_AM_DEV (Network Folder: 3_2027 Opening with Other Dev and CCQ)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				km/h
			veh/h	%	veh/h	%	v/c	sec			m				
South: Mann Street (S)															
1	L2	All MCs	434	1.5	428	1.5	0.814	5.3	LOS A	12.0	86.9	0.88	0.48	0.88	27.8
2	T1	All MCs	393	7.2	387	7.3	0.814	5.0	LOS A	12.0	86.9	0.88	0.48	0.88	27.8
3	R2	All MCs	3	0.0	3	0.0	0.814	7.5	LOS A	12.0	86.9	0.88	0.48	0.88	29.3
3u	U	All MCs	9	0.0	9	0.0	0.814	8.7	LOS A	12.0	86.9	0.88	0.48	0.88	27.8
Approach			839	4.1	827	4.2	0.814	5.2	LOS A	12.0	86.9	0.88	0.48	0.88	27.8
East: Georgiana Terrace (E)															
4	L2	All MCs	15	0.0	15	0.0	0.074	5.9	LOS A	0.4	2.8	0.58	0.56	0.58	23.1
5	T1	All MCs	24	0.0	24	0.0	0.074	5.4	LOS A	0.4	2.8	0.58	0.56	0.58	23.1
6	R2	All MCs	15	0.0	15	0.0	0.074	8.2	LOS A	0.4	2.8	0.58	0.56	0.58	23.1
Approach			54	0.0	54	0.0	0.074	6.3	LOS A	0.4	2.8	0.58	0.56	0.58	23.1
North: Mann Street (N)															
7	L2	All MCs	4	0.0	4	0.0	0.295	3.7	LOS A	1.8	13.3	0.28	0.45	0.28	33.2
8	T1	All MCs	247	11.1	245	11.1	0.295	3.4	LOS A	1.8	13.3	0.28	0.45	0.28	32.7
9	R2	All MCs	61	0.0	61	0.0	0.295	6.0	LOS A	1.8	13.3	0.28	0.45	0.28	32.7
9u	U	All MCs	7	0.0	7	0.0	0.295	7.2	LOS A	1.8	13.3	0.28	0.45	0.28	32.7
Approach			320	8.6	317	8.5	0.295	4.0	LOS A	1.8	13.3	0.28	0.45	0.28	32.7
West: Georgiana Terrace (W)															
10	L2	All MCs	138	0.8	128	0.8	0.263	6.1	LOS A	1.7	11.7	0.67	0.65	0.67	23.1
11	T1	All MCs	11	10.0	10	10.0	0.263	5.9	LOS A	1.7	11.7	0.67	0.65	0.67	27.4
12	R2	All MCs	64	0.0	60	0.0	0.263	8.3	LOS A	1.7	11.7	0.67	0.65	0.67	23.1
12u	U	All MCs	7	0.0	7	0.0	0.263	9.5	LOS A	1.7	11.7	0.67	0.65	0.67	23.1
Approach			220	1.0	204	1.0	0.263	6.9	LOS A	1.7	11.7	0.67	0.65	0.67	23.4
All Vehicles			1433	4.5	1403	4.6	0.814	5.2	LOS A	12.0	86.9	0.70	0.50	0.70	28.4

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE [Ped Dist] ped m		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec						sec	m	m/sec
South: Mann Street											
P1	Full	43	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
East: Donnison Street											

P2 Full	43	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
North: Mann Street										
P3 Full	9	34.2	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
West: Pacific Highway										
P4 Full	23	34.3	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
All Pedestrians	119	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Henry Parry Drive (S)											
P1	Full	43	49.3	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
East: Donnison Street (E)											

P2 Full	28	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
North: Henry Parry Drive (N)										
P3 Full	41	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
West: Donnison Street (W)										
P4 Full	20	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
All Pedestrians	133	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

 **Site: 7 [7. Vaughan Ave/ Baker St - AM (NEW) (Site Folder: 3_2027 Opening AM with Other Dev and CCQ (NEW))]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 **Network: N101**
[Opening_AM_DEV (Network Folder: 3_2027 Opening with Other Dev and CCQ)]

NA
Site Category: NA
Stop (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec							km/h
NorthEast: Vaughan Avenue (NE)															
25	T1	All MCs	81	5.2	80	5.2	0.043	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			81	5.2	80	5.2	0.043	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
NorthWest: Baker Street (N)															
27	L2	All MCs	11	60.0	10	61.3	0.061	0.1	LOS A	0.2	1.6	0.16	0.06	0.16	10.0
29	R2	All MCs	64	4.9	60	5.2	0.061	0.4	LOS A	0.2	1.6	0.16	0.06	0.16	10.0
Approach			75	12.7	70	13.3	0.061	0.4	LOS A	0.2	1.6	0.16	0.06	0.16	10.0
SouthWest: Vaughan Avenue (SW)															
31	T1	All MCs	35	3.0	25	3.0	0.013	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			35	3.0	25	3.0	0.013	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
All Vehicles			191	7.7	176	8.4	0.061	0.1	NA	0.2	1.6	0.06	0.03	0.06	13.1

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

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Project: C:\Users\saralar\Urbis Ltd\P0061198 UPG - Central Coast Quarter Stage 2 - Transport Advisory - General\03_Workspace\01_Analysis
\\Sidra\December 2025 Modelling\P0061198 CCQ Sidra Model 251202 Revised Yields.sip9

MOVEMENT SUMMARY

Site: 8 [8. Mann St/ Vaughan Ave - AM (Site Folder: 3_2027 Opening AM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101
[Opening_AM_DEV (Network Folder: 3_2027 Opening with Other Dev and CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h		veh/h		v/c	sec			m				km/h
South: Mann Street (S)															
1b	L3	All MCs	94	5.6	93	5.6	0.418	4.2	LOS A	0.8	6.1	0.03	0.07	0.03	39.0
2	T1	All MCs	652	3.9	648	3.9	0.418	0.0	LOS A	0.8	6.1	0.03	0.07	0.03	39.0
Approach			745	4.1	742	4.1	0.418	0.5	NA	0.8	6.1	0.03	0.07	0.03	39.0
North: Mann Street (N)															
8	T1	All MCs	277	9.5	271	9.6	0.215	1.6	LOS A	0.8	6.2	0.29	0.32	0.29	34.1
9a	R1	All MCs	52	4.1	51	4.1	0.215	7.2	LOS A	0.8	6.2	0.29	0.32	0.29	34.1
Approach			328	8.7	322	8.8	0.215	2.5	NA	0.8	6.2	0.29	0.32	0.29	34.1
SouthWest: Vaughan Avenue (SW)															
30a	L1	All MCs	188	5.0	180	5.1	0.325	8.0	LOS A	1.5	11.2	0.65	0.87	0.80	16.4
32b	R3	All MCs	36	8.8	34	8.9	0.325	14.9	LOS B	1.5	11.2	0.65	0.87	0.80	16.4
Approach			224	5.6	214	5.7	0.325	9.1	LOS A	1.5	11.2	0.65	0.87	0.80	16.4
All Vehicles			1298	5.5	1278	5.6	0.418	2.5	NA	1.5	11.2	0.20	0.27	0.23	35.4

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

 Site: 9 [9. Central Coast Hwy/ Mann St - AM (Site Folder: 3_2027 Opening AM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101
[Opening_AM_DEV (Network Folder: 3_2027 Opening with Other Dev and CCQ)]

NA

Site Category: NA

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

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Central Coast Hwy (S)															
1a	L1	All MCs	2097	3.6	2097	3.6	0.528	24.6	LOS B	43.0	310.7	0.66	0.79	0.66	34.9
2	T1	All MCs	499	6.1	499	6.1	* 0.558	45.8	LOS D	25.4	187.1	0.88	0.80	0.88	26.1
Approach			2596	4.1	2596	4.1	0.558	28.7	LOS C	43.0	310.7	0.70	0.79	0.70	31.0
North: Mann Street (N)															
8	T1	All MCs	258	10.9	253	11.0	0.210	33.3	LOS C	5.7	43.7	0.76	0.62	0.76	31.4
Approach			258	10.9	253	11.0	0.210	33.3	LOS C	5.7	43.7	0.76	0.62	0.76	31.4
NorthWest: Central Coast Hwy (NW)															
27b	L3	All MCs	15	0.0	11	0.0	0.564	11.2	LOS A	26.2	191.7	0.68	0.80	0.68	23.3
29a	R1	All MCs	1792	5.2	1342	5.2	* 0.564	23.9	LOS B	26.4	192.9	0.68	0.79	0.68	38.1
Approach			1806	5.2	1353	5.2	0.564	23.8	LOS B	26.4	192.9	0.68	0.79	0.68	38.1
All Vehicles			4661	4.9	4202	5.4	0.564	27.4	LOS B	43.0	310.7	0.70	0.78	0.70	33.5

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Central Coast Hwy (S)											
P1S	Slip/ Bypass	17	59.2	LOS E	0.1	0.1	0.95	0.95	520.7	600.0	1.15
North: Mann Street (N)											
P3	Full	11	59.2	LOS E	0.0	0.0	0.95	0.95	213.0	200.0	0.94
NorthWest: Central Coast Hwy (NW)											
P71	Stage 1	17	59.2	LOS E	0.1	0.1	0.95	0.95	520.7	600.0	1.15
All Pedestrians		44	59.2	LOS E	0.1	0.1	0.95	0.95	447.5	504.8	1.13

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: C:\Users\saralar\Urbis Ltd\P0061198 UPG - Central Coast Quarter Stage 2 - Transport Advisory - General\03_Workspace\01_Analysis
\Sidra\December 2025 Modelling\P0061198 CCQ Sidra Model 251202 Revised Yields.sip9

MOVEMENT SUMMARY

▼ Site: 10 [10. Central Coast Hwy/ Vaughan St - AM (NEW) (Site Folder: 3_2027 Opening AM with Other Dev and CCQ (NEW))]
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Opening_AM_DEV (Network Folder: 3_2027 Opening with Other Dev and CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec			m				km/h
SouthEast: Central Coast Hwy (SE)															
22	T1	All MCs	2136	3.4	2136	3.4	0.632	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.2
Approach			2136	3.4	2136	3.4	0.632	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.2
NorthEast: Vaughan Avenue (NE)															
24	L2	All MCs	136	5.4	131	5.6	0.326	6.5	LOS A	0.7	5.4	0.54	0.72	0.61	22.9
Approach			136	5.4	131	5.6	0.326	6.5	LOS A	0.7	5.4	0.54	0.72	0.61	22.9
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	37	2.9	27	2.9	0.430	5.7	LOS A	0.3	2.1	0.03	0.04	0.03	57.5
28	T1	All MCs	1641	5.3	1192	5.3	0.430	0.0	LOS A	5.3	39.0	0.01	0.01	0.01	59.0
Approach			1678	5.3	1219	5.3	0.430	0.2	NA	5.3	39.0	0.01	0.01	0.01	58.9
All Vehicles			3949	4.2	3486	4.8	0.632	0.3	NA	5.3	39.0	0.02	0.03	0.03	55.8

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

Site: 1 [1. Central Coast Hwy/ Dane Drv - PM (Site Folder: 3_2027 Opening PM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101
[Opening_PM_DEV (Network Folder: 3_2027 Opening with Other Dev and CCQ)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				km/h
			veh/h	%	veh/h	%	v/c	sec			m				
SouthEast: Central Coast Hwy (SE)															
21	L2	All MCs	4	0.0	4	0.0	0.584	5.9	LOS A	6.3	45.0	0.69	0.53	0.69	44.0
22	T1	All MCs	1088	2.3	1088	2.3	0.584	6.2	LOS A	6.3	45.0	0.69	0.55	0.69	48.5
23	R2	All MCs	317	0.7	317	0.7	0.584	10.3	LOS A	6.1	43.2	0.71	0.58	0.71	35.2
23u	U	All MCs	7	0.0	7	0.0	0.584	12.3	LOS A	6.1	43.2	0.71	0.58	0.71	35.2
Approach			1416	2.0	1416	2.0	0.584	7.1	LOS A	6.3	45.0	0.70	0.55	0.70	47.0
NorthEast: Dane Drive (NE)															
24	L2	All MCs	357	0.0	355	0.0	1.632	583.3	LOS F	26.5	186.4	1.00	7.44	17.97	0.6
25	T1	All MCs	7	0.0	7	0.0	1.632	583.5	LOS F	26.5	186.4	1.00	7.44	17.97	3.4
26	R2	All MCs	289	1.1	288	1.1	1.632	587.5	LOS F	26.5	186.4	1.00	7.44	17.97	3.5
Approach			654	0.5	651	0.5	1.632	585.2	LOS F	26.5	186.4	1.00	7.44	17.97	2.0
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	200	1.1	200	1.1	1.421	392.7	LOS F	229.8	1627.4	1.00	6.51	13.29	4.5
28	T1	All MCs	2105	1.5	2105	1.5	1.421	393.0	LOS F	229.8	1627.4	1.00	6.51	13.29	4.5
29	R2	All MCs	3	0.0	3	0.0	1.421	396.9	LOS F	228.2	1618.4	1.00	6.51	13.29	8.0
29u	U	All MCs	11	10.0	11	10.0	1.421	399.7	LOS F	228.2	1618.4	1.00	6.51	13.29	8.1
Approach			2319	1.5	2319	1.5	1.421	393.0	LOS F	229.8	1627.4	1.00	6.51	13.29	4.5
SouthWest: Dane Drive (SW)															
30	L2	All MCs	25	0.0	25	0.0	0.159	8.4	LOS A	0.7	5.0	0.77	0.86	0.77	46.6
31	T1	All MCs	26	0.0	26	0.0	0.159	8.4	LOS A	0.7	5.0	0.77	0.86	0.77	40.0
32	R2	All MCs	20	0.0	20	0.0	0.159	12.4	LOS A	0.7	5.0	0.77	0.86	0.77	40.0
Approach			72	0.0	72	0.0	0.159	9.5	LOS A	0.7	5.0	0.77	0.86	0.77	43.1
All Vehicles			4460	1.4	4458	1.4	1.632	292.3	LOS F	229.8	1627.4	0.90	4.66	9.77	5.8

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

MOVEMENT SUMMARY

▼ Site: 2 [2. Georgiana Tce/ Dane Drv - PM (NEW) (Site Folder: 3_2027 Opening PM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Opening_PM_DEV (Network Folder: 3_2027 Opening with Other Dev and CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Dane Drive (S)															
2	T1	All MCs	319	1.0	286	1.0	0.354	1.9	LOS A	2.1	14.8	0.49	0.55	0.52	41.7
3	R2	All MCs	251	1.3	224	1.3	0.354	7.1	LOS A	2.1	14.8	0.49	0.55	0.52	29.7
Approach			569	1.1	510	1.1	0.354	4.2	NA	2.1	14.8	0.49	0.55	0.52	38.7
East: Georgiana Tce (E)															
4	L2	All MCs	291	1.1	288	1.1	0.615	6.6	LOS A	35.2	248.5	0.69	0.84	0.97	23.2
6	R2	All MCs	38	0.0	38	0.0	0.615	14.5	LOS A	35.2	248.5	0.69	0.84	0.97	33.1
Approach			328	1.0	325	1.0	0.615	7.5	LOS A	35.2	248.5	0.69	0.84	0.97	25.3
North: Dane Drive (N)															
7	L2	All MCs	113	0.0	113	0.0	0.245	4.6	LOS A	76.7	536.6	0.00	0.13	0.00	46.7
8	T1	All MCs	360	0.0	360	0.0	0.245	0.0	LOS A	76.7	536.6	0.00	0.13	0.00	46.7
Approach			473	0.0	473	0.0	0.245	1.1	NA	76.7	536.6	0.00	0.13	0.00	46.7
All Vehicles			1371	0.7	1308	0.7	0.615	3.9	NA	76.7	536.6	0.36	0.47	0.44	37.7

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

▼ Site: 3 [3. Georgiana Tce/ Baker St - PM (NEW) (Site Folder: 3_2027 Opening PM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Opening_PM_DEV (Network Folder: 3_2027 Opening with Other Dev and CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h		veh/h		v/c	sec		veh	m				km/h
East: Georgiana Terrace (E)															
4	L2	All MCs	7	0.0	7	0.0	0.439	7.8	LOS A	22.6	158.9	0.34	0.29	0.34	30.7
5	T1	All MCs	314	1.0	310	1.0	0.439	0.6	LOS A	22.6	158.9	0.34	0.29	0.34	30.7
6	R2	All MCs	198	0.0	196	0.0	0.439	5.7	LOS A	22.6	158.9	0.34	0.29	0.34	34.8
Approach			519	0.6	513	0.6	0.439	2.7	NA	22.6	158.9	0.34	0.29	0.34	33.2
North: Baker Street (N)															
7	L2	All MCs	101	0.0	101	0.0	0.304	4.8	LOS A	4.0	27.9	0.57	0.70	0.65	28.7
8	T1	All MCs	6	0.0	6	0.0	0.304	13.3	LOS A	4.0	27.9	0.57	0.70	0.65	28.7
9	R2	All MCs	55	0.0	55	0.0	0.304	12.4	LOS A	4.0	27.9	0.57	0.70	0.65	28.7
Approach			162	0.0	162	0.0	0.304	7.7	LOS A	4.0	27.9	0.57	0.70	0.65	28.7
West: Georgiana Terrace (W)															
10	L2	All MCs	93	0.0	86	0.0	0.285	4.1	LOS A	1.8	12.7	0.26	0.28	0.26	35.4
11	T1	All MCs	236	0.4	220	0.4	0.285	0.5	LOS A	1.8	12.7	0.26	0.28	0.26	31.7
12	R2	All MCs	56	3.8	52	3.7	0.285	7.5	LOS A	1.8	12.7	0.26	0.28	0.26	31.7
Approach			384	0.8	358	0.8	0.285	2.4	NA	1.8	12.7	0.26	0.28	0.26	33.4
All Vehicles			1065	0.6	1034	0.6	0.439	3.4	NA	22.6	158.9	0.35	0.35	0.36	32.3

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik 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.

MOVEMENT SUMMARY

 Site: 4 [4. Mann St/ Georgina Tce - PM (Site Folder: 3_2027 Opening PM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101
[Opening_PM_DEV (Network Folder: 3_2027 Opening with Other Dev and CCQ)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Mann Street (S)															
1	L2	All MCs	205	1.5	200	1.6	0.518	3.8	LOS A	4.0	28.9	0.41	0.40	0.41	30.6
2	T1	All MCs	300	6.0	293	6.1	0.518	3.4	LOS A	4.0	28.9	0.41	0.40	0.41	30.6
3	R2	All MCs	3	0.0	3	0.0	0.518	6.1	LOS A	4.0	28.9	0.41	0.40	0.41	31.4
3u	U	All MCs	4	0.0	4	0.0	0.518	7.3	LOS A	4.0	28.9	0.41	0.40	0.41	30.6
Approach			513	4.1	500	4.2	0.518	3.6	LOS A	4.0	28.9	0.41	0.40	0.41	30.6
East: Georgiana Terrace (E)															
4	L2	All MCs	8	0.0	8	0.0	0.066	7.1	LOS A	0.3	2.3	0.67	0.63	0.67	21.0
5	T1	All MCs	14	0.0	14	0.0	0.066	6.7	LOS A	0.3	2.3	0.67	0.63	0.67	21.0
6	R2	All MCs	16	0.0	16	0.0	0.066	9.4	LOS A	0.3	2.3	0.67	0.63	0.67	21.0
Approach			38	0.0	38	0.0	0.066	7.9	LOS A	0.3	2.3	0.67	0.63	0.67	21.0
North: Mann Street (N)															
7	L2	All MCs	9	0.0	9	0.0	0.385	4.9	LOS A	2.4	17.6	0.44	0.53	0.44	32.6
8	T1	All MCs	307	6.8	305	6.9	0.385	4.6	LOS A	2.4	17.6	0.44	0.53	0.44	31.9
9	R2	All MCs	28	0.0	28	0.0	0.385	7.2	LOS A	2.4	17.6	0.44	0.53	0.44	31.9
9u	U	All MCs	8	0.0	8	0.0	0.385	8.4	LOS A	2.4	17.6	0.44	0.53	0.44	31.9
Approach			354	6.0	351	6.0	0.385	4.9	LOS A	2.4	17.6	0.44	0.53	0.44	32.0
West: Georgiana Terrace (W)															
10	L2	All MCs	159	0.7	152	0.6	0.390	5.7	LOS A	2.5	17.6	0.62	0.63	0.62	23.3
11	T1	All MCs	7	0.0	7	0.0	0.390	5.1	LOS A	2.5	17.6	0.62	0.63	0.62	27.5
12	R2	All MCs	195	0.0	186	0.0	0.390	7.9	LOS A	2.5	17.6	0.62	0.63	0.62	23.3
12u	U	All MCs	6	0.0	6	0.0	0.390	9.1	LOS A	2.5	17.6	0.62	0.63	0.62	23.3
Approach			367	0.3	351	0.3	0.390	6.9	LOS A	2.5	17.6	0.62	0.63	0.62	23.4
All Vehicles			1272	3.4	1240	3.5	0.518	5.0	LOS A	4.0	28.9	0.48	0.51	0.48	29.1

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE [Ped Dist] ped m		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec						sec	m	m/sec
South: Mann Street											
P1	Full	46	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
East: Donnison Street											

P2 Full	42	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
North: Mann Street										
P3 Full	16	34.2	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
West: Pacific Highway										
P4 Full	59	34.3	LOS D	0.1	0.1	0.93	0.93	188.2	200.0	1.06
All Pedestrians	163	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Henry Parry Drive (S)											
P1	Full	8	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
East: Donnison Street (E)											

P2	Full	5	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
North: Henry Parry Drive (N)											
P3	Full	11	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
West: Donnison Street (W)											
P4	Full	4	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
All Pedestrians		28	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

 **Site: 7 [7. Vaughan Ave/ Baker St - PM (NEW) (Site Folder: 3_2027 Opening PM with Other Dev and CCQ (NEW))]**
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 **Network: N101**
[Opening_PM_DEV (Network Folder: 3_2027 Opening with Other Dev and CCQ)]

NA
Site Category: NA
Stop (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				
			veh/h	%	veh/h	%	v/c	sec							km/h
NorthEast: Vaughan Avenue (NE)															
25	T1	All MCs	48	4.3	48	4.4	0.025	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			48	4.3	48	4.4	0.025	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
NorthWest: Baker Street (N)															
27	L2	All MCs	32	0.0	30	0.0	0.056	0.1	LOS A	0.2	1.4	0.11	0.03	0.11	10.0
29	R2	All MCs	46	4.5	44	4.3	0.056	0.3	LOS A	0.2	1.4	0.11	0.03	0.11	10.0
Approach			78	2.7	74	2.6	0.056	0.2	LOS A	0.2	1.4	0.11	0.03	0.11	10.0
SouthWest: Vaughan Avenue (SW)															
31	T1	All MCs	37	2.9	26	2.9	0.013	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			37	2.9	26	2.9	0.013	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
All Vehicles			163	3.2	148	3.6	0.056	0.1	NA	0.2	1.4	0.06	0.02	0.06	12.2

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

▼ Site: 8 [8. Mann St/ Vaughan Ave - PM (Site Folder: 3_2027 Opening PM with Other Dev and CCQ (NEW))]
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Opening_PM_DEV (Network Folder: 3_2027 Opening with Other Dev and CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Mann Street (S)															
1b	L3	All MCs	123	5.1	122	5.2	0.302	4.2	LOS A	0.9	6.3	0.04	0.13	0.04	38.3
2	T1	All MCs	386	4.9	384	4.9	0.302	0.0	LOS A	0.9	6.3	0.04	0.13	0.04	38.3
Approach			509	5.0	506	5.0	0.302	1.0	NA	0.9	6.3	0.04	0.13	0.04	38.3
North: Mann Street (N)															
8	T1	All MCs	439	4.3	430	4.4	0.279	0.6	LOS A	0.7	5.3	0.18	0.18	0.18	37.1
9a	R1	All MCs	57	3.7	56	3.8	0.279	5.3	LOS A	0.7	5.3	0.18	0.18	0.18	37.1
Approach			496	4.2	485	4.3	0.279	1.1	NA	0.7	5.3	0.18	0.18	0.18	37.1
SouthWest: Vaughan Avenue (SW)															
30a	L1	All MCs	127	3.3	117	3.4	0.157	5.1	LOS A	0.7	4.8	0.50	0.63	0.50	20.4
32b	R3	All MCs	27	3.8	25	3.9	0.157	10.6	LOS A	0.7	4.8	0.50	0.63	0.50	20.4
Approach			155	3.4	142	3.5	0.157	6.1	LOS A	0.7	4.8	0.50	0.63	0.50	20.4
All Vehicles			1160	4.4	1134	4.5	0.302	1.7	NA	0.9	6.3	0.16	0.22	0.16	36.5

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

 Site: 9 [9. Central Coast Hwy/ Mann St - PM (Site Folder: 3_2027 Opening PM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101
[Opening_PM_DEV (Network Folder: 3_2027 Opening with Other Dev and CCQ)]

NA

Site Category: NA

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

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Central Coast Hwy (S)															
1a	L1	All MCs	1492	2.0	1492	2.0	0.288	14.2	LOS A	18.3	129.9	0.43	0.75	0.43	41.9
2	T1	All MCs	404	5.7	404	5.7	* 0.700	52.8	LOS D	23.2	170.3	0.98	0.94	0.98	22.6
Approach			1896	2.8	1896	2.8	0.700	22.4	LOS B	23.2	170.3	0.55	0.79	0.55	34.7
North: Mann Street (N)															
8	T1	All MCs	407	4.5	397	4.6	0.455	46.4	LOS D	10.9	79.1	0.91	0.76	0.91	27.4
Approach			407	4.5	397	4.6	0.455	46.4	LOS D	10.9	79.1	0.91	0.76	0.91	27.4
NorthWest: Central Coast Hwy (NW)															
27b	L3	All MCs	11	0.0	7	0.0	0.620	12.1	LOS A	30.9	218.2	0.60	0.78	0.60	27.2
29a	R1	All MCs	2529	1.2	1787	1.2	* 0.620	17.9	LOS B	30.9	218.9	0.61	0.77	0.61	41.6
Approach			2540	1.2	1794	1.2	0.620	17.9	LOS B	30.9	218.9	0.61	0.77	0.61	41.6
All Vehicles			4843	2.1	4087	2.5	0.700	22.8	LOS B	30.9	218.9	0.61	0.78	0.61	36.7

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Central Coast Hwy (S)											
P1S	Slip/ Bypass	5	59.2	LOS E	0.0	0.0	0.95	0.95	520.7	600.0	1.15
North: Mann Street (N)											
P3	Full	5	59.2	LOS E	0.0	0.0	0.95	0.95	213.0	200.0	0.94
NorthWest: Central Coast Hwy (NW)											
P71	Stage 1	5	59.2	LOS E	0.0	0.0	0.95	0.95	520.7	600.0	1.15
All Pedestrians		16	59.2	LOS E	0.0	0.0	0.95	0.95	418.1	466.7	1.12

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: C:\Users\saralar\Urbis Ltd\P0061198 UPG - Central Coast Quarter Stage 2 - Transport Advisory - General\03_Workspace\01_Analysis
\Sidra\December 2025 Modelling\P0061198 CCQ Sidra Model 251202 Revised Yields.sip9

MOVEMENT SUMMARY

▼ Site: 10 [10. Central Coast Hwy/ Vaughan St - PM (NEW) (Site Folder: 3_2027 Opening PM with Other Dev and CCQ (NEW))]
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Opening_PM_DEV (Network Folder: 3_2027 Opening with Other Dev and CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec			m				km/h
SouthEast: Central Coast Hwy (SE)															
22	T1	All MCs	1464	2.1	1464	2.1	0.381	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
Approach			1464	2.1	1464	2.1	0.381	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.7
NorthEast: Vaughan Avenue (NE)															
24	L2	All MCs	93	3.4	90	3.3	0.496	14.6	LOS B	0.9	6.8	0.83	0.99	1.05	14.9
Approach			93	3.4	90	3.3	0.496	14.6	LOS B	0.9	6.8	0.83	0.99	1.05	14.9
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	37	2.9	26	2.9	0.898	6.3	LOS A	2.0	14.2	0.07	0.05	0.09	57.6
28	T1	All MCs	2463	1.1	1713	1.1	0.898	0.8	LOS A	2.0	14.2	0.03	0.02	0.04	55.7
Approach			2500	1.1	1738	1.2	0.898	0.9	NA	2.0	14.2	0.04	0.02	0.04	55.8
All Vehicles			4057	1.5	3292	1.9	0.898	0.9	NA	2.0	14.2	0.04	0.04	0.05	53.2

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

 Site: 1 [1. Central Coast Hwy/ Dane Drv - AM (Site Folder: 4_2037 Future AM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101 [Future_AM
(Network Folder: 4_2037 Future
with Other Dev no CCQ)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec							km/h
SouthEast: Central Coast Hwy (SE)															
21	L2	All MCs	23	0.0	22	0.0	1.030	49.6	LOS D	65.4	472.2	1.00	1.91	2.62	25.8
22	T1	All MCs	1978	3.7	1904	3.7	1.030	51.3	LOS D	65.4	472.2	1.00	1.90	2.66	26.8
23	R2	All MCs	546	2.3	526	2.3	1.030	58.0	LOS E	63.0	452.6	1.00	1.87	2.72	11.7
23u	U	All MCs	5	0.0	5	0.0	1.030	59.8	LOS E	63.0	452.6	1.00	1.87	2.72	11.7
Approach			2553	3.3	2457	3.3	1.030	52.7	LOS D	65.4	472.2	1.00	1.89	2.67	24.3
NorthEast: Dane Drive (NE)															
24	L2	All MCs	365	1.2	363	1.2	1.283	271.9	LOS F	26.4	186.4	1.00	5.37	12.18	1.3
25	T1	All MCs	17	0.0	17	0.0	1.283	271.9	LOS F	26.4	186.4	1.00	5.37	12.18	6.8
26	R2	All MCs	235	0.9	233	0.9	1.283	275.9	LOS F	26.4	186.4	1.00	5.37	12.18	6.9
Approach			617	1.0	613	1.0	1.283	273.4	LOS F	26.4	186.4	1.00	5.37	12.18	3.7
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	387	1.1	387	1.1	1.656	605.7	LOS F	259.1	1882.5	1.00	7.42	16.74	2.9
28	T1	All MCs	1574	6.5	1574	6.5	1.656	606.5	LOS F	259.1	1882.5	1.00	7.42	16.68	3.0
29	R2	All MCs	19	0.0	19	0.0	1.656	610.1	LOS F	253.9	1881.7	1.00	7.41	16.64	5.5
29u	U	All MCs	9	55.6	9	55.6	1.656	617.0	LOS F	253.9	1881.7	1.00	7.41	16.64	5.5
Approach			1990	5.6	1990	5.6	1.656	606.4	LOS F	259.1	1882.5	1.00	7.42	16.70	3.0
SouthWest: Dane Drive (SW)															
30	L2	All MCs	4	0.0	4	0.0	0.051	17.8	LOS B	0.3	1.8	0.91	0.95	0.91	42.0
31	T1	All MCs	4	0.0	4	0.0	0.051	17.8	LOS B	0.3	1.8	0.91	0.95	0.91	33.7
32	R2	All MCs	1	0.0	1	0.0	0.051	21.8	LOS B	0.3	1.8	0.91	0.95	0.91	33.7
Approach			9	0.0	9	0.0	0.051	18.3	LOS B	0.3	1.8	0.91	0.95	0.91	38.3
All Vehicles			5168	3.9	5069	4.0	1.656	296.7	LOS F	259.1	1882.5	1.00	4.48	9.32	5.9

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

MOVEMENT SUMMARY

Site: 2 [2. Georgiana Tce/ Dane Drv - AM (Site Folder: 4_2037 Future AM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [Future_AM (Network Folder: 4_2037 Future with Other Dev no CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Dane Drive (S)															
2	T1	All MCs	475	2.2	379	2.4	0.576	4.9	LOS A	6.3	44.7	0.62	0.80	1.09	36.8
3	R2	All MCs	456	1.2	364	1.2	0.576	10.2	LOS A	6.3	44.7	0.62	0.80	1.09	22.4
Approach			931	1.7	743	1.8	0.576	7.5	NA	6.3	44.7	0.62	0.80	1.09	32.2
East: Georgiana Tce (E)															
4	L2	All MCs	231	1.8	226	1.9	0.646	7.2	LOS A	2.4	17.3	0.78	0.96	1.18	20.5
6	R2	All MCs	41	2.6	40	2.6	0.646	24.5	LOS B	2.4	17.3	0.78	0.96	1.18	31.0
Approach			272	1.9	266	2.0	0.646	9.8	LOS A	2.4	17.3	0.78	0.96	1.18	23.1
North: Dane Drive (N)															
7	L2	All MCs	184	0.0	184	0.0	0.501	4.7	LOS A	0.0	0.0	0.00	0.17	0.00	45.3
8	T1	All MCs	387	0.8	387	0.8	0.501	0.2	LOS A	0.0	0.0	0.00	0.17	0.00	45.3
Approach			572	0.6	572	0.6	0.501	1.6	NA	0.0	0.0	0.00	0.17	0.00	45.3
All Vehicles			1774	1.4	1580	1.5	0.646	5.8	NA	6.3	44.7	0.42	0.60	0.71	34.6

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

▼ Site: 3 [3. Georgiana Tce/ Baker St - AM (Site Folder: 4_2037 Future AM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101 [Future_AM (Network Folder: 4_2037 Future with Other Dev no CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h		veh/h		v/c	sec		veh	m				km/h
East: Georgiana Terrace (E)															
4	L2	All MCs	14	0.0	13	0.0	0.453	7.9	LOS A	3.0	21.2	0.39	0.34	0.39	27.5
5	T1	All MCs	252	0.4	245	0.4	0.453	0.6	LOS A	3.0	21.2	0.39	0.34	0.39	27.5
6	R2	All MCs	222	0.0	216	0.0	0.453	7.9	LOS A	3.0	21.2	0.39	0.34	0.39	33.3
Approach			487	0.2	474	0.2	0.453	4.1	NA	3.0	21.2	0.39	0.34	0.39	31.4
North: Baker Street (N)															
7	L2	All MCs	81	0.0	81	0.0	0.237	5.3	LOS A	0.9	6.2	0.62	0.77	0.65	27.4
8	T1	All MCs	3	0.0	3	0.0	0.237	14.2	LOS A	0.9	6.2	0.62	0.77	0.65	27.4
9	R2	All MCs	46	9.1	46	9.1	0.237	15.2	LOS B	0.9	6.2	0.62	0.77	0.65	27.4
Approach			131	3.2	131	3.2	0.237	9.1	LOS A	0.9	6.2	0.62	0.77	0.65	27.4
West: Georgiana Terrace (W)															
10	L2	All MCs	184	1.7	158	1.8	0.431	4.0	LOS A	3.4	23.8	0.28	0.22	0.28	35.8
11	T1	All MCs	439	0.7	376	0.7	0.431	0.6	LOS A	3.4	23.8	0.28	0.22	0.28	32.8
12	R2	All MCs	19	0.0	16	0.0	0.431	7.5	LOS A	3.4	23.8	0.28	0.22	0.28	32.8
Approach			642	1.0	550	1.0	0.431	1.8	NA	3.4	23.8	0.28	0.22	0.28	34.3
All Vehicles			1260	0.9	1155	1.0	0.453	3.6	NA	3.4	23.8	0.36	0.33	0.36	32.0

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik 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.

MOVEMENT SUMMARY

 Site: 4 [4. Mann St/ Georgina Tce - AM (Site Folder: 4_2037 Future AM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101 [Future_AM (Network Folder: 4_2037 Future with Other Dev no CCQ)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Mann Street (S)															
1	L2	All MCs	379	0.3	366	0.3	0.630	4.6	LOS A	7.1	51.8	0.60	0.47	0.60	29.3
2	T1	All MCs	383	8.0	370	8.0	0.630	4.3	LOS A	7.1	51.8	0.60	0.47	0.60	29.3
3	R2	All MCs	4	0.0	4	0.0	0.630	6.9	LOS A	7.1	51.8	0.60	0.47	0.60	30.5
3u	U	All MCs	11	0.0	10	0.0	0.630	8.1	LOS A	7.1	51.8	0.60	0.47	0.60	29.3
Approach			777	4.1	751	4.1	0.630	4.5	LOS A	7.1	51.8	0.60	0.47	0.60	29.4
East: Georgiana Terrace (E)															
4	L2	All MCs	18	0.0	18	0.0	0.075	6.0	LOS A	0.5	3.4	0.59	0.57	0.59	22.9
5	T1	All MCs	28	0.0	28	0.0	0.075	5.6	LOS A	0.5	3.4	0.59	0.57	0.59	22.9
6	R2	All MCs	18	0.0	18	0.0	0.075	8.3	LOS A	0.5	3.4	0.59	0.57	0.59	22.9
Approach			64	0.0	64	0.0	0.075	6.5	LOS A	0.5	3.4	0.59	0.57	0.59	22.9
North: Mann Street (N)															
7	L2	All MCs	5	0.0	5	0.0	0.285	3.8	LOS A	1.8	13.6	0.28	0.46	0.28	33.1
8	T1	All MCs	249	12.2	246	12.3	0.285	3.5	LOS A	1.8	13.6	0.28	0.46	0.28	32.6
9	R2	All MCs	67	0.0	66	0.0	0.285	6.1	LOS A	1.8	13.6	0.28	0.46	0.28	32.6
9u	U	All MCs	8	0.0	8	0.0	0.285	7.3	LOS A	1.8	13.6	0.28	0.46	0.28	32.6
Approach			331	9.2	326	9.3	0.285	4.1	LOS A	1.8	13.6	0.28	0.46	0.28	32.6
West: Georgiana Terrace (W)															
10	L2	All MCs	158	0.7	139	0.7	0.266	6.1	LOS A	1.6	11.5	0.64	0.64	0.64	23.2
11	T1	All MCs	12	9.1	10	9.1	0.266	5.8	LOS A	1.6	11.5	0.64	0.64	0.64	27.5
12	R2	All MCs	72	0.0	63	0.0	0.266	8.2	LOS A	1.6	11.5	0.64	0.64	0.64	23.2
12u	U	All MCs	8	0.0	7	0.0	0.266	9.4	LOS A	1.6	11.5	0.64	0.64	0.64	23.2
Approach			249	0.8	219	0.8	0.266	6.8	LOS A	1.6	11.5	0.64	0.64	0.64	23.5
All Vehicles			1421	4.5	1360	4.7	0.630	4.9	LOS A	7.1	51.8	0.53	0.50	0.53	29.3

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

MOVEMENT SUMMARY

 Site: 5 [5. Mann Street/ Donnison Street - AM (Site Folder: 4_2037 Future AM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101 [Future_AM (Network Folder: 4_2037 Future with Other Dev no CCQ)]

NA

Site Category: NA

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

Vehicle Movement Performance																
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[Total HV]		[Total HV]					[Veh. veh	Dist]					km/h
			veh/h	%	veh/h	%	v/c	sec			m					
South: Mann Street																
1	L2	All MCs	35	9.1	33	9.3	0.049	19.8	LOS B	0.8	6.0	0.65	0.65	0.65	23.0	
2	T1	All MCs	522	5.4	493	5.6	* 0.551	16.1	LOS B	13.7	100.5	0.76	0.67	0.76	28.0	
Approach			557	5.7	526	5.8	0.551	16.3	LOS B	13.7	100.5	0.76	0.67	0.76	27.7	
East: Donnison Street																
4	L2	All MCs	39	2.7	34	2.5	0.162	35.8	LOS C	2.3	16.6	0.81	0.68	0.81	18.4	
5	T1	All MCs	308	1.0	271	0.9	0.567	30.0	LOS C	8.6	60.4	0.91	0.76	0.91	21.4	
6	R2	All MCs	16	0.0	14	0.0	0.567	62.4	LOS E	8.6	60.4	0.93	0.78	0.93	23.2	
Approach			363	1.2	320	1.1	0.567	32.0	LOS C	8.6	60.4	0.90	0.75	0.90	20.2	
North: Mann Street																
7	L2	All MCs	102	5.2	102	5.2	0.173	22.9	LOS B	3.3	24.1	0.54	0.58	0.54	24.6	
8	T1	All MCs	296	9.6	296	9.6	0.747	22.6	LOS B	13.8	103.0	0.85	0.82	0.91	19.0	
9	R2	All MCs	156	5.4	156	5.4	* 0.747	42.9	LOS D	13.8	103.0	0.93	0.88	1.01	21.2	
Approach			554	7.6	554	7.6	0.747	28.4	LOS B	13.8	103.0	0.81	0.79	0.87	17.3	
West: Pacific Highway																
10	L2	All MCs	352	4.2	352	4.2	0.520	36.0	LOS C	10.8	78.1	0.83	0.80	0.83	21.0	
11	T1	All MCs	629	0.7	629	0.7	* 1.234	263.5	LOS F	73.0	514.2	1.00	2.67	3.33	1.5	
Approach			981	1.9	981	1.9	1.234	182.0	LOS F	73.0	514.2	0.94	2.00	2.43	3.3	
All Vehicles			2455	3.9	2380	4.1	1.234	89.5	LOS F	73.0	514.2	0.86	1.26	1.49	8.4	

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist]			sec	m	m/sec
South: Mann Street											
P1	Full	43	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
East: Donnison Street											
P2	Full	43	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06

North: Mann Street											
P3	Full	9	34.2	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
West: Pacific Highway											
P4	Full	23	34.3	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
All Pedestrians		119	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Henry Parry Drive (S)											
P1	Full	43	49.3	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
East: Donnison Street (E)											

P2	Full	28	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
North: Henry Parry Drive (N)											
P3	Full	41	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
West: Donnison Street (W)											
P4	Full	20	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
All Pedestrians		133	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

 **Site: 7 [7. Vaughan Ave/ Baker St - AM (Site Folder: 4_2037 Future AM with Other Dev no CCQ)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 **Network: N101 [Future_AM (Network Folder: 4_2037 Future with Other Dev no CCQ)]**

NA
Site Category: NA
Stop (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec							km/h
NorthEast: Vaughan Avenue (NE)															
25	T1	All MCs	22	4.8	21	4.8	0.011	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			22	4.8	21	4.8	0.011	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
NorthWest: Baker Street (N)															
27	L2	All MCs	13	58.3	12	60.5	0.011	0.0	LOS A	0.0	0.4	0.06	0.01	0.06	10.0
29	R2	All MCs	1	0.0	1	0.0	0.011	0.1	LOS A	0.0	0.4	0.06	0.01	0.06	10.0
Approach			14	53.8	13	56.1	0.011	0.0	LOS A	0.0	0.4	0.06	0.01	0.06	10.0
SouthWest: Vaughan Avenue (SW)															
31	T1	All MCs	19	0.0	12	0.0	0.006	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			19	0.0	12	0.0	0.006	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
All Vehicles			55	15.4	47	18.1	0.011	0.0	NA	0.0	0.4	0.02	0.00	0.02	15.0

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

▼ Site: 8 [8. Mann St/ Vaughan Ave - AM (Site Folder: 4_2037 Future AM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101 [Future_AM (Network Folder: 4_2037 Future with Other Dev no CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Mann Street (S)															
1b	L3	All MCs	250.0		249.9		0.383	4.4	LOS A	0.0	0.2	0.00	0.00	0.00	40.0
2	T1	All MCs	745	4.1	723	4.1	0.383	0.0	LOS A	0.0	0.2	0.00	0.00	0.00	40.0
Approach			747	4.2	725	4.2	0.383	0.0	NA	0.0	0.2	0.00	0.00	0.00	40.0
North: Mann Street (N)															
8	T1	All MCs	324	9.7	313	10.0	0.192	0.5	LOS A	0.3	2.1	0.10	0.11	0.10	37.9
9a	R1	All MCs	18	0.0	17	0.0	0.192	6.7	LOS A	0.3	2.1	0.10	0.11	0.10	37.9
Approach			342	9.2	330	9.5	0.192	0.8	NA	0.3	2.1	0.10	0.11	0.10	37.9
SouthWest: Vaughan Avenue (SW)															
30a	L1	All MCs	33	3.2	26	4.0	0.050	7.3	LOS A	0.2	1.3	0.60	0.74	0.60	17.2
32b	R3	All MCs	425	0	429	7	0.050	16.7	LOS B	0.2	1.3	0.60	0.74	0.60	17.2
Approach			37	5.7	30	7.1	0.050	8.4	LOS A	0.2	1.3	0.60	0.74	0.60	17.2
All Vehicles			1126	5.8	1084	6.0	0.383	0.5	NA	0.3	2.1	0.05	0.06	0.05	39.1

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

 Site: 9 [9. Central Coast Hwy/ Mann St - AM (Site Folder: 4_2037 Future AM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101 [Future_AM (Network Folder: 4_2037 Future with Other Dev no CCQ)]

NA

Site Category: NA

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 135 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance																
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed		
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist]				km/h	
South: Central Coast Hwy (S)																
1a	L1	All MCs	2471	3.6	2471	3.6	* 1.084	131.8	LOS F	138.2	997.2	1.00	1.29	1.66	11.5	
2	T1	All MCs	456	6.7	456	6.7	* 1.063	147.1	LOS F	46.3	342.7	1.00	1.52	1.71	10.8	
Approach			2927	4.1	2927	4.1	1.084	134.2	LOS F	138.2	997.2	1.00	1.33	1.67	11.2	
North: Mann Street (N)																
8	T1	All MCs	264	11.9	254	12.2	0.264	41.9	LOS C	6.6	50.8	0.83	0.68	0.83	28.6	
Approach			264	11.9	254	12.2	0.264	41.9	LOS C	6.6	50.8	0.83	0.68	0.83	28.6	
NorthWest: Central Coast Hwy (NW)																
27b	L3	All MCs	18	0.0	12	0.0	0.476	18.8	LOS B	21.9	159.8	0.55	0.76	0.55	24.8	
29a	R1	All MCs	1956	5.3	1265	5.0	0.476	20.0	LOS B	21.9	159.8	0.55	0.75	0.55	40.3	
Approach			1974	5.2	1277	5.0	0.476	20.0	LOS B	21.9	159.8	0.55	0.75	0.55	40.2	
All Vehicles			5164	4.9	4458	5.7	1.084	96.2	LOS F	138.2	997.2	0.86	1.12	1.30	16.1	

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Central Coast Hwy (S)											
P1S	Slip/ Bypass	17	61.7	LOS F	0.1	0.1	0.96	0.96	523.2	600.0	1.15
North: Mann Street (N)											
P3	Full	11	61.7	LOS F	0.0	0.0	0.96	0.96	215.5	200.0	0.93
NorthWest: Central Coast Hwy (NW)											
P71	Stage 1	17	61.7	LOS F	0.1	0.1	0.96	0.96	523.2	600.0	1.15
All Pedestrians		44	61.7	LOS F	0.1	0.1	0.96	0.96	450.0	504.8	1.12

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

▼ Site: 10 [10. Central Coast Hwy/ Vaughan St - AM (Site Folder: 4_2037 Future AM with Other Dev no CCQ)]
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101 [Future_AM (Network Folder: 4_2037 Future with Other Dev no CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec			m				km/h
SouthEast: Central Coast Hwy (SE)															
22	T1	All MCs	2519	3.4	2406	3.4	0.840	0.1	LOS A	6.0	43.2	0.00	0.00	0.00	57.3
Approach			2519	3.4	2406	3.4	0.840	0.1	NA	6.0	43.2	0.00	0.00	0.00	57.3
NorthEast: Vaughan Avenue (NE)															
24	L2	All MCs	12	9.1	11	9.2	0.029	5.9	LOS A	0.0	0.4	0.46	0.59	0.46	23.9
Approach			12	9.1	11	9.2	0.029	5.9	LOS A	0.0	0.4	0.46	0.59	0.46	23.9
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	22	0.0	14	0.0	0.440	5.6	LOS A	0.2	1.1	0.02	0.02	0.02	58.7
28	T1	All MCs	1929	5.3	1232	5.1	0.440	0.0	LOS A	4.2	30.3	0.01	0.01	0.01	59.3
Approach			1952	5.3	1247	5.1	0.440	0.1	NA	4.2	30.3	0.01	0.01	0.01	59.3
All Vehicles			4482	4.2	3664	5.2	0.840	0.1	NA	6.0	43.2	0.00	0.00	0.00	58.5

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

 Site: 1 [1. Central Coast Hwy/ Dane Drv - PM (Site Folder: 4_2037 Future PM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101 [Future_PM
(Network Folder: 4_2037 Future
with Other Dev no CCQ)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec							km/h
SouthEast: Central Coast Hwy (SE)															
21	L2	All MCs	5	0.0	5	0.0	0.667	6.0	LOS A	8.2	58.8	0.74	0.54	0.74	43.7
22	T1	All MCs	1286	2.4	1286	2.4	0.667	6.2	LOS A	8.2	58.8	0.75	0.55	0.75	48.2
23	R2	All MCs	365	0.9	365	0.9	0.667	10.4	LOS A	8.0	56.6	0.77	0.58	0.77	34.8
23u	U	All MCs	8	0.0	8	0.0	0.667	12.4	LOS A	8.0	56.6	0.77	0.58	0.77	34.8
Approach			1665	2.0	1665	2.0	0.667	7.2	LOS A	8.2	58.8	0.75	0.56	0.75	46.7
NorthEast: Dane Drive (NE)															
24	L2	All MCs	413	0.0	411	0.0	1.557	515.8	LOS F	26.6	186.4	1.00	7.36	17.68	0.7
25	T1	All MCs	8	0.0	8	0.0	1.557	515.9	LOS F	26.6	186.4	1.00	7.36	17.68	3.9
26	R2	All MCs	252	0.0	251	0.0	1.557	519.9	LOS F	26.6	186.4	1.00	7.36	17.68	3.9
Approach			673	0.0	671	0.0	1.557	517.4	LOS F	26.6	186.4	1.00	7.36	17.68	2.0
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	198	0.5	198	0.5	1.743	682.3	LOS F	362.5	2564.7	1.00	8.79	19.04	2.7
28	T1	All MCs	2432	1.4	2432	1.4	1.743	682.4	LOS F	364.3	2581.9	1.00	8.79	19.04	2.7
29	R2	All MCs	4	0.0	4	0.0	1.743	686.1	LOS F	364.3	2581.9	1.00	8.79	19.03	4.9
29u	U	All MCs	12	9.1	12	9.1	1.743	688.9	LOS F	364.3	2581.9	1.00	8.79	19.03	5.0
Approach			2645	1.4	2645	1.4	1.743	682.4	LOS F	364.3	2581.9	1.00	8.79	19.04	2.7
SouthWest: Dane Drive (SW)															
30	L2	All MCs	31	0.0	31	0.0	0.221	9.5	LOS A	1.0	7.2	0.81	0.90	0.81	46.0
31	T1	All MCs	32	0.0	32	0.0	0.221	9.5	LOS A	1.0	7.2	0.81	0.90	0.81	39.1
32	R2	All MCs	23	0.0	23	0.0	0.221	13.5	LOS A	1.0	7.2	0.81	0.90	0.81	39.1
Approach			85	0.0	85	0.0	0.221	10.6	LOS A	1.0	7.2	0.81	0.90	0.81	42.4
All Vehicles			5068	1.4	5066	1.4	1.743	427.4	LOS F	364.3	2581.9	0.92	5.76	12.54	4.1

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

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Project: C:\Users\saralar\Urbis Ltd\P0061198 UPG - Central Coast Quarter Stage 2 - Transport Advisory - General\03_Workspace\01_Analysis

\Sidra\December 2025 Modelling\P0061198 CCQ Sidra Model 251202 Revised Yields.sip9

MOVEMENT SUMMARY

Site: 2 [2. Georgiana Tce/ Dane Drv - PM (Site Folder: 4_2037 Future PM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101 [Future_PM (Network Folder: 4_2037 Future with Other Dev no CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Dane Drive (S)															
2	T1	All MCs	362	1.2	311	1.2	0.361	2.2	LOS A	2.2	15.5	0.49	0.56	0.55	41.4
3	R2	All MCs	235	0.4	201	0.5	0.361	7.7	LOS A	2.2	15.5	0.49	0.56	0.55	29.3
Approach			597	0.9	512	0.9	0.361	4.3	NA	2.2	15.5	0.49	0.56	0.55	38.8
East: Georgiana Tce (E)															
4	L2	All MCs	259	0.0	257	0.0	0.607	6.8	LOS A	35.5	248.5	0.71	0.89	1.01	22.6
6	R2	All MCs	42	0.0	42	0.0	0.607	15.0	LOS B	35.5	248.5	0.71	0.89	1.01	32.7
Approach			301	0.0	299	0.0	0.607	8.0	LOS A	35.5	248.5	0.71	0.89	1.01	25.0
North: Dane Drive (N)															
7	L2	All MCs	128	0.0	128	0.0	0.280	4.6	LOS A	80.3	561.8	0.00	0.13	0.00	46.6
8	T1	All MCs	412	0.0	412	0.0	0.280	0.0	LOS A	80.3	561.8	0.00	0.13	0.00	46.6
Approach			540	0.0	540	0.0	0.280	1.1	NA	80.3	561.8	0.00	0.13	0.00	46.6
All Vehicles			1438	0.4	1351	0.4	0.607	3.9	NA	80.3	561.8	0.34	0.46	0.43	38.2

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

▼ Site: 3 [3. Georgiana Tce/ Baker St - PM (Site Folder: 4_2037 Future PM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101 [Future_PM (Network Folder: 4_2037 Future with Other Dev no CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h		veh/h		v/c	sec		veh	m				km/h
East: Georgiana Terrace (E)															
4	L2	All MCs	8	0.0	8	0.0	0.421	7.8	LOS A	11.9	83.5	0.34	0.31	0.34	30.1
5	T1	All MCs	276	0.0	273	0.0	0.421	0.6	LOS A	11.9	83.5	0.34	0.31	0.34	30.1
6	R2	All MCs	208	0.0	206	0.0	0.421	5.9	LOS A	11.9	83.5	0.34	0.31	0.34	34.5
Approach			493	0.0	488	0.0	0.421	3.0	NA	11.9	83.5	0.34	0.31	0.34	33.0
North: Baker Street (N)															
7	L2	All MCs	112	0.0	112	0.0	0.340	5.1	LOS A	2.8	19.6	0.58	0.73	0.70	28.6
8	T1	All MCs	7	0.0	7	0.0	0.340	12.9	LOS A	2.8	19.6	0.58	0.73	0.70	28.6
9	R2	All MCs	64	0.0	64	0.0	0.340	12.0	LOS A	2.8	19.6	0.58	0.73	0.70	28.6
Approach			183	0.0	183	0.0	0.340	7.8	LOS A	2.8	19.6	0.58	0.73	0.70	28.6
West: Georgiana Terrace (W)															
10	L2	All MCs	109	0.0	100	0.0	0.277	3.9	LOS A	1.8	12.6	0.24	0.21	0.24	36.0
11	T1	All MCs	266	0.4	243	0.4	0.277	0.5	LOS A	1.8	12.6	0.24	0.21	0.24	33.2
12	R2	All MCs	9	0.0	9	0.0	0.277	7.1	LOS A	1.8	12.6	0.24	0.21	0.24	33.2
Approach			385	0.3	352	0.3	0.277	1.6	NA	1.8	12.6	0.24	0.21	0.24	34.7
All Vehicles			1061	0.1	1023	0.1	0.421	3.4	NA	11.9	83.5	0.35	0.35	0.37	32.5

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik 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.

MOVEMENT SUMMARY

 Site: 4 [4. Mann St/ Georgina Tce - PM (Site Folder: 4_2037 Future PM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101 [Future_PM (Network Folder: 4_2037 Future with Other Dev no CCQ)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Mann Street (S)															
1	L2	All MCs	173	0.0	169	0.0	0.451	3.8	LOS A	3.5	25.2	0.40	0.41	0.40	30.7
2	T1	All MCs	303	6.3	297	6.4	0.451	3.4	LOS A	3.5	25.2	0.40	0.41	0.40	30.7
3	R2	All MCs	4	0.0	4	0.0	0.451	6.1	LOS A	3.5	25.2	0.40	0.41	0.40	31.5
3u	U	All MCs	5	0.0	5	0.0	0.451	7.3	LOS A	3.5	25.2	0.40	0.41	0.40	30.7
Approach			485	3.9	475	4.0	0.451	3.6	LOS A	3.5	25.2	0.40	0.41	0.40	30.7
East: Georgiana Terrace (E)															
4	L2	All MCs	9	0.0	9	0.0	0.074	7.4	LOS A	0.4	2.8	0.69	0.64	0.69	20.7
5	T1	All MCs	17	0.0	17	0.0	0.074	6.9	LOS A	0.4	2.8	0.69	0.64	0.69	20.7
6	R2	All MCs	19	0.0	19	0.0	0.074	9.7	LOS A	0.4	2.8	0.69	0.64	0.69	20.7
Approach			45	0.0	45	0.0	0.074	8.2	LOS A	0.4	2.8	0.69	0.64	0.69	20.7
North: Mann Street (N)															
7	L2	All MCs	11	0.0	10	0.0	0.393	5.1	LOS A	2.5	18.3	0.45	0.54	0.45	32.3
8	T1	All MCs	305	7.2	302	7.3	0.393	4.9	LOS A	2.5	18.3	0.45	0.54	0.45	31.6
9	R2	All MCs	32	0.0	31	0.0	0.393	7.5	LOS A	2.5	18.3	0.45	0.54	0.45	31.6
9u	U	All MCs	9	0.0	9	0.0	0.393	8.6	LOS A	2.5	18.3	0.45	0.54	0.45	31.6
Approach			357	6.2	354	6.3	0.393	5.2	LOS A	2.5	18.3	0.45	0.54	0.45	31.6
West: Georgiana Terrace (W)															
10	L2	All MCs	178	0.6	168	0.6	0.430	5.9	LOS A	2.9	20.1	0.64	0.64	0.64	23.0
11	T1	All MCs	8	0.0	8	0.0	0.430	5.3	LOS A	2.9	20.1	0.64	0.64	0.64	27.3
12	R2	All MCs	216	0.0	204	0.0	0.430	8.1	LOS A	2.9	20.1	0.64	0.64	0.64	23.0
12u	U	All MCs	7	0.0	7	0.0	0.430	9.3	LOS A	2.9	20.1	0.64	0.64	0.64	23.0
Approach			409	0.3	386	0.2	0.430	7.1	LOS A	2.9	20.1	0.64	0.64	0.64	23.1
All Vehicles			1297	3.2	1260	3.3	0.451	5.3	LOS A	3.5	25.2	0.50	0.52	0.50	28.8

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

MOVEMENT SUMMARY

 Site: 5 [5. Mann Street/ Donnison Street - PM (Site Folder: 4_2037 Future PM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101 [Future_PM (Network Folder: 4_2037 Future with Other Dev no CCQ)]

NA

Site Category: NA

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

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				km/h
			veh/h	%	veh/h	%	v/c	sec			m				
South: Mann Street															
1	L2	All MCs	33	0.0	32	0.0	0.044	19.7	LOS B	0.8	5.3	0.65	0.64	0.65	23.2
2	T1	All MCs	482	4.6	467	4.7	* 0.519	15.8	LOS B	12.7	92.6	0.75	0.66	0.75	28.2
Approach			515	4.3	498	4.4	0.519	16.0	LOS B	12.7	92.6	0.74	0.66	0.74	27.9
East: Donnison Street															
4	L2	All MCs	46	0.0	43	0.0	0.222	41.3	LOS C	3.4	23.5	0.82	0.69	0.82	18.3
5	T1	All MCs	343	0.3	318	0.3	0.775	39.0	LOS C	11.2	78.3	0.96	0.89	1.09	19.5
6	R2	All MCs	24	0.0	22	0.0	0.775	75.0	LOS F	11.2	78.3	1.00	0.94	1.16	21.1
Approach			414	0.3	384	0.3	0.775	41.4	LOS C	11.2	78.3	0.95	0.87	1.06	17.2
North: Mann Street															
7	L2	All MCs	148	0.7	148	0.7	0.174	22.9	LOS B	3.4	23.7	0.55	0.64	0.55	23.5
8	T1	All MCs	313	7.4	313	7.4	0.750	24.2	LOS B	15.3	112.3	0.90	0.86	0.96	18.9
9	R2	All MCs	147	2.9	147	2.9	* 0.750	42.1	LOS C	15.3	112.3	0.92	0.87	0.99	22.0
Approach			608	4.7	608	4.7	0.750	28.2	LOS B	15.3	112.3	0.82	0.81	0.87	17.2
West: Pacific Highway															
10	L2	All MCs	376	1.4	376	1.4	0.545	38.0	LOS C	11.6	82.5	0.84	0.81	0.84	20.9
11	T1	All MCs	663	0.5	663	0.5	* 1.336	354.3	LOS F	90.9	639.2	1.00	3.12	3.96	1.1
Approach			1039	0.8	1039	0.8	1.336	239.9	LOS F	90.9	639.2	0.94	2.28	2.83	2.5
All Vehicles			2576	2.3	2529	2.4	1.336	114.7	LOS F	90.9	639.2	0.87	1.39	1.68	6.8

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Mann Street											
P1	Full	46	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
East: Donnison Street											
P2	Full	42	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06

North: Mann Street											
P3	Full	16	34.2	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
West: Pacific Highway											
P4	Full	59	34.3	LOS D	0.1	0.1	0.93	0.93	188.2	200.0	1.06
All Pedestrians		163	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
 Pedestrian movement LOS values are based on average delay per pedestrian movement.
 Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Henry Parry Drive (S)											
P1	Full	8	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
East: Donnison Street (E)											

P2	Full	5	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
North: Henry Parry Drive (N)											
P3	Full	11	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
West: Donnison Street (W)											
P4	Full	4	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
All Pedestrians		28	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

 **Site: 7 [7. Vaughan Ave/ Baker St - PM (Site Folder: 4_2037 Future PM with Other Dev no CCQ)]**

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 **Network: N101 [Future_PM (Network Folder: 4_2037 Future with Other Dev no CCQ)]**

NA
Site Category: NA
Stop (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec							km/h
NorthEast: Vaughan Avenue (NE)															
25	T1	All MCs	15	0.0	14	0.0	0.007	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			15	0.0	14	0.0	0.007	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
NorthWest: Baker Street (N)															
27	L2	All MCs	37	0.0	36	0.0	0.032	0.0	LOS A	0.1	0.8	0.05	0.01	0.05	10.0
29	R2	All MCs	13	0.0	12	0.0	0.032	0.0	LOS A	0.1	0.8	0.05	0.01	0.05	10.0
Approach			49	0.0	49	0.0	0.032	0.0	LOS A	0.1	0.8	0.05	0.01	0.05	10.0
SouthWest: Vaughan Avenue (SW)															
31	T1	All MCs	15	0.0	9	0.0	0.004	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			15	0.0	9	0.0	0.004	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
All Vehicles			79	0.0	72	0.0	0.032	0.0	NA	0.1	0.8	0.03	0.00	0.03	11.1

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

▼ Site: 8 [8. Mann St/ Vaughan Ave - PM (Site Folder: 4_2037 Future PM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101 [Future_PM (Network Folder: 4_2037 Future with Other Dev no CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec							km/h
South: Mann Street (S)															
1b	L3	All MCs	1	0.0	1	0.0	0.231	4.1	LOS A	0.0	0.1	0.00	0.00	0.00	40.0
2	T1	All MCs	439	5.0	434	5.1	0.231	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	40.0
Approach			440	5.0	435	5.1	0.231	0.0	NA	0.0	0.1	0.00	0.00	0.00	40.0
North: Mann Street (N)															
8	T1	All MCs	504	4.4	490	4.5	0.266	0.1	LOS A	0.1	0.8	0.03	0.03	0.03	39.6
9a	R1	All MCs	9	0.0	9	0.0	0.266	4.4	LOS A	0.1	0.8	0.03	0.03	0.03	39.6
Approach			514	4.3	499	4.4	0.266	0.1	NA	0.1	0.8	0.03	0.03	0.03	39.6
SouthWest: Vaughan Avenue (SW)															
30a	L1	All MCs	46	0.0	41	0.0	0.057	5.1	LOS A	0.2	1.5	0.49	0.62	0.49	20.6
32b	R3	All MCs	11	0.0	9	0.0	0.057	9.7	LOS A	0.2	1.5	0.49	0.62	0.49	20.6
Approach			57	0.0	50	0.0	0.057	6.0	LOS A	0.2	1.5	0.49	0.62	0.49	20.6
All Vehicles			1011	4.4	984	4.5	0.266	0.4	NA	0.2	1.5	0.04	0.05	0.04	39.2

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

 Site: 9 [9. Central Coast Hwy/ Mann St - PM (Site Folder: 4_2037 Future PM with Other Dev no CCQ)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101 [Future_PM (Network Folder: 4_2037 Future with Other Dev no CCQ)]

NA

Site Category: NA

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

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Central Coast Hwy (S)															
1a	L1	All MCs	1753	2.0	1753	2.0	0.323	12.0	LOS A	20.3	144.2	0.41	0.70	0.41	43.1
2	T1	All MCs	318	6.6	318	6.6	0.472	51.2	LOS D	17.6	130.3	0.94	0.80	0.94	22.5
Approach			2071	2.7	2071	2.7	0.472	18.0	LOS B	20.3	144.2	0.49	0.71	0.49	37.8
North: Mann Street (N)															
8	T1	All MCs	448	4.8	435	4.9	* 0.575	51.1	LOS D	12.6	91.8	0.96	0.80	0.96	26.2
Approach			448	4.8	435	4.9	0.575	51.1	LOS D	12.6	91.8	0.96	0.80	0.96	26.2
NorthWest: Central Coast Hwy (NW)															
27b	L3	All MCs	13	0.0	8	0.0	0.574	8.9	LOS A	26.4	186.4	0.53	0.75	0.53	30.5
29a	R1	All MCs	2898	1.1	1732	1.0	* 0.574	14.8	LOS B	26.5	187.1	0.54	0.74	0.54	43.7
Approach			2911	1.1	1739	1.0	0.574	14.8	LOS B	26.5	187.1	0.54	0.74	0.54	43.6
All Vehicles			5429	2.0	4245	2.6	0.575	20.1	LOS B	26.5	187.1	0.56	0.73	0.56	38.2

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Central Coast Hwy (S)											
P1S	Slip/ Bypass	5	59.2	LOS E	0.0	0.0	0.95	0.95	520.7	600.0	1.15
North: Mann Street (N)											
P3	Full	5	59.2	LOS E	0.0	0.0	0.95	0.95	213.0	200.0	0.94
NorthWest: Central Coast Hwy (NW)											
P71	Stage 1	5	59.2	LOS E	0.0	0.0	0.95	0.95	520.7	600.0	1.15
All Pedestrians		16	59.2	LOS E	0.0	0.0	0.95	0.95	418.1	466.7	1.12

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: C:\Users\saralar\Urbis Ltd\P0061198 UPG - Central Coast Quarter Stage 2 - Transport Advisory - General\03_Workspace\01_Analysis
\Sidra\December 2025 Modelling\P0061198 CCQ Sidra Model 251202 Revised Yields.sip9

MOVEMENT SUMMARY

▼ Site: 10 [10. Central Coast Hwy/ Vaughan St - PM (Site Folder: 4_2037 Future PM with Other Dev no CCQ)]
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101 [Future_PM (Network Folder: 4_2037 Future with Other Dev no CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec			m				km/h
SouthEast: Central Coast Hwy (SE)															
22	T1	All MCs	1721	2.1	1721	2.1	0.447	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
Approach			1721	2.1	1721	2.1	0.447	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.7
NorthEast: Vaughan Avenue (NE)															
24	L2	All MCs	26	0.0	26	0.0	0.137	11.7	LOS A	0.2	1.6	0.75	0.87	0.76	17.0
Approach			26	0.0	26	0.0	0.137	11.7	LOS A	0.2	1.6	0.75	0.87	0.76	17.0
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	15	0.0	9	0.0	0.895	5.8	LOS A	0.7	4.7	0.02	0.02	0.03	59.2
28	T1	All MCs	2903	1.1	1724	1.1	0.895	0.7	LOS A	0.7	4.7	0.01	0.01	0.01	56.6
Approach			2918	1.1	1733	1.1	0.895	0.7	NA	0.7	4.7	0.01	0.01	0.01	56.6
All Vehicles			4665	1.5	3480	2.0	0.895	0.5	NA	0.7	4.7	0.01	0.01	0.01	56.3

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

Site: 1 [1. Central Coast Hwy/ Dane Drv - AM (Site Folder: 5_2037 Future AM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101
[Future_AM_DEV (Network Folder: 5_2037 Future with Other Dev and CCQ)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist] m				km/h
			veh/h	%	veh/h	%	v/c	sec							
SouthEast: Central Coast Hwy (SE)															
21	L2	All MCs	23	0.0	22	0.0	1.058	71.7	LOS F	65.4	472.2	1.00	2.44	3.55	21.1
22	T1	All MCs	1978	3.7	1879	3.7	1.058	73.2	LOS F	65.8	472.2	1.00	2.40	3.57	21.9
23	R2	All MCs	546	2.3	519	2.3	1.058	79.5	LOS F	65.8	472.2	1.00	2.32	3.60	8.9
23u	U	All MCs	5	0.0	5	0.0	1.058	81.3	LOS F	65.8	472.2	1.00	2.32	3.60	8.9
Approach			2553	3.3	2425	3.3	1.058	74.5	LOS F	65.8	472.2	1.00	2.39	3.57	19.6
NorthEast: Dane Drive (NE)															
24	L2	All MCs	365	1.2	359	1.1	1.514	476.5	LOS F	26.3	186.4	1.00	7.45	17.60	0.8
25	T1	All MCs	17	0.0	17	0.0	1.514	476.5	LOS F	26.3	186.4	1.00	7.45	17.60	4.2
26	R2	All MCs	332	2.2	326	2.2	1.514	480.7	LOS F	26.3	186.4	1.00	7.45	17.60	4.2
Approach			714	1.6	702	1.6	1.514	478.4	LOS F	26.3	186.4	1.00	7.45	17.60	2.5
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	406	1.3	406	1.3	1.650	599.6	LOS F	262.7	1908.3	1.00	7.50	16.76	3.0
28	T1	All MCs	1609	6.4	1609	6.4	1.650	599.9	LOS F	262.7	1933.0	1.00	7.49	16.69	3.0
29	R2	All MCs	19	0.0	19	0.0	1.650	603.2	LOS F	261.1	1933.0	1.00	7.48	16.64	5.5
29u	U	All MCs	9	55.6	9	55.6	1.650	610.2	LOS F	261.1	1933.0	1.00	7.48	16.64	5.6
Approach			2044	5.6	2044	5.6	1.650	599.9	LOS F	262.7	1933.0	1.00	7.49	16.70	3.0
SouthWest: Dane Drive (SW)															
30	L2	All MCs	4	0.0	4	0.0	0.049	17.1	LOS B	0.2	1.7	0.90	0.94	0.90	42.3
31	T1	All MCs	4	0.0	4	0.0	0.049	17.1	LOS B	0.2	1.7	0.90	0.94	0.90	34.1
32	R2	All MCs	1	0.0	1	0.0	0.049	21.1	LOS B	0.2	1.7	0.90	0.94	0.90	34.1
Approach			9	0.0	9	0.0	0.049	17.5	LOS B	0.2	1.7	0.90	0.94	0.90	38.7
All Vehicles			5320	4.0	5180	4.1	1.650	336.4	LOS F	262.7	1933.0	1.00	5.08	10.65	5.3

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

MOVEMENT SUMMARY

▼ Site: 2 [2. Georgiana Tce/ Dane Drv - AM (NEW) (Site Folder: 5_2037 Future AM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Future_AM_DEV (Network Folder: 5_2037 Future with Other Dev and CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Dane Drive (S)															
2	T1	All MCs	475	2.2	369	2.3	0.591	5.2	LOS A	6.7	47.4	0.64	0.83	1.15	36.3
3	R2	All MCs	492	1.5	382	1.6	0.591	10.5	LOS A	6.7	47.4	0.64	0.83	1.15	21.9
Approach			966	1.9	751	1.9	0.591	7.9	NA	6.7	47.4	0.64	0.83	1.15	31.5
East: Georgiana Tce (E)															
4	L2	All MCs	324	2.6	312	2.6	0.808	9.3	LOS A	4.4	31.2	0.91	1.22	1.70	18.8
6	R2	All MCs	41	2.6	40	2.6	0.808	31.3	LOS C	4.4	31.2	0.91	1.22	1.70	29.5
Approach			365	2.6	352	2.6	0.808	11.7	LOS A	4.4	31.2	0.91	1.22	1.70	20.7
North: Dane Drive (N)															
7	L2	All MCs	184	0.0	184	0.0	0.501	4.7	LOS A	0.0	0.0	0.00	0.17	0.00	45.3
8	T1	All MCs	387	0.8	387	0.8	0.501	0.2	LOS A	0.0	0.0	0.00	0.17	0.00	45.3
Approach			572	0.6	572	0.6	0.501	1.6	NA	0.0	0.0	0.00	0.17	0.00	45.3
All Vehicles			1903	1.6	1674	1.8	0.808	6.6	NA	6.7	47.4	0.48	0.69	0.87	32.8

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

▼ Site: 3 [3. Georgiana Tce/ Baker St - AM (NEW) (Site Folder: 5_2037 Future AM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Future_AM_DEV (Network Folder: 5_2037 Future with Other Dev and CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h		veh/h		v/c	sec		veh	m				km/h
East: Georgiana Terrace (E)															
4	L2	All MCs	14	0.0	13	0.0	0.525	8.0	LOS A	4.0	28.1	0.40	0.32	0.40	28.2
5	T1	All MCs	345	1.8	331	1.8	0.525	0.7	LOS A	4.0	28.1	0.40	0.32	0.40	28.2
6	R2	All MCs	222	0.0	213	0.0	0.525	8.4	LOS A	4.0	28.1	0.40	0.32	0.40	33.7
Approach			581	1.1	557	1.1	0.525	3.8	NA	4.0	28.1	0.40	0.32	0.40	31.5
North: Baker Street (N)															
7	L2	All MCs	81	0.0	81	0.0	0.274	5.6	LOS A	1.0	7.5	0.66	0.82	0.76	25.9
8	T1	All MCs	3	0.0	3	0.0	0.274	16.9	LOS B	1.0	7.5	0.66	0.82	0.76	25.9
9	R2	All MCs	46	9.1	46	9.1	0.274	19.2	LOS B	1.0	7.5	0.66	0.82	0.76	25.9
Approach			131	3.2	131	3.2	0.274	10.7	LOS A	1.0	7.5	0.66	0.82	0.76	25.9
West: Georgiana Terrace (W)															
10	L2	All MCs	184	1.7	154	1.7	0.450	4.2	LOS A	3.6	25.2	0.29	0.26	0.29	35.5
11	T1	All MCs	439	0.7	368	0.7	0.450	0.6	LOS A	3.6	25.2	0.29	0.26	0.29	32.0
12	R2	All MCs	56	3.8	47	3.8	0.450	8.5	LOS A	3.6	25.2	0.29	0.26	0.29	32.0
Approach			679	1.2	569	1.2	0.450	2.2	NA	3.6	25.2	0.29	0.26	0.29	33.7
All Vehicles			1391	1.4	1256	1.5	0.525	3.8	NA	4.0	28.1	0.38	0.34	0.39	31.5

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

Site: 4 [4. Mann St/ Georgina Tce - AM (Site Folder: 5_2037 Future AM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101
[Future_AM_DEV (Network Folder: 5_2037 Future with Other Dev and CCQ)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h		veh/h		v/c	sec			m				km/h
South: Mann Street (S)															
1	L2	All MCs	475	1.3	453	1.3	0.740	5.1	LOS A	10.4	75.5	0.73	0.49	0.73	28.6
2	T1	All MCs	447	7.5	426	7.5	0.740	4.7	LOS A	10.4	75.5	0.73	0.49	0.73	28.6
3	R2	All MCs	4	0.0	4	0.0	0.740	7.3	LOS A	10.4	75.5	0.73	0.49	0.73	29.9
3u	U	All MCs	11	0.0	10	0.0	0.740	8.5	LOS A	10.4	75.5	0.73	0.49	0.73	28.6
Approach			937	4.3	893	4.3	0.740	5.0	LOS A	10.4	75.5	0.73	0.49	0.73	28.6
East: Georgiana Terrace (E)															
4	L2	All MCs	18	0.0	18	0.0	0.077	6.3	LOS A	0.5	3.6	0.62	0.57	0.62	22.4
5	T1	All MCs	28	0.0	28	0.0	0.077	5.9	LOS A	0.5	3.6	0.62	0.57	0.62	22.4
6	R2	All MCs	18	0.0	18	0.0	0.077	8.6	LOS A	0.5	3.6	0.62	0.57	0.62	22.4
Approach			64	0.0	64	0.0	0.077	6.8	LOS A	0.5	3.6	0.62	0.57	0.62	22.4
North: Mann Street (N)															
7	L2	All MCs	5	0.0	5	0.0	0.310	3.8	LOS A	2.0	15.3	0.28	0.45	0.28	33.2
8	T1	All MCs	285	11.1	279	11.1	0.310	3.4	LOS A	2.0	15.3	0.28	0.45	0.28	32.7
9	R2	All MCs	67	0.0	66	0.0	0.310	6.1	LOS A	2.0	15.3	0.28	0.45	0.28	32.7
9u	U	All MCs	8	0.0	8	0.0	0.310	7.3	LOS A	2.0	15.3	0.28	0.45	0.28	32.7
Approach			366	8.6	359	8.7	0.310	4.0	LOS A	2.0	15.3	0.28	0.45	0.28	32.7
West: Georgiana Terrace (W)															
10	L2	All MCs	158	0.7	136	0.6	0.281	6.5	LOS A	1.8	12.6	0.69	0.67	0.69	22.6
11	T1	All MCs	12	9.1	10	8.8	0.281	6.3	LOS A	1.8	12.6	0.69	0.67	0.69	27.0
12	R2	All MCs	72	0.0	62	0.0	0.281	8.7	LOS A	1.8	12.6	0.69	0.67	0.69	22.6
12u	U	All MCs	8	0.0	7	0.0	0.281	9.9	LOS A	1.8	12.6	0.69	0.67	0.69	22.6
Approach			249	0.8	215	0.8	0.281	7.3	LOS A	1.8	12.6	0.69	0.67	0.69	22.9
All Vehicles			1617	4.6	1531	4.8	0.740	5.1	LOS A	10.4	75.5	0.62	0.51	0.62	28.9

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE [Ped Dist]		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		ped	m			sec	m	m/sec
South: Mann Street											
P1	Full	43	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
East: Donnison Street											

P2 Full	43	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
North: Mann Street										
P3 Full	9	34.2	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
West: Pacific Highway										
P4 Full	23	34.3	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
All Pedestrians	119	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Henry Parry Drive (S)											
P1	Full	43	49.3	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
East: Donnison Street (E)											

P2 Full	28	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
North: Henry Parry Drive (N)										
P3 Full	41	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
West: Donnison Street (W)										
P4 Full	20	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98
All Pedestrians	133	49.2	LOS E	0.1	0.1	0.95	0.95	203.1	200.0	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

 Site: 7 [7. Vaughan Ave/ Baker St - AM (NEW) (Site Folder: 5_2037 Future AM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ ■ Network: N101
[Future_AM_DEV (Network Folder: 5_2037 Future with Other Dev and CCQ)]

NA
Site Category: NA
Stop (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				
veh/h % veh/h % v/c sec															

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

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Project: C:\Users\saralar\Urbis Ltd\P0061198 UPG - Central Coast Quarter Stage 2 - Transport Advisory - General\03_Workspace\01_Analysis
\Sidra\December 2025 Modelling\P0061198 CCQ Sidra Model 251202 Revised Yields.sip9

MOVEMENT SUMMARY

▼ Site: 8 [8. Mann St/ Vaughan Ave - AM (Site Folder: 5_2037 Future AM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Future_AM_DEV (Network Folder: 5_2037 Future with Other Dev and CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h		veh/h		v/c	sec		veh	m				km/h
South: Mann Street (S)															
1b	L3	All MCs	95	6.7	91	6.6	0.451	4.2	LOS A	0.9	6.4	0.03	0.06	0.03	39.1
2	T1	All MCs	745	4.1	713	4.1	0.451	0.0	LOS A	0.9	6.4	0.03	0.06	0.03	39.1
Approach			840	4.4	804	4.3	0.451	0.5	NA	0.9	6.4	0.03	0.06	0.03	39.1
North: Mann Street (N)															
8	T1	All MCs	324	9.7	311	10.0	0.246	1.8	LOS A	1.0	7.3	0.29	0.32	0.29	33.7
9a	R1	All MCs	55	3.8	52	4.0	0.246	8.0	LOS A	1.0	7.3	0.29	0.32	0.29	33.7
Approach			379	8.9	363	9.1	0.246	2.7	NA	1.0	7.3	0.29	0.32	0.29	33.7
SouthWest: Vaughan Avenue (SW)															
30a	L1	All MCs	193	4.9	180	5.0	0.363	9.1	LOS A	1.7	12.8	0.69	0.93	0.89	15.1
32b	R3	All MCs	37	8.6	34	8.7	0.363	17.6	LOS B	1.7	12.8	0.69	0.93	0.89	15.1
Approach			229	5.5	214	5.6	0.363	10.4	LOS A	1.7	12.8	0.69	0.93	0.89	15.1
All Vehicles			1448	5.7	1381	6.0	0.451	2.6	NA	1.7	12.8	0.20	0.27	0.23	35.2

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

 Site: 9 [9. Central Coast Hwy/ Mann St - AM (Site Folder: 5_2037 Future AM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101
[Future_AM_DEV (Network Folder: 5_2037 Future with Other Dev and CCQ)]

NA

Site Category: NA

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 135 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Central Coast Hwy (S)															
1a	L1	All MCs	2471	3.6	2471	3.6	* 1.075	127.4	LOS F	147.3	1063.3	1.00	1.27	1.61	11.9
2	T1	All MCs	547	6.3	547	6.3	* 1.078	157.5	LOS F	57.6	425.3	1.00	1.54	1.75	10.3
Approach			3019	4.1	3019	4.1	1.078	132.8	LOS F	147.3	1063.3	1.00	1.32	1.63	11.3
North: Mann Street (N)															
8	T1	All MCs	295	11.0	282	11.3	0.238	35.4	LOS C	6.7	51.6	0.77	0.63	0.77	30.6
Approach			295	11.0	282	11.3	0.238	35.4	LOS C	6.7	51.6	0.77	0.63	0.77	30.6
NorthWest: Central Coast Hwy (NW)															
27b	L3	All MCs	18	0.0	11	0.0	0.554	24.8	LOS B	27.8	202.9	0.66	0.81	0.66	20.8
29a	R1	All MCs	2084	5.3	1338	5.2	0.554	26.2	LOS B	27.8	202.9	0.66	0.79	0.66	36.9
Approach			2102	5.2	1349	5.1	0.554	26.2	LOS B	27.8	202.9	0.66	0.79	0.66	36.8
All Vehicles			5416	4.9	4650	5.7	1.078	96.0	LOS F	147.3	1063.3	0.89	1.13	1.30	16.2

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Central Coast Hwy (S)											
P1S	Slip/ Bypass	17	61.7	LOS F	0.1	0.1	0.96	0.96	523.2	600.0	1.15
North: Mann Street (N)											
P3	Full	11	61.7	LOS F	0.0	0.0	0.96	0.96	215.5	200.0	0.93
NorthWest: Central Coast Hwy (NW)											
P71	Stage 1	17	61.7	LOS F	0.1	0.1	0.96	0.96	523.2	600.0	1.15
All Pedestrians		44	61.7	LOS F	0.1	0.1	0.96	0.96	450.0	504.8	1.12

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: C:\Users\saralar\Urbis Ltd\P0061198 UPG - Central Coast Quarter Stage 2 - Transport Advisory - General\03_Workspace\01_Analysis
\Sidra\December 2025 Modelling\P0061198 CCQ Sidra Model 251202 Revised Yields.sip9

MOVEMENT SUMMARY

▼ Site: 10 [10. Central Coast Hwy/ Vaughan St - AM (NEW) (Site Folder: 5_2037 Future AM with Other Dev and CCQ (NEW))]
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Future_AM_DEV (Network Folder: 5_2037 Future with Other Dev and CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec							km/h
SouthEast: Central Coast Hwy (SE)															
22	T1	All MCs	2519	3.4	2377	3.4	0.830	0.1	LOS A	10.4	74.6	0.00	0.00	0.00	57.5
Approach			2519	3.4	2377	3.4	0.830	0.1	NA	10.4	74.6	0.00	0.00	0.00	57.5
NorthEast: Vaughan Avenue (NE)															
24	L2	All MCs	137	5.4	126	5.6	0.314	6.4	LOS A	0.7	5.1	0.53	0.71	0.60	22.9
Approach			137	5.4	126	5.6	0.314	6.4	LOS A	0.7	5.1	0.53	0.71	0.60	22.9
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	40	2.6	25	2.6	0.428	5.6	LOS A	0.3	1.9	0.03	0.04	0.03	57.7
28	T1	All MCs	1929	5.3	1187	5.3	0.428	0.0	LOS A	5.1	37.6	0.01	0.01	0.01	59.0
Approach			1969	5.3	1212	5.2	0.428	0.2	NA	5.1	37.6	0.01	0.01	0.01	59.0
All Vehicles			4625	4.3	3714	5.3	0.830	0.3	NA	10.4	74.6	0.02	0.03	0.02	55.6

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

MOVEMENT SUMMARY

 Site: 1 [1. Central Coast Hwy/ Dane Drv - PM (Site Folder: 5_2037 Future PM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101
[Future_PM_DEV (Network Folder: 5_2037 Future with Other Dev and CCQ)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	[Total HV]	[Veh. veh	Dist]									
			veh/h	%	veh/h	%	v/c	sec			m				km/h
SouthEast: Central Coast Hwy (SE)															
21	L2	All MCs	5	0.0	5	0.0	0.686	6.2	LOS A	8.5	60.5	0.79	0.56	0.79	43.5
22	T1	All MCs	1286	2.4	1286	2.4	0.686	6.6	LOS A	8.5	60.5	0.80	0.57	0.80	48.0
23	R2	All MCs	365	0.9	365	0.9	0.686	10.8	LOS A	8.4	59.4	0.82	0.60	0.82	34.5
23u	U	All MCs	8	0.0	8	0.0	0.686	12.8	LOS A	8.4	59.4	0.82	0.60	0.82	34.5
Approach			1665	2.0	1665	2.0	0.686	7.5	LOS A	8.5	60.5	0.80	0.58	0.80	46.5
NorthEast: Dane Drive (NE)															
24	L2	All MCs	413	0.0	410	0.0	1.662	609.6	LOS F	26.5	186.4	1.00	8.10	19.55	0.6
25	T1	All MCs	8	0.0	8	0.0	1.662	609.7	LOS F	26.5	186.4	1.00	8.10	19.55	3.3
26	R2	All MCs	305	1.0	303	1.0	1.662	613.8	LOS F	26.5	186.4	1.00	8.10	19.55	3.3
Approach			726	0.4	722	0.4	1.662	611.3	LOS F	26.5	186.4	1.00	8.10	19.55	1.8
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	222	0.9	222	0.9	1.798	730.9	LOS F	388.7	2752.4	1.00	9.08	19.68	2.5
28	T1	All MCs	2479	1.4	2479	1.4	1.798	731.2	LOS F	388.7	2752.4	1.00	9.08	19.68	2.5
29	R2	All MCs	4	0.0	4	0.0	1.798	735.1	LOS F	386.0	2736.6	1.00	9.08	19.68	4.6
29u	U	All MCs	12	9.1	12	9.1	1.798	737.9	LOS F	386.0	2736.6	1.00	9.08	19.68	4.7
Approach			2716	1.4	2716	1.4	1.798	731.2	LOS F	388.7	2752.4	1.00	9.08	19.68	2.5
SouthWest: Dane Drive (SW)															
30	L2	All MCs	31	0.0	31	0.0	0.232	9.7	LOS A	1.1	7.7	0.82	0.90	0.82	45.9
31	T1	All MCs	32	0.0	32	0.0	0.232	9.8	LOS A	1.1	7.7	0.82	0.90	0.82	38.9
32	R2	All MCs	23	0.0	23	0.0	0.232	13.7	LOS A	1.1	7.7	0.82	0.90	0.82	38.9
Approach			85	0.0	85	0.0	0.232	10.8	LOS A	1.1	7.7	0.82	0.90	0.82	42.2
All Vehicles			5193	1.5	5188	1.5	1.798	470.5	LOS F	388.7	2752.4	0.93	6.08	13.30	3.8

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

MOVEMENT SUMMARY

▼ Site: 2 [2. Georgiana Tce/ Dane Drv - PM (NEW) (Site Folder: 5_2037 Future PM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Future_PM_DEV (Network Folder: 5_2037 Future with Other Dev and CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Dane Drive (S)															
2	T1	All MCs	362	1.2	307	1.2	0.400	2.7	LOS A	2.8	20.1	0.53	0.62	0.66	40.2
3	R2	All MCs	283	1.5	240	1.6	0.400	8.1	LOS A	2.8	20.1	0.53	0.62	0.66	27.4
Approach			645	1.3	547	1.4	0.400	5.1	NA	2.8	20.1	0.53	0.62	0.66	37.0
East: Georgiana Tce (E)															
4	L2	All MCs	313	1.0	308	1.0	0.714	7.8	LOS A	3.2	22.6	0.79	1.01	1.25	21.4
6	R2	All MCs	42	0.0	41	0.0	0.714	18.0	LOS B	3.2	22.6	0.79	1.01	1.25	31.8
Approach			355	0.9	350	0.9	0.714	9.0	LOS A	3.2	22.6	0.79	1.01	1.25	23.5
North: Dane Drive (N)															
7	L2	All MCs	128	0.0	128	0.0	0.493	4.7	LOS A	0.0	0.0	0.00	0.13	0.00	46.3
8	T1	All MCs	412	0.0	412	0.0	0.493	0.2	LOS A	0.0	0.0	0.00	0.13	0.00	46.3
Approach			540	0.0	540	0.0	0.493	1.2	NA	0.0	0.0	0.00	0.13	0.00	46.3
All Vehicles			1540	0.8	1436	0.8	0.714	4.6	NA	3.2	22.6	0.39	0.53	0.56	36.4

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik 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.

MOVEMENT SUMMARY

▼ Site: 3 [3. Georgiana Tce/ Baker St - PM (NEW) (Site Folder: 5_2037 Future PM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Future_PM_DEV (Network Folder: 5_2037 Future with Other Dev and CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h		veh/h		v/c	sec		veh	m				km/h
East: Georgiana Terrace (E)															
4	L2	All MCs	8	0.0	8	0.0	0.465	7.8	LOS A	3.3	23.0	0.35	0.30	0.35	30.4
5	T1	All MCs	329	1.0	324	1.0	0.465	0.7	LOS A	3.3	23.0	0.35	0.30	0.35	30.4
6	R2	All MCs	208	0.0	205	0.0	0.465	6.1	LOS A	3.3	23.0	0.35	0.30	0.35	34.6
Approach			546	0.6	537	0.6	0.465	2.8	NA	3.3	23.0	0.35	0.30	0.35	33.0
North: Baker Street (N)															
7	L2	All MCs	112	0.0	112	0.0	0.277	4.8	LOS A	1.1	8.0	0.58	0.70	0.62	28.4
8	T1	All MCs	7	0.0	7	0.0	0.277	13.7	LOS A	1.1	8.0	0.58	0.70	0.62	28.4
9	R2	All MCs	64	0.0	64	0.0	0.277	13.0	LOS A	1.1	8.0	0.58	0.70	0.62	28.4
Approach			183	0.0	183	0.0	0.277	8.0	LOS A	1.1	8.0	0.58	0.70	0.62	28.4
West: Georgiana Terrace (W)															
10	L2	All MCs	109	0.0	99	0.0	0.310	4.2	LOS A	2.0	14.2	0.27	0.28	0.27	35.4
11	T1	All MCs	266	0.4	240	0.4	0.310	0.5	LOS A	2.0	14.2	0.27	0.28	0.27	31.7
12	R2	All MCs	58	3.6	52	3.6	0.310	7.7	LOS A	2.0	14.2	0.27	0.28	0.27	31.7
Approach			434	0.7	391	0.7	0.310	2.4	NA	2.0	14.2	0.27	0.28	0.27	33.4
All Vehicles			1163	0.5	1111	0.6	0.465	3.5	NA	3.3	23.0	0.36	0.36	0.37	32.1

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik 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.

MOVEMENT SUMMARY

Site: 4 [4. Mann St/ Georgina Tce - PM (Site Folder: 5_2037 Future PM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Network: N101
[Future_PM_DEV (Network Folder: 5_2037 Future with Other Dev and CCQ)]

NA
Site Category: NA
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist]				
			veh/h		veh/h		v/c	sec			m				km/h
South: Mann Street (S)															
1	L2	All MCs	226	1.4	218	1.4	0.442	3.8	LOS A	3.9	28.6	0.39	0.41	0.39	30.8
2	T1	All MCs	338	6.2	326	6.4	0.442	3.4	LOS A	3.9	28.6	0.39	0.41	0.39	30.8
3	R2	All MCs	4	0.0	4	0.0	0.442	6.1	LOS A	3.9	28.6	0.39	0.41	0.39	31.5
3u	U	All MCs	5	0.0	5	0.0	0.442	7.3	LOS A	3.9	28.6	0.39	0.41	0.39	30.8
Approach			574	4.2	553	4.3	0.442	3.6	LOS A	3.9	28.6	0.39	0.41	0.39	30.8
East: Georgiana Terrace (E)															
4	L2	All MCs	9	0.0	9	0.0	0.064	7.9	LOS A	0.4	3.0	0.71	0.65	0.71	20.1
5	T1	All MCs	17	0.0	17	0.0	0.064	7.4	LOS A	0.4	3.0	0.71	0.65	0.71	20.1
6	R2	All MCs	19	0.0	19	0.0	0.064	10.2	LOS A	0.4	3.0	0.71	0.65	0.71	20.1
Approach			45	0.0	45	0.0	0.064	8.7	LOS A	0.4	3.0	0.71	0.65	0.71	20.1
North: Mann Street (N)															
7	L2	All MCs	11	0.0	10	0.0	0.421	5.2	LOS A	2.9	21.1	0.45	0.54	0.45	32.4
8	T1	All MCs	354	6.8	349	6.9	0.421	4.9	LOS A	2.9	21.1	0.45	0.54	0.45	31.6
9	R2	All MCs	32	0.0	31	0.0	0.421	7.5	LOS A	2.9	21.1	0.45	0.54	0.45	31.6
9u	U	All MCs	9	0.0	9	0.0	0.421	8.7	LOS A	2.9	21.1	0.45	0.54	0.45	31.6
Approach			405	6.0	400	6.0	0.421	5.2	LOS A	2.9	21.1	0.45	0.54	0.45	31.6
West: Georgiana Terrace (W)															
10	L2	All MCs	178	0.6	166	0.6	0.434	6.2	LOS A	2.9	20.4	0.66	0.65	0.66	22.7
11	T1	All MCs	8	0.0	8	0.0	0.434	5.6	LOS A	2.9	20.4	0.66	0.65	0.66	27.0
12	R2	All MCs	216	0.0	202	0.0	0.434	8.3	LOS A	2.9	20.4	0.66	0.65	0.66	22.7
12u	U	All MCs	7	0.0	7	0.0	0.434	9.5	LOS A	2.9	20.4	0.66	0.65	0.66	22.7
Approach			409	0.3	383	0.2	0.434	7.4	LOS A	2.9	20.4	0.66	0.65	0.66	22.8
All Vehicles			1434	3.5	1381	3.6	0.442	5.3	LOS A	3.9	28.6	0.49	0.52	0.49	28.9

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE [Ped Dist] ped m		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec						sec	m	m/sec
South: Mann Street											
P1	Full	46	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
East: Donnison Street											

P2 Full	42	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06
North: Mann Street										
P3 Full	16	34.2	LOS D	0.0	0.0	0.93	0.93	188.1	200.0	1.06
West: Pacific Highway										
P4 Full	59	34.3	LOS D	0.1	0.1	0.93	0.93	188.2	200.0	1.06
All Pedestrians	163	34.3	LOS D	0.1	0.1	0.93	0.93	188.1	200.0	1.06

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Henry Parry Drive (S)											
P1	Full	8	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
East: Donnison Street (E)											

P2 Full	5	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
North: Henry Parry Drive (N)										
P3 Full	11	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
West: Donnison Street (W)										
P4 Full	4	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99
All Pedestrians	28	49.2	LOS E	0.0	0.0	0.95	0.95	203.0	200.0	0.99

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

 Site: 7 [7. Vaughan Ave/ Baker St - PM (NEW) (Site Folder: 5_2037 Future PM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ ■ Network: N101
[Future_PM_DEV (Network Folder: 5_2037 Future with Other Dev and CCQ)]

NA
Site Category: NA
Stop (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%				[Veh. veh	Dist] m				
veh/h % veh/h % v/c sec [Veh. veh Dist] m															
NorthEast: Vaughan Avenue (NE)															
25	T1	All MCs	51	4.2	50	4.2	0.026	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			51	4.2	50	4.2	0.026	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
NorthWest: Baker Street (N)															
27	L2	All MCs	37	0.0	34	0.0	0.059	0.1	LOS A	0.2	1.5	0.10	0.03	0.10	10.0
29	R2	All MCs	48	4.3	45	4.2	0.059	0.3	LOS A	0.2	1.5	0.10	0.03	0.10	10.0
Approach			85	2.5	79	2.4	0.059	0.2	LOS A	0.2	1.5	0.10	0.03	0.10	10.0
SouthWest: Vaughan Avenue (SW)															
31	T1	All MCs	39	2.7	22	2.6	0.011	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	40.0
Approach			39	2.7	22	2.6	0.011	0.0	NA	0.0	0.0	0.00	0.00	0.00	40.0
All Vehicles			175	3.0	151	3.5	0.059	0.1	NA	0.2	1.5	0.05	0.02	0.05	11.9

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

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

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

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

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Project: C:\Users\saralar\Urbis Ltd\P0061198 UPG - Central Coast Quarter Stage 2 - Transport Advisory - General\03_Workspace\01_Analysis\Sidra\December 2025 Modelling\P0061198 CCQ Sidra Model 251202 Revised Yields.sip9

MOVEMENT SUMMARY

▼ Site: 8 [8. Mann St/ Vaughan Ave - PM (Site Folder: 5_2037 Future PM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Future_PM_DEV (Network Folder: 5_2037 Future with Other Dev and CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec			m				km/h
South: Mann Street (S)															
1b	L3	All MCs	123	5.1	122	5.2	0.329	4.2	LOS A	0.9	6.6	0.04	0.12	0.04	38.4
2	T1	All MCs	439	5.0	435	5.1	0.329	0.0	LOS A	0.9	6.6	0.04	0.12	0.04	38.4
Approach			562	5.1	557	5.1	0.329	0.9	NA	0.9	6.6	0.04	0.12	0.04	38.4
North: Mann Street (N)															
8	T1	All MCs	504	4.4	488	4.5	0.314	0.6	LOS A	0.8	5.8	0.18	0.18	0.18	37.0
9a	R1	All MCs	58	3.6	56	3.7	0.314	5.7	LOS A	0.8	5.8	0.18	0.18	0.18	37.0
Approach			562	4.3	544	4.4	0.314	1.2	NA	0.8	5.8	0.18	0.18	0.18	37.0
SouthWest: Vaughan Avenue (SW)															
30a	L1	All MCs	135	3.1	118	3.2	0.173	5.4	LOS A	0.7	5.2	0.54	0.66	0.54	19.6
32b	R3	All MCs	28	3.7	25	3.8	0.173	12.2	LOS A	0.7	5.2	0.54	0.66	0.54	19.6
Approach			163	3.2	143	3.3	0.173	6.6	LOS A	0.7	5.2	0.54	0.66	0.54	19.6
All Vehicles			1287	4.5	1244	4.7	0.329	1.7	NA	0.9	6.6	0.15	0.21	0.15	36.5

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik 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.

MOVEMENT SUMMARY

 Site: 9 [9. Central Coast Hwy/ Mann St - PM (Site Folder: 5_2037 Future PM with Other Dev and CCQ (NEW))]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

 Network: N101
[Future_PM_DEV (Network Folder: 5_2037 Future with Other Dev and CCQ)]

NA

Site Category: NA

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

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed	
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Central Coast Hwy (S)															
1a	L1	All MCs	1753	2.0	1753	2.0	*0.813	32.5	LOS C	48.8	347.2	0.88	0.87	0.88	30.9
2	T1	All MCs	438	6.0	438	6.0	*0.805	55.4	LOS D	26.4	194.4	0.97	0.91	1.03	23.7
Approach			2191	2.8	2191	2.8	0.813	37.1	LOS C	48.8	347.2	0.89	0.88	0.91	27.2
North: Mann Street (N)															
8	T1	All MCs	465	4.8	448	5.0	0.343	33.6	LOS C	10.4	76.3	0.79	0.67	0.79	31.3
Approach			465	4.8	448	5.0	0.343	33.6	LOS C	10.4	76.3	0.79	0.67	0.79	31.3
NorthWest: Central Coast Hwy (NW)															
27b	L3	All MCs	13	0.0	7	0.0	0.708	18.9	LOS B	38.4	271.6	0.79	0.85	0.79	20.1
29a	R1	All MCs	2967	1.2	1694	1.2	0.708	28.9	LOS C	38.5	272.3	0.79	0.84	0.79	35.7
Approach			2979	1.2	1701	1.2	0.708	28.9	LOS C	38.5	272.3	0.79	0.84	0.79	35.7
All Vehicles			5635	2.1	4339	2.7	0.813	33.5	LOS C	48.8	347.2	0.84	0.84	0.85	31.2

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

Vehicle movement LOS values are based on average delay per movement.

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

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.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Eff. Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Central Coast Hwy (S)											
P1S	Slip/ Bypass	5	59.2	LOS E	0.0	0.0	0.95	0.95	520.7	600.0	1.15
North: Mann Street (N)											
P3	Full	5	59.2	LOS E	0.0	0.0	0.95	0.95	213.0	200.0	0.94
NorthWest: Central Coast Hwy (NW)											
P71	Stage 1	5	59.2	LOS E	0.0	0.0	0.95	0.95	520.7	600.0	1.15
All Pedestrians		16	59.2	LOS E	0.0	0.0	0.95	0.95	418.1	466.7	1.12

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Project: C:\Users\saralar\Urbis Ltd\P0061198 UPG - Central Coast Quarter Stage 2 - Transport Advisory - General\03_Workspace\01_Analysis
\Sidra\December 2025 Modelling\P0061198 CCQ Sidra Model 251202 Revised Yields.sip9

MOVEMENT SUMMARY

▼ Site: 10 [10. Central Coast Hwy/ Vaughan St - PM (NEW) (Site Folder: 5_2037 Future PM with Other Dev and CCQ (NEW))]
Output produced by SIDRA INTERSECTION Version: 9.1.6.228

■ Network: N101
[Future_PM_DEV (Network Folder: 5_2037 Future with Other Dev and CCQ)]

NA
Site Category: NA
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist]				
			veh/h	%	veh/h	%	v/c	sec			m				km/h
SouthEast: Central Coast Hwy (SE)															
22	T1	All MCs	1721	2.1	1721	2.1	0.447	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
Approach			1721	2.1	1721	2.1	0.447	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.7
NorthEast: Vaughan Avenue (NE)															
24	L2	All MCs	97	3.3	93	3.2	0.482	13.7	LOS A	0.9	6.7	0.82	0.98	1.03	15.4
Approach			97	3.3	93	3.2	0.482	13.7	LOS A	0.9	6.7	0.82	0.98	1.03	15.4
NorthWest: Central Coast Hwy (NW)															
27	L2	All MCs	39	2.7	22	2.6	0.866	6.1	LOS A	1.4	9.6	0.05	0.04	0.06	58.1
28	T1	All MCs	2903	1.1	1655	1.1	0.866	0.6	LOS A	1.4	9.6	0.03	0.02	0.03	56.7
Approach			2942	1.1	1677	1.1	0.866	0.7	NA	1.4	9.6	0.03	0.02	0.03	56.7
All Vehicles			4760	1.5	3491	2.1	0.866	0.7	NA	1.4	9.6	0.03	0.04	0.04	54.0

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

Vehicle movement LOS values are based on average delay per movement.

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

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

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

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

Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik 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.



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