

PP2020/0001
Planning Proposal for the Mortdale RSL Redevelopment

**19-25 Macquarie Place & 46-56 Pitt Street,
Mortdale**

REVISED TRAFFIC AND PARKING ASSESSMENT REPORT

30 May 2022

Ref 20106

TABLE OF CONTENTS

1. INTRODUCTION	1
2. PLANNING PROPOSAL	6
3. TRAFFIC ASSESSMENT	15
4. PARKING ASSESSMENT	28

APPENDIX A	ARCHITECTURAL CONCEPT PLANS
APPENDIX B	TRAFFIC SURVEY DATA
APPENDIX C	STFM DATA
APPENDIX D	SIDRA MOVEMENT SUMMARIES

LIST OF ILLUSTRATIONS

Figure 1	Location
Figure 2	Site
Figure 3	Road Hierarchy
Figure 4	Existing Traffic Controls
Figure 5	Public Transport
Figure 6	Existing Parking Restrictions

1. INTRODUCTION

This revised report has been prepared to accompany an amended planning proposal for the redevelopment of the Mortdale RSL, located at 19-25 Macquarie Place & 46-56 Pitt Street, Mortdale (Figures 1 and 2).

The planning proposal seeks to amend the *Georges River LEP 2021* to allow for the redevelopment of the site for the purposes of mixed use development, by:

- Rezoning the land parcels (19-25 Macquarie Place and 46-56 Pitt Street, Mortdale) to rezone the site *B2 Local Centre*
- Amending the Maximum Building Height to be 28m (to accommodate 2 levels of commercial space, 7 levels of residential and lift overrun)
- Amending the Maximum Floor Space Ratio to 3.0:1; comprising 0.75:1 non-residential and 2.25:1 residential
- A VPA offer consistent with the principles of the Affordable Housing Contributions, exhibited as part of the Mortdale Town Centre review
- Permit up to an additional 0.5:1 of non-residential floor space where it is provided below ground level

The planning proposal envisages the construction of a new mixed use development on the site, to be known as *Mortdale Gardens*, including integrating the existing Mortdale RSL Club into the ground floor level, albeit slightly smaller. In addition, the planning proposal comprises approximately 1,160m² GFA of ground floor retail/commercial space, 2,300m² of basement retail/commercial space, approximately 590m² of first floor commercial space, and 134 residential apartments across levels 1-7.

Off-street parking will ultimately be provided within a multi-level basement parking area, in accordance with Council's *DCP* rates for the respective uses.

In February 2022, a meeting was held between the Council, the RSL Club, and the Applicant's town planning and traffic consultants, to discuss the proposal, with a particular emphasis on the associated traffic impacts.

The original traffic study which accompanied the planning proposal did not include any traffic surveys, nor any traffic modelling, primarily due to Covid-19 restrictions at the time. Council advised in the February 2022 meeting that traffic surveys could and should be undertaken at key intersections within the Mortdale town centre, and requested 5 intersections be counted and analysed:

- Morts Road & Martin Place
- Morts Road, Pitt Street & Cook Lane
- The Strand & Macquarie Place
- The Strand & Pitt Street
- Boundary Road & Macquarie Place

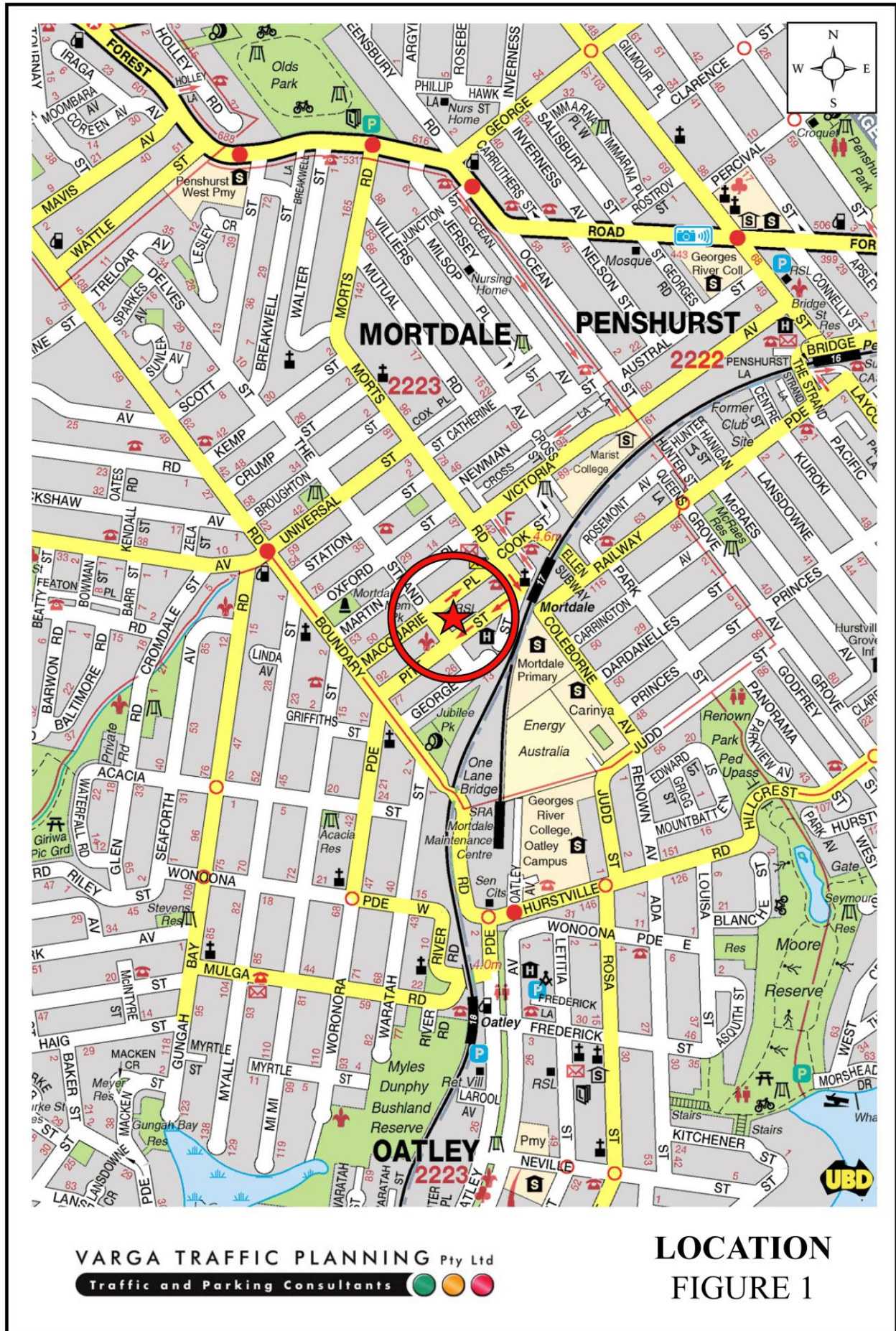
Whilst the traffic analysis is discussed in greater detail later in this report, in summary, the analysis confirmed that all five intersections will continue to operate at *Level of Service “A”* and *“B”* as a consequence of the planning proposal, including in the +10 year scenario which is based on TfNSW’s strategic growth model.

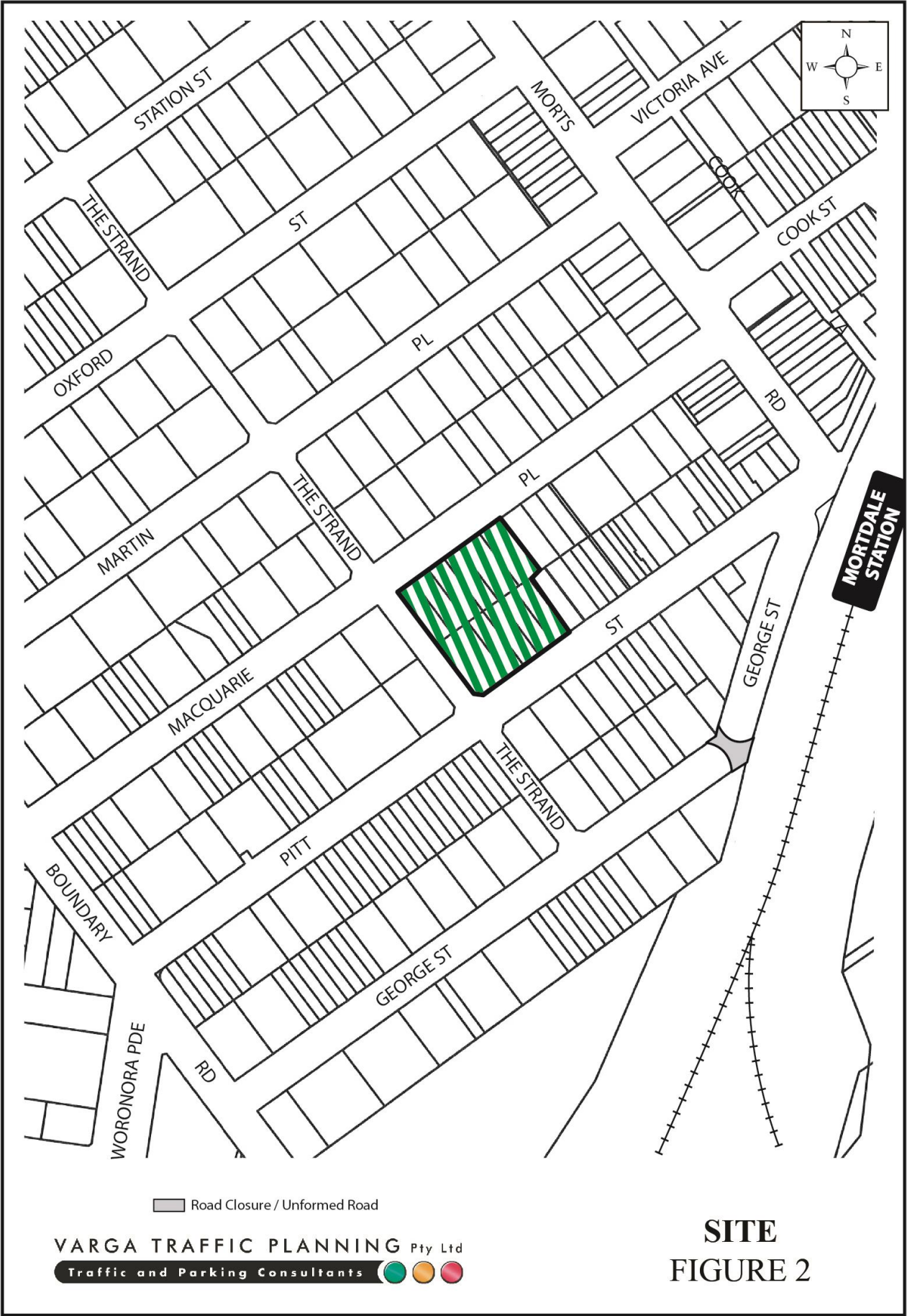
In 2018, the NSW Government released two documents called ‘*Greater Sydney Region Plan: A Metropolis of Three Cities*’ and ‘*Our Greater Sydney 2056: South District Plan – Connecting Communities*.’ The vision is for quicker and easier access to a wider range of jobs, housing types and activities within the South District area. This area is envisaged to benefit up to 83,500 new homes, 241,500 new jobs and the delivery of local amenities close to transport options.

The site is also situated within George River Council’s ‘*Local Strategic Planning Statement 2040: Implementation Plan*’ document which aligns with the South District Plan mentioned above. This Implementation Plan nominates the actions Council will take over the next 20 years to achieve the desired future vision.

The purpose of this revised report is to assess the traffic and parking implications of the amended planning proposal, and to that end this report:

- describes the site and provides details of the planning proposal
- reviews the road network in the vicinity of the site, and the traffic conditions on that road network
- reviews the public transport services in the vicinity of the site
- estimates the traffic generation potential of the planning proposal, and assigns that traffic generation to the road network serving the site
- assesses the traffic implications of the planning proposal in terms of road network capacity
- assesses the parking and loading implications of the planning proposal.





2. PLANNING PROPOSAL

Site

The subject site is located on the eastern side of The Strand, extending between Macquarie Place and Pitt Street. The site has street frontages of approximately 68m in length to Macquarie Place, approximately 61m in length to Pitt Street and approximately 72m in length to The Strand. This site occupies a total area of approximately 4,601m².

The site is situated approximately 250m walking distance west of Mortdale Railway Station and lies on the fringe of Mortdale town centre.

The subject site is currently zoned *R4-High Density Residential* at 19-25 Macquarie Place and 56 Pitt Street and *B2-Local Centres* at 46-54 Pitt Street.

A recent aerial image of the site and its surroundings is reproduced below.



Source: Nearmap

The subject site is currently occupied by the Mortdale RSL Club which has an estimated floor area of 2,000m². Off-street parking for members and their guests is provided for approximately 50 cars in an at-grade open car parking area. Vehicular access is provided via an existing entry/exit driveway located off Macquarie Place. a *Streetview* image of the existing RSL Club and car park access driveway is reproduced below.



No.56 Pitt Street is currently occupied by a residential flat building with 7 dwellings, as shown in the *Streetview* image below. Off-street parking is provided in a basement car parking area. Vehicular access is provided via an existing entry/exit driveway located off The Strand.



No.19 Macquarie Place is situated immediately adjacent to the RSL Club car park and is currently occupied by a standalone dwelling house with off-street parking. Vehicular access is provided via a single driveway located off Macquarie Place.



No.46 Pitt Street is currently occupied by single-storey retail/commercial building with an estimated floor area of 140m². Off-street parking is not provided for this site.



Our Greater Sydney 2056: South District Plan – Connecting Communities

In 2018, the NSW Government released two documents called '*Greater Sydney Region Plan: A Metropolis of Three Cities*' and '*Our Greater Sydney 2056: South District Plan – Connecting Communities*.'

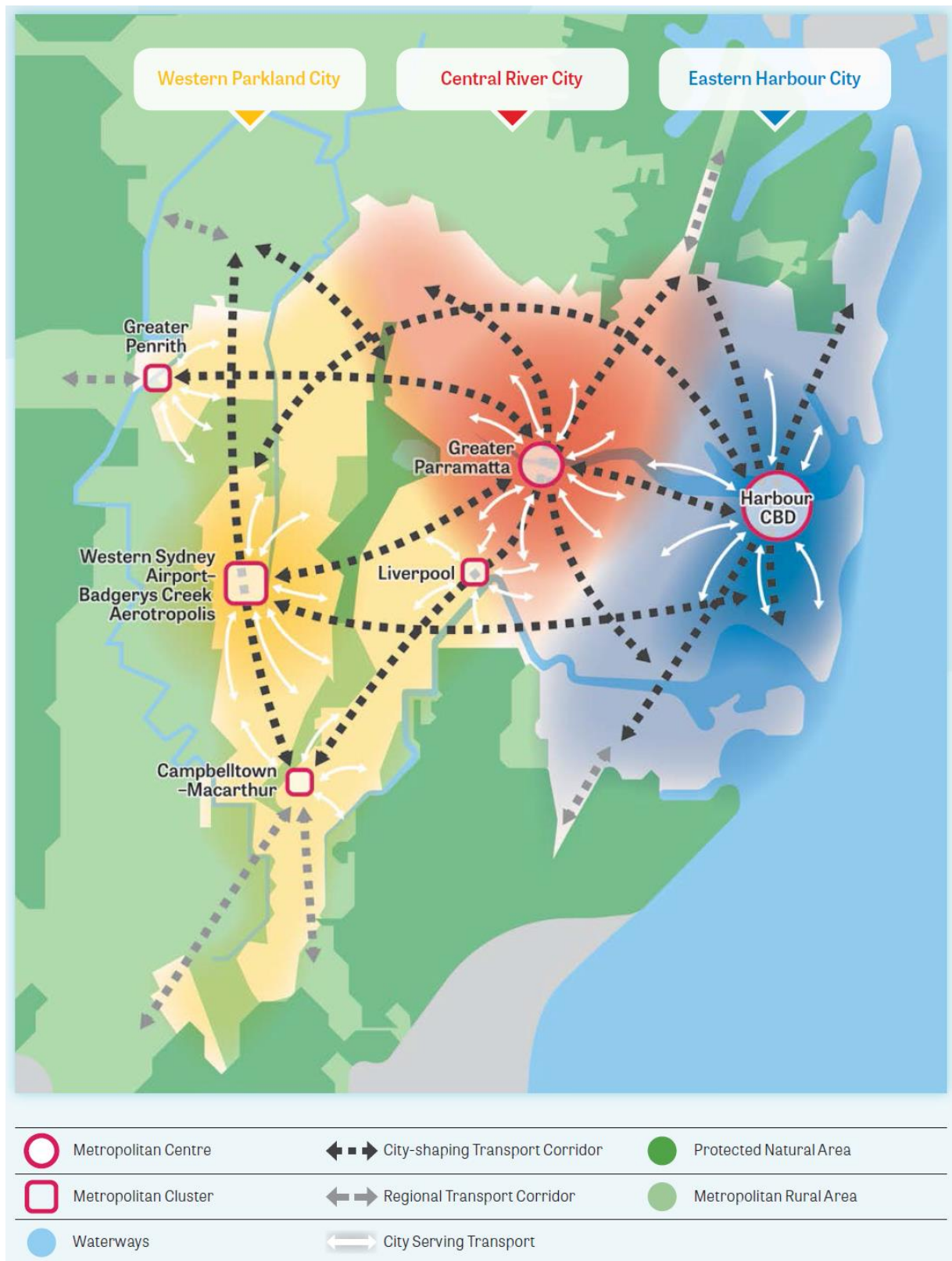
As the population grows, the goal is to rebalance economic and social opportunities across Greater Sydney by dividing Sydney into three core cities to allow residents to live within 30 minutes of their jobs, education and health facilities, services and other key places. The three cities include the Western Parkland City, the Central River City and the Eastern Harbour City as shown in the following pages.

The South District is part of the Eastern Harbour City. This means that the residents of the South District will have quicker and easier access to a wider range of jobs, housing types and activities.

The visions of the South District are to be achieved by the following:

- supporting growth of the ANSTO innovation precinct, health and education precincts, Bankstown Airport, Milperra industrial areas and the District's strategic core centres shown in the following pages. A strategic core centre includes Hurstville which is located approximately 2km from the site. The Health and Education Precincts of Kogarah and Bankstown are located approximately 5km and 7km from the site, respectively
- optimising on the District's locational advantages being so close to Sydney Airport, Port Botany, the Illawarra and Port Kembla
- building the District's connections to Parramatta, Liverpool and Western Sydney Airport
- sustaining walking and cycling assets
- matching the growth and infrastructure, including social infrastructure.

Over the next 20 years, the South District is expected to continually grow with the estimated demand for an additional 83,500 new homes, 241,500 new jobs and the delivery of local amenities close to transport options.





	Metropolitan Centre		Major Urban Parkland including National Parks and Reserves
	Health and Education Precinct		Waterways
	Strategic Centre		Green Grid Priority Corridor
	Local Centre		Train Station
	Economic Corridor		Committed Train Link
	Trade Gateway		Train Link/Mass Transit Investigation 10-20 years
	Industrial Land		Train Link/Mass Transit Visionary
	Land Release Area		Motorway
	Transit Oriented Development		Committed Motorway
	Urban Renewal Area		Road Investigation 0-10 years
	Urban Area		Road Visionary
	Protected Natural Area		District Boundary
	Metropolitan Rural Area		

Local Strategic Planning Statement 2040: Implementation Plan

The site is also situated within George River Council's *'Local Strategic Planning Statement 2040: Implementation Plan'* (LSPS 2040). This document aligns with the NSW Government two documents, *'Greater Sydney Region Plan: A Metropolis of Three Cities'* and *'Our Greater Sydney 2056: South District Plan – connecting communities'*. This implementation plan nominates the actions Council will take over the next 20 years to achieve the desired future character.

Housing targets are as follows:

- now to 2021: +4,500 dwellings
- 2021 to 2026: +4,450 dwellings
- 2026 to 2036: +5,750 dwellings

Employment targets are as follows:

- increased proportion of local jobs for local residents
- minimum total of 15,000 jobs in Hurstville centre by 2036
- minimum total of 16,000 jobs in Kogarah strategic centre by 2036
- increase in employment floor space across all commercial centres

Existing Planning Controls

The primary instrument that governs the mass and scale of the development on the site are contained within the *Georges River Local Environmental Plan 2021*.

19-25 Macquarie Place and 56 Pitt Street are currently zoned *R4-High Density Residential* and subject to a 1:1 FSR control. The scale of any development on the site is currently constrained by a building height restriction of 12m maximum.

46-54 Pitt Street is currently zoned *B2-Local Centres* and is subject to a 1.5:1 FSR control. There are currently no building height restrictions for this site.

Amended Planning Proposal

The amended planning proposal envisages the construction of a new mixed use development on the site, to be known as *Mortdale Gardens*. The planning proposal seeks to rezone the site from part *R4 High Density Residential* and *B2 Local Centre* to entirely *B2 Local Centre*. In addition, the proposal includes increasing the maximum height of buildings from 12m to 28m and increasing the maximum FSR from 1:1 and 1.5:1 up to 3.0:1, comprising 0.75:1 non-residential and 2.25:1 residential, plus an additional 0.5:1 of non-residential floor space below ground level.

Concept plans have been prepared for the purposes of evaluating the planning proposal which include:

- retail/commercial uses within the basement level, potentially comprising a local supermarket
- revitalising Mortdale RSL Club on the ground floor level which will reduce slightly from 2,000m² down to 1,700m²
- retail/commercial uses on the remaining ground floor level
- commercial uses on the first floor level
- housing variety and supply on the upper levels that will provide housing opportunities to aid the expected population growth in the area

These concept plans envisage the following components:

Residential Component:

1 bedroom apartments:	17
2 bedroom apartments:	109
3 bedroom apartments:	8
TOTAL APARTMENTS:	134

The retail/commercial space across the basement, ground and first floor levels will comprise approximately 4,050m² GFA of floor space (or the equivalent of approximately 3,037m² GLFA, based on the RMS *Guidelines* estimation of 0.75% of GFA). Whilst the precise nature of the future tenancies are not yet known, they may consist of the following:

Retail/Commercial Component:

Basement metro supermarket:	2,300m ² GFA (1,725m ² GLFA)
Ground floor specialty retail:	1,160m ² GFA (870m ² GLFA)
First floor office:	590m ² GFA (442m ² GLFA)
TOTAL FLOOR AREA:	4,050m² GFA (3,037m² GLFA)

Off-street car parking is proposed in a new multi-level basement parking area, with the number of parking spaces to be provided to be in accordance with Council's numerical requirements for the various respective uses. Vehicular access to the basement car parking facilities is proposed to be provided via a new entry/exit driveway located at the eastern end of the Macquarie Place site frontage.

In addition, a new at-grade porte cochere drop-off/pick-up area is proposed to be provided directly outside the main entrance to the new RSL, accessed via separate entry/exit driveways located off Macquarie Place.

Loading/servicing for the proposed development is expected to be undertaken by a variety of commercial vehicles up to and including 8.8m long medium rigid trucks. In this regard, a shared service area is proposed to be provided on the ground floor level, accessed via a dedicated driveway located midway along The Strand site frontage.

Concept plans of the planning proposal are reproduced in Appendix A.

3. TRAFFIC ASSESSMENT

Road Hierarchy

The road hierarchy allocated to the road network in the vicinity of the site by Transport for NSW (TfNSW) is illustrated on Figure 3.

Henry Lawson Drive and Forest Road are both classified by TfNSW as *State Roads* which provide the key east-west road link in the area, linking Villawood to Arncliffe. They typically carry three traffic lanes in each direction in the vicinity of the site with opposing traffic flows separated by a central median island. Kerbside parking is permitted at selected locations, outside of peak periods.

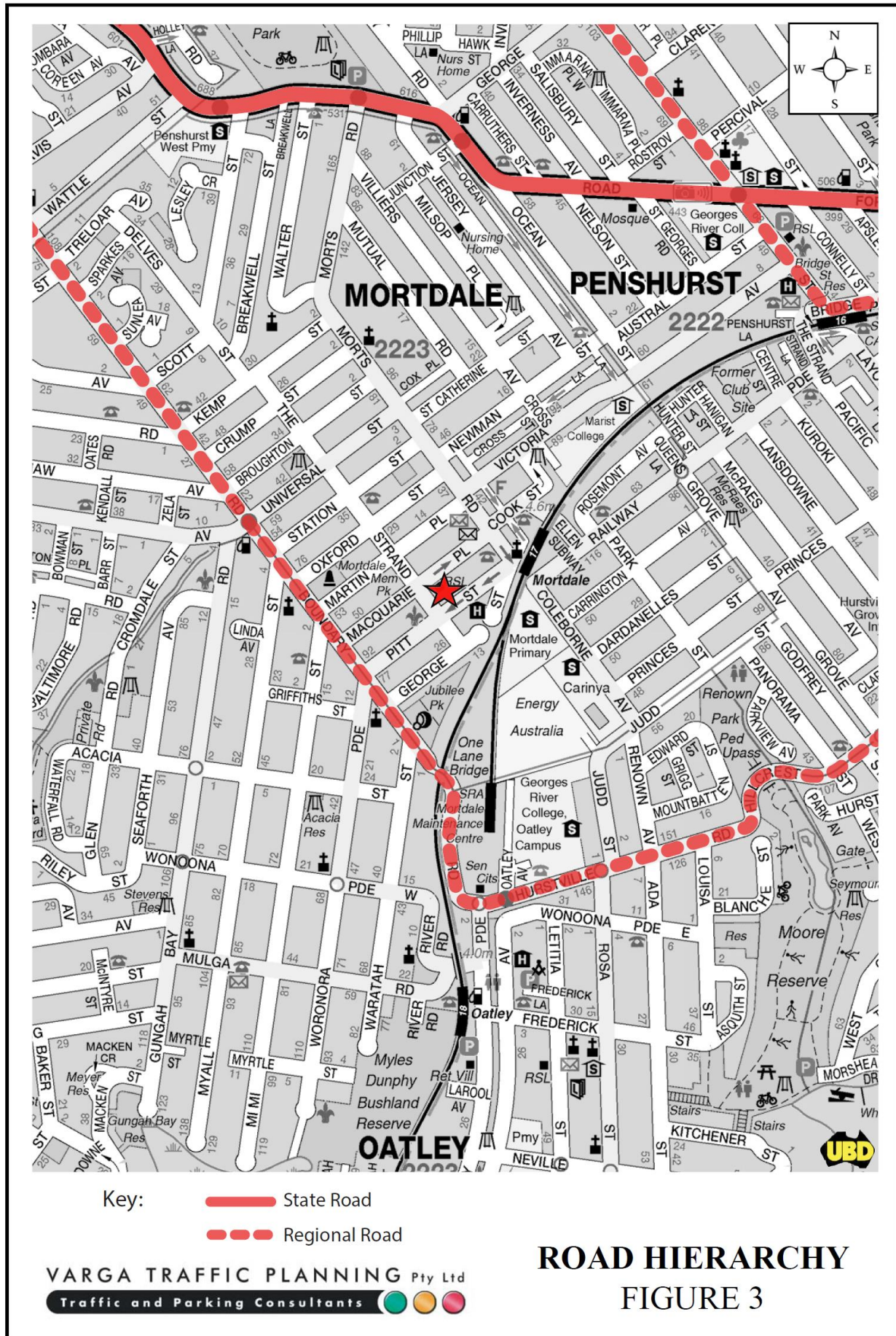
Boundary Road is classified by TfNSW as a *Regional Road* which provides a key north-south *collector route* through the area, linking Forest Road to Hurstville Road. It typically carries one traffic lane in each direction with kerbside parking generally permitted.

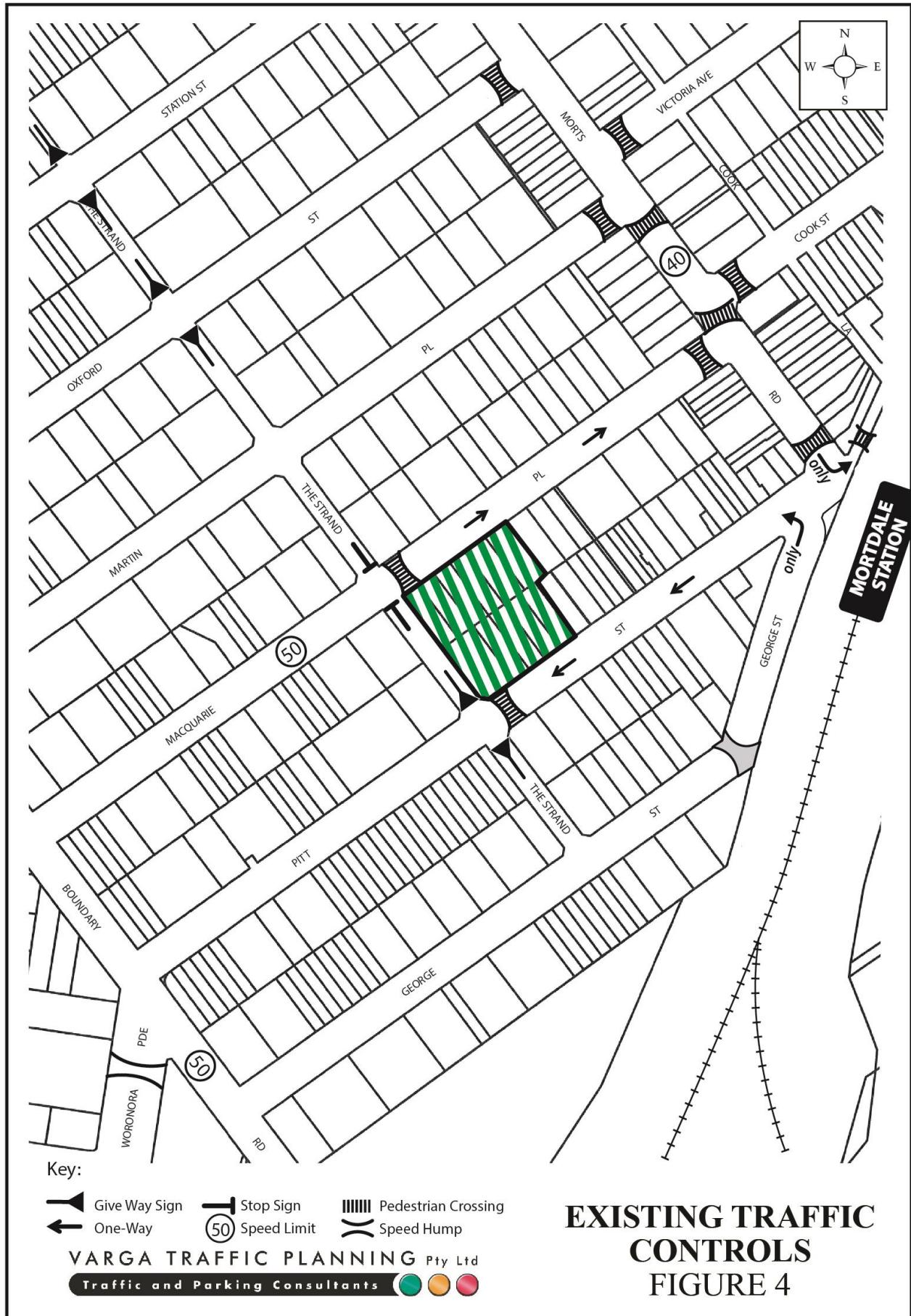
Macquarie Place / Pitt Street / The Strand are local, unclassified roads which are primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is permitted at selected locations, subject to signposted restrictions.

Existing Traffic Controls

The existing traffic controls which apply to the road network in the vicinity of the site are illustrated on Figure 4. Key features of those traffic controls are:

- a 50 km/h SPEED LIMIT which applies to Macquarie Place, Pitt Street, The Strand and all other local roads in the area
- a ONE WAY eastbound restriction in Macquarie Place, between Morts Road and The Strand
- a ONE WAY westbound restriction in Pitt Street, between Morts Road and The Strand





- STOP SIGNS in The Strand where it intersects with Macquarie Place
- GIVE WAY SIGNS in The Strand where it intersects with Pitt Street
- RAISED PEDESTRIAN CROSSINGS located throughout the Mortdale town centre including in Macquarie Place and Pitt Street, directly outside the site.

Existing Public Transport Services

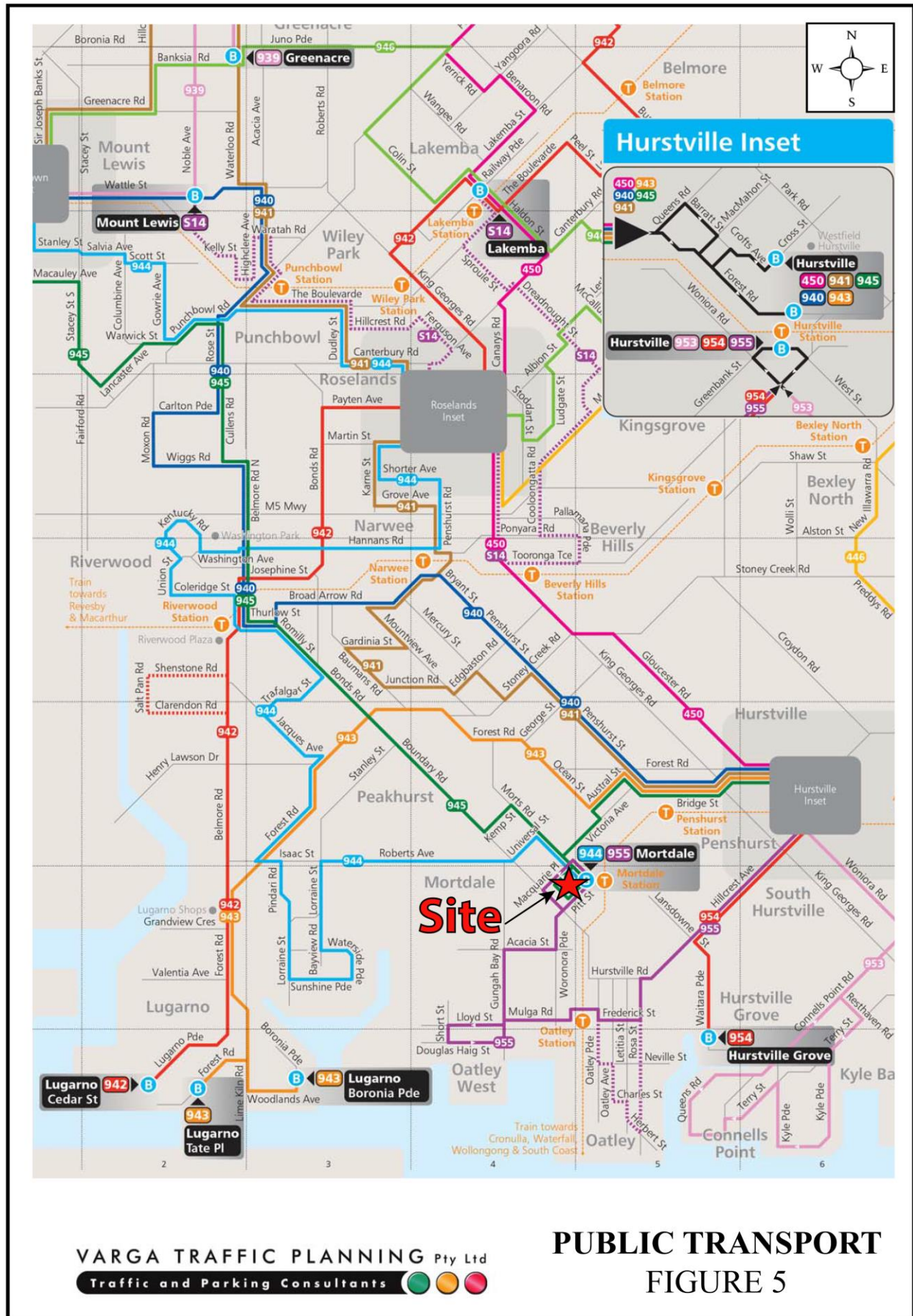
The existing public transport services available in the vicinity of the site are illustrated on Figure 5. There are currently 3 bus services which operates directly opposite the Macquarie Place site frontage.

There are 180 bus services per day travelling near the site on weekdays, with nearly 70 bus services per day on Saturdays and 30 bus services on Sunday and public holidays, as set out below:

Bus Routes and Frequencies							
Route No.	Route	Weekday		Saturday		Sunday	
		In	Out	In	Out	In	Out
944	Bankstown to Mortdale via Peakhurst Heights	36	35	10	11	10	9
945	Hurstville to Bankstown via Mortdale	43	45	20	19	10	10
955	Mortdale to Hurstville via Oatley	11	11	9	9	-	-
TOTAL		90	91	39	39	20	19

All of the abovementioned bus services provide access to suburban railway stations including Mortdale, Bankstown, Punchbowl, Narwee, Riverwood, Penshurst and Oatley.

The subject site is also located approximately 250m walking distance to/from Mortdale Railway Station which is lies on the T4 Eastern Suburbs & Illawarra Line. These services typically operate at a frequency of less than 15 minutes and commuter wait times tend to be minimal throughout the day.



The site is also located on the fringe of Mortdale town centre which includes a wide range of essential shops and services including a post office, butchery, cafés and restaurants, bakery, banks, bottle shop, pharmacy, hair dresser and beautician.

The site is therefore considered to be well serviced by public transport services and essential services and an ideal location to provide additional density.

Existing Traffic Conditions

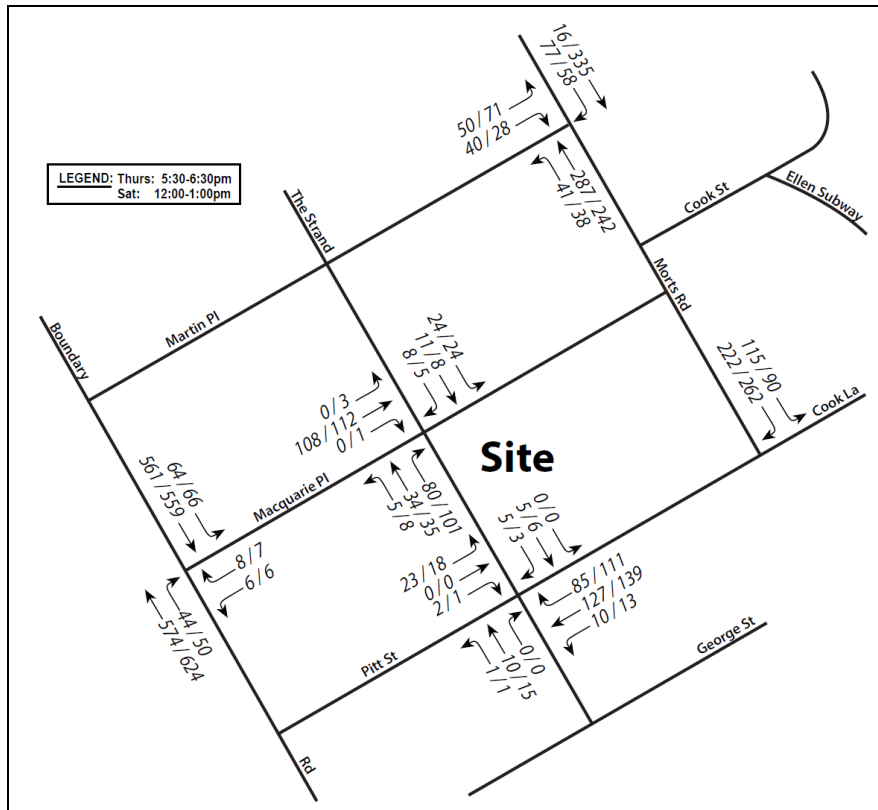
An indication of the existing traffic conditions on the road network in the vicinity of the site is provided peak period traffic surveys undertaken as part of this revised traffic study. The traffic surveys were undertaken at the following intersections requested by Council, on Thursday 17th February and Saturday 19th February 2022:

- Morts Road & Martin Place
- Morts Road, Pitt Street & Cook Lane
- The Strand & Macquarie Place
- The Strand & Pitt Street
- Boundary Road & Macquarie Place

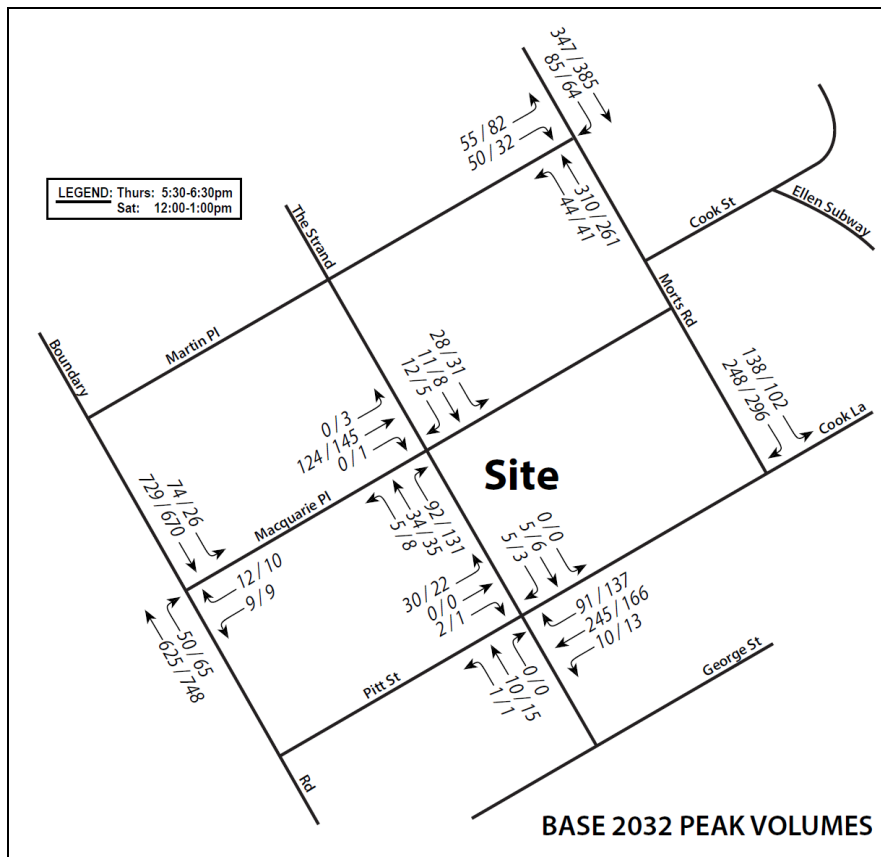
The results of the traffic surveys are reproduced in full in Appendix B and summarised in the figure on the following page.

Traffic impact assessments for major development such as the proposed, also include a +10 year scenario. In order to determine the expected “baseline” traffic volumes in the vicinity of the site in 2032, reference is made to Sydney’s Strategic Travel Forecast Model (STFM) provided by TfNSW in May 2022. The STFM is a strategic transport planning model that considers population and employment growths and is used for high-level assessment of major infrastructure proposals, transport strategies and policy decision making.

The STFM provides future year traffic forecasts to determine the relative traffic growth from the baseline scenario to estimations for future year traffic conditions in Year 2032, in this instance.



Existing 2022 road network peak traffic volumes



Existing "baseline" 2032 road network peak traffic volumes (based on STFM growth rates)

Projected Traffic Generation

The traffic implications of traffic studies primarily concern the effects of the *additional* traffic flows generated as a result of the new uses of the development and its impact on the operational performance of the adjacent road network, particularly during the peak periods.

An indication of the traffic generation potential of the planning proposal is provided by reference to the Roads and Maritime Services publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002)* and the updated traffic generation rates in the RMS *Technical Direction (TDT 2013/04a)* document.

As mentioned in the foregoing, the proposed revitalised Mortdale RSL Club is expected to result in a slight *reduction* in floor area compared to the existing Mortdale RSL Club, reducing from approximately 2,000m² down to 1,700m². The traffic generation potential of the proposed RSL Club is therefore expected to be generally consistent with the existing Club, such that it has been *excluded* from the traffic assessment.

The new, or *additional* uses on the site, comprise the retail/commercial space and the residential apartments above. The RMS *Guidelines* and *Technical Direction* nominates the following traffic generation rates which is applicable to the residential component of the planning proposal:

High Density Residential Flat Dwellings

PM: 0.15 peak hour vehicle trips per unit

SAT: 0.18 peak hour vehicle trips per unit

The RMS *Guidelines* also make the following observation in respect of high density residential flat buildings:

Definition

A *high density residential flat building* refers to a building containing 20 or more dwellings. This does not include aged or disabled persons housing. *High density residential flat buildings* are usually more than 5 levels, have basement level car parking and are located in close proximity to public transport services. The building may contain a component of commercial use.

Factors

The above rates include visitors, staff, service/delivery and on-street movements such as taxis and pick-up/set-down activities.

In terms of the retail/commercial component, the RMS *Guidelines* nominates the following traffic generation rates:

Shopping Centres

Thursday PM: $V(P) = 155A(SM) + 46A(SS) + 22A(OM)$

Saturday: $V(P) = 147A(SM) + 107A(SS)$

Where:

A(SM): Supermarket GLFA

A(SS): Specialty shops, secondary retail GLFA

A(OM): office, medical GLFA

In addition to the above, it is noted that the above ‘Shopping Centres’ trip generation rates are based on gross leasable floor area (GLFA) which provides a better indication of trip generation than gross floor area (GFA). The RMS *Guidelines* suggests as a general guide, *100m² GFA is the equivalent of approximately 75m² GLFA*.

Therefore, application of the above generation rates to the residential and retail/commercial components outlined in the amended planning proposal, yields a traffic generation potential of approximately 317 vehicle trips per hour (vph) during the weekday afternoon peak period and approximately 370 vph during the Saturday peak period, as set out below:

Projected Future Traffic Generation Potential

	PM	SAT
Residential (134 apartments):	20 vph	24 vph
Supermarket (1,725m ² GLFA):	267 vph	253 vph
Specialty retail (870m ² GLFA):	40 vph	93 vph
Office (442m ² GLFA):	10 vph	0 vph
TOTAL TRAFFIC GENERATION POTENTIAL:	317 vph	370 vph

Furthermore, given the site’s location within the Mortdale town centre, it is reasonable to assume that the above projected future traffic generation potential of the retail component of the planning proposal will *include* a number of “linked trips” or “passing trade”.

Linked trips occur when a person visits the site but also visits another premises nearby on the same trip whilst not moving their car, thereby not generating an additional vehicle trip. Passing trade occurs when a person might visit the proposed supermarket on the site on their way home from work. That person is already travelling on the nearby road network, thereby not generating an additional vehicle trip.

Furthermore, a portion of the customers using the proposed supermarket will be drawn from residents living within the apartments above and surrounding apartment developments (of a comparable density), thereby further reducing the traffic activity associated with a stand-alone supermarket and specialty stores.

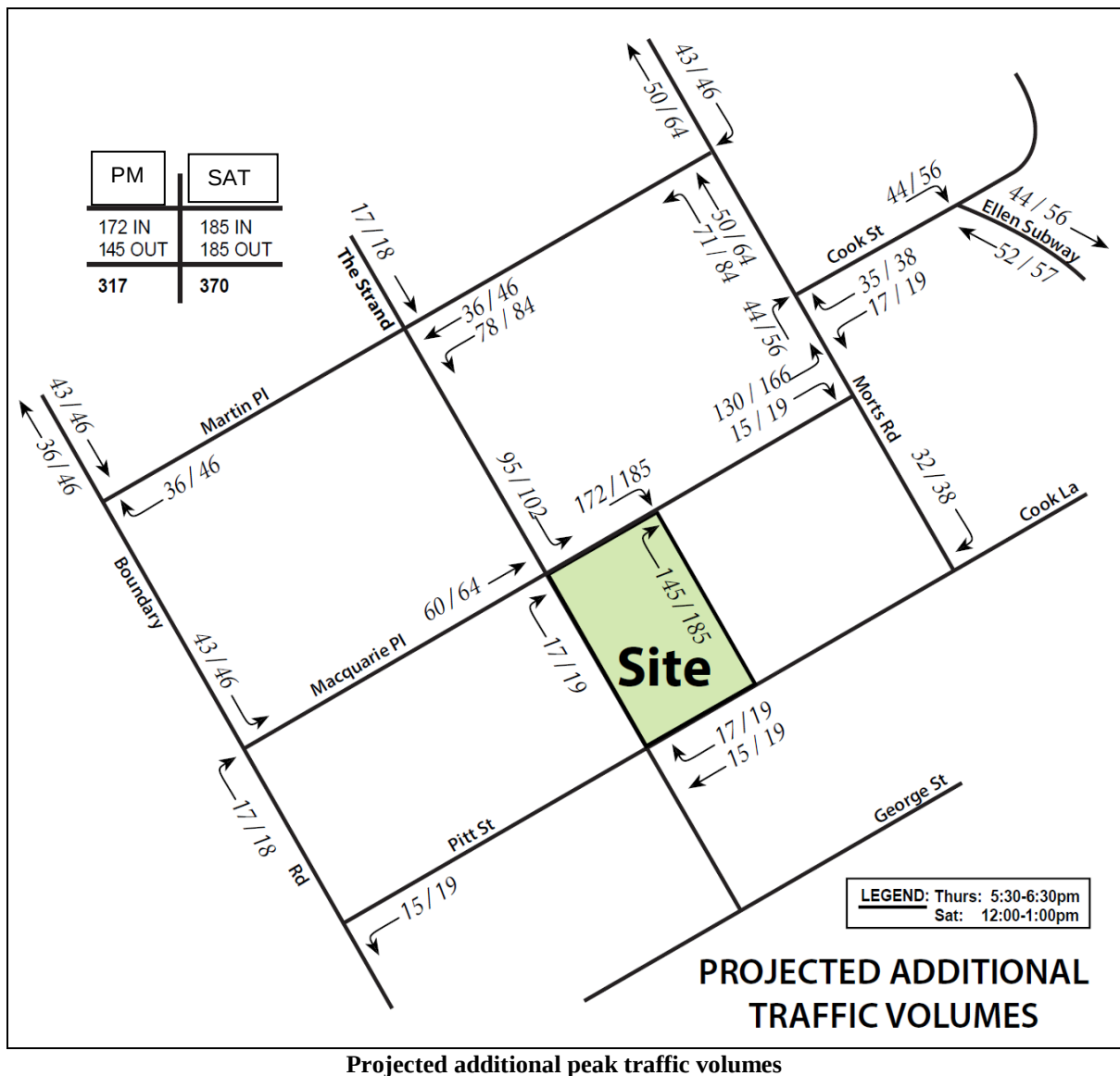
Reference to the RMS *Guidelines* indicates that the *passing trade* component of the development proposal is likely to contribute to a 25% discount to the overall estimated traffic generation of the site.

Notwithstanding the above, for the purposes of undertaking a more rigorous assessment, it has been assumed that there will not be any *passing trade* or *linked trips*, and that *all* of the projected future traffic flows of 317 PM vph and 370 SAT vph will be new, or *additional*, to the existing traffic flows currently using the surrounding road network.

Accordingly, the distribution of the projected future additional traffic volumes is illustrated on the diagram on the following page.

Those projected traffic flows as a consequence of the planning proposal will not have any unacceptable traffic implications in terms of road network capacity, nor will any road upgrades/improvements/widening be required, as is demonstrated in the following section of this report.

Whilst there may be some level of increase in average vehicle delays to other nearby local intersections as a consequence of the planning proposal, any increases in delays to the broader road network are expected to be minimal, as much of the traffic will be “diluted” by the time it reaches those areas, and therefore will also not result in any unacceptable traffic implications in terms of road network capacity.



Traffic Implications - Road Network Capacity

The traffic implications of development proposals primarily concern the effects that any *additional* traffic flows may have on the operational performance of the nearby road network. Those effects can be assessed using the SIDRA NETWORK program which is widely used by TfNSW and many LGA's for this purpose.

Criteria for evaluating the results of SIDRA analysis are reproduced in the following pages. The individual movement summaries are reproduced in Appendix D and summarised in the table on the following page, revealing that:

- all surrounding intersections currently operate at an overall average *Level of Service* “A”
- under the projected *nett increase* in projected future traffic demands expected to be generated by the planning proposal, all surrounding intersections will continue to operate at either *Levels of Service* “A” or “B”, with minimal increases in average vehicle delays.

In essence, the rigorous capacity analysis confirms that the traffic generation potential of the revised Planning Proposal on the subject site, even *without discounting* any traffic associated with the existing club, will not have any appreciable effect on the performance of nearby intersections (with minimal increases in delays on all approaches, if any), and that no further upgrades will be required beyond the proposed widening of Alma Avenue.

SUMMARY RESULTS OF SIDRA NETWORK ANALYSIS OF SURROUNDING ROAD NETWORK								
Key Indicators	Existing 2022 Traffic Demand		Existing 2022 + Projected Development Traffic Demand		Existing Baseline 2032 Traffic Demand		Existing Baseline 2032 + Projected Development Traffic Demand	
	PM	SAT	PM	SAT	PM	SAT	PM	SAT
Morts Rd & Martin Pl								
LOS	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)
DOS	0.226	0.219	0.273	0.266	0.250	0.250	0.299	0.300
AVD (Sec/Veh)	1.6 (8.3)	1.5 (8.4)	2.1 (9.5)	2.0 (9.8)	1.7 (9.0)	1.5 (9.1)	2.3 (10.3)	2.1 (10.8)
Morts Rd, Pitt St & Cook Ln								
LOS	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)
DOS	0.186	0.196	0.204	0.216	0.213	0.220	0.230	0.241
AVD (Sec/Veh)	3.8 (3.9)	3.8 (3.9)	3.8 (3.9)	3.8 (3.9)	3.8 (3.9)	3.8 (3.9)	3.8 (3.9)	3.8 (3.9)
The Strand & Macquarie Pl								
LOS	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)
DOS	0.121	0.143	0.161	0.191	0.136	0.182	0.179	0.236
AVD (Sec/Veh)	4.8 (8.3)	4.9 (8.1)	5.3 (9.4)	5.4 (9.3)	4.8 (8.4)	4.9 (8.3)	5.3 (9.5)	5.5 (9.7)
The Strand & Pitt St								
LOS	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)	A(A)
DOS	0.127	0.148	0.145	0.169	0.193	0.178	0.210	0.198
AVD (Sec/Veh)	2.2 (5.7)	2.3 (5.9)	2.2 (5.9)	2.3 (6.2)	1.7 (6.5)	2.3 (6.3)	1.7 (6.7)	2.3 (6.5)
Boundary Rd & Macquarie Pl								
LOS	A(A)	A(A)	A(A)	A(B)	A(B)	A(B)	A(B)	A(B)
DOS	0.345	0.382	0.367	0.406	0.416	0.476	0.439	0.507
AVD (Sec/Veh)	1.0 (13.1)	1.2 (14.3)	1.4 (13.7)	1.6 (15.0)	1.4 (18.0)	1.7 (20.9)	2.0 (19.1)	2.3 (22.2)

LOS – Level of Service; DOS – Degree of Saturation; AVD – Average Vehicle Delays
Worst turning movements and respective delays indicated in brackets (sign-controlled intersections)

Criteria for Interpreting Results of Sidra Analysis

1. Level of Service (LOS)

LOS	Traffic Signals and Roundabouts	Give Way and Stop Signs
'A'	Good operation.	Good operation.
'B'	Good with acceptable delays and spare capacity.	Acceptable delays and spare capacity.
'C'	Satisfactory.	Satisfactory but accident study required.
'D'	Operating near capacity.	Near capacity and accident study required.
'E'	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode.	At capacity and requires other control mode.
'F'	Unsatisfactory and requires additional capacity.	Unsatisfactory and requires other control mode.

2. Average Vehicle Delay (AVD)

The AVD provides a measure of the operational performance of an intersection as indicated on the table below which relates AVD to LOS. The AVD's listed in the table should be taken as a guide only as longer delays could be tolerated in some locations (ie inner city conditions) and on some roads (ie minor side street intersecting with a major arterial route).

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way and Stop Signs
A	less than 14	Good operation.	Good operation.
B	15 to 28	Good with acceptable delays and spare capacity.	Acceptable delays and spare capacity.
C	29 to 42	Satisfactory.	Satisfactory but accident study required.
D	43 to 56	Operating near capacity.	Near capacity and accident study required.
E	57 to 70	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode.	At capacity and requires other control mode.

3. Degree of Saturation (DS)

The DS is another measure of the operational performance of individual intersections.

For intersections controlled by traffic signals¹ both queue length and delay increase rapidly as DS approaches 1, and it is usual to attempt to keep DS to less than 0.9. Values of DS in the order of 0.7 generally represent satisfactory intersection operation. When DS exceeds 0.9 queues can be anticipated.

For intersections controlled by a roundabout or GIVE WAY or STOP signs, satisfactory intersection operation is indicated by a DS of 0.8 or less.

¹ The values of DS for intersections under traffic signal control are only valid for cycle length of 120 secs.

4. PARKING ASSESSMENT

Existing Kerbside Parking Restrictions

The existing kerbside parking restrictions which apply to the road network in the vicinity of the site are illustrated on Figure 6 and comprise:

- 1 and 2 HOUR PARKING (60°) restrictions along the Pitt Street site frontage
- 1 and 2 HOUR PARKING (parallel) restrictions along the southern side of Pitt Street
- NO PARKING restrictions along the majority of the Macquarie Place site frontage
- UNRESTRICTED kerbside parking (60°) along the northern side of Macquarie Place
- NO PARKING restrictions along the western side of The Strand
- UNRESTRICTED kerbside parking along the eastern side of The Strand, including along the site frontage
- BUS ZONES located in Pitt Street, outside Mortdale Railway Station, and also Macquarie Place, opposite the site.

Off-Street Parking Provisions

The off-street parking rates applicable to the planning proposal are specified in Table 1 of Council's *Georges River Development Control Plan 2021, Section 3.13 Parking Access and Transport* document in the following terms:

Residential Flat Building

Dwelling (1-2 bedrooms):	1 space per dwelling
Dwelling (3 bedrooms and over):	2 spaces per dwelling
Visitor spaces:	1 space per 5 dwellings



Registered Clubs & Nightclubs

Identify car parking demand through a Transport and Parking Assessment Study based on similar venue

Business & Commercial (<800m walking distance of railway station)

1 space per 60m² GFA

Retail Shops (<800m walking distance of railway station)

1 space per 60m² GFA

Supermarket (<800m walking distance of railway station)

1 space per 20m² GLFA

With respect to the parking requirement for the proposed RSL Club, for the purposes of this assessment, the parking rate of *1 space per 18.5m²* from Council's *DCP 2018* has been adopted.

Application of the *GRDCP 2021* car parking rates to the various components of the planning proposal (and the *DCP 2018* parking rate for the RSL Club) yields an off-street car parking requirement of 376 spaces, as set out below:

Residential (134 apartments):	142 spaces
Visitors:	27 spaces
Office (590m ² GFA):	10 spaces
Specialty retail (1,160m ² GFA):	19 spaces
Supermarket (1,725m ² GLFA):	86 spaces
RSL Club (1,700m ²):	92 spaces
TOTAL:	376 spaces

Notwithstanding, the subject site is located within 800 metres of a railway station in the Sydney metropolitan area, and therefore the residential component of the development is also subject to the parking requirements specified in the *State Environmental Planning Policy No 65 – Design Quality of Residential Flat Development (Amendment No 3), 2015* in the following terms:

30 Standards that cannot be used to refuse development consent or modification of development consent

- (1) If an application for the modification of a development consent or a development application for the carrying out of development to which this Policy applies satisfies the following design criteria, the consent authority must not refuse the application because of those matters:

- a) if the car parking for the building will be equal to, or greater than, the recommended minimum amount of car parking specified in Part 3J of the Apartment Design Guide.

Reference is therefore made to the *Apartment Design Guide 2015, Section 3J – Bicycle and Car Parking* document which nominates the following car parking requirements:

Objective 3J-1

Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas.

For development in the following locations:

- on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or
- on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre

the minimum car parking requirements for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less.

The car parking needs for a development must be provided off street.

Comparison therefore needs to be drawn between the off-street car parking requirements for residential flat buildings outlined in *GRDCP 2021* and also the *RMS Guidelines* to determine the *lesser* requirement. The relevant car parking rates outlined in the *RMS Guidelines* are reproduced on the following page:

RMS Guidelines – High Density Residential Flat Buildings in Metropolitan Sub-Regional Centres

0.6 spaces per 1 bedroom unit

0.9 spaces per 2 bedroom unit

1.4 spaces per 3 bedroom unit

1 space per 5 units for visitor parking

Accordingly, the minimum off-street car parking requirement applicable to the residential component of the development is 147 spaces, comprising 120 residential spaces and 27 visitor spaces, as set out below:

	GRDCP 2021	RMS Guidelines
Residents:	142 spaces	120 spaces
Visitors:	27 spaces	27 spaces
Total:	169 spaces	147 spaces
Lesser Car Parking Requirement: 147 spaces		

The total minimum off-street parking requirement applicable to the planning proposal is therefore 354 spaces, as set out below:

Residential (134 apartments):	120 spaces (RMS/ADG)
Visitors:	27 spaces (RMS/ADG)
Office (590m ² GFA):	10 spaces (GRDCP 2021)
Specialty retail (1,160m ² GFA):	19 spaces (GRDCP 2021)
Supermarket (1,725m ² GLFA):	86 spaces (GRDCP 2021)
RSL Club (1,700m ²):	92 spaces (DCP 2018)
TOTAL:	354 spaces

Whilst the number of parking spaces to be provided as part of the planning proposal is not yet known, it is expected that the above parking requirements will be satisfied with the provision of a multi-level basement parking area on the subject site.

The geometric design layout of all off-street car parking and loading areas will comply with the relevant requirements specified in the Standards Australia publications *AS2890.1:2004*, *AS2890.2:2018*, *AS2890.3:2015* and *AS2890.6:2009*.

Conclusion

Based on the analysis and discussions presented within this report, the following conclusions are made:

- the planning proposal seeks to rezone the site from *R4 High Density Residential* and *B2 Local Centre* to entirely *B2 Local Centre*
- the planning proposal also seeks approval to increase the maximum Height of Building restriction from 12m to 28m and to increase the Floor Space Ratio restriction from 1:1 and 1.5:1 to 3.0:1 + 0.5:1 below ground
- the revitalised Mortdale RSL Club is expected to have a slightly reduced floor area compared to the existing RSL Club, reducing from approximately 2,000m² down to approximately 1,700m²
- the *nett increase* in traffic generation potential is minimal and not expected to result in any unacceptable traffic implications to the immediate or broader road network
- the future car parking and loading facilities will be provided on site and designed in accordance with Council's requirements and the relevant Australian Standards.

It is therefore reasonable to conclude that the planning proposal will not have any unacceptable implications in terms of road network capacity, access or off-street parking/loading requirements.

APPENDIX A

ARCHITECTURAL CONCEPT PLANS

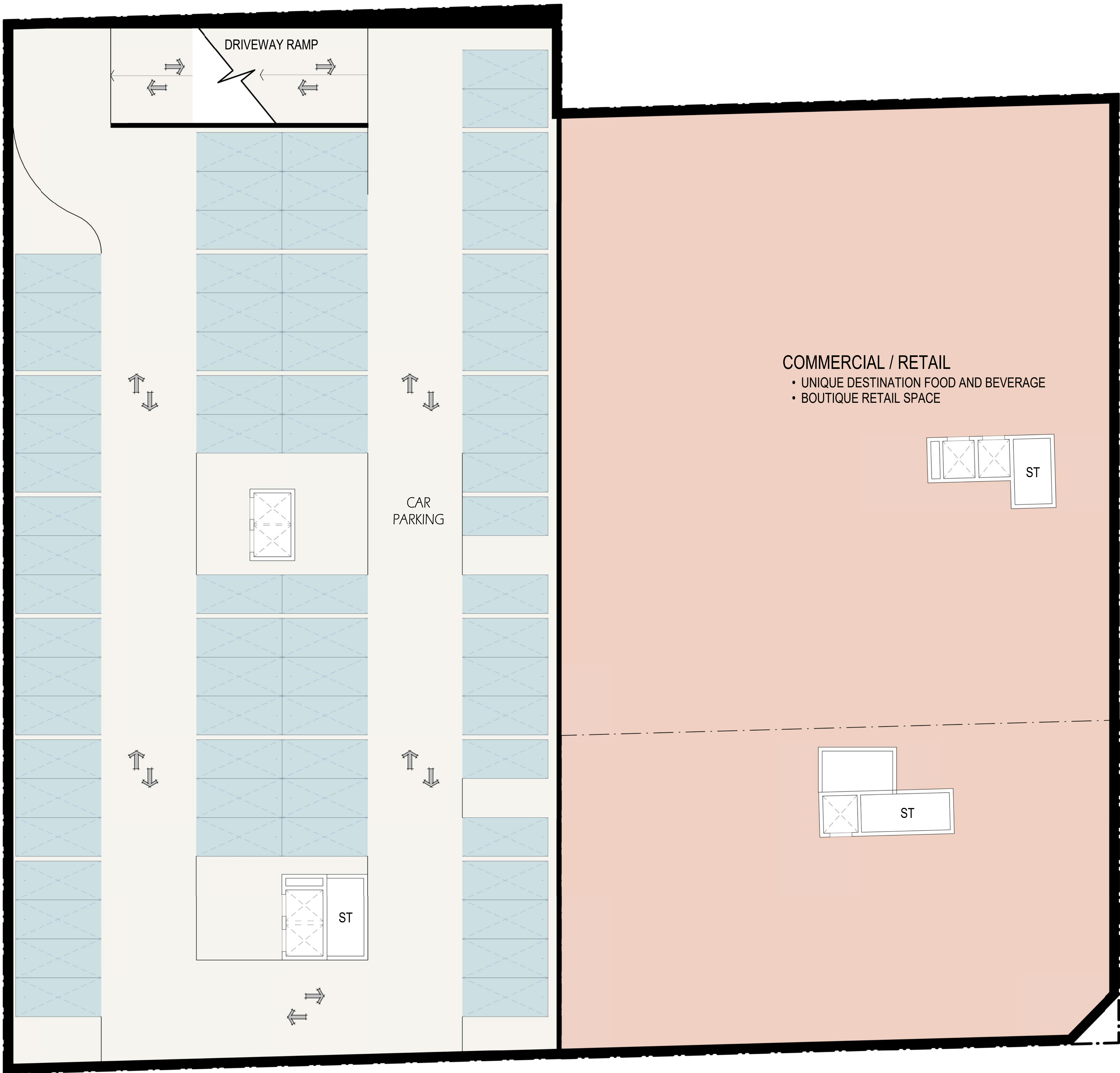


- COMMERCIAL
- MORTDALE RSL

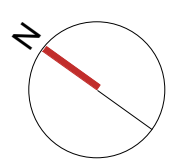
TYPICAL BASEMENT 3 AND BELOW

SCALE @A1 SHEET
1 : 125
SCALE @A3 SHEET
1 : 250

02/09/21
DRAWING No.
PP02

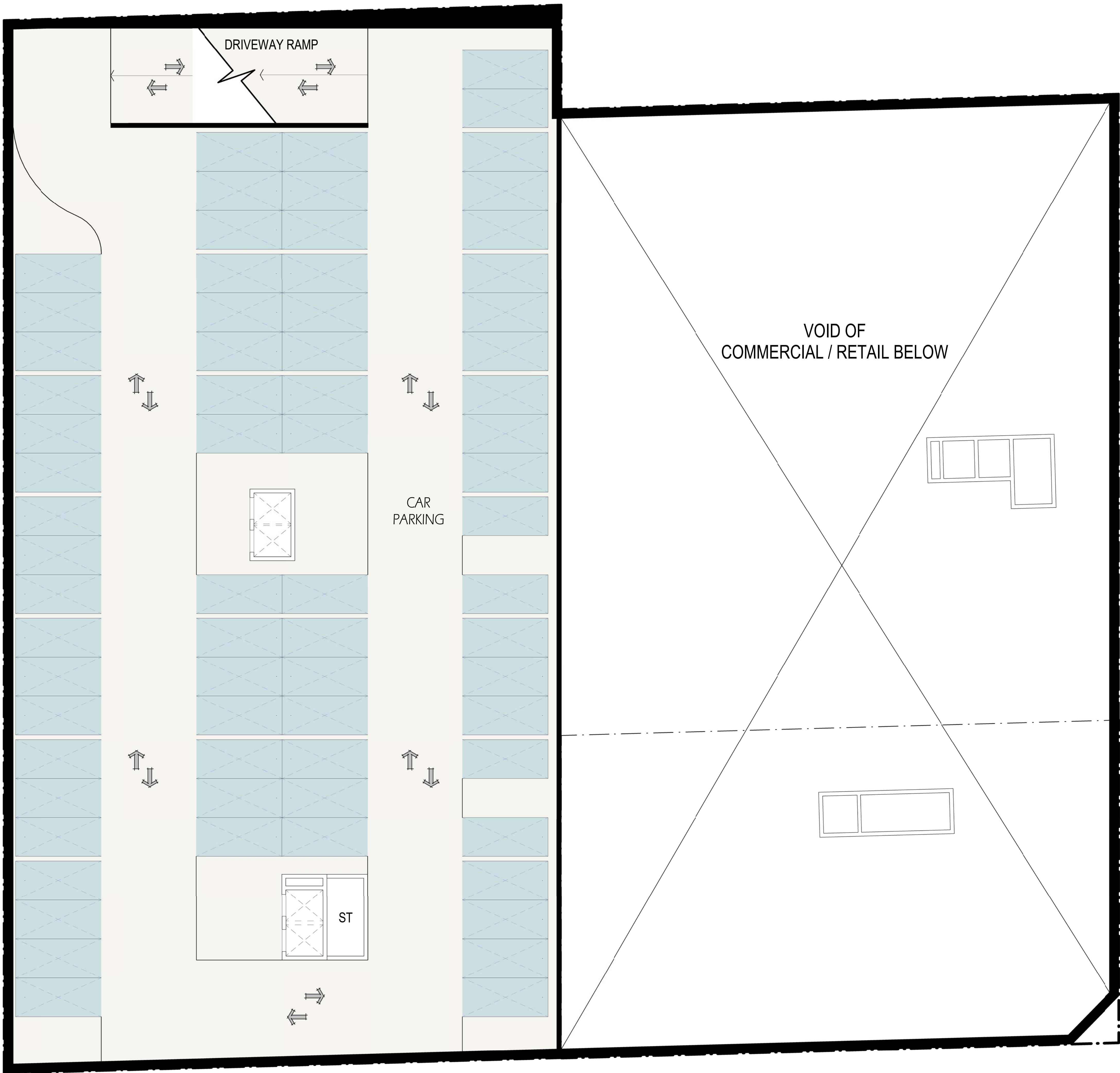


COMMERCIAL
MORTDALE RSL

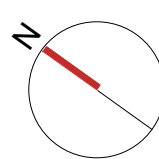


BASEMENT 2
SCALE @A1 SHEET
1 : 125
SCALE @A3 SHEET
1 : 250
02/09/21
DRAWING No.
PP03

PLANNING PROPOSAL
19-25 MACQUARIE PL / 46-56 PITT ST /
THE STRAND



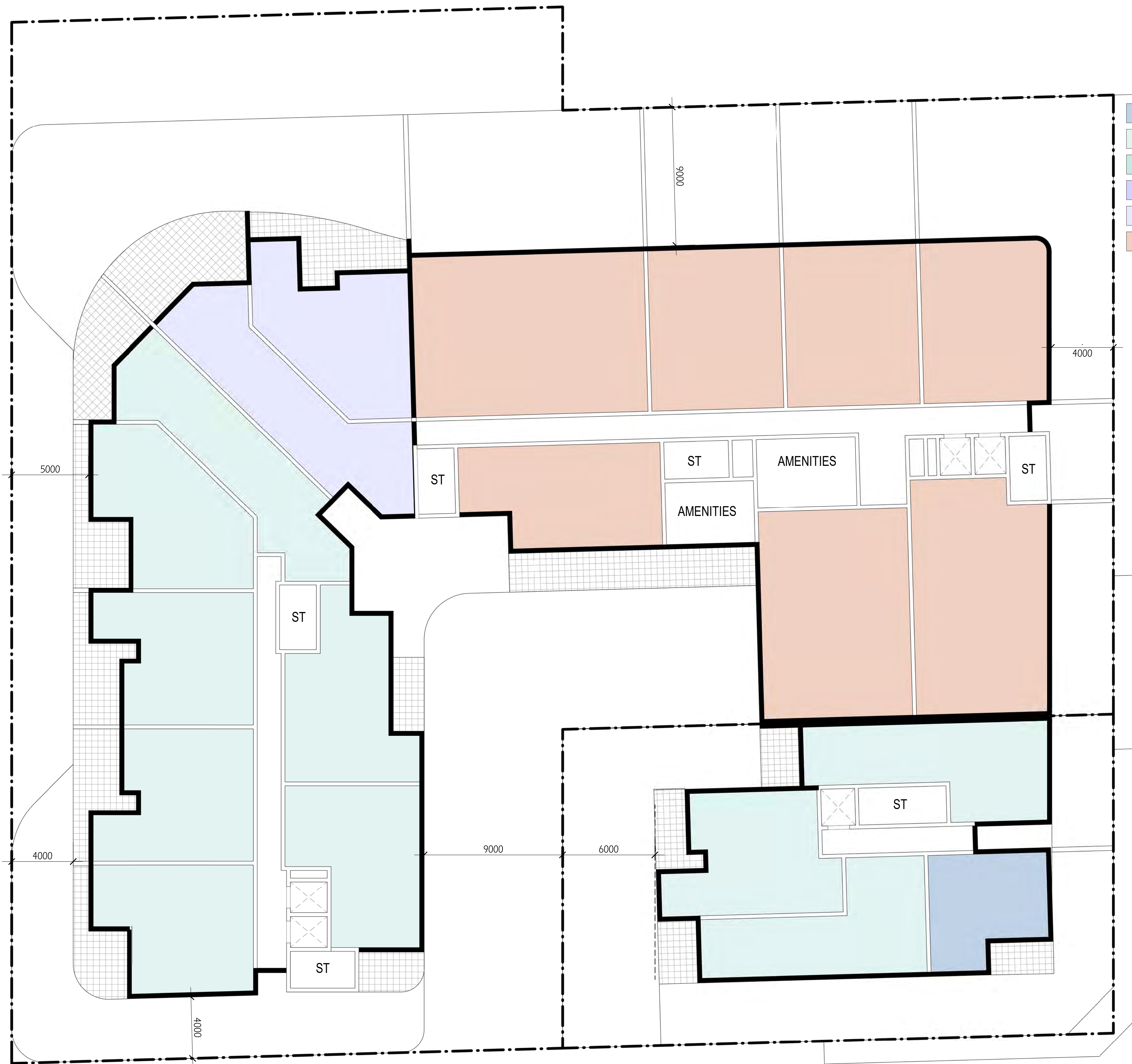
COMMERCIAL
MORTDALE RSL



SCALE @A1 SHEET
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SCALE @A3 SHEET
1 : 250

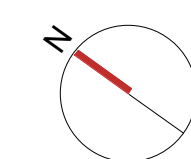
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DRAWING No.
PP04





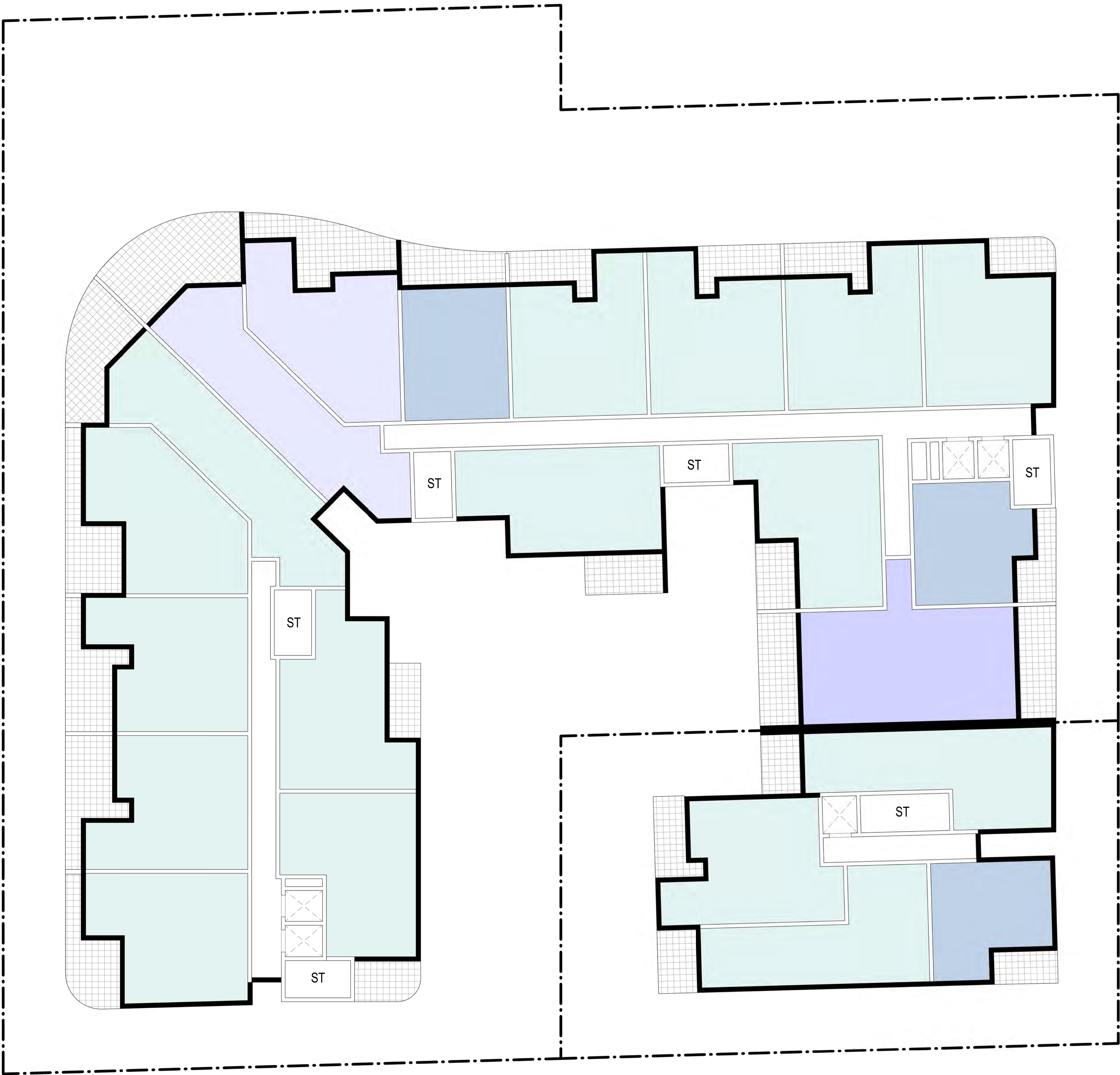
- 1 BED
- 2 BED
- 2 BED 2 Storey
- 3 BED
- 3 BED 2 Storey
- COMMERCIAL

Commercial at Ground Floor and level 1 FSR = 0.75 : 1
Residential at level 1 and above FSR = 2.25 : 1
Total above ground FSR = 3.0 : 1
Commercial at Basement level FSR = 0.5 : 1

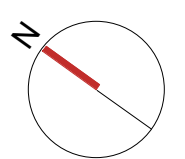


SCALE @A1 SHEET
1 : 125
SCALE @A3 SHEET
1 : 250

LEVEL 1
02/09/21
DRAWING No.
PP06



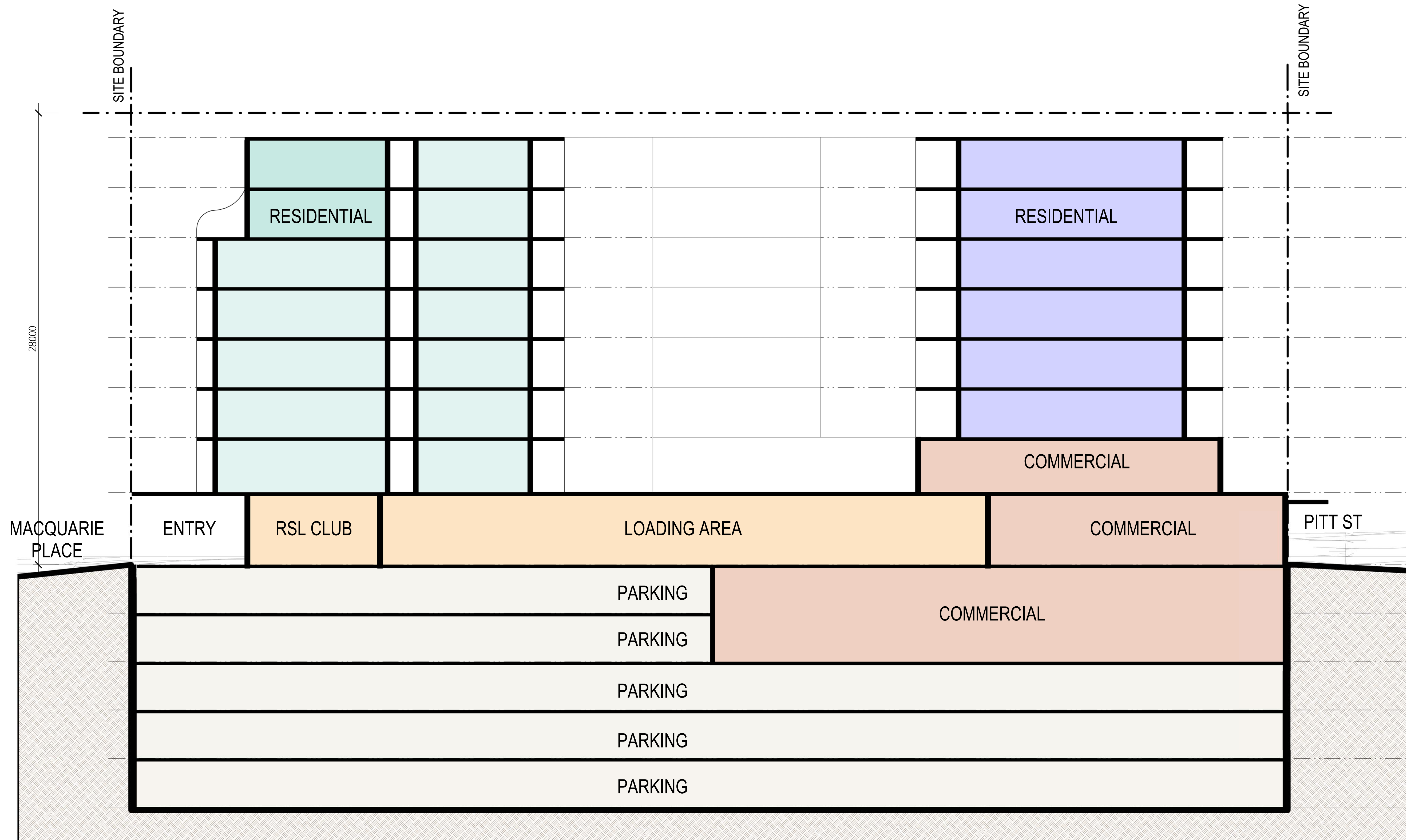
- 1 BED
- 2 BED
- 2 BED 2 Storey
- 3 BED
- 3 BED 2 Storey
- COMMERCIAL



SCALE @A1 SHEET
1 : 125
SCALE @A3 SHEET
1 : 250

LEVEL 2
02/09/21
DRAWING No.
PP07

PLANNING PROPOSAL
19-25 MACQUARIE PL / 46-56 PITT ST /
THE STRAND



SCHEMATIC SECTION AA

SECTION

SCALE @A1 SHEET
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SCALE @A3 SHEET
1 : 250

02/09/21
DRAWING No.
PP15

APPENDIX B

TRAFFIC SURVEY DATA

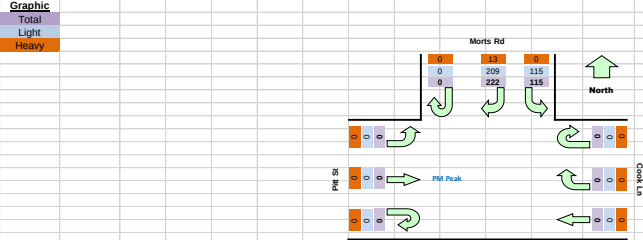
Intersection of Cook Ln and Morts Rd, Mortdale

GPS	-33.971192, 151.080711		
Date:	Thu 17/02/22	North:	Morts Rd
Weather:	Fine	East:	Cook Ln
Suburban:	Mortdale	South:	N/A
Customer:	VTP	West:	Pitt St
		Survey Period	PM: 3:30 PM-6:30 PM
		Traffic Peak	PM: 5:30 PM-6:30 PM

All Vehicles		North Approach Morts Rd			East Approach Cook Ln			West Approach Pitt St			Hourly Total	
Time		U	R	L	U	R	WB	U	EB	L	Hour	Peak
Period Start	Period End											
15:30	15:45	0	33	21	0	0	0	0	0	0	240	
15:45	16:00	0	54	11	0	0	0	0	0	0	240	
16:00	16:15	0	47	20	0	0	0	0	0	0	263	
16:15	16:30	0	41	13	0	0	0	0	0	0	267	
16:30	16:45	0	44	10	0	0	0	0	0	0	280	
16:45	17:00	0	61	27	0	0	0	0	0	0	310	
17:00	17:15	0	54	17	0	0	0	0	0	0	306	
17:15	17:30	0	40	27	0	0	0	0	0	0	316	
17:30	17:45	0	60	24	0	0	0	0	0	0	337	Peak
17:45	18:00	0	48	36	0	0	0	0	0	0		
18:00	18:15	0	51	30	0	0	0	0	0	0		
18:15	18:30	0	63	25	0	0	0	0	0	0		

Peak Time		North Approach Morts Rd			East Approach Cook Ln			West Approach Pitt St			Peak total
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	
17:30	18:30	0	222	115	0	0	0	0	0	0	337

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



Light Vehicles		North Approach Morts Rd			East Approach Cook Ln			West Approach Pitt St		
Time		U	R	L	U	R	WB	U	EB	L
Period Start	Period End									
15:30	15:45	0	31	20	0	0	0	0	0	0
15:45	16:00	0	52	11	0	0	0	0	0	0
16:00	16:15	0	43	20	0	0	0	0	0	0
16:15	16:30	0	35	13	0	0	0	0	0	0
16:30	16:45	0	40	8	0	0	0	0	0	0
16:45	17:00	0	59	27	0	0	0	0	0	0
17:00	17:15	0	49	17	0	0	0	0	0	0
17:15	17:30	0	37	27	0	0	0	0	0	0
17:30	17:45	0	58	24	0	0	0	0	0	0
17:45	18:00	0	44	36	0	0	0	0	0	0
18:00	18:15	0	49	30	0	0	0	0	0	0
18:15	18:30	0	58	25	0	0	0	0	0	0

Peak Time		North Approach Morts Rd			East Approach Cook Ln			West Approach Pitt St			Peak total
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	
17:30	18:30	0	209	115	0	0	0	0	0	0	324

Heavy Vehicles		North Approach Morts Rd			East Approach Cook Ln			West Approach Pitt St		
Time		U	R	L	U	R	WB	U	EB	L
Period Start	Period End									
15:30	15:45	0	2	1	0	0	0	0	0	0
15:45	16:00	0	2	0	0	0	0	0	0	0
16:00	16:15	0	4	0	0	0	0	0	0	0
16:15	16:30	0	6	0	0	0	0	0	0	0
16:30	16:45	0	4	2	0	0	0	0	0	0
16:45	17:00	0	2	0	0	0	0	0	0	0
17:00	17:15	0	5	0	0	0	0	0	0	0
17:15	17:30	0	3	0	0	0	0	0	0	0
17:30	17:45	0	2	0	0	0	0	0	0	0
17:45	18:00	0	4	0	0	0	0	0	0	0
18:00	18:15	0	2	0	0	0	0	0	0	0
18:15	18:30	0	5	0	0	0	0	0	0	0

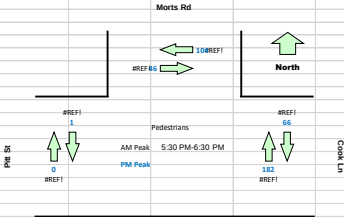
Peak Time		North Approach Morts Rd			East Approach Cook Ln			West Approach Pitt St			Peak total
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	
17:30	18:30	0	13	0	0	0	0	0	0	0	13

Pedestrians Crossing		North Approach Morts Rd		East Approach Cook Ln		West Approach Pitt St		Hourly Total	
Time		Westbound	Eastbound	Southbound	Northbound	Southbound	Northbound		
Period Start	Period End								
15:30	15:45	21	17	29	16	2	3	427	
15:45	16:00	31	16	22	66	0	2	431	
16:00	16:15	22	16	14	39	0	0	426	
16:15	16:30	23	17	23	42	0	6	396	
16:30	16:45	25	13	17	34	1	2	446	
16:45	17:00	36	13	12	71	0	0	414	
17:00	17:15	13	17	21	10	0	0	418	
17:15	17:30	33	16	24	88	0	0	461	
17:30	17:45	9	17	19	14	1	0	399	
17:45	18:00	39	14	18	65	0	0		
18:00	18:15	29	7	16	52	0	0		
18:15	18:30	27	8	13	51	0	0		

Peak Time		North Approach Morts Rd		East Approach Cook Ln		West Approach Pitt St		Peak total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Southbound	Northbound	
17:30	18:30	104	46	66	182	1	0	
								399

Bicycles and Scooters		North Approach Morts Rd		East Approach Cook Ln		West Approach Pitt St		Hourly Total	
Time		Westbound	Eastbound	Southbound	Northbound	Southbound	Northbound		
Period Start	Period End								
15:30	15:45	0	0	0	0	0	0	0	
15:45	16:00	0	0	0	0	0	0	0	3
16:00	16:15	0	0	0	0	0	0	0	3
16:15	16:30	0	0	0	0	0	0	0	3
16:30	16:45	0	1	2	0	0	0	0	3
16:45	17:00	0	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0	0
18:00	18:15	0	0	0	0	0	0	0	0
18:15	18:30	0	0	0	0	0	0	0	0

Peak Time		North Approach Morts		East Approach Cook Ln		West Approach Pitt St		Peak total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Southbound	Northbound	
17:30	18:30	0	0	0	0	0	0	



Date:	Thu 17/02/22
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All Vehicles

Peak Time		North Approach The Strand				East Approach Macquarie PI				South Approach The Strand				West Approach Macquarie PI				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
17:30	18:30	0	8	11	24	1	0	0	0	0	80	34	5	0	0	108	0	271

Graphic



Peak Time		North Approach The Strand				East Approach Macquarie PI				South Approach The Strand				West Approach Macquarie PI				Peak total
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	
17:30	18:30	0	8	11	24	1	0	0	0	0	67	34	5	0	0	107	0	257

Peak Time		North Approach The Strand				East Approach Macquarie PI				South Approach The Strand				West Approach Macquarie PI				Peak total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L		
17:30	18:30	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	1	0	14

Peak Time		North Approach The Strand		East Approach Macquarie PI		South Approach The Strand		West Approach Macquarie PI		Peak hour
Period	Start/End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	total
17:30	18:30	3	2	23	10	13	9	2	1	63

[illegible]

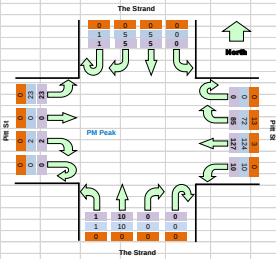
GPS	-33.972381, 151.078615		
Date:	Thu 17/02/22	North:	The Strand
Weather:	Fine	East:	Pitt St
Suburban:	Mortdale	South:	The Strand
Customer:	VTP	West:	Pitt St
Survey Period	PM: 3:30 PM-6:30 PM		
Traffic Peak	PM: 3:30 PM-4:30 PM		

Time		North Approach The Strand				East Approach Pitt St				South Approach The Strand				West Approach Pitt St				Hourly Total	
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L	Hour	Peak
15:30	15:45	0	0	1	0	0	13	24	1	0	0	0	0	0	1	0	5	214	
15:45	16:00	0	0	1	0	0	19	33	2	0	0	1	1	0	0	0	2	222	
16:00	16:15	0	1	2	0	0	16	23	3	0	0	3	0	0	0	0	5	230	
16:15	16:30	0	2	1	0	0	19	24	2	0	0	3	1	0	0	0	5	238	
16:30	16:45	0	3	2	0	0	16	27	2	0	0	0	0	0	0	0	3	229	
16:45	17:00	0	2	2	0	0	23	34	2	0	0	1	0	0	0	0	3	247	
17:00	17:15	0	2	1	0	0	21	28	2	0	0	3	0	0	2	0	2	236	
17:15	17:30	0	0	0	0	0	19	23	1	0	0	3	0	0	0	0	2	243	
17:30	17:45	0	2	0	0	0	22	32	4	0	0	2	1	0	0	0	8	269	Peak
17:45	18:00	0	1	3	0	0	15	26	2	0	0	4	0	0	1	0	2		
18:00	18:15	0	2	1	0	0	23	28	3	0	0	3	0	0	0	0	8		
18:15	18:30	1	0	1	0	0	25	39	1	0	0	1	0	0	1	0	5		

Peak Time	North Approach The Strand	East Approach Pitt St	South Approach The Strand	West Approach Pitt St	Peak total
Period Start/Period End	U R SB L	U R WB L	U R NB L	U R EB L	
17:30 18:30	1 5 5 0	0 85 127 10	0 0 10 1	0 2 0 23	269

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

Graphic
Total
Light
Heavy



Time		North Approach The Strand				East Approach Pitt St				South Approach The Strand				West Approach Pitt St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
15:30	15:45	0	0	0	0	0	11	23	1	0	0	0	0	0	1	0	5
15:45	16:00	0	0	1	0	0	17	32	2	0	0	1	1	0	0	0	2
16:00	16:15	0	1	2	0	0	14	23	3	0	0	3	0	0	0	0	5
16:15	16:30	0	2	1	0	0	16	21	2	0	0	3	1	0	0	0	5
16:30	16:45	0	3	2	0	0	13	27	2	0	0	0	0	0	0	0	3
16:45	17:00	0	2	2	0	0	20	34	2	0	0	1	0	0	0	0	3
17:00	17:15	0	2	1	0	0	18	27	2	0	0	3	0	0	2	0	2
17:15	17:30	0	0	0	0	0	16	22	1	0	0	3	0	0	0	0	2
17:30	17:45	0	2	0	0	0	18	31	4	0	0	2	1	0	0	0	8
17:45	18:00	0	1	3	0	0	12	28	2	0	0	4	0	0	1	0	2
18:00	18:15	0	2	1	0	0	21	27	3	0	0	3	0	0	0	0	8
18:15	18:30	1	0	1	0	0	21	38	1	0	0	1	0	0	1	0	5

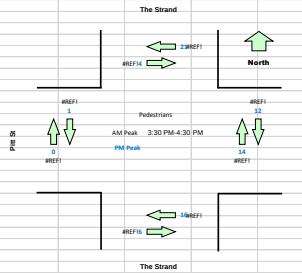
Peak Time	North Approach The Strand	East Approach Pitt St	South Approach The Strand	West Approach Pitt St	Peak total
Period Start/Period End	U R SB L	U R WB L	U R NB L	U R EB L	
17:30 18:30	1 5 5 0	0 72 124 10	0 0 10 1	0 2 0 23	253

Time		North Approach The Strand				East Approach Pitt St				South Approach The Strand				West Approach Pitt St			
Period Start	Period End	U	R	SB	L	U	R	WB	L	U	R	NB	L	U	R	EB	L
15:30	15:45	0	0	1	0	0	2	1	0	0	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
18:00	18:15	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0
18:15	18:30	0	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0

Peak Time	North Approach The Strand	East Approach Pitt St	South Approach The Strand	West Approach Pitt St	Peak total
Period Start/Period End	U R SB L	U R WB L	U R NB L	U R EB L	
17:30 18:30	0 0 0 0	0 13 3 0	0 0 0 0	0 0 0 0	16

Time		North Approach The Strand		East Approach Pitt St		South Approach The Strand		West Approach Pitt St		Hourly Total	
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	Hour	Peak
15:30	15:45	2	1	3	1	4	1	1	0	78	
15:45	16:00	8	2	3	5	7	4	6	0	73	
16:00	16:15	1	1	0	2	2	1	0	2	45	
16:15	16:30	7	1	3	3	5	1	0	1	47	
16:30	16:45	2	0	2	0	2	1	1	0	43	
16:45	17:00	1	0	0	2	2	2	0	0	52	
17:00	17:15	0	2	5	0	3	0	0	1	75	
17:15	17:30	3	2	2	1	6	3	0	0	77	
17:30	17:45	3	2	5	2	5	0	0	0	74	
17:45	18:00	12	0	2	9	4	2	1	0		
18:00	18:15	3	1	2	1	4	2	0	0		
18:15	18:30	3	1	3	2	3	2	0	0		

Peak Time	North Approach The Strand	East Approach Pitt St	South Approach The Strand	West Approach Pitt St	Peak hour total
Period Start/Period End	Westbound Eastbound	Southbound Northbound	Westbound Eastbound	Southbound Northbound	
17:30 18:30	21 4	12 14	16 6	1 0	74



Time		North Approach The Strand		East Approach Pitt St		South Approach The Strand		West Approach Pitt St		Hourly Total	
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	Hour	Peak
15:30	15:45	0	0	0	0	0	0	0	0	4	
15:45	16:00	0	0	0	0	0	0	0	0	4	
16:00	16:15	0	0	0	0	0	0	0	0	4	
16:15	16:30	0	0	0	2	0	2	0	0	4	
16:30	16:45	0	0	0	0	0	0	0	0	0	
16:45	17:00	0	0	0	0	0	0	0	0	0	
17:00	17:15	0	0	0	0	0	0	0	0	1	
17:15	17:30	0	0	0	0	0	0	0	0	1	
17:30	17:45	0	0	0	0	0	0	0	0	1	
17:45	18:00	0	0	0	1	0	0	0	0		
18:00	18:15	0	0	0	0	0	0	0	0		
18:15	18:30	0	0	0	0	0	0	0	0		

Peak Time		th Approach The Strand		East Approach Pitt St		th Approach The Strand		West Approach Pitt St		Peak
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	hour total
17:30	18:30	0	0	0	1	0	0	0	0	1

Intersection of Boundary Rd and Macquarie Pl, Mortdale

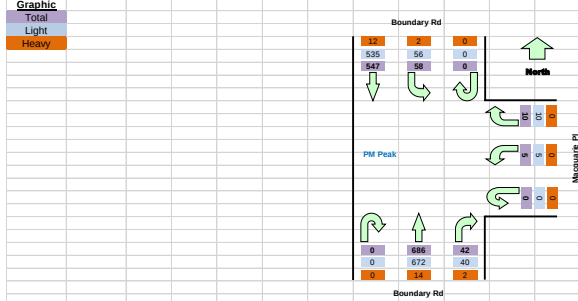
GPS: -33.972871, 151.075965

Date:	Thu 17/02/22	North:	Boundary Rd	Survey Period:	PM: 3:30 PM-6:30 PM
Weather:	Fine	East:	Macquarie Pl	Traffic Peak:	PM: 3:45 PM-4:45 PM
Suburban:	Mortdale	South:	Boundary Rd		
Customer:	VTP	West:	N/A		

All Vehicles											
Time		North Approach Boundary Rd			East Approach Macquarie Pl			South Approach Boundary Rd			Hourly Total
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	Peak
15:30	15:45	0	122	11	0	0	0	0	7	180	1346
15:45	16:00	0	138	13	0	3	2	0	14	180	1348
16:00	16:15	0	132	12	0	2	1	0	10	164	1318
16:15	16:30	0	139	20	0	3	1	0	10	182	1344
16:30	16:45	0	138	13	0	2	1	0	8	160	1314
16:45	17:00	0	139	20	0	1	0	0	11	149	1315
17:00	17:15	0	155	13	0	0	1	0	7	171	1323
17:15	17:30	0	151	14	0	5	1	0	7	147	1283
17:30	17:45	0	151	12	0	2	1	0	12	145	1257
17:45	18:00	0	140	20	0	0	2	0	12	154	
18:00	18:15	0	146	19	0	3	2	0	9	128	
18:15	18:30	0	124	13	0	3	1	0	11	147	

Peak Time		North Approach Boundary Rd			East Approach Macquarie Pl			South Approach Boundary Rd			Peak total
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	
15:45	16:45	0	547	58	0	10	5	0	42	686	1348

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



Light Vehicles											
Time		North Approach Boundary Rd			East Approach Macquarie Pl			South Approach Boundary Rd			
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	
15:30	15:45	0	119	11	0	0	0	0	7	171	
15:45	16:00	0	134	13	0	3	2	0	14	172	
16:00	16:15	0	130	12	0	2	1	0	10	163	
16:15	16:30	0	135	19	0	3	1	0	8	179	
16:30	16:45	0	136	12	0	2	1	0	8	158	
16:45	17:00	0	134	20	0	1	0	0	11	146	
17:00	17:15	0	155	13	0	0	1	0	7	166	
17:15	17:30	0	149	14	0	5	1	0	6	144	
17:30	17:45	0	148	12	0	2	1	0	12	142	
17:45	18:00	0	139	20	0	0	2	0	12	153	
18:00	18:15	0	144	19	0	3	2	0	9	127	
18:15	18:30	0	124	13	0	3	1	0	10	144	

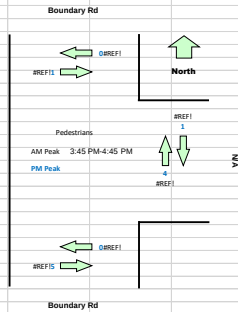
Peak Time		North Approach Boundary Rd			East Approach Macquarie Pl			South Approach Boundary Rd			Peak total
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	
15:45	16:45	0	535	56	0	10	5	0	40	672	1318

Heavy Vehicles											
Time		North Approach Boundary Rd			East Approach Macquarie Pl			South Approach Boundary Rd			
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	
15:30	15:45	0	3	0	0	0	0	0	0	0	9
15:45	16:00	0	4	0	0	0	0	0	0	0	8
16:00	16:15	0	2	0	0	0	0	0	0	0	1
16:15	16:30	0	4	1	0	0	0	0	0	2	3
16:30	16:45	0	2	1	0	0	0	0	0	0	2
16:45	17:00	0	5	0	0	0	0	0	0	0	3
17:00	17:15	0	0	0	0	0	0	0	0	0	5
17:15	17:30	0	2	0	0	0	0	0	0	1	3
17:30	17:45	0	3	0	0	0	0	0	0	0	3
17:45	18:00	0	1	0	0	0	0	0	0	0	1
18:00	18:15	0	2	0	0	0	0	0	0	0	1
18:15	18:30	0	0	0	0	0	0	0	0	1	3

Peak Time		North Approach Boundary Rd			East Approach Macquarie Pl			South Approach Boundary Rd			Peak total
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	
15:45	16:45	0	12	2	0	0	0	0	2	14	30

Pedestrians Crossing											
Time		North Approach Boundary Rd		East Approach Macquarie Pl		South Approach Boundary Rd		Hourly Total			
Period Start	Period End	Westbound	Eastbound	Northbound	Southbound	Westbound	Eastbound				
15:30	15:45	0	0	0	0	0	2		9		
15:45	16:00	0	1	0	0	0	2		11		
16:00	16:15	0	0	1	1	0	0		11		
16:15	16:30	0	0	0	1	0	1		15		
16:30	16:45	0	0	0	2	0	2		14		
16:45	17:00	0	0	0	1	0	2		11		
17:00	17:15	0	0	0	4	0	2		13		
17:15	17:30	0	0	1	0	0	0		8		
17:30	17:45	0	0	0	1	0	0		7		
17:45	18:00	0	1	0	0	0	4				
18:00	18:15	0	0	0	0	0	1				
18:15	18:30	0	0	0	0	0	0				

Peak Time		North Approach Boundary Rd		East Approach Macquarie Pl		South Approach Boundary Rd		Peak total
Period Start	Period End	Westbound	Eastbound	Northbound	Southbound	Westbound	Eastbound	
15:45	16:45	0	1	1	4	0	5	11



Bicycles and Scooters											
Time		North Approach Boundary Rd		East Approach Macquarie Pl		South Approach Boundary Rd		Hourly Total			
Period Start	Period End	Westbound	Eastbound	Northbound	Southbound	Westbound	Eastbound				
15:30	15:45	0	0	1	0	0	1		2		
15:45	16:00	0	0	0	0	0	0		0		
16:00	16:15	0	0	0	0	0	0		0		
16:15	16:30	0	0	0	0	0	0		0		
16:30	16:45	0	0	0	0	0	0		0		
16:45	17:00	0	0	0	0	0	0		0		
17:00	17:15	0	0	0	0	0	0		0		
17:15	17:30	0	0	0	0	0	0		0		
17:30	17:45	0	0	0	0	0	0		0		
17:45	18:00	0	0	0	0	0	0		0		
18:00	18:15	0	0	0	0	0	0		0		
18:15	18:30	0	0	0	0	0	0		0		

Peak Time		North Approach Boundary Rd		East Approach Macquarie Pl		South Approach Boundary Rd		Peak total
Period Start	Period End	Westbound	Eastbound	Northbound	Southbound	Westbound	Eastbound	
15:45	16:45	0	0	0	0	0	0	0

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY



Intersection of Macquarie PI and RSL Carpark Access, Mor

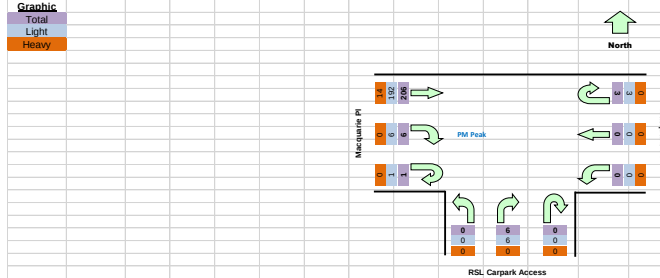
GPS -33.971554, 151.078433

Date:	Thu 17/02/22	North:	N/A	Survey	PM:	3:30 PM-6:30 PM
Weather:	Fine	East:	Macquarie PI	Period		
Suburban:	Mortdale	South:	RSL Carpark Access	Traffic	PM:	5:30 PM-6:30 PM
Customer:	YTP	West:	Macquarie PI	Peak		

All Vehicles		Time										Hourly Total	
Period Start	Period End	East Approach Macquarie PI		Approach RSL Carpark Access		West Approach Macquarie PI		Hour		EB	Peak		
15:30	15:45	U	WB	L	U	R	L	U	R	EB	1	31	169
15:45	16:00	0	0	0	0	4	0	0	0	0	39	178	
16:00	16:15	0	0	0	0	3	0	0	2	35	197		
16:15	16:30	0	0	0	0	4	0	0	3	44	204		
16:30	16:45	0	0	0	0	3	0	0	1	40	197		
16:45	17:00	0	0	0	0	4	0	0	3	55	200		
17:00	17:15	1	0	0	0	4	0	0	0	42	200		
17:15	17:30	0	0	0	0	4	0	0	1	39	210		
17:30	17:45	0	0	0	0	0	0	0	2	45	222	Peak	
17:45	18:00	1	0	0	0	3	0	1	2	55			
18:00	18:15	2	0	0	0	2	0	0	2	51			
18:15	18:30	0	0	0	0	1	0	0	0	55			

Peak Time		East Approach Macquarie P			Approach RSL Carpark Ad			West Approach Macquarie P			Peak total
Period Start	Period End	U	WB	L	U	R	L	U	R	EB	
17:30	18:30	3	0	0	0	6	0	1	6	206	

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



Light Vehicles

Time		Time										Hourly Total	
Period Start	Period End	East Approach Macquarie PI		Approach RSL Carpark Access		West Approach Macquarie PI		Hour		EB	Peak		
15:30	15:45	U	WB	L	U	R	L	U	R	EB	1	29	
15:45	16:00	0	0	0	0	4	0	0	0	0	37		
16:00	16:15	0	0	0	0	3	0	0	2	33			
16:15	16:30	0	0	0	0	4	0	0	3	38			
16:30	16:45	0	0	0	0	3	0	0	1	36			
16:45	17:00	0	0	0	0	4	0	0	3	52			
17:00	17:15	1	0	0	0	4	0	0	0	40			
17:15	17:30	0	0	0	0	4	0	0	1	35			
17:30	17:45	0	0	0	0	0	0	0	2	41			
17:45	18:00	1	0	0	0	3	0	1	2	52			
18:00	18:15	2	0	0	0	2	0	0	2	49			
18:15	18:30	0	0	0	0	1	0	0	0	50			

Peak Time		East Approach Macquarie Ph			Approach RSL Carpark Adv			West Approach Macquarie Ph			Peak total
Period Start	Period End	U	WB	L	U	R	L	U	R	EB	
17:30	18:30	3	0	0	0	6	0	1	6	192	

Heavy Vehicles

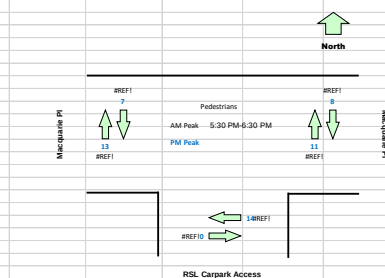
Time		Time										Hourly Total	
Period Start	Period End	East Approach Macquarie PI		Approach RSL Carpark Access		West Approach Macquarie PI		Hour		EB	Peak		
15:30	15:45	U	WB	L	U	R	L	U	R	EB	2		
15:45	16:00	0	0	0	0	0	0	0	0	0	2		
16:00	16:15	0	0	0	0	0	0	0	0	0	2		
16:15	16:30	0	0	0	0	0	0	0	0	0	6		
16:30	16:45	0	0	0	0	0	0	0	0	0	4		
16:45	17:00	0	0	0	0	0	0	0	0	0	3		
17:00	17:15	0	0	0	0	0	0	0	0	0	2		
17:15	17:30	0	0	0	0	0	0	0	0	0	4		
17:30	17:45	0	0	0	0	0	0	0	0	0	4		
17:45	18:00	0	0	0	0	0	0	0	0	0	3		
18:00	18:15	0	0	0	0	0	0	0	0	0	2		
18:15	18:30	0	0	0	0	0	0	0	0	0	5		

Peak Time		East Approach Macquarie Ph			Approach RSL Carpark Ad			West Approach Macquarie Ph			Peak
Period Start	Period End	U	WB	L	U	R	L	U	R	EB	total
17:30	18:30	0	0	0	0	0	0	0	0	14	14

Pedestrians Crossing

Time		Time										Hourly Total	
Period Start	Period End	East Approach Macquarie PI		West Approach Macquarie PI		Hour		Hour		EB	Peak		
15:30	15:45	1	2	2	1	1	0	1	1	28			
15:45	16:00	2	4	1	1	0	1	0	1	32			
16:00	16:15	0	2	0	0	0	0	2	2	32			
16:15	16:30	2	0	2	0	3	0	0	0	40			
16:30	16:45	6	5	1	0	0	0	0	0	41			
16:45	17:00	0	6	0	0	3	0	0	0	41			
17:00	17:15	2	5	1	0	2	2	2	55				
17:15	17:30	0	2	1	0	3	2	2	56				
17:30	17:45	1	4	4	0	0	3	3	53				
17:45	18:00	2	6	8	0	1	6						
18:00	18:15	3	1	2	0	4	3						
18:15	18:30	2	0	0	0	2	1						

Peak Time		East Approach Macquarie PI		uth Approach RSL Carpark Access		West Approach Macquarie PI		Peak total
Period Start	Period End	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	
17:30	18:30	8	11	14	0	7	13	53



Bicycles and Scooters

Time		Time										Hourly Total	
Period Start	Period End	East Approach Macquarie PI		West Approach Macquarie PI		Hour		Hour		EB	Peak		
15:30	15:45	0	0	0	0	1	0	0	1				
15:45	16:00	0	0	0	0	0	0	0	0	1			
16:00	16:15	0	0	0	0	0	0	0	0	1			
16:15	16:30	0	0	0	0	0	0	0	0	1			
16:30	16:45	0	0	0	0	1	0	1	1				
16:45	17:00	0	0	0	0	0	0	0	0				
17:00	17:15	0	0	0	0	0	0	0	0				
17:15	17:30	0	0	0	0	0	0	0	0				
17:30	17:45	0	0	0	0	0	0	0	0				
17:45	18:00	0	0	0	0	0	0	0	0				
18:00	18:15	0	0	0	0	0	0	0	0				
18:15	18:30	0	0	0	0	0	0	0	0				

Peak Time		East Approach Macquarie PI		West Approach Macquarie PI		Peak total	
Period Start	Period End	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound
17:30	18:30	0	0	0	0	0	0

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

Intersection of Martin Pl and Morts Rd, Mortdale

GPS -33.969871, 151.079475

Date: Sat 19/02/22

Weather: Fine

Suburban: Mortdale

Customer: VTP

North: Morts Rd

East: N/A

South: Morts Rd

West: Martin Pl

Survey AM: 10:00 AM-12:00 PM

Period PM: 12:00 PM-2:00 PM

Traffic AM: 10:45 AM-11:45 AM

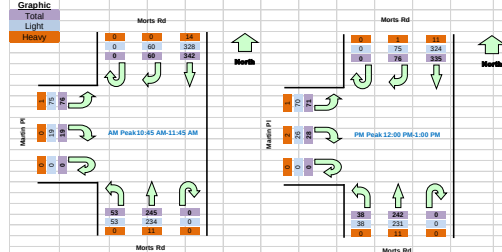
Peak PM: 12:00 PM-1:00 PM

All Vehicles

Time		North Approach Morts Rd			South Approach Morts Rd			West Approach Martin Pl			Hourly Total	Peak
Period Start/End		U	R	SB	U	R	SB	U	R	L	Hour	
10:00	10:15	0	15	82	0	55	6	0	6	23	776	
10:15	10:30	0	12	84	0	59	15	0	5	25	792	
10:30	10:45	0	16	79	0	52	10	0	10	24	780	
10:45	11:00	0	13	76	0	63	20	0	3	23	795	Peak
11:00	11:15	0	12	91	0	69	9	0	5	17	783	
11:15	11:30	0	17	81	0	53	12	0	5	20		
11:30	11:45	0	18	94	0	60	12	0	6	16		
11:45	12:00	0	16	80	0	55	9	0	7	19		
12:00	12:15	0	18	86	0	71	10	0	7	13	790	Peak
12:15	12:30	0	19	87	0	59	11	0	7	19	770	
12:30	12:45	0	24	85	0	54	6	0	7	18	749	
12:45	13:00	0	15	77	0	58	11	0	7	21	716	
13:00	13:15	1	19	72	0	65	5	0	7	16	702	
13:15	13:30	0	13	91	0	49	5	0	5	18		
13:30	13:45	0	13	74	0	46	1	0	8	19		
13:45	14:00	0	14	80	0	56	8	0	5	12		

Peak Time		North Approach Morts Rd			South Approach Morts Rd			West Approach Martin Pl			Peak
Period Start	Period End	U	R	SB	U	NB	L	U	R	L	total
10:45	11:45	0	60	342	0	245	53	0	19	76	795
12:00	13:00	0	76	335	0	242	38	0	28	71	790

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



Light Vehicles

Time	North Approach Morts Rd			South Approach Morts Rd			West Approach Martin Pl		
Period Start/Period End	U	R	SB	U	R	SB	U	R	L
10:00 10:15	0	15	80	0	53	6	0	6	23
10:15 10:30	0	12	80	0	55	15	0	5	24
10:30 10:45	0	16	76	0	50	10	0	10	24
10:45 11:00	0	13	75	0	60	20	0	3	23
11:00 11:15	0	12	88	0	67	9	0	5	17
11:15 11:30	0	17	76	0	50	12	0	5	19
11:30 11:45	0	18	89	0	57	12	0	6	16
11:45 12:00	0	15	78	0	52	9	0	6	19
12:00 12:15	0	18	82	0	68	10	0	6	13
12:15 12:30	0	19	84	0	54	11	0	7	19
12:30 12:45	0	23	83	0	53	6	0	6	18
12:45 13:00	0	15	75	0	56	11	0	7	20
13:00 13:15	1	19	69	0	60	5	0	7	16
13:15 13:30	0	13	87	0	47	5	0	5	18
13:30 13:45	0	12	73	0	45	1	0	8	18
13:45 14:00	0	14	76	0	53	8	0	5	12

Peak Time		North Approach Morts Rd			South Approach Morts Rd			West Approach Martin Pl			Peak
Period Start	Period End	U	R	SB	U	NB	L	U	R	L	total
10:45	11:45	0	60	328	0	234	53	0	19	75	769
12:00	13:00	0	75	324	0	231	38	0	26	70	764

Heavy Vehicles

Time		North Approach Morts Rd			South Approach Morts Rd			West Approach Martin Pl		
Period Start	Period End	U	R	SB	U	NR	L	U	R	L
10:00	10:15	0	0	2	0	2	0	0	0	0
10:15	10:30	0	0	4	0	4	0	0	0	1
10:30	10:45	0	0	3	0	2	0	0	0	0
10:45	11:00	0	0	1	0	3	0	0	0	0
11:00	11:15	0	0	3	0	2	0	0	0	0
11:15	11:30	0	0	5	0	3	0	0	0	1
11:30	11:45	0	0	5	0	3	0	0	0	0
11:45	12:00	0	1	2	0	3	0	0	1	0
12:00	12:15	0	0	4	0	3	0	0	1	0
12:15	12:30	0	0	3	0	5	0	0	0	0
12:30	12:45	0	1	2	0	1	0	0	1	0
12:45	13:00	0	0	2	0	2	0	0	0	1
13:00	13:15	0	0	3	0	5	0	0	0	0
13:15	13:30	0	0	4	0	2	0	0	0	0
13:30	13:45	0	1	1	0	1	0	0	0	1
13:45	14:00	0	0	4	0	3	0	0	0	0

Peak Time		North Approach Morts Rd			South Approach Morts Rd			West Approach Martin Pl			Peak
Period Start	Period End	U	R	SB	U	NB	L	U	R	L	total
10:45	11:45	0	0	14	0	11	0	0	0	1	26
12:00	13:00	0	1	11	0	11	0	0	2	1	26

Pedestrians Crossing

Time		North Approach Morts Rd		South Approach Morts Rd		West Approach Martin Pl		Hourly Total
Period Start	Period End	Westbound	Eastbound	Westbound	Eastbound	Westbound	Northbound	
10:00	10:15	0	0	34	20	22	422	422
10:15	10:30	0	0	23	25	25	20	428
10:30	10:45	0	0	15	26	28	22	511
10:45	11:00	0	0	34	27	35	41	547
11:00	11:15	0	0	24	31	29	23	554
11:15	11:30	0	0	41	48	51	36	
11:30	11:45	0	0	36	24	24	43	
11:45	12:00	0	0	40	29	34	41	
12:00	12:15	0	0	42	39	26	27	430
12:15	12:30	0	0	26	33	31	22	376
12:30	12:45	0	0	28	21	27	18	346
12:45	13:00	0	0	13	28	25	24	316
13:00	13:15	0	0	24	19	17	20	297
13:15	13:30	0	0	19	14	22	27	
13:30	13:45	0	0	15	21	13	15	
13:45	14:00	0	0	21	19	15	16	

Peak Time		North Approach Morts Rd		South Approach Morts Rd		West Approach Martin Pl		Peak total
Period Start	Period End	Westbound	Eastbound	Westbound	Eastbound	Southbound	Northbound	
10:45	11:45	0	0	135	130	139	143	547
12:00	13:00	0	0	109	121	109	91	430

Bicycles and Scooters

Time	North Approach Morts Rd	South Approach Morts Rd	West Approach Martin Pl	Hourly Total
Period Start/Period End	Westbound	Eastbound	Westbound	Eastbound
10:00 10:15	0	0	0	0
10:15 10:30	0	0	0	0
10:30 10:45	0	0	1	1
10:45 11:00	0	0	0	0
11:00 11:15	0	0	0	0
11:15 11:30	0	0	0	1
11:30 11:45	0	0	0	1
11:45 12:00	0	0	0	0
12:00 12:15	0	0	0	0
12:15 12:30	0	0	0	0
12:30 12:45	0	0	0	0
12:45 13:00	0	0	0	1
13:00 13:15	0	0	0	1
13:15 13:30	0	0	0	0
13:30 13:45	0	1	0	0
13:45 14:00	0	0	0	0

Peak Time		North Approach Morts		South Approach Morts		West Approach Martin		Peak total
Period Start	Period End	Westbound	Eastbound	Westbound	Eastbound	Southbound	Northbound	
10:45	11:45	0	0	0	0	1	1	2
12:00	13:00	0	0	0	0	0	0	0

TURNING MOVEMENT SURVEY

Intersection of Cook Ln and Morts Rd, Mortdale

GPS	-33.971192, 151.080711
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Date:	Sat 19/02/22	North:	Morts Rd	Survey	AM:	10:00 AM-12:00 PM
Weather:	Fine	East:	Cook Ln	Period	PM:	12:00 PM-2:00 PM
Suburban:	Mortdale	South:	N/A	Traffic	AM:	10:45 AM-11:45 AM
Customer:	VTP	West:	Martin Pl	Peak	PM:	12:00 PM-1:00 PM

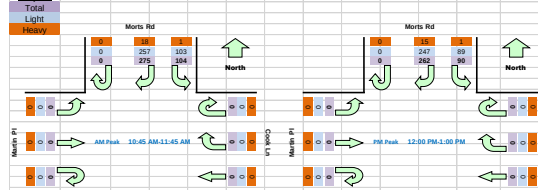
All Vehicles

Time		North Approach			East Approach			West Approach			Martin Pl		Hourly	Total
Period Start	Period End	U	R	L	Rd	U	R	WB	U	EB	L	Hour	Peak	
10:00	10:15	0	51	31	0	0	0	0	0	0	0	324		
10:15	10:30	0	64	17	0	0	0	1	0	0	0	330		
10:30	10:45	0	52	23	0	0	0	0	0	0	0	360		
10:45	11:00	0	65	20	0	0	0	0	0	0	0	379		Peak
11:00	11:15	0	66	22	0	0	0	0	0	0	0	375		
11:15	11:30	0	75	37	0	0	0	0	0	0	0			
11:30	11:45	0	69	25	0	0	0	0	0	0	0			
11:45	12:00	0	56	25	0	0	0	0	0	0	0			
12:00	12:15	0	73	15	0	0	0	0	0	0	0	352	Peak	
12:15	12:30	0	62	29	0	0	0	0	0	0	0	343		
12:30	12:45	0	66	30	0	0	0	0	0	0	0	347		
12:45	13:00	0	61	16	0	0	0	0	0	0	0	314		
13:00	13:15	0	66	13	0	0	0	0	0	0	0	314		
13:15	13:30	0	67	28	0	0	0	0	0	0	0			
13:30	13:45	0	45	18	0	0	0	0	0	0	0			
13:45	14:00	0	50	27	0	0	0	0	0	0	0			

Peak Time		North Approach Morts Rd			East Approach Cook Ln			West Approach Martin Pl			Peak total
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	
10:45	11:45	0	275	104	0	0	0	0	0	0	379
12:00	13:00	0	262	90	0	0	0	0	0	0	352

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

Graphic



Light Vehicles

Time		North Approach			East Approach			West Approach		
Period	Start/Period End	U	R	Ld	U	R	WB	U	EB	L
10:00	10:15	0	46	31	0	0	0	0	0	0
10:15	10:30	0	59	17	0	0	1	0	0	0
10:30	10:45	0	48	23	0	0	0	0	0	0
10:45	11:00	0	61	20	0	0	0	0	0	0
11:00	11:15	0	63	22	0	0	0	0	0	0
11:15	11:30	0	70	26	0	0	0	0	0	0
11:30	11:45	0	63	25	0	0	0	0	0	0
11:45	12:00	0	49	25	0	0	0	0	0	0
12:00	12:15	0	70	14	0	0	0	0	0	0
12:15	12:30	0	56	29	0	0	0	0	0	0
12:30	12:45	0	64	30	0	0	0	0	0	0
12:45	13:00	0	57	16	0	0	0	0	0	0
13:00	13:15	0	60	13	0	0	0	0	0	0
13:15	13:30	0	63	28	0	0	0	0	0	0
13:30	13:45	0	43	18	0	0	0	0	0	0
13:45	14:00	0	45	27	0	0	0	0	0	0

Peak Time		North Approach Morts Rd			East Approach Cook Ln			West Approach Martin Pl			Peak
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	
10:45	11:45	0	257	103	0	0	0	0	0	0	360
12:00	13:00	0	247	89	0	0	0	0	0	0	336

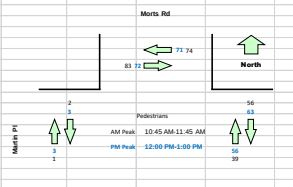
[illegible][illegible]

Peak Time		North Approach Morts Rd			East Approach Cook Ln			West Approach Martin Pl			Peak total
Period Start	Period End	U	R	L	U	R	WB	U	EB	L	
10:45	11:45	0	18	1	0	0	0	0	0	0	19
12:00	13:00	0	15	1	0	0	0	0	0	0	16

		Pedestrians Crossing

Time		North Approach Morts Rd		East Approach Cook Ln		West Approach Martin Pl		Hourly Total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Southbound	Northbound	
10:00	10:15	15	9	15	12	0	0	226
10:15	10:30	18	17	15	12	0	0	222
10:30	10:45	11	11	7	9	0	0	234
10:45	11:00	23	22	13	11	2	1	255
11:00	11:15	16	15	8	8	0	0	226
11:15	11:30	24	25	17	11	0	0	
11:30	11:45	11	21	18	9	0	0	222
11:45	12:00	21	5	7	9	0	1	
12:00	12:15	15	21	11	12	0	1	268
12:15	12:30	24	2	15	17	3	0	247
12:30	12:45	16	14	16	17	0	1	235
12:45	13:00	16	35	21	10	0	1	228
13:00	13:15	14	15	5	4	0	1	214
13:15	13:30	13	19	5	12	0	0	
13:30	13:45	18	12	13	14	0	0	
13:45	14:00	11	29	14	14	1	0	

Peak Time		North Approach Morts Rd		East Approach Cook Ln		West Approach Martin Pl		Peak total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Southbound	Northbound	
10:45	11:45	74	83	56	39	2	1	255
12:00	13:00	71	72	63	56	3	3	268



Bicycles and Scooters

Time	North Approach	West Approach	East Approach	Cook	Leist Approach	Martin	Daily Total
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Southbound	Northbound
10:00	10:15	0	0	0	0	0	0
10:15	10:30	0	0	0	0	0	0
10:30	10:45	0	0	0	0	0	0
10:45	11:00	0	0	0	0	0	1
11:00	11:15	0	0	0	0	0	1
11:15	11:30	0	0	0	0	0	0
11:30	11:45	0	0	1	0	0	0
11:45	12:00	0	0	0	0	0	0
12:00	12:15	0	1	0	0	0	4
12:15	12:30	0	1	1	0	0	5
12:30	12:45	0	0	0	1	0	5
12:45	13:00	0	0	0	0	0	4
13:00	13:15	2	0	0	0	0	7
13:15	13:30	2	0	0	0	0	0
13:30	13:45	0	0	0	0	0	0
13:45	14:00	0	0	0	3	0	0

Peak Time	North Approach Morts	East Approach Cook	West Approach Martin					
Period Start	Period End	Westbound	Eastbound	Southbound	Northbound	Southbound	Northbound	Peak total
10:45	11:45	0	0	1	0	0	0	1
12:00	13:00	0	2	1	1	0	0	4

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

Intersection of Boundary Rd and Macquarie Pl, Mortdale

GPS: -33.972871, 151.075965

Date: Sat 19/02/22

Weather: Fine

Suburban: Mortdale

Customer: VTP

North: Boundary Rd

East: Macquarie Pl

South: Boundary Rd

West: N/A

Survey Period

AM: 10:00 AM-12:00 PM

PM: 12:00 PM-2:00 PM

Traffic Peak

AM: 10:15 AM-11:15 AM

PM: 12:00 PM-1:00 PM

All Vehicles		Time		North Approach Boundary Rd		East Approach Macquarie Pl		South Approach Boundary Rd		Hourly Total	
Period Start	Period End	U	SB	L	U	R	L	U	R	Hour	Peak
10:00	10:15	0	117	11	0	5	3	0	17	147	1246
10:15	10:30	0	146	13	0	1	1	0	14	135	1288
10:30	10:45	0	149	15	0	3	2	0	10	144	1273
10:45	11:00	0	127	18	0	4	1	0	14	149	1248
11:00	11:15	0	158	24	0	5	1	0	15	139	1279
11:15	11:30	0	130	15	0	6	1	0	11	132	
11:30	11:45	0	131	10	0	3	0	0	12	142	
11:45	12:00	0	149	22	0	2	2	0	14	155	
12:00	12:15	0	141	17	0	4	3	0	12	166	1352
12:15	12:30	0	140	14	0	2	0	0	13	130	1324
12:30	12:45	0	154	20	0	1	1	0	7	157	1304
12:45	13:00	0	164	15	0	0	2	0	18	171	1217
13:00	13:15	0	131	12	0	2	1	1	10	158	1102
13:15	13:30	0	129	9	0	5	1	0	8	127	
13:30	13:45	0	113	9	0	2	0	0	6	123	
13:45	14:00	0	113	12	0	2	1	0	9	118	

Peak Time		North Approach Boundary Rd			East Approach Macquarie Pl			South Approach Boundary Rd			Peak total
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	
10:15	11:15	0	580	70	0	13	5	0	53	567	1288
12:00	13:00	0	599	66	0	7	6	0	50	624	1352

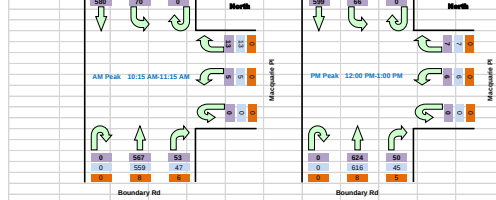
Note: Site sketch is for illustrating traffic flows. Direction is indicative only, drawing is not to scale and not an exact streets configuration.

Graphic

Total

Light

Heavy



Light Vehicles		Time		North Approach Boundary Rd		East Approach Macquarie Pl		South Approach Boundary Rd		Hourly Total	
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	total
10:00	10:15	0	115	11	0	5	3	0	15	145	
10:15	10:30	0	142	13	0	1	1	0	13	132	
10:30	10:45	0	146	15	0	3	2	0	9	143	
10:45	11:00	0	125	18	0	4	1	0	11	147	
11:00	11:15	0	155	24	0	5	1	0	14	137	
11:15	11:30	0	130	15	0	6	1	0	10	130	
11:30	11:45	0	130	10	0	3	0	0	11	136	
11:45	12:00	0	147	22	0	2	2	0	11	153	
12:00	12:15	0	140	17	0	4	3	0	12	162	
12:15	12:30	0	138	14	0	2	0	0	11	130	
12:30	12:45	0	150	20	0	1	1	0	6	155	
12:45	13:00	0	161	15	0	0	2	0	16	169	
13:00	13:15	0	130	12	0	2	1	1	8	157	
13:15	13:30	0	128	9	0	5	1	0	7	124	
13:30	13:45	0	111	9	0	2	0	0	5	120	
13:45	14:00	0	113	12	0	2	1	0	7	118	

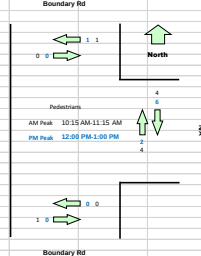
Peak Time		North Approach Boundary Rd			East Approach Macquarie Pl			South Approach Boundary Rd			Peak
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	total
10:15	11:15	0	568	70	0	13	5	0	47	559	1262
12:00	13:00	0	589	66	0	7	6	0	45	616	1329

Heavy Vehicles		Time		North Approach Boundary Rd		East Approach Macquarie Pl		South Approach Boundary Rd		Hourly Total	
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	total
10:00	10:15	0	2	0	0	0	0	0	2	2	
10:15	10:30	0	4	0	0	0	0	0	1	3	
10:30	10:45	0	3	0	0	0	0	0	1	1	
10:45	11:00	0	2	0	0	0	0	0	3	2	
11:00	11:15	0	3	0	0	0	0	0	1	2	
11:15	11:30	0	0	0	0	0	0	0	1	2	
11:30	11:45	0	1	0	0	0	0	0	1	6	
11:45	12:00	0	2	0	0	0	0	0	3	2	
12:00	12:15	0	1	0	0	0	0	0	0	4	
12:15	12:30	0	2	0	0	0	0	0	2	0	
12:30	12:45	0	4	0	0	0	0	0	1	2	
12:45	13:00	0	3	0	0	0	0	0	2	2	
13:00	13:15	0	1	0	0	0	0	0	2	1	
13:15	13:30	0	1	0	0	0	0	0	1	3	
13:30	13:45	0	2	0	0	0	0	0	1	3	
13:45	14:00	0	0	0	0	0	0	0	2	0	

Peak Time		North Approach Boundary Rd			East Approach Macquarie Pl			South Approach Boundary Rd			Peak total
Period Start	Period End	U	SB	L	U	R	L	U	R	NB	
10:15	11:15	0	12	0	0	0	0	0	6	8	26
12:00	13:00	0	10	0	0	0	0	0	5	8	23

Pedestrians Crossing		Time		North Approach Boundary Rd		East Approach Macquarie Pl		South Approach Boundary Rd		Hourly Total	
Period Start	Period End	Westbound	Eastbound	Northbound	Southbound	Westbound	Eastbound	Westbound	Eastbound	Hour	Peak
10:00	10:15	0	0	0	0	0	2	0	2	11	
10:15	10:30	0	0	0	0	0	1	0	1	10	
10:30	10:45	0	0	0	3	1	0	0	0	8	
10:45	11:00	1	0	1	0	0	0	0	0	5	
11:00	11:15	0	0	0	0	1	0	0	0	4	
11:15	11:30	1	0	0	0	0	0	0	0		
11:30	11:45	0	0	0	1	0	0	0	0		
11:45	12:00	0	0	0	1	0	0	0	0		
12:00	12:15	0	0	3	1	0	0	0	0	9	
12:15	12:30	0	0	0	1	0	0	0	0	5	
12:30	12:45	0	0	0	0	0	0	0	0	5	
12:45	13:00	1	0	3	0	0	0	0	0	7	
13:00	13:15	0	0	0	0	0	0	0	0	6	
13:15	13:30	1	0	0	0	0	0	0	0		
13:30	13:45	0	0	2	0	0	0	0	0		
13:45	14:00	0	1	2	0	0	0	0	0		

Peak Time		North Approach Boundary Rd		East Approach Macquarie Pl		South Approach Boundary Rd		Peak total
Period Start	Period End	Westbound	Eastbound	Northbound	Southbound	Westbound	Eastbound	
10:15	11:15	1	0	4	4	0	1	10
12:00	13:00	1	0	6	2	0	0	9



Bicycles and Scooters		Time		North Approach Boundary Rd		East Approach Macquarie Pl		South Approach Boundary Rd		Hourly Total	
Period Start	Period End	Westbound	Eastbound	Northbound	Southbound	Westbound	Eastbound	Westbound	Eastbound	Hour	Peak
10:00	10:15	0	0	0	0	0	0	0	0	0	
10:15	10:30	0	0	0	0	0	0	0	0	0	
10:30	10:45	0	0	0	0	0	0	0	0	0	
10:45	11:00	0	0	0	0	0	0	0	0	0	
11:00	11:15	0	0	0	0	0	0	0	0	0	
11:15	11:30	0	0	0	0	0	0	0	0	0	
11:30	11:45	0	0	0	0	0	0	0	0	0	
11:45	12:00	0	0	0	0	0	0	0	0	0	
12:00	12:15	0	0	1	0	0	0	0	0	1	
12:15	12:30	0	0	0	0	0	0	0	0	0	
12:30	12:45	0	0	0	0	0	0	0	0	0	
12:45	13:00	0	0	0	0	0	0	0	0	0	
13:00	13:15	0	0	0	0	0	0	0	0	0	
13:15	13:30	0	0	0	0	0	0	0	0	0	
13:30	13:45	0	0	0	0	0	0	0	0	0	
13:45	14:00	0	0	0	0	0	0	0	0	0	

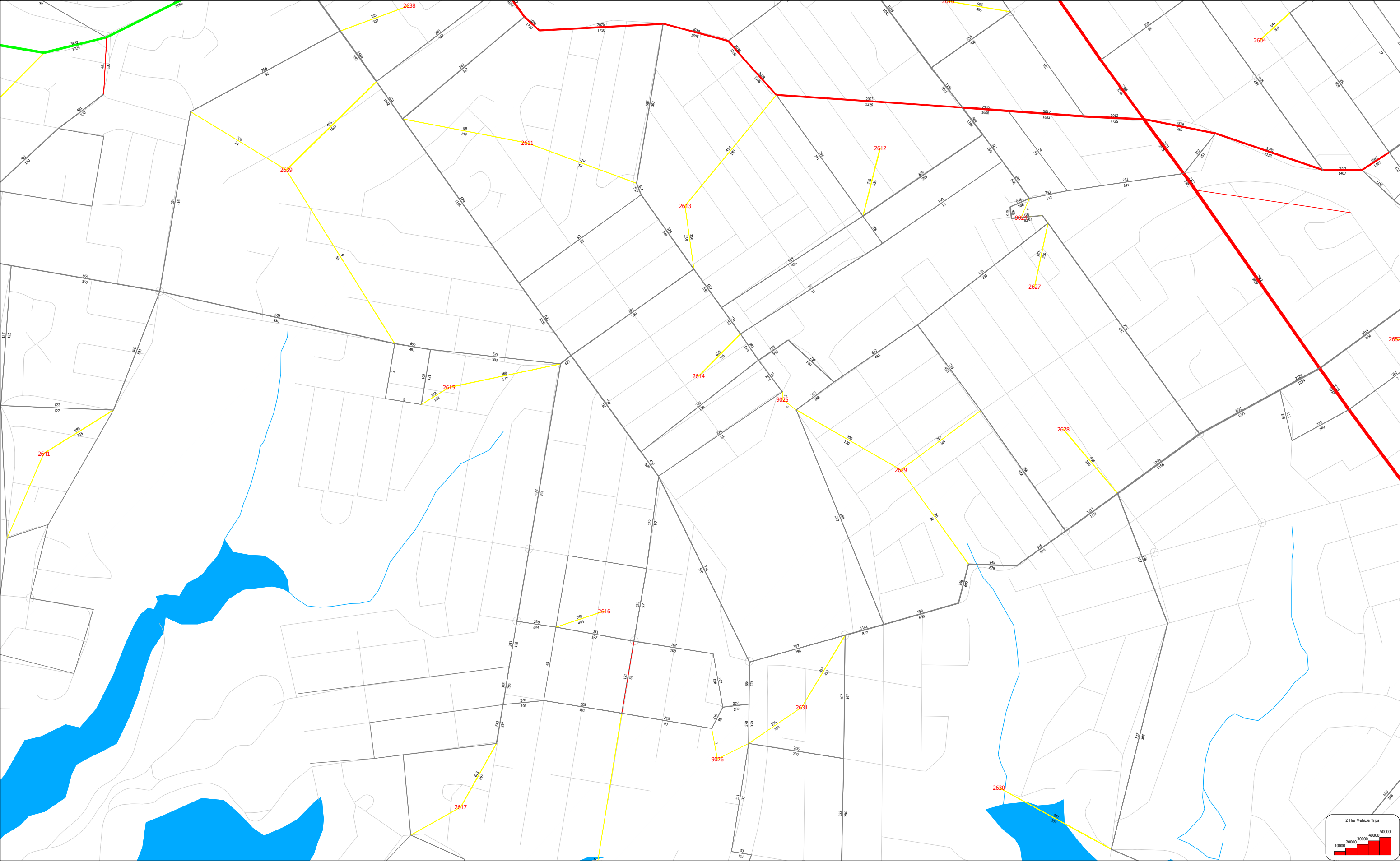
Peak Time		North Approach Boundary		Approach Macquarie		South Approach Boundary		Peak total
Period Start	Period End	Westbound	Eastbound	Northbound	Southbound	Westbound	Eastbound	
10:15	11:15	0	0	0	0	0	0	0
12:00	13:00	0	0	1	0	0	0	1

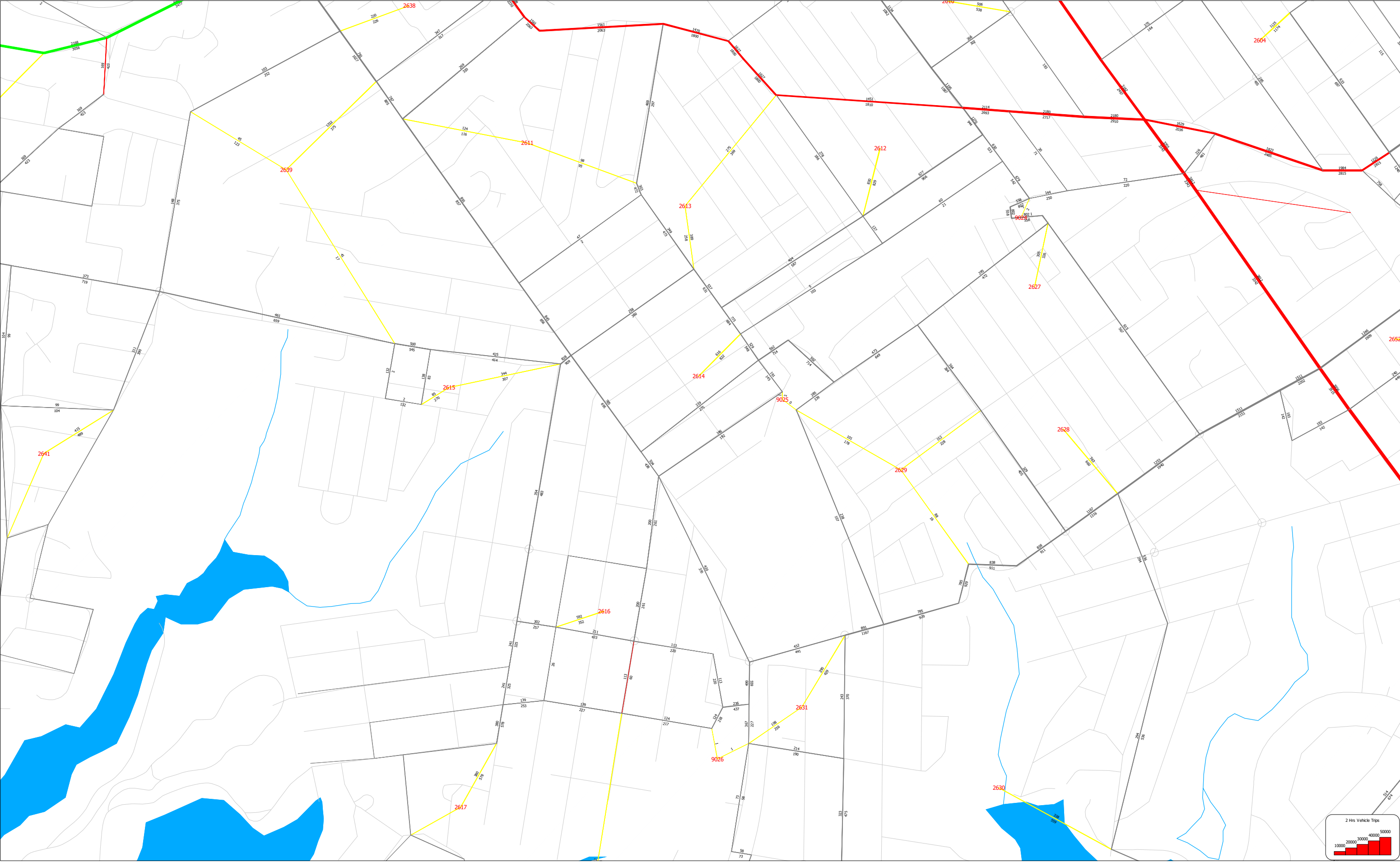
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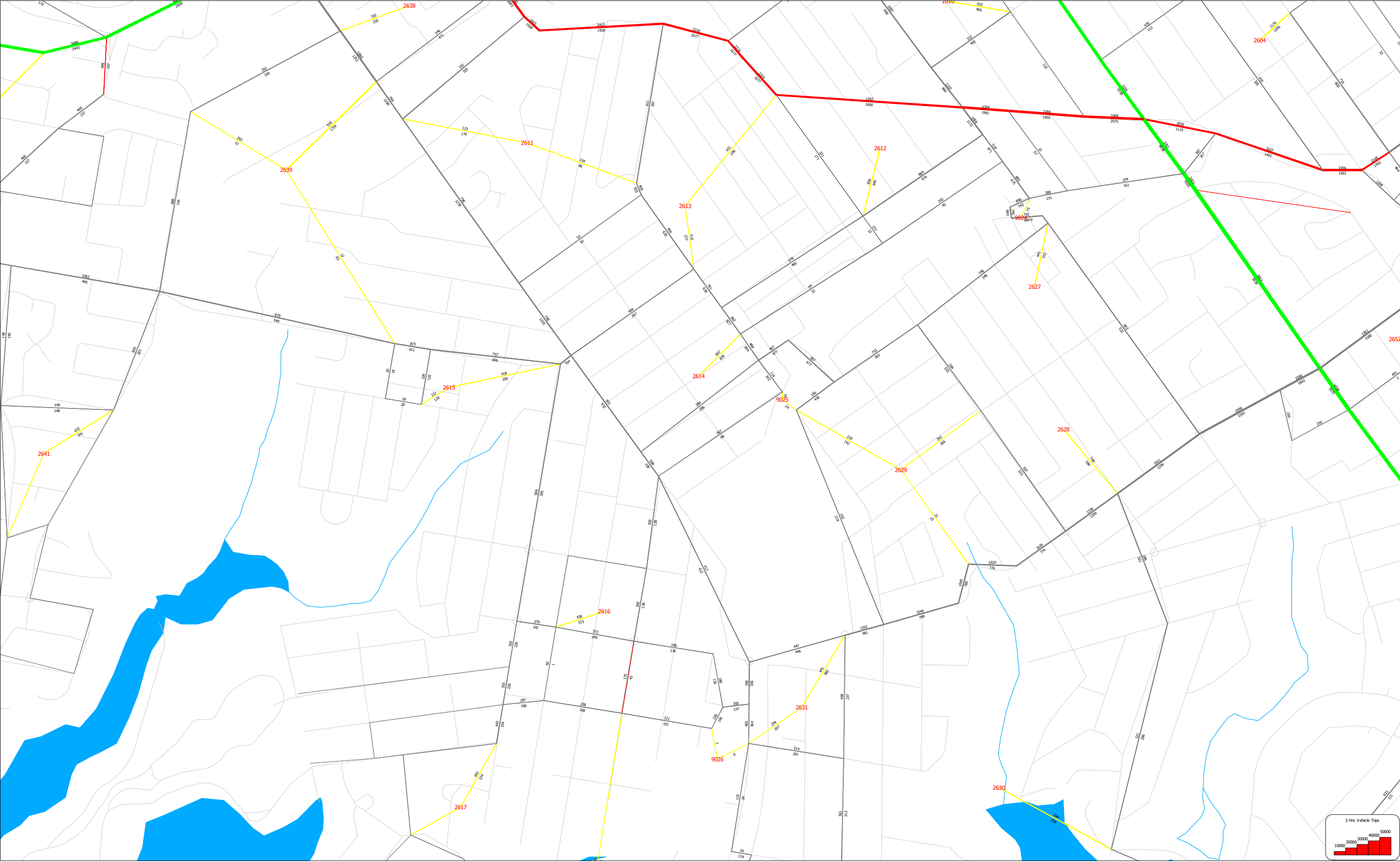
Peak Time		Approach Macquarie		Approach RSL Carpark		Approach Macquarie		Peak total
Period Start	Period End	Southbound	Northbound	Westbound	Eastbound	Southbound	Northbound	
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12:00	13:00	0	0	0	0	0	0	0

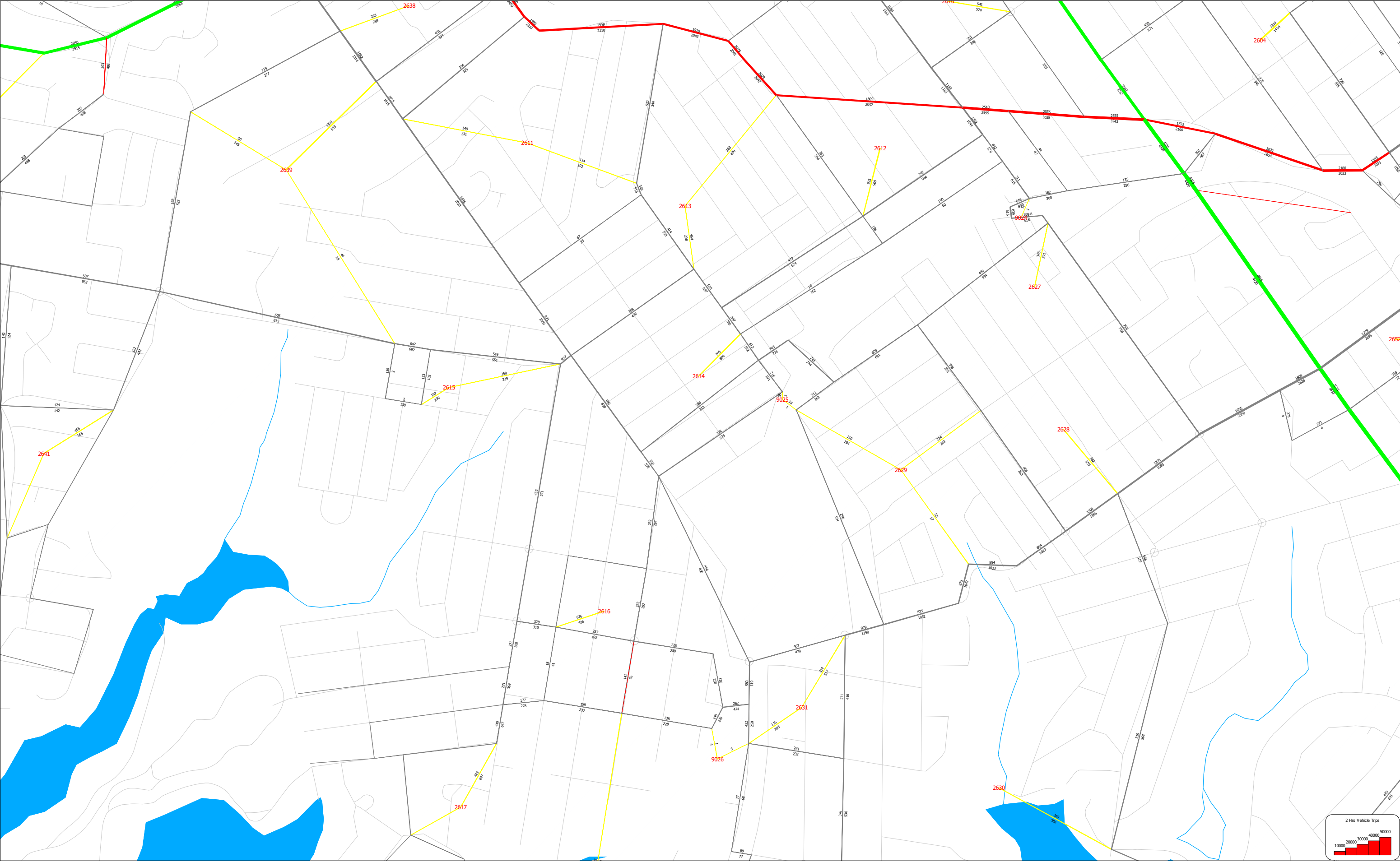
APPENDIX C

STFM DATA









APPENDIX D

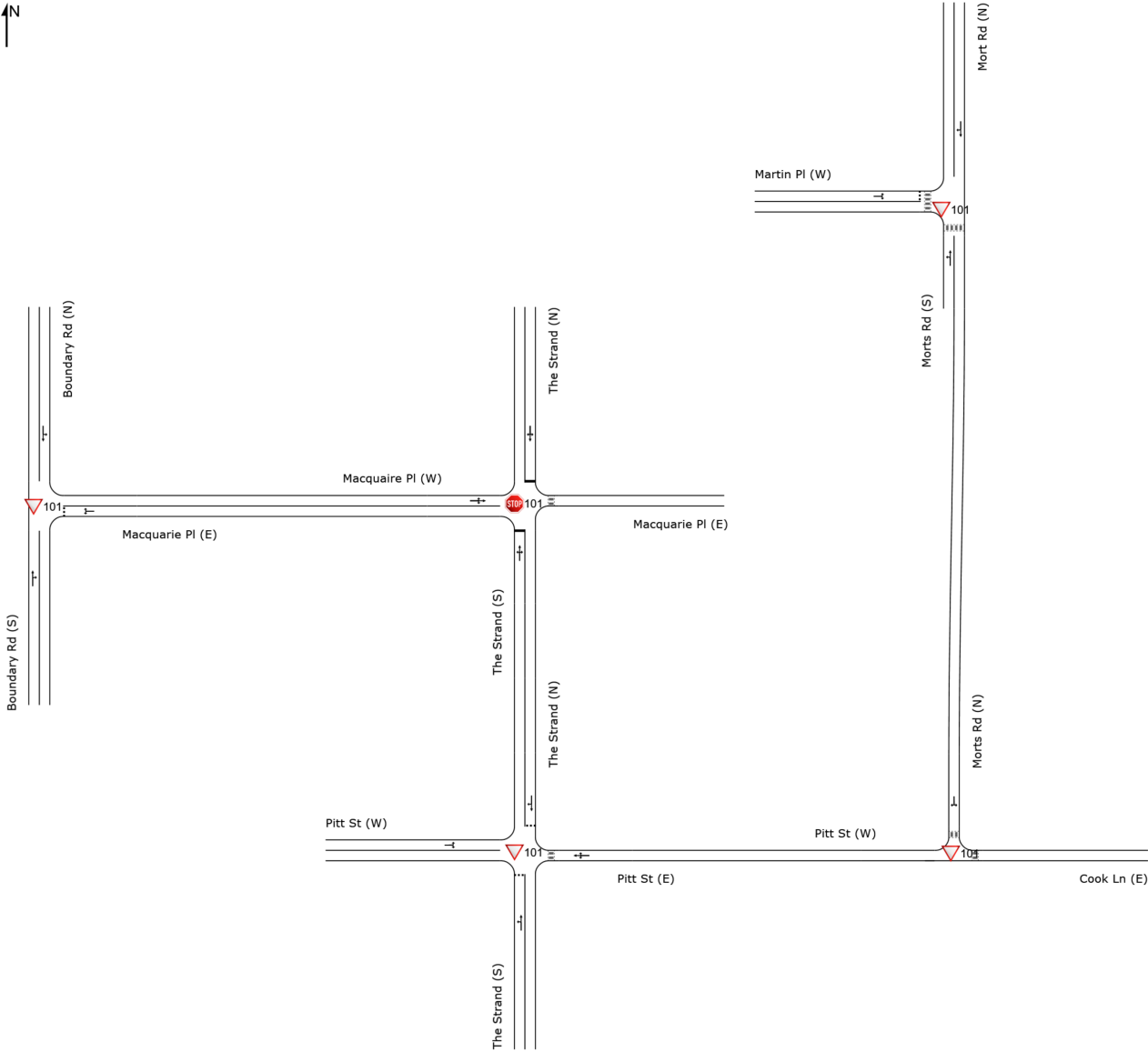
SIDRA MOVEMENT SUMMARIES

NETWORK LAYOUT

Network: N101 [Existing PM 2022 (Network Folder: General)]

New Network
Network Category: (None)

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



SITES IN NETWORK		
Site ID	CCG ID	Site Name
▽101	NA	Site 1 - Morts Rd / Martin PI Intersection
▽101	NA	Site 2 - Morts Rd / Pitt St / Cook Ln
STOP101	NA	Site 3 - Macquarie PI / The Strand Intersection
▽101	NA	Site 4 - Pitt St / The Strand Intersection
▽101	NA	Site 5 - Boundary Rd / Macquarie PI Intersection

MOVEMENT SUMMARY

Site: 101 [Site 1 - Morts Rd / Martin PI Intersection (Site Folder: General)]

Network: N101 [Existing PM 2022 (Network Folder: General)]

Morts Road / Martin Place Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Morts Rd (S)														
4	L2	41	0.0	41	0.0	0.174	3.4	LOS A	0.0	0.0	0.00	0.06	0.00	39.9
5	T1	287	4.5	287	4.5	0.174	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	39.2
Approach		328	4.0	328	4.0	0.174	0.4	NA	0.0	0.0	0.00	0.06	0.00	39.3
North: Mort Rd (N)														
11	T1	316	4.4	316	4.4	0.226	0.5	LOS A	0.7	4.9	0.21	0.11	0.21	36.4
12	R2	77	0.0	77	0.0	0.226	5.0	LOS A	0.7	4.9	0.21	0.11	0.21	44.0
Approach		393	3.6	393	3.6	0.226	1.3	NA	0.7	4.9	0.21	0.11	0.21	39.6
West: Martin PI (W)														
1	L2	50	0.0	50	0.0	0.103	5.6	LOS A	0.4	2.6	0.42	0.65	0.42	41.4
3	R2	40	0.0	40	0.0	0.103	8.3	LOS A	0.4	2.6	0.42	0.65	0.42	41.5
Approach		90	0.0	90	0.0	0.103	6.8	LOS A	0.4	2.6	0.42	0.65	0.42	41.4
All Vehicles		811	3.3	811	3.3	0.226	1.6	NA	0.7	4.9	0.15	0.15	0.15	39.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

▼ Site: 101 [Site 2 - Morts Rd / Pitt St / Cook Ln (Site Folder: General)]

■ Network: N101 [Existing PM 2022 (Network Folder: General)]

Morts Rd / Pitt St / Cook Ln Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
North: Morts Rd (N)														
7	L2	115	0.0	115	0.0	0.186	3.4	LOS A	0.0	0.0	0.00	0.51	0.00	32.7
9	R2	222	5.9	222	5.9	0.186	3.9	LOS A	0.0	0.0	0.00	0.51	0.00	32.7
Approach		337	3.9	337	3.9	0.186	3.8	NA	0.0	0.0	0.00	0.51	0.00	32.7
All Vehicles		337	3.9	337	3.9	0.186	3.8	NA	0.0	0.0	0.00	0.51	0.00	32.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

 **Site: 101 [Site 3 - Macquarie PI / The Strand Intersection (Site Folder: General)]**  **Network: N101 [Existing PM 2022 (Network Folder: General)]**

Macquarie PI / The Strand Intersection
Site Category: Existing Design
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: The Strand (S)														
1	L2	5	0.0	5	0.0	0.121	7.4	LOS A	0.4	3.4	0.25	0.92	0.25	23.6
2	T1	34	0.0	34	0.0	0.121	7.6	LOS A	0.4	3.4	0.25	0.92	0.25	29.6
3	R2	80	16.3	80	16.3	0.121	8.3	LOS A	0.4	3.4	0.25	0.92	0.25	35.1
Approach		119	10.9	119	10.9	0.121	8.1	LOS A	0.4	3.4	0.25	0.92	0.25	33.7
North: The Strand (N)														
7	L2	24	0.0	24	0.0	0.036	7.8	LOS A	0.1	0.9	0.21	0.90	0.21	36.9
8	T1	11	0.0	11	0.0	0.036	7.6	LOS A	0.1	0.9	0.21	0.90	0.21	24.0
9	R2	8	0.0	8	0.0	0.036	7.6	LOS A	0.1	0.9	0.21	0.90	0.21	24.0
Approach		43	0.0	43	0.0	0.036	7.7	LOS A	0.1	0.9	0.21	0.90	0.21	33.5
West: Macquaire PI (W)														
10	L2	1	0.0	1	0.0	0.057	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	48.3
11	T1	108	0.9	108	0.9	0.057	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.9
12	R2	1	0.0	1	0.0	0.057	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	49.7
Approach		110	0.9	110	0.9	0.057	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.8
All Vehicles		272	5.1	272	5.1	0.121	4.8	NA	0.4	3.4	0.14	0.55	0.14	41.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 4 - Pitt St / The Strand Intersection (Site Folder: General)]

Network: N101 [Existing PM 2022 (Network Folder: General)]

Pitt St / The Strand Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total HV] veh/h	%				[Veh. veh	Dist] m				
South: The Strand (S)														
1	L2	1	0.0	1	0.0	0.010	4.9	LOS A	0.0	0.2	0.30	0.48	0.30	40.6
2	T1	10	0.0	10	0.0	0.010	4.1	LOS A	0.0	0.2	0.30	0.48	0.30	29.7
Approach		11	0.0	11	0.0	0.010	4.2	LOS A	0.0	0.2	0.30	0.48	0.30	31.9
East: Pitt St (E)														
4	L2	10	0.0	10	0.0	0.127	3.5	LOS A	0.5	3.9	0.07	0.22	0.07	38.5
5	T1	127	2.4	127	2.4	0.127	0.0	LOS A	0.5	3.9	0.07	0.22	0.07	42.8
6	R2	85	15.3	85	15.3	0.127	4.1	LOS A	0.5	3.9	0.07	0.22	0.07	36.8
Approach		222	7.2	222	7.2	0.127	1.7	NA	0.5	3.9	0.07	0.22	0.07	41.0
North: The Strand (N)														
8	T1	5	0.0	5	0.0	0.010	4.1	LOS A	0.0	0.2	0.31	0.52	0.31	34.2
9	R2	5	0.0	5	0.0	0.010	5.7	LOS A	0.0	0.2	0.31	0.52	0.31	38.8
Approach		10	0.0	10	0.0	0.010	4.9	LOS A	0.0	0.2	0.31	0.52	0.31	37.0
West: Pitt St (W)														
10	L2	23	0.0	23	0.0	0.014	4.6	LOS A	0.0	0.1	0.04	0.51	0.04	39.1
12	R2	2	0.0	2	0.0	0.014	4.9	LOS A	0.0	0.1	0.04	0.51	0.04	39.3
Approach		25	0.0	25	0.0	0.014	4.6	NA	0.0	0.1	0.04	0.51	0.04	39.1
All Vehicles		268	6.0	268	6.0	0.127	2.2	NA	0.5	3.9	0.09	0.27	0.09	40.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 5 - Boundary Rd / Macquarie PI Intersection
(Site Folder: General)]

Network: N101 [Existing PM
2022 (Network Folder: General)]

Boundary Rd / Macquarie PI Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: Boundary Rd (S)														
2	T1	574	1.4	574	1.4	0.345	0.7	LOS A	0.9	6.4	0.15	0.05	0.18	48.8
3	R2	44	2.3	44	2.3	0.345	8.9	LOS A	0.9	6.4	0.15	0.05	0.18	47.8
Approach		618	1.5	618	1.5	0.345	1.3	NA	0.9	6.4	0.15	0.05	0.18	48.8
East: Macquarie PI (E)														
4	L2	6	0.0	6	0.0	0.029	6.7	LOS A	0.1	0.7	0.61	0.75	0.61	39.9
6	R2	8	0.0	8	0.0	0.029	13.1	LOS A	0.1	0.7	0.61	0.75	0.61	39.0
Approach		14	0.0	14	0.0	0.029	10.3	LOS A	0.1	0.7	0.61	0.75	0.61	39.4
North: Boundary Rd (N)														
7	L2	64	0.0	64	0.0	0.324	4.6	LOS A	0.0	0.0	0.00	0.06	0.00	49.0
8	T1	561	1.1	561	1.1	0.324	0.1	LOS A	0.0	0.0	0.00	0.06	0.00	49.4
Approach		625	1.0	625	1.0	0.324	0.5	NA	0.0	0.0	0.00	0.06	0.00	49.4
All Vehicles		1257	1.2	1257	1.2	0.345	1.0	NA	0.9	6.4	0.08	0.06	0.10	49.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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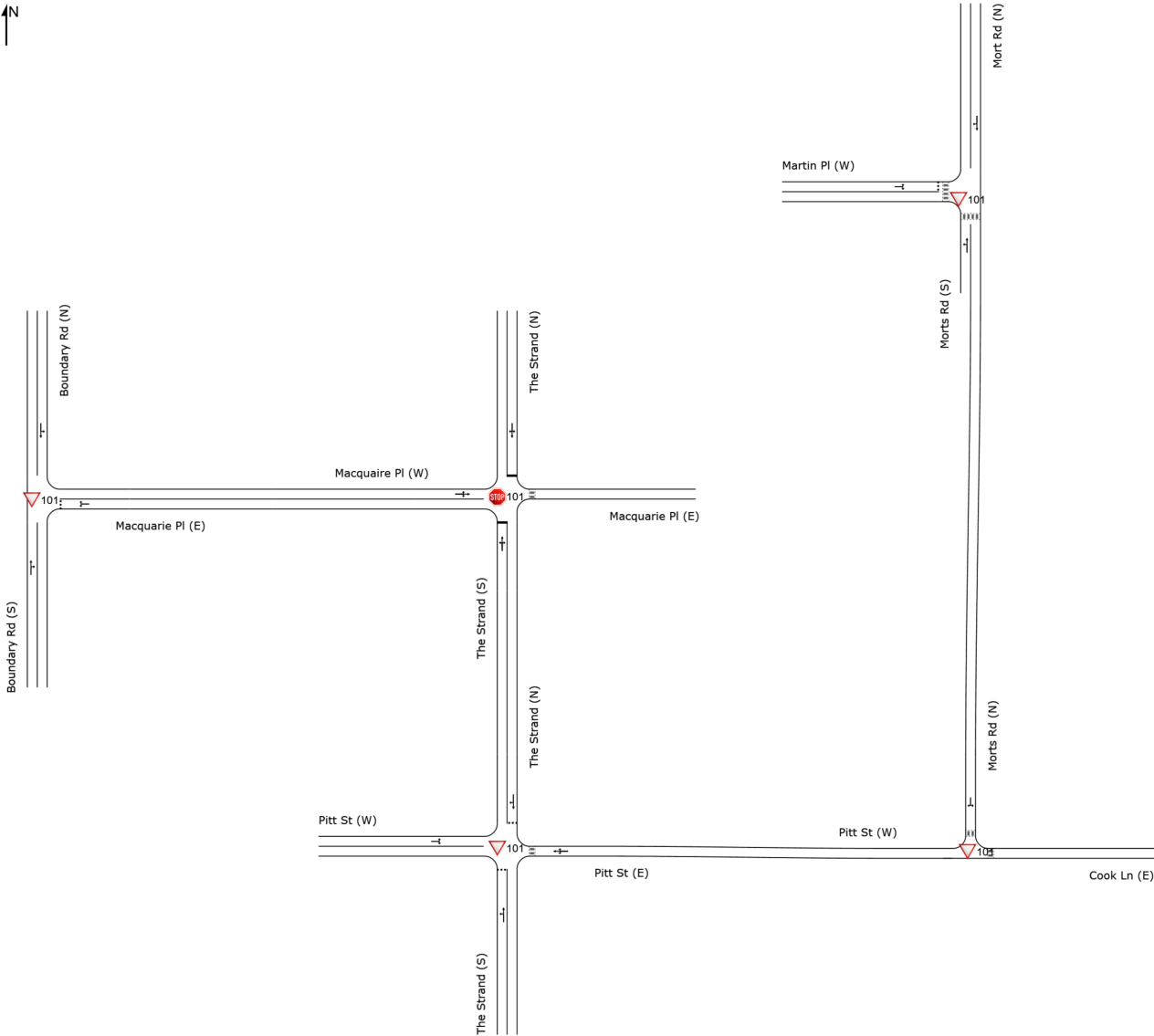
Project: Z:\DATA\Data\Jobs01\Jobs\20work\20106T_19-27MacquariePIMortdale\SIDRA\220524\Existing PM 2022.sip9

NETWORK LAYOUT

■ Network: N101 [Existing SAT 2022 (Network Folder: General)]

New Network
Network Category: (None)

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



SITES IN NETWORK		
Site ID	CCG ID	Site Name
▽101	NA	Site 1 - Morts Rd / Martin PI Intersection
▽101	NA	Site 2 - Morts Rd / Pitt St / Cook Ln
STOP101	NA	Site 3 - Macquarie PI / The Strand Intersection
▽101	NA	Site 4 - Pitt St / The Strand Intersection
▽101	NA	Site 5 - Boundary Rd / Macquarie PI Intersection

MOVEMENT SUMMARY

Site: 101 [Site 1 - Morts Rd / Martin PI Intersection (Site Folder: General)]

Network: N101 [Existing SAT 2022 (Network Folder: General)]

Morts Road / Martin Place Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total HV veh/h	%	[Veh. veh			Dist] m	km/h				
South: Morts Rd (S)														
4	L2	38	0.0	38	0.0	0.148	3.4	LOS A	0.0	0.0	0.00	0.06	0.00	39.8
5	T1	242	4.5	242	4.5	0.148	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	39.1
Approach		280	3.9	280	3.9	0.148	0.5	NA	0.0	0.0	0.00	0.06	0.00	39.3
North: Mort Rd (N)														
11	T1	335	3.3	335	3.3	0.219	0.3	LOS A	0.5	3.7	0.15	0.08	0.15	37.3
12	R2	58	1.7	58	1.7	0.219	4.8	LOS A	0.5	3.7	0.15	0.08	0.15	44.3
Approach		393	3.1	393	3.1	0.219	0.9	NA	0.5	3.7	0.15	0.08	0.15	39.7
West: Martin PI (W)														
1	L2	71	1.4	71	1.4	0.099	5.4	LOS A	0.4	2.6	0.36	0.60	0.36	41.8
3	R2	28	7.1	28	7.1	0.099	8.4	LOS A	0.4	2.6	0.36	0.60	0.36	42.1
Approach		99	3.0	99	3.0	0.099	6.2	LOS A	0.4	2.6	0.36	0.60	0.36	41.9
All Vehicles		772	3.4	772	3.4	0.219	1.5	NA	0.5	3.7	0.12	0.14	0.12	40.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 2 - Morts Rd / Pitt St / Cook Ln (Site Folder: General)]

Network: N101 [Existing SAT 2022 (Network Folder: General)]

Morts Rd / Pitt St / Cook Ln Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
North: Morts Rd (N)														
7	L2	90	1.1	90	1.1	0.196	3.4	LOS A	0.0	0.0	0.00	0.52	0.00	32.6
9	R2	262	5.7	262	5.7	0.196	3.9	LOS A	0.0	0.0	0.00	0.52	0.00	32.6
Approach		352	4.5	352	4.5	0.196	3.8	NA	0.0	0.0	0.00	0.52	0.00	32.6
All Vehicles		352	4.5	352	4.5	0.196	3.8	NA	0.0	0.0	0.00	0.52	0.00	32.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

 **Site: 101 [Site 3 - Macquarie PI / The Strand Intersection (Site Folder: General)]**  **Network: N101 [Existing SAT 2022 (Network Folder: General)]**

Macquarie PI / The Strand Intersection
Site Category: Existing Design
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: The Strand (S)														
1	L2	8	0.0	8	0.0	0.143	7.4	LOS A	0.5	4.0	0.26	0.91	0.26	23.6
2	T1	35	2.9	35	2.9	0.143	7.8	LOS A	0.5	4.0	0.26	0.91	0.26	29.5
3	R2	101	8.9	101	8.9	0.143	8.1	LOS A	0.5	4.0	0.26	0.91	0.26	35.4
Approach		144	6.9	144	6.9	0.143	8.0	LOS A	0.5	4.0	0.26	0.91	0.26	34.0
North: The Strand (N)														
7	L2	24	0.0	24	0.0	0.030	7.8	LOS A	0.1	0.8	0.22	0.90	0.22	36.9
8	T1	8	0.0	8	0.0	0.030	7.6	LOS A	0.1	0.8	0.22	0.90	0.22	24.0
9	R2	5	0.0	5	0.0	0.030	7.7	LOS A	0.1	0.8	0.22	0.90	0.22	24.0
Approach		37	0.0	37	0.0	0.030	7.8	LOS A	0.1	0.8	0.22	0.90	0.22	34.3
West: Macquaire PI (W)														
10	L2	3	33.3	3	33.3	0.061	4.9	LOS A	0.0	0.0	0.00	0.02	0.00	45.9
11	T1	112	3.6	112	3.6	0.061	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	49.8
12	R2	1	0.0	1	0.0	0.061	4.6	LOS A	0.0	0.0	0.00	0.02	0.00	49.6
Approach		116	4.3	116	4.3	0.061	0.2	NA	0.0	0.0	0.00	0.02	0.00	49.7
All Vehicles		297	5.1	297	5.1	0.143	4.9	NA	0.5	4.0	0.15	0.56	0.15	40.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 4 - Pitt St / The Strand Intersection (Site Folder: General)]

Network: N101 [Existing SAT 2022 (Network Folder: General)]

Pitt St / The Strand Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: The Strand (S)														
1	L2	1	0.0	1	0.0	0.015	5.0	LOS A	0.1	0.4	0.33	0.50	0.33	40.6
2	T1	15	0.0	15	0.0	0.015	4.3	LOS A	0.1	0.4	0.33	0.50	0.33	29.5
Approach		16	0.0	16	0.0	0.015	4.3	LOS A	0.1	0.4	0.33	0.50	0.33	31.1
East: Pitt St (E)														
4	L2	13	0.0	13	0.0	0.148	3.5	LOS A	0.6	4.7	0.07	0.25	0.07	38.2
5	T1	139	3.6	139	3.6	0.148	0.0	LOS A	0.6	4.7	0.07	0.25	0.07	42.6
6	R2	111	9.0	111	9.0	0.148	4.0	LOS A	0.6	4.7	0.07	0.25	0.07	36.4
Approach		263	5.7	263	5.7	0.148	1.9	NA	0.6	4.7	0.07	0.25	0.07	40.5
North: The Strand (N)														
8	T1	6	0.0	6	0.0	0.009	4.3	LOS A	0.0	0.2	0.34	0.52	0.34	34.5
9	R2	3	0.0	3	0.0	0.009	5.9	LOS A	0.0	0.2	0.34	0.52	0.34	39.0
Approach		9	0.0	9	0.0	0.009	4.8	LOS A	0.0	0.2	0.34	0.52	0.34	36.5
West: Pitt St (W)														
10	L2	18	0.0	18	0.0	0.010	4.6	LOS A	0.0	0.0	0.03	0.51	0.03	39.2
12	R2	1	0.0	1	0.0	0.010	5.0	LOS A	0.0	0.0	0.03	0.51	0.03	39.3
Approach		19	0.0	19	0.0	0.010	4.6	NA	0.0	0.0	0.03	0.51	0.03	39.2
All Vehicles		307	4.9	307	4.9	0.148	2.3	NA	0.6	4.7	0.09	0.28	0.09	40.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 5 - Boundary Rd / Macquarie PI Intersection
(Site Folder: General)]

Network: N101 [Existing SAT
2022 (Network Folder: General)]

Boundary Rd / Macquarie PI Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	[Veh. veh			Dist m	km/h				
South: Boundary Rd (S)														
2	T1	624	1.3	624	1.3	0.382	0.9	LOS A	1.2	8.7	0.17	0.05	0.22	48.6
3	R2	50	10.0	50	10.0	0.382	9.6	LOS A	1.2	8.7	0.17	0.05	0.22	47.5
Approach		674	1.9	674	1.9	0.382	1.5	NA	1.2	8.7	0.17	0.05	0.22	48.6
East: Macquarie PI (E)														
4	L2	6	0.0	6	0.0	0.029	6.7	LOS A	0.1	0.6	0.63	0.75	0.63	39.6
6	R2	7	0.0	7	0.0	0.029	14.3	LOS A	0.1	0.6	0.63	0.75	0.63	38.7
Approach		13	0.0	13	0.0	0.029	10.8	LOS A	0.1	0.6	0.63	0.75	0.63	39.1
North: Boundary Rd (N)														
7	L2	66	0.0	66	0.0	0.326	4.6	LOS A	0.0	0.0	0.00	0.06	0.00	48.9
8	T1	559	1.8	559	1.8	0.326	0.1	LOS A	0.0	0.0	0.00	0.06	0.00	49.4
Approach		625	1.6	625	1.6	0.326	0.6	NA	0.0	0.0	0.00	0.06	0.00	49.4
All Vehicles		1312	1.8	1312	1.8	0.382	1.2	NA	1.2	8.7	0.09	0.06	0.12	48.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 1 - Morts Rd / Martin PI Intersection (Site Folder: General)]

Network: N101 [Proposed PM 2022 (Network Folder: General)]

Morts Road / Martin Place Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: Morts Rd (S)														
4	L2	112	0.0	112	0.0	0.237	3.4	LOS A	0.0	0.0	0.00	0.12	0.00	39.5
5	T1	337	3.9	337	3.9	0.237	0.0	LOS A	0.0	0.0	0.00	0.12	0.00	38.5
Approach		449	2.9	449	2.9	0.237	0.9	NA	0.0	0.0	0.00	0.12	0.00	38.9
North: Mort Rd (N)														
11	T1	316	4.4	316	4.4	0.273	1.1	LOS A	1.2	8.6	0.35	0.18	0.35	34.7
12	R2	120	0.0	120	0.0	0.273	5.8	LOS A	1.2	8.6	0.35	0.18	0.35	43.3
Approach		436	3.2	436	3.2	0.273	2.4	NA	1.2	8.6	0.35	0.18	0.35	39.2
West: Martin PI (W)														
1	L2	50	0.0	50	0.0	0.116	5.8	LOS A	0.4	2.8	0.46	0.68	0.46	40.9
3	R2	40	0.0	40	0.0	0.116	9.5	LOS A	0.4	2.8	0.46	0.68	0.46	40.9
Approach		90	0.0	90	0.0	0.116	7.4	LOS A	0.4	2.8	0.46	0.68	0.46	40.9
All Vehicles		975	2.8	975	2.8	0.273	2.1	NA	1.2	8.6	0.20	0.19	0.20	39.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 2 - Morts Rd / Pitt St / Cook Ln (Site Folder: General)]

Network: N101 [Proposed PM 2022 (Network Folder: General)]

Morts Rd / Pitt St / Cook Ln Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
North: Morts Rd (N)														
7	L2	115	0.0	115	0.0	0.204	3.4	LOS A	0.0	0.0	0.00	0.51	0.00	32.7
9	R2	254	5.1	254	5.1	0.204	3.9	LOS A	0.0	0.0	0.00	0.51	0.00	32.6
Approach		369	3.5	369	3.5	0.204	3.8	NA	0.0	0.0	0.00	0.51	0.00	32.7
All Vehicles		369	3.5	369	3.5	0.204	3.8	NA	0.0	0.0	0.00	0.51	0.00	32.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

 **Site: 101 [Site 3 - Macquarie PI / The Strand Intersection (Site Folder: General)]**

 **Network: N101 [Proposed PM 2022 (Network Folder: General)]**

Macquarie PI / The Strand Intersection
Site Category: Existing Design
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: The Strand (S)														
1	L2	5	0.0	5	0.0	0.161	7.4	LOS A	0.6	4.5	0.36	0.92	0.36	22.4
2	T1	34	0.0	34	0.0	0.161	7.9	LOS A	0.6	4.5	0.36	0.92	0.36	28.6
3	R2	97	13.4	97	13.4	0.161	9.4	LOS A	0.6	4.5	0.36	0.92	0.36	34.4
Approach		136	9.6	136	9.6	0.161	9.0	LOS A	0.6	4.5	0.36	0.92	0.36	33.1
North: The Strand (N)														
7	L2	119	0.0	119	0.0	0.116	8.1	LOS A	0.5	3.3	0.29	0.88	0.29	36.7
8	T1	11	0.0	11	0.0	0.116	7.9	LOS A	0.5	3.3	0.29	0.88	0.29	23.8
9	R2	8	0.0	8	0.0	0.116	8.0	LOS A	0.5	3.3	0.29	0.88	0.29	23.8
Approach		138	0.0	138	0.0	0.116	8.1	LOS A	0.5	3.3	0.29	0.88	0.29	35.8
West: Macquaire PI (W)														
10	L2	1	0.0	1	0.0	0.088	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	48.3
11	T1	168	0.6	168	0.6	0.088	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.9
12	R2	1	0.0	1	0.0	0.088	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	49.8
Approach		170	0.6	170	0.6	0.088	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.9
All Vehicles		444	3.2	444	3.2	0.161	5.3	NA	0.6	4.5	0.20	0.56	0.20	40.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 4 - Pitt St / The Strand Intersection (Site Folder: General)]

Network: N101 [Proposed PM 2022 (Network Folder: General)]

Pitt St / The Strand Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: The Strand (S)														
1	L2	1	0.0	1	0.0	0.011	5.0	LOS A	0.0	0.3	0.32	0.49	0.32	40.5
2	T1	10	0.0	10	0.0	0.011	4.3	LOS A	0.0	0.3	0.32	0.49	0.32	29.5
Approach		11	0.0	11	0.0	0.011	4.3	LOS A	0.0	0.3	0.32	0.49	0.32	31.7
East: Pitt St (E)														
4	L2	10	0.0	10	0.0	0.145	3.5	LOS A	0.6	4.5	0.08	0.23	0.08	38.4
5	T1	142	2.1	142	2.1	0.145	0.1	LOS A	0.6	4.5	0.08	0.23	0.08	42.7
6	R2	102	12.7	102	12.7	0.145	4.1	LOS A	0.6	4.5	0.08	0.23	0.08	36.7
Approach		254	6.3	254	6.3	0.145	1.8	NA	0.6	4.5	0.08	0.23	0.08	40.8
North: The Strand (N)														
8	T1	5	0.0	5	0.0	0.011	4.2	LOS A	0.0	0.3	0.34	0.53	0.34	34.0
9	R2	5	0.0	5	0.0	0.011	5.9	LOS A	0.0	0.3	0.34	0.53	0.34	38.7
Approach		10	0.0	10	0.0	0.011	5.1	LOS A	0.0	0.3	0.34	0.53	0.34	36.9
West: Pitt St (W)														
10	L2	23	0.0	23	0.0	0.014	4.6	LOS A	0.0	0.1	0.05	0.51	0.05	39.0
12	R2	2	0.0	2	0.0	0.014	5.0	LOS A	0.0	0.1	0.05	0.51	0.05	39.2
Approach		25	0.0	25	0.0	0.014	4.6	NA	0.0	0.1	0.05	0.51	0.05	39.1
All Vehicles		300	5.3	300	5.3	0.145	2.2	NA	0.6	4.5	0.09	0.27	0.09	40.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 5 - Boundary Rd / Macquarie PI Intersection
(Site Folder: General)]

Network: N101 [Proposed
PM 2022 (Network Folder:
General)]

Boundary Rd / Macquarie PI Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist m				
South: Boundary Rd (S)														
2	T1	574	1.4	574	1.4	0.367	1.1	LOS A	1.4	9.7	0.21	0.07	0.27	48.3
3	R2	61	1.6	61	1.6	0.367	9.5	LOS A	1.4	9.7	0.21	0.07	0.27	46.8
Approach		635	1.4	635	1.4	0.367	1.9	NA	1.4	9.7	0.21	0.07	0.27	48.2
East: Macquarie PI (E)														
4	L2	6	0.0	6	0.0	0.031	6.7	LOS A	0.1	0.7	0.63	0.76	0.63	39.7
6	R2	8	0.0	8	0.0	0.031	13.7	LOS A	0.1	0.7	0.63	0.76	0.63	38.8
Approach		14	0.0	14	0.0	0.031	10.7	LOS A	0.1	0.7	0.63	0.76	0.63	39.2
North: Boundary Rd (N)														
7	L2	107	0.0	107	0.0	0.347	4.6	LOS A	0.0	0.0	0.00	0.09	0.00	48.5
8	T1	561	1.1	561	1.1	0.347	0.1	LOS A	0.0	0.0	0.00	0.09	0.00	49.1
Approach		668	0.9	668	0.9	0.347	0.8	NA	0.0	0.0	0.00	0.09	0.00	49.1
All Vehicles		1317	1.1	1317	1.1	0.367	1.4	NA	1.4	9.7	0.11	0.08	0.14	48.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 1 - Morts Rd / Martin PI Intersection (Site Folder: General)]

Network: N101 [Proposed SAT 2022 (Network Folder: General)]

Morts Road / Martin Place Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total HV] veh/h	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Morts Rd (S)														
4	L2	122	0.0	122	0.0	0.226	3.4	LOS A	0.0	0.0	0.00	0.13	0.00	39.4
5	T1	306	3.6	306	3.6	0.226	0.0	LOS A	0.0	0.0	0.00	0.13	0.00	38.3
Approach		428	2.6	428	2.6	0.226	1.0	NA	0.0	0.0	0.00	0.13	0.00	38.8
North: Mort Rd (N)														
11	T1	335	3.3	335	3.3	0.266	0.9	LOS A	1.0	7.5	0.30	0.14	0.30	35.4
12	R2	104	1.0	104	1.0	0.266	5.7	LOS A	1.0	7.5	0.30	0.14	0.30	43.5
Approach		439	2.7	439	2.7	0.266	2.0	NA	1.0	7.5	0.30	0.14	0.30	39.2
West: Martin PI (W)														
1	L2	71	1.4	71	1.4	0.112	5.7	LOS A	0.4	2.9	0.42	0.64	0.42	41.4
3	R2	28	7.1	28	7.1	0.112	9.8	LOS A	0.4	2.9	0.42	0.64	0.42	41.5
Approach		99	3.0	99	3.0	0.112	6.8	LOS A	0.4	2.9	0.42	0.64	0.42	41.4
All Vehicles		966	2.7	966	2.7	0.266	2.0	NA	1.0	7.5	0.18	0.19	0.18	39.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 2 - Morts Rd / Pitt St / Cook Ln (Site Folder: General)]

Network: N101 [Proposed SAT 2022 (Network Folder: General)]

Morts Rd / Pitt St / Cook Ln Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
North: Morts Rd (N)														
7	L2	90	1.1	90	1.1	0.216	3.4	LOS A	0.0	0.0	0.00	0.52	0.00	32.6
9	R2	300	5.0	300	5.0	0.216	3.9	LOS A	0.0	0.0	0.00	0.52	0.00	32.6
Approach		390	4.1	390	4.1	0.216	3.8	NA	0.0	0.0	0.00	0.52	0.00	32.6
All Vehicles		390	4.1	390	4.1	0.216	3.8	NA	0.0	0.0	0.00	0.52	0.00	32.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

 **Site: 101 [Site 3 - Macquarie PI / The Strand Intersection (Site Folder: General)]**

 **Network: N101 [Proposed SAT 2022 (Network Folder: General)]**

Macquarie PI / The Strand Intersection
Site Category: Existing Design
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: The Strand (S)														
1	L2	8	0.0	8	0.0	0.191	7.4	LOS A	0.7	5.4	0.38	0.92	0.38	22.3
2	T1	35	2.9	35	2.9	0.191	8.2	LOS A	0.7	5.4	0.38	0.92	0.38	28.4
3	R2	120	7.5	120	7.5	0.191	9.3	LOS A	0.7	5.4	0.38	0.92	0.38	34.5
Approach		163	6.1	163	6.1	0.191	9.0	LOS A	0.7	5.4	0.38	0.92	0.38	33.3
North: The Strand (N)														
7	L2	126	0.0	126	0.0	0.117	8.2	LOS A	0.5	3.3	0.30	0.88	0.30	36.6
8	T1	8	0.0	8	0.0	0.117	7.9	LOS A	0.5	3.3	0.30	0.88	0.30	23.8
9	R2	5	0.0	5	0.0	0.117	8.1	LOS A	0.5	3.3	0.30	0.88	0.30	23.8
Approach		139	0.0	139	0.0	0.117	8.2	LOS A	0.5	3.3	0.30	0.88	0.30	36.0
West: Macquaire PI (W)														
10	L2	3	33.3	3	33.3	0.094	4.9	LOS A	0.0	0.0	0.00	0.01	0.00	46.0
11	T1	176	2.3	176	2.3	0.094	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.8
12	R2	1	0.0	1	0.0	0.094	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	49.7
Approach		180	2.8	180	2.8	0.094	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.8
All Vehicles		482	3.1	482	3.1	0.191	5.4	NA	0.7	5.4	0.22	0.57	0.22	40.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 4 - Pitt St / The Strand Intersection (Site Folder: General)]

Network: N101 [Proposed SAT 2022 (Network Folder: General)]

Pitt St / The Strand Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: The Strand (S)														
1	L2	1	0.0	1	0.0	0.016	5.0	LOS A	0.1	0.4	0.35	0.52	0.35	40.4
2	T1	15	0.0	15	0.0	0.016	4.5	LOS A	0.1	0.4	0.35	0.52	0.35	29.3
Approach		16	0.0	16	0.0	0.016	4.5	LOS A	0.1	0.4	0.35	0.52	0.35	30.8
East: Pitt St (E)														
4	L2	13	0.0	13	0.0	0.169	3.5	LOS A	0.8	5.5	0.07	0.25	0.07	38.2
5	T1	158	3.2	158	3.2	0.169	0.0	LOS A	0.8	5.5	0.07	0.25	0.07	42.5
6	R2	130	7.7	130	7.7	0.169	4.0	LOS A	0.8	5.5	0.07	0.25	0.07	36.4
Approach		301	5.0	301	5.0	0.169	1.9	NA	0.8	5.5	0.07	0.25	0.07	40.4
North: The Strand (N)														
8	T1	6	0.0	6	0.0	0.010	4.4	LOS A	0.0	0.2	0.36	0.53	0.36	34.2
9	R2	3	0.0	3	0.0	0.010	6.2	LOS A	0.0	0.2	0.36	0.53	0.36	38.8
Approach		9	0.0	9	0.0	0.010	5.0	LOS A	0.0	0.2	0.36	0.53	0.36	36.2
West: Pitt St (W)														
10	L2	18	0.0	18	0.0	0.010	4.6	LOS A	0.0	0.0	0.03	0.51	0.03	39.1
12	R2	1	0.0	1	0.0	0.010	5.1	LOS A	0.0	0.0	0.03	0.51	0.03	39.3
Approach		19	0.0	19	0.0	0.010	4.6	NA	0.0	0.0	0.03	0.51	0.03	39.2
All Vehicles		345	4.3	345	4.3	0.169	2.3	NA	0.8	5.5	0.09	0.28	0.09	40.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 5 - Boundary Rd / Macquarie PI Intersection
(Site Folder: General)]

Network: N101 [Proposed
SAT 2022 (Network Folder:
General)]

Boundary Rd / Macquarie PI Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total HV] veh/h	%				[Veh. veh	Dist] m				
South: Boundary Rd (S)														
2	T1	624	1.3	624	1.3	0.406	1.3	LOS A	1.8	12.7	0.23	0.07	0.31	48.0
3	R2	68	7.4	68	7.4	0.406	10.2	LOS A	1.8	12.7	0.23	0.07	0.31	46.4
Approach		692	1.9	692	1.9	0.406	2.2	NA	1.8	12.7	0.23	0.07	0.31	47.9
East: Macquarie PI (E)														
4	L2	6	0.0	6	0.0	0.030	6.7	LOS A	0.1	0.7	0.64	0.76	0.64	39.3
6	R2	7	0.0	7	0.0	0.030	15.0	LOS B	0.1	0.7	0.64	0.76	0.64	38.4
Approach		13	0.0	13	0.0	0.030	11.2	LOS A	0.1	0.7	0.64	0.76	0.64	38.8
North: Boundary Rd (N)														
7	L2	112	0.0	112	0.0	0.350	4.6	LOS A	0.0	0.0	0.00	0.09	0.00	48.4
8	T1	559	1.8	559	1.8	0.350	0.1	LOS A	0.0	0.0	0.00	0.09	0.00	49.1
Approach		671	1.5	671	1.5	0.350	0.9	NA	0.0	0.0	0.00	0.09	0.00	49.0
All Vehicles		1376	1.7	1376	1.7	0.406	1.6	NA	1.8	12.7	0.12	0.09	0.16	48.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 1 - Morts Rd / Martin PI Intersection (Site Folder: General)]

Network: N101 [Existing PM 2032 (Network Folder: General)]

Morts Road / Martin Place Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	[Veh. veh			Dist m					
South: Morts Rd (S)														
4	L2	44	0.0	44	0.0	0.187	3.4	LOS A	0.0	0.0	0.00	0.06	0.00	39.9
5	T1	310	4.2	310	4.2	0.187	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	39.2
Approach		354	3.7	354	3.7	0.187	0.4	NA	0.0	0.0	0.00	0.06	0.00	39.3
North: Mort Rd (N)														
11	T1	347	4.0	347	4.0	0.250	0.5	LOS A	0.3	2.3	0.23	0.11	0.23	36.3
12	R2	85	0.0	85	0.0	0.250	5.2	LOS A	0.3	2.3	0.23	0.11	0.23	44.0
Approach		432	3.2	432	3.2	0.250	1.4	NA	0.3	2.3	0.23	0.11	0.23	39.5
West: Martin PI (W)														
1	L2	55	0.0	55	0.0	0.131	5.7	LOS A	0.2	1.3	0.45	0.68	0.45	41.0
3	R2	50	0.0	50	0.0	0.131	9.0	LOS A	0.2	1.3	0.45	0.68	0.45	41.0
Approach		105	0.0	105	0.0	0.131	7.3	LOS A	0.2	1.3	0.45	0.68	0.45	41.0
All Vehicles		891	3.0	891	3.0	0.250	1.7	NA	0.3	2.3	0.16	0.16	0.16	39.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

▼ Site: 101 [Site 2 - Morts Rd / Pitt St / Cook Ln (Site Folder: General)]

■ Network: N101 [Existing PM 2032 (Network Folder: General)]

Morts Rd / Pitt St / Cook Ln Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total HV veh/h	%	v/c	sec		[Veh. veh	Dist m				km/h
North: Morts Rd (N)														
7	L2	138	0.0	138	0.0	0.213	3.4	LOS A	0.0	0.0	0.00	0.51	0.00	32.7
9	R2	248	5.2	248	5.2	0.213	3.9	LOS A	0.0	0.0	0.00	0.51	0.00	32.7
Approach		386	3.4	386	3.4	0.213	3.8	NA	0.0	0.0	0.00	0.51	0.00	32.7
All Vehicles		386	3.4	386	3.4	0.213	3.8	NA	0.0	0.0	0.00	0.51	0.00	32.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

 **Site: 101 [Site 3 - Macquarie PI / The Strand Intersection (Site Folder: General)]**  **Network: N101 [Existing PM 2032 (Network Folder: General)]**

Macquarie PI / The Strand Intersection
Site Category: Existing Design
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: The Strand (S)														
1	L2	5	0.0	5	0.0	0.136	7.4	LOS A	0.2	1.5	0.27	0.92	0.27	23.4
2	T1	34	0.0	34	0.0	0.136	7.7	LOS A	0.2	1.5	0.27	0.92	0.27	29.5
3	R2	92	14.1	92	14.1	0.136	8.4	LOS A	0.2	1.5	0.27	0.92	0.27	35.1
Approach		131	9.9	131	9.9	0.136	8.2	LOS A	0.2	1.5	0.27	0.92	0.27	33.8
North: The Strand (N)														
7	L2	28	0.0	28	0.0	0.044	7.9	LOS A	0.1	0.5	0.23	0.90	0.23	36.8
8	T1	11	0.0	11	0.0	0.044	7.6	LOS A	0.1	0.5	0.23	0.90	0.23	23.9
9	R2	12	0.0	12	0.0	0.044	7.7	LOS A	0.1	0.5	0.23	0.90	0.23	23.9
Approach		51	0.0	51	0.0	0.044	7.8	LOS A	0.1	0.5	0.23	0.90	0.23	33.3
West: Macquaire PI (W)														
10	L2	1	0.0	1	0.0	0.065	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	48.3
11	T1	124	0.8	124	0.8	0.065	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.9
12	R2	1	0.0	1	0.0	0.065	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	49.8
Approach		126	0.8	126	0.8	0.065	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.9
All Vehicles		308	4.5	308	4.5	0.136	4.8	NA	0.2	1.5	0.15	0.54	0.15	41.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 4 - Pitt St / The Strand Intersection (Site Folder: General)]

Network: N101 [Existing PM 2032 (Network Folder: General)]

Pitt St / The Strand Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: The Strand (S)														
1	L2	1	0.0	1	0.0	0.012	5.3	LOS A	0.0	0.1	0.39	0.53	0.39	40.0
2	T1	10	0.0	10	0.0	0.012	4.8	LOS A	0.0	0.1	0.39	0.53	0.39	28.6
Approach		11	0.0	11	0.0	0.012	4.8	LOS A	0.0	0.1	0.39	0.53	0.39	30.9
East: Pitt St (E)														
4	L2	10	0.0	10	0.0	0.193	3.5	LOS A	0.3	1.9	0.07	0.15	0.07	39.2
5	T1	245	1.2	245	1.2	0.193	0.0	LOS A	0.3	1.9	0.07	0.15	0.07	43.4
6	R2	91	14.3	91	14.3	0.193	4.1	LOS A	0.3	1.9	0.07	0.15	0.07	37.7
Approach		346	4.6	346	4.6	0.193	1.2	NA	0.3	1.9	0.07	0.15	0.07	42.3
North: The Strand (N)														
8	T1	5	0.0	5	0.0	0.012	4.7	LOS A	0.0	0.1	0.40	0.57	0.40	33.1
9	R2	5	0.0	5	0.0	0.012	6.5	LOS A	0.0	0.1	0.40	0.57	0.40	38.0
Approach		10	0.0	10	0.0	0.012	5.6	LOS A	0.0	0.1	0.40	0.57	0.40	36.1
West: Pitt St (W)														
10	L2	30	0.0	30	0.0	0.018	4.6	LOS A	0.0	0.0	0.05	0.50	0.05	39.0
12	R2	2	0.0	2	0.0	0.018	5.3	LOS A	0.0	0.0	0.05	0.50	0.05	39.2
Approach		32	0.0	32	0.0	0.018	4.7	NA	0.0	0.0	0.05	0.50	0.05	39.0
All Vehicles		399	4.0	399	4.0	0.193	1.7	NA	0.3	1.9	0.08	0.20	0.08	41.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 5 - Boundary Rd / Macquarie PI Intersection
(Site Folder: General)]

Network: N101 [Existing PM
2032 (Network Folder: General)]

Boundary Rd / Macquarie PI Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist m				
South: Boundary Rd (S)														
2	T1	625	1.3	625	1.3	0.393	1.3	LOS A	0.6	4.3	0.21	0.05	0.28	48.1
3	R2	50	2.0	50	2.0	0.393	11.6	LOS A	0.6	4.3	0.21	0.05	0.28	46.5
Approach		675	1.3	675	1.3	0.393	2.1	NA	0.6	4.3	0.21	0.05	0.28	48.0
East: Macquarie PI (E)														
4	L2	9	0.0	9	0.0	0.062	7.9	LOS A	0.1	0.5	0.73	0.84	0.73	37.6
6	R2	12	0.0	12	0.0	0.062	18.0	LOS B	0.1	0.5	0.73	0.84	0.73	36.8
Approach		21	0.0	21	0.0	0.062	13.7	LOS A	0.1	0.5	0.73	0.84	0.73	37.1
North: Boundary Rd (N)														
7	L2	74	0.0	74	0.0	0.416	4.7	LOS A	0.0	0.0	0.00	0.05	0.00	49.0
8	T1	729	0.8	729	0.8	0.416	0.1	LOS A	0.0	0.0	0.00	0.05	0.00	49.4
Approach		803	0.7	803	0.7	0.416	0.5	NA	0.0	0.0	0.00	0.05	0.00	49.4
All Vehicles		1499	1.0	1499	1.0	0.416	1.4	NA	0.6	4.3	0.10	0.06	0.14	48.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 1 - Morts Rd / Martin PI Intersection (Site Folder: General)]

Network: N101 [Existing SAT 2032 (Network Folder: General)]

Morts Road / Martin Place Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
South: Morts Rd (S)														
4	L2	41	0.0	41	0.0	0.160	3.4	LOS A	0.0	0.0	0.00	0.06	0.00	39.8
5	T1	261	4.2	261	4.2	0.160	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	39.1
Approach		302	3.6	302	3.6	0.160	0.5	NA	0.0	0.0	0.00	0.06	0.00	39.3
North: Mort Rd (N)														
11	T1	385	2.9	385	2.9	0.250	0.3	LOS A	0.2	1.7	0.16	0.08	0.16	37.3
12	R2	64	1.6	64	1.6	0.250	4.9	LOS A	0.2	1.7	0.16	0.08	0.16	44.3
Approach		449	2.7	449	2.7	0.250	1.0	NA	0.2	1.7	0.16	0.08	0.16	39.7
West: Martin PI (W)														
1	L2	82	1.2	82	1.2	0.120	5.5	LOS A	0.2	1.3	0.39	0.62	0.39	41.6
3	R2	32	6.3	32	6.3	0.120	9.1	LOS A	0.2	1.3	0.39	0.62	0.39	41.9
Approach		114	2.6	114	2.6	0.120	6.5	LOS A	0.2	1.3	0.39	0.62	0.39	41.7
All Vehicles		865	3.0	865	3.0	0.250	1.5	NA	0.2	1.7	0.13	0.14	0.13	40.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 2 - Morts Rd / Pitt St / Cook Ln (Site Folder: General)]

Network: N101 [Existing SAT 2032 (Network Folder: General)]

Morts Rd / Pitt St / Cook Ln Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
North: Morts Rd (N)														
7	L2	102	1.0	102	1.0	0.220	3.4	LOS A	0.0	0.0	0.00	0.52	0.00	32.6
9	R2	296	5.1	296	5.1	0.220	3.9	LOS A	0.0	0.0	0.00	0.52	0.00	32.6
Approach		398	4.0	398	4.0	0.220	3.8	NA	0.0	0.0	0.00	0.52	0.00	32.6
All Vehicles		398	4.0	398	4.0	0.220	3.8	NA	0.0	0.0	0.00	0.52	0.00	32.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

 **Site: 101 [Site 3 - Macquarie PI / The Strand Intersection (Site Folder: General)]**  **Network: N101 [Existing SAT 2032 (Network Folder: General)]**

Macquarie PI / The Strand Intersection
Site Category: Existing Design
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: The Strand (S)														
1	L2	8	0.0	8	0.0	0.182	7.4	LOS A	0.3	2.1	0.31	0.91	0.31	23.2
2	T1	35	2.9	35	2.9	0.182	8.0	LOS A	0.3	2.1	0.31	0.91	0.31	29.2
3	R2	131	6.9	131	6.9	0.182	8.3	LOS A	0.3	2.1	0.31	0.91	0.31	35.2
Approach		174	5.7	174	5.7	0.182	8.2	LOS A	0.3	2.1	0.31	0.91	0.31	34.1
North: The Strand (N)														
7	L2	31	0.0	31	0.0	0.037	8.0	LOS A	0.1	0.4	0.25	0.89	0.25	36.8
8	T1	8	0.0	8	0.0	0.037	7.7	LOS A	0.1	0.4	0.25	0.89	0.25	23.9
9	R2	5	0.0	5	0.0	0.037	7.8	LOS A	0.1	0.4	0.25	0.89	0.25	23.9
Approach		44	0.0	44	0.0	0.037	7.9	LOS A	0.1	0.4	0.25	0.89	0.25	34.7
West: Macquaire PI (W)														
10	L2	3	33.3	3	33.3	0.078	4.9	LOS A	0.0	0.0	0.00	0.01	0.00	46.0
11	T1	145	2.8	145	2.8	0.078	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.8
12	R2	1	0.0	1	0.0	0.078	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	49.7
Approach		149	3.4	149	3.4	0.078	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.8
All Vehicles		367	4.1	367	4.1	0.182	4.9	NA	0.3	2.1	0.17	0.54	0.17	41.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 4 - Pitt St / The Strand Intersection (Site Folder: General)]

Network: N101 [Existing SAT 2032 (Network Folder: General)]

Pitt St / The Strand Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: The Strand (S)														
1	L2	1	0.0	1	0.0	0.016	5.0	LOS A	0.0	0.2	0.36	0.52	0.36	40.3
2	T1	15	0.0	15	0.0	0.016	4.6	LOS A	0.0	0.2	0.36	0.52	0.36	29.1
Approach		16	0.0	16	0.0	0.016	4.6	LOS A	0.0	0.2	0.36	0.52	0.36	30.7
East: Pitt St (E)														
4	L2	13	0.0	13	0.0	0.178	3.5	LOS A	0.3	2.3	0.08	0.25	0.08	38.1
5	T1	166	3.0	166	3.0	0.178	0.1	LOS A	0.3	2.3	0.08	0.25	0.08	42.5
6	R2	137	7.3	137	7.3	0.178	4.0	LOS A	0.3	2.3	0.08	0.25	0.08	36.3
Approach		316	4.7	316	4.7	0.178	1.9	NA	0.3	2.3	0.08	0.25	0.08	40.4
North: The Strand (N)														
8	T1	6	0.0	6	0.0	0.010	4.5	LOS A	0.0	0.1	0.38	0.54	0.38	34.0
9	R2	3	0.0	3	0.0	0.010	6.3	LOS A	0.0	0.1	0.38	0.54	0.38	38.6
Approach		9	0.0	9	0.0	0.010	5.1	LOS A	0.0	0.1	0.38	0.54	0.38	36.1
West: Pitt St (W)														
10	L2	22	0.0	22	0.0	0.012	4.6	LOS A	0.0	0.0	0.03	0.51	0.03	39.2
12	R2	1	0.0	1	0.0	0.012	5.1	LOS A	0.0	0.0	0.03	0.51	0.03	39.4
Approach		23	0.0	23	0.0	0.012	4.6	NA	0.0	0.0	0.03	0.51	0.03	39.2
All Vehicles		364	4.1	364	4.1	0.178	2.3	NA	0.3	2.3	0.09	0.28	0.09	40.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 5 - Boundary Rd / Macquarie PI Intersection
(Site Folder: General)]

Network: N101 [Existing SAT
2032 (Network Folder: General)]

Boundary Rd / Macquarie PI Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: Boundary Rd (S)														
2	T1	748	1.1	748	1.1	0.476	1.6	LOS A	0.9	6.6	0.24	0.06	0.36	47.8
3	R2	65	7.7	65	7.7	0.476	12.4	LOS A	0.9	6.6	0.24	0.06	0.36	45.9
Approach		813	1.6	813	1.6	0.476	2.5	NA	0.9	6.6	0.24	0.06	0.36	47.7
East: Macquarie PI (E)														
4	L2	9	0.0	9	0.0	0.061	7.5	LOS A	0.1	0.5	0.74	0.83	0.74	37.1
6	R2	10	0.0	10	0.0	0.061	20.9	LOS B	0.1	0.5	0.74	0.83	0.74	36.2
Approach		19	0.0	19	0.0	0.061	14.5	LOS B	0.1	0.5	0.74	0.83	0.74	36.6
North: Boundary Rd (N)														
7	L2	86	0.0	86	0.0	0.393	4.7	LOS A	0.0	0.0	0.00	0.06	0.00	48.8
8	T1	670	1.5	670	1.5	0.393	0.1	LOS A	0.0	0.0	0.00	0.06	0.00	49.3
Approach		756	1.3	756	1.3	0.393	0.6	NA	0.0	0.0	0.00	0.06	0.00	49.3
All Vehicles		1588	1.4	1588	1.4	0.476	1.7	NA	0.9	6.6	0.13	0.07	0.19	48.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 1 - Morts Rd / Martin PI Intersection (Site Folder: General)]

Network: N101 [Proposed PM 2032 (Network Folder: General)]

Morts Road / Martin Place Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: Morts Rd (S)														
4	L2	115	0.0	115	0.0	0.251	3.4	LOS A	0.0	0.0	0.00	0.11	0.00	39.5
5	T1	360	3.6	360	3.6	0.251	0.0	LOS A	0.0	0.0	0.00	0.11	0.00	38.5
Approach		475	2.7	475	2.7	0.251	0.8	NA	0.0	0.0	0.00	0.11	0.00	38.9
North: Mort Rd (N)														
11	T1	347	4.0	347	4.0	0.299	1.2	LOS A	0.6	4.1	0.37	0.18	0.38	34.3
12	R2	128	0.0	128	0.0	0.299	6.1	LOS A	0.6	4.1	0.37	0.18	0.38	43.1
Approach		475	2.9	475	2.9	0.299	2.5	NA	0.6	4.1	0.37	0.18	0.38	38.9
West: Martin PI (W)														
1	L2	55	0.0	55	0.0	0.148	5.9	LOS A	0.2	1.4	0.50	0.71	0.50	40.5
3	R2	50	0.0	50	0.0	0.148	10.3	LOS A	0.2	1.4	0.50	0.71	0.50	40.3
Approach		105	0.0	105	0.0	0.148	8.0	LOS A	0.2	1.4	0.50	0.71	0.50	40.4
All Vehicles		1055	2.6	1055	2.6	0.299	2.3	NA	0.6	4.1	0.21	0.20	0.22	39.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 2 - Morts Rd / Pitt St / Cook Ln (Site Folder: General)]

Network: N101 [Proposed PM 2032 (Network Folder: General)]

Morts Rd / Pitt St / Cook Ln Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
North: Morts Rd (N)														
7	L2	138	0.0	138	0.0	0.230	3.4	LOS A	0.0	0.0	0.00	0.51	0.00	32.7
9	R2	280	4.6	280	4.6	0.230	3.9	LOS A	0.0	0.0	0.00	0.51	0.00	32.6
Approach		418	3.1	418	3.1	0.230	3.8	NA	0.0	0.0	0.00	0.51	0.00	32.7
All Vehicles		418	3.1	418	3.1	0.230	3.8	NA	0.0	0.0	0.00	0.51	0.00	32.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

 **Site: 101 [Site 3 - Macquarie PI / The Strand Intersection (Site Folder: General)]**

 **Network: N101 [Proposed PM 2032 (Network Folder: General)]**

Macquarie PI / The Strand Intersection
Site Category: Existing Design
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: The Strand (S)														
1	L2	5	0.0	5	0.0	0.179	7.4	LOS A	0.3	2.0	0.38	0.93	0.38	22.2
2	T1	34	0.0	34	0.0	0.179	8.0	LOS A	0.3	2.0	0.38	0.93	0.38	28.4
3	R2	109	11.9	109	11.9	0.179	9.5	LOS A	0.3	2.0	0.38	0.93	0.38	34.3
Approach		148	8.8	148	8.8	0.179	9.1	LOS A	0.3	2.0	0.38	0.93	0.38	33.1
North: The Strand (N)														
7	L2	123	0.0	123	0.0	0.125	8.2	LOS A	0.2	1.4	0.31	0.88	0.31	36.6
8	T1	11	0.0	11	0.0	0.125	8.0	LOS A	0.2	1.4	0.31	0.88	0.31	23.7
9	R2	12	0.0	12	0.0	0.125	8.2	LOS A	0.2	1.4	0.31	0.88	0.31	23.7
Approach		146	0.0	146	0.0	0.125	8.2	LOS A	0.2	1.4	0.31	0.88	0.31	35.6
West: Macquaire PI (W)														
10	L2	1	0.0	1	0.0	0.096	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	48.3
11	T1	184	0.5	184	0.5	0.096	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.9
12	R2	1	0.0	1	0.0	0.096	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	49.8
Approach		186	0.5	186	0.5	0.096	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.9
All Vehicles		480	2.9	480	2.9	0.179	5.3	NA	0.3	2.0	0.21	0.56	0.21	40.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 4 - Pitt St / The Strand Intersection (Site Folder: General)]

Network: N101 [Proposed PM 2032 (Network Folder: General)]

Pitt St / The Strand Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: The Strand (S)														
1	L2	1	0.0	1	0.0	0.012	5.3	LOS A	0.0	0.1	0.41	0.54	0.41	39.8
2	T1	10	0.0	10	0.0	0.012	5.0	LOS A	0.0	0.1	0.41	0.54	0.41	28.2
Approach		11	0.0	11	0.0	0.012	5.0	LOS A	0.0	0.1	0.41	0.54	0.41	30.5
East: Pitt St (E)														
4	L2	10	0.0	10	0.0	0.210	3.5	LOS A	0.3	2.2	0.07	0.16	0.07	39.0
5	T1	260	1.2	260	1.2	0.210	0.1	LOS A	0.3	2.2	0.07	0.16	0.07	43.3
6	R2	108	12.0	108	12.0	0.210	4.1	LOS A	0.3	2.2	0.07	0.16	0.07	37.5
Approach		378	4.2	378	4.2	0.210	1.3	NA	0.3	2.2	0.07	0.16	0.07	42.1
North: The Strand (N)														
8	T1	5	0.0	5	0.0	0.013	4.9	LOS A	0.0	0.1	0.42	0.58	0.42	32.7
9	R2	5	0.0	5	0.0	0.013	6.7	LOS A	0.0	0.1	0.42	0.58	0.42	37.7
Approach		10	0.0	10	0.0	0.013	5.8	LOS A	0.0	0.1	0.42	0.58	0.42	35.8
West: Pitt St (W)														
10	L2	30	0.0	30	0.0	0.018	4.6	LOS A	0.0	0.0	0.05	0.50	0.05	39.0
12	R2	2	0.0	2	0.0	0.018	5.4	LOS A	0.0	0.0	0.05	0.50	0.05	39.2
Approach		32	0.0	32	0.0	0.018	4.7	NA	0.0	0.0	0.05	0.50	0.05	39.0
All Vehicles		431	3.7	431	3.7	0.210	1.7	NA	0.3	2.2	0.09	0.21	0.09	41.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 5 - Boundary Rd / Macquarie PI Intersection
(Site Folder: General)]

Network: N101 [Proposed
PM 2032 (Network Folder:
General)]

Boundary Rd / Macquarie PI Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist m				
South: Boundary Rd (S)														
2	T1	625	1.3	625	1.3	0.422	2.0	LOS A	0.9	6.3	0.29	0.07	0.41	47.3
3	R2	67	1.5	67	1.5	0.422	12.5	LOS A	0.9	6.3	0.29	0.07	0.41	45.1
Approach		692	1.3	692	1.3	0.422	3.0	NA	0.9	6.3	0.29	0.07	0.41	47.2
East: Macquarie PI (E)														
4	L2	9	0.0	9	0.0	0.066	7.9	LOS A	0.1	0.6	0.75	0.85	0.75	37.2
6	R2	12	0.0	12	0.0	0.066	19.1	LOS B	0.1	0.6	0.75	0.85	0.75	36.4
Approach		21	0.0	21	0.0	0.066	14.3	LOS A	0.1	0.6	0.75	0.85	0.75	36.7
North: Boundary Rd (N)														
7	L2	117	0.0	117	0.0	0.439	4.7	LOS A	0.0	0.0	0.00	0.08	0.00	48.6
8	T1	729	0.8	729	0.8	0.439	0.1	LOS A	0.0	0.0	0.00	0.08	0.00	49.2
Approach		846	0.7	846	0.7	0.439	0.8	NA	0.0	0.0	0.00	0.08	0.00	49.1
All Vehicles		1559	1.0	1559	1.0	0.439	2.0	NA	0.9	6.3	0.14	0.08	0.19	48.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 1 - Morts Rd / Martin PI Intersection (Site Folder: General)]

Network: N101 [Proposed SAT 2032 (Network Folder: General)]

Morts Road / Martin Place Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist m				
South: Morts Rd (S)														
4	L2	125	0.0	125	0.0	0.238	3.4	LOS A	0.0	0.0	0.00	0.13	0.00	39.4
5	T1	325	3.4	325	3.4	0.238	0.0	LOS A	0.0	0.0	0.00	0.13	0.00	38.3
Approach		450	2.4	450	2.4	0.238	1.0	NA	0.0	0.0	0.00	0.13	0.00	38.8
North: Mort Rd (N)														
11	T1	385	2.9	385	2.9	0.300	0.9	LOS A	0.5	3.5	0.31	0.14	0.31	35.3
12	R2	110	0.9	110	0.9	0.300	6.0	LOS A	0.5	3.5	0.31	0.14	0.31	43.5
Approach		495	2.4	495	2.4	0.300	2.1	NA	0.5	3.5	0.31	0.14	0.31	39.1
West: Martin PI (W)														
1	L2	82	1.2	82	1.2	0.137	5.8	LOS A	0.2	1.4	0.45	0.65	0.45	41.1
3	R2	32	6.3	32	6.3	0.137	10.8	LOS A	0.2	1.4	0.45	0.65	0.45	41.2
Approach		114	2.6	114	2.6	0.137	7.2	LOS A	0.2	1.4	0.45	0.65	0.45	41.1
All Vehicles		1059	2.5	1059	2.5	0.300	2.1	NA	0.5	3.5	0.19	0.19	0.20	39.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 2 - Morts Rd / Pitt St / Cook Ln (Site Folder: General)]

Network: N101 [Proposed SAT 2032 (Network Folder: General)]

Morts Rd / Pitt St / Cook Ln Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
North: Morts Rd (N)														
7	L2	102	1.0	102	1.0	0.241	3.4	LOS A	0.0	0.0	0.00	0.52	0.00	32.6
9	R2	334	4.5	334	4.5	0.241	3.9	LOS A	0.0	0.0	0.00	0.52	0.00	32.5
Approach		436	3.7	436	3.7	0.241	3.8	NA	0.0	0.0	0.00	0.52	0.00	32.6
All Vehicles		436	3.7	436	3.7	0.241	3.8	NA	0.0	0.0	0.00	0.52	0.00	32.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

 **Site: 101 [Site 3 - Macquarie PI / The Strand Intersection (Site Folder: General)]**

 **Network: N101 [Proposed SAT 2032 (Network Folder: General)]**

Macquarie PI / The Strand Intersection
Site Category: Existing Design
Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: The Strand (S)														
1	L2	8	0.0	8	0.0	0.236	7.4	LOS A	0.4	2.7	0.43	0.93	0.43	21.8
2	T1	35	2.9	35	2.9	0.236	8.4	LOS A	0.4	2.7	0.43	0.93	0.43	28.0
3	R2	148	6.1	148	6.1	0.236	9.7	LOS A	0.4	2.7	0.43	0.93	0.43	34.2
Approach		191	5.2	191	5.2	0.236	9.3	LOS A	0.4	2.7	0.43	0.93	0.43	33.1
North: The Strand (N)														
7	L2	133	0.0	133	0.0	0.127	8.4	LOS A	0.2	1.5	0.33	0.88	0.33	36.5
8	T1	8	0.0	8	0.0	0.127	8.1	LOS A	0.2	1.5	0.33	0.88	0.33	23.6
9	R2	5	0.0	5	0.0	0.127	8.4	LOS A	0.2	1.5	0.33	0.88	0.33	23.6
Approach		146	0.0	146	0.0	0.127	8.3	LOS A	0.2	1.5	0.33	0.88	0.33	35.9
West: Macquaire PI (W)														
10	L2	3	33.3	3	33.3	0.111	4.9	LOS A	0.0	0.0	0.00	0.01	0.00	46.0
11	T1	209	1.9	209	1.9	0.111	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.9
12	R2	1	0.0	1	0.0	0.111	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	49.8
Approach		213	2.3	213	2.3	0.111	0.1	NA	0.0	0.0	0.00	0.01	0.00	49.8
All Vehicles		550	2.7	550	2.7	0.236	5.5	NA	0.4	2.7	0.24	0.56	0.24	40.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 4 - Pitt St / The Strand Intersection (Site Folder: General)]

Network: N101 [Proposed SAT 2032 (Network Folder: General)]

Pitt St / The Strand Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: The Strand (S)														
1	L2	1	0.0	1	0.0	0.017	5.1	LOS A	0.0	0.2	0.39	0.54	0.39	40.1
2	T1	15	0.0	15	0.0	0.017	4.8	LOS A	0.0	0.2	0.39	0.54	0.39	28.6
Approach		16	0.0	16	0.0	0.017	4.8	LOS A	0.0	0.2	0.39	0.54	0.39	30.2
East: Pitt St (E)														
4	L2	13	0.0	13	0.0	0.198	3.5	LOS A	0.4	2.7	0.08	0.25	0.08	38.1
5	T1	185	2.7	185	2.7	0.198	0.1	LOS A	0.4	2.7	0.08	0.25	0.08	42.5
6	R2	156	6.4	156	6.4	0.198	4.0	LOS A	0.4	2.7	0.08	0.25	0.08	36.3
Approach		354	4.2	354	4.2	0.198	1.9	NA	0.4	2.7	0.08	0.25	0.08	40.3
North: The Strand (N)														
8	T1	6	0.0	6	0.0	0.011	4.7	LOS A	0.0	0.1	0.40	0.55	0.40	33.6
9	R2	3	0.0	3	0.0	0.011	6.5	LOS A	0.0	0.1	0.40	0.55	0.40	38.3
Approach		9	0.0	9	0.0	0.011	5.3	LOS A	0.0	0.1	0.40	0.55	0.40	35.7
West: Pitt St (W)														
10	L2	22	0.0	22	0.0	0.013	4.6	LOS A	0.0	0.0	0.03	0.51	0.03	39.2
12	R2	1	0.0	1	0.0	0.013	5.1	LOS A	0.0	0.0	0.03	0.51	0.03	39.3
Approach		23	0.0	23	0.0	0.013	4.6	NA	0.0	0.0	0.03	0.51	0.03	39.2
All Vehicles		402	3.7	402	3.7	0.198	2.3	NA	0.4	2.7	0.10	0.28	0.10	40.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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MOVEMENT SUMMARY

Site: 101 [Site 5 - Boundary Rd / Macquarie PI Intersection
(Site Folder: General)]

Network: N101 [Proposed
SAT 2032 (Network Folder:
General)]

Boundary Rd / Macquarie PI Intersection
Site Category: Existing Design
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist m				
South: Boundary Rd (S)														
2	T1	748	1.1	748	1.1	0.507	2.4	LOS A	1.3	9.1	0.32	0.08	0.50	47.0
3	R2	83	6.0	83	6.0	0.507	13.4	LOS A	1.3	9.1	0.32	0.08	0.50	44.5
Approach		831	1.6	831	1.6	0.507	3.5	NA	1.3	9.1	0.32	0.08	0.50	46.8
East: Macquarie PI (E)														
4	L2	9	0.0	9	0.0	0.065	7.5	LOS A	0.1	0.5	0.75	0.83	0.75	36.6
6	R2	10	0.0	10	0.0	0.065	22.2	LOS B	0.1	0.5	0.75	0.83	0.75	35.8
Approach		19	0.0	19	0.0	0.065	15.2	LOS B	0.1	0.5	0.75	0.83	0.75	36.2
North: Boundary Rd (N)														
7	L2	132	0.0	132	0.0	0.418	4.7	LOS A	0.0	0.0	0.00	0.09	0.00	48.4
8	T1	670	1.5	670	1.5	0.418	0.1	LOS A	0.0	0.0	0.00	0.09	0.00	49.1
Approach		802	1.2	802	1.2	0.418	0.9	NA	0.0	0.0	0.00	0.09	0.00	49.0
All Vehicles		1652	1.4	1652	1.4	0.507	2.3	NA	1.3	9.1	0.17	0.09	0.26	47.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network 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: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

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

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

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

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