



## **PROPOSED MIXED USE DEVELOPMENT**

**265 CONDAMINE STREET AND 1 KENNETH ROAD, MANLY VALE**

### **Traffic and Parking Assessment Report**

8<sup>th</sup> September 2020

Ref: 20037

Prepared by

**TerraFfic Pty Ltd**  
Traffic and Parking Consultants



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## 1. INTRODUCTION

This report has been prepared to accompany a Development Application (DA) to Northern Beaches Council for a proposed mixed use development on a consolidated site at 265 Condamine Street and 1 Kenneth Road, Manly Vale (Figures 1 and 2).

The proposed development site has a total site area of 1,561m<sup>2</sup> with frontages of 15.265m to Condamine Street and 19.2m to Kenneth Road.

### *Existing Site Development*

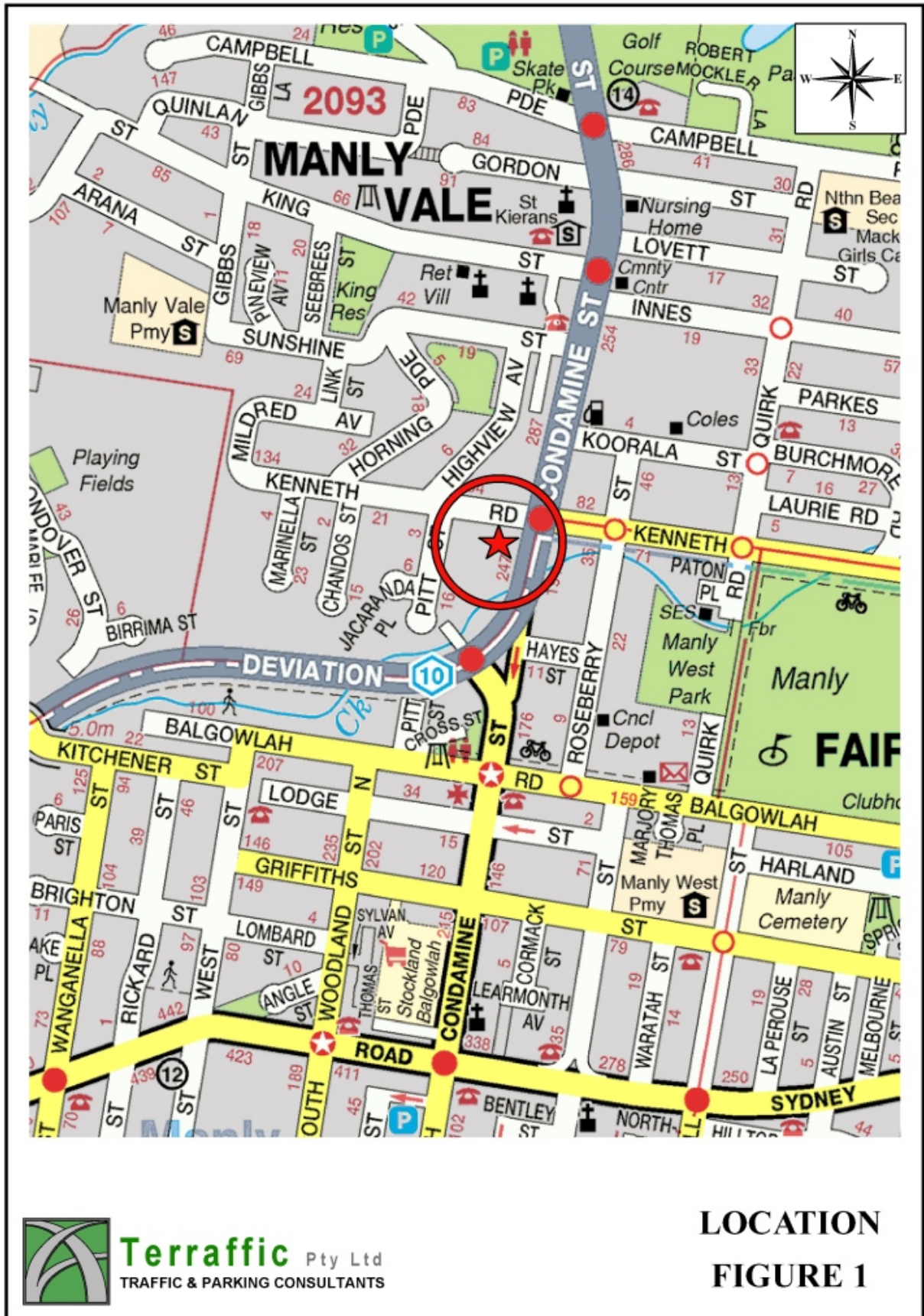
The existing site development contains approximately 2,100m<sup>2</sup> of warehouse floor space as follows:

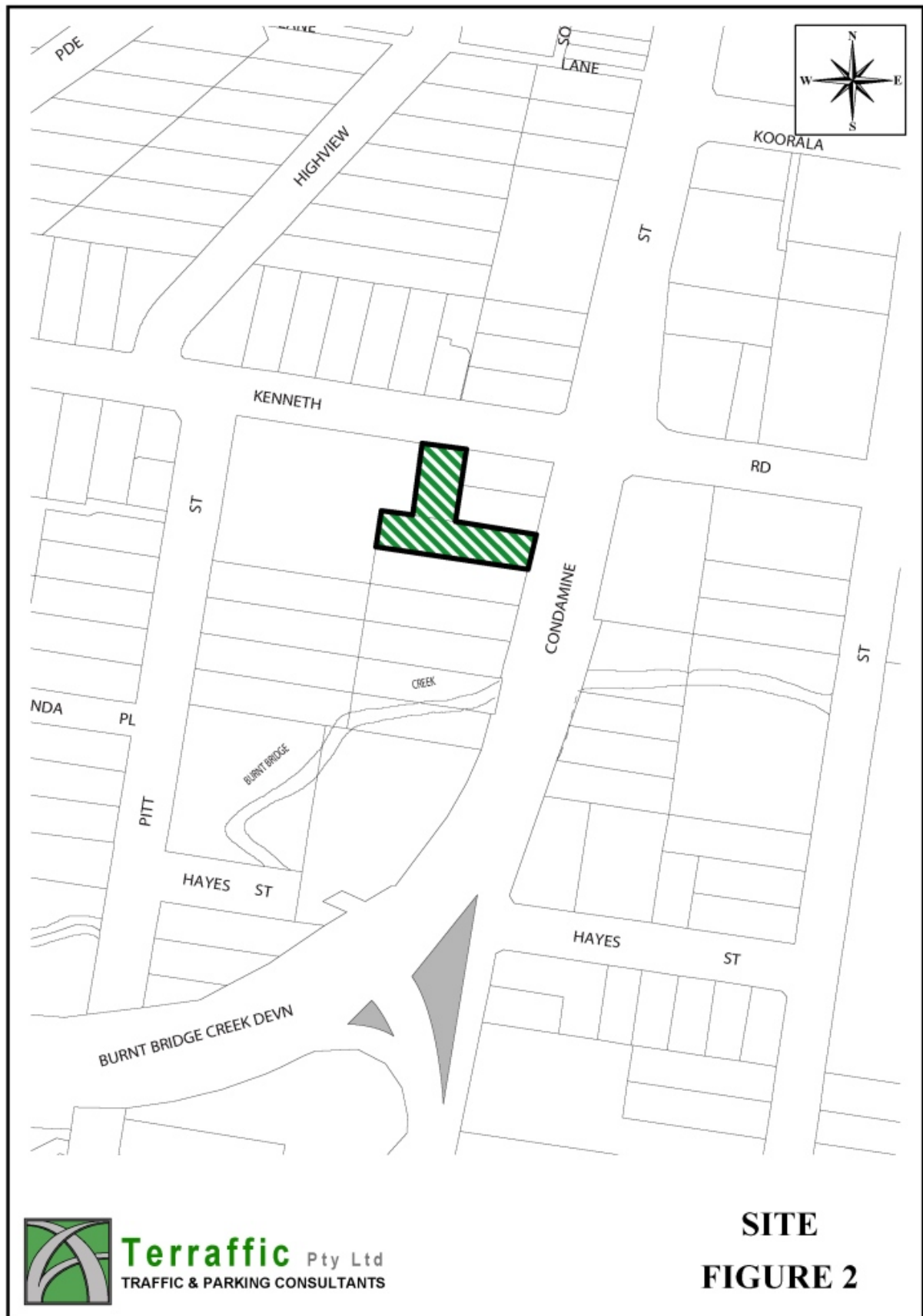
265 Condamine Street	a single and 3 storey warehouse building that is currently unoccupied. The buildings have a combined floor area of approximately 1,459m <sup>2</sup> and gains vehicular access to Condamine Street via a single width driveway.
1 Kenneth Road	a 2 storey commercial/warehouse building that is currently unoccupied. The building has a floor area of approximately 644m <sup>2</sup> and is served by an off-street carpark that gains vehicular access to Kenneth Road via a single width driveway.



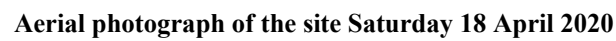
**Kenneth Road Site Frontage**













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***Proposed Development***

The development proposal involves the demolition of the existing buildings and construction of a new mixed use building comprising 2 small retail shops with a combined floor area of 131m<sup>2</sup> and 36 residential apartments as follows:

**Retail**

Retail 1 fronting Condamine St	67m <sup>2</sup>
Retail 2 fronting Kenneth Rd	64m <sup>2</sup>
<b>Total Retail</b>	<b>131m<sup>2</sup></b>

**Residential**

Studios	2
1 bedroom units	11
2 bedroom units	20
3 bedroom units	3
<b>Total Units</b>	<b>36</b>

The proposed development is served by a 2 level basement containing a total of 59 off-street car parking spaces comprising 44 resident spaces, 7 resident visitor spaces and 8 retail spaces. Of the retail parking provision, one space will be 6.5m long and 3.2m wide and signposted for courier van deliveries during business hours.

In addition to the carparking provision are 2 motorbike spaces and 42 bicycle racks throughout the basement.

Vehicular access to the proposed development is off Kenneth Road via a two-way 5.5m wide combined entry/exit driveway centrally located adjacent to the western site boundary.

***On-Street Loading Zone***

On the 3<sup>rd</sup> July 2019, Northern Beaches Council approved DA2019/0114 on the adjoining site at 267-269 Condamine Street for a shop top housing development comprising 27 dwellings and 4 retail tenancies. As part of that consent, Council approved a 10m long on-street



LOADING ZONE on Kenneth Road to facilitate deliveries and waste collection from that site and the surrounding commercial properties on Kenneth Road (including the subject site).

### ***Public Transport Accessibility***

The subject site has convenient access to the following bus service operated by Sydney Buses:

<b>Route B1</b>	B-Line Mona Vale to City Wynyard via Narrabeen, Dee Why, Brookvale, Mosman and Neutral Bay (operates daily)
<b>Route E54</b>	Mona Vale to Milsons Point (Express Service) via Warriewood, Narrabeen, Dee Why, Brookvale, Manly Vale, Mosman, Neutral Bay and North Sydney Station (operates daily)
<b>Route E65</b>	South Curl Curl to City Wynyard (Express Service) via Freshwater, Manly Vale, Cremorne and Neutral Bay (operates daily)
<b>Route E66</b>	Allambie to City Wynyard (Express Service) via Manly Vale, Cremorne and Neutral Bay (operates weekday peaks only)
<b>Route E68</b>	Brookvale to City Wynyard (Express Service) via North Balgowlah, Seaforth, Mosman and Neutral Bay (operates weekday peaks only)
<b>Route E75</b>	Brookvale to City Wynyard (Express Service) via Manly Vale and Neutral Bay (operates weekday peaks only)
<b>Route E76</b>	Dee Why to City Wynyard (Express Service) via North Curl Curl Brookvale, Manly Vale, Cremorne and Neutral Bay (operates weekday peaks only)
<b>Route E77</b>	Dee Why to City Wynyard (Express Service) via Wingala, North Curl Curl Brookvale, Manly Vale, Cremorne and Neutral Bay (operates weekday peaks only)
<b>Route E78</b>	Cromer Heights to City Wynyard (Express Service) via Narrabeena, Dee Why, Brookvale, Manly Vale, Cremorne and Neutral Bay (operates weekday peaks only)
<b>Route E79</b>	Wheeler Heights to City Wynyard (Express Service) via Narrabeena, Dee Why, Brookvale, Manly Vale, Cremorne and Neutral Bay (operates weekday peaks only)



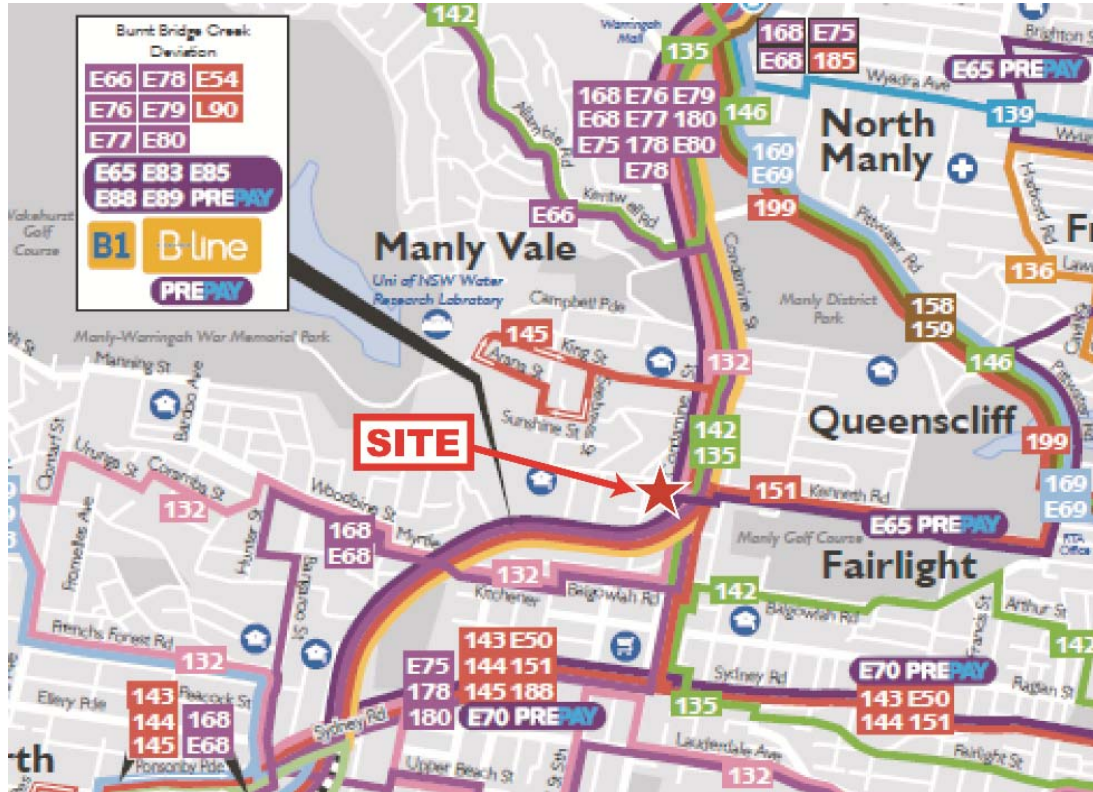


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<b>Route E80</b>	Collaroy Plateau to City Wynyard (Express Service) via Dee Why, Brookvale, Manly Vale and Neutral Bay (operates weekday peaks only)
<b>Route E83</b>	North Narrabeen to City Wynyard (Express Service) via Narrabeen, Dee Why, Brookvale, Manly Vale, Cremorne and Neutral Bay (operates weekday peaks only)
<b>Route E85</b>	Mona Vale to City Wynyard (Express Service) via Warriewood, Narrabeen, Dee Why, Brookvale, Manly Vale, Cremorne and Neutral Bay (operates weekday peaks only)
<b>Route E88</b>	North Avalon to City Wynyard (Express Service) via Mona Vale, Narrabeen, Manly Vale, Mosman and Neutral Bay (operates daily)
<b>Route E89</b>	Avalon to City Wynyard (Express Service) via Mona Vale, Narrabeen, Mosman and Neutral Bay (operates daily)
<b>Route L90</b>	Palm Beach to City Wynyard (Limited Stops) via Avalon, Newport, Narrabeen, Brookvale, Mosman and Neutral Bay (operates daily)
<b>Route 132</b>	Warringah Mall to Manly via North Balgowlah and Seaforth (operates daily)
<b>Route 135</b>	North Head to Warringah Mall via Manly, Balgowlah, Manly Vale and Brookvale (operates daily)
<b>Route 142</b>	Pittwater Place Shopping Centre to Kamaroi Rudolf Steiner School (operates morning peak only)
<b>Route 145</b>	Warringah Mall to Seaforth via Manly Vale (operates weekdays only)
<b>Route 151</b>	Mona Vale to City QVB via Narrabeen, Dee Why, Brookvale, Mosman, Neutral Bay and North Sydney Station (operates daily)
<b>Route 168</b>	North Balgowlah to Milsons Point via Seaforth, Cremorne, Neutral bay and North Sydney (operates weekday peaks only)
<b>Route 178</b>	Cromer Heights to City Wynyard via Narrabeen, Dee Why, Brookvale, Manly Vale, Cremorne and Neutral Bay (operates daily)
<b>Route 180</b>	Collaroy Plateau to City Wynyard via Dee Why, Brookvale, Manly Vale and Neutral Bay (operates daily)



**Route 188**      Mona Vale to City Wynyard (Express Service) via Narrabeen, Dee Why, Brookvale, Mosman, Neutral Bay and North Sydney Station (operates daily)



**Local Bus Services**

The purpose of this report is to assess the traffic, servicing and parking implications of the proposed development.



## 2. PARKING AND SERVICING ASSESSMENT

### *Parking Provision*

Appendix 1 in Part H of the Warringah Development Control Plan (effective 9 December 2011) nominates the following parking requirements that are applicable to the proposed development:

**Multi-dwelling housing, Residential flat buildings, Serviced apartments (including holiday flats), Shop-top housing (residential component)**

- 1 space per 1 bedroom dwelling
- 1.2 spaces per 2 bedroom dwelling
- 1.5 spaces per 3 bedroom dwelling
- 1 visitor space per 5 units or part of dwellings

**Shop (includes retail / business component of shop top housing, retail premises and neighbourhood shop)**

- 1 space per 16.4 m<sup>2</sup> GLFA (6.1 spaces per 100 m<sup>2</sup> GLFA)

While the DCP does not provide a parking requirement for studio apartments, this assessment will adopt the same rate as 1 bedroom units for the proposed studios.

Application of those parking rates to the proposed development yields a total requirement of 57 spaces calculated as follows:

#### ***Residential***

2 x studios @ 1.0 space per dwelling	2.0 spaces
11 x 1 bedroom dwellings @ 1.0 space per dwelling	11.0 spaces
20 x 2 bedroom dwellings @ 1.2 spaces per dwelling	24.0 spaces
3 x 3 bedroom dwellings @ 1.5 spaces per dwelling	4.5 spaces
<b>Total resident parking</b>	<b>41.5 spaces (rounded to 42 spaces)</b>
36 dwellings @ 1 visitor space per 5 dwellings	7.2 spaces (rounded to 7 spaces)
<b>Total Residential</b>	<b>48.7 spaces (rounded to 49 spaces)</b>

#### ***Retail***

131m <sup>2</sup> @ 6.1 spaces per 100m <sup>2</sup>	8.0 spaces
<b>Total Requirement</b>	<b>56.7 spaces (rounded to 57 spaces)</b>





The proposed development satisfies the DCP with the provision of 59 off-street car parking spaces comprising 44 resident spaces, 7 resident visitor spaces and 8 retail spaces.

### ***On-Site Loading Facilities***

Part C2 of the Warringah Development Control Plan notes the following with regard to on-site loading facilities:

#### **On-site loading and unloading**

6. Facilities for the loading and unloading of service, delivery and emergency vehicles are to be:
- appropriate to the size and nature of the development;
  - screened from public view; and
  - designed so that vehicles may enter and leave in a forward direction.

Table 5.1 of the RMS's "*Guide to Traffic Generating Developments*" (October 2002) specifies the following requirement for delivery and service vehicles:

Restaurants/Shops <2,000m <sup>2</sup> GFA	1 space per 400m <sup>2</sup> GFA
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Based on the RMS Guidelines, the proposed development requires one-third of a loading space as follows:

131m <sup>2</sup> Retail floorspace @ 1 loading bay per 400m <sup>2</sup> GFA	0.3 loading bay
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As noted in the Introduction of this report, 1 of the 8 retail parking spaces will be 6.5m long and 3.2m wide and signposted to facilitate courier van deliveries during normal business hours. A typical courier van is similar in size to the Australian Standard B99 vehicle that measures 5.2m in length and 1.94m in width. The additional length and width of the car space will assist with side and rear loading.

It should be noted that while couriers will have the ability to temporarily park in the basement, it is likely they will utilise the approved on-street LOADING ZONE on Kenneth Road.



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### ***Carpark and Access Compliance***

The basement carpark and access ramps have been designed to generally satisfy the following requirements of the Australian Standard AS/NZS2890.1-2004 – “*Off-Street Car Parking*”:

- Parking spaces are a minimum 5.4m long and 2.4m wide
- An additional 0.3m has been provided for spaces adjacent to a wall or obstruction
- Dead-end aisle extensions 1.0m wide have been provided as per Figure 2.3 of the Standard
- The access/manoeuvring aisle is a minimum 5.8m wide
- Pavement cross-falls at parking spaces do not exceed 5% (1 in 20)
- Maximum ramp grades do not exceed 20% (1 in 5)
- Ramp transitions do not exceed 12.5% (1 in 8) over a distance of 2.0m
- The two-way access driveways are 6.1m wide wall to wall comprising a 5.5m roadway and 2 x 300mm wide kerbs
- A minimum headroom clearance of 2.2m has been provided throughout the basement carpark

The disabled parking spaces have also been designed in accordance with the Australian Standard AS/NZS2890.6:2009 – “*Off-street parking for people with disabilities*” as follows:

- A 5.4m long x 2.4m wide dedicated (*non-shared*) parking space
- An adjacent *shared* area that is also 5.4m long x 2.4m wide
- A minimum headroom of 2.5m above the disabled spaces
- Pavement cross-falls in disabled spaces do not exceed 2.5% (1 in 40) in any direction

In order to provide adequate flood control, the access driveway serving the proposed development is required to be 500mm above the existing gutter level before heading down into the basement. The driveway has therefore been designed to provide:

- a 1.2m wide footpath with a 2% crossfall
- a rise at 12.5% (1 in 8) over a distance of 3m to
- a 2.0m wide plateau that is 500mm above the gutter level

Clause 3.3(a) of the Australian Standard requires the first 6m into a carpark from the property boundary to have a maximum gradient of 5% (1 in 20). The objective of this requirement is to optimise sight lines to pedestrians walking along the footpath. As the footpath along the



Kenneth Road frontage adjoins the new kerb and gutter, low level landscaping is proposed on the naturestrip to satisfy the intent of Clause 3.3(a) of the Standard.

Furthermore, vehicles exiting the site will have unrestricted lines of sight to pedestrians that will also exceed the 2.5m x 2.0m requirements specified in Figure 3.3 (reproduced below).

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AS/NZS 2890.1:2004

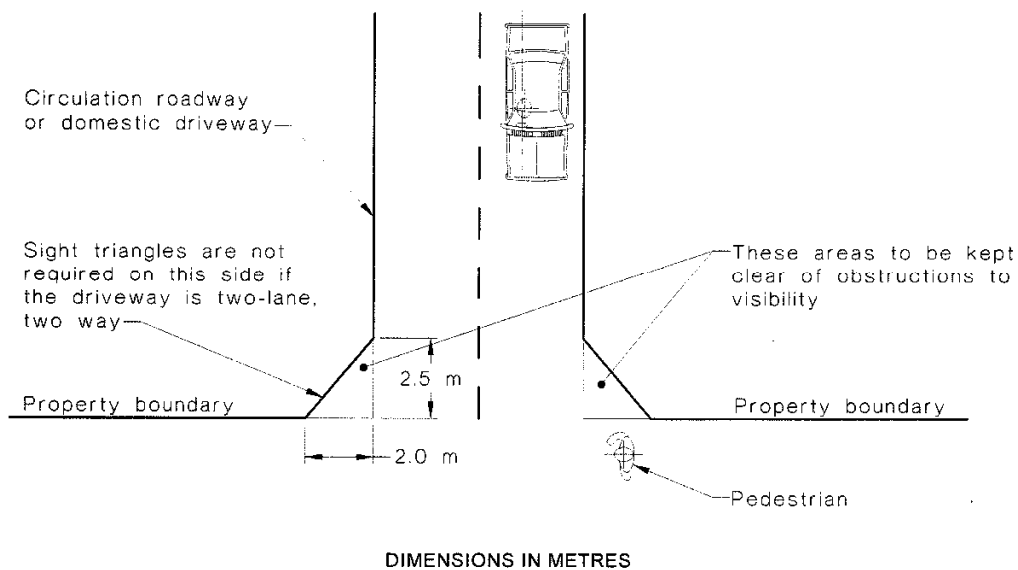


FIGURE 3.3 MINIMUM SIGHT LINES FOR PEDESTRIAN SAFETY

In the circumstances, it can be concluded that the proposed development has no unacceptable parking, loading or safety implications.





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### 3. TRAFFIC ASSESSMENT

#### *Existing Road Network*

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 and comprises the following:

##### **State Roads**

Burnt Bridge Creek Deviation – Condamine Street  
Sydney Road

##### **Regional Roads**

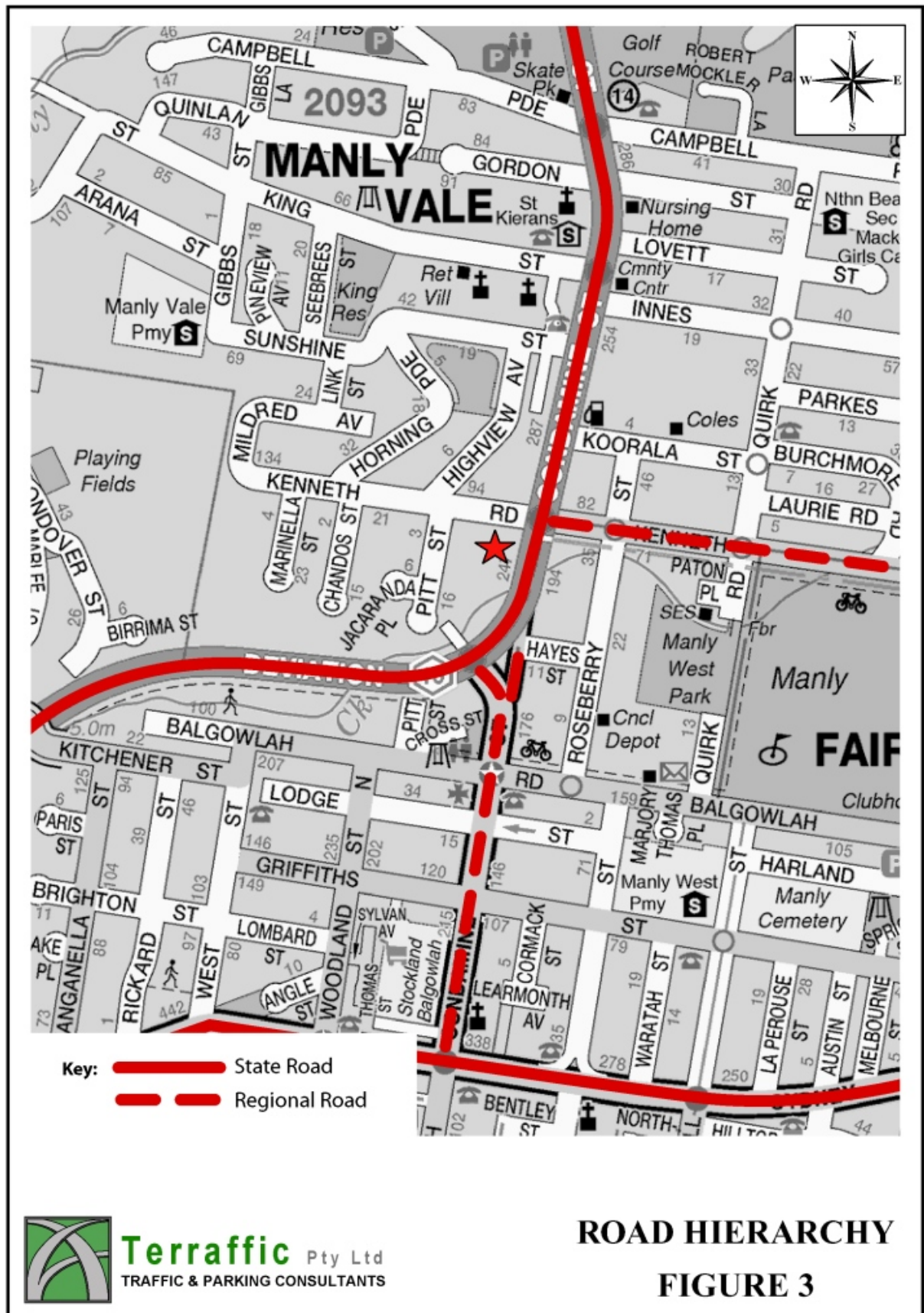
Kenneth Road (east of Condamine Street)  
Condamine Street (between Burnt Bridge Creek Deviation and Sydney Road)

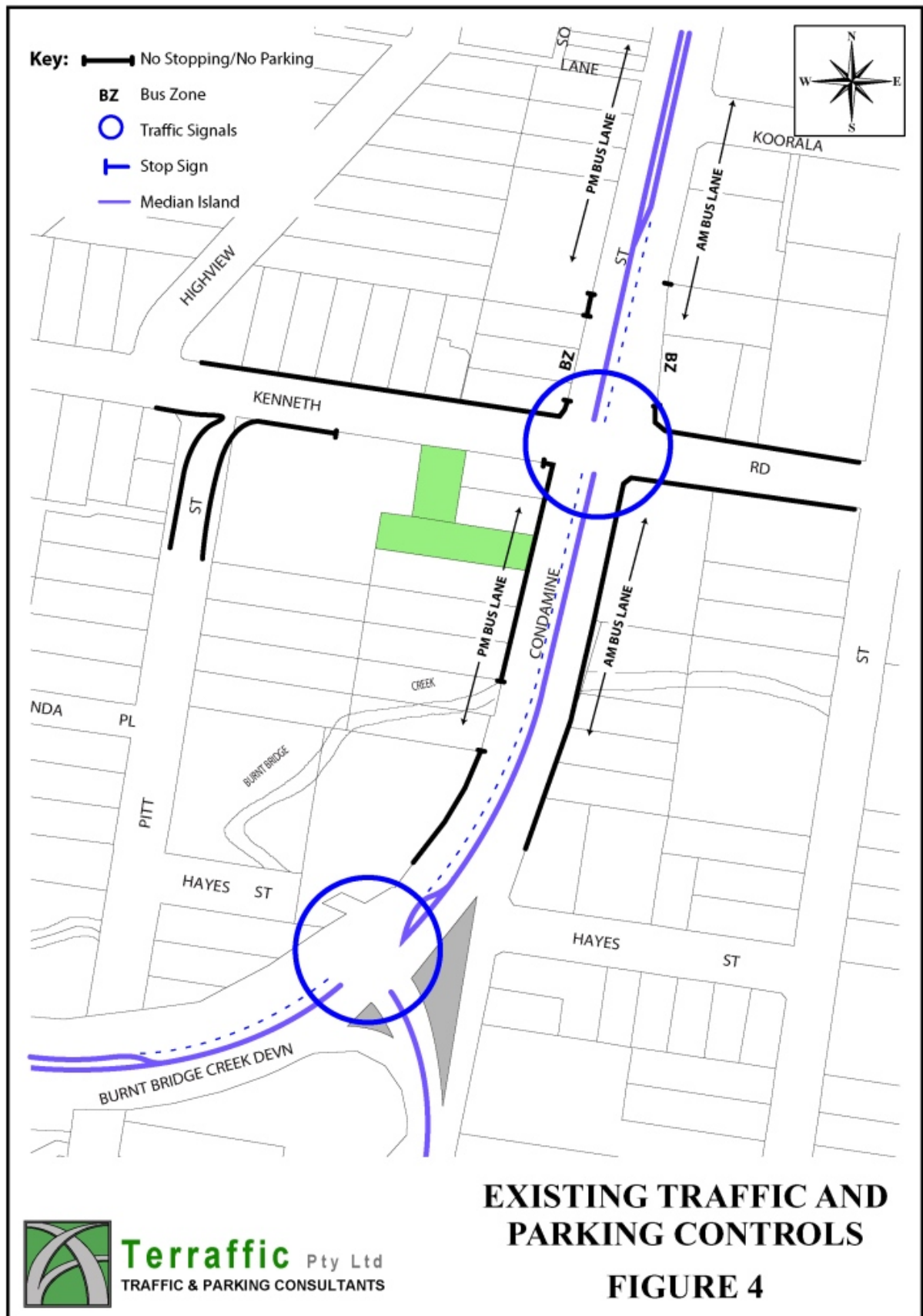
Condamine Street is a classified *State Road* performing an arterial road function. It forms part of the Metroad 10 system that links the northern suburbs to the lower north shore and ultimately the Sydney CBD. Condamine Street carries 6 lanes of traffic with the kerbside lanes reserved as Bus Lanes during peak periods.

Kenneth Road along the frontage of the site is an unclassified Local Road with a primary function of providing access to properties to the west of Condamine Street. It has a variable width pavement and is restricted to a speed limit of 50km/h.

The existing traffic and parking controls on the road network serving the site are illustrated on Figure 4 and include:

- The TRAFFIC SIGNALS at the intersection of Condamine Street and Kenneth Road
- The MEDIAN ISLAND on Condamine Street
- The BUS ZONES and peak period BUS LANES on Condamine Street
- The NO STOPPING restriction along the Condamine Street frontage of the site









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### ***Existing Traffic Conditions***

An indication of existing traffic conditions on the road network serving the site is provided from a count of traffic activity at the Condamine Street/Kenneth Road intersection conducted between 7.00am - 9.00am and 4.00pm - 6.00pm on Tuesday 11<sup>th</sup> September 2018. The result of the count of traffic activity at this intersection is reproduced in Appendix A revealing that:

- the AM peak period occurred between 8.00 – 9.00am. At that time, traffic flows on Condamine Street past the site were in the order of 3,456 vehicles per hour (vph) comprising 1,658vph heading northbound and 1,798vph heading southbound.
- At that time, there were 274vph on Kenneth Road past the site comprising 172vph heading eastbound towards the signals and 102vph heading westbound
- the PM peak period occurred between 4.15 – 5.15pm. At that time, traffic flows on Condamine Street past the site were in the order of 3,868vph comprising 2,372vph heading northbound and 1,496vph heading southbound.
- At that time, there were 332vph on Kenneth Road past the site comprising 195vph heading eastbound and 137vph heading westbound

### ***Projected Traffic Generation Potential***

An indication of the traffic generation potential of the existing and proposed development is provided by reference to the Roads and Maritime Services publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002)*.

The RMS *Guidelines* are based on extensive surveys of a wide range of land uses and nominates the following traffic generation rates which are applicable to the existing and proposed development:



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<b>Warehouses</b>	0.5 peak hour trips per 100m <sup>2</sup> GFA
<b>Specialty Shops / Secondary Retail</b>	5.6 peak hour trips per 100m <sup>2</sup> GLFA
<b>High Density Residential Flat Buildings</b>	
Metropolitan Sub-Regional Centres	0.29 peak hour vehicle trips per unit

***Traffic Generation of EXISTING SITE Development***

Application of the RMS's traffic generation rates to the existing warehouses yields a traffic generation potential in the order of 11vtph during the weekday peak periods as follows:

2,100m <sup>2</sup> warehouses @ 0.5vtph per 100m <sup>2</sup>	11vtph
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***Traffic Generation of PROPOSED Development***

Application of the RMS's traffic generation rates to the proposed development yields a traffic generation potential in the order of 17vtph during the weekday peak periods calculated as follows:

131m <sup>2</sup> retail @ 5.6vtph per 100m <sup>2</sup>	7vtph
36 units @ 0.29vtph per unit	10vtph
<b>Total</b>	<b>17vtph</b>

Therefore based on the RMS Guidelines, the proposed development will only generate 6 additional vehicle movements during peak periods as follows:

Proposed Development	17vtph
Existing Development	11vtph
<b>Additional Traffic</b>	<b>6vph</b>

It will be readily appreciated that the additional traffic generated by the proposed development is relatively minor (6vtph) which will not have any noticeable or unacceptable effect on the road network serving the site in terms of road network capacity or traffic-related environmental effect.



Furthermore, the proposal will be removing an existing vehicular access driveway off Condamine Street which will be in accordance with the Transport for NSW (RMS) practice of limiting the number of vehicular conflict points along the arterial road network. The purpose of this restriction is to maintain network efficiency and optimise road safety.

In the circumstances, the proposed development will not have any unacceptable traffic implications.





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## **APPENDIX A**

### **TRAFFIC COUNT DATA**



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

Client : Terrafic Pty. Ltd.  
 Job No/Name : 6910 MANLY VALE Kenneth Rd  
 Day/Date : Tuesday 11th September 2018



Lights

	NORTH			WEST			SOUTH			EAST			
	Condamine St			Kenneth Rd			Condamine St			Kenneth Rd			
Time Period	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	8	366	1	4	9	12	7	172	48	70	5	12	714
0715 - 0730	9	429	4	4	7	13	2	248	56	63	4	32	871
0730 - 0745	8	306	4	7	7	17	3	289	49	66	11	28	795
0745 - 0800	11	340	5	7	6	18	4	303	52	56	15	38	855
0800 - 0815	3	316	3	10	14	10	7	317	61	55	13	30	839
0815 - 0830	3	354	11	11	9	6	2	321	82	98	7	49	953
0830 - 0845	5	309	16	7	18	25	8	325	66	66	13	53	911
0845 - 0900	4	366	9	16	15	31	4	343	58	61	9	40	956
Period End	51	2786	53	66	85	132	37	2318	472	535	77	282	6894

Lights

	NORTH			WEST			SOUTH			EAST			
	Condamine St			Kenneth Rd			Condamine St			Kenneth Rd			
Peak Period	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	36	1441	14	22	29	60	16	1012	205	255	35	110	3235
0715 - 0815	31	1391	16	28	34	58	16	1157	218	240	43	128	3360
0730 - 0830	25	1316	23	35	36	51	16	1230	244	275	46	145	3442
0745 - 0845	22	1319	35	35	47	59	21	1266	261	275	48	170	3558
0800 - 0900	15	1345	39	44	56	72	21	1306	267	280	42	172	3659

PEAK HOUR	15	1345	39	44	56	72	21	1306	267	280	42	172	3659
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Heavies

	NORTH			WEST			SOUTH			EAST			
	Condamine St			Kenneth Rd			Condamine St			Kenneth Rd			
Time Period	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	0	1	0	0	0	0	0	5	4	0	0	0	10
0715 - 0730	0	4	0	0	0	0	0	10	0	0	0	0	14
0730 - 0745	1	3	0	0	0	0	0	4	2	4	0	0	14
0745 - 0800	0	1	0	0	0	0	0	2	1	0	0	0	4
0800 - 0815	0	5	0	0	0	0	0	5	0	3	0	1	14
0815 - 0830	0	2	0	0	0	0	0	4	2	2	0	1	11
0830 - 0845	0	5	0	0	0	0	0	5	0	0	0	0	10
0845 - 0900	0	6	0	0	0	0	0	6	2	1	0	0	15
Period End	1	27	0	0	0	0	0	41	11	10	0	2	92

Heavies

	NORTH			WEST			SOUTH			EAST			
	Condamine St			Kenneth Rd			Condamine St			Kenneth Rd			
Peak Period	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	1	9	0	0	0	0	0	21	7	4	0	0	42
0715 - 0815	1	13	0	0	0	0	0	21	3	7	0	1	46
0730 - 0830	1	11	0	0	0	0	0	15	5	9	0	2	43
0745 - 0845	0	13	0	0	0	0	0	16	3	5	0	2	39
0800 - 0900	0	18	0	0	0	0	0	20	4	6	0	2	50

PEAK HOUR	0	18	0	0	0	0	0	20	4	6	0	2	50
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## R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Terrafic Pty. Ltd.

Job No/Name : 6910 MANLY VALE Kenneth Rd

Day/Date : Tuesday 11th September 2018

Buses

Time Period	NORTH			WEST			SOUTH			EAST			TOT
	Condamine St			Kenneth Rd			Condamine St			Kenneth Rd			
	L	T	R	L	T	R	L	T	R	L	T	R	
0700 - 0715	0	15	0	0	0	0	0	3	0	2	0	0	20
0715 - 0730	0	29	0	0	0	0	0	5	0	2	0	0	36
0730 - 0745	0	25	0	0	0	0	0	5	1	3	0	0	34
0745 - 0800	0	18	0	0	0	0	0	5	0	3	0	0	26
0800 - 0815	0	20	0	0	0	0	0	8	0	1	0	0	29
0815 - 0830	0	20	0	0	0	0	0	11	0	0	0	0	31
0830 - 0845	0	13	0	0	0	0	0	8	0	1	0	0	22
0845 - 0900	0	21	0	0	0	0	0	13	0	1	0	2	37
Period End	0	161	0	0	0	0	0	58	1	13	0	2	235

Buses	NORTH			WEST			SOUTH			EAST			TOT
	Condamine St			Kenneth Rd			Condamine St			Kenneth Rd			
	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	
Peak Period	0	87	0	0	0	0	0	18	1	10	0	0	116
0700 - 0800	0	92	0	0	0	0	0	23	1	9	0	0	125
0715 - 0815	0	83	0	0	0	0	0	29	1	7	0	0	120
0730 - 0830	0	71	0	0	0	0	0	32	0	5	0	0	108
0745 - 0845	0	74	0	0	0	0	0	40	0	3	0	2	119
0800 - 0900													

PEAK HOUR	0	74	0	0	0	0	0	40	0	3	0	2	119
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COMBINED	NORTH			WEST			SOUTH			EAST			TOT
	Condamine St			Kenneth Rd			Condamine St			Kenneth Rd			
	L	T	R	L	T	R	L	T	R	L	T	R	
Time Period													
0700 - 0715	8	382	1	4	9	12	7	180	52	72	5	12	744
0715 - 0730	9	462	4	4	7	13	2	263	56	65	4	32	921
0730 - 0745	9	334	4	7	7	17	3	298	52	73	11	28	843
0745 - 0800	11	359	5	7	6	18	4	310	53	59	15	38	885
0800 - 0815	3	341	3	10	14	10	7	330	61	59	13	31	882
0815 - 0830	3	376	11	11	9	6	2	336	84	100	7	50	995
0830 - 0845	5	327	16	7	18	25	8	338	66	67	13	53	943
0845 - 0900	4	393	9	16	15	31	4	362	60	63	9	42	1008
Period End	52	2974	53	66	85	132	37	2417	484	558	77	286	7221

COMBINED	NORTH			WEST			SOUTH			EAST			TOT
	Condamine St			Kenneth Rd			Condamine St			Kenneth Rd			
Peak Period	L	T	R	L	T	R	L	T	R	L	T	R	
0700 - 0800	37	1537	14	22	29	60	16	1051	213	269	35	110	3393
0715 - 0815	32	1496	16	28	34	58	16	1201	222	256	43	129	3531
0730 - 0830	26	1410	23	35	36	51	16	1274	250	291	46	147	3605
0745 - 0845	22	1403	35	35	47	59	21	1314	264	285	48	172	3705
0800 - 0900	15	1437	39	44	56	72	21	1366	271	289	42	176	3828

PEAK HOUR	15	1437	39	44	56	72	21	1366	271	289	42	176	3828
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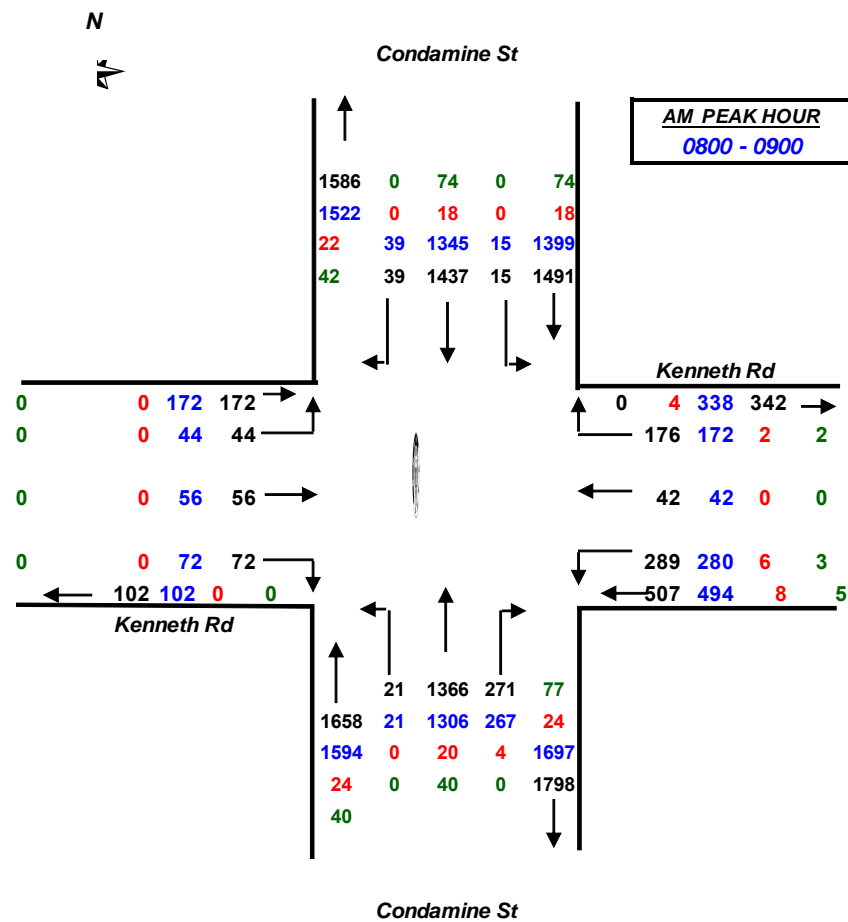
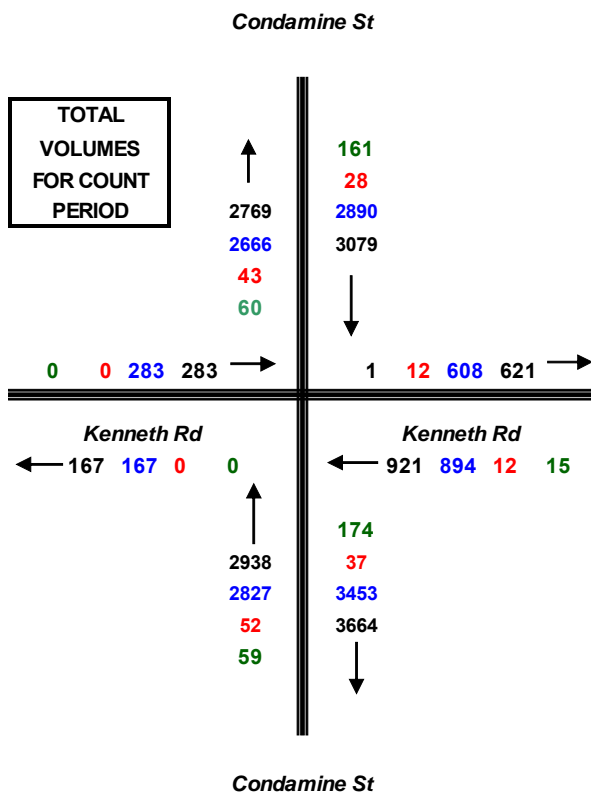


## R.O.A.R DATA

**Reliable, Original & Authentic Results**

Ph.88196847, Mob.0418-239019

Client : Terrafic Pty. Ltd.  
Job No/Name : 6910 MANLY VALE Kenneth Rd  
Day/Date : Tuesday 11th September 2018







## R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Terrafic Pty. Ltd.  
Job No/Name : 6910 MANLY VALE Kenneth Rd  
Day/Date : Tuesday 11th September 2018

### Lights

Lights

Time Period	NORTH			WEST			SOUTH			EAST			TOT
	Condamine St			Kenneth Rd			Condamine St			Kenneth Rd			
	L	T	R	L	T	R	L	T	R	L	T	R	
1600 - 1615	2	295	5	11	9	12	6	407	92	74	17	57	987
1615 - 1630	3	278	9	14	17	12	14	385	101	75	11	44	963
1630 - 1645	1	270	6	18	14	15	6	517	144	63	14	45	1113
1645 - 1700	5	261	7	12	10	18	9	423	118	58	24	36	981
1700 - 1715	3	272	7	14	19	32	17	448	121	67	13	54	1067
1715 - 1730	3	291	12	13	9	11	8	362	108	55	9	51	932
1730 - 1745	6	275	8	10	13	13	5	390	85	53	18	57	933
1745 - 1800	1	292	11	8	23	20	8	363	119	47	12	58	962
Period End	24	2234	65	100	114	133	73	3295	888	492	118	402	7938

### Lights

Lights	NORTH			WEST			SOUTH			EAST			TOT
	Condamine St			Kenneth Rd			Condamine St			Kenneth Rd			
	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	
Peak Period													
1600 - 1700	11	1104	27	55	50	57	35	1732	455	270	66	182	4044
1615 - 1715	12	1081	29	58	60	77	46	1773	484	263	62	179	4124
1630 - 1730	12	1094	32	57	52	76	40	1750	491	243	60	186	4093
1645 - 1745	17	1099	34	49	51	74	39	1623	432	233	64	198	3913
1700 - 1800	13	1130	38	45	64	76	38	1563	433	222	52	220	3894

PEAK HOUR	12	1081	29	58	60	77	46	1773	484	263	62	179	4124
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### Heavies

Heavies	NORTH			WEST			SOUTH			EAST			
	Condamine St			Kenneth Rd			Condamine St			Kenneth Rd			
Time Period	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	TOT
1600 - 1615	0	1	0	0	0	0	0	2	0	0	0	0	3
1615 - 1630	0	0	0	0	0	0	0	2	0	3	0	2	7
1630 - 1645	0	2	0	0	0	0	0	2	0	0	0	1	5
1645 - 1700	0	4	0	0	0	0	0	2	0	0	0	0	6
1700 - 1715	0	1	0	0	0	0	0	3	0	0	0	2	6
1715 - 1730	0	0	0	0	0	0	0	0	0	1	0	0	1
1730 - 1745	0	0	0	0	0	0	0	0	0	0	0	1	1
1745 - 1800	0	2	0	0	0	0	0	1	0	1	0	0	4
Period End	0	10	0	0	0	0	0	12	0	5	0	6	33

### Heavies

Heavies	NORTH			WEST			SOUTH			EAST			
	Condamine St			Kenneth Rd			Condamine St			Kenneth Rd			
Peak Period	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	TOT
1600 - 1700	0	7	0	0	0	0	0	8	0	3	0	3	21
1615 - 1715	0	7	0	0	0	0	0	9	0	3	0	5	24
1630 - 1730	0	7	0	0	0	0	0	7	0	1	0	3	18
1645 - 1745	0	5	0	0	0	0	0	5	0	1	0	3	14
1700 - 1800	0	3	0	0	0	0	0	4	0	2	0	3	12

PEAK HOUR	0	7	0	0	0	0	0	9	0	3	0	5	24
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**R.O.A.R. DATA**  
*Reliable, Original & Authentic Results*  
 Ph.88196847, Mob.0418-239019

Client : Terrafic Pty. Ltd.  
 Job No/Name : 6910 MANLY VALE Kenneth Rd  
 Day/Date : Tuesday 11th September 2018

Buses

	NORTH			WEST			SOUTH			EAST			
	Condamine St			Kenneth Rd			Condamine St			Kenneth Rd			
	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	
Time Period	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	<u>L</u>	<u>T</u>	<u>R</u>	TOT
1600 - 1615	0	15	0	0	0	0	0	9	1	0	0	0	25
1615 - 1630	0	16	0	0	0	0	0	15	1	0	0	0	32
1630 - 1645	0	14	0	0	0	0	0	12	1	2	0	0	29
1645 - 1700	0	19	0	0	0	0	0	21	0	1	0	0	41
1700 - 1715	0	13	0	0	0	0	0	9	1	0	0	0	23
1715 - 1730	0	7	0	0	0	0	0	23	2	1	0	0	33
1730 - 1745	0	14	0	0	0	0	0	9	0	1	0	0	24
1745 - 1800	0	13	0	0	0	0	0	23	3	0	0	0	39
Period End	0	111	0	0	0	0	0	121	9	5	0	0	246

Buses	NORTH			WEST			SOUTH			EAST			TOT
	Condamine St			Kenneth Rd			Condamine St			Kenneth Rd			
	L	T	R	L	T	R	L	T	R	L	T	R	
Peak Period	L	T	R	L	T	R	L	T	R	L	T	R	TOT
1600 - 1700	0	64	0	0	0	0	0	57	3	3	0	0	127
1615 - 1715	0	62	0	0	0	0	0	57	3	3	0	0	125
1630 - 1730	0	53	0	0	0	0	0	65	4	4	0	0	126
1645 - 1745	0	53	0	0	0	0	0	62	3	3	0	0	121
1700 - 1800	0	47	0	0	0	0	0	64	6	2	0	0	119

PEAK HOUR	0	62	0	0	0	0	0	57	3	3	0	0	125
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COMBINED	NORTH			WEST			SOUTH			EAST			TOT
	Condamine St			Kenneth Rd			Condamine St			Kenneth Rd			
	L	T	R	L	T	R	L	T	R	L	T	R	
Time Period													
1600 - 1615	2	311	5	11	9	12	6	418	93	74	17	57	1015
1615 - 1630	3	294	9	14	17	12	14	402	102	78	11	46	1002
1630 - 1645	1	286	6	18	14	15	6	531	145	65	14	46	1147
1645 - 1700	5	284	7	12	10	18	9	446	118	59	24	36	1028
1700 - 1715	3	286	7	14	19	32	17	460	122	67	13	56	1096
1715 - 1730	3	298	12	13	9	11	8	385	110	57	9	51	966
1730 - 1745	6	289	8	10	13	13	5	399	85	54	18	58	958
1745 - 1800	1	307	11	8	23	20	8	387	122	48	12	58	1005
Period End	24	2355	65	100	114	133	73	3428	897	502	118	408	8217

COMBINED	NORTH			WEST			SOUTH			EAST			TOT
	Condamine St			Kenneth Rd			Condamine St			Kenneth Rd			
	L	T	R	L	T	R	L	T	R	L	T	R	
Peak Period													
1600 - 1700	11	1175	27	55	50	57	35	1797	458	276	66	185	4192
1615 - 1715	12	1150	29	58	60	77	46	1839	487	269	62	184	4273
1630 - 1730	12	1154	32	57	52	76	40	1822	495	248	60	189	4237
1645 - 1745	17	1157	34	49	51	74	39	1690	435	237	64	201	4048
1700 - 1800	13	1180	38	45	64	76	38	1631	439	226	52	223	4025

PEAK HOUR	12	1150	29	58	60	77	46	1839	487	269	62	184	4273
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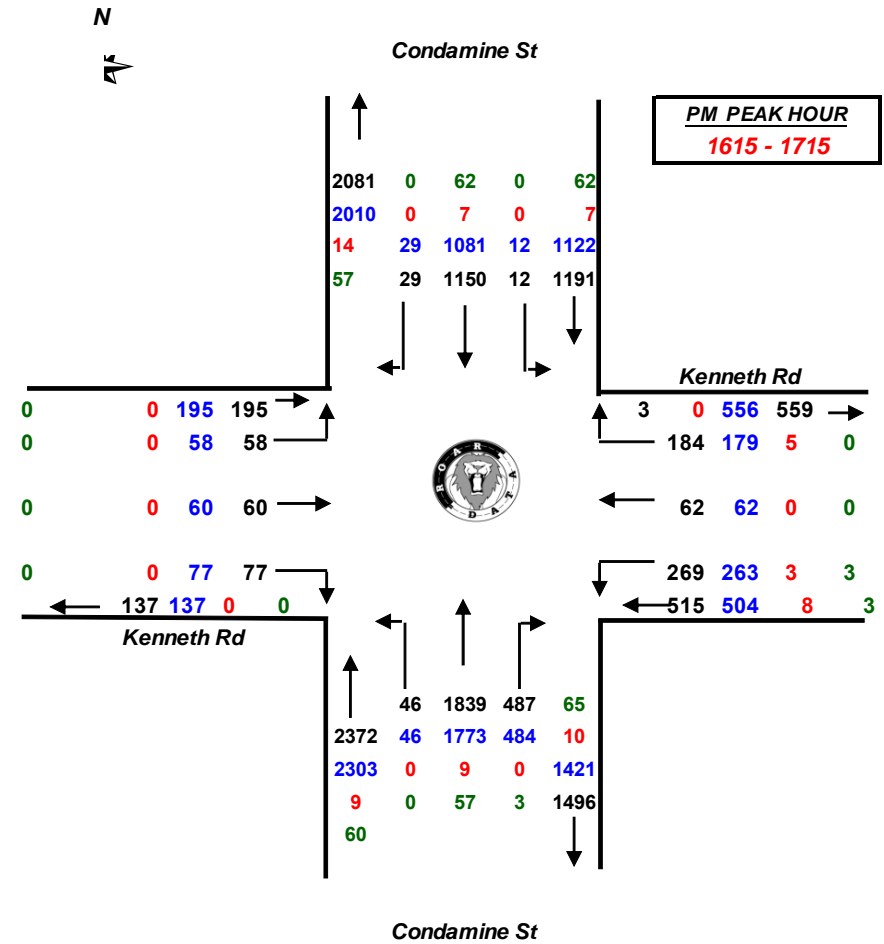
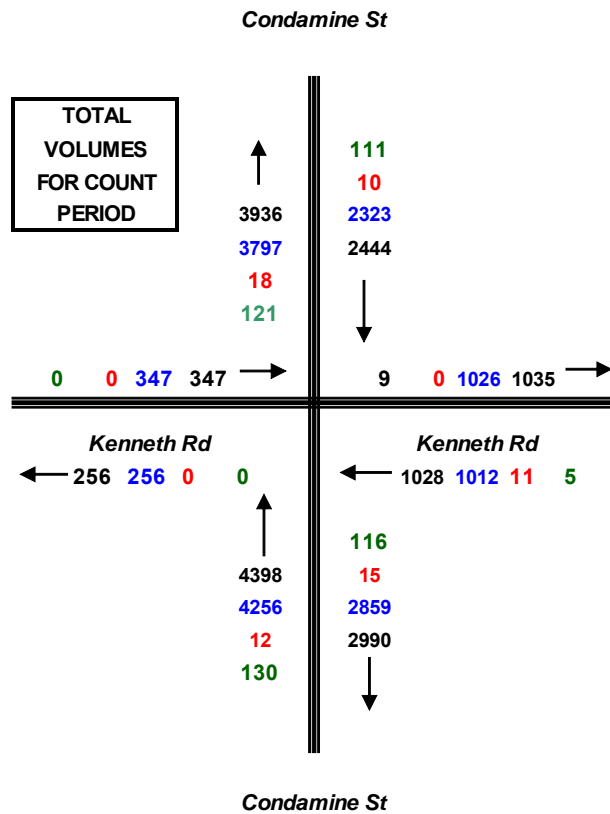


## R.O.A.R DATA

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Client : Terrafic Pty. Ltd.  
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Day/Date : Tuesday 11th September 2018





## R.O.A.R. DATA

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Day/Date : Tuesday 11th September 2018



Peds	NORTH	WEST	SOUTH	EAST	
	Condamine St	Kenneth Rd	Condamine St	Kenneth Rd	
Time Period	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOTAL
0700 - 0715	33	0	0	27	60
0715 - 0730	15	2	0	30	47
0730 - 0745	27	0	0	37	64
0745 - 0800	26	3	0	35	64
0800 - 0815	29	4	0	26	59
0815 - 0830	30	6	0	41	77
0830 - 0845	33	0	0	25	58
0845 - 0900	25	0	1	15	41
Period End	218	15	1	236	470

**PEAK HOUR**  
0800 - 0900

Peds	NORTH	WEST	SOUTH	EAST	
	Condamine St	Kenneth Rd	Condamine St	Kenneth Rd	
Peak Period	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
0700 - 0800	101	5	0	129	235
0715 - 0815	97	9	0	128	234
0730 - 0830	112	13	0	139	264
0745 - 0845	118	13	0	127	258
0800 - 0900	117	10	1	107	235

PEAK HR	117	10	1	107	235
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Peds	NORTH	WEST	SOUTH	EAST	
	Condamine St	Kenneth Rd	Condamine St	Kenneth Rd	
Time Period	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOTAL
1600 - 1615	17	5	0	24	46
1615 - 1630	23	3	0	23	49
1630 - 1645	30	5	0	24	59
1645 - 1700	23	1	0	8	32
1700 - 1715	45	0	0	13	58
1715 - 1730	30	3	0	10	43
1730 - 1745	44	2	0	8	54
1745 - 1800	43	1	0	4	48
Period End	255	20	0	114	389

**PEAK HOUR**  
1615 - 1715

Peds	NORTH	WEST	SOUTH	EAST	
	Condamine St	Kenneth Rd	Condamine St	Kenneth Rd	
Peak Period	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	TOT
1600 - 1700	93	14	0	79	186
1615 - 1715	121	9	0	68	198
1630 - 1730	128	9	0	55	192
1645 - 1745	142	6	0	39	187
1700 - 1800	162	6	0	35	203

PEAK HR	121	9	0	68	198
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