

Proposed Modifications to a  
Previously Approved Residential Development  
**16-24 Thallon Street & 27-29 Jenkins Road,  
Carlingford**

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**s.96 TRAFFIC AND PARKING ASSESSMENT REPORT**

11 October 2016

Ref 16609

**VARGA TRAFFIC PLANNING** Pty Ltd  
**Transport, Traffic and Parking Consultants** 

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## Document Verification

<b>Location:</b>	16-24 Thallon St & 27-29 Jenkins Rd, Carlingford	<b>Job Number</b>	16609		
<b>Revision</b>	<b>Details</b>	<b>Prepared</b>		<b>Approved</b>	
Final	Final for DA submission	<b>By</b>	<b>Date</b>	<b>By</b>	<b>Date</b>
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## 1. INTRODUCTION

This report has been prepared to accompany a s.96 application to Council for the proposed modifications to a previously approved residential development to be located at 16-24 Thallon Street & 27-29 Jenkins Road, Carlingford (Figures 1 and 2).

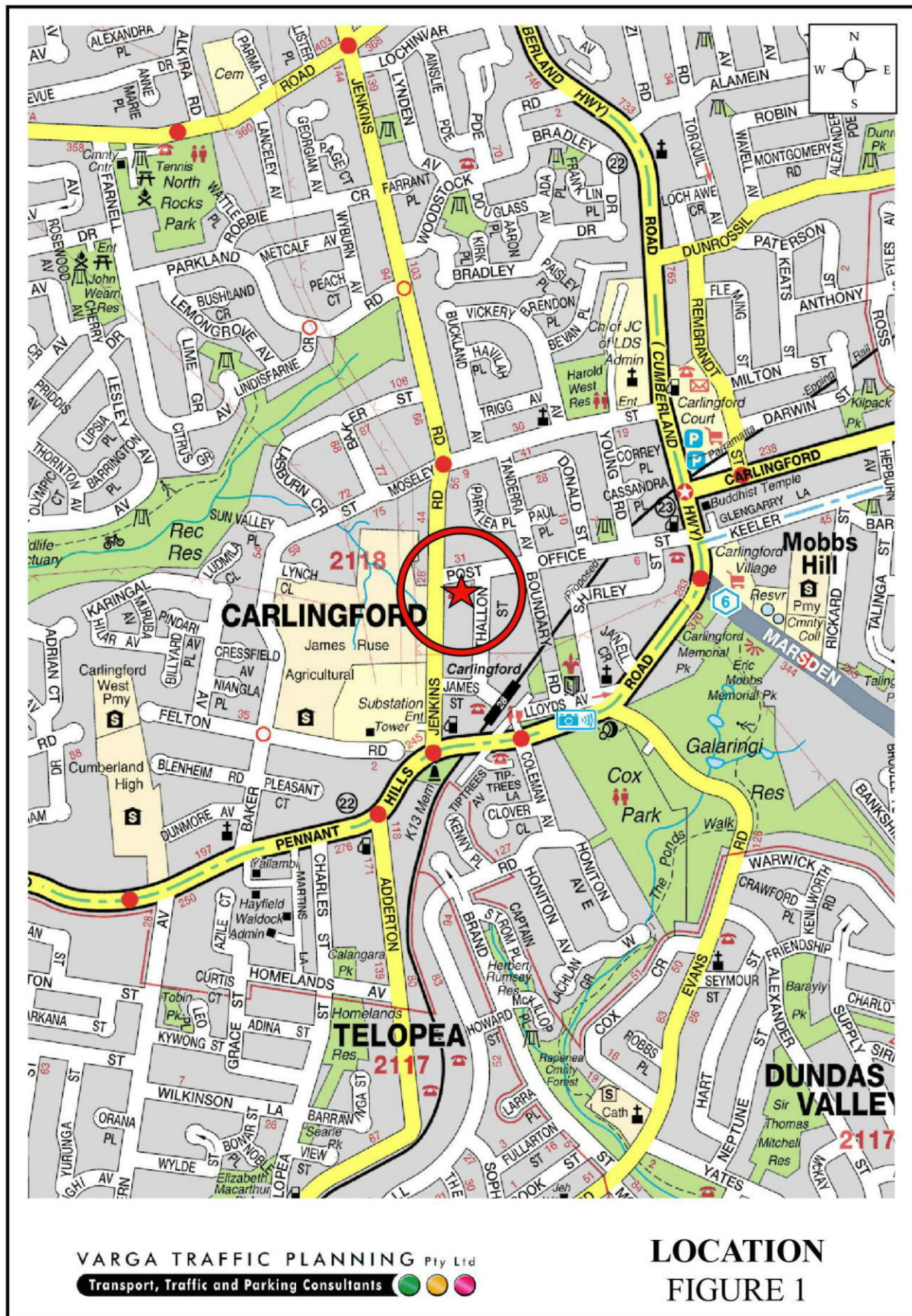
Approval has previously been granted for the demolition of the existing buildings on the site and the construction of a new residential apartment development comprising a total of 105 apartments (DA 883/2013/JP). Off-street parking for the previously approved scheme was approved for a total of 342 cars in a new four-level basement car parking area in accordance with Council's *DCP 2010* requirements. Vehicular access to the car parking facilities was approved via a new entry/exit driveway located towards the southern end of Thallon Street site frontage.

The proposed modifications to the previously approved scheme, from a traffic and parking perspective, involve increasing the total yield from 105 apartments to 124 apartments – i.e. an increase of 19 apartments. Off-street parking is to be provided for a total of 172 cars in a new three-level basement car parking area in accordance with *SEPP 65* requirements. The vehicular access and loading arrangements remain unchanged.

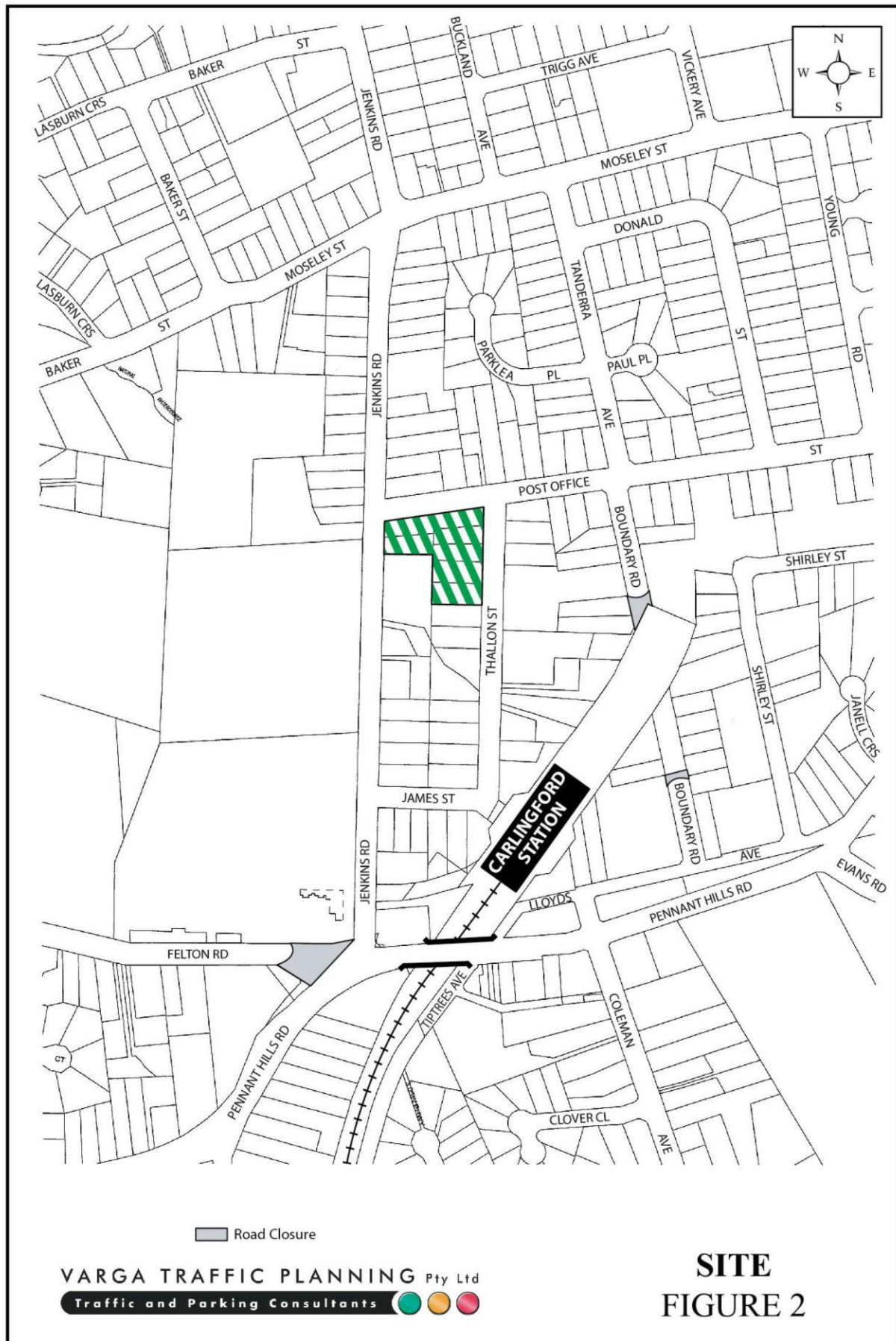
The purpose of this report is to assess the traffic and parking implications of the proposed modified scheme and to that end this report:

- describes the site and provides details of the proposed modified scheme
- reviews the road network in the vicinity of the site
- estimates the traffic generation potential of the proposed modified scheme and compares it with the previously approved scheme
- assesses the traffic implications of the proposed modified scheme in terms of road network capacity

- reviews the geometric design features of the proposed basement car parking and loading facilities for compliance with the relevant codes and standards
- assesses the adequacy and suitability of the quantum of off-street car parking and loading provided on the site.







## **2. PROPOSED DEVELOPMENT**

### **Site**

The subject site is located on the southern side of Post Office Street, extending between Jenkins Road and Thallon Street, and is situated approximately 300m north of Carlingford Railway Station. The site has street frontages approximately 91m in length to Thallon Street, 30m in length to Jenkins Road and 93m in length to Post Office Street. The site occupies an area of approximately 5,553m<sup>2</sup>.

The subject site is currently occupied by seven dwelling houses, two fronting Jenkins Road with the remaining five fronting Thallon Street. Each dwelling house has a respective vehicular access driveway which leads out to either Jenkins Road, Post Office Street or Thallon Street.

### **Previously Approved Development**

Approval has previously been granted for demolition of the existing dwelling houses on site and the construction of a new residential development (DA 883/2013/JP).

A total of 105 residential apartments were previously proposed as follows:

1 bedroom apartments:	20
2 bedroom apartments:	70
3 bedroom apartments:	15
<b>TOTAL APARTMENTS:</b>	<b>105</b>

Off-street car parking was approved for a total of 342 cars, comprising 282 residential spaces and 60 visitor spaces, in a new four-level basement car parking area in accordance with Council's *DCP 2010* requirements. Vehicular access to the basement car parking facilities was approved via a new entry/exit driveway located towards the southern end of the Thallon Street site frontage.

Loading/servicing for the previously approved development was to be undertaken using a variety of commercial vehicles up to and including 8.8m long medium rigid trucks. An on-site at-grade loading bay and dedicated service driveway was approved midway along the Thallon Street site frontage such that trucks would reverse into the loading bay directly off Thallon Street, allowing them to depart the site in a forward direction.

### **Proposed Development**

The proposed modifications to the previously approved scheme, from a traffic and parking perspective, involve increasing the total yield from 105 apartments to 124 apartments, resulting in a revised unit mix as follows:

1 bedroom apartments:	29
2 bedroom apartments:	55
3 bedroom apartments:	40
<b>TOTAL APARTMENTS:</b>	<b>124</b>

Off-street parking in the modified scheme is to be provided for a total of 172 cars, comprising 147 residential spaces and 25 visitor spaces plus a dedicated carwash bay, in a new three-level basement car parking area in accordance with *SEPP 65* requirements. Vehicular access to the basement car parking facilities is to remain via the previously approved new entry/exit driveway located towards the southern end of the Thallon Street site frontage.

The proposed loading arrangements remain unchanged.

Plans of the proposed development have been prepared by *Australian Consulting Architects* and are reproduced in the following pages.



NOT FOR CONSTRUCTION

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- LEGEND**
- |     |                  |
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| P   | REFRIGERATOR     |
| P   | PANTRY           |
| BL  | REDUCED LEVEL    |
| ST  | STORAGE          |
| SRL | STRUCTURAL FLOOR |
| FW  | TOP OF WALL      |

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NO.	DATE	BY	DESCRIPTION

CLARK

THALLON STREET DEVELOPMENTS PTY LTD

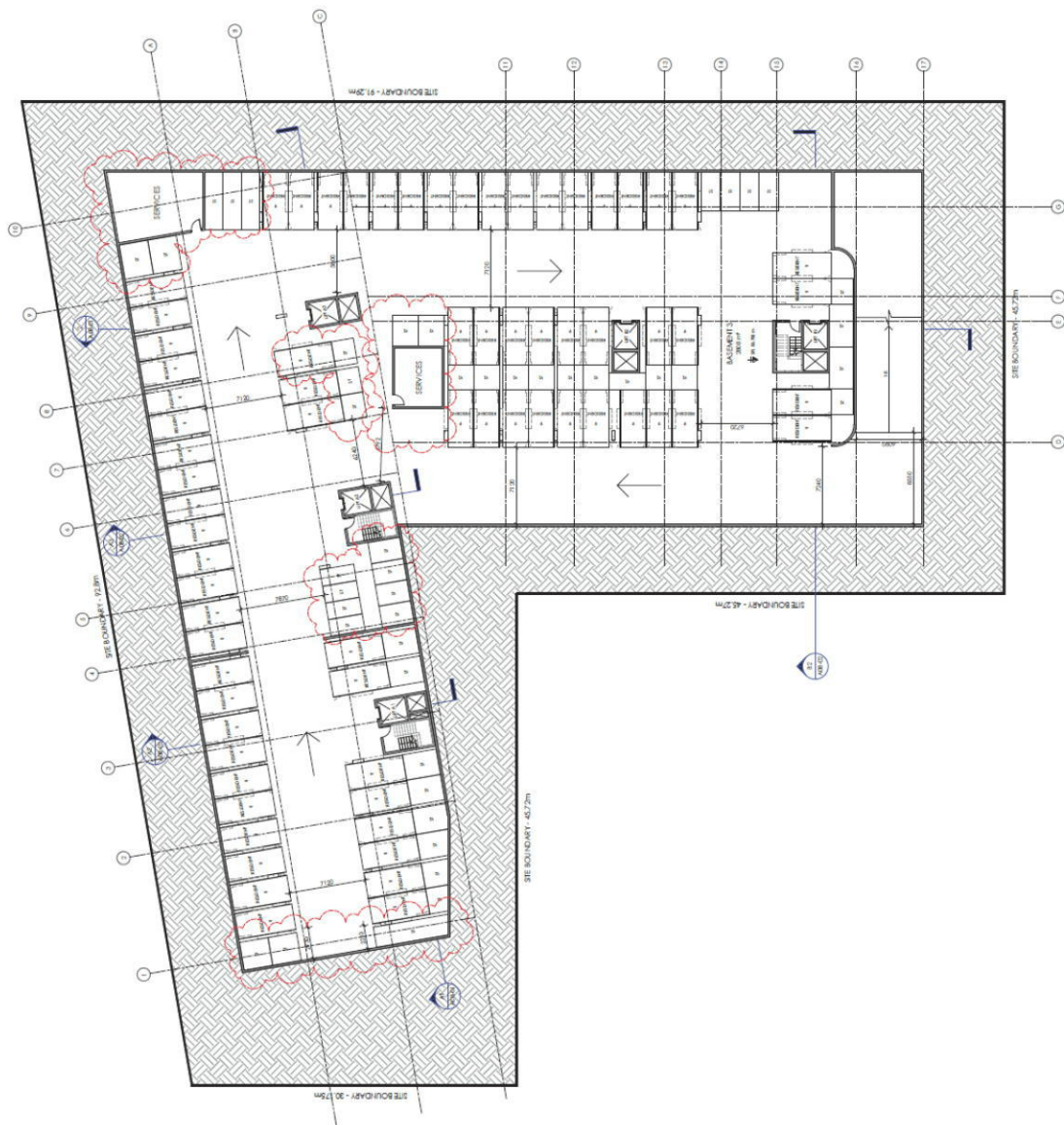
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PROJECT NUMBER	2016-001
DESIGNER	A05-01
TRADING FILE	A05 - GA PLANS BASEMENT 3 PLAN


 DATE: 05.10.2016  
 SCALE: 1:200  
 DRAWN BY: ACA  
 CHECKED BY: AC

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**LEGEND**

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P	PANEY
RL	REDUCED LEVEL
ST	STORAGE
SPL	STRUCTURAL FLOOR LEVEL
TOW	TOP OF WALL

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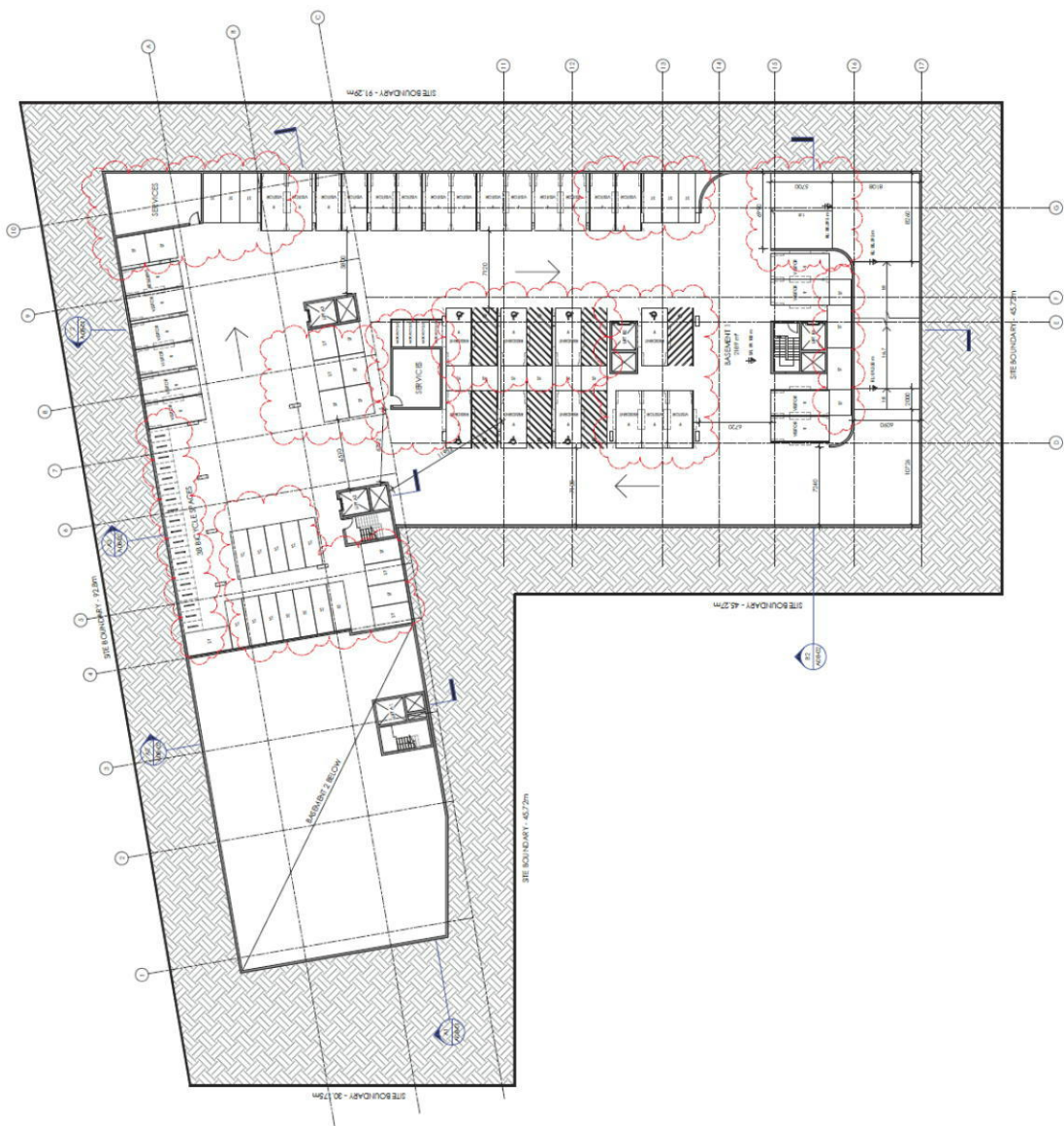
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PROJECT NUMBER	2016-001
DESIGNER NAME	A06-03
DATE	2
DESIGNER FILE	A05 - GA PLANS
	BASEMENT 1 PLAN

DATE: 05.10.2016  
SCALE: 1:200  
DRAWN BY: ACA  
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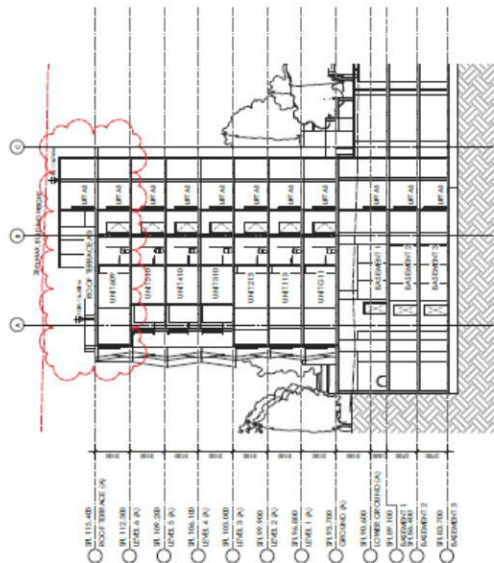




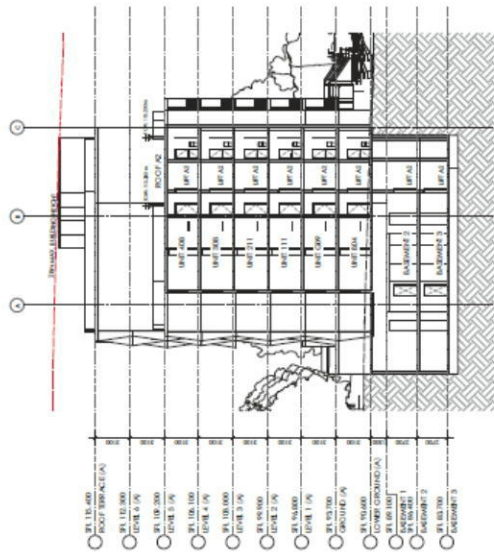


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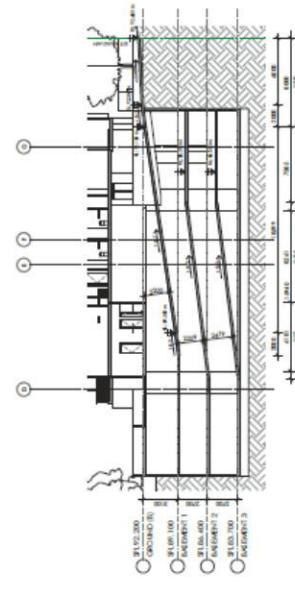
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### **3. TRAFFIC ASSESSMENT**

#### **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.

Pennant Hills Road is classified by the RMS as a *State Road* and provides the key north-south road link in the area, linking Parramatta to Wahroonga. It typically carries three traffic lanes in each direction in the vicinity of the site, with opposing traffic flows separated by a centre median island. Clearway restrictions apply during commuter peak periods.

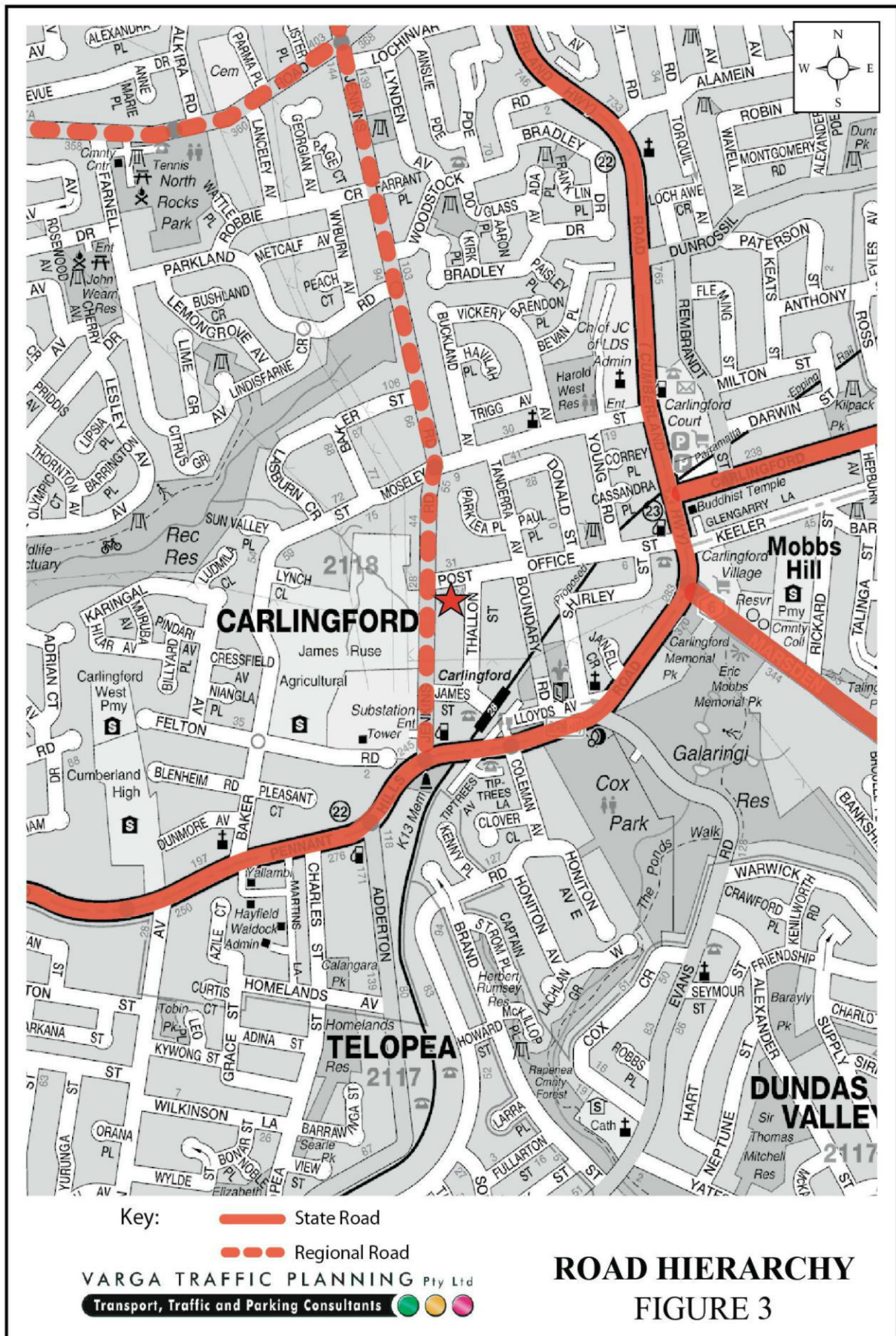
Jenkins Road is classified by the RMS as a *Regional Road* which performs the function of a north-south *collector route* through the Carlingford area. It typically carries one traffic lane in each direction in the vicinity of the site with additional lanes provided at key locations.

Thallon Street and Post Office Street are local, unclassified roads which are primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of both roads.

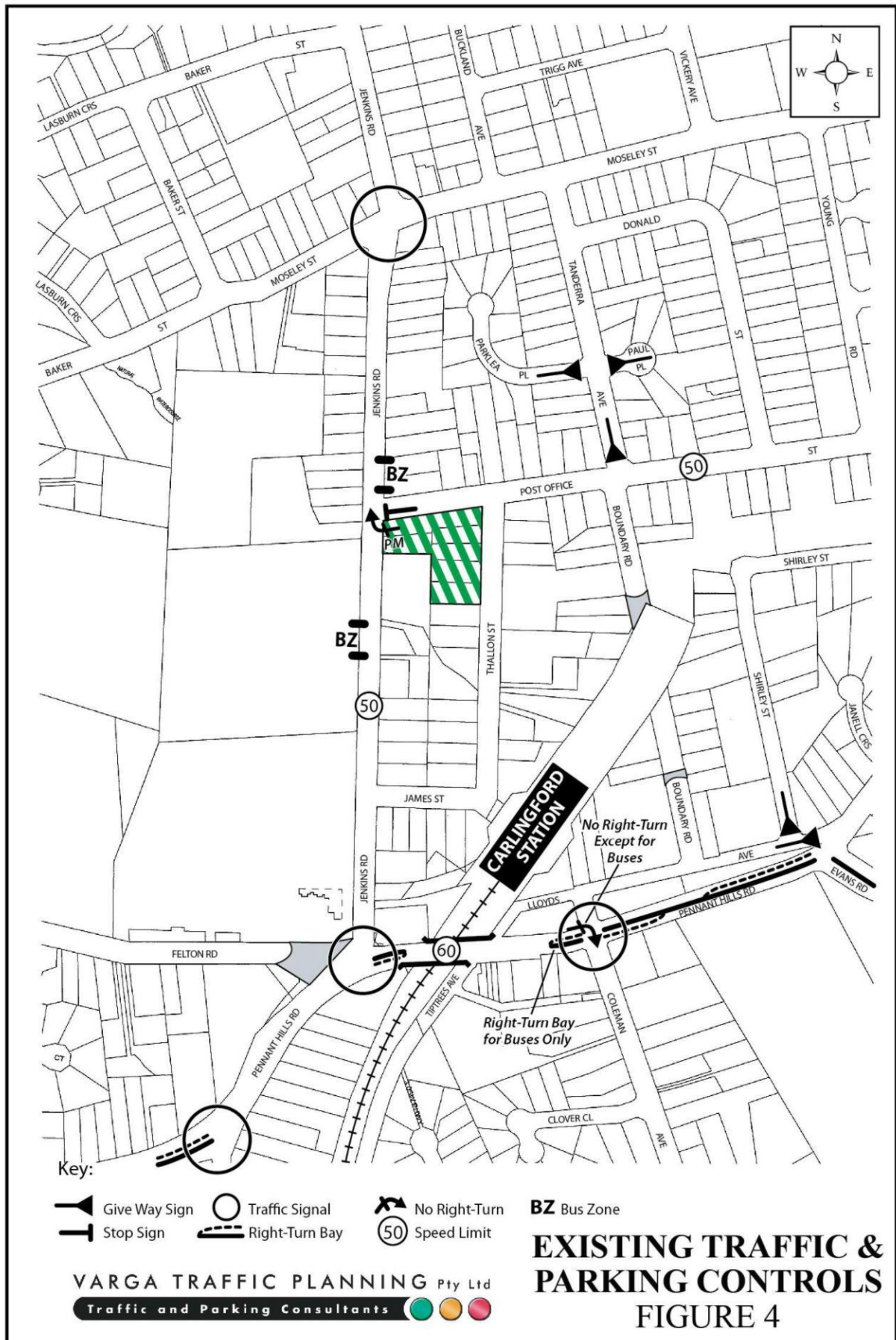
#### **Existing Traffic Controls**

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 Pennant Hills Road
- a 50 km/h SPEED LIMIT which applies to Jenkins Road, Thallon Street, Post Office Street and all other local roads in the area
- TRAFFIC SIGNALS in Jenkins Road where it intersects with Moseley Street and also Pennant Hills Road
- NO RIGHT TURN westbound restrictions in Post Office Street turning onto Jenkins Road during the afternoon commuter peak period







## **Projected Traffic Generation**

The traffic implications of the development proposals primarily concern the effects of the *additional* traffic flows generated as a result of the development and its impact on the operational performance of the adjacent road network.

An indication of the traffic generation potential of the s.96 application 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 *TDT 2013/04a* document specifies that it replaces those sections of the RMS *Guidelines* indicated, and that it must be followed when RMS is undertaken trip generation and/or parking demand assessments.

The RMS *Guidelines* and the updated *TDT 2013/04a* are based on extensive surveys of a wide range of land uses and nominate the following traffic generation rates which are applicable to the s.96 application:

### **High Density Residential Flat Dwellings**

AM: 0.19 peak hour vehicle trips unit

PM: 0.15 peak hour vehicle trips unit

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

#### **Definition**

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

#### **Factors**

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

Application of the above traffic generation rates to the 124 residential apartments outlined in the s.96 application yields a traffic generation potential of approximately 24 vehicle trips per hour (vph) during the AM commuter peak period and 19 vph during the PM commuter peak period.

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 previously approved uses of the site, in order to determine the *nett increase (or decrease)* in traffic generation potential of the site expected to occur as a consequence of the s.96 application.

Application of the above traffic generation rates to the 105 previously approved residential apartments yields a traffic generation potential of approximately 20 vph during the AM commuter peak period and 16 vph during the PM commuter peak period.

Accordingly, it is likely that the proposed s.96 application will result in a *nett increase* in the traffic generation potential of the site of approximately 4 vph during the AM commuter peak period and approximately 3 vph during the PM commuter peak period, as set out below:

<b>Projected Nett Increase in Peak Hour Traffic Generation Potential of the site as a consequence of the development proposal</b>		
	<b>AM</b>	<b>PM</b>
Projected Future Traffic Generation Potential:	24 vph	19 vph
Less Existing Traffic Generation Potential:	-20 vph	-16 vph
<b>NETT INCREASE IN TRAFFIC GENERATION POTENTIAL:</b>	<b>4 vph</b>	<b>3 vph</b>

That projected *nett increase* in the traffic generation potential of the site as a consequence of the s.96 application is *statistically insignificant* and will clearly not have any unacceptable traffic implications in terms of road network capacity.

## 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 5 and comprise:

- generally UNRESTRICTED kerbside parking along both sides of Jenkins Road, Thallon Street, Post Office Street and the surrounding local area
- BUS ZONES located along both sides of Jenkins Road.

### Off-Street Parking Provisions

The off-street parking requirements applicable to the development proposal are specified in Council's *The Hills Development Control Plan 2012, Part C, Section 1 – Parking* document in the following terms:

#### Residential Apartments

One bedroom apartment:	1 space per unit
Two bedroom apartment:	2 spaces per unit
Three bedroom apartment:	2 spaces per unit
Visitors:	2 spaces per 5 units

Application of the above *DCP 2012* parking requirements to the 124 apartments outlined in the s.96 application yields an off-street parking requirement of 269 parking spaces as set out below:

Residential (124 apartments):	219.0 spaces
Visitors:	49.6 spaces
<b>TOTAL:</b>	<b>268.6 spaces</b>

Notwithstanding, the subject site is located approximately 300m from Carlingford Railway Station and therefore the development is also subject to the parking requirements specified in the *State Environmental Planning Policy No 65 – Design Quality of Residential Flat Development (Amendment No 3), 2015* in the following terms:



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

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

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

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

#### **Objective 3J-1**

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

For development in the following locations:

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

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

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

Comparison therefore needs to be drawn between the off-street car parking requirements for residential flat buildings outlined in the Council's *DCP 2012* and also the RMS *Guidelines* to determine the *lesser* requirement. The relevant car parking rates outlined in the RMS *Guidelines* are reproduced below:

#### **RMS Guidelines – High Density Residential Flat Buildings in Sub-regional Centres**

0.6 spaces per 1 bedroom unit

0.9 spaces per 2 bedroom unit

1.4 spaces per 3 bedroom unit

1 space per 5 units for visitor parking

Accordingly, the minimum off-street car parking requirement applicable to the residential component of the development is 148 spaces, comprising 123 residential spaces and 25 visitor spaces, as set out below:

	<b>The Hills DCP 2012</b>	<b>RMS Guidelines</b>
<b>Residents:</b>	219.0 spaces	122.9 spaces
<b>Visitors:</b>	49.6 spaces	24.8 spaces
<b>Total:</b>	<b>268.6 spaces</b>	<b>147.7 spaces</b>
<b>Lesser Car Parking Requirement: 143 spaces</b>		

The proposed modified scheme makes provision for a total of 172 off-street car parking spaces, comprising 147 residential spaces, and 25 visitor spaces plus a dedicated carwash bay, thereby satisfying *SEPP 65* requirements.

By way of further comparison, reference is also made to Council's *DCP 2012, Part D, Section 12 – Carlingford Precinct* which details the desired outcomes of development sites within the precinct. The document separates the precinct into two areas – Precinct North and Precinct South – which are separated by Post Office Street.

Key sites located within Precinct South attract lower parking rates than developments elsewhere in The Hills LGA, including Precinct North, due to the proximity to Carlingford Railway Station. Precinct South's parking rates are detailed below:

**Residential Flat Buildings – Precinct South**

One bedroom apartment:	0.8 spaces per unit
Two bedroom apartment:	1 spaces per unit
Three bedroom apartment:	1.3 spaces per unit
Visitors:	2 spaces per 5 units

Application of the above Precinct South parking requirements to the 124 apartments outlined in the s.96 application yields an off-street parking requirement of 180 parking spaces as set out below:

Residents (124 apartments):	130.2 spaces
Visitors:	49.6 spaces
<b>TOTAL:</b>	<b>179.8 spaces</b>

As noted below, the proposed modified scheme makes provision for a total of 172 off-street car parking spaces, comprising 147 residential spaces and 25 visitor spaces.

It is evident that any shortfall in parking is largely due to Council's onerous visitor parking requirement of "2 spaces per 5 dwellings". The vast majority of other LGAs in the greater Sydney area specify a visitor parking requirement of between "1 space per 4 dwellings" and "1 space per 5 dwellings" (consistent with the RMS *Guidelines*).

It is also worth noting that the cumulative length of available kerbside parking along the four site frontages is approximately 175m. This distance can comfortably accommodate in the order of 28 *large* parked cars in the unlikely event that the on-site visitor parking area is full.

The geometric design layout of the proposed car parking facilities have been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Carparking AS2890.1* in respect of parking bay dimensions, ramp gradients and aisle widths.

### **Off-Street Motorcycle and Bicycle Parking Provisions**

The motorcycle parking requirements applicable to the development proposal are also specified in *The Hills Development Control Plan 2012, Part C Section 1 – Parking* document in the following terms:

#### **Motorcycle**

1 motorcycle space per 50 car spaces

Council also requires bicycle parking to be provided in accordance with *Cycling Aspects of Austroads Guides (Austroads and Standards Australia 1999)*, in the following terms:

#### **Residential Building**

Residents: 1 space per 4 lodging rooms

Visitors: 1 space per 16 lodging rooms

Application of the above motorcycle and bicycle parking requirements to the 124 apartments and 172 car parking spaces outlined in the s.96 application yields an off-street parking

requirement of 4 motorcycle spaces, 31 residential bicycle spaces and 8 visitor bicycle spaces.

The proposed development makes provision for a total of 4 motorcycle spaces, 39 bicycle racks plus a substantial amount of private storage cages which are capable of storing a bicycle, thereby satisfying Council's requirements.

### **Loading/Service Provisions**

The proposed new residential development is expected to be serviced by a variety of commercial vehicles up to and including 8.8m long MRV garbage and removalist trucks. The designated loading area is located on the ground floor level midway along the Thallon Street site frontage. Trucks are to reverse off the street into the loading area, allowing them to exit the site in a forward direction, consistent with the previously approved scheme.

In summary, the proposed parking and loading facilities satisfy the relevant requirements specified in *SEPP 65* as well as the Australian Standards and it is therefore concluded that the proposed development will not have any unacceptable parking or loading implications.