Proposed Mixed-Use Development

215-235 O'Riordan Street & 1-3 Ewan Street, Mascot

TRAFFIC AND PARKING ASSESSMENT REPORT

12 December 2018

Ref 18453

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants

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Ph: 9904 3224

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LIST OF ILLUSTRATIONS

1. INTRODUCTION

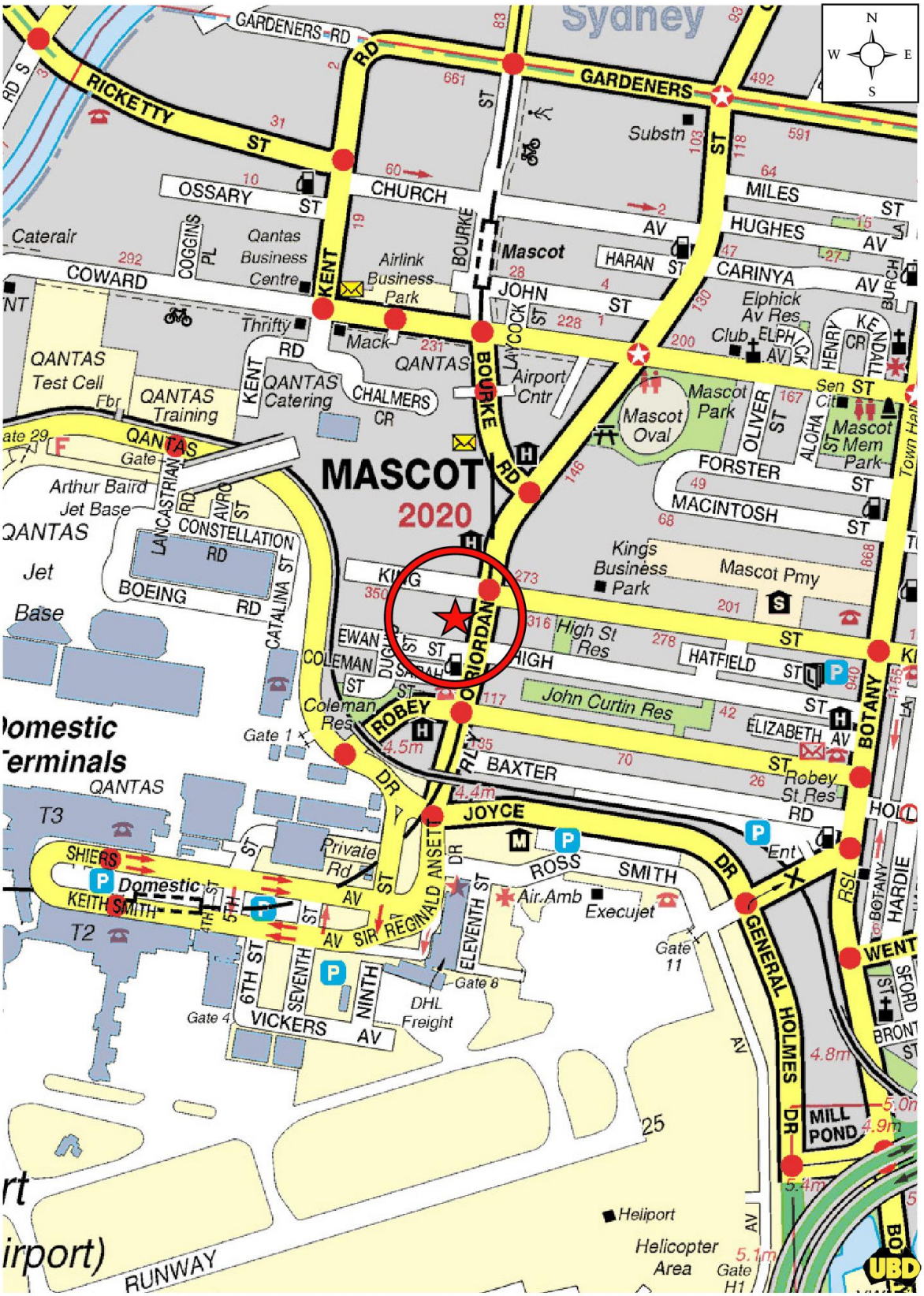
This report has been prepared to accompany a planning proposal to Bayside Council for a mixed-use hotel development proposal to be located at 215-235 O'Riordan Street & 1-3 Ewan Street, Mascot (Figures 1 and 2).

The *concept plans* which have been prepared for the purposes of the planning proposal envisages the construction of two separate mixed-use buildings comprising hotel accommodation rooms, serviced apartments, restaurant / café, retail tenancies, office tenancies, a medical component and commercial car parking.

Off-street car parking is to be provided in a multi-level carparking area comprising a basement and an above ground car parking structure in accordance with Council requirements.

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

- describes the site and provides details of the planning proposal
- reviews the road network within in the vicinity of the site
- reviews the public transport services available in the vicinity of the site
- estimates the traffic generation potential of the planning proposal
- assesses the traffic implications of the planning proposal in terms of road network capacity
- assesses the adequacy and suitability of the quantum of off-street parking and loading provided on the site.



VARGA TRAFFIC PLANNING Pty Ltd
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LOCATION
FIGURE 1

VARGA TRAFFIC PLANNING Pty Ltd
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SITE
FIGURE 2

2. PROPOSED DEVELOPMENT

Site

The subject site is located to the south of the *Mascot Station Town Centre Precinct*, on the western side of O'Riordan Street extending from King Street to Ewan Street. The site has street frontages approximately 141 metres in length to O'Riordan Street, approximately 50 metres in length to King Street, approximately 64 metres in length to Ewan Street and occupies an area of approximately 7,629m^2.

The site is currently occupied by a number of light industrial buildings with a cumulative floor area of approximately 3,800m^2. The buildings are mostly used for airport related businesses, including long-term parking, vehicle rentals and luggage services.

Vehicular access to the site is currently provided via a vehicular crossover to King Street, five vehicular crossovers to O'Riordan Street and four vehicular crossovers to Ewan Street.

A recent aerial photograph of the site and its surroundings is provided below:

Courtesy of Nearmap Imagery 2018

Proposed Development

The planning proposal envisages the demolition of the existing light industrial buildings on the site to facilitate the construction of a mixed-use commercial development.

The *concept plans* which have been prepared for the purposes for this planning proposal envisages the construction of two separate mixed-use buildings are proposed on site comprising the following components:

- a total of 136 hotel rooms
- a total of 57 serviced apartment rooms
- an ancillary restaurant / café with a floor area of 964m^2, to be operated by the hotel, for hotel and serviced apartment guests only
- an ancillary banquet hall to be generated by the hotel which may be used by internal or external guests
- a ground floor retail component with a cumulative floor area of 1,263m^2
- a medical centre with a floor area of 1,161m^2 and specialist medical suites with a cumulative floor area of 4,278m^2
- a commercial office component comprising a cumulative floor area of 7,627m^2.

The *concept plans* which have been prepared for the purposes of this planning proposal envisage the provision of car parking for approximately 981 cars in a multi-level car parking area. Car parking will ultimately be provided in accordance with Council's DCP requirements, with the surplus car parking to be used as commercial paid parking for long-term airport parking needs.

Vehicular access to the car parking facilities is to be provided via two separate vehicular entry / exit driveways, one positioned at the western end of the King Street site frontage and another positioned at the western end of the Ewan Street site frontage.

A drive-through porte-cochere is also proposed fronting O'Riordan Street for the hotel and serviced apartments with 3 indented taxi bays. Vehicular access is to be provided via an entry-only driveway located towards the southern end of the O'Riordan Street site frontage and vehicular egress is to be provided via an exit-only driveway located towards the northern end of the O'Riordan Street site frontage.

The proposed driveways in O'Riordan Street will be used to accommodate buses and taxis in accordance with the Council's DCP requirements for the hotel and serviced apartments component of the development *only*.

It is noted in this regard that O'Riordan Street is a classified RMS Road, and any vehicular access off the classified road network is subject to the following requirements specified in the *State Environmental Planning Policy (Infrastructure) 2007 [NSW]* document:

Clause 101 Development with frontage to classified road

(1) The objectives of this clause are:
   (a) to ensure that new development does not compromise the effective and ongoing operation and function of classified roads, and
   (b) to prevent or reduce the potential impact of traffic noise and vehicle emission on development adjacent to classified roads.

(2) The consent authority must not grant consent to the development on land that has a frontage to a classified road unless it is satisfied that:
   (a) where practicable, vehicular access to the land is provided by a road other than the classified road, and
   (b) the safety, efficiency and ongoing operation of the classified road will not be adversely affected by the development as a result of:
      (i) the design of the vehicular access to the land, or
      (ii) the emission of smoke or dust from the development, or
      (iii) the nature, volume of frequency of vehicles using the classified road to gain access to the land, and
   (c) the development is of a type that is not sensitive to traffic noise or vehicle emissions, or is appropriately located and designed, or includes measures, to ameliorate potential traffic noise or vehicle emissions within the site of the development arising from the adjacent classified road.

Having considered the above, the consent authority should take into account the following site-specific circumstances to assess the proposed vehicular access arrangement based on its merits:

- the subject site is currently configured with five (5) separate vehicular crossovers off O'Riordan Street

- the proposed development consolidates 5 existing entry / exit driveways off a classified road into one single entry driveway, and one single exit driveway, thereby improving the pedestrian safety and amenity (i.e. pedestrians no longer need to cross multiple driveways)

- the proposed central concrete median island in O'Riordan Street will limit vehicular movements to left-in / left-out only

- the single entry and exit driveways are proposed to satisfy Council's DCP requirements for bus and taxi drop-off/pick-up facilities for the hotel / serviced apartment component *only*, and represent a *less* intensive use than the 5 entry / exit driveways that currently provide access to the site off O'Riordan Street

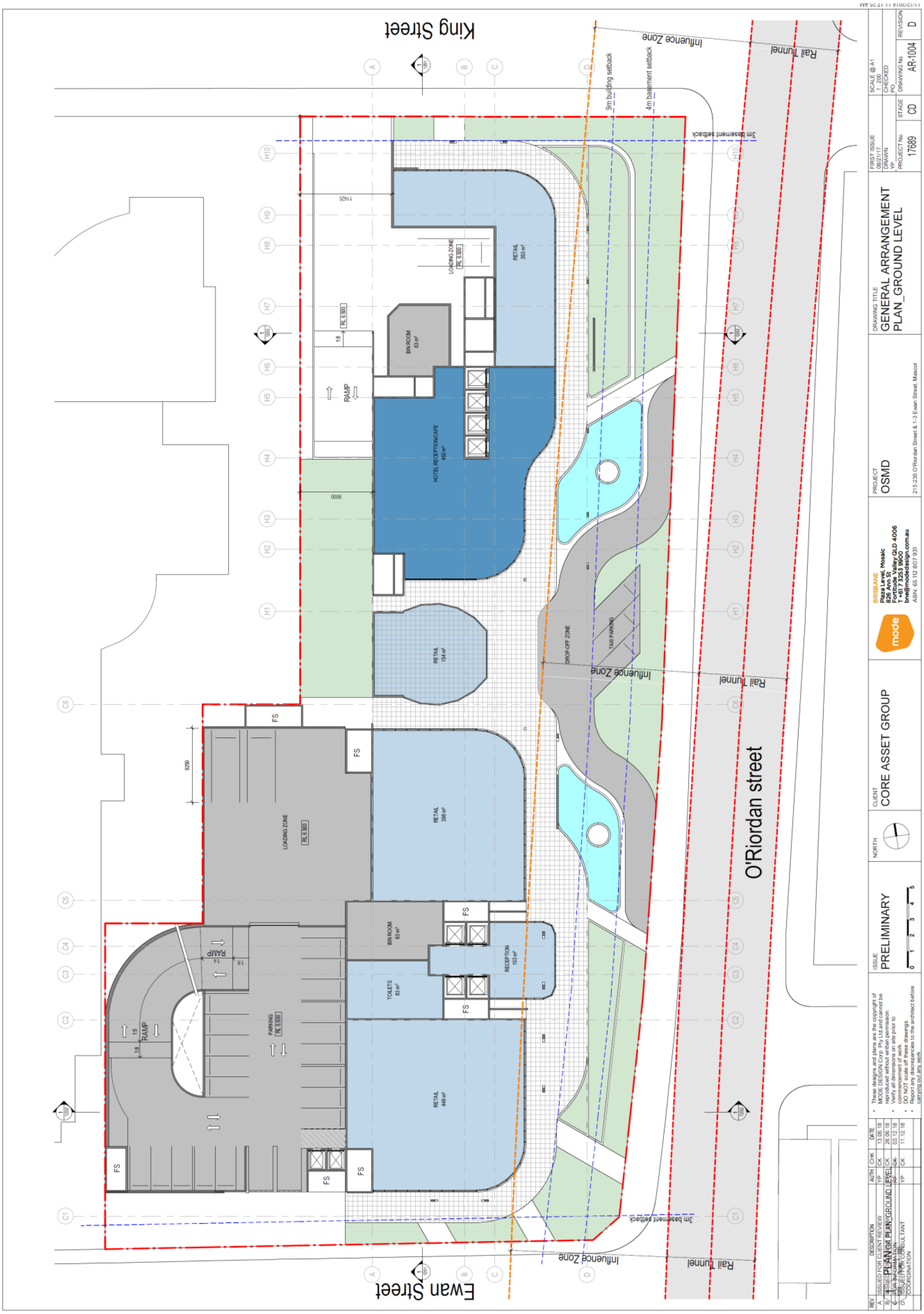
- the proposed single entry and exit driveways will be designed to accommodate the *swept turning path* requirements of large buses and will be generously proportioned to ensure that these vehicles will be able to enter and exit the site with ease

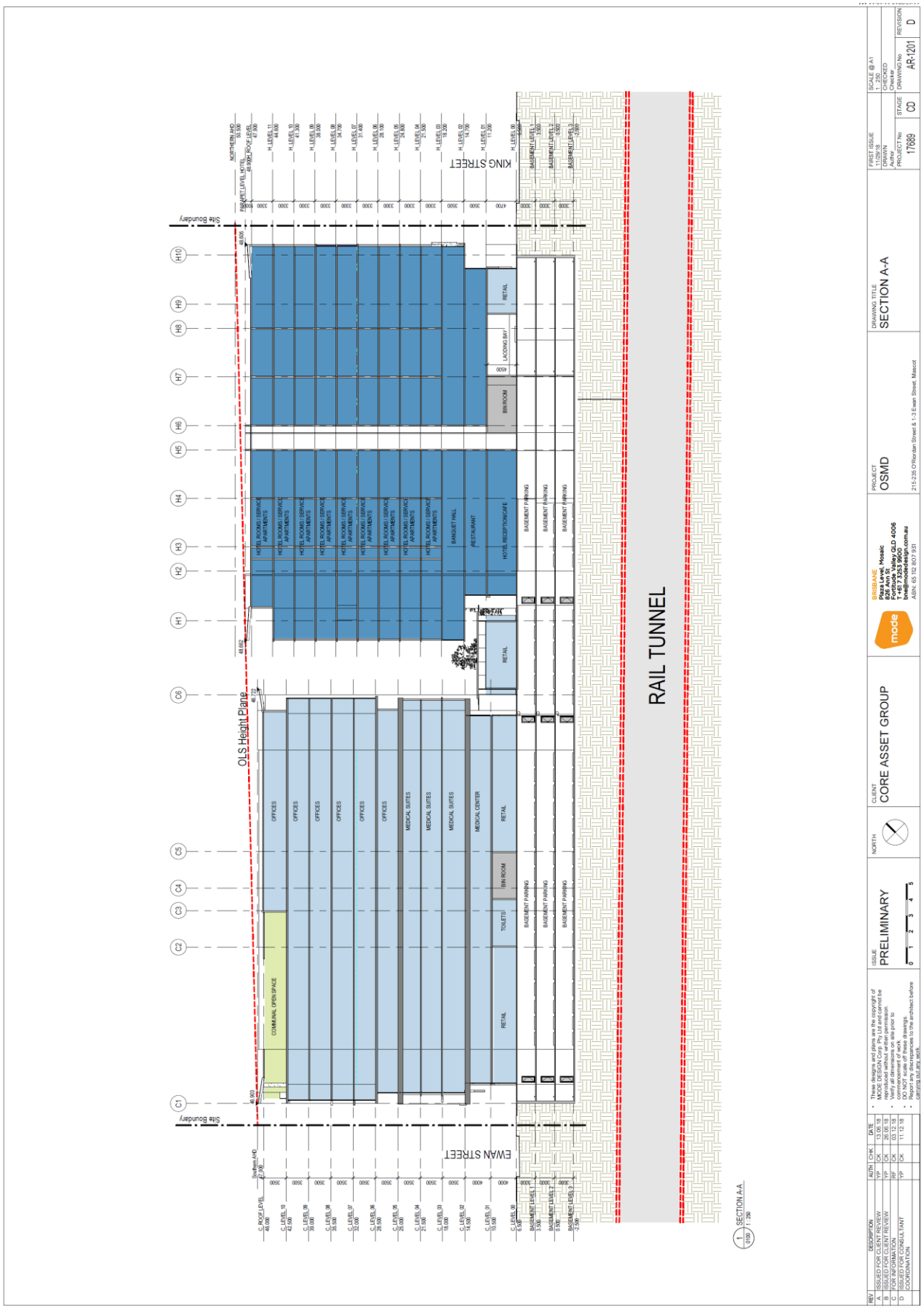
- there will be no access between the porte-cochere and the proposed off-street car parking facilities.

In summary, the proposed access arrangement with one single entry and one single exit driveway off O'Riordan Street to serve the porte-cochere will service *less* traffic (i.e. taxis and buses only) than the existing site developments, improve pedestrian amenity in the area and is therefore considered to be satisfactory on traffic engineering grounds.

Loading / servicing for the proposed development is expected to be undertaken by a variety of commercial vehicles up to and including 12.5m long Heavy Rigid Vehicles (HRV trucks). Two separate loading areas are proposed on site to service each respective building. Vehicular access to the loading facilities is to be provide via the abovementioned vehicular access driveways in King Street and Ewan Street.

Plans of the proposed development have been prepared *mode* and are reproduced in the following pages.


King Street
Ewan Street
O'Riordan street
Influence Zone
Rail Tunnel
9m building setback
4m basement setback
3m basement setback
LOADING ZONE
RAMP
BIN ROOM
HOTEL RECEPTION/CAFE
RETAIL
DROP-OFF ZONE
TAXI PARKING
PARKING
RECEPTION
TOILETS
FS
GENERAL ARRANGEMENT
PLAN_GROUND LEVEL
OSMD
CORE ASSET GROUP
PRELIMINARY
17689
AR-1004
CD
D


RAIL TUNNEL
OLS Height Plane
KING STREET
EWAN STREET
Site Boundary
Site Boundary
SECTION A-A
1 : 250
DRAWING TITLE
SECTION A-A
PROJECT
OSMD
215-235 O'Riordan Street & 1-3 Ewan Street, Mascot
CLIENT
CORE ASSET GROUP
ISSUE
PRELIMINARY
NORTH
BRISBANE
Plaza Level, Mosaic
Building B2
Fortitude Valley QLD 4006
T +61 7 3253 9900
brisbane@modedesign.com.au
ABN: 65 112 807 931
FIRST ISSUE
ISSUED
DRAWN
Author
CHECKED
Checker
PROJECT No
17689
STAGE
CD
DRAWING No
AR-1201
REVISION
D
SCALE @ A1
1 : 250
@ A3
1 : 500
REV
DESCRIPTION
AUTH
CHK
DATE
A
ISSUED FOR CLIENT REVIEW
YP
CK
15.06.18
B
ISSUED FOR CLIENT REVIEW
YP
CK
20.09.18
C
FOR INFORMATION
RF
CK
03.12.18
D
ISSUED FOR CONSULTANT COORDINATION
YP
CK
11.12.18

3. TRAFFIC ASSESSMENT

Road Hierarchy

The road hierarchy allocated to the road network in the vicinity of the site by the Roads and Maritime Services is illustrated on Figure 3.

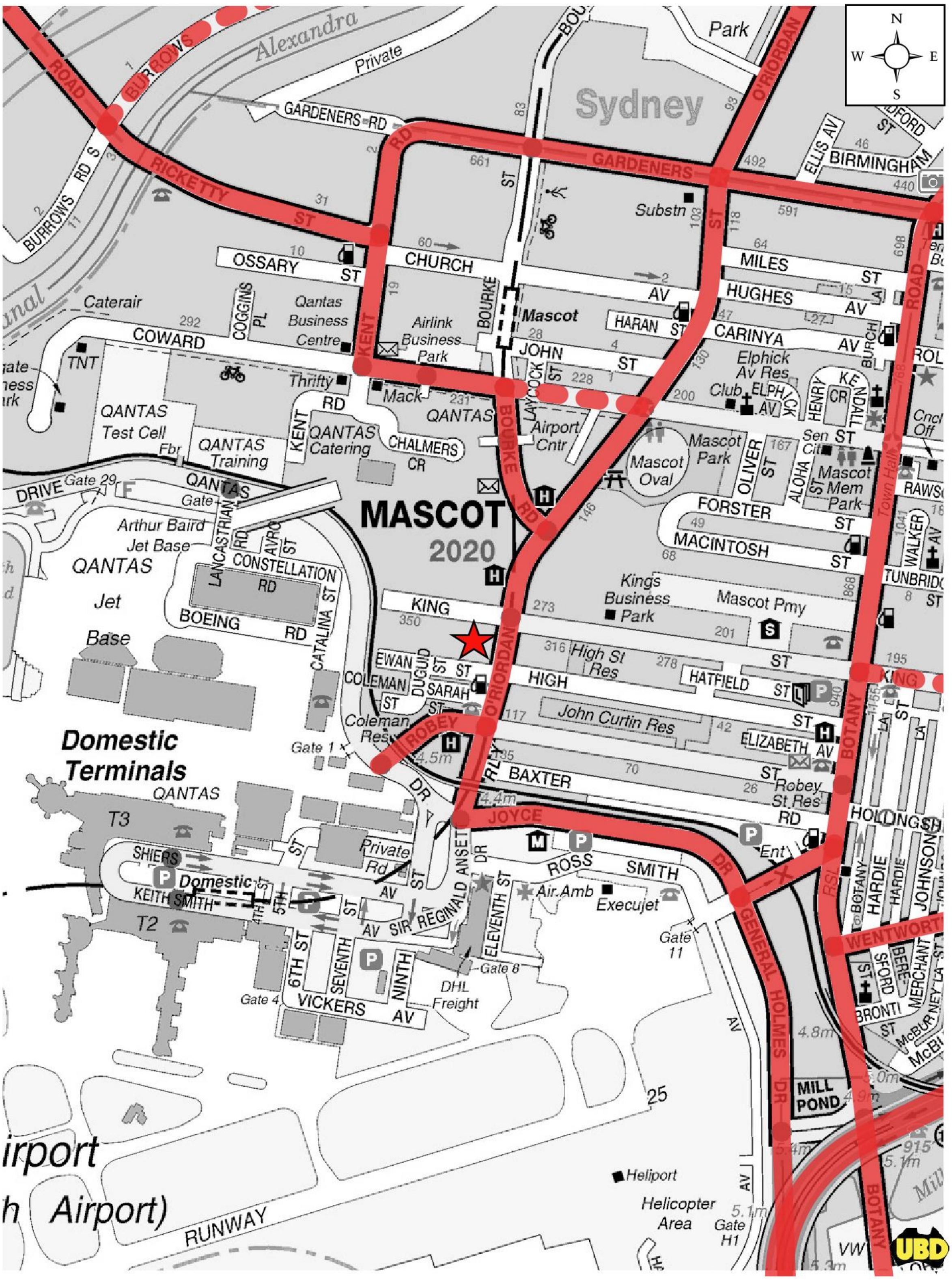
Gardeners Road is classified by the RMS as a *State Road* and provides the key east-west road link in the area, linking Mascot and Kingsford. It typically carries two traffic lanes in each direction in the site's vicinity, with additional lanes provided at key intersections.

Botany Road is classified by the RMS as a *State Road* and provides the key north-south road link in the area, linking Redfern and Botany. It typically carries three traffic lanes in each direction in the vicinity of the site, including northbound and southbound Bus Lanes which operate during the commuter peak periods.

O'Riordan Street is classified by the RMS as a *State Road* and provides another north-south road link in the area, linking Mascot and Green Square. It typically carries two traffic lanes in each direction in the site's vicinity, with additional lanes provided at key intersections.

King Street (east of Botany Street) is classified by the RMS as *Regional Road* which provides a key east-west road link in the local area. It typically carries one to two traffic lanes in each direction in the site's vicinity. Kerbside parking is generally permitted, subject to signposted restrictions.

King Street (west of Botany Street) and Ewan Street are local, unclassified roads that are primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted in King Street and also in the western end of Ewan Street, subject to sign posted restrictions.



Regional Road

State Road

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ROAD HIERARCHY

FIGURE 3

Airport North Precinct Road Upgrades

Roads and Maritime Services is currently undertaking road upgrades in Robey Street and O'Riordan Street to accommodate upgrades to the Sydney Airport internal road network and help improve traffic flow around the airport.

The key features of the road upgrades include:

- widening O'Riordan Street to provide six lanes (three lanes in each direction plus turn bays) between Bourke Road and Robey Street

- converting the southern sections of Robey Street and O'Riordan Street into one-way pair

- reconfiguring the existing traffic signals on O'Riordan Street between Qantas Drive and Bourke Road

- upgrading the footpaths on both sides of O'Riordan Street.

The proposed layout of the future road network post road upgrades completion is reproduced in the following pages.

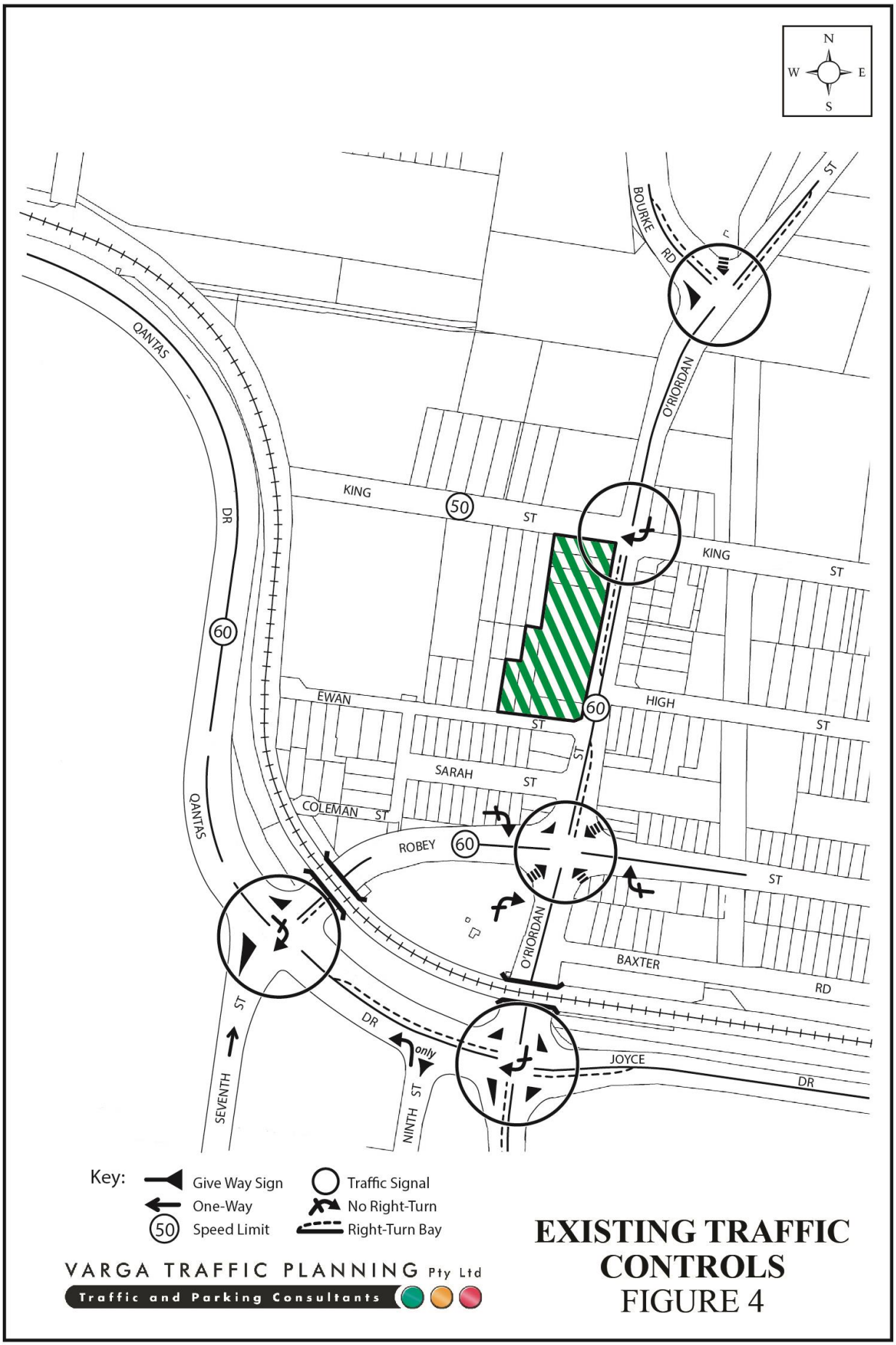
Existing Traffic Controls

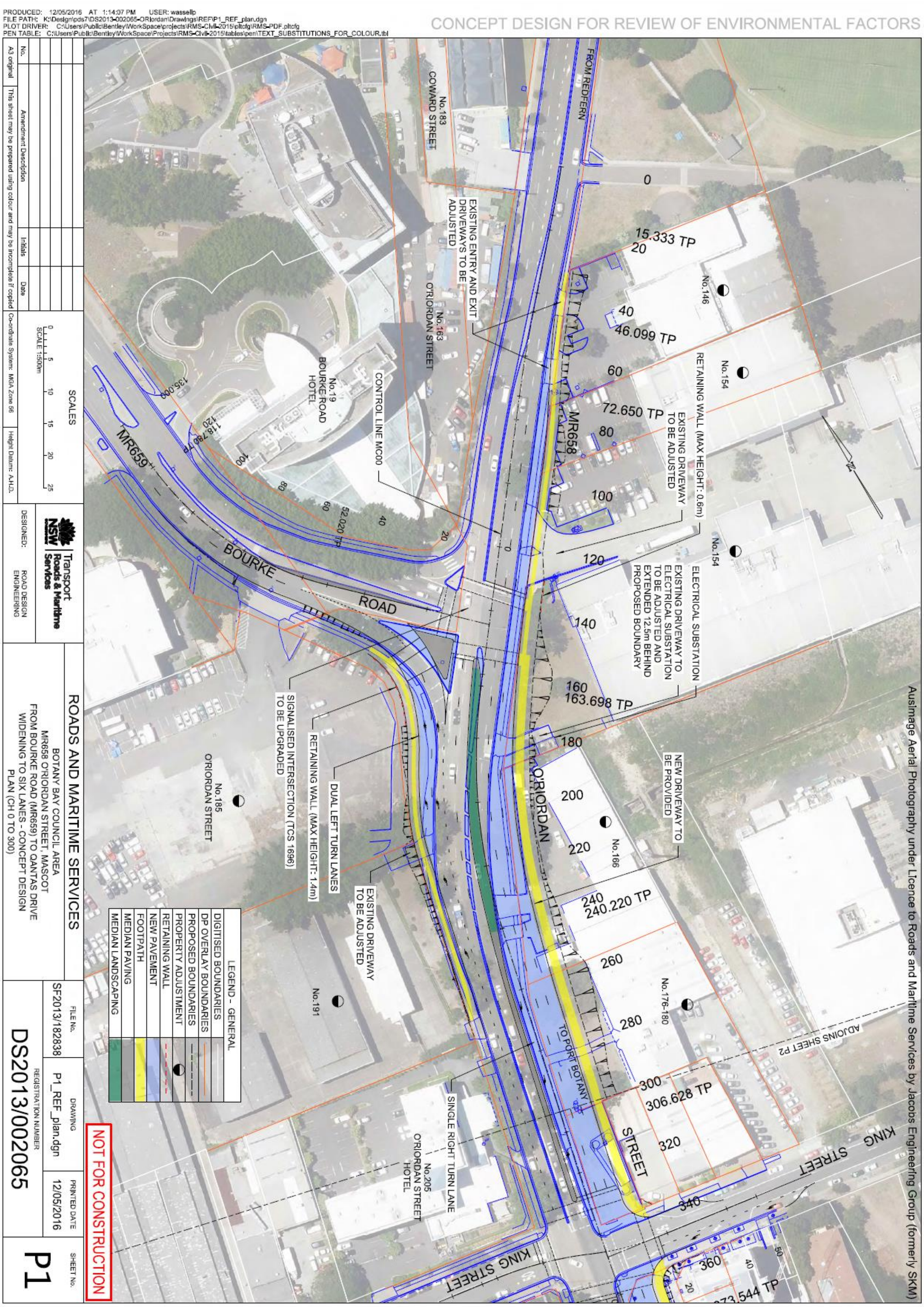
The existing traffic controls which apply to the road network in the vicinity of the site are illustrated on Figure 4. Key features of those traffic controls are:

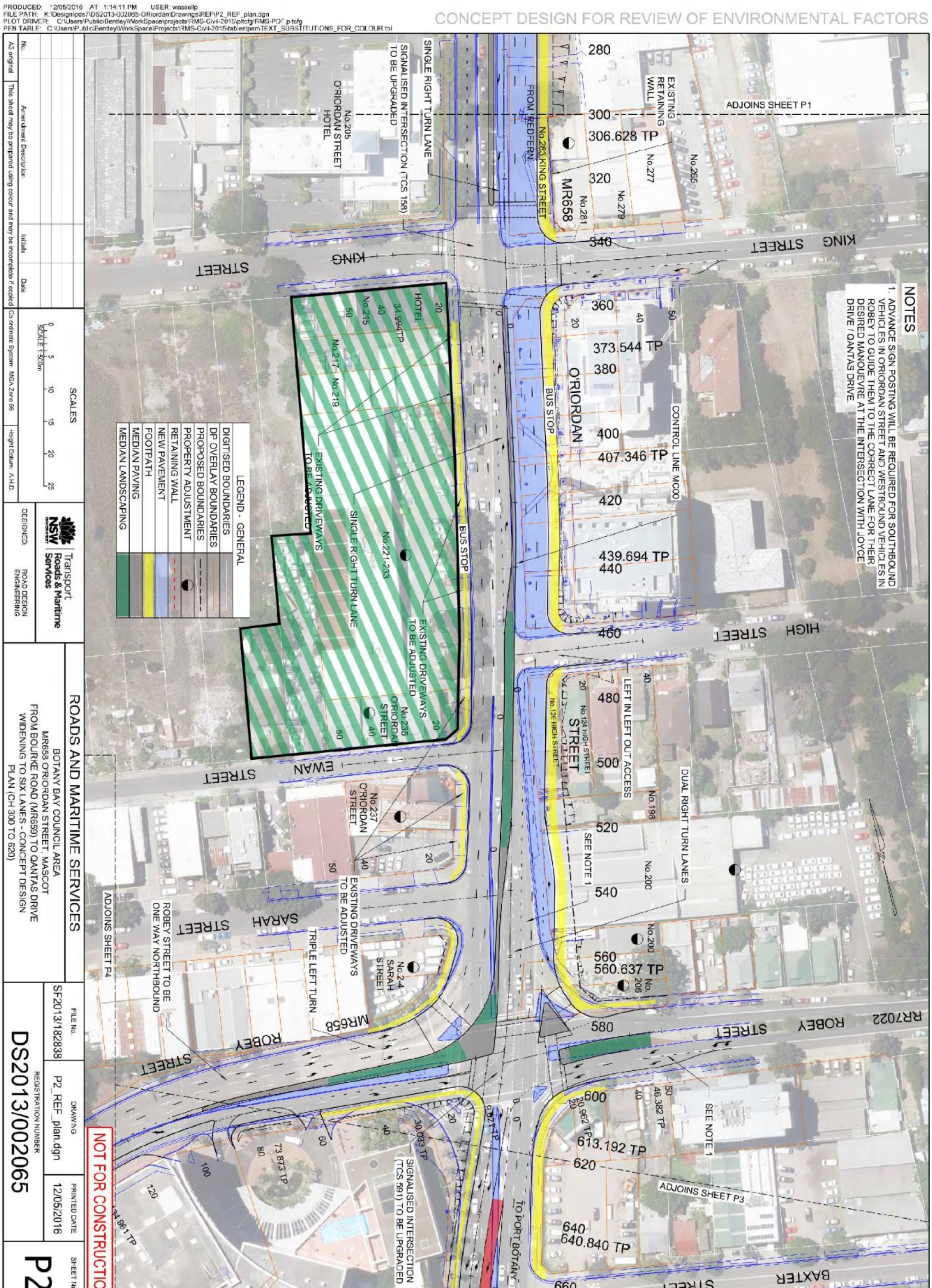
- a 60 km/h SPEED LIMIT which applies to O'Riordan Street

- a 50 km/h SPEED LIMIT which applies to King Street, Ewan Street and all other local roads in the area

- a NO RIGHT-TURN southbound restriction in O'Riordan Street onto King Street


N
W
E
S
BOURKE RD
ST
QANTAS DR
O'RIORDAN
KING ST
50
KING ST
60
EWAN ST
HIGH ST
SARAH ST
ST
COLEMAN ST
ROBEY
60
QANTAS
ST
O'RIORDAN
BAXTER RD
SEVENTH ST
DR
only
NINTH ST
JOYCE DR
Key:
Give Way Sign
One-Way
50 Speed Limit
Traffic Signal
No Right-Turn
Right-Turn Bay
VARGA TRAFFIC PLANNING Pty Ltd
Traffic and Parking Consultants
EXISTING TRAFFIC CONTROLS
FIGURE 4


CONCEPT DESIGN FOR REVIEW OF ENVIRONMENTAL FACTORS
ROADS AND MARITIME SERVICES
BOTANY BAY COUNCIL AREA
MR658 O'RIORDAN STREET, MASCOT
FROM BOURKE ROAD (MR659) TO QANTAS DRIVE
WIDENING TO SIX LANES - CONCEPT DESIGN
PLAN (CH 0 TO 300)
DS2013/002065
P1
SF2013/182838
P1_REF_plan.dgn
12/05/2016
NOT FOR CONSTRUCTION
Transport Roads & Maritime Services
ROAD DESIGN ENGINEERING
SCALES
SCALE 1:500m
LEGEND - GENERAL
DIGITISED BOUNDARIES
DP OVERLAY BOUNDARIES
PROPOSED BOUNDARIES
PROPERTY ADJUSTMENT
RETAINING WALL
NEW PAVEMENT
FOOTPATH
MEDIAN PAVING
MEDIAN LANDSCAPING
FROM REDFERN
BOURKE ROAD
MR659
MR658
O'RIORDAN STREET
TO PORT BOTANY
KING STREET
CONTROL LINE MC00
EXISTING ENTRY AND EXIT DRIVEWAYS TO BE ADJUSTED
RETAINING WALL (MAX HEIGHT: 0.6m)
EXISTING DRIVEWAY TO BE ADJUSTED
ELECTRICAL SUBSTATION
EXISTING DRIVEWAY TO ELECTRICAL SUBSTATION TO BE ADJUSTED AND EXTENDED 12.5m BEHIND PROPOSED BOUNDARY
NEW DRIVEWAY TO BE PROVIDED
SIGNALISED INTERSECTION (TCS 1696) TO BE UPGRADED
RETAINING WALL (MAX HEIGHT: 1.4m)
DUAL LEFT TURN LANES
EXISTING DRIVEWAY TO BE ADJUSTED
SINGLE RIGHT TURN LANE
ADJOINS SHEET P2
Ausimage Aerial Photography under Licence to Roads and Maritime Services by Jacobs Engineering Group (formerly SKM)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NOTES
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ADJOINS SHEET P1
ADJOINS SHEET P3
ADJOINS SHEET P4
KING STREET
HIGH STREET
EWAN STREET
SARAH STREET
ROBEY STREET
BAXTER STREET
O'RIORDAN STREET
MR658
RR7022
BUS STOP
SINGLE RIGHT TURN LANE
SIGNALISED INTERSECTION (TCS 158) TO BE UPGRADED
SIGNALISED INTERSECTION (TCS 591) TO BE UPGRADED
EXISTING DRIVEWAYS TO BE ADJUSTED
LEFT IN LEFT OUT ACCESS
DUAL RIGHT TURN LANES
TRIPLE LEFT TURN
ROBEY STREET TO BE ONE WAY NORTHBOUND
EXISTING RETAINING WALL
FROM REDFERN
TO PORT BOTANY
LEGEND - GENERAL
DIGITISED BOUNDARIES
DP OVERLAY BOUNDARIES
PROPOSED BOUNDARIES
PROPERTY ADJUSTMENT
RETAINING WALL
NEW PAVEMENT
FOOTPATH
MEDIAN PAVING
MEDIAN LANDSCAPING
ROADS AND MARITIME SERVICES
BOTANY BAY COUNCIL AREA
MR658 O'RIORDAN STREET, MASCOT
FROM BOURKE ROAD (MR659) TO QANTAS DRIVE
WIDENING TO SIX LANES - CONCEPT DESIGN
PLAN (CH 300 TO 620)
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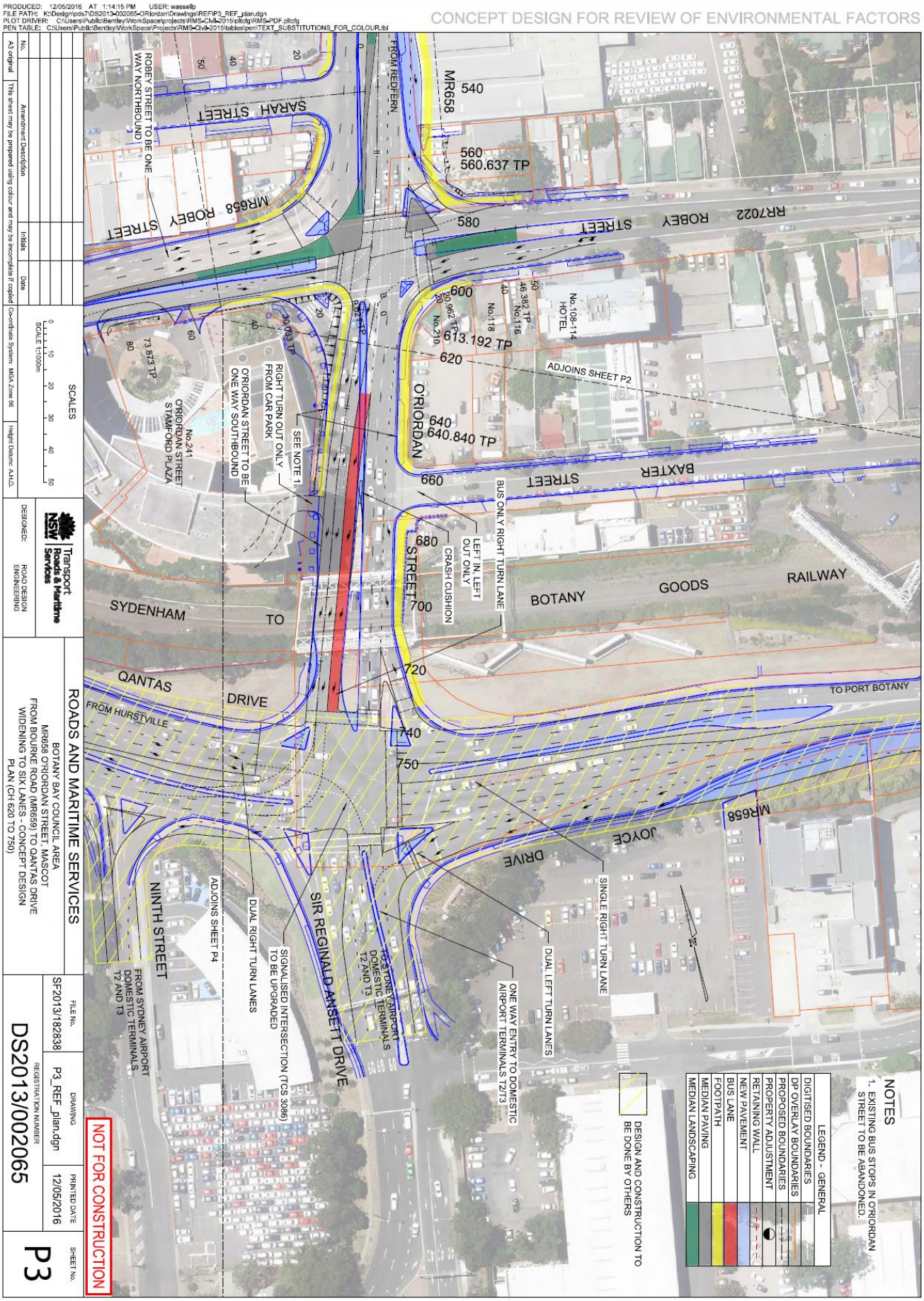
12/05/2016
DS2013/002065
P2
NOT FOR CONSTRUCTION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MR658
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560
560.637 TP
580
600
620
640
640.840 TP
660
680
700
720
740
750
SARAH STREET
ROBEY STREET TO BE ONE WAY NORTHBOUND
MR658 ROBEY STREET
FROM REDFERN
RR7022 ROBEY STREET
No.108-114 HOTEL
No.118
No.116
No.210
46.382 TP
30.962 TP
613.192 TP
ADJOINS SHEET P2
O'RIORDAN
BAXTER STREET
BUS ONLY RIGHT TURN LANE
LEFT IN, LEFT OUT ONLY
CRASH CUSHION
STREET
BOTANY
GOODS
RAILWAY
SYDENHAM
TO
QANTAS
DRIVE
FROM HURSTVILLE
TO PORT BOTANY
MR658
JOYCE
DRIVE
SINGLE RIGHT TURN LANE
DUAL LEFT TURN LANES
ONE WAY ENTRY TO DOMESTIC AIRPORT TERMINALS T2/T3
TO SYDNEY AIRPORT DOMESTIC TERMINALS T2 AND T3
SIR REGINALD ANSETT DRIVE
SIGNALISED INTERSECTION (TCS 3086) TO BE UPGRADED
DUAL RIGHT TURN LANES
ADJOINS SHEET P4
NINTH STREET
FROM SYDNEY AIRPORT DOMESTIC TERMINALS T2 AND T3
RIGHT TURN OUT ONLY FROM CAR PARK
O'RIORDAN STREET TO BE ONE WAY SOUTHBOUND
SEE NOTE 1
O'RIORDAN STREET STAMFORD PLAZA
No.241
73.873 TP
30.703 TP
NOTES
1- EXISTING BUS STOPS IN O'RIORDAN STREET TO BE ABANDONED.
LEGEND - GENERAL
DIGITISED BOUNDARIES
DP OVERLAY BOUNDARIES
PROPOSED BOUNDARIES
PROPERTY ADJUSTMENT
RETAINING WALL
NEW PAVEMENT
BUS LANE
FOOTPATH
MEDIAN PAVING
MEDIAN LANDSCAPING
DESIGN AND CONSTRUCTION TO BE DONE BY OTHERS
SCALES
SCALE 1:1000m
Coordinate System: MGA Zone 56
Height Datum: A.H.D.
DESIGNED:
Transport Roads & Maritime Services
ROAD DESIGN ENGINEERING
ROADS AND MARITIME SERVICES
BOTANY BAY COUNCIL AREA
MR658 O'RIORDAN STREET, MASCOT
FROM BOURKE ROAD (MR659) TO QANTAS DRIVE
WIDENING TO SIX LANES - CONCEPT DESIGN
PLAN (CH 620 TO 750)
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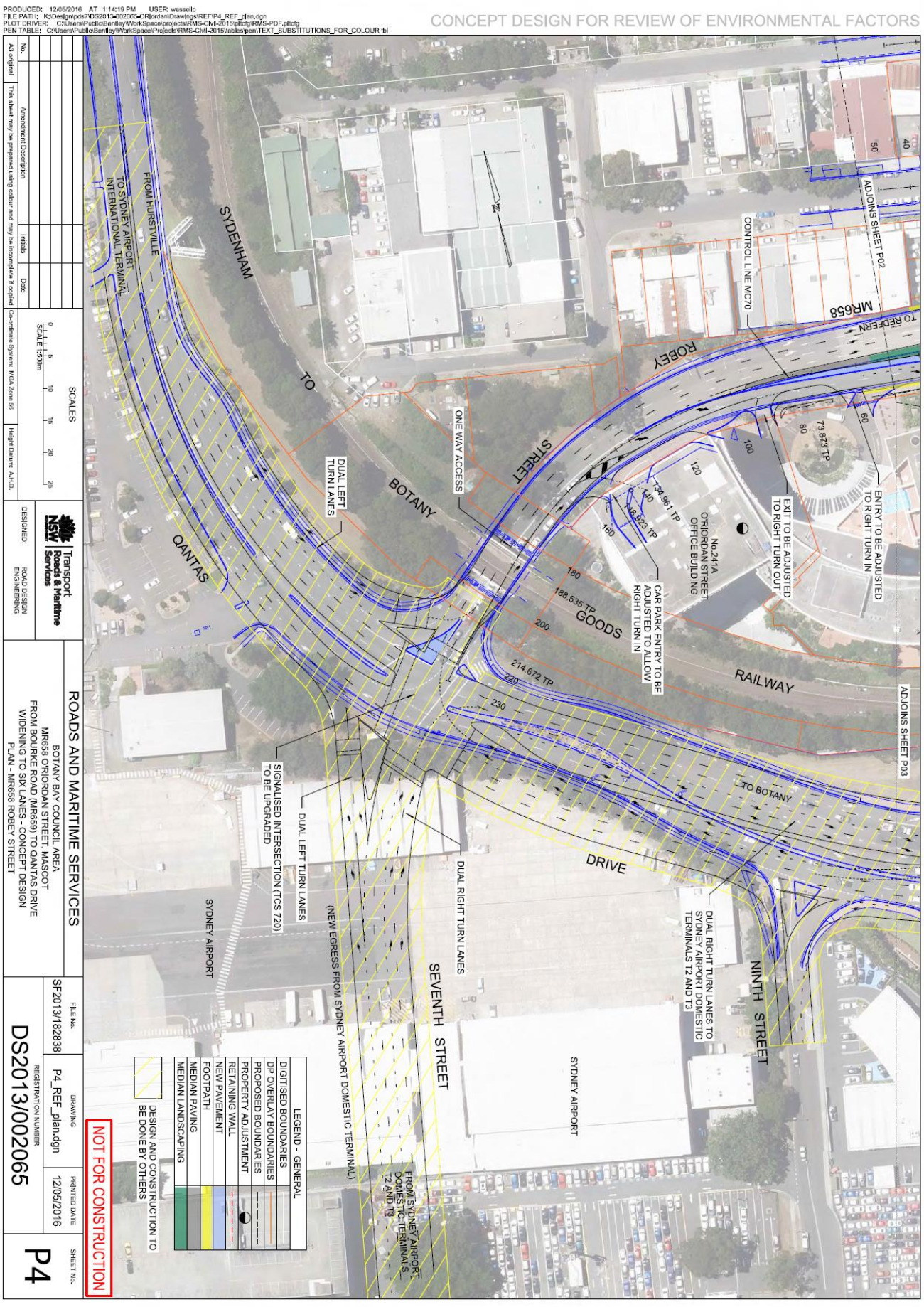
Initials
Date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ROAD DESIGN ENGINEERING
Transport Roads & Maritime Services
ROADS AND MARITIME SERVICES
BOTANY BAY COUNCIL AREA
MR658 O'RIORDAN STREET MASCOT
FROM BOURKE ROAD (MR659) TO QANTAS DRIVE
WIDENING TO SIX LANES - CONCEPT DESIGN
PLAN - MR658 ROBEY STREET
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12/05/2016
REGISTRATION NUMBER
DS2013/002065
SHEET No.
P4
NOT FOR CONSTRUCTION
SYDENHAM TO BOTANY STREET
ROBEY STREET
QANTAS DRIVE
SEVENTH STREET
NINTH STREET
GOODS RAILWAY
SYDNEY AIRPORT
FROM HURSTVILLE
TO SYDNEY AIRPORT INTERNATIONAL TERMINAL
TO BOTANY
TO REDFERN
ADJOINS SHEET P02
ADJOINS SHEET P03
CONTROL LINE MC70
MR658
DUAL LEFT TURN LANES
ONE WAY ACCESS
SIGNALISED INTERSECTION (TCS 720) TO BE UPGRADED
DUAL LEFT TURN LANES
DUAL RIGHT TURN LANES
(NEW EGRESS FROM SYDNEY AIRPORT DOMESTIC TERMINAL)
DUAL RIGHT TURN LANES TO SYDNEY AIRPORT DOMESTIC TERMINALS T2 AND T3
FROM SYDNEY AIRPORT DOMESTIC TERMINALS T2 AND T3
ENTRY TO BE ADJUSTED TO RIGHT TURN IN
EXIT TO BE ADJUSTED TO RIGHT TURN OUT
CAR PARK ENTRY TO BE ADJUSTED TO ALLOW RIGHT TURN IN
No.241A O'RIORDAN STREET OFFICE BUILDING
73.873 TP
134.961 TP
148.923 TP
188.535 TP
214.672 TP
LEGEND - GENERAL
DIGITISED BOUNDARIES
DP OVERLAY BOUNDARIES
PROPOSED BOUNDARIES
PROPERTY ADJUSTMENT
RETAINING WALL
NEW PAVEMENT
FOOTPATH
MEDIAN PAVING
MEDIAN LANDSCAPING
DESIGN AND CONSTRUCTION TO BE DONE BY OTHERS

- TRAFFIC SIGNALS in O'Riordan Street where it intersects with Bourke Road, King Street, Robey Street and Joyce Drive.

Existing Public Transport Services

The existing public transport services available in the vicinity of the site are illustrated on Figure 5.

The site is conveniently located within approximately 800 metres walking distance to/from the Mascot Station. This suburban railway station services the T8 Airport & South Line. Trains typically arrive/depart the station at less than 10 minute intervals throughout the day and commuters can be expected to simply turn up and go without ever needing to rely on a timetable.

In addition to train services, bus route 305 (Stamford Hotel to Central Railway Square) operates on O'Riordan Street with bus stops accessible in less than 200 metres walking distance. Bus route 400 (Burwood to Bondi Junction via Eastgardens – limited stops) is available slightly further away from the site with bus stops on Coward Street within an approximate 700 metres walking distance.

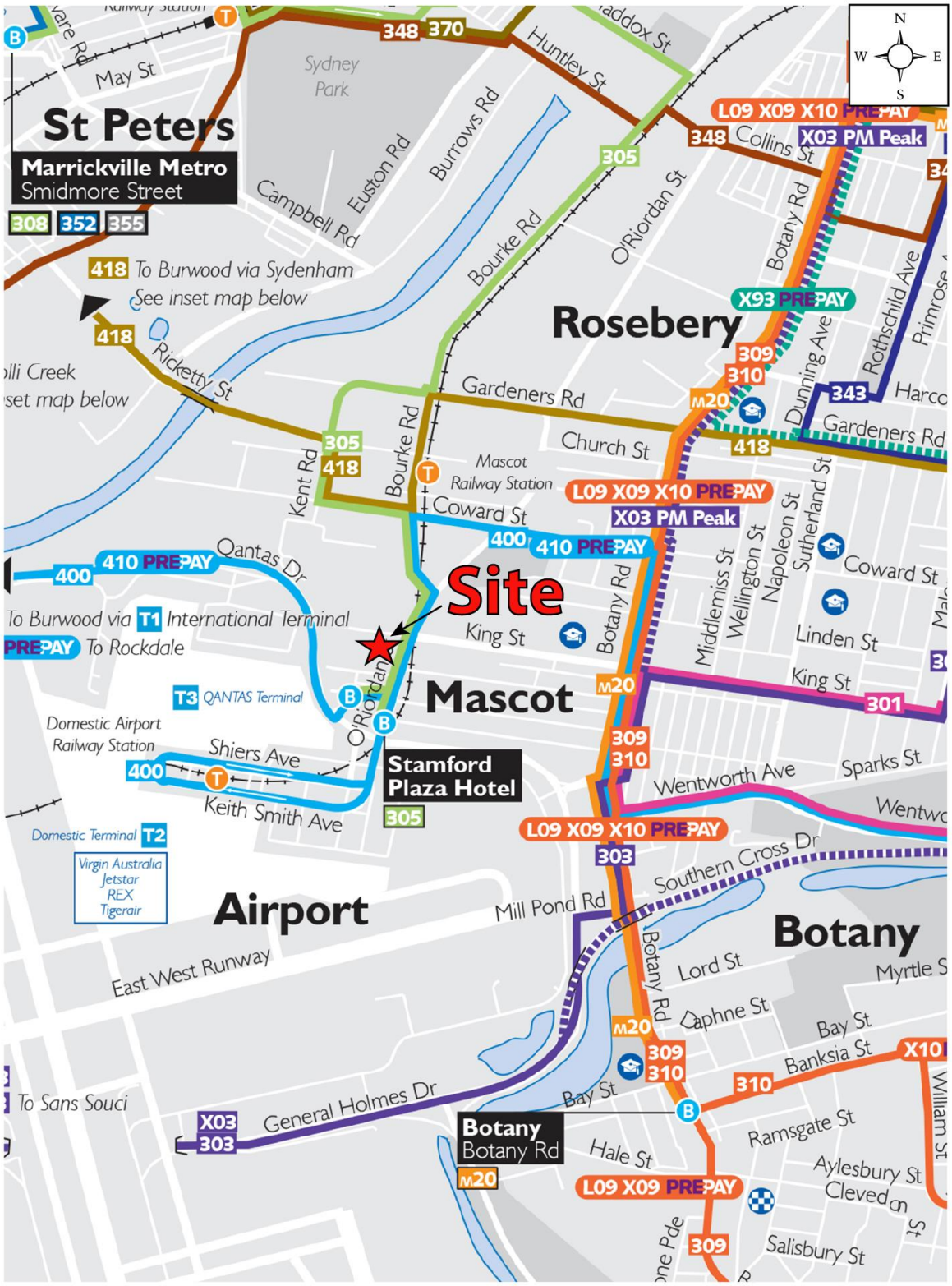
On the above basis, it is reasonable to conclude that the site has excellent connectivity to frequent, reliable public transport services.

Existing Traffic Conditions

An indication of the existing traffic conditions on the road network in the vicinity of the site is provided by peak period traffic surveys undertaken as part of this traffic study.

The traffic surveys were undertaken along O'Riordan Street where it intersects with Bourke Road, King Street, Ewan Street and Robey Street on Tuesday 23 October 2018 between 6:30am-9:30am and 3:30pm-6:30pm.

The results of the traffic surveys are summarised in the vehicle turning movement diagrams in the following pages and reproduced in full in Appendix A.



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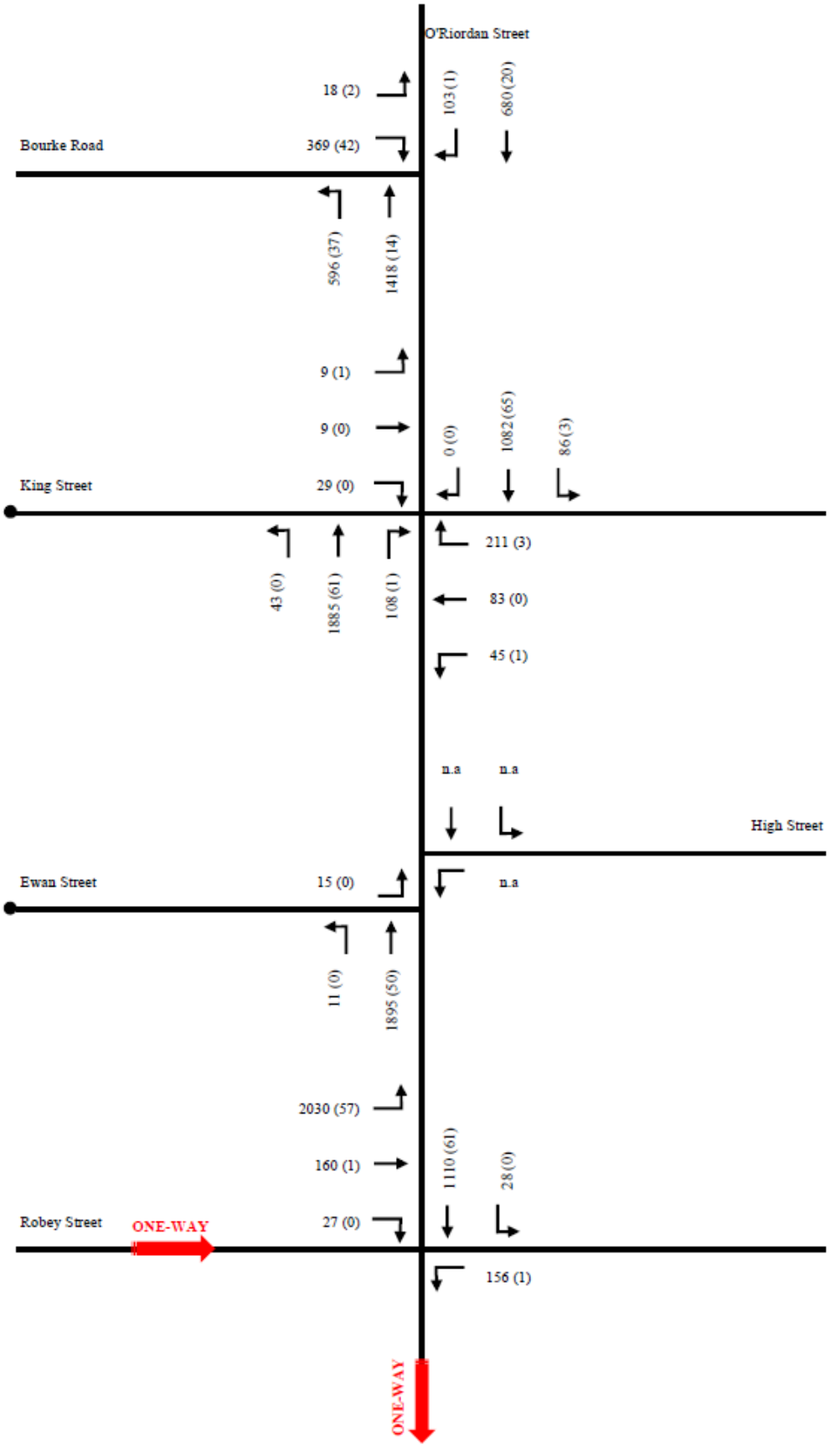
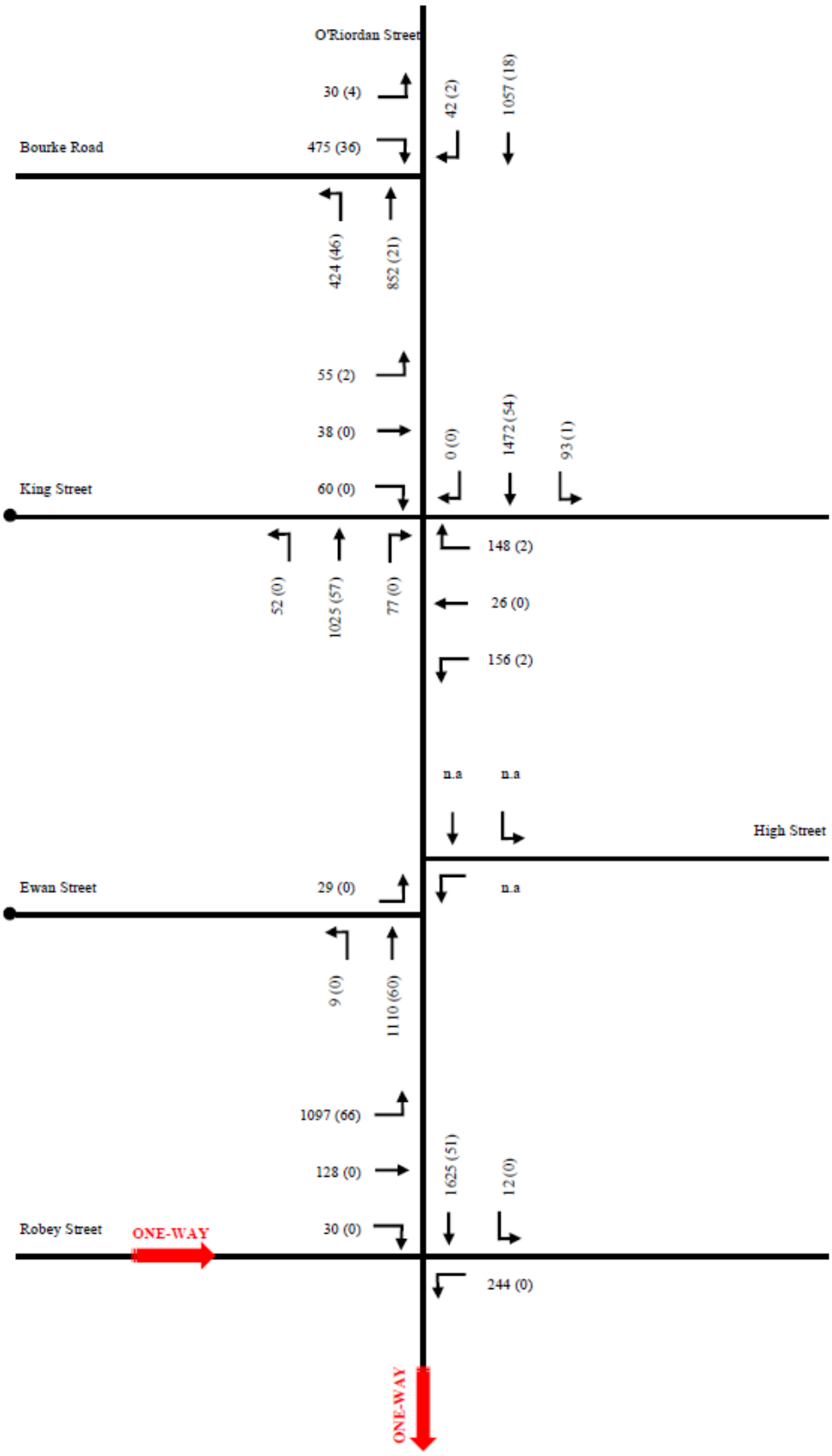
EXISTING PUBLIC TRANSPORT
FIGURE 5

Existing AM Peak Hour Traffic Volumes 7:15am-8:15am



Existing PM Peak Hour Traffic Volumes 3:30pm-4:30pm



Projected Traffic Generation

The traffic implications of development proposals primarily concern the effects of the *additional* traffic flows generated as a result of the development proposal and its impact on the operational performance of the adjacent road network during the weekday morning and afternoon commuter 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 recently published RMS *Technical Direction* (TDT 2013/04a) document.

The RMS *Technical Direction* document specifies that it replaces those sections of the RMS *Guidelines* indicated, and must be followed when RMS is undertaken trip generation and/or parking demand assessments.

The RMS *Guidelines* and *Technical Direction* are based on extensive surveys of a wide range of land uses and nominate the following traffic generation rates which are applicable to the residential and commercial component of the development proposal:

Restaurant / Café

AM: *does not generally coincide with the road network AM peak hour

PM: 5.0 peak hour vehicle trips per 100m^2 GFA

Commercial (Office Blocks)

AM: 1.6 peak hour vehicle trips per 100m^2 GFA

PM: 1.2 peak hour vehicle trips per 100m^2 GFA

Medical Centre

AM: 10.4 peak hour vehicle trips per 100m^2 GFA

PM: 8.8 peak hour vehicle trips per 100m^2 GFA

Neither the RMS *Guidelines* nor *Technical Direction* nominate a traffic generation rate for small local shops, hotels serviced apartments or specialist medical suites and the following traffic generation assumptions have therefore been made for the purposes of this assessment:

- **Retail**: the abovementioned traffic generation rate for *commercial premises* has been adopted for the purposes of this assessment in respect of the 3 small shops component

- **Hotel / Serviced Apartments:** a traffic generation rate of "0.4 peak hour vehicle trip per accommodation room" nominated in the *RMS Guidelines* for *motels* has been adopted for the purposes of this assessment

- **Restaurant and Café:** this component of the development proposal will be operated by the hotel for the use of hotel and serviced apartment guests only, and will not generate any additional traffic activity

- **Banquet Hall:** this component of the development will be operated by the hotel, and may be used by internal or external guests. Use of the hall is not expected to coincide with AM and PM peak hours, with peak usage expected to occur around lunchtime or later in the evenings, predominantly on weekends

- **Specialist Medical Suites:** these rooms or suites will be occupied by medical specialists. Patients will require a referral from their local GP and all visits will be *strictly by appointment only*. Each specialist room typically comprises approximately 40m^2 which will likely comprise a consultation room, storage/file room and a small reception area with provision for a support staff member. Medical specialists will typically have a room/suite in 2 or 3 different suburban locations, and may also undertake surgical procedures at a nearby hospital on 1 or 2 days per week. As such, each specialist medical room or suite is expected to be occupied on only 1 or 2 days per week

- **Commercial Car Parking:** this component of the development is primarily intended to cater for long-term parking for those travellers driving to the airport who are departing Sydney for days or weeks, and is therefore reasonable to expect any traffic generation potential associated with this use will be widely distributed and likely to be negligible during commuter AM and PM peak hours.

Application of the above traffic generation rates and assumptions to the various components of the planning proposal yields a traffic generation potential of approximately 446 vehicle trips per hour (vph) during the AM peak hour and 392 vph during the PM peak hour, as set out below:

Projected Future Traffic Generation Potential

	AM	**PM**
Hotel (136 rooms):	54.4 vph	54.4 vph
Serviced Apartment (57 rooms):	22.8 vph	22.8 vph
Retail (1,263m^2):	20.2 vph	15.2 vph
Medical Centre (1,161m^2):	120.7 vph	102.2 vph
Medical Suites (4,278m^2):	106.2 vph	106.2 vph
Commercial Office (7,267m^2):	122.0 vph	91.5 vph
TOTAL TRAFFIC GENERATION POTENTIAL:	**446.4 vph**	**392.2 vph**

That projected future level of traffic generation potential should however, be offset or *discounted* by the volume of traffic which could reasonably be expected to be generated by the existing airport/car rental related uses of the site, in order to determine the *nett increase* in the traffic generation potential of the site as a consequence of the planning proposal.

However, for the purposes of this assessment, it has been assumed that *all* of the projected future traffic flows of 446 vph in the AM peak hour and 392 vph in PM peak hour, will be new or *additional* to the existing traffic flows currently using the adjacent road network.

Those additional traffic flows have been distributed to the surrounding road network based on the available *Journey to Work* data, existing surveyed traffic distribution as well as the likely travel routes of hotel guests, building occupants and customers. Accordingly, the projected additional traffic flows expected to be generated by the proposed development are illustrated on the traffic assignment diagrams in the following pages.

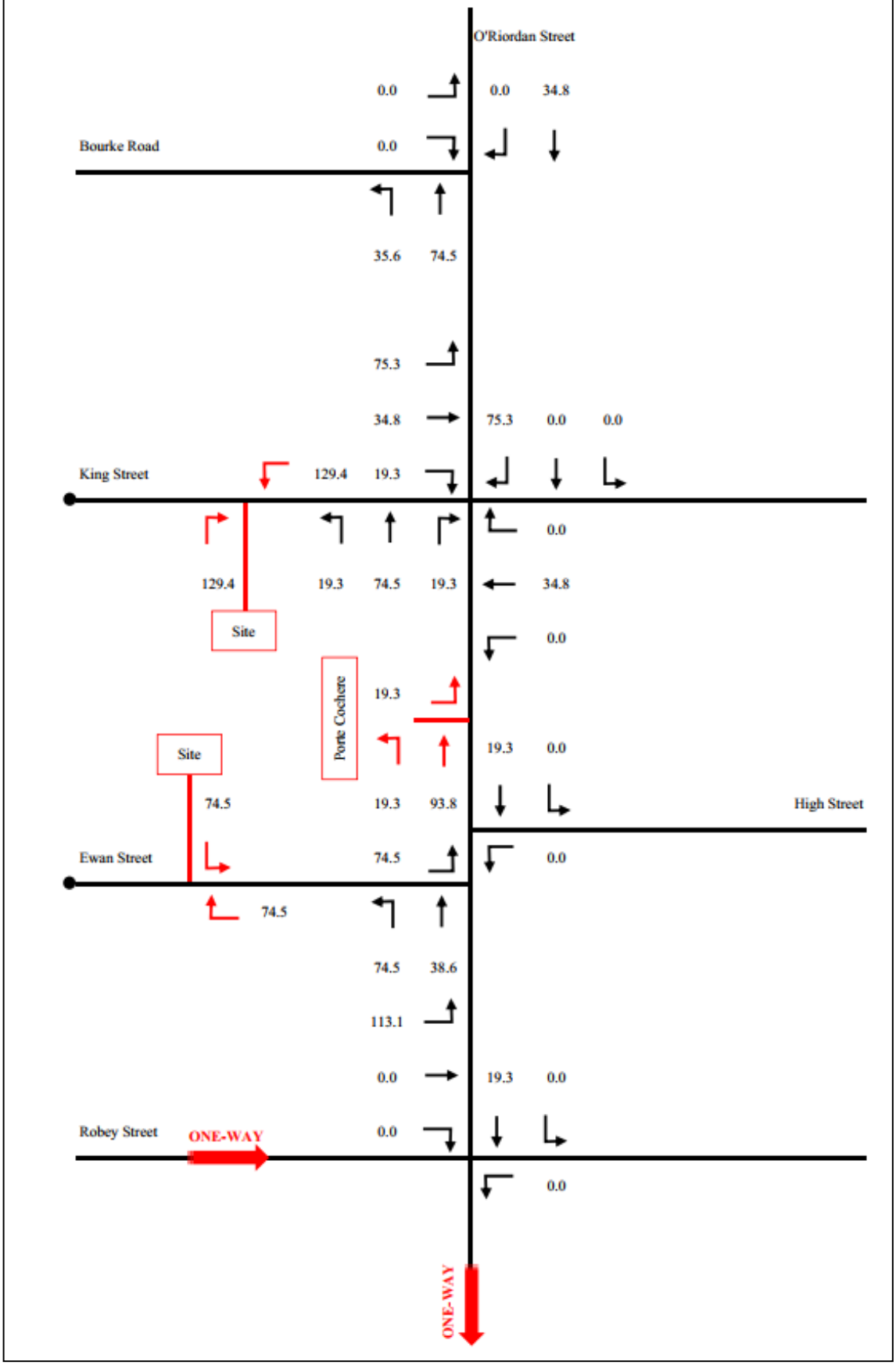
Journey to Work data extracted from Australian Bureau of Statistics 2016 Census Data – Where does the working population in Mascot Area (SA3-Botany) travel from:

	Usual Residence	**% Travel to SA3-Botany**
1.	Kogarah - Rockdale	10.37%
2.	Botany	9.71%
3.	Eastern Suburbs - South	9.02%
4.	Cronulla - Miranda - Caringbah	6.17%
5.	Sydney Inner City	5.65%
6.	Hurstville	5.33%
7.	Sutherland - Menai - Heathcote	5.04%
8.	Canterbury	4.23%
9.	Bankstown	3.89%
10.	Strathfield - Burwood - Ashfield	3.01%
11.	Eastern Suburbs - North	2.69%
12.	Campbelltown (NSW)	2.57%
13.	Liverpool	2.28%
14.	Marrickville - Sydenham - Petersham	1.72%
15.	Wollongong	1.44%
16.	Parramatta	1.35%
17.	Warringah	1.31%
18.	Ryde - Hunters Hill	1.29%
19.	Canada Bay	1.27%
20.	Other	21.97%

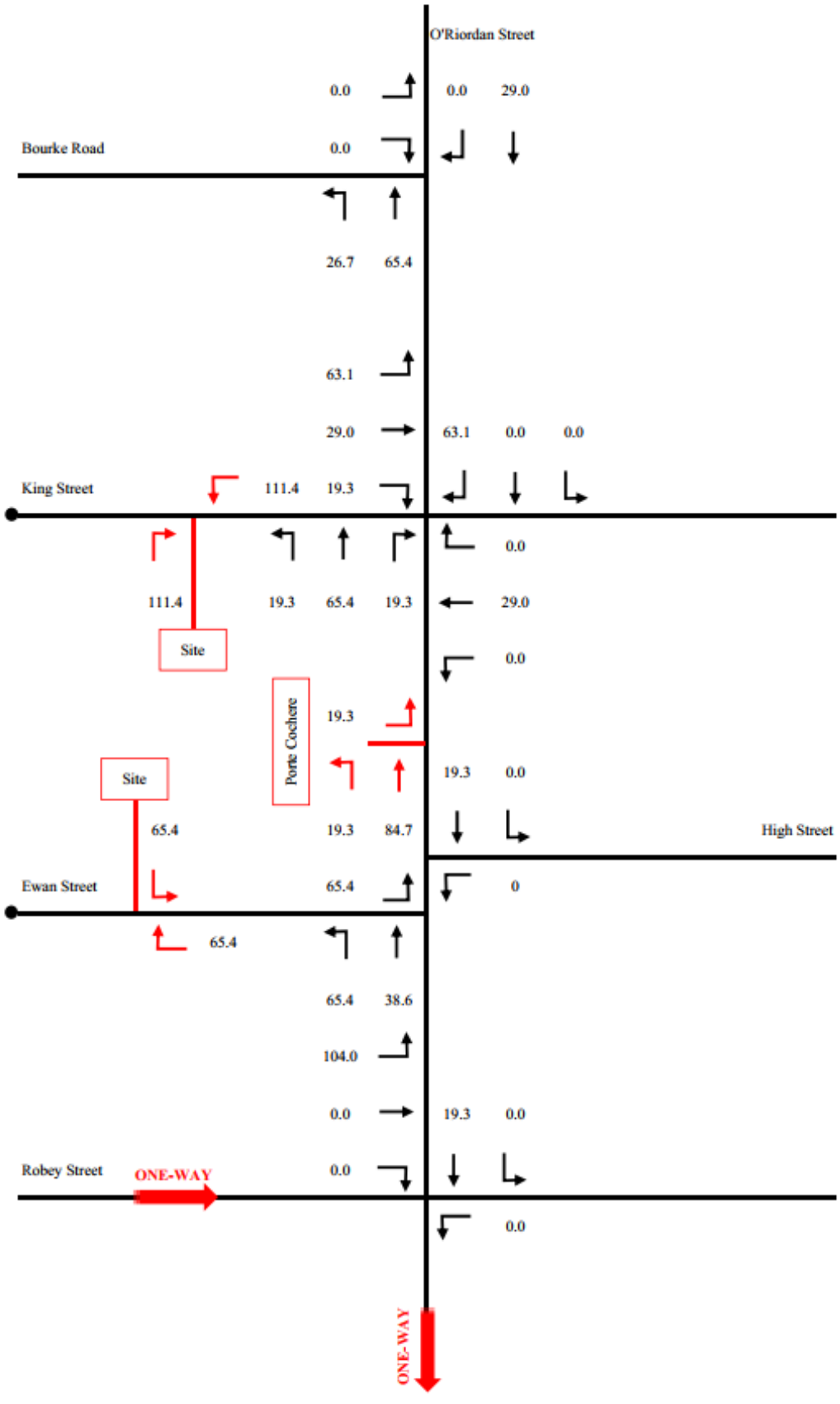
Journey to Work data extracted from Australian Bureau of Statistics 2016 Census Data – Where does the population work in the Mascot Area (SA3-Botany)

	Usual Place of Work	**% Travel out of SA3-Botany**
1.	Place of Work (POW) not applicable	50.78%
2.	Sydney Inner City	15.97%
3.	Botany	12.33%
4.	Eastern Suburbs - South	6.22%
5.	Eastern Suburbs - North	2.79%
6.	POW No Fixed Address (NSW)	1.79%
7.	North Sydney - Mosman	1.24%
8.	Chatswood - Lane Cove	0.90%
9.	Marrickville - Sydenham - Petersham	0.79%
10.	Kogarah - Rockdale	0.69%
11.	Ryde - Hunters Hill	0.65%
12.	Strathfield - Burwood - Ashfield	0.57%
13.	Bankstown	0.47%
14.	Auburn	0.46%
15.	Parramatta	0.46%
16.	Liverpool	0.38%
17.	Leichhardt	0.33%
18.	Cronulla - Miranda - Caringbah	0.30%
19.	Canterbury	0.29%
20.	Other	2.50%

Projected Future AM Peak Hour Traffic Generation Potential



Projected Future PM Peak Hour Future Traffic Generation Potential



Traffic Implications – Road Network Capacity

The traffic implications of those *additional* traffic flows on the operational performance of the nearby road network has been assessed using the SIDRA INTERSECTION 8 program which is widely used by the RMS and many LGA's. Criteria for evaluating the results of SIDRA analysis are reproduced in the following pages.

It is pertinent to note all intersections has been modelled based on their final upgraded layout in accordance with the *Botany Bay Council Area, MR658 O'Riordan Street, Mascot, From Bourke Road (MR659) to Qantas Drive widening to six lanes concept design, Road Design (RMS ref no: SF2013/182838, RMS registration no: DS2013/002065)* drawings.

O'Riordan & Bourke Road Intersection

- the upgraded intersection will operate at *Level of Service "A"* under existing traffic demands during both the AM and PM peak hour with total average vehicle delays in the order of 6.7-7.5 seconds/vehicle

- under the projected future traffic demands expected to be generated by the development proposal, the intersection is expected to continue to operate at *Level of Service "A"* during both the AM and PM peak hour, with increases in total average vehicle delays of *less than* 0.6 seconds/vehicle.

O'Riordan & Ewan Street Intersection

- the upgraded intersection will operate at *Level of Service "A"* under existing traffic demands during both the AM and PM peak hour with total average vehicle delays in the order of 0.1-0.2 seconds/vehicle

- under the projected future traffic demands expected to be generated by the development proposal, the intersection is expected to continue to operate at *Level of Service "A"* during both the AM and PM peak hour, with increases in total average vehicle delays of *less than* 0.6 seconds/vehicle.

O'Riordan & King Street Intersection

- the upgraded intersection will operate at *Level of Service "B"* or better under existing traffic demands during both the AM and PM peak hour with total average vehicle delays in the order of 13.0-16.7 seconds/vehicle

- under the projected future traffic demands expected to be generated by the development proposal, the intersection is expected to operate at *Level of Service "B"* during both the AM and PM peak hour with increases in total average vehicle delays of in the order of 3.4-11.2 seconds/vehicle.

O'Riordan & Robey Street Intersection

- the upgraded intersection will operate at *Level of Service "A"* under existing traffic demands during both the AM and PM peak hour with total average vehicle delays in the order of 7.8-8.7 seconds/vehicle

- under the projected future traffic demands expected to be generated by the development proposal, the intersection is expected to continue to operate at *Level of Service "A"* during both the AM and PM peak hour, with increases in total average vehicle delays of *less than* 0.6p seconds/vehicle.

SIDRA Modelling Results

Intersection	Key Indicators	Existing		Projected	
		AM	PM	AM	PM
O'Riordan / Bourke Road	LoS	A	A	A	A
	DoS	0.604	0.462	0.627	0.474
	Avg. Delay	7.5	6.7	7.5	7.3
O'Riordan / Ewan Street	LoS	A	A	A	A
	DoS	0.340	0.208	0.558	0.229
	Avg. Delay	0.1	0.2	0.6	0.8
O'Riordan / King Street	LoS	A	B	B	B
	DoS	0.730	0.723	0.922	0.685
	Avg. Delay	13.0	16.7	24.2	20.1
O'Riordan / Robey Street	LoS	A	A	A	A
	DoS	0.467	0.401	0.485	0.400
	Avg. Delay	7.8	8.7	7.8	9.3

LoS = Levels of Service

DoS = Degree of Saturation

Delay = Total average vehicle delay (seconds per vehicle)

In summary, the SIDRA capacity analysis demonstrates that all key intersects in the vicinity of the site will continue to operate satisfactorily at Levels of Service C or better, and that no road improvements or intersection upgrades are required as a consequence of the development proposal.

The detailed SIDRA *movements summaries* are reproduced in full in Appendix B.

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 signals 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.

4. PARKING IMPLICATIONS

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. Key features of those parking restrictions are:

- 4 HOUR PARKING on the southern side of King Street
- Generally UNRESTRICTED PARKING on the northern side of King Street past Travelodge
- 2 HOUR PARKING towards the western end of Ewan Street on the northern side of the road, and generally NO PARKING elsewhere
- BUS ZONES at regular intervals on O'Riordan Street.

Off-Street Car Parking Provisions

The off-street parking requirements applicable to the development proposal are specified in the *Botany Bay Development Control Plan 2013 (Amendment 8), Part 3A - Car Parking* document in the following terms:

Hotel Accommodation
1 space for manager; plus
1 space / 2 employees; plus
1 space / 1.5 rooms; plus
1 taxi pick-up and set-down space / 100 rooms; plus
2 coach pick-up and set-down spaces; and
Additional parking must be provided for other licensed parts of the use as stipulated in this section of the DCP

Serviced Apartments
1 pace / 1.5 unit; plus
1 space / 2 employees; plus
1 taxi pick-up and set-down space / 300 rooms


N
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KING
ST
4P
4P
4P
ST
BZ
BZ
O'RIORDAN
CLEAWAY (AM/PM)
HIGH
ST
EWAN
ST
Key:
No Stopping
No Parking
Restricted Parking
BZ Bus Zone
VARGA TRAFFIC PLANNING Pty Ltd
Traffic and Parking Consultants
EXISTING PARKING RESTRICTIONS
FIGURE 6

(Note: If the development is within 400m from Mascot Train Station or an efficient shuttle bus service is provided between the hotel, Sydney Airport and the City, the parking requirements could be reduced to 1 per 2.5 units)

Function Centres
1 space per 2 employees, plus
1 space per 10 seats

Office Premises
1 space / 40m^2 GFA

Shops
1 space / 25m^2 GFA

Health Consulting Rooms / Medical Centres
3 spaces / each surgery, consulting room or treatment room
(Note: minimum 1 accessible parking spaces for people with disabilities shall be provided)

Application of the above parking requirements to the various components of the concept plan which has been prepared for the purposes of this planning proposal yields an off-street car parking requirement of 604 spaces as set out in the table below.

The *concept plans* which have been prepared for the purposes of this planning proposal envisage the provision of car parking for approximately 981 cars in a multi-level car parking area. Car parking will ultimately be provided in accordance with Council's DCP requirements, with the surplus car parking to be used as commercial paid parking for long-term airport parking needs.

A drive-through porte-cochere is also proposed fronting O'Riordan Street for the hotel and serviced apartments with 3 taxi bays to facilitate set-down / pick-up of hotel / serviced apartment guests.

The porte-cochere will be designed to accommodate large buses up to and including 12.5m long single rigid buses. All arrivals / departures will be scheduled with the hotel manager and are not to remain on site for more than 5 minutes.

Projected DCP Off-Street Parking Requirements

Hotel (136 rooms, 10 staff plus manager):	97 spaces
Taxi:	2 spaces
Serviced Apartments (57 rooms, 10 staff):	43 spaces
Taxi:	1 space
Banquet Hall (200 seats, 10 staff):	25 spaces
Office Premises (7,627m^2):	191 spaces
Retail Premises (1,263m^2)	51 spaces
Medical Centres (1,161m^2):	87 spaces
Medical Suites (4,278m^2):	107 spaces
TOTAL:	**604 spaces**

The *concept plans* which have been prepared for the purposes of the planning proposal envisages the provision of approximately 981 cars on the site. Car parking is to be provided in accordance with Council's *DCP* requirements, with the surplus car parking to be used on a commercial basis as pay parking for long-term airport parking needs.

The *concept plans* also propose a drive-through porte-cochere fronting O'Riordan Street for the use of the hotel and serviced apartments only. A total of 3 taxi bays are proposed in the porte-cochere to facilitate drop-off/pick-up of hotel and serviced apartment guests, in accordance with Council's *DCP* requirements.

The porte-cochere will be designed to accommodate large buses up to and including 12.5m long tourist coaches. As noted in the foregoing, there will *not* be any vehicular link between the porte-cochere and the proposed car parking facilities. The porte-cochere will be operated and supervised by hotel staff who will ensure that the porte-cochere is used strictly for its intended purpose – i.e. drop-offs and pick-ups only.

Loading / Servicing Provisions

The future mixed-use building is envisaged to be serviced by a variety of commercial vehicles up to and including 12.5m long Heavy Rigid Vehicles (HRV trucks).

Two separate loading areas are shown on the *concept plans* to service each respective building. The manoeuvring areas will ultimately be designed to accommodate the swept turning path requirements of these HRV trucks as well as relevant Australian Standards, allowing them to enter and exit the site whilst travelling in forward gear at all times.

Conclusion

In summary, the proposed parking and loading facilities satisfy the relevant requirements specified in both Council's DCP as well as the Australian Standards and it is therefore concluded that the proposed development will not have any unacceptable parking or loading implications.

APPENDIX A

TRAFFIC SURVEY DATA

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

PEDS	NORTH	WEST	SOUTH	
Time Per	*O'Riordan St*	*Bourke Rd*	*O'Riordan St*	TOT
0630 - 0645	11	1	0	**12**
0645 - 0700	21	8	0	**29**
0700 - 0715	16	4	0	**20**
0715 - 0730	24	2	0	**26**
0730 - 0745	29	5	0	**34**
0745 - 0800	30	5	0	**35**
0800 - 0815	18	15	0	**33**
0815 - 0830	28	15	0	**43**
0830 - 0845	28	16	0	**44**
0845 - 0900	25	10	0	**35**
0900 - 0915	19	4	0	**23**
0915 - 0930	16	10	0	**26**
Per End	**265**	**95**	**0**	**360**

PEDS	NORTH	WEST	SOUTH	
Peak Per	*O'Riordan St*	*Bourke Rd*	*O'Riordan St*	TOT
0630 - 0730	72	15	0	**87**
0645 - 0745	90	19	0	**109**
0700 - 0800	99	16	0	**115**
0715 - 0815	101	27	0	**128**
0730 - 0830	105	40	0	**145**
0745 - 0845	104	51	0	**155**
0800 - 0900	99	56	0	**155**
0815 - 0915	100	45	0	**145**
0830 - 0930	88	40	0	**128**
PEAK HR	**105**	**40**	**0**	**145**

Lights	NORTH		WEST		SOUTH		
	O'Riordan St		*Bourke Rd*		*O'Riordan St*		
Time Per	T	R	L	R	L	T	TOT
0630 - 0645	147	8	3	82	121	339	**700**
0645 - 0700	137	9	2	75	122	354	**699**
0700 - 0715	153	14	9	117	143	337	**773**
0715 - 0730	150	13	5	74	146	360	**748**
0730 - 0745	182	30	2	86	138	375	**813**
0745 - 0800	167	31	4	95	163	395	**855**
0800 - 0815	181	29	7	114	149	288	**768**
0815 - 0830	175	36	3	109	136	291	**750**
0830 - 0845	183	39	8	88	157	292	**767**
0845 - 0900	184	21	11	92	114	308	**730**
0900 - 0915	180	22	7	114	128	343	**794**
0915 - 0930	204	19	2	98	160	346	**829**
Per End	**2043**	**271**	**63**	**1144**	**1677**	**4028**	**9226**

Heavies	NORTH		WEST		SOUTH		
	O'Riordan St		*Bourke Rd*		*O'Riordan St*		
Time Per	T	R	L	R	L	T	TOT
0630 - 0645	4	0	1	14	14	4	**37**
0645 - 0700	1	0	0	9	10	4	**24**
0700 - 0715	2	0	1	8	11	8	**30**
0715 - 0730	3	0	1	10	9	3	**26**
0730 - 0745	6	1	0	11	9	2	**29**
0745 - 0800	5	0	1	10	7	5	**28**
0800 - 0815	6	0	0	11	12	4	**33**
0815 - 0830	5	0	1	7	14	2	**29**
0830 - 0845	4	1	0	7	12	2	**26**
0845 - 0900	5	0	0	13	15	2	**35**
0900 - 0915	5	0	0	13	15	4	**37**
0915 - 0930	5	0	2	9	14	4	**34**
Per End	**51**	**2**	**7**	**122**	**142**	**44**	**368**

Combined	NORTH		WEST		SOUTH		
	O'Riordan St		*Bourke Rd*		*O'Riordan St*		
Time Per	T	R	L	R	L	T	TOT
0630 - 0645	151	8	4	96	135	343	**737**
0645 - 0700	138	9	2	84	132	358	**723**
0700 - 0715	155	14	10	125	154	345	**803**
0715 - 0730	153	13	6	84	155	363	**774**
0730 - 0745	188	31	2	97	147	377	**842**
0745 - 0800	172	31	5	105	170	400	**883**
0800 - 0815	187	29	7	125	161	292	**801**
0815 - 0830	180	36	4	116	150	293	**779**
0830 - 0845	187	40	8	95	169	294	**793**
0845 - 0900	189	21	11	105	129	310	**765**
0900 - 0915	185	22	7	127	143	347	**831**
0915 - 0930	209	19	4	107	174	350	**863**
Per End	**2094**	**273**	**70**	**1266**	**1819**	**4072**	**9594**

Lights	NORTH		WEST		SOUTH		
	O'Riordan St		*Bourke Rd*		*O'Riordan St*		
Peak Per	T	R	L	R	L	T	TOT
0630 - 0730	587	44	19	348	532	1390	**2920**
0645 - 0745	622	66	18	352	549	1426	**3033**
0700 - 0800	652	88	20	372	590	1467	**3189**
0715 - 0815	680	103	18	369	596	1418	**3184**
0730 - 0830	705	126	16	404	586	1349	**3186**
0745 - 0845	706	135	22	406	605	1266	**3140**
0800 - 0900	723	125	29	403	556	1179	**3015**
0815 - 0915	722	118	29	403	535	1234	**3041**
0830 - 0930	751	101	28	392	559	1289	**3120**
PEAK HR	**705**	**126**	**16**	**404**	**586**	**1349**	**3186**

Heavies	NORTH		WEST		SOUTH		
	O'Riordan St		*Bourke Rd*		*O'Riordan St*		
Peak Per	T	R	L	R	L	T	TOT
0630 - 0730	10	0	3	41	44	19	**117**
0645 - 0745	12	1	2	38	39	17	**109**
0700 - 0800	16	1	3	39	36	18	**113**
0715 - 0815	20	1	2	42	37	14	**116**
0730 - 0830	22	1	2	39	42	13	**119**
0745 - 0845	20	1	2	35	45	13	**116**
0800 - 0900	20	1	1	38	53	10	**123**
0815 - 0915	19	1	1	40	56	10	**127**
0830 - 0930	19	1	2	42	56	12	**132**
PEAK HR	**22**	**1**	**2**	**39**	**42**	**13**	**119**

Combined	NORTH		WEST		SOUTH		
	O'Riordan St		*Bourke Rd*		*O'Riordan St*		
Peak Per	T	R	L	R	L	T	TOT
0630 - 0730	597	44	22	389	576	1409	**3037**
0645 - 0745	634	67	20	390	588	1443	**3142**
0700 - 0800	668	89	23	411	626	1485	**3302**
0715 - 0815	700	104	20	411	633	1432	**3300**
0730 - 0830	727	127	18	443	628	1362	**3305**
0745 - 0845	726	136	24	441	650	1279	**3256**
0800 - 0900	743	126	30	441	609	1189	**3138**
0815 - 0915	741	119	30	443	591	1244	**3168**
0830 - 0930	770	102	30	434	615	1301	**3252**
PEAK HR	**727**	**127**	**18**	**443**	**628**	**1362**	**3305**

R.O.A.R. DATA

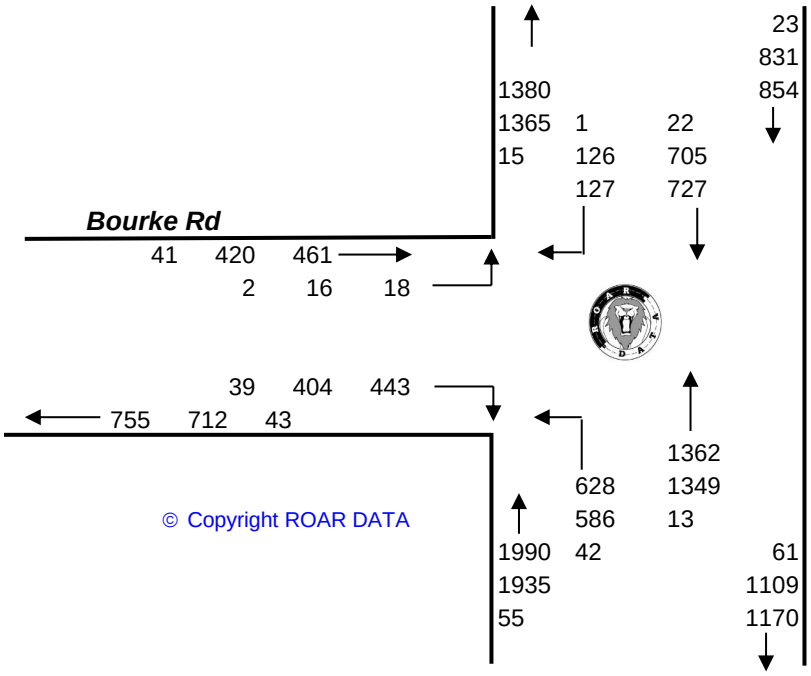
Reliable, Original & Authentic Results

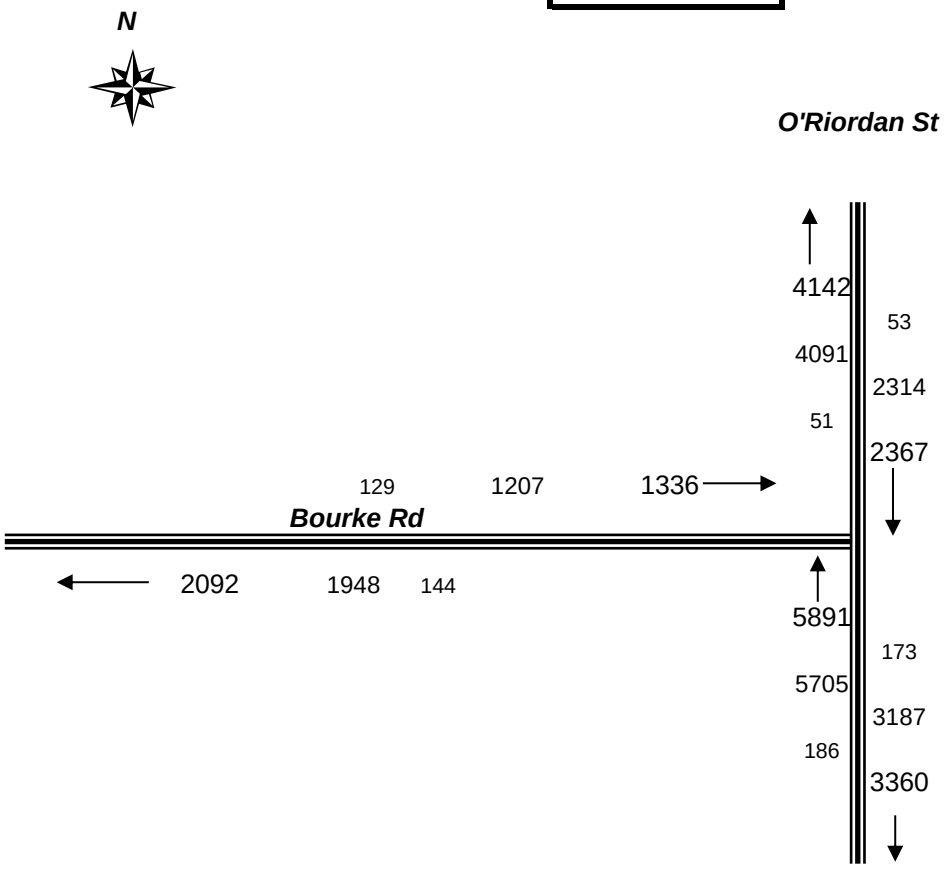
Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

AM PEAK
0730 - 0830

TOTAL VOLUMES FOR COUNT PERIOD





R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

PEDS	NORTH	WEST	SOUTH	
Time Per	O'Riordan St	Bourke Rd	O'Riordan St	TOT
1530 - 1545	26	6	0	**32**
1545 - 1600	23	2	0	**25**
1600 - 1615	26	7	0	**33**
1615 - 1630	15	11	0	**26**
1630 - 1645	23	4	0	**27**
1645 - 1700	27	3	0	**30**
1700 - 1715	38	8	0	**46**
1715 - 1730	20	9	0	**29**
1730 - 1745	27	5	0	**32**
1745 - 1800	23	13	0	**36**
1800 - 1815	29	12	0	**41**
1815 - 1830	21	13	0	**34**
Per End	**298**	**93**	**0**	**391**

PEDS	NORTH	WEST	SOUTH	
Peak Per	O'Riordan St	Bourke Rd	O'Riordan St	TOT
1530 - 1630	90	26	0	**116**
1545 - 1645	87	24	0	**111**
1600 - 1700	91	25	0	**116**
1615 - 1715	103	26	0	**129**
1630 - 1730	108	24	0	**132**
1645 - 1745	112	25	0	**137**
1700 - 1800	108	35	0	**143**
1715 - 1815	99	39	0	**138**
1730 - 1830	100	43	0	**143**
PEAK HR	**90**	**26**	**0**	**116**

Lights	NORTH		WEST		SOUTH		
	O'Riordan St		Bourke Rd		O'Riordan St		
Time Per	T	R	L	R	L	T	TOT
1530 - 1545	281	12	9	112	107	221	**742**
1545 - 1600	251	14	7	109	108	205	**694**
1600 - 1615	266	10	9	137	114	201	**737**
1615 - 1630	259	6	5	117	95	225	**707**
1630 - 1645	233	5	14	140	88	212	**692**
1645 - 1700	243	9	11	110	100	221	**694**
1700 - 1715	237	10	5	145	108	239	**744**
1715 - 1730	180	12	13	171	95	233	**704**
1730 - 1745	206	9	6	147	101	236	**705**
1745 - 1800	268	8	8	149	101	206	**740**
1800 - 1815	213	8	8	110	81	227	**647**
1815 - 1830	220	9	8	119	90	195	**641**
Per End	**2857**	**112**	**103**	**1566**	**1188**	**2621**	**8447**

Heavies	NORTH		WEST		SOUTH		
	O'Riordan St		Bourke Rd		O'Riordan St		
Time Per	T	R	L	R	L	T	TOT
1530 - 1545	6	0	1	12	15	4	**38**
1545 - 1600	2	2	2	10	9	4	**29**
1600 - 1615	6	0	0	5	9	10	**30**
1615 - 1630	4	0	1	9	13	3	**30**
1630 - 1645	7	0	0	11	10	5	**33**
1645 - 1700	3	0	1	8	13	7	**32**
1700 - 1715	1	0	0	5	13	5	**24**
1715 - 1730	2	0	1	7	9	2	**21**
1730 - 1745	3	0	0	9	9	6	**27**
1745 - 1800	5	0	0	8	4	2	**19**
1800 - 1815	2	0	3	9	6	3	**23**
1815 - 1830	4	0	0	5	9	4	**22**
Per End	**45**	**2**	**9**	**98**	**119**	**55**	**328**

Combined	NORTH		WEST		SOUTH		
	O'Riordan St		Bourke Rd		O'Riordan St		
Time Per	T	R	L	R	L	T	TOT
1530 - 1545	287	12	10	124	122	225	**780**
1545 - 1600	253	16	9	119	117	209	**723**
1600 - 1615	272	10	9	142	123	211	**767**
1615 - 1630	263	6	6	126	108	228	**737**
1630 - 1645	240	5	14	151	98	217	**725**
1645 - 1700	246	9	12	118	113	228	**726**
1700 - 1715	238	10	5	150	121	244	**768**
1715 - 1730	182	12	14	178	104	235	**725**
1730 - 1745	209	9	6	156	110	242	**732**
1745 - 1800	273	8	8	157	105	208	**759**
1800 - 1815	215	8	11	119	87	230	**670**
1815 - 1830	224	9	8	124	99	199	**663**
Per End	**2902**	**114**	**112**	**1664**	**1307**	**2676**	**8775**

Lights	NORTH		WEST		SOUTH		
	O'Riordan St		Bourke Rd		O'Riordan St		
Peak Per	T	R	L	R	L	T	TOT
1530 - 1630	1057	42	30	475	424	852	**2880**
1545 - 1645	1009	35	35	503	405	843	**2830**
1600 - 1700	1001	30	39	504	397	859	**2830**
1615 - 1715	972	30	35	512	391	897	**2837**
1630 - 1730	893	36	43	566	391	905	**2834**
1645 - 1745	866	40	35	573	404	929	**2847**
1700 - 1800	891	39	32	612	405	914	**2893**
1715 - 1815	867	37	35	577	378	902	**2796**
1730 - 1830	907	34	30	525	373	864	**2733**
PEAK HR	**1057**	**42**	**30**	**475**	**424**	**852**	**2880**

Heavies	NORTH		WEST		SOUTH		
	O'Riordan St		Bourke Rd		O'Riordan St		
Peak Per	T	R	L	R	L	T	TOT
1530 - 1630	18	2	4	36	46	21	**127**
1545 - 1645	19	2	3	35	41	22	**122**
1600 - 1700	20	0	2	33	45	25	**125**
1615 - 1715	15	0	2	33	49	20	**119**
1630 - 1730	13	0	2	31	45	19	**110**
1645 - 1745	9	0	2	29	44	20	**104**
1700 - 1800	11	0	1	29	35	15	**91**
1715 - 1815	12	0	4	33	28	13	**90**
1730 - 1830	14	0	3	31	28	15	**91**
PEAK HR	**18**	**2**	**4**	**36**	**46**	**21**	**127**

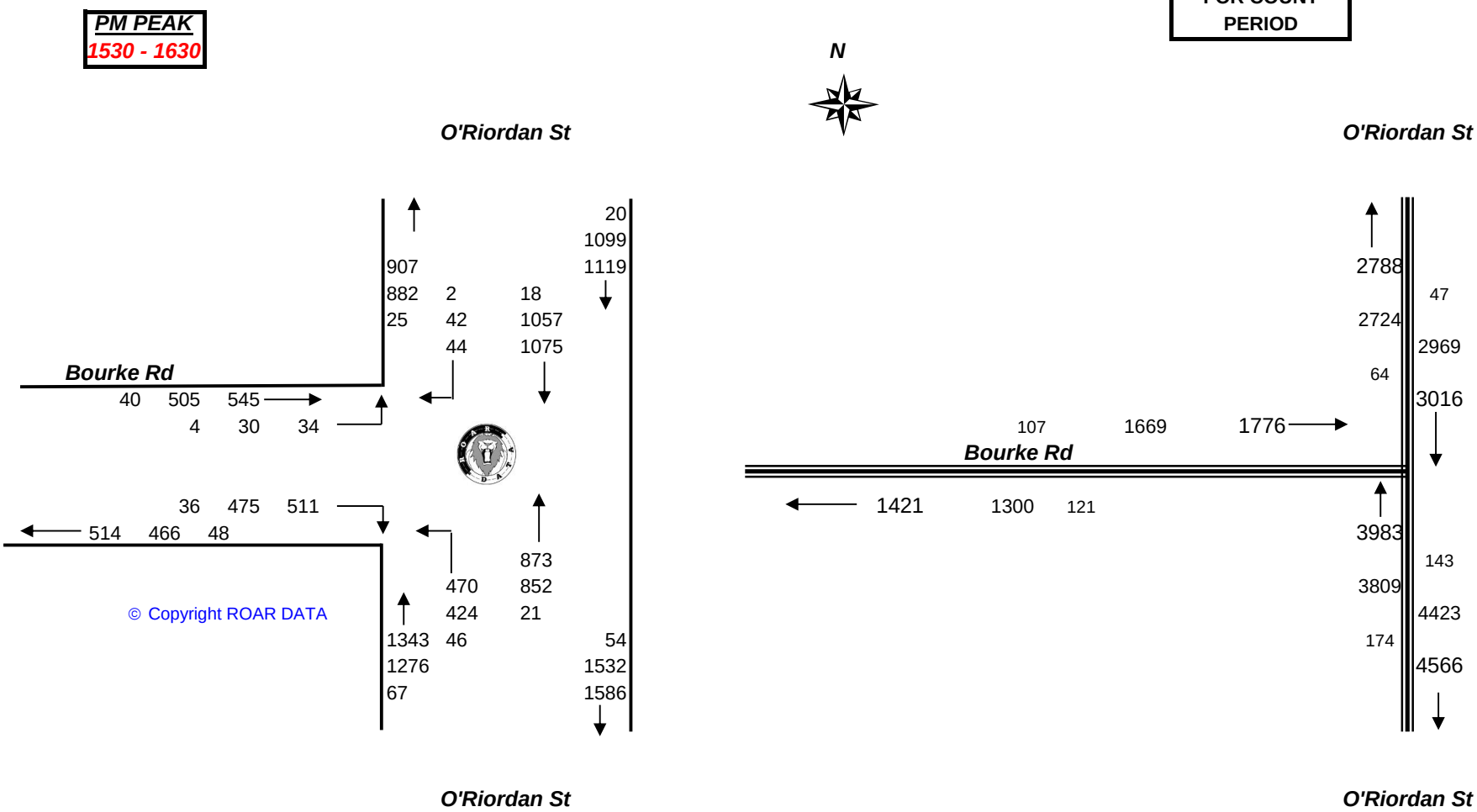
Combined	NORTH		WEST		SOUTH		
	O'Riordan St		Bourke Rd		O'Riordan St		
Peak Per	T	R	L	R	L	T	TOT
1530 - 1630	1075	44	34	511	470	873	**3007**
1545 - 1645	1028	37	38	538	446	865	**2952**
1600 - 1700	1021	30	41	537	442	884	**2955**
1615 - 1715	987	30	37	545	440	917	**2956**
1630 - 1730	906	36	45	597	436	924	**2944**
1645 - 1745	875	40	37	602	448	949	**2951**
1700 - 1800	902	39	33	641	440	929	**2984**
1715 - 1815	879	37	39	610	406	915	**2886**
1730 - 1830	921	34	33	556	401	879	**2824**
PEAK HR	**1075**	**44**	**34**	**511**	**470**	**873**	**3007**

R.O.A.R. DATA
Reliable, Original & Authentic Results
Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

PM PEAK
1530 - 1630

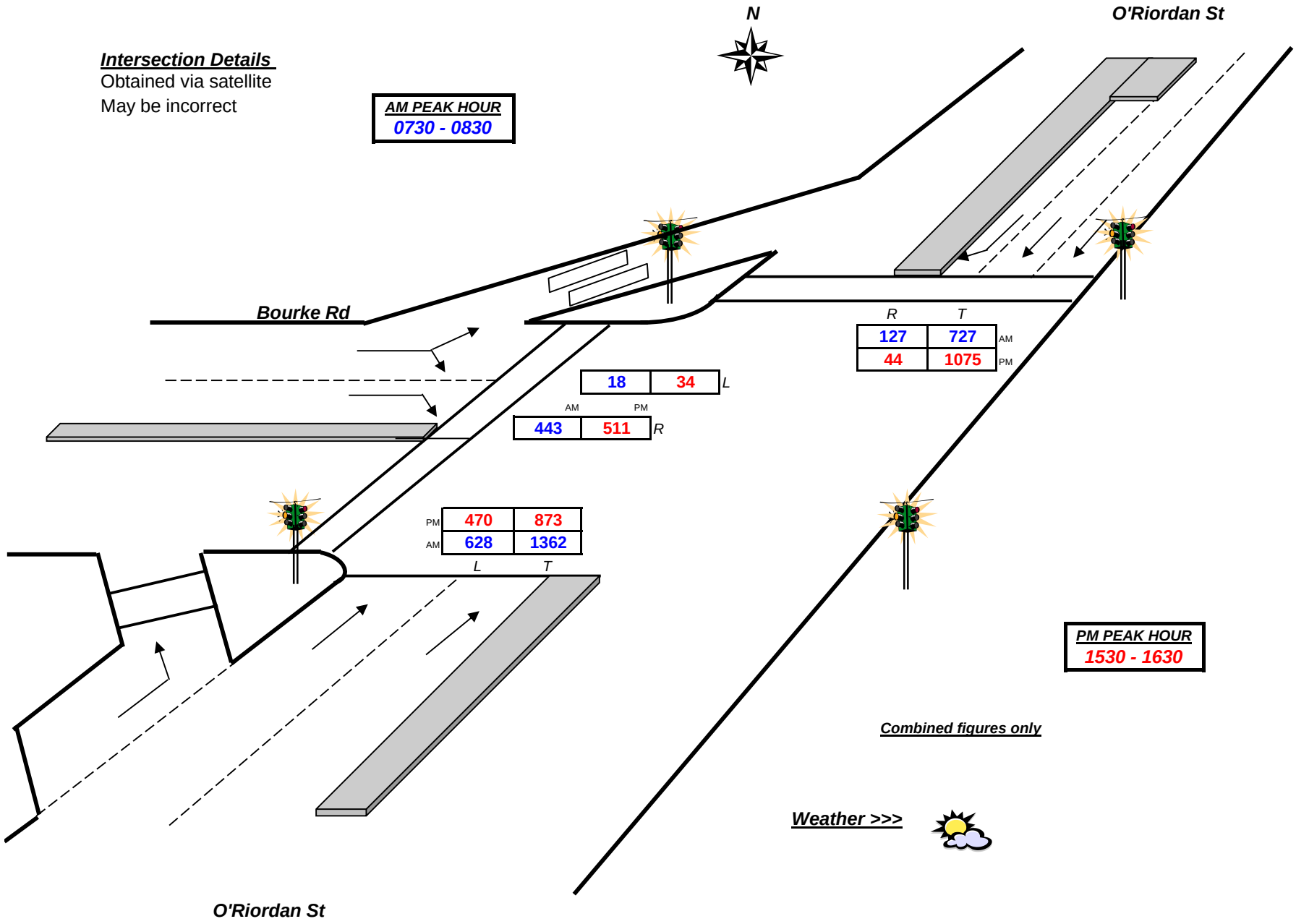
TOTAL VOLUMES FOR COUNT PERIOD



R.O.A.R. DATA
Reliable, Original & Authentic Results
Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

Intersection Details
Obtained via satellite
May be incorrect



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

PEDS	NORTH	WEST	SOUTH	
Time Per	*O'Riordan St*	*Ewan St*	*O'Riordan St*	TOT
0630 - 0645	0	29	0	**29**
0645 - 0700	2	45	0	**47**
0700 - 0715	1	23	1	**25**
0715 - 0730	0	15	0	**15**
0730 - 0745	0	50	0	**50**
0745 - 0800	1	45	0	**46**
0800 - 0815	1	64	0	**65**
0815 - 0830	1	53	1	**55**
0830 - 0845	0	58	0	**58**
0845 - 0900	0	57	0	**57**
0900 - 0915	1	39	0	**40**
0915 - 0930	0	32	0	**32**
Per End	**7**	**510**	**2**	**519**

PEDS	NORTH	WEST	SOUTH	
Peak Per	*O'Riordan St*	*Ewan St*	*O'Riordan St*	TOT
0630 - 0730	3	112	1	**116**
0645 - 0745	3	133	1	**137**
0700 - 0800	2	133	1	**136**
0715 - 0815	2	174	0	**176**
0730 - 0830	3	212	1	**216**
0745 - 0845	3	220	1	**224**
0800 - 0900	2	232	1	**235**
0815 - 0915	2	207	1	**210**
0830 - 0930	1	186	0	**187**
PEAK HR	**2**	**133**	**1**	**136**

Lights	NORTH		WEST		SOUTH		
	O'Riordan St		*Ewan St*		*O'Riordan St*		
Time Per	T	R	L	R	L	T	TOT
0630 - 0645			4		1	463	**468**
0645 - 0700			2		3	436	**441**
0700 - 0715			7		1	529	**537**
0715 - 0730			4		3	490	**497**
0730 - 0745			3		4	448	**455**
0745 - 0800			5		2	475	**482**
0800 - 0815			3		2	482	**487**
0815 - 0830			3		1	485	**489**
0830 - 0845			11		3	435	**449**
0845 - 0900			3		3	400	**406**
0900 - 0915			1		3	454	**458**
0915 - 0930			3		1	450	**454**
Per End	**0**	**0**	**49**	**0**	**27**	**5547**	**5623**

Heavies	NORTH		WEST		SOUTH		
	O'Riordan St		*Ewan St*		*O'Riordan St*		
Time Per	T	R	L	R	L	T	TOT
0630 - 0645			0		0	20	**20**
0645 - 0700			0		0	14	**14**
0700 - 0715			0		0	17	**17**
0715 - 0730			0		0	13	**13**
0730 - 0745			0		0	13	**13**
0745 - 0800			0		0	8	**8**
0800 - 0815			0		0	16	**16**
0815 - 0830			0		0	12	**12**
0830 - 0845			0		0	15	**15**
0845 - 0900			0		0	16	**16**
0900 - 0915			0		0	19	**19**
0915 - 0930			0		0	15	**15**
Per End	**0**	**0**	**0**	**0**	**0**	**178**	**178**

Combined	NORTH		WEST		SOUTH		
	O'Riordan St		*Ewan St*		*O'Riordan St*		
Time Per	T	R	L	R	L	T	TOT
0630 - 0645	0	0	4	0	1	483	**488**
0645 - 0700	0	0	2	0	3	450	**455**
0700 - 0715	0	0	7	0	1	546	**554**
0715 - 0730	0	0	4	0	3	503	**510**
0730 - 0745	0	0	3	0	4	461	**468**
0745 - 0800	0	0	5	0	2	483	**490**
0800 - 0815	0	0	3	0	2	498	**503**
0815 - 0830	0	0	3	0	1	497	**501**
0830 - 0845	0	0	11	0	3	450	**464**
0845 - 0900	0	0	3	0	3	416	**422**
0900 - 0915	0	0	1	0	3	473	**477**
0915 - 0930	0	0	3	0	1	465	**469**
Per End	**0**	**0**	**49**	**0**	**27**	**5725**	**5801**

Lights	NORTH		WEST		SOUTH		
	O'Riordan St		*Ewan St*		*O'Riordan St*		
Peak Per	T	R	L	R	L	T	TOT
0630 - 0730	0	0	17	0	8	1918	**1943**
0645 - 0745	0	0	16	0	11	1903	**1930**
0700 - 0800	0	0	19	0	10	1942	**1971**
0715 - 0815	0	0	15	0	11	1895	**1921**
0730 - 0830	0	0	14	0	9	1890	**1913**
0745 - 0845	0	0	22	0	8	1877	**1907**
0800 - 0900	0	0	20	0	9	1802	**1831**
0815 - 0915	0	0	18	0	10	1774	**1802**
0830 - 0930	0	0	18	0	10	1739	**1767**
PEAK HR	**0**	**0**	**19**	**0**	**10**	**1942**	**1971**

Heavies	NORTH		WEST		SOUTH		
	O'Riordan St		*Ewan St*		*O'Riordan St*		
Peak Per	T	R	L	R	L	T	TOT
0630 - 0730	0	0	0	0	0	64	**64**
0645 - 0745	0	0	0	0	0	57	**57**
0700 - 0800	0	0	0	0	0	51	**51**
0715 - 0815	0	0	0	0	0	50	**50**
0730 - 0830	0	0	0	0	0	49	**49**
0745 - 0845	0	0	0	0	0	51	**51**
0800 - 0900	0	0	0	0	0	59	**59**
0815 - 0915	0	0	0	0	0	62	**62**
0830 - 0930	0	0	0	0	0	65	**65**
PEAK HR	**0**	**0**	**0**	**0**	**0**	**51**	**51**

Combined	NORTH		WEST		SOUTH		
	O'Riordan St		*Ewan St*		*O'Riordan St*		
Peak Per	T	R	L	R	L	T	TOT
0630 - 0730	0	0	17	0	8	1982	**2007**
0645 - 0745	0	0	16	0	11	1960	**1987**
0700 - 0800	0	0	19	0	10	1993	**2022**
0715 - 0815	0	0	15	0	11	1945	**1971**
0730 - 0830	0	0	14	0	9	1939	**1962**
0745 - 0845	0	0	22	0	8	1928	**1958**
0800 - 0900	0	0	20	0	9	1861	**1890**
0815 - 0915	0	0	18	0	10	1836	**1864**
0830 - 0930	0	0	18	0	10	1804	**1832**
PEAK HR	**0**	**0**	**19**	**0**	**10**	**1993**	**2022**

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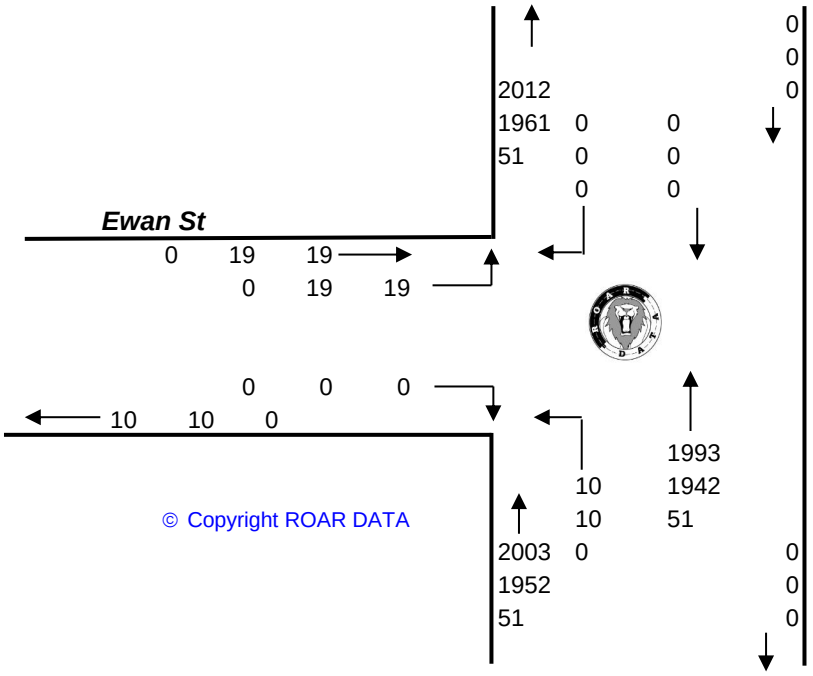
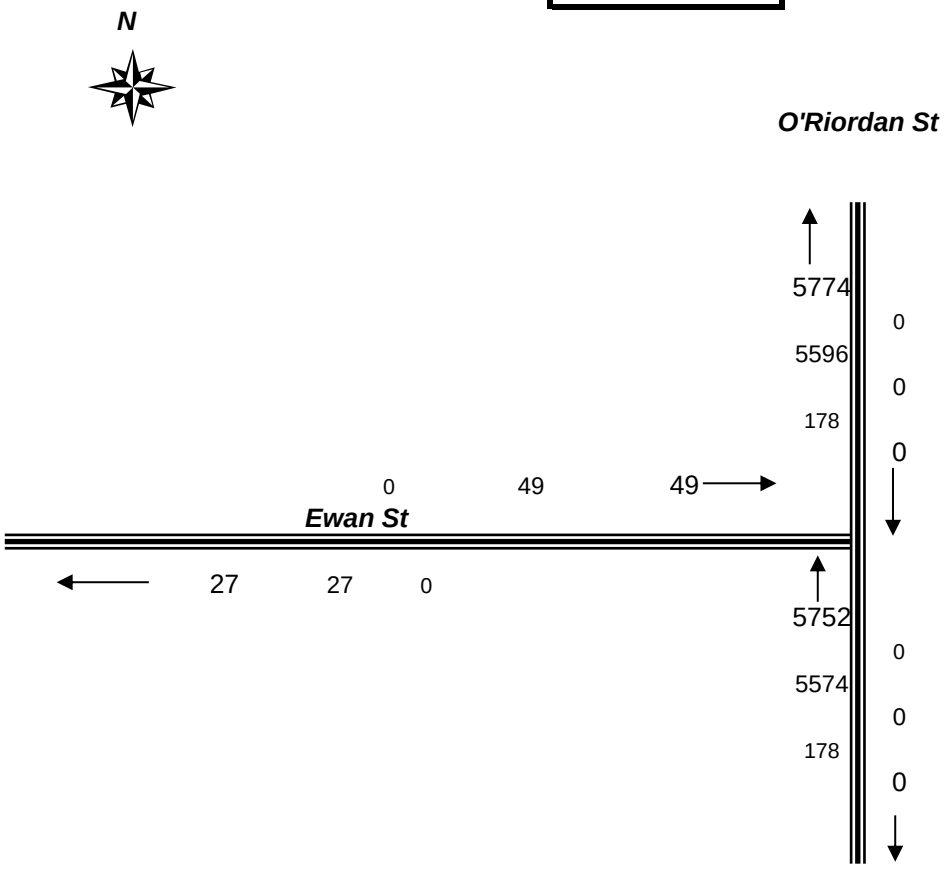
Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

AM PEAK
0700 - 0800



TOTAL VOLUMES FOR COUNT PERIOD



R.O.A.R. DATA

Reliable, Original & Authentic Results

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Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

PEDS	NORTH	WEST	SOUTH	
Time Per	O'Riordan St	Ewan St	O'Riordan St	TOT
1530 - 1545	0	38	0	**38**
1545 - 1600	2	18	0	**20**
1600 - 1615	0	46	0	**46**
1615 - 1630	0	35	0	**35**
1630 - 1645	0	37	0	**37**
1645 - 1700	0	36	0	**36**
1700 - 1715	3	73	1	**77**
1715 - 1730	0	57	0	**57**
1730 - 1745	0	54	0	**54**
1745 - 1800	2	42	0	**44**
1800 - 1815	0	34	0	**34**
1815 - 1830	2	41	0	**43**
Per End	**9**	**511**	**1**	**521**

PEDS	NORTH	WEST	SOUTH	
Peak Per	O'Riordan St	Ewan St	O'Riordan St	TOT
1530 - 1630	2	137	0	**139**
1545 - 1645	2	136	0	**138**
1600 - 1700	0	154	0	**154**
1615 - 1715	3	181	1	**185**
1630 - 1730	3	203	1	**207**
1645 - 1745	3	220	1	**224**
1700 - 1800	5	226	1	**232**
1715 - 1815	2	187	0	**189**
1730 - 1830	4	171	0	**175**
PEAK HR	**2**	**137**	**0**	**139**

Lights	NORTH		WEST		SOUTH		
	O'Riordan St		Ewan St		O'Riordan St		
Time Per	T	R	L	R	L	T	TOT
1530 - 1545			5		1	270	**276**
1545 - 1600			4		3	289	**296**
1600 - 1615			11		0	280	**291**
1615 - 1630			9		5	271	**285**
1630 - 1645			5		1	258	**264**
1645 - 1700			12		2	260	**274**
1700 - 1715			9		3	270	**282**
1715 - 1730			9		0	262	**271**
1730 - 1745			4		1	237	**242**
1745 - 1800			6		0	234	**240**
1800 - 1815			7		1	295	**303**
1815 - 1830			1		0	255	**256**
Per End	**0**	**0**	**82**	**0**	**17**	**3181**	**3280**

Heavies	NORTH		WEST		SOUTH		
	O'Riordan St		Ewan St		O'Riordan St		
Time Per	T	R	L	R	L	T	TOT
1530 - 1545			0		0	13	**13**
1545 - 1600			0		0	16	**16**
1600 - 1615			0		0	17	**17**
1615 - 1630			0		0	14	**14**
1630 - 1645			0		0	13	**13**
1645 - 1700			0		0	22	**22**
1700 - 1715			0		0	13	**13**
1715 - 1730			0		0	9	**9**
1730 - 1745			0		0	16	**16**
1745 - 1800			0		0	6	**6**
1800 - 1815			0		0	17	**17**
1815 - 1830			0		0	12	**12**
Per End	**0**	**0**	**0**	**0**	**0**	**168**	**168**

Combined	NORTH		WEST		SOUTH		
	O'Riordan St		Ewan St		O'Riordan St		
Time Per	T	R	L	R	L	T	TOT
1530 - 1545	0	0	5	0	1	283	**289**
1545 - 1600	0	0	4	0	3	305	**312**
1600 - 1615	0	0	11	0	0	297	**308**
1615 - 1630	0	0	9	0	5	285	**299**
1630 - 1645	0	0	5	0	1	271	**277**
1645 - 1700	0	0	12	0	2	282	**296**
1700 - 1715	0	0	9	0	3	283	**295**
1715 - 1730	0	0	9	0	0	271	**280**
1730 - 1745	0	0	4	0	1	253	**258**
1745 - 1800	0	0	6	0	0	240	**246**
1800 - 1815	0	0	7	0	1	312	**320**
1815 - 1830	0	0	1	0	0	267	**268**
Per End	**0**	**0**	**82**	**0**	**17**	**3349**	**3448**

Lights	NORTH		WEST		SOUTH		
	O'Riordan St		Ewan St		O'Riordan St		
Peak Per	T	R	L	R	L	T	TOT
1530 - 1630	0	0	29	0	9	1110	**1148**
1545 - 1645	0	0	29	0	9	1098	**1136**
1600 - 1700	0	0	37	0	8	1069	**1114**
1615 - 1715	0	0	35	0	11	1059	**1105**
1630 - 1730	0	0	35	0	6	1050	**1091**
1645 - 1745	0	0	34	0	6	1029	**1069**
1700 - 1800	0	0	28	0	4	1003	**1035**
1715 - 1815	0	0	26	0	2	1028	**1056**
1730 - 1830	0	0	18	0	2	1021	**1041**
PEAK HR	**0**	**0**	**29**	**0**	**9**	**1110**	**1148**

Heavies	NORTH		WEST		SOUTH		
	O'Riordan St		Ewan St		O'Riordan St		
Peak Per	T	R	L	R	L	T	TOT
1530 - 1630	0	0	0	0	0	60	**60**
1545 - 1645	0	0	0	0	0	60	**60**
1600 - 1700	0	0	0	0	0	66	**66**
1615 - 1715	0	0	0	0	0	62	**62**
1630 - 1730	0	0	0	0	0	57	**57**
1645 - 1745	0	0	0	0	0	60	**60**
1700 - 1800	0	0	0	0	0	44	**44**
1715 - 1815	0	0	0	0	0	48	**48**
1730 - 1830	0	0	0	0	0	51	**51**
PEAK HR	**0**	**0**	**0**	**0**	**0**	**60**	**60**

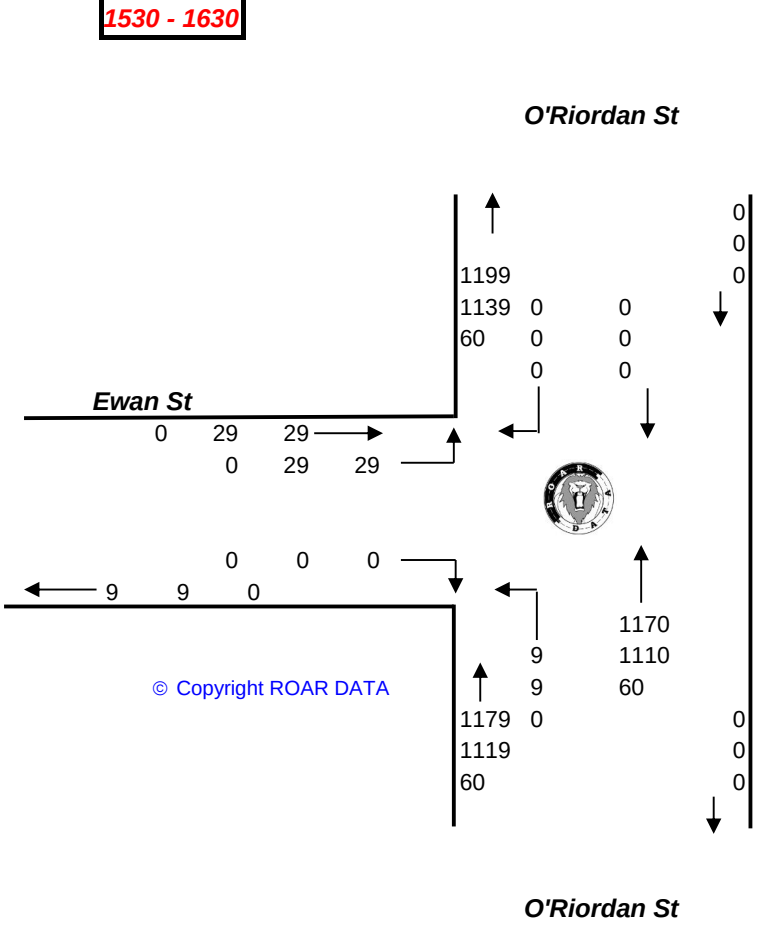
Combined	NORTH		WEST		SOUTH		
	O'Riordan St		Ewan St		O'Riordan St		
Peak Per	T	R	L	R	L	T	TOT
1530 - 1630	0	0	29	0	9	1170	**1208**
1545 - 1645	0	0	29	0	9	1158	**1196**
1600 - 1700	0	0	37	0	8	1135	**1180**
1615 - 1715	0	0	35	0	11	1121	**1167**
1630 - 1730	0	0	35	0	6	1107	**1148**
1645 - 1745	0	0	34	0	6	1089	**1129**
1700 - 1800	0	0	28	0	4	1047	**1079**
1715 - 1815	0	0	26	0	2	1076	**1104**
1730 - 1830	0	0	18	0	2	1072	**1092**
PEAK HR	**0**	**0**	**29**	**0**	**9**	**1170**	**1208**

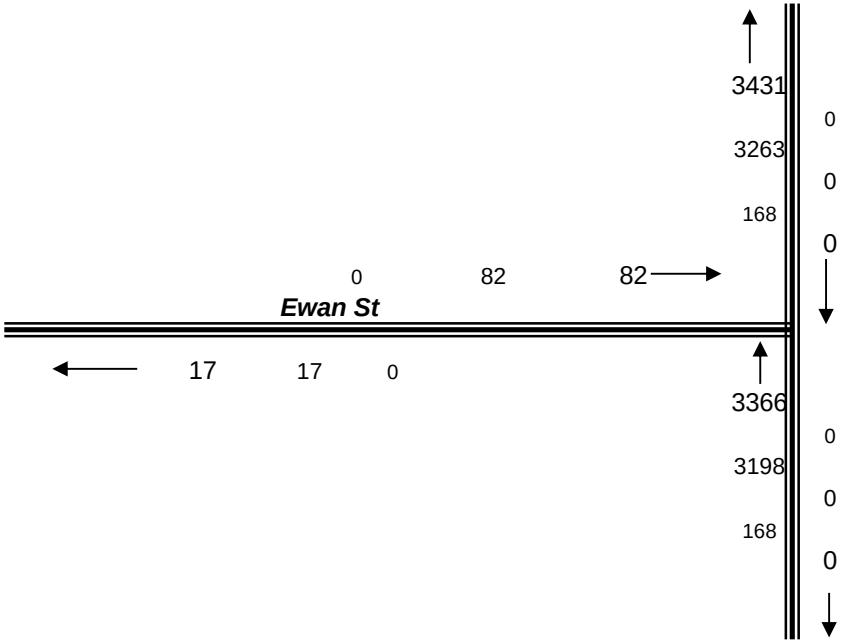
R.O.A.R. DATA
Reliable, Original & Authentic Results
Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

PM PEAK
1530 - 1630

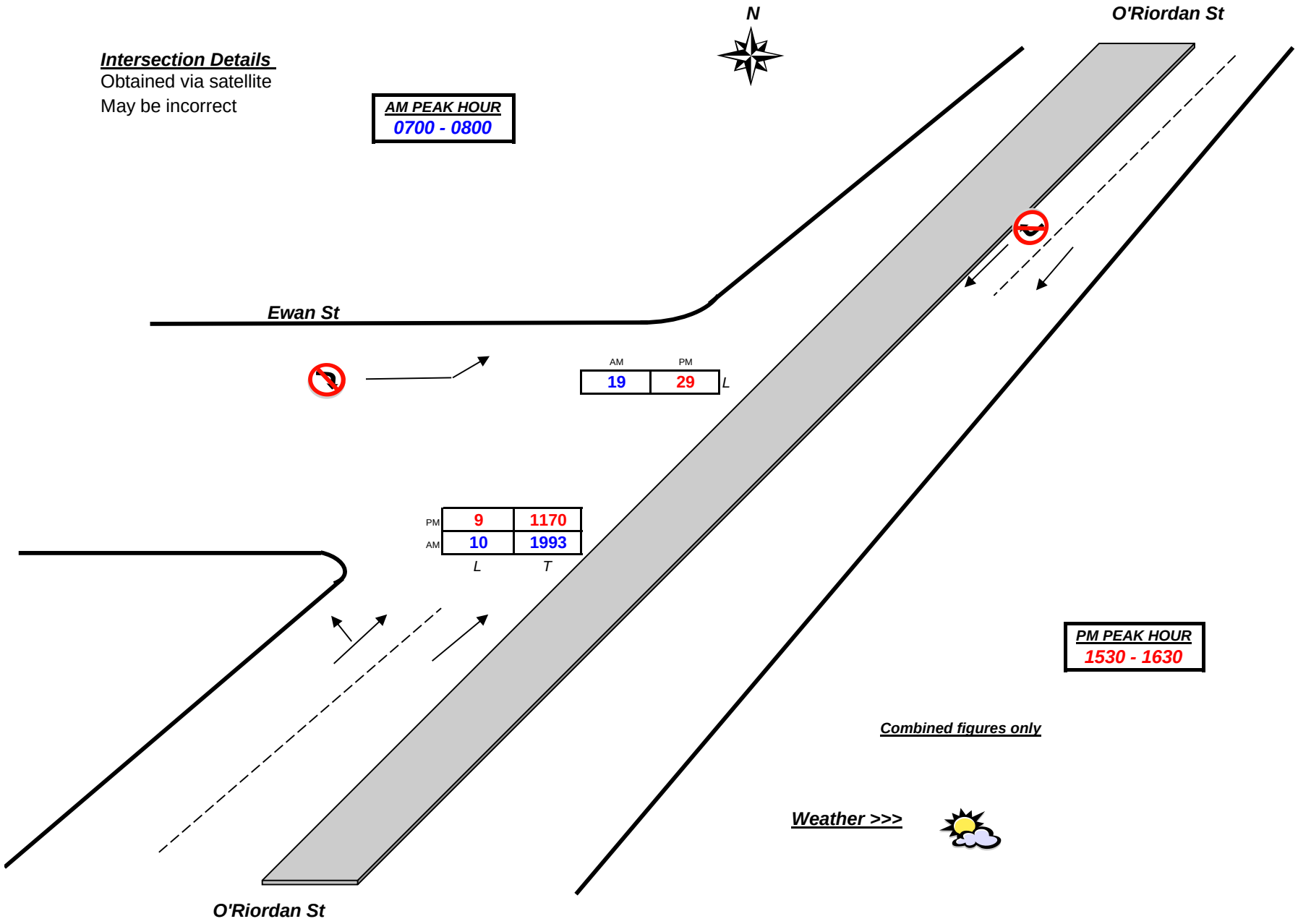
TOTAL VOLUMES FOR COUNT PERIOD





R.O.A.R. DATA
Reliable, Original & Authentic Results
Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

Lights

Time Per	NORTH O'Riordan St			WEST King St			SOUTH O'Riordan St			EAST King St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
0630 - 0645	21	216	0	4	2	11	12	396	19	11	16	40	**748**
0645 - 0700	14	223	0	1	3	9	11	421	27	9	22	37	**777**
0700 - 0715	20	261	0	6	2	11	15	399	34	12	16	44	**820**
0715 - 0730	18	266	0	2	0	8	18	453	31	11	16	59	**882**
0730 - 0745	15	288	0	3	2	13	9	476	31	14	16	49	**916**
0745 - 0800	32	246	0	2	6	3	9	493	30	9	21	50	**901**
0800 - 0815	21	282	0	2	1	5	7	463	16	11	30	53	**891**
0815 - 0830	33	224	0	4	1	10	15	427	13	11	36	58	**832**
0830 - 0845	38	252	0	2	3	16	22	457	19	10	29	43	**891**
0845 - 0900	46	236	0	8	3	6	14	462	18	8	43	41	**885**
0900 - 0915	22	286	0	2	1	12	14	460	19	9	22	50	**897**
0915 - 0930	31	279	0	1	0	10	9	467	22	10	18	50	**897**
Period End	**311**	**3059**	**0**	**37**	**24**	**114**	**155**	**5374**	**279**	**125**	**285**	**574**	**10337**

Lights

Peak Time	NORTH O'Riordan St			WEST King St			SOUTH O'Riordan St			EAST King St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
0630 - 0730	73	966	0	13	7	39	56	1669	111	43	70	180	**3227**
0645 - 0745	67	1038	0	12	7	41	53	1749	123	46	70	189	**3395**
0700 - 0800	85	1061	0	13	10	35	51	1821	126	46	69	202	**3519**
0715 - 0815	86	1082	0	9	9	29	43	1885	108	45	83	211	**3590**
0730 - 0830	101	1040	0	11	10	31	40	1859	90	45	103	210	**3540**
0745 - 0845	124	1004	0	10	11	34	53	1840	78	41	116	204	**3515**
0800 - 0900	138	994	0	16	8	37	58	1809	66	40	138	195	**3499**
0815 - 0915	139	998	0	16	8	44	65	1806	69	38	130	192	**3505**
0830 - 0930	137	1053	0	13	7	44	59	1846	78	37	112	184	**3570**
PEAK HOUR	**86**	**1082**	**0**	**9**	**9**	**29**	**43**	**1885**	**108**	**45**	**83**	**211**	**3590**

Heavies

Time Per	NORTH O'Riordan St			WEST King St			SOUTH O'Riordan St			EAST King St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
0630 - 0645	0	14	0	1	0	0	0	13	0	1	0	0	**29**
0645 - 0700	1	9	0	0	0	0	0	16	0	0	0	0	**26**
0700 - 0715	0	9	0	0	0	0	0	19	0	0	0	0	**28**
0715 - 0730	1	15	0	1	0	0	0	9	0	0	0	0	**26**
0730 - 0745	2	19	0	0	0	0	0	15	1	1	0	2	**40**
0745 - 0800	0	15	0	0	0	0	0	20	0	0	0	0	**35**
0800 - 0815	0	16	0	0	0	0	0	17	0	0	0	1	**34**
0815 - 0830	0	13	0	0	0	1	0	10	0	0	1	1	**26**
0830 - 0845	1	10	0	0	0	0	0	15	1	1	0	1	**29**
0845 - 0900	0	19	0	0	0	0	0	7	0	0	0	0	**26**
0900 - 0915	0	19	0	0	0	0	0	19	0	1	0	1	**40**
0915 - 0930	1	13	0	0	0	0	0	12	0	0	0	2	**28**
Period End	**6**	**171**	**0**	**2**	**0**	**1**	**0**	**172**	**2**	**4**	**1**	**8**	**367**

Heavies

Peak Per	NORTH O'Riordan St			WEST King St			SOUTH O'Riordan St			EAST King St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
0630 - 0730	2	47	0	2	0	0	0	57	0	1	0	0	**109**
0645 - 0745	4	52	0	1	0	0	0	59	1	1	0	2	**120**
0700 - 0800	3	58	0	1	0	0	0	63	1	1	0	2	**129**
0715 - 0815	3	65	0	1	0	0	0	61	1	1	0	3	**135**
0730 - 0830	2	63	0	0	0	1	0	62	1	1	1	4	**135**
0745 - 0845	1	54	0	0	0	1	0	62	1	1	1	3	**124**
0800 - 0900	1	58	0	0	0	1	0	49	1	1	1	3	**115**
0815 - 0915	1	61	0	0	0	1	0	51	1	2	1	3	**121**
0830 - 0930	2	61	0	0	0	0	0	53	1	2	0	4	**123**
PEAK HOUR	**3**	**65**	**0**	**1**	**0**	**0**	**0**	**61**	**1**	**1**	**0**	**3**	**135**

Combined

Time Per	NORTH O'Riordan St			WEST King St			SOUTH O'Riordan St			EAST King St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
0630 - 0645	21	230	0	5	2	11	12	409	19	12	16	40	**777**
0645 - 0700	15	232	0	1	3	9	11	437	27	9	22	37	**803**
0700 - 0715	20	270	0	6	2	11	15	418	34	12	16	44	**848**
0715 - 0730	19	281	0	3	0	8	18	462	31	11	16	59	**908**
0730 - 0745	17	307	0	3	2	13	9	491	32	15	16	51	**956**
0745 - 0800	32	261	0	2	6	3	9	513	30	9	21	50	**936**
0800 - 0815	21	298	0	2	1	5	7	480	16	11	30	54	**925**
0815 - 0830	33	237	0	4	1	11	15	437	13	11	37	59	**858**
0830 - 0845	39	262	0	2	3	16	22	472	20	11	29	44	**920**
0845 - 0900	46	255	0	8	3	6	14	469	18	8	43	41	**911**
0900 - 0915	22	305	0	2	1	12	14	479	19	10	22	51	**937**
0915 - 0930	32	292	0	1	0	10	9	479	22	10	18	52	**925**
Period End	**317**	**3230**	**0**	**39**	**24**	**115**	**155**	**5546**	**281**	**129**	**286**	**582**	**10704**

Combined

Peak Per	NORTH O'Riordan St			WEST King St			SOUTH O'Riordan St			EAST King St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
0630 - 0730	75	1013	0	15	7	39	56	1726	111	44	70	180	**3336**
0645 - 0745	71	1090	0	13	7	41	53	1808	124	47	70	191	**3515**
0700 - 0800	88	1119	0	14	10	35	51	1884	127	47	69	204	**3648**
0715 - 0815	89	1147	0	10	9	29	43	1946	109	46	83	214	**3725**
0730 - 0830	103	1103	0	11	10	32	40	1921	91	46	104	214	**3675**
0745 - 0845	125	1058	0	10	11	35	53	1902	79	42	117	207	**3639**
0800 - 0900	139	1052	0	16	8	38	58	1858	67	41	139	198	**3614**
0815 - 0915	140	1059	0	16	8	45	65	1857	70	40	131	195	**3626**
0830 - 0930	139	1114	0	13	7	44	59	1899	79	39	112	188	**3693**
PEAK HOUR	**89**	**1147**	**0**	**10**	**9**	**29**	**43**	**1946**	**109**	**46**	**83**	**214**	**3725**

R.O.A.R DATA

Reliable, Original & Authentic Results

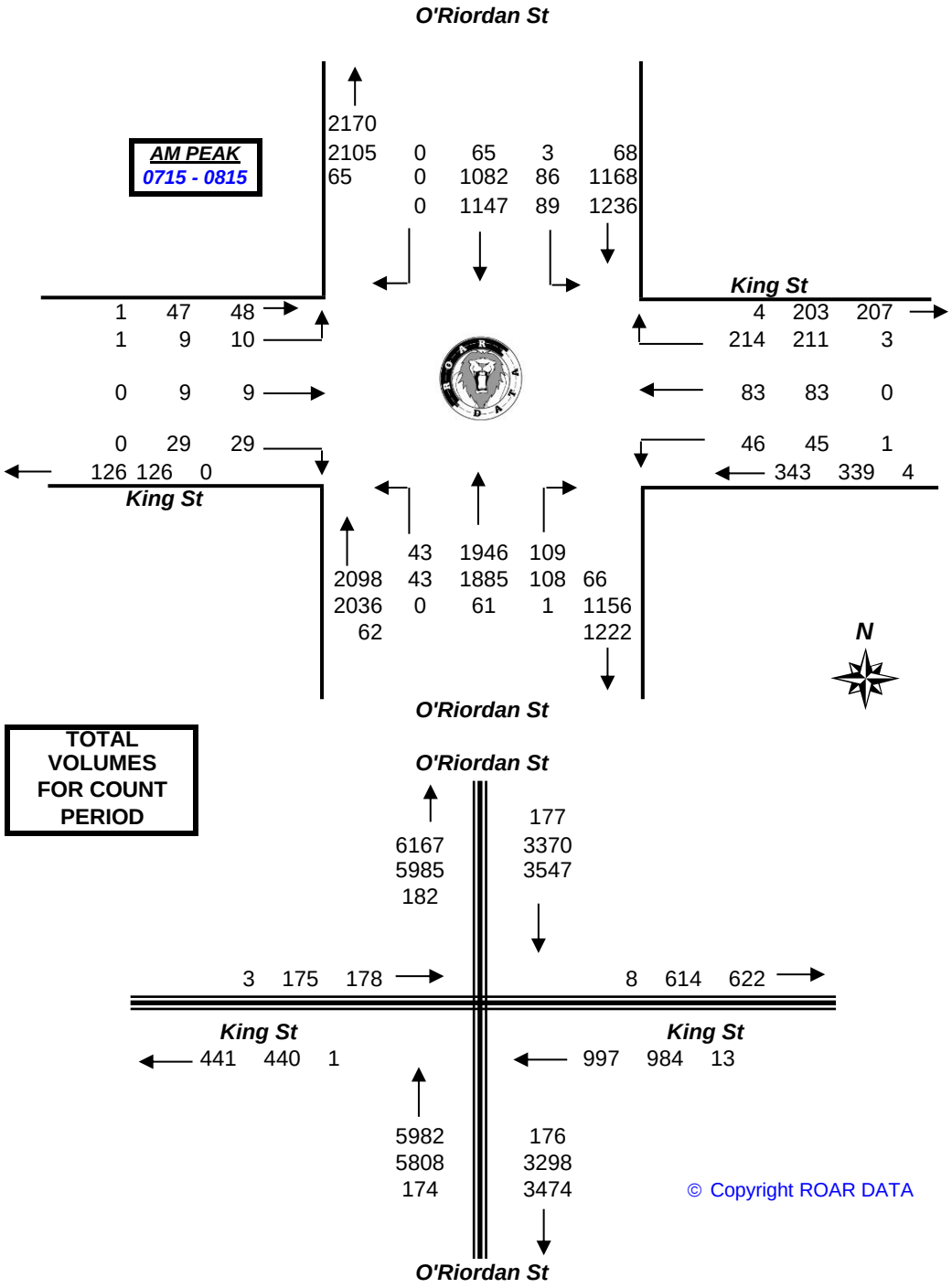
Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

Peds	NORTH	WEST	SOUTH	EAST	
	O'Riordan St	*King St*	*O'Riordan St*	*King St*	
Time Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
0630 - 0645	0	26	10	7	**43**
0645 - 0700	0	35	10	3	**48**
0700 - 0715	1	22	10	9	**42**
0715 - 0730	1	30	19	9	**59**
0730 - 0745	0	27	10	12	**49**
0745 - 0800	1	47	18	10	**76**
0800 - 0815	0	51	20	7	**78**
0815 - 0830	0	48	17	15	**80**
0830 - 0845	0	71	19	9	**99**
0845 - 0900	0	56	23	12	**91**
0900 - 0915	0	41	13	2	**56**
0915 - 0930	0	20	13	5	**38**
Period End	**3**	**474**	**182**	**100**	**759**

Peds	NORTH	WEST	SOUTH	EAST	
	O'Riordan St	*King St*	*O'Riordan St*	*King St*	
Peak Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
0630 - 0730	2	113	49	28	**192**
0645 - 0745	2	114	49	33	**198**
0700 - 0800	3	126	57	40	**226**
0715 - 0815	2	155	67	38	**262**
0730 - 0830	1	173	65	44	**283**
0745 - 0845	1	217	74	41	**333**
0800 - 0900	0	226	79	43	**348**
0815 - 0915	0	216	72	38	**326**
0830 - 0930	0	188	68	28	**284**

PEAK HR	**2**	**155**	**67**	**38**	**262**



TOTAL VOLUMES FOR COUNT PERIOD

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

Lights

Time Per	NORTH O'Riordan St			WEST King St			SOUTH O'Riordan St			EAST King St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
1530 - 1545	22	377	0	10	3	18	14	251	22	37	9	36	**799**
1545 - 1600	23	379	0	13	13	12	8	279	22	32	9	44	**834**
1600 - 1615	24	356	0	19	6	20	11	258	24	38	3	23	**782**
1615 - 1630	24	360	0	13	16	10	19	237	9	49	5	45	**787**
1630 - 1645	24	384	0	12	7	21	9	241	19	42	3	37	**799**
1645 - 1700	19	341	0	14	15	19	6	242	15	44	11	35	**761**
1700 - 1715	18	372	0	22	16	25	9	272	19	68	7	37	**865**
1715 - 1730	26	284	0	19	31	26	19	227	20	47	8	36	**743**
1730 - 1745	23	362	0	23	17	17	3	217	18	37	6	40	**763**
1745 - 1800	30	252	0	16	18	11	8	233	19	33	4	28	**652**
1800 - 1815	29	349	0	11	12	11	4	252	20	33	7	26	**754**
1815 - 1830	27	312	0	15	9	14	7	218	19	34	3	37	**695**
Period End	**289**	**4128**	**0**	**187**	**163**	**204**	**117**	**2927**	**226**	**494**	**75**	**424**	**9234**

Lights

Peak Time	NORTH O'Riordan St			WEST King St			SOUTH O'Riordan St			EAST King St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
1530 - 1630	93	1472	0	55	38	60	52	1025	77	156	26	148	**3202**
1545 - 1645	95	1479	0	57	42	63	47	1015	74	161	20	149	**3202**
1600 - 1700	91	1441	0	58	44	70	45	978	67	173	22	140	**3129**
1615 - 1715	85	1457	0	61	54	75	43	992	62	203	26	154	**3212**
1630 - 1730	87	1381	0	67	69	91	43	982	73	201	29	145	**3168**
1645 - 1745	86	1359	0	78	79	87	37	958	72	196	32	148	**3132**
1700 - 1800	97	1270	0	80	82	79	39	949	76	185	25	141	**3023**
1715 - 1815	108	1247	0	69	78	65	34	929	77	150	25	130	**2912**
1730 - 1830	109	1275	0	65	56	53	22	920	76	137	20	131	**2864**
PEAK HOUR	**93**	**1472**	**0**	**55**	**38**	**60**	**52**	**1025**	**77**	**156**	**26**	**148**	**3202**

Heavies

Time Per	NORTH O'Riordan St			WEST King St			SOUTH O'Riordan St			EAST King St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
1530 - 1545	0	18	0	1	0	0	0	13	0	1	0	1	**34**
1545 - 1600	0	12	0	0	0	0	0	16	0	1	0	0	**29**
1600 - 1615	0	12	0	0	0	0	0	19	0	0	0	0	**31**
1615 - 1630	1	12	0	1	0	0	0	9	0	0	0	1	**24**
1630 - 1645	0	15	0	0	0	0	0	15	1	1	0	1	**33**
1645 - 1700	0	10	0	0	0	0	0	20	0	0	0	1	**31**
1700 - 1715	0	7	0	0	0	0	0	17	0	1	0	1	**26**
1715 - 1730	0	9	0	0	0	1	0	10	0	0	0	1	**21**
1730 - 1745	0	13	0	0	0	0	0	15	1	0	0	1	**30**
1745 - 1800	0	12	0	0	0	0	0	7	0	0	0	0	**19**
1800 - 1815	0	10	0	0	0	0	0	19	0	0	0	1	**30**
1815 - 1830	0	12	0	0	0	0	0	12	0	0	0	0	**24**
Period End	**1**	**142**	**0**	**2**	**0**	**1**	**0**	**172**	**2**	**4**	**0**	**8**	**332**

Heavies

Peak Per	NORTH O'Riordan St			WEST King St			SOUTH O'Riordan St			EAST King St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
1530 - 1630	1	54	0	2	0	0	0	57	0	2	0	2	**118**
1545 - 1645	1	51	0	1	0	0	0	59	1	2	0	2	**117**
1600 - 1700	1	49	0	1	0	0	0	63	1	1	0	3	**119**
1615 - 1715	1	44	0	1	0	0	0	61	1	2	0	4	**114**
1630 - 1730	0	41	0	0	0	1	0	62	1	2	0	4	**111**
1645 - 1745	0	39	0	0	0	1	0	62	1	1	0	4	**108**
1700 - 1800	0	41	0	0	0	1	0	49	1	1	0	3	**96**
1715 - 1815	0	44	0	0	0	1	0	51	1	0	0	3	**100**
1730 - 1830	0	47	0	0	0	0	0	53	1	0	0	2	**103**
PEAK HOUR	**1**	**54**	**0**	**2**	**0**	**0**	**0**	**57**	**0**	**2**	**0**	**2**	**118**

Combined

Time Per	NORTH O'Riordan St			WEST King St			SOUTH O'Riordan St			EAST King St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
1530 - 1545	22	395	0	11	3	18	14	264	22	38	9	37	**833**
1545 - 1600	23	391	0	13	13	12	8	295	22	33	9	44	**863**
1600 - 1615	24	368	0	19	6	20	11	277	24	38	3	23	**813**
1615 - 1630	25	372	0	14	16	10	19	246	9	49	5	46	**811**
1630 - 1645	24	399	0	12	7	21	9	256	20	43	3	38	**832**
1645 - 1700	19	351	0	14	15	19	6	262	15	44	11	36	**792**
1700 - 1715	18	379	0	22	16	25	9	289	19	69	7	38	**891**
1715 - 1730	26	293	0	19	31	27	19	237	20	47	8	37	**764**
1730 - 1745	23	375	0	23	17	17	3	232	19	37	6	41	**793**
1745 - 1800	30	264	0	16	18	11	8	240	19	33	4	28	**671**
1800 - 1815	29	359	0	11	12	11	4	271	20	33	7	27	**784**
1815 - 1830	27	324	0	15	9	14	7	230	19	34	3	37	**719**
Period End	**290**	**4270**	**0**	**189**	**163**	**205**	**117**	**3099**	**228**	**498**	**75**	**432**	**9566**

Combined

Peak Per	NORTH O'Riordan St			WEST King St			SOUTH O'Riordan St			EAST King St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
1530 - 1630	94	1526	0	57	38	60	52	1082	77	158	26	150	**3320**
1545 - 1645	96	1530	0	58	42	63	47	1074	75	163	20	151	**3319**
1600 - 1700	92	1490	0	59	44	70	45	1041	68	174	22	143	**3248**
1615 - 1715	86	1501	0	62	54	75	43	1053	63	205	26	158	**3326**
1630 - 1730	87	1422	0	67	69	92	43	1044	74	203	29	149	**3279**
1645 - 1745	86	1398	0	78	79	88	37	1020	73	197	32	152	**3240**
1700 - 1800	97	1311	0	80	82	80	39	998	77	186	25	144	**3119**
1715 - 1815	108	1291	0	69	78	66	34	980	78	150	25	133	**3012**
1730 - 1830	109	1322	0	65	56	53	22	973	77	137	20	133	**2967**
PEAK HOUR	**94**	**1526**	**0**	**57**	**38**	**60**	**52**	**1082**	**77**	**158**	**26**	**150**	**3320**

R.O.A.R DATA

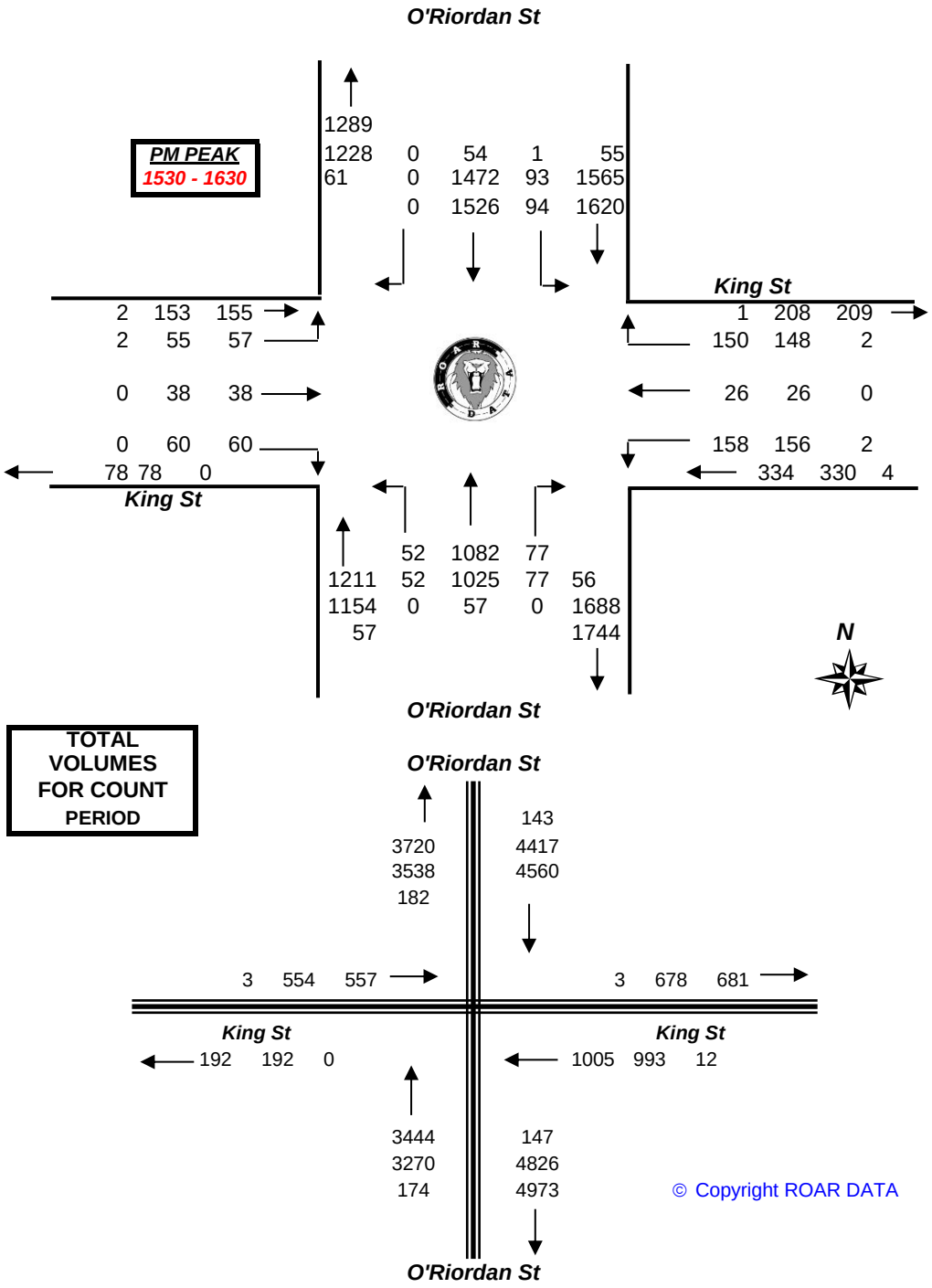
Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

Peds	NORTH	WEST	SOUTH	EAST	
	O'Riordan St	*King St*	*O'Riordan St*	*King St*	
Time Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
1530 - 1545	0	43	15	5	**63**
1545 - 1600	0	22	9	8	**39**
1600 - 1615	0	40	20	7	**67**
1615 - 1630	0	34	9	11	**54**
1630 - 1645	0	35	16	12	**63**
1645 - 1700	0	24	9	15	**48**
1700 - 1715	0	82	23	17	**122**
1715 - 1730	0	49	25	19	**93**
1730 - 1745	0	49	19	5	**73**
1745 - 1800	0	27	10	10	**47**
1800 - 1815	0	38	13	13	**64**
1815 - 1830	0	47	11	11	**69**
Period End	**0**	**490**	**179**	**133**	**802**

Peds	NORTH	WEST	SOUTH	EAST	
	O'Riordan St	*King St*	*O'Riordan St*	*King St*	
Peak Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
1530 - 1630	0	139	53	31	**223**
1545 - 1645	0	131	54	38	**223**
1600 - 1700	0	133	54	45	**232**
1615 - 1715	0	175	57	55	**287**
1630 - 1730	0	190	73	63	**326**
1645 - 1745	0	204	76	56	**336**
1700 - 1800	0	207	77	51	**335**
1715 - 1815	0	163	67	47	**277**
1730 - 1830	0	161	53	39	**253**
PEAK HR	**0**	**139**	**53**	**31**	**223**



R.O.A.R. DATA

Reliable, Original & Authentic Results

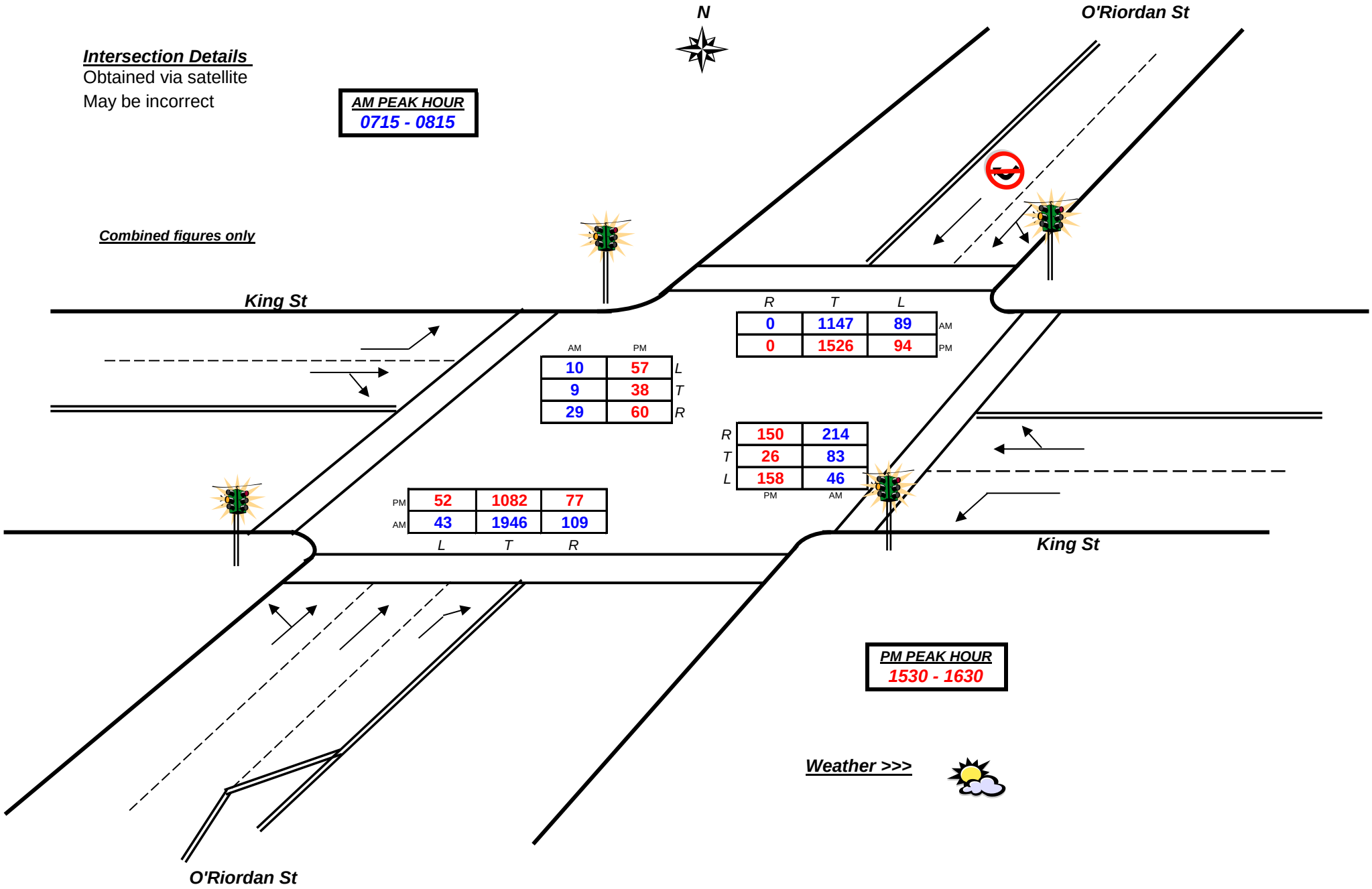
Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

Intersection Details
Obtained via satellite
May be incorrect

AM PEAK HOUR
0715 - 0815

Combined figures only



	R	T	L	
	0	1147	89	AM
	0	1526	94	PM

AM	PM	
10	57	L
9	38	T
29	60	R

R	150	214	
T	26	83	
L	158	46	
	PM	AM	

PM	52	1082	77
AM	43	1946	109
	L	T	R

PM PEAK HOUR
1530 - 1630

Weather >>>

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

Lights

	NORTH			WEST			SOUTH			EAST			
	O'Riordan St			*Robey St*			*O'Riordan St*			*Robey St*			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0630 - 0645	10	241	0	505	37	12	0	0	0	26	0	0	**831**
0645 - 0700	8	253	0	464	32	5	0	0	0	30	0	0	**792**
0700 - 0715	8	258	0	558	55	7	0	0	0	32	0	0	**918**
0715 - 0730	3	264	0	515	47	6	0	0	0	32	0	0	**867**
0730 - 0745	10	300	0	469	38	7	0	0	0	38	0	0	**862**
0745 - 0800	6	235	0	514	45	6	0	0	0	45	0	0	**851**
0800 - 0815	9	311	0	532	30	8	0	0	0	41	0	0	**931**
0815 - 0830	9	207	0	373	23	6	0	0	0	34	0	0	**652**
0830 - 0845	17	243	0	457	23	1	0	0	0	45	0	0	**786**
0845 - 0900	15	258	0	426	41	8	0	0	0	44	0	0	**792**
0900 - 0915	17	275	0	538	46	87	0	0	0	37	0	0	**1000**
0915 - 0930	15	301	0	471	36	5	0	0	0	39	0	0	**867**
Period End	**127**	**3146**	**0**	**5822**	**453**	**158**	**0**	**0**	**0**	**443**	**0**	**0**	**10149**

Lights

	NORTH			WEST			SOUTH			EAST			
	O'Riordan St			*Robey St*			*O'Riordan St*			*Robey St*			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0630 - 0730	29	1016	0	2042	171	30	0	0	0	120	0	0	**3408**
0645 - 0745	29	1075	0	2006	172	25	0	0	0	132	0	0	**3439**
0700 - 0800	27	1057	0	2056	185	26	0	0	0	147	0	0	**3498**
0715 - 0815	28	1110	0	2030	160	27	0	0	0	156	0	0	**3511**
0730 - 0830	34	1053	0	1888	136	27	0	0	0	158	0	0	**3296**
0745 - 0845	41	996	0	1876	121	21	0	0	0	165	0	0	**3220**
0800 - 0900	50	1019	0	1788	117	23	0	0	0	164	0	0	**3161**
0815 - 0915	58	983	0	1794	133	102	0	0	0	160	0	0	**3230**
0830 - 0930	64	1077	0	1892	146	101	0	0	0	165	0	0	**3445**
PEAK HOUR	**28**	**1110**	**0**	**2030**	**160**	**27**	**0**	**0**	**0**	**156**	**0**	**0**	**3511**

Heavies

	NORTH			WEST			SOUTH			EAST			
	O'Riordan St			*Robey St*			*O'Riordan St*			*Robey St*			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0630 - 0645	0	14	0	17	1	0	0	0	0	0	0	0	**32**
0645 - 0700	0	8	0	13	0	0	0	0	0	0	0	0	**21**
0700 - 0715	0	10	0	19	0	0	0	0	0	0	0	0	**29**
0715 - 0730	0	11	0	12	0	0	0	0	0	1	0	0	**24**
0730 - 0745	0	21	0	17	0	0	0	0	0	0	0	0	**38**
0745 - 0800	0	14	0	10	0	0	0	0	0	0	0	0	**24**
0800 - 0815	0	15	0	18	1	0	0	0	0	0	0	0	**34**
0815 - 0830	1	12	0	8	0	0	0	0	0	0	0	0	**21**
0830 - 0845	0	8	0	14	0	0	0	0	0	0	0	0	**22**
0845 - 0900	1	20	0	18	0	0	0	0	0	0	0	0	**39**
0900 - 0915	0	17	0	21	0	0	0	0	0	0	0	0	**38**
0915 - 0930	0	20	0	18	3	0	0	0	0	0	0	0	**41**
Period End	**2**	**170**	**0**	**185**	**5**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**363**

Heavies

	NORTH			WEST			SOUTH			EAST			
	O'Riordan St			*Robey St*			*O'Riordan St*			*Robey St*			
Peak Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0630 - 0730	0	43	0	61	1	0	0	0	0	1	0	0	**106**
0645 - 0745	0	50	0	61	0	0	0	0	0	1	0	0	**112**
0700 - 0800	0	56	0	58	0	0	0	0	0	1	0	0	**115**
0715 - 0815	0	61	0	57	1	0	0	0	0	1	0	0	**120**
0730 - 0830	1	62	0	53	1	0	0	0	0	0	0	0	**117**
0745 - 0845	1	49	0	50	1	0	0	0	0	0	0	0	**101**
0800 - 0900	2	55	0	58	1	0	0	0	0	0	0	0	**116**
0815 - 0915	2	57	0	61	0	0	0	0	0	0	0	0	**120**
0830 - 0930	1	65	0	71	3	0	0	0	0	0	0	0	**140**
PEAK HOUR	**0**	**61**	**0**	**57**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**120**

Combined

	NORTH			WEST			SOUTH			EAST			
	O'Riordan St			*Robey St*			*O'Riordan St*			*Robey St*			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0630 - 0645	10	255	0	522	38	12	0	0	0	26	0	0	**863**
0645 - 0700	8	261	0	477	32	5	0	0	0	30	0	0	**813**
0700 - 0715	8	268	0	577	55	7	0	0	0	32	0	0	**947**
0715 - 0730	3	275	0	527	47	6	0	0	0	33	0	0	**891**
0730 - 0745	10	321	0	486	38	7	0	0	0	38	0	0	**900**
0745 - 0800	6	249	0	524	45	6	0	0	0	45	0	0	**875**
0800 - 0815	9	326	0	550	31	8	0	0	0	41	0	0	**965**
0815 - 0830	10	219	0	381	23	6	0	0	0	34	0	0	**673**
0830 - 0845	17	251	0	471	23	1	0	0	0	45	0	0	**808**
0845 - 0900	16	278	0	444	41	8	0	0	0	44	0	0	**831**
0900 - 0915	17	292	0	559	46	87	0	0	0	37	0	0	**1038**
0915 - 0930	15	321	0	489	39	5	0	0	0	39	0	0	**908**
Period End	**129**	**3316**	**0**	**6007**	**458**	**158**	**0**	**0**	**0**	**444**	**0**	**0**	**10512**

Combined

	NORTH			WEST			SOUTH			EAST			
	O'Riordan St			*Robey St*			*O'Riordan St*			*Robey St*			
Peak Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0630 - 0730	29	1059	0	2103	172	30	0	0	0	121	0	0	**3514**
0645 - 0745	29	1125	0	2067	172	25	0	0	0	133	0	0	**3551**
0700 - 0800	27	1113	0	2114	185	26	0	0	0	148	0	0	**3613**
0715 - 0815	28	1171	0	2087	161	27	0	0	0	157	0	0	**3631**
0730 - 0830	35	1115	0	1941	137	27	0	0	0	158	0	0	**3413**
0745 - 0845	42	1045	0	1926	122	21	0	0	0	165	0	0	**3321**
0800 - 0900	52	1074	0	1846	118	23	0	0	0	164	0	0	**3277**
0815 - 0915	60	1040	0	1855	133	102	0	0	0	160	0	0	**3350**
0830 - 0930	65	1142	0	1963	149	101	0	0	0	165	0	0	**3585**
PEAK HOUR	**28**	**1171**	**0**	**2087**	**161**	**27**	**0**	**0**	**0**	**157**	**0**	**0**	**3631**

R.O.A.R DATA

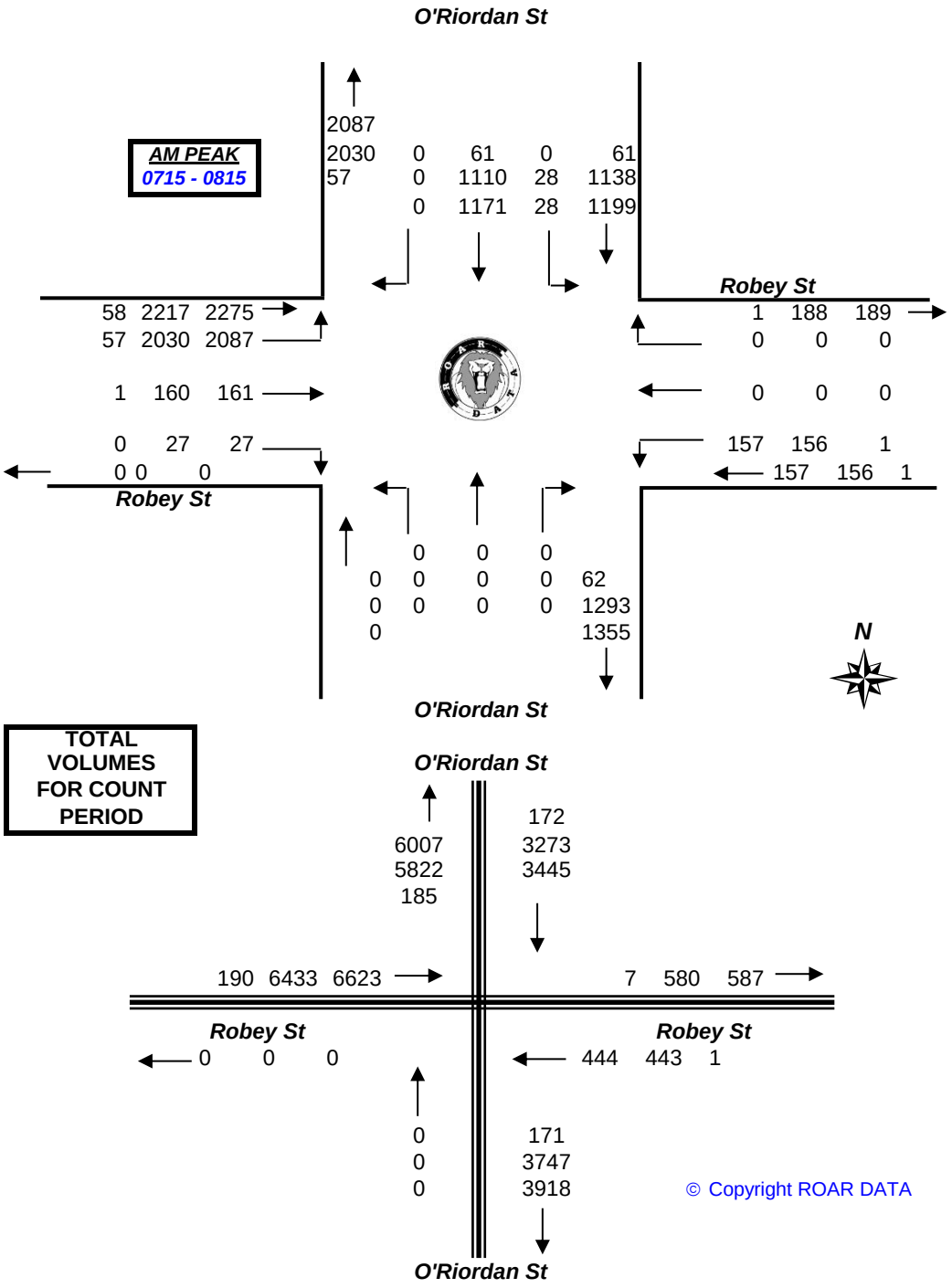
Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

Peds	NORTH	WEST	SOUTH	EAST	
	O'Riordan St	*Robey St*	*O'Riordan St*	*Robey St*	
Time Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
0630 - 0645	4	15	7	11	**37**
0645 - 0700	4	34	5	1	**44**
0700 - 0715	14	23	5	7	**49**
0715 - 0730	1	23	4	0	**28**
0730 - 0745	14	43	19	3	**79**
0745 - 0800	6	35	11	4	**56**
0800 - 0815	17	41	18	2	**78**
0815 - 0830	2	39	17	2	**60**
0830 - 0845	2	45	15	0	**62**
0845 - 0900	13	57	29	2	**101**
0900 - 0915	13	41	20	1	**75**
0915 - 0930	4	27	5	4	**40**
Period End	**94**	**423**	**155**	**37**	**709**

Peds	NORTH	WEST	SOUTH	EAST	
	O'Riordan St	*Robey St*	*O'Riordan St*	*Robey St*	
Peak Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
0630 - 0730	23	95	21	19	**158**
0645 - 0745	33	123	33	11	**200**
0700 - 0800	35	124	39	14	**212**
0715 - 0815	38	142	52	9	**241**
0730 - 0830	39	158	65	11	**273**
0745 - 0845	27	160	61	8	**256**
0800 - 0900	34	182	79	6	**301**
0815 - 0915	30	182	81	5	**298**
0830 - 0930	32	170	69	7	**278**
PEAK HR	**38**	**142**	**52**	**9**	**241**



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

Lights

Time Per	NORTH O'Riordan St			WEST Robey St			SOUTH O'Riordan St			EAST Robey St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
1530 - 1545	2	486	0	300	45	6	0	0	0	72	0	0	**911**
1545 - 1600	2	366	0	275	26	11	0	0	0	40	0	0	**720**
1600 - 1615	4	415	0	285	28	5	0	0	0	78	0	0	**815**
1615 - 1630	4	358	0	237	29	8	0	0	0	54	0	0	**690**
1630 - 1645	5	411	0	221	32	6	0	0	0	58	0	0	**733**
1645 - 1700	7	377	0	226	42	10	0	0	0	51	0	0	**713**
1700 - 1715	5	478	0	257	26	9	0	0	0	68	0	0	**843**
1715 - 1730	4	363	0	259	32	91	0	0	0	42	0	0	**791**
1730 - 1745	5	365	0	215	21	10	0	0	0	42	0	0	**658**
1745 - 1800	21	452	0	283	27	7	0	0	0	62	0	0	**852**
1800 - 1815	13	430	0	276	27	7	0	0	0	74	0	0	**827**
1815 - 1830	21	347	0	241	25	9	0	0	0	61	0	0	**704**
Period End	**93**	**4848**	**0**	**3075**	**360**	**179**	**0**	**0**	**0**	**702**	**0**	**0**	**9257**

Lights

Peak Time	NORTH O'Riordan St			WEST Robey St			SOUTH O'Riordan St			EAST Robey St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
1530 - 1630	12	1625	0	1097	128	30	0	0	0	244	0	0	**3136**
1545 - 1645	15	1550	0	1018	115	30	0	0	0	230	0	0	**2958**
1600 - 1700	20	1561	0	969	131	29	0	0	0	241	0	0	**2951**
1615 - 1715	21	1624	0	941	129	33	0	0	0	231	0	0	**2979**
1630 - 1730	21	1629	0	963	132	116	0	0	0	219	0	0	**3080**
1645 - 1745	21	1583	0	957	121	120	0	0	0	203	0	0	**3005**
1700 - 1800	35	1658	0	1014	106	117	0	0	0	214	0	0	**3144**
1715 - 1815	43	1610	0	1033	107	115	0	0	0	220	0	0	**3128**
1730 - 1830	60	1594	0	1015	100	33	0	0	0	239	0	0	**3041**
PEAK HOUR	**12**	**1625**	**0**	**1097**	**128**	**30**	**0**	**0**	**0**	**244**	**0**	**0**	**3136**

Heavies

Time Per	NORTH O'Riordan St			WEST Robey St			SOUTH O'Riordan St			EAST Robey St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
1530 - 1545	0	19	0	16	0	0	0	0	0	0	0	0	**35**
1545 - 1600	0	11	0	16	0	0	0	0	0	0	0	0	**27**
1600 - 1615	0	10	0	19	0	0	0	0	0	0	0	0	**29**
1615 - 1630	0	11	0	15	0	0	0	0	0	0	0	0	**26**
1630 - 1645	0	14	0	13	0	0	0	0	0	0	0	0	**27**
1645 - 1700	0	11	0	21	0	0	0	0	0	0	0	0	**32**
1700 - 1715	1	8	0	13	0	0	0	0	0	0	0	0	**22**
1715 - 1730	1	10	0	10	0	0	0	0	0	0	0	0	**21**
1730 - 1745	0	10	0	15	0	0	0	0	0	0	0	0	**25**
1745 - 1800	0	14	0	7	0	0	0	0	0	0	0	0	**21**
1800 - 1815	0	10	0	11	0	0	0	0	0	1	0	0	**22**
1815 - 1830	0	12	0	21	0	1	0	0	0	0	0	0	**34**
Period End	**2**	**140**	**0**	**177**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**321**

Heavies

Peak Per	NORTH O'Riordan St			WEST Robey St			SOUTH O'Riordan St			EAST Robey St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
1530 - 1630	0	51	0	66	0	0	0	0	0	0	0	0	**117**
1545 - 1645	0	46	0	63	0	0	0	0	0	0	0	0	**109**
1600 - 1700	0	46	0	68	0	0	0	0	0	0	0	0	**114**
1615 - 1715	1	44	0	62	0	0	0	0	0	0	0	0	**107**
1630 - 1730	2	43	0	57	0	0	0	0	0	0	0	0	**102**
1645 - 1745	2	39	0	59	0	0	0	0	0	0	0	0	**100**
1700 - 1800	2	42	0	45	0	0	0	0	0	0	0	0	**89**
1715 - 1815	1	44	0	43	0	0	0	0	0	1	0	0	**89**
1730 - 1830	0	46	0	54	0	1	0	0	0	1	0	0	**102**
PEAK HOUR	**0**	**51**	**0**	**66**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**117**

Combined

Time Per	NORTH O'Riordan St			WEST Robey St			SOUTH O'Riordan St			EAST Robey St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
1530 - 1545	2	505	0	316	45	6	0	0	0	72	0	0	**946**
1545 - 1600	2	377	0	291	26	11	0	0	0	40	0	0	**747**
1600 - 1615	4	425	0	304	28	5	0	0	0	78	0	0	**844**
1615 - 1630	4	369	0	252	29	8	0	0	0	54	0	0	**716**
1630 - 1645	5	425	0	234	32	6	0	0	0	58	0	0	**760**
1645 - 1700	7	388	0	247	42	10	0	0	0	51	0	0	**745**
1700 - 1715	6	486	0	270	26	9	0	0	0	68	0	0	**865**
1715 - 1730	5	373	0	269	32	91	0	0	0	42	0	0	**812**
1730 - 1745	5	375	0	230	21	10	0	0	0	42	0	0	**683**
1745 - 1800	21	466	0	290	27	7	0	0	0	62	0	0	**873**
1800 - 1815	13	440	0	287	27	7	0	0	0	75	0	0	**849**
1815 - 1830	21	359	0	262	25	10	0	0	0	61	0	0	**738**
Period End	**95**	**4988**	**0**	**3252**	**360**	**180**	**0**	**0**	**0**	**703**	**0**	**0**	**9578**

Combined

Peak Per	NORTH O'Riordan St			WEST Robey St			SOUTH O'Riordan St			EAST Robey St			TOT
	L	T	R	L	T	R	L	T	R	L	T	R	
1530 - 1630	12	1676	0	1163	128	30	0	0	0	244	0	0	**3253**
1545 - 1645	15	1596	0	1081	115	30	0	0	0	230	0	0	**3067**
1600 - 1700	20	1607	0	1037	131	29	0	0	0	241	0	0	**3065**
1615 - 1715	22	1668	0	1003	129	33	0	0	0	231	0	0	**3086**
1630 - 1730	23	1672	0	1020	132	116	0	0	0	219	0	0	**3182**
1645 - 1745	23	1622	0	1016	121	120	0	0	0	203	0	0	**3105**
1700 - 1800	37	1700	0	1059	106	117	0	0	0	214	0	0	**3233**
1715 - 1815	44	1654	0	1076	107	115	0	0	0	221	0	0	**3217**
1730 - 1830	60	1640	0	1069	100	34	0	0	0	240	0	0	**3143**
PEAK HOUR	**12**	**1676**	**0**	**1163**	**128**	**30**	**0**	**0**	**0**	**244**	**0**	**0**	**3253**

R.O.A.R DATA

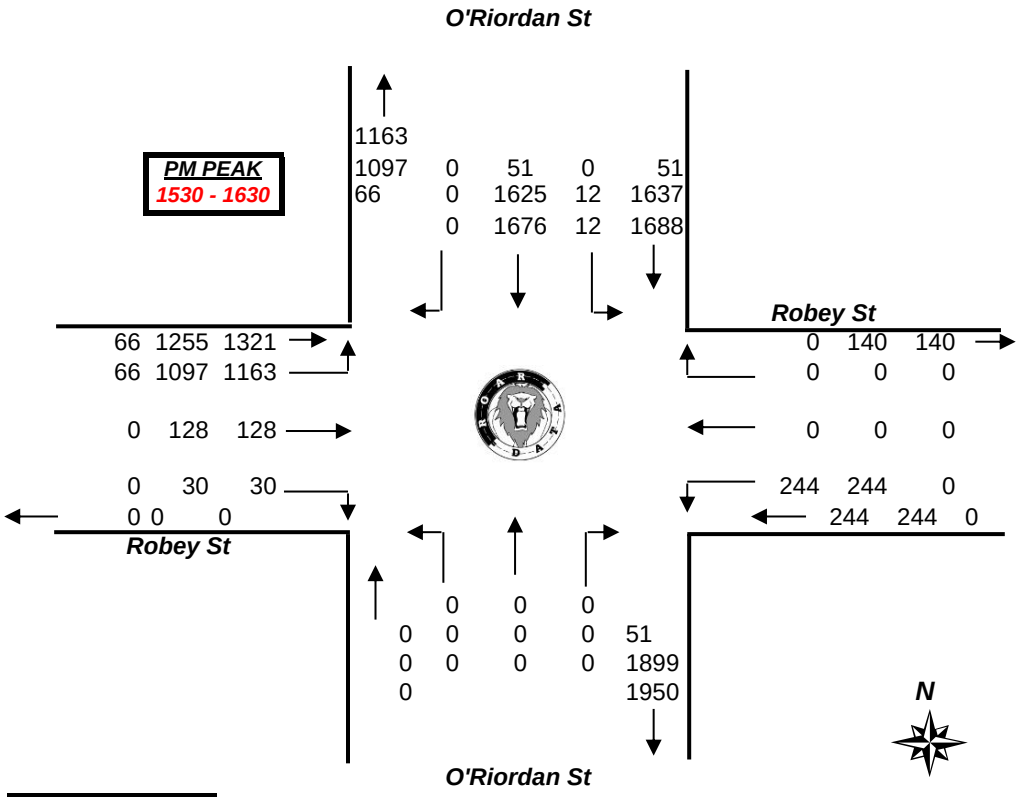
Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

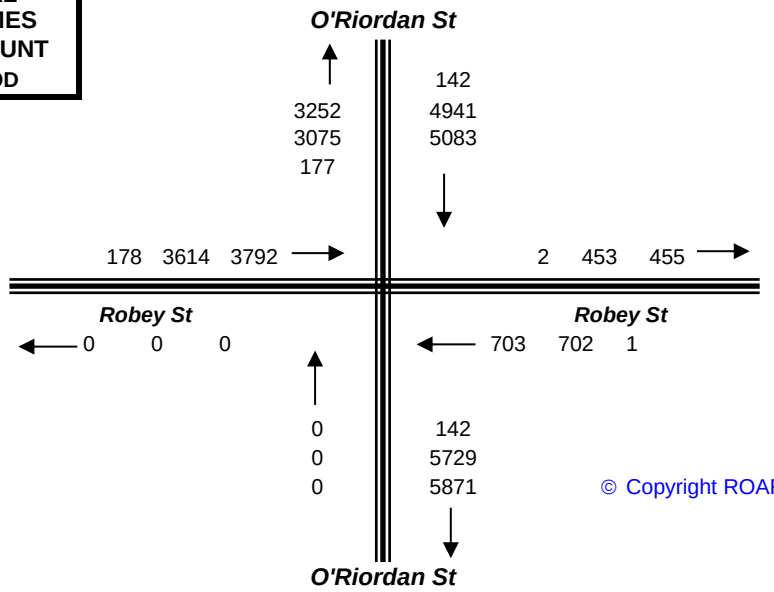
Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018

Peds	NORTH	WEST	SOUTH	EAST	
	O'Riordan St	*Robey St*	*O'Riordan St*	*Robey St*	
Time Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
1530 - 1545	5	21	9	2	**37**
1545 - 1600	1	12	5	0	**18**
1600 - 1615	1	39	15	2	**57**
1615 - 1630	0	26	7	3	**36**
1630 - 1645	4	21	9	2	**36**
1645 - 1700	2	32	16	7	**57**
1700 - 1715	10	47	29	24	**110**
1715 - 1730	7	32	17	6	**62**
1730 - 1745	12	34	14	5	**65**
1745 - 1800	21	27	10	3	**61**
1800 - 1815	7	23	9	1	**40**
1815 - 1830	12	25	7	4	**48**
Period End	**82**	**339**	**147**	**59**	**627**

Peds	NORTH	WEST	SOUTH	EAST	
	O'Riordan St	*Robey St*	*O'Riordan St*	*Robey St*	
Peak Per	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
1530 - 1630	7	98	36	7	**148**
1545 - 1645	6	98	36	7	**147**
1600 - 1700	7	118	47	14	**186**
1615 - 1715	16	126	61	36	**239**
1630 - 1730	23	132	71	39	**265**
1645 - 1745	31	145	76	42	**294**
1700 - 1800	50	140	70	38	**298**
1715 - 1815	47	116	50	15	**228**
1730 - 1830	52	109	40	13	**214**
PEAK HR	**7**	**98**	**36**	**7**	**148**

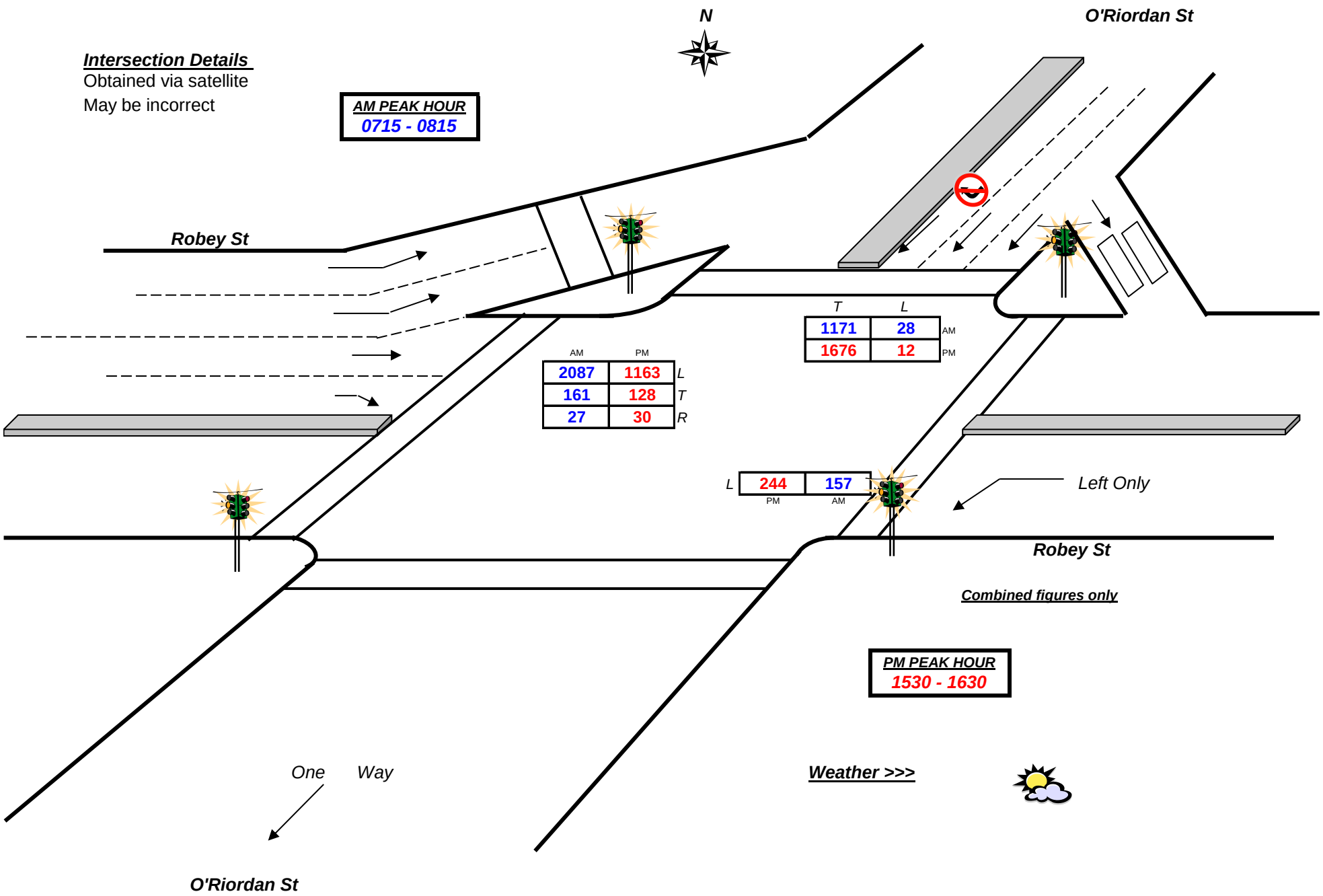


TOTAL VOLUMES FOR COUNT PERIOD



R.O.A.R. DATA
Reliable, Original & Authentic Results
Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 6937 MASCOT O'Riordan St
Day/Date : Tuesday 23rd October 2018



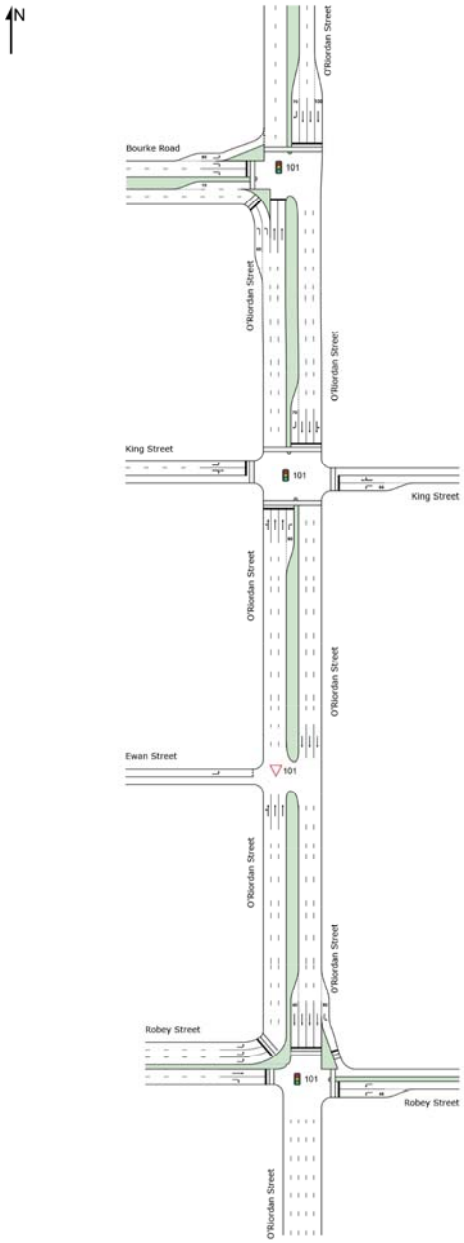
APPENDIX B

SIDRA NETWORK MOVEMENT SUMMARIES

NETWORK LAYOUT

Network: N101 [Network - Ex. AM]

New Network
Network Category: (None)



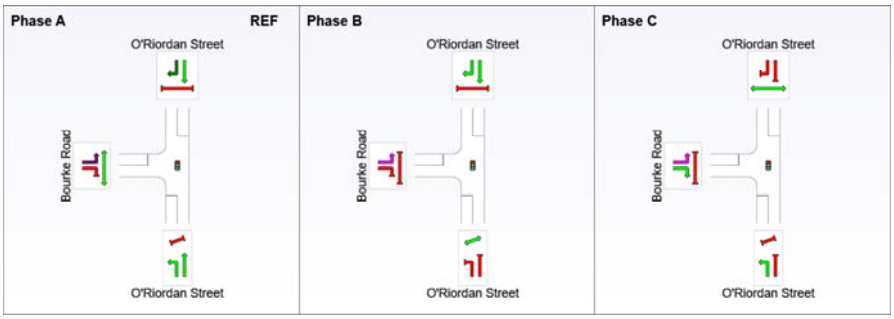
SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
101	NA	O'Riordan St & Bourke Rd - Ex. AM
101	NA	O'Riordan St & King St - Ex. AM
101	NA	O'Riordan St & Ewan St - Ex. AM
101	NA	O'Riordan St & Robey St - Ex. AM

INPUT PHASE SEQUENCE

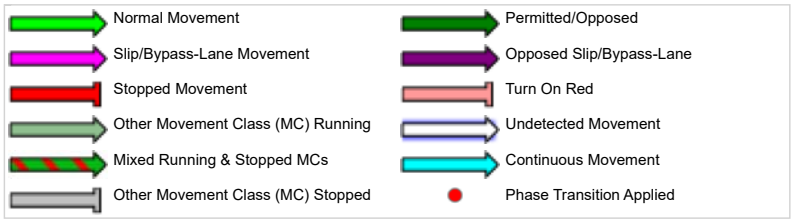
Site: 101 [O'Riordan St & Bourke Rd - Prop. AM]

O'Riordan Street & Bourke Road Intersection
Site Category: (None)
Signals - Fixed Time Coordinated

Phase Sequence: TCS
Reference Phase: Phase A
Input Phase Sequence: A, B, C
Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

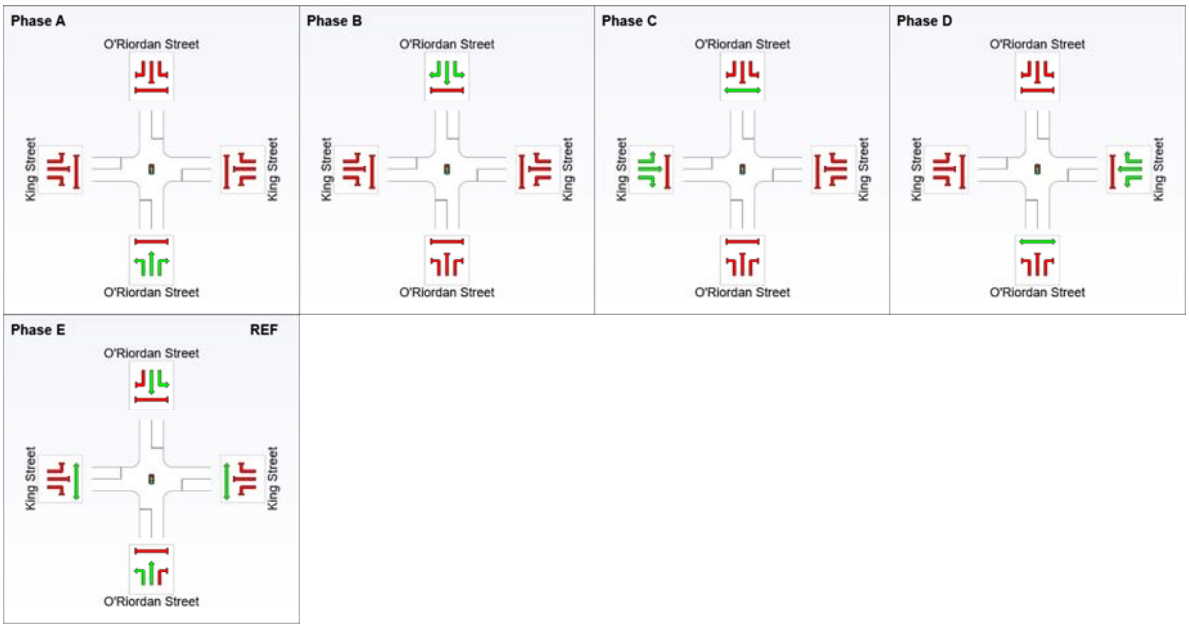


INPUT PHASE SEQUENCE

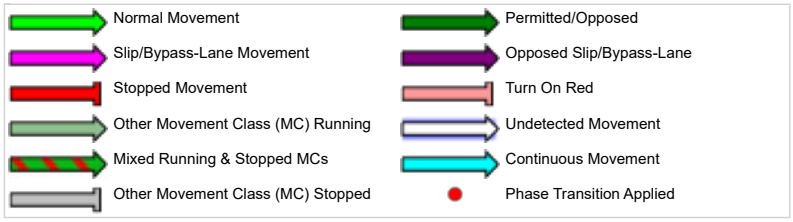
Site: 101 [O'Riordan St & King St - Prop. AM]

O'Riordan Street & King Street Intersection
Site Category: (None)
Signals - Fixed Time Coordinated

Phase Sequence: Custom
Reference Phase: Phase E
Input Phase Sequence: A, B, C, D, E
Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

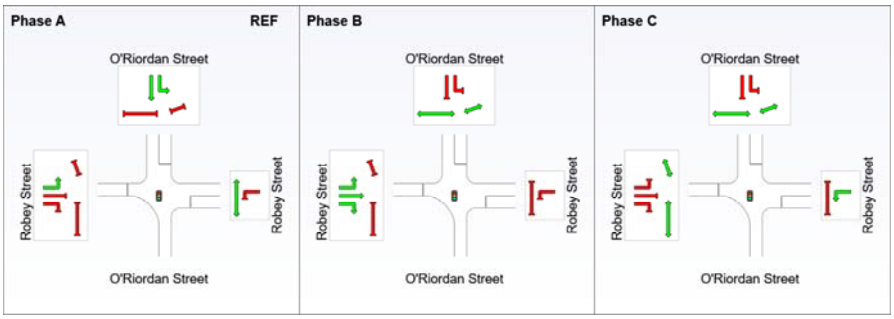


INPUT PHASE SEQUENCE

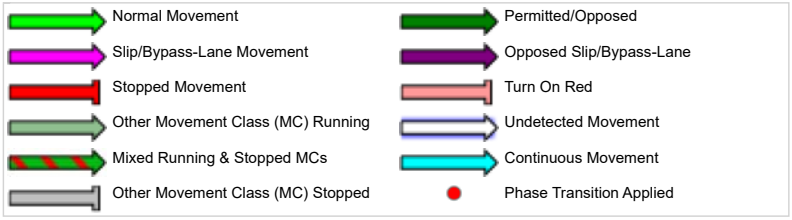
Site: 101 [O'Riordan St & Robey St - Prop. AM]

O'Riordan Street & Robey Street Intersection
Site Category: (None)
Signals - Fixed Time Coordinated

Phase Sequence: Custom
Reference Phase: Phase A
Input Phase Sequence: A, B, C
Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase



MOVEMENT SUMMARY

Site: 101 [O'Riordan St & Bourke Rd - Ex. AM]

Network: N101 [Network - Ex. AM]

O'Riordan Street & Bourke Road Intersection
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 121 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	Demand Flows HV %	Arrival Flows Total veh/h	Arrival Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Aver. Back of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: O'Riordan Street														
1	L2	633	5.8	633	5.8	0.209	5.9	LOS A	0.3	2.1	0.03	0.54	0.03	52.6
2	T1	1432	1.0	1432	1.0	0.604	0.8	LOS A	1.2	8.8	0.05	0.05	0.05	58.9
Approach		2065	2.5	2065	2.5	0.604	2.4	LOS A	1.2	8.8	0.05	0.20	0.05	56.8
North: O'Riordan Street														
8	T1	700	2.9	700	2.9	0.170	0.4	LOS A	0.2	1.4	0.03	0.02	0.03	59.2
9	R2	104	1.0	104	1.0	0.347	6.2	LOS A	0.1	0.9	0.04	0.57	0.04	53.7
Approach		804	2.6	804	2.6	0.347	1.2	LOS A	0.2	1.4	0.03	0.09	0.03	57.9
West: Bourke Road														
10	L2	20	10.0	20	10.0	0.029	5.8	LOS A	0.0	0.1	0.02	0.55	0.02	53.8
12	R2	411	10.2	411	10.2	0.599	46.1	LOS D	6.3	48.1	0.88	0.80	0.88	24.4
Approach		431	10.2	431	10.2	0.599	44.2	LOS D	6.3	48.1	0.84	0.79	0.84	25.6
All Vehicles		3300	3.5	3300	3.5	0.604	7.5	LOS A	6.3	48.1	0.14	0.25	0.14	50.4

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate
P1B	South Slip/Bypass Lane Crossing	50	54.8	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	50	54.8	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	50	54.8	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		150	54.8	LOS E			0.95	0.95

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

MOVEMENT SUMMARY

Site: 101 [O'Riordan St & Bourke Rd - Ex. PM]

Network: N101 [Network - Ex. PM]

O'Riordan Street & Bourke Road Intersection
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 122 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	Demand Flows HV %	Arrival Flows Total veh/h	Arrival Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Aver. Back of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: O'Riordan Street														
1	L2	470	9.8	470	9.8	0.159	5.9	LOS A	0.2	1.5	0.03	0.53	0.03	52.4
2	T1	873	2.4	873	2.4	0.462	0.9	LOS A	0.6	4.1	0.04	0.03	0.04	58.8
Approach		1343	5.0	1343	5.0	0.462	2.6	LOS A	0.6	4.1	0.03	0.21	0.03	56.4
North: O'Riordan Street														
8	T1	1075	1.7	1075	1.7	0.310	0.6	LOS A	0.4	2.6	0.03	0.03	0.03	58.8
9	R2	44	4.5	44	4.5	0.109	6.2	LOS A	0.0	0.2	0.02	0.56	0.02	53.6
Approach		1119	1.8	1119	1.8	0.310	0.9	LOS A	0.4	2.6	0.03	0.05	0.03	58.4
West: Bourke Road														
10	L2	34	11.8	34	11.8	0.033	5.8	LOS A	0.0	0.1	0.02	0.55	0.02	53.8
12	R2	511	7.0	511	7.0	0.452	30.0	LOS C	5.7	42.5	0.65	0.75	0.65	30.7
Approach		545	7.3	545	7.3	0.452	28.5	LOS C	5.7	42.5	0.62	0.73	0.62	32.3
All Vehicles		3007	4.2	3007	4.2	0.462	6.7	LOS A	5.7	42.5	0.14	0.24	0.14	50.9

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate
P1B	South Slip/Bypass Lane Crossing	50	55.3	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	50	55.3	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	50	55.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		150	55.3	LOS E			0.95	0.95

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

MOVEMENT SUMMARY

Site: 101 [O'Riordan St & Bourke Rd - Prop. AM]

Network: N101 [Network - Prop. AM]

O'Riordan Street & Bourke Road Intersection
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 124 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	Demand Flows HV %	Arrival Flows Total veh/h	Arrival Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Aver. Back of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: O'Riordan Street														
1	L2	674	5.5	674	5.5	0.220	5.9	LOS A	0.3	2.3	0.03	0.54	0.03	52.6
2	T1	1509	0.9	1509	0.9	0.627	0.8	LOS A	1.4	10.0	0.06	0.05	0.06	58.9
Approach		2183	2.3	2183	2.3	0.627	2.4	LOS A	1.4	10.0	0.05	0.20	0.05	56.8
North: O'Riordan Street														
8	T1	737	2.7	737	2.7	0.177	0.4	LOS A	0.2	1.5	0.03	0.02	0.03	59.2
9	R2	104	1.0	104	1.0	0.371	6.2	LOS A	0.1	1.0	0.04	0.57	0.04	53.7
Approach		841	2.5	841	2.5	0.371	1.1	LOS A	0.2	1.5	0.03	0.09	0.03	57.9
West: Bourke Road														
10	L2	20	10.0	20	10.0	0.030	5.8	LOS A	0.0	0.1	0.02	0.55	0.02	53.8
12	R2	411	10.2	411	10.2	0.613	47.8	LOS D	6.5	49.8	0.89	0.80	0.89	23.8
Approach		431	10.2	431	10.2	0.613	45.9	LOS D	6.5	49.8	0.85	0.79	0.85	25.0
All Vehicles		3455	3.4	3455	3.4	0.627	7.5	LOS A	6.5	49.8	0.14	0.25	0.14	50.5

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate
P1B	South Slip/Bypass Lane Crossing	50	56.3	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	50	56.3	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	50	56.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		150	56.3	LOS E			0.95	0.95

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

MOVEMENT SUMMARY

Site: 101 [O'Riordan St & Bourke Rd - Prop. PM]

Network: N101 [Network - Prop. PM]

O'Riordan Street & Bourke Road Intersection
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	Demand Flows HV %	Arrival Flows Total veh/h	Arrival Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Aver. Back of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: O'Riordan Street														
1	L2	510	9.0	510	9.0	0.169	5.9	LOS A	0.2	1.9	0.03	0.53	0.03	52.4
2	T1	950	2.2	950	2.2	0.474	0.9	LOS A	0.7	5.2	0.04	0.04	0.04	58.7
Approach		1459	4.6	1459	4.6	0.474	2.7	LOS A	0.7	5.2	0.04	0.21	0.04	56.4
North: O'Riordan Street														
8	T1	1111	1.6	1111	1.6	0.309	0.7	LOS A	0.4	3.1	0.03	0.03	0.03	58.7
9	R2	44	4.5	44	4.5	0.115	6.2	LOS A	0.0	0.3	0.02	0.56	0.02	53.5
Approach		1155	1.7	1155	1.7	0.309	0.9	LOS A	0.4	3.1	0.03	0.05	0.03	58.3
West: Bourke Road														
10	L2	34	11.8	34	11.8	0.035	5.8	LOS A	0.0	0.1	0.02	0.55	0.02	53.8
12	R2	511	7.0	511	7.0	0.470	35.3	LOS C	6.8	50.8	0.68	0.76	0.68	28.3
Approach		545	7.3	545	7.3	0.470	33.5	LOS C	6.8	50.8	0.64	0.74	0.64	29.9
All Vehicles		3159	4.0	3159	4.0	0.474	7.3	LOS A	6.8	50.8	0.14	0.24	0.14	50.1

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate
P1B	South Slip/Bypass Lane Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		150	64.3	LOS F			0.96	0.96

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

MOVEMENT SUMMARY

Site: 101 [O'Riordan St & Ewan St - Ex. AM]

Network: N101 [Network - Ex. AM]

O'Riordan Street & Ewan Street Intersection
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	Demand Flows HV %	Arrival Flows Total veh/h	Arrival Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Aver. Back of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: O'Riordan Street														
1	L2	11	0.0	11	0.0	0.340	5.5	LOS A	0.0	0.0	0.00	0.01	0.00	57.1
2	T1	1945	2.6	1945	2.6	0.340	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.6
Approach		1956	2.6	1956	2.6	0.340	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.6
North: O'Riordan Street														
8	T1	1	0.0	1	0.0	0.000	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		1	0.0	1	0.0	0.000	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
West: Ewan Street														
10	L2	15	0.0	15	0.0	0.024	8.2	LOS A	0.0	0.2	0.54	0.70	0.54	40.9
Approach		15	0.0	15	0.0	0.024	8.2	LOS A	0.0	0.2	0.54	0.70	0.54	40.9
All Vehicles		1972	2.5	1972	2.5	0.340	0.1	NA	0.0	0.2	0.00	0.01	0.00	58.6

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.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [O'Riordan St & Ewan St - Ex. PM]

Network: N101 [Network - Ex. PM]

O'Riordan Street & Ewan Street Intersection
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	Demand Flows HV %	Arrival Flows Total veh/h	Arrival Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Aver. Back of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: O'Riordan Street														
1	L2	9	0.0	9	0.0	0.208	5.5	LOS A	0.0	0.0	0.00	0.01	0.00	57.1
2	T1	1170	5.1	1170	5.1	0.208	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.6
Approach		1179	5.1	1179	5.1	0.208	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.5
North: O'Riordan Street														
8	T1	1	0.0	1	0.0	0.000	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		1	0.0	1	0.0	0.000	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
West: Ewan Street														
10	L2	29	0.0	29	0.0	0.033	6.3	LOS A	0.0	0.3	0.42	0.61	0.42	42.7
Approach		29	0.0	29	0.0	0.033	6.3	LOS A	0.0	0.3	0.42	0.61	0.42	42.7
All Vehicles		1209	5.0	1209	5.0	0.208	0.2	NA	0.0	0.3	0.01	0.02	0.01	57.2

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.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [O'Riordan St & Ewan St - Prop. AM]

Network: N101 [Network - Prop. AM]

O'Riordan Street & Ewan Street Intersection
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: O'Riordan Street														
1	L2	88	0.0	88	0.0	0.558	5.5	LOS A	0.0	0.0	0.00	0.08	0.00	55.9
2	T1	1985	2.5	1985	2.5	0.558	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	57.8
Approach		2073	2.4	2073	2.4	0.558	0.3	NA	0.0	0.0	0.00	0.03	0.00	57.4
North: O'Riordan Street														
8	T1	21	0.0	21	0.0	0.004	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		21	0.0	21	0.0	0.004	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
West: Ewan Street														
10	L2	92	0.0	92	0.0	0.227	7.7	LOS A	0.2	1.3	0.52	0.77	0.52	41.4
Approach		92	0.0	92	0.0	0.227	7.7	LOS A	0.2	1.3	0.52	0.77	0.52	41.4
All Vehicles		2187	2.3	2187	2.3	0.558	0.6	NA	0.2	1.3	0.02	0.06	0.02	54.4

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.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [O'Riordan St & Ewan St - Prop. PM]

Network: N101 [Network - Prop. PM]

O'Riordan Street & Ewan Street Intersection
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	Demand Flows HV %	Arrival Flows Total veh/h	Arrival Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Aver. Back of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: O'Riordan Street														
1	L2	88	0.0	88	0.0	0.229	5.5	LOS A	0.0	0.0	0.00	0.12	0.00	55.6
2	T1	1210	5.0	1210	5.0	0.229	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	57.1
Approach		1298	4.6	1298	4.6	0.229	0.4	NA	0.0	0.0	0.00	0.04	0.00	56.6
North: O'Riordan Street														
8	T1	1	0.0	1	0.0	0.000	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		1	0.0	1	0.0	0.000	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
West: Ewan Street														
10	L2	96	0.0	96	0.0	0.103	6.2	LOS A	0.2	1.1	0.41	0.63	0.41	42.8
Approach		96	0.0	96	0.0	0.103	6.2	LOS A	0.2	1.1	0.41	0.63	0.41	42.8
All Vehicles		1396	4.3	1396	4.3	0.229	0.8	NA	0.2	1.1	0.03	0.08	0.03	53.1

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.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [O'Riordan St & King St - Ex. AM]

Network: N101 [Network - Ex. AM]

O'Riordan Street & King Street Intersection
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 121 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	Demand Flows HV %	Arrival Flows Total veh/h	Arrival Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Aver. Back of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: O'Riordan Street														
1	L2	43	0.0	43	0.0	0.724	7.7	LOS A	3.2	23.0	0.15	0.17	0.15	48.7
2	T1	1946	3.1	1946	3.1	0.724	2.1	LOS A	3.2	23.1	0.15	0.14	0.15	48.8
3	R2	109	0.9	109	0.9	0.715	61.7	LOS E	3.9	27.9	0.99	0.80	1.03	22.2
Approach		2098	3.0	2098	3.0	0.724	5.3	LOS A	3.9	27.9	0.19	0.18	0.19	40.4
East: King Street														
4	L2	46	2.2	46	2.2	0.113	44.8	LOS D	1.3	9.4	0.83	0.72	0.83	22.7
5	T1	83	0.0	83	0.0	0.730	48.4	LOS D	10.2	72.2	0.98	0.86	1.02	29.4
6	R2	214	1.4	214	1.4	0.730	53.0	LOS D	10.2	72.2	0.98	0.86	1.02	21.0
Approach		343	1.2	343	1.2	0.730	50.8	LOS D	10.2	72.2	0.96	0.85	1.00	23.8
North: O'Riordan Street														
7	L2	89	3.4	89	3.4	0.699	19.3	LOS B	7.5	55.2	0.71	0.65	0.71	39.8
8	T1	1147	5.7	1147	5.7	0.699	13.7	LOS A	7.6	55.8	0.71	0.62	0.71	28.6
9	R2	1	0.0	1	0.0	0.014	59.6	LOS E	0.0	0.2	0.87	0.60	0.87	23.7
Approach		1237	5.5	1237	5.5	0.699	14.2	LOS A	7.6	55.8	0.71	0.62	0.71	30.3
West: King Street														
10	L2	10	10.0	10	10.0	0.033	49.3	LOS D	0.3	2.3	0.86	0.67	0.86	21.5
11	T1	9	0.0	9	0.0	0.117	45.6	LOS D	1.2	8.2	0.88	0.70	0.88	30.0
12	R2	29	0.0	29	0.0	0.117	50.2	LOS D	1.2	8.2	0.88	0.70	0.88	21.7
Approach		48	2.1	48	2.1	0.117	49.1	LOS D	1.2	8.2	0.87	0.70	0.87	23.7
All Vehicles		3726	3.6	3726	3.6	0.730	13.0	LOS A	10.2	72.2	0.44	0.39	0.45	31.5

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	50	54.8	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	50	54.8	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	50	54.8	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	50	54.8	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		200	54.8	LOS E			0.95	0.95

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

MOVEMENT SUMMARY

Site: 101 [O'Riordan St & King St - Ex. PM]

Network: N101 [Network - Ex. PM]

O'Riordan Street & King Street Intersection
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 122 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: O'Riordan Street														
1	L2	52	0.0	52	0.0	0.500	15.1	LOS B	4.5	32.6	0.35	0.36	0.35	42.0
2	T1	1082	5.3	1082	5.3	0.500	9.6	LOS A	4.5	32.9	0.35	0.32	0.35	30.0
3	R2	77	0.0	77	0.0	0.723	67.2	LOS E	2.9	20.4	1.00	0.78	1.05	21.2
Approach		1211	4.7	1211	4.7	0.723	13.5	LOS A	4.5	32.9	0.39	0.35	0.40	28.7
East: King Street														
4	L2	158	1.3	158	1.3	0.499	54.7	LOS D	5.3	37.6	0.95	0.80	0.95	20.2
5	T1	26	0.0	26	0.0	0.551	50.6	LOS D	6.0	42.3	0.97	0.81	0.97	28.7
6	R2	150	1.3	150	1.3	0.551	55.2	LOS D	6.0	42.3	0.97	0.81	0.97	20.4
Approach		334	1.2	334	1.2	0.551	54.6	LOS D	6.0	42.3	0.96	0.80	0.96	21.2
North: O'Riordan Street														
7	L2	94	1.1	94	1.1	0.721	13.3	LOS A	7.5	53.7	0.53	0.51	0.53	44.1
8	T1	1526	3.5	1526	3.5	0.721	7.7	LOS A	7.5	54.2	0.53	0.48	0.53	36.9
9	R2	1	0.0	1	0.0	0.004	43.0	LOS D	0.0	0.2	0.72	0.59	0.72	27.9
Approach		1621	3.4	1621	3.4	0.721	8.1	LOS A	7.5	54.2	0.53	0.48	0.53	37.9
West: King Street														
10	L2	57	3.5	57	3.5	0.183	51.5	LOS D	1.8	12.9	0.89	0.74	0.89	21.0
11	T1	38	0.0	38	0.0	0.301	48.0	LOS D	3.2	22.1	0.92	0.75	0.92	29.6
12	R2	60	0.0	60	0.0	0.301	52.6	LOS D	3.2	22.1	0.92	0.75	0.92	21.3
Approach		155	1.3	155	1.3	0.301	51.1	LOS D	3.2	22.1	0.91	0.75	0.91	23.8
All Vehicles		3321	3.6	3321	3.6	0.723	16.7	LOS B	7.5	54.2	0.54	0.48	0.54	29.0

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	50	55.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	50	55.3	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	50	55.3	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	50	55.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		200	55.3	LOS E			0.95	0.95

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

MOVEMENT SUMMARY

Site: 101 [O'Riordan St & King St - Prop. AM]

Network: N101 [Network - Prop. AM]

O'Riordan Street & King Street Intersection
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 124 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: O'Riordan Street														
1	L2	63	0.0	63	0.0	0.906	20.4	LOS B	19.6	140.4	0.75	0.73	0.80	38.6
2	T1	2023	3.0	2023	3.0	0.906	14.8	LOS B	19.6	141.0	0.71	0.69	0.76	23.7
3	R2	129	0.8	129	0.8	0.542	53.3	LOS D	4.2	29.9	0.91	0.78	0.91	24.1
Approach		2215	2.8	2215	2.8	0.906	17.2	LOS B	19.6	141.0	0.72	0.69	0.77	24.7
East: King Street														
4	L2	46	2.2	46	2.2	0.125	48.3	LOS D	1.4	10.0	0.85	0.73	0.85	21.7
5	T1	120	0.0	120	0.0	0.922	70.5	LOS E	14.7	103.6	1.00	1.07	1.36	25.0
6	R2	214	1.4	214	1.4	0.922	75.0	LOS F	14.7	103.6	1.00	1.07	1.36	16.9
Approach		380	1.1	380	1.1	0.922	70.3	LOS E	14.7	103.6	0.98	1.03	1.30	20.5
North: O'Riordan Street														
7	L2	89	3.4	89	3.4	0.736	20.5	LOS B	7.9	57.8	0.77	0.70	0.78	39.1
8	T1	1147	5.7	1147	5.7	0.736	14.9	LOS B	8.0	58.5	0.77	0.67	0.78	27.4
9	R2	81	0.0	81	0.0	0.776	68.8	LOS E	3.2	22.2	1.00	0.79	1.07	21.9
Approach		1317	5.2	1317	5.2	0.776	18.6	LOS B	8.0	58.5	0.78	0.68	0.80	27.7
West: King Street														
10	L2	90	1.1	90	1.1	0.290	53.6	LOS D	3.0	21.0	0.92	0.77	0.92	20.5
11	T1	46	0.0	46	0.0	0.297	49.1	LOS D	3.1	21.9	0.92	0.75	0.92	29.5
12	R2	49	0.0	49	0.0	0.297	53.6	LOS D	3.1	21.9	0.92	0.75	0.92	21.1
Approach		186	0.5	186	0.5	0.297	52.5	LOS D	3.1	21.9	0.92	0.76	0.92	23.5
All Vehicles		4099	3.3	4099	3.3	0.922	24.2	LOS B	19.6	141.0	0.77	0.72	0.83	24.3

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	50	56.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	50	56.3	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	50	56.3	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	50	56.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		200	56.3	LOS E			0.95	0.95

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

MOVEMENT SUMMARY

Site: 101 [O'Riordan St & King St - Prop. PM]

Network: N101 [Network - Prop. PM]

O'Riordan Street & King Street Intersection
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: O'Riordan Street														
1	L2	72	0.0	72	0.0	0.512	14.2	LOS A	4.6	33.6	0.30	0.34	0.30	42.5
2	T1	1149	5.0	1149	5.0	0.512	8.6	LOS A	4.7	33.9	0.30	0.28	0.30	31.4
3	R2	97	0.0	97	0.0	0.665	70.3	LOS E	4.0	28.1	0.98	0.79	1.00	20.6
Approach		1319	4.3	1319	4.3	0.665	13.5	LOS A	4.7	33.9	0.35	0.32	0.35	29.3
East: King Street														
4	L2	158	1.3	158	1.3	0.523	62.9	LOS E	6.1	43.4	0.96	0.81	0.96	18.6
5	T1	59	0.0	59	0.0	0.681	60.5	LOS E	8.4	59.4	1.00	0.84	1.01	26.8
6	R2	150	1.3	150	1.3	0.681	65.1	LOS E	8.4	59.4	1.00	0.84	1.01	18.5
Approach		367	1.1	367	1.1	0.681	63.4	LOS E	8.4	59.4	0.98	0.82	0.99	20.3
North: O'Riordan Street														
7	L2	94	1.1	94	1.1	0.685	12.1	LOS A	6.6	47.6	0.43	0.44	0.43	45.0
8	T1	1526	3.5	1526	3.5	0.685	6.6	LOS A	6.7	48.1	0.43	0.39	0.43	39.1
9	R2	77	0.0	77	0.0	0.283	47.9	LOS D	2.5	17.3	0.76	0.74	0.76	26.5
Approach		1697	3.2	1697	3.2	0.685	8.7	LOS A	6.7	48.1	0.44	0.41	0.44	37.6
West: King Street														
10	L2	142	1.4	142	1.4	0.471	62.4	LOS E	5.5	38.7	0.95	0.80	0.95	18.7
11	T1	74	0.0	74	0.0	0.492	57.9	LOS E	5.9	41.4	0.96	0.79	0.96	27.5
12	R2	80	0.0	80	0.0	0.492	62.5	LOS E	5.9	41.4	0.96	0.79	0.96	19.2
Approach		296	0.7	296	0.7	0.492	61.3	LOS E	5.9	41.4	0.96	0.79	0.96	21.5
All Vehicles		3679	3.2	3679	3.2	0.685	20.1	LOS B	8.4	59.4	0.50	0.45	0.50	27.7

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
P2	East Full Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		200	64.3	LOS F			0.96	0.96

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

MOVEMENT SUMMARY

Site: 101 [O'Riordan St & Robey St - Ex. AM]

Network: N101 [Network - Ex. AM]

O'Riordan Street & Robey Street Intersection
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 121 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Robey Street														
4	L2	157	0.6	157	0.6	0.467	63.2	LOS E	2.8	19.8	0.99	0.77	0.99	27.7
Approach		157	0.6	157	0.6	0.467	63.2	LOS E	2.8	19.8	0.99	0.77	0.99	27.7
North: O'Riordan Street														
7	L2	28	0.0	28	0.0	0.029	6.2	LOS A	0.0	0.1	0.02	0.55	0.02	45.4
8	T1	1171	5.2	1171	5.2	0.303	0.7	LOS A	0.3	2.2	0.03	0.03	0.03	58.8
Approach		1199	5.1	1199	5.1	0.303	0.9	LOS A	0.3	2.2	0.03	0.04	0.03	58.4
West: Robey Street														
10	L2	2087	2.7	2087	2.7	0.462	6.0	LOS A	0.9	6.4	0.04	0.54	0.04	50.5
11	T1	161	0.6	161	0.6	0.304	24.7	LOS B	3.2	22.3	0.58	0.56	0.58	40.1
12	R2	27	0.0	27	0.0	0.053	27.3	LOS B	0.5	3.2	0.49	0.69	0.49	40.2
Approach		2275	2.5	2275	2.5	0.462	7.6	LOS A	3.2	22.3	0.08	0.55	0.08	48.7
All Vehicles		3631	3.3	3631	3.3	0.467	7.8	LOS A	3.2	22.3	0.10	0.39	0.10	48.7

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P2	East Full Crossing	50	54.8	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	50	54.8	LOS E	0.2	0.2	0.95	0.95
P3B	North Slip/Bypass Lane Crossing	50	54.8	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	50	54.8	LOS E	0.2	0.2	0.95	0.95
P4B	West Slip/Bypass Lane Crossing	50	54.8	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		250	54.8	LOS E			0.95	0.95

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

MOVEMENT SUMMARY

Site: 101 [O'Riordan St & Robey St - Ex. PM]

Network: N101 [Network - Ex. PM]

O'Riordan Street & Robey Street Intersection
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 122 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Robey Street														
4	L2	244	0.0	244	0.0	0.401	54.5	LOS D	4.1	28.4	0.94	0.78	0.94	29.6
Approach		244	0.0	244	0.0	0.401	54.5	LOS D	4.1	28.4	0.94	0.78	0.94	29.6
North: O'Riordan Street														
7	L2	73	83.6	73	83.6	0.114	6.4	LOS A	0.1	0.7	0.02	0.52	0.02	43.9
8	T1	1676	3.0	1676	3.0	0.399	0.7	LOS A	0.5	3.5	0.04	0.03	0.04	58.8
Approach		1749	6.4	1749	6.4	0.399	1.0	LOS A	0.5	3.5	0.03	0.05	0.03	58.0
West: Robey Street														
10	L2	1163	5.7	1163	5.7	0.288	6.1	LOS A	0.4	2.8	0.03	0.54	0.03	50.5
11	T1	128	0.0	128	0.0	0.400	41.4	LOS C	3.7	25.7	0.81	0.69	0.81	34.0
12	R2	30	0.0	30	0.0	0.099	43.4	LOS D	0.8	5.4	0.72	0.71	0.72	34.1
Approach		1321	5.0	1321	5.0	0.400	10.3	LOS A	3.7	25.7	0.12	0.56	0.12	45.9
All Vehicles		3314	5.4	3314	5.4	0.401	8.7	LOS A	4.1	28.4	0.14	0.31	0.14	47.9

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P2	East Full Crossing	50	55.3	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	50	55.3	LOS E	0.2	0.2	0.95	0.95
P3B	North Slip/Bypass Lane Crossing	50	55.3	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	50	55.3	LOS E	0.2	0.2	0.95	0.95
P4B	West Slip/Bypass Lane Crossing	50	55.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		250	55.3	LOS E			0.95	0.95

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

MOVEMENT SUMMARY

Site: 101 [O'Riordan St & Robey St - Prop. AM]

Network: N101 [Network - Prop. AM]

O'Riordan Street & Robey Street Intersection
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 124 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Robey Street														
4	L2	157	0.6	157	0.6	0.479	64.9	LOS E	2.9	20.3	0.99	0.77	0.99	27.3
Approach		157	0.6	157	0.6	0.479	64.9	LOS E	2.9	20.3	0.99	0.77	0.99	27.3
North: O'Riordan Street														
7	L2	28	0.0	28	0.0	0.029	6.2	LOS A	0.0	0.1	0.02	0.55	0.02	45.4
8	T1	1191	5.1	1191	5.1	0.306	0.8	LOS A	0.3	2.3	0.03	0.03	0.03	58.8
Approach		1219	5.0	1219	5.0	0.306	0.9	LOS A	0.3	2.3	0.03	0.04	0.03	58.4
West: Robey Street														
10	L2	2204	2.6	2204	2.6	0.485	6.0	LOS A	1.0	7.3	0.04	0.54	0.04	50.5
11	T1	161	0.6	161	0.6	0.302	25.1	LOS B	3.2	22.7	0.57	0.55	0.57	39.9
12	R2	27	0.0	27	0.0	0.053	27.6	LOS B	0.5	3.2	0.48	0.69	0.48	40.0
Approach		2392	2.4	2392	2.4	0.485	7.5	LOS A	3.2	22.7	0.08	0.55	0.08	48.7
All Vehicles		3768	3.2	3768	3.2	0.485	7.8	LOS A	3.2	22.7	0.10	0.39	0.10	48.7

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P2	East Full Crossing	50	56.3	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	50	56.3	LOS E	0.2	0.2	0.95	0.95
P3B	North Slip/Bypass Lane Crossing	50	56.3	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	50	56.3	LOS E	0.2	0.2	0.95	0.95
P4B	West Slip/Bypass Lane Crossing	50	56.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		250	56.3	LOS E			0.95	0.95

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

MOVEMENT SUMMARY

Site: 101 [O'Riordan St & Robey St - Prop. PM]

Network: N101 [Network - Prop. PM]

O'Riordan Street & Robey Street Intersection
Site Category: (None)
Signals - Fixed Time Coordinated Cycle Time = 140 seconds (Network Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Robey Street														
4	L2	244	0.0	244	0.0	0.400	61.5	LOS E	4.6	32.3	0.94	0.79	0.94	28.1
Approach		244	0.0	244	0.0	0.400	61.5	LOS E	4.6	32.3	0.94	0.79	0.94	28.1
North: O'Riordan Street														
7	L2	73	83.6	73	83.6	0.111	6.5	LOS A	0.1	0.8	0.02	0.52	0.02	43.8
8	T1	1696	3.0	1696	3.0	0.393	0.8	LOS A	0.6	4.1	0.03	0.03	0.03	58.7
Approach		1769	6.3	1769	6.3	0.393	1.1	LOS A	0.6	4.1	0.03	0.05	0.03	57.9
West: Robey Street														
10	L2	1271	5.2	1271	5.2	0.309	6.1	LOS A	0.5	3.6	0.03	0.54	0.03	50.4
11	T1	128	0.0	128	0.0	0.400	47.0	LOS D	4.2	29.3	0.81	0.69	0.81	32.3
12	R2	30	0.0	30	0.0	0.098	48.7	LOS D	0.9	6.1	0.72	0.71	0.72	32.5
Approach		1429	4.6	1429	4.6	0.400	10.7	LOS A	4.2	29.3	0.12	0.55	0.12	45.5
All Vehicles		3442	5.2	3442	5.2	0.400	9.3	LOS A	4.6	32.3	0.13	0.31	0.13	47.2

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P2	East Full Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
P3	North Full Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
P3B	North Slip/Bypass Lane Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
P4	West Full Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
P4B	West Slip/Bypass Lane Crossing	50	64.3	LOS F	0.2	0.2	0.96	0.96
All Pedestrians		250	64.3	LOS F			0.96	0.96

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