

Proposed s.75w Application for a
Previously Approved Mixed-Use Development

6-16 Atchison Street, St Leonards

TRAFFIC AND PARKING ASSESSMENT REPORT

27 June 2013

Ref 12448

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1. INTRODUCTION

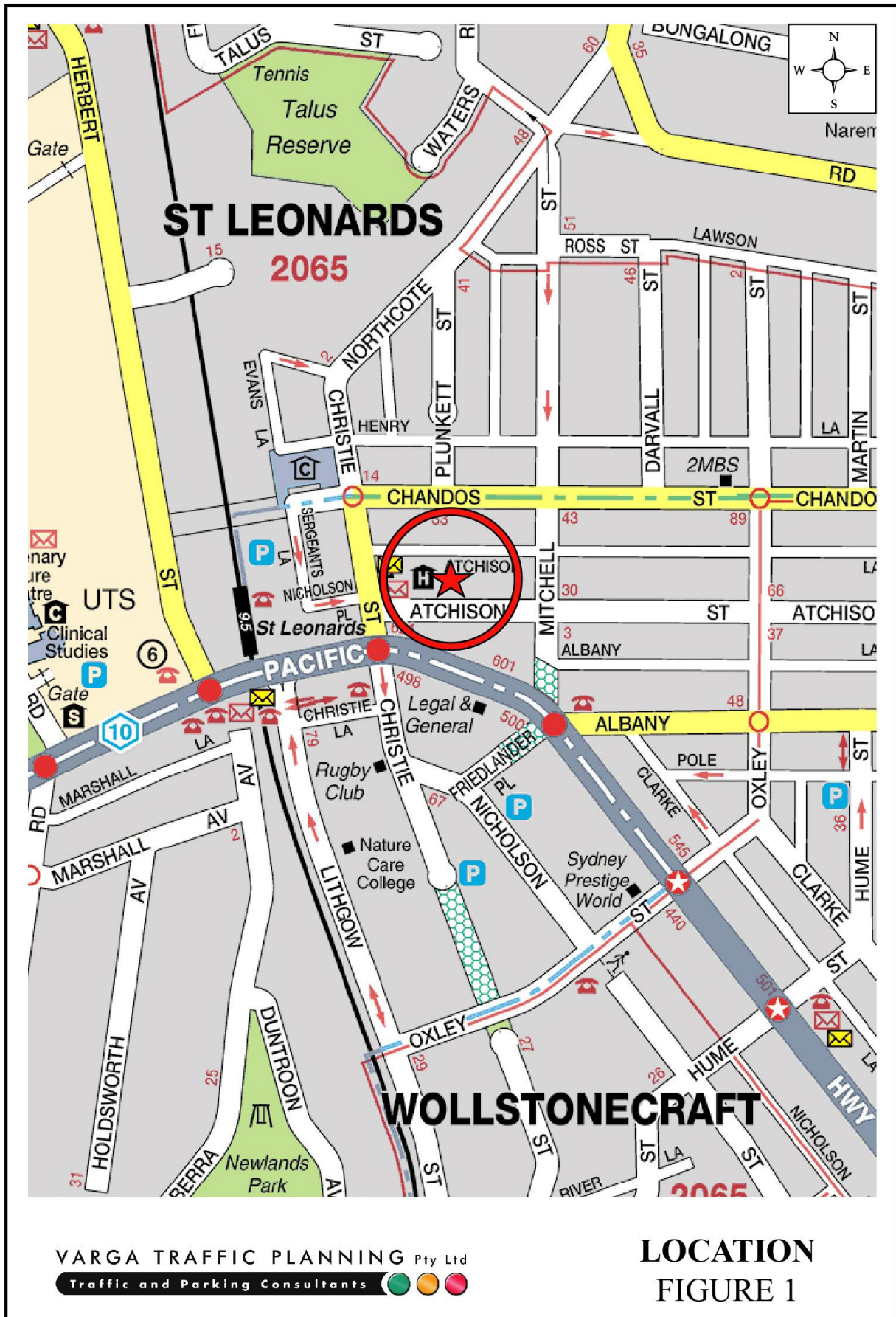
This report has been prepared to accompany a s.75w Application to the Department of Planning to modify a previously approved mixed-use residential/retail development proposal to be located at 6-16 Atchison Street, St Leonards (Figures 1 and 2).

The Department of Planning have previously approved the construction of a new multi-storey mixed-use residential/retail development on the site (MP09_0187) comprising 173 residential apartments, 76 serviced apartments, a café and a public plaza. Off-street parking was approved for a total of 168 cars in a new six-level basement car parking area

The proposed development involves modifying the previously approved scheme to comprise 200 residential apartments, 38 serviced apartments, a café and a public plaza, all within the approved building envelope. Off-street parking is proposed for a total of 168 cars in a new six-level basement car parking area, consistent with the previous approval.

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

- describes the site and provides details of the development proposal
- reviews the road network in the vicinity of the site, and the traffic conditions on that road network
- estimates the traffic generation potential of the development proposal
- assesses the traffic implications of the development proposal in terms of road network capacity
- reviews the geometric design features of the proposed basement car parking facilities for compliance with the relevant codes and standards
- assesses the adequacy and suitability of the quantum of off-street car parking provided on the site.



2. PROPOSED DEVELOPMENT

Site

The subject site is located on the northern side of Atchison Street, in between Christie Street and Mitchell Street, and has a rear frontage to Atchison Lane. The site has a street frontage approximately 50 metres in length to both Atchison Street and Atchison Lane and occupies an area of approximately 1,740m².

The subject site is currently occupied by a three adjacent three-storey commercial office buildings with a cumulative floor area of approximately 5,000m².

Off-street parking is currently provided for a total of 60 cars in three separate basement car parking areas, with vehicular access provided via respective driveways located in Atchison Lane.

Previously Approved Development

The Department of Planning have previously approved the construction of a new multi-storey mixed-use residential/retail development on the site (MP09_0187). The ground floor level was approved for use as a café with a floor area of approximately 238m², whilst the upper levels were approved for 173 residential apartments and 76 serviced apartments.

The bedroom mix of the 173 previously approved residential apartments is as follows:

Studio apartments:	30
1 bedroom apartments:	64
2 bedroom apartments:	66
3 bedroom apartments:	13
TOTAL APARTMENTS:	173

Off-street parking was previously approved for a total of 168 cars, 16 motorcycles plus a loading bay. Vehicular access to the car parking facilities was approved via a new entry/exit driveway located at the western end of the Atchison Lane site frontage.

Proposed Development

The proposed development will involve the demolition of the three existing commercial office buildings on the site to facilitate the construction of a new multi-storey mixed-use residential/retail building, similar to the previously approved scheme.

The lower and upper ground floor level comprises two separate retail tenancies with a floor area of 227.5m², and a café with a floor area of 187m². The upper levels of the new building comprise 200 residential apartments and 38 serviced apartments.

The bedroom mix of the 200 proposed residential apartments is as follows:

Studio apartments:	2
1 bedroom apartments:	113
2 bedroom apartments:	80
3 bedroom apartments:	5
TOTAL APARTMENTS:	200

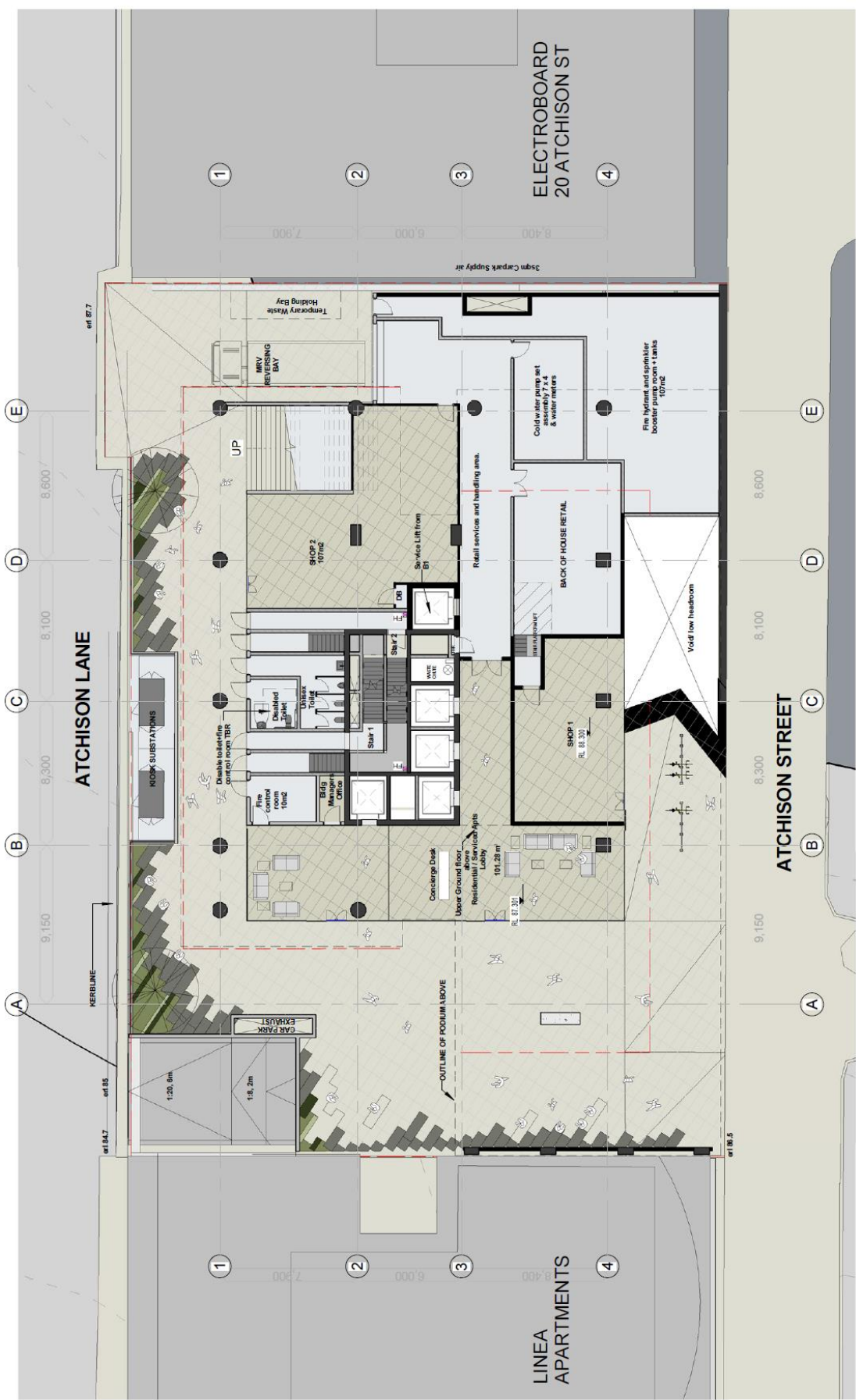
Off-street car parking is proposed for a total of 168 cars, consistent with the previously approved scheme, in a new six-level basement car parking area.

Vehicular access to the basement car parking facilities is to be provided via a new entry/exit driveway located at the western end of the Atchison Lane site frontage.

Loading/servicing for the proposed development is expected to be undertaken by a variety of commercial vehicles up to and including 8.8m long medium rigid trucks such as removalist trucks and garbage trucks. A loading bay is proposed off Atchison Lane, adjacent to the eastern boundary of the site.

Plans of the proposed development have been prepared by *Robertson & Marks* and are reproduced in the following pages.





PA-100-02/E
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GROUND LEVEL RESIDENTIAL ENTRY LOWER

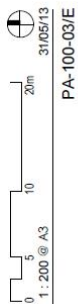
Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards



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GROUND LEVEL UPPER

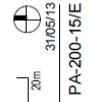
Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

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HOLDMARK

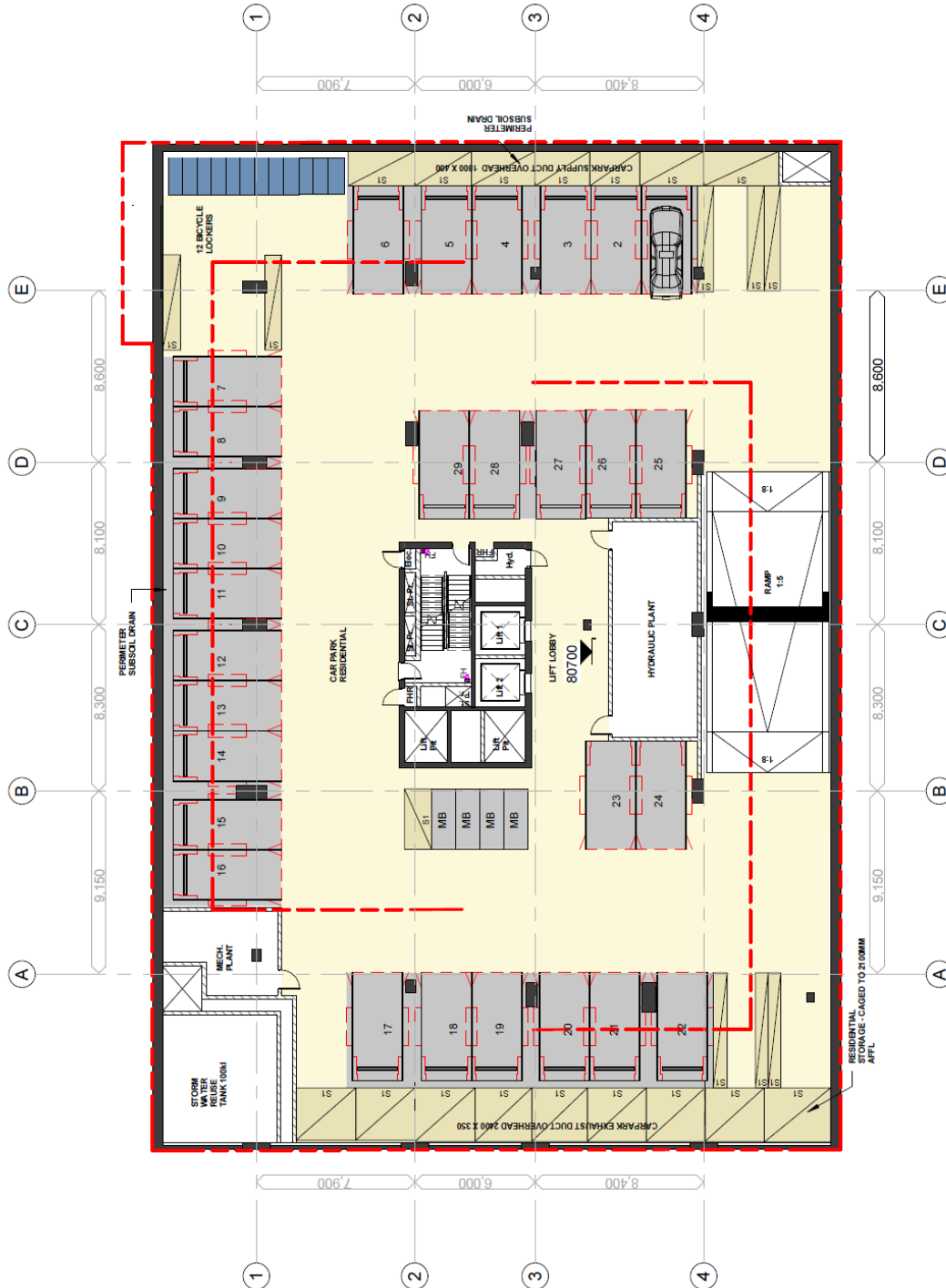
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Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

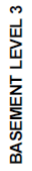
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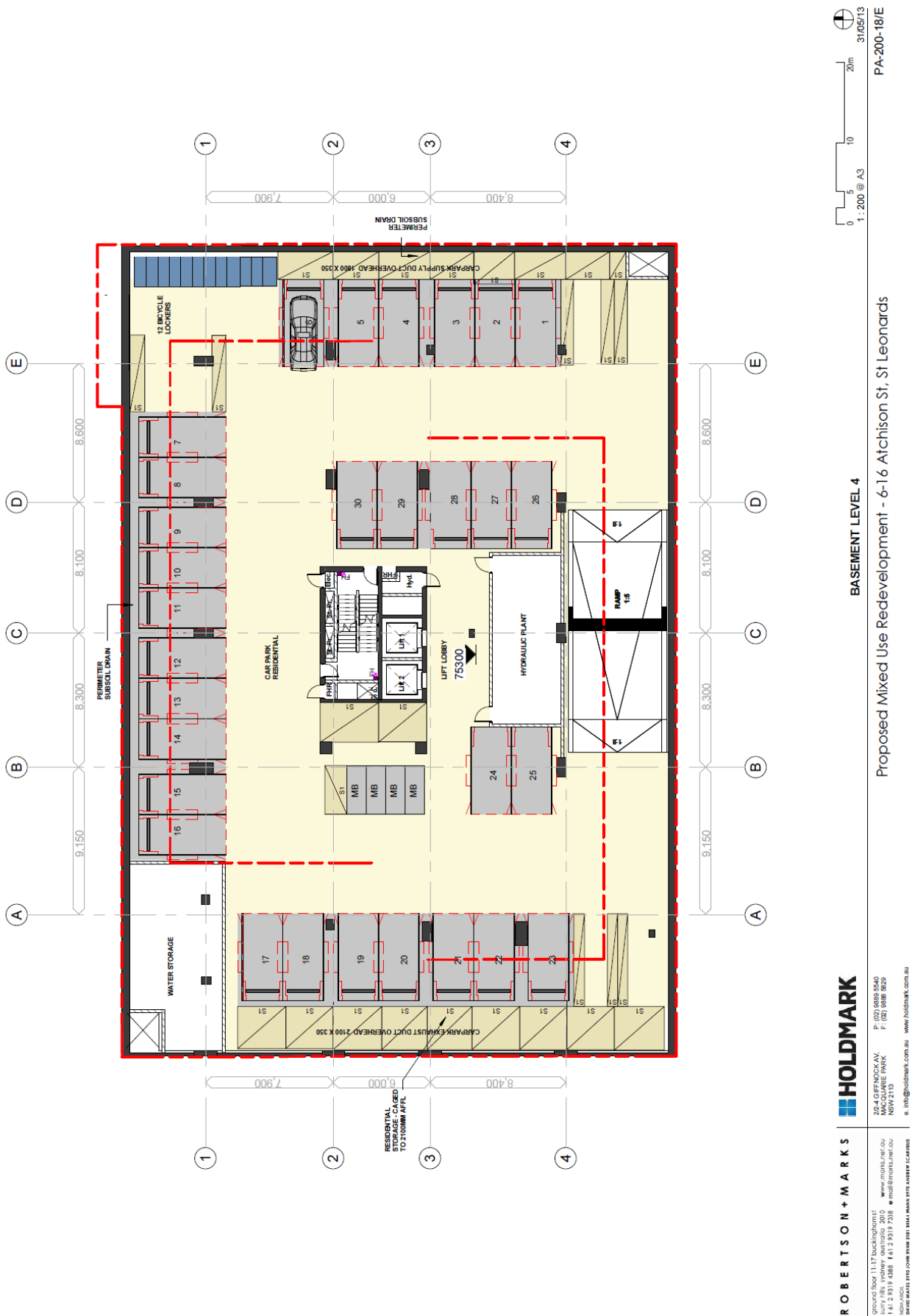


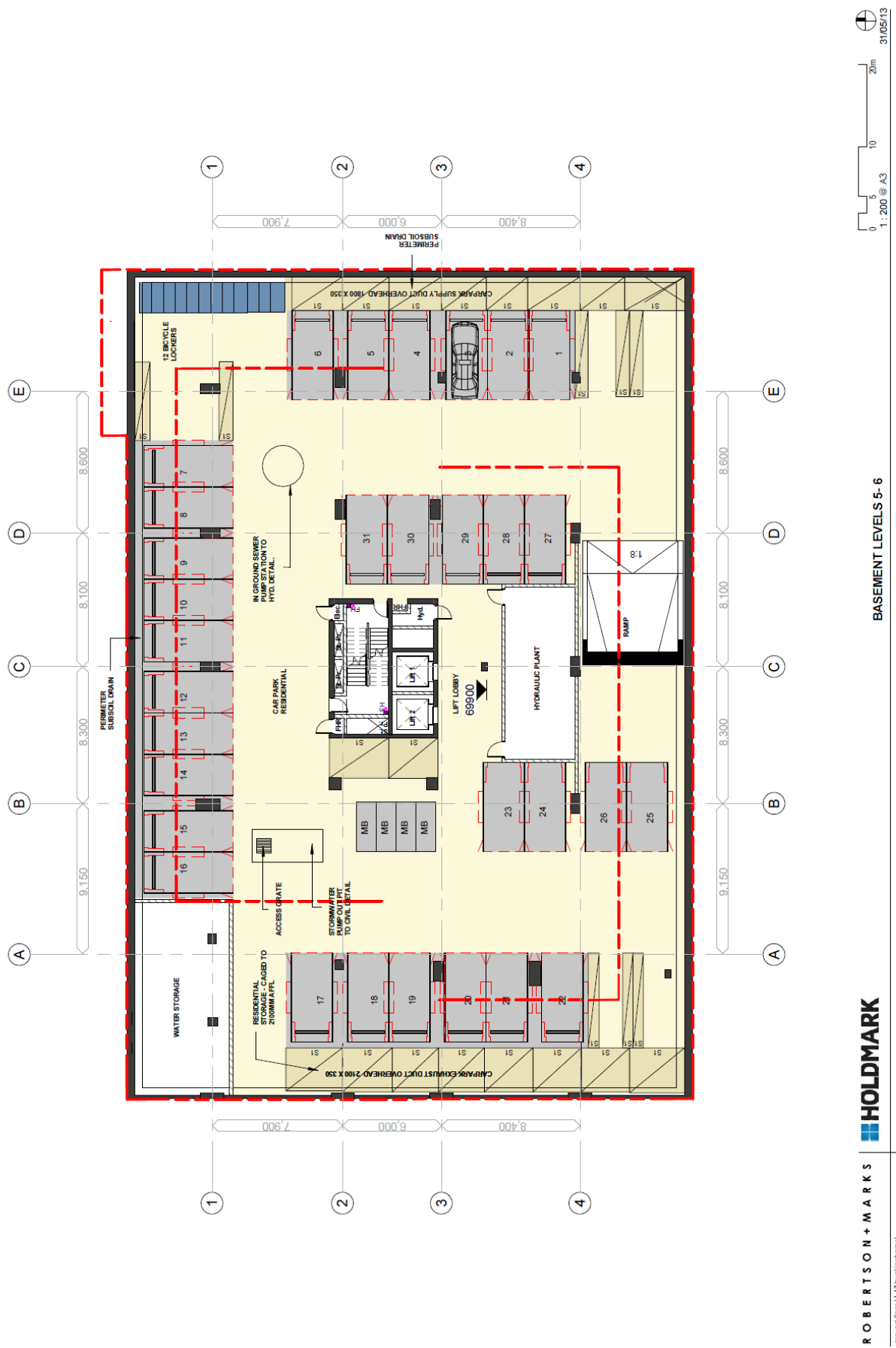
BASEMENT LEVEL 2

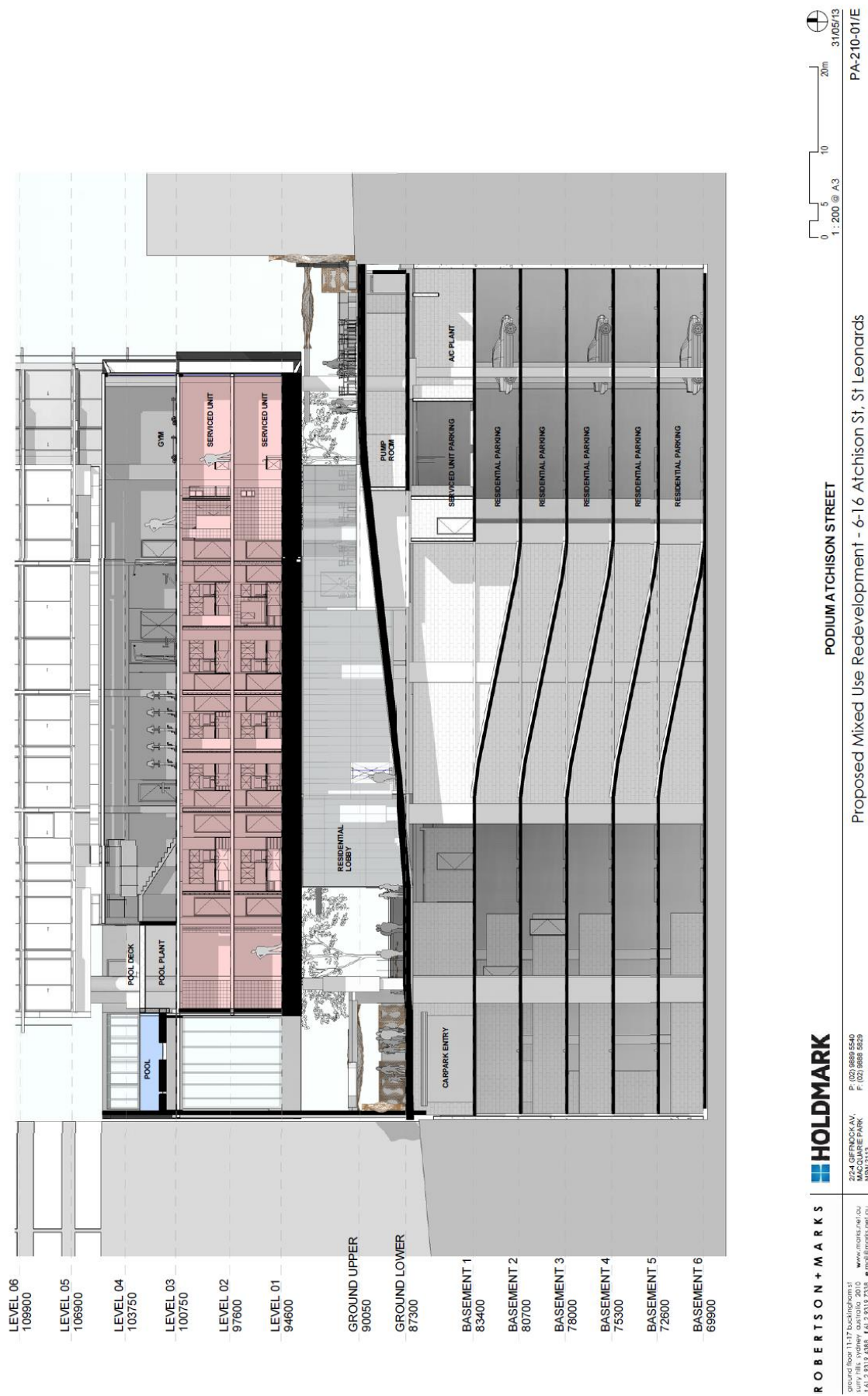
Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards



Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards







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.

The Pacific Highway is classified by the RTA as a *State Road* and provides the key north-south road link in the area, linking the City to Hornsby and beyond. 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.

Christie Street and Chandos Street are classified by the RTA as *Regional Roads* and provide an east-west road link through the St Leonards and Crows Nest areas. They typically carry one traffic lane in each direction in the vicinity of the site with kerbside parking generally permitted.

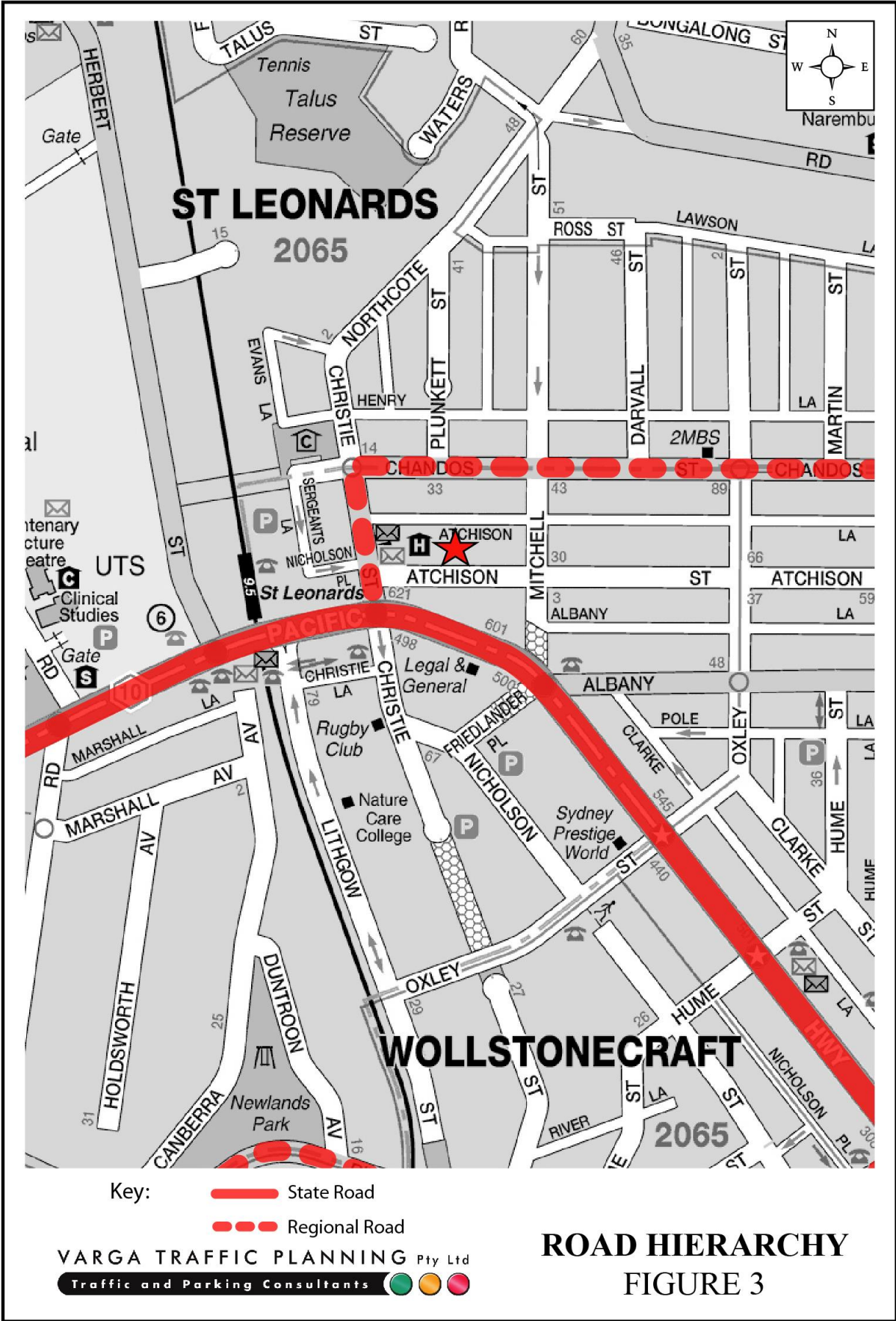
Atchison Street is a local, unclassified road which is primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of the road.

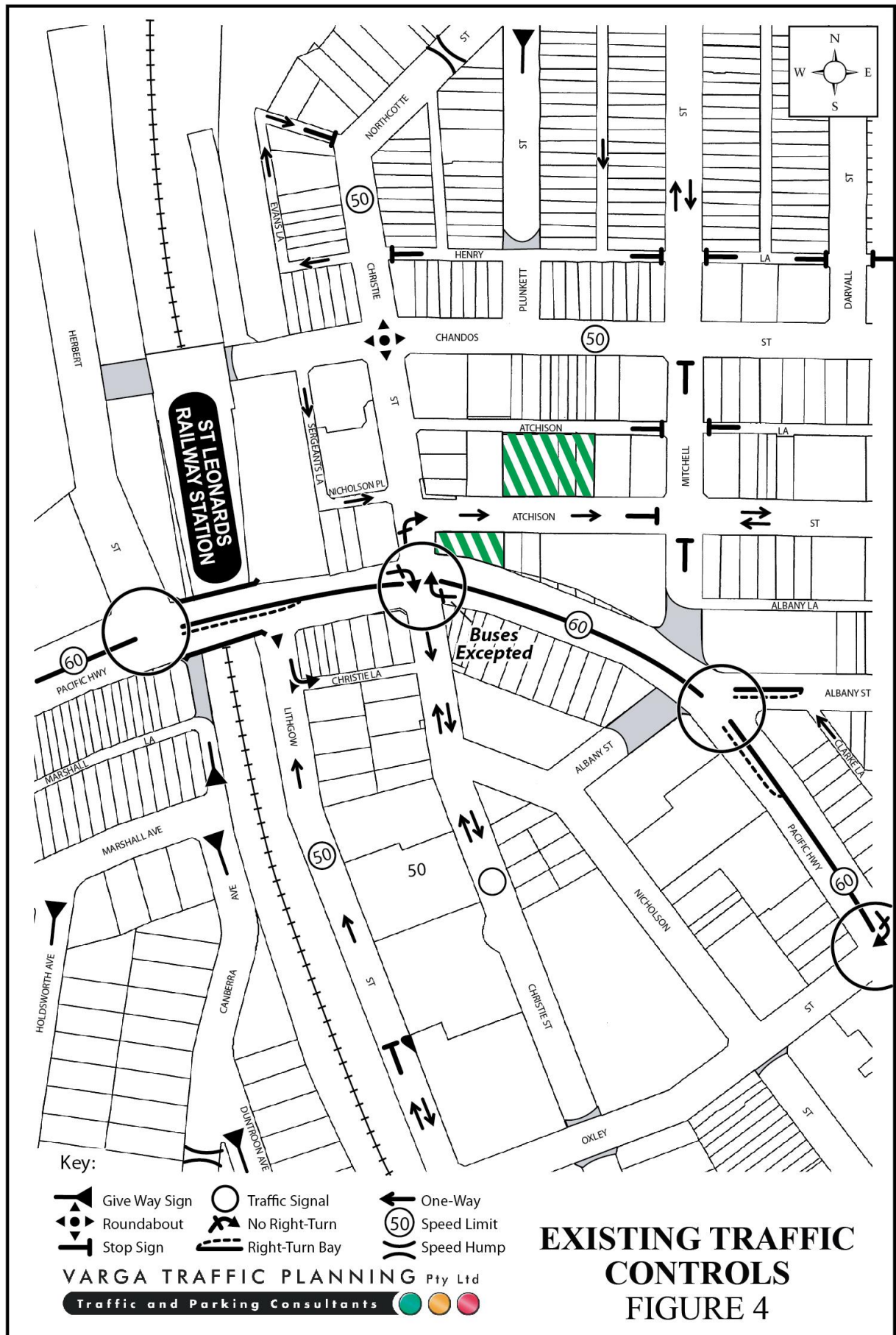
Atchison Lane is a local, unclassified laneway which is primarily used to provide rear vehicular and pedestrian access to properties fronting Atchison Street and also Chandos Street. Kerbside parking is not permitted on either side of the road.

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 the Pacific Highway
- a 50 km/h SPEED LIMIT which applies to Christie Street, Atchison Street and all other local roads in the area





- TRAFFIC SIGNALS in the Pacific Highway where it intersects with Herbert Street, Christie Street and also Albany Street
- NO RIGHT-TURN northbound and southbound restrictions in the Pacific Highway onto Christie Street
- a NO RIGHT-TURN northbound restriction Christie Street onto Atchison Street
- a ONE-WAY eastbound restriction in Atchison Street in between Christie Street and Mitchell Street.

Existing Public Transport Services

The existing public transport services available to the site are illustrated on Figure 5.

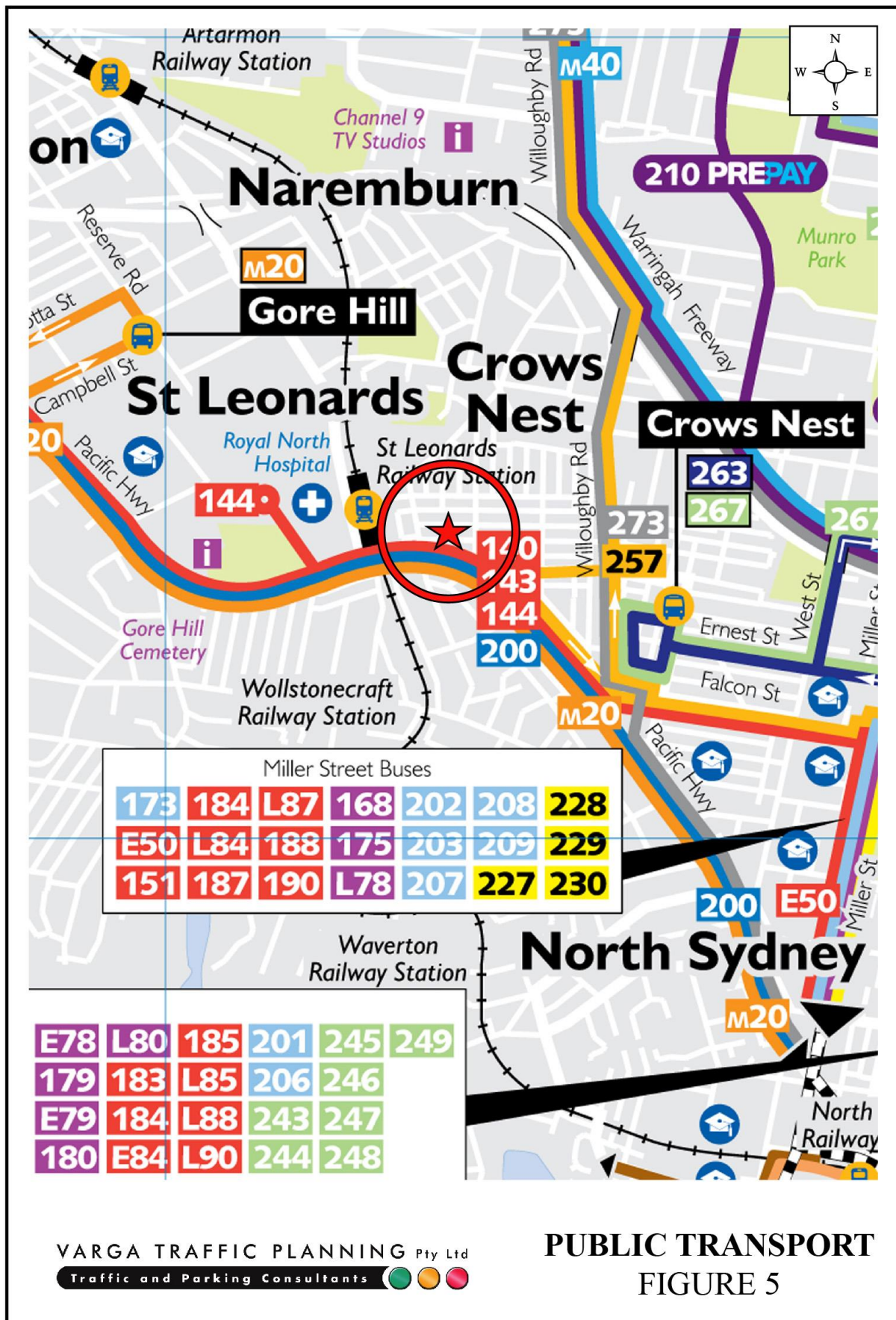
St Leonards Railway Station is located on the northern side of the Pacific Highway in between Herbert Street and Christie Street, approximately 150m west from the proposed development (i.e. a 2 min walk). The railway station services two train lines – The North Shore & Western Line and the Northern Line. Train services operate out of St Leonards Railway Station every 3-5 minutes during peak periods and every 5-15 minutes during off-peak periods.

There are currently a large number of bus services which operate in the immediate vicinity of the site, including the high-frequency intra-regional *Metrobus M20* service between Gore Hill and Mascot which operates seven days per week with weekday services every 15 minutes (every 10 minutes during the morning and afternoon peak) and weekend services every 20 minutes.

The site is therefore considered to be well served by 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 reference to the RTA's *Annual Average Daily Traffic* data. The relevant count



stations nearest to the subject site are summarised below, revealing that the annual average daily traffic along this section of the Pacific Highway is in the order of 40,000-41,000 vehicles per day (northbound and southbound).

Roads & Traffic Authority of NSW
Annual Average Daily Traffic Volumes

Station No.	Location	1996	1999	2002	2005
00.904	Pacific Highway & Albany Street (TCS)	42,433	41,681	41,437	-
00.905	Pacific Highway & Herbert Street (TCS)	50,463	50,602	-	-
32044	Pacific Highway (south of Innes Road)	37,630	41,207	41,595	41,885

Projected Traffic Generation

An indication of the traffic generation potential of the development proposal is provided by reference to the former Roads and Traffic Authority's publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002)*.

The RTA *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 development proposal:

Metropolitan Regional (CBD) Centres

0.24 peak hour vehicle trips per dwelling

The RTA *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 carparking 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.

The RTA *Guidelines* do not nominate a traffic generation rate for cafés, referring only to restaurants. For the purposes of this assessment therefore, the traffic generation rate of “5.0 peak hour vehicle trips per 100m² GFA” nominated in the RTA *Guidelines* for restaurants has been adopted in respect of the café component of the development proposal.

Additionally, the RTA *Guidelines* do not nominate a traffic generation rate for serviced apartment, referring only to motels. For the purposes of this assessment therefore, the traffic generation rate of “0.4 peak hour vehicle trips per unit” nominated in the RTA *Guidelines* for motels has been adopted in respect of the serviced apartments component of the development proposal.

Application of the above traffic generation rates to the various components of the development proposal yields a traffic generation potential of approximately 77 vehicle trips per hour during commuter peak periods as set out below:

Projected Future Traffic Generation

Residential Apartments (200 Apartments):	48.0 peak hour vehicle trips
Serviced Apartments (38 Apartments):	15.2 peak hour vehicle trips
Café (187m ²):	9.4 peak hour vehicle trips
Shops (227.5m ²):	4.5 peak hour vehicle trips
TOTAL TRAFFIC GENERATION POTENTIAL:	77.1 peak hour vehicle trips

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 expected to occur as a consequence of the proposed development.

Application of the abovementioned traffic generation rates nominated in the RTA *Guidelines* to the previously approved uses on the site yields a traffic generation potential of approximately 84 vehicle trips per hour during commuter peak periods as set out below:

Previously Approved Future Traffic Generation

Residential Apartments (173 Apartments):	41.5 peak hour vehicle trips
Serviced Apartments (76 Apartments):	30.4 peak hour vehicle trips
Café (238m ²):	11.9 peak hour vehicle trips
TOTAL TRAFFIC GENERATION POTENTIAL:	83.8 peak hour vehicle trips

Accordingly, it is likely that the proposed development will result in a *reduction* in the traffic generation potential the site of approximately 7 vph as set out below:

**Projected Nett Decrease in Peak Hour Traffic Generation Potential
as a consequence of the development proposal**

Projected Future Traffic Generation Potential:	77.1 vehicle trips
Previously Approved Traffic Generation Potential:	-83.8 vehicle trips
NETT DECREASE IN TRAFFIC GENERATION POTENTIAL:	-6.7 vehicle trips

That projected reduction in traffic activity as a consequence of the development proposal 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 6 and comprise:

- 2 HOUR METERED PARKING restrictions apply to both sides of Atchison Street in the vicinity of the site including along the site frontage
- NO PARKING restrictions along both sides of Atchison Lane including along the site frontage
- BUS ZONES at regular intervals along both sides of the Pacific Highway.

Off-Street Parking Provisions

The *maximum* off-street parking requirements applicable to the development proposal are specified in Council's *Development Control Plan 2002, Section 9 – Car Parking* document in the following terms:

Residential Flat Buildings (Mixed-Use Zone)

Studio & one bedroom apartments:	0.5 spaces per dwelling
Two bedroom + apartments:	1.0 spaces per dwelling

Serviced Apartments

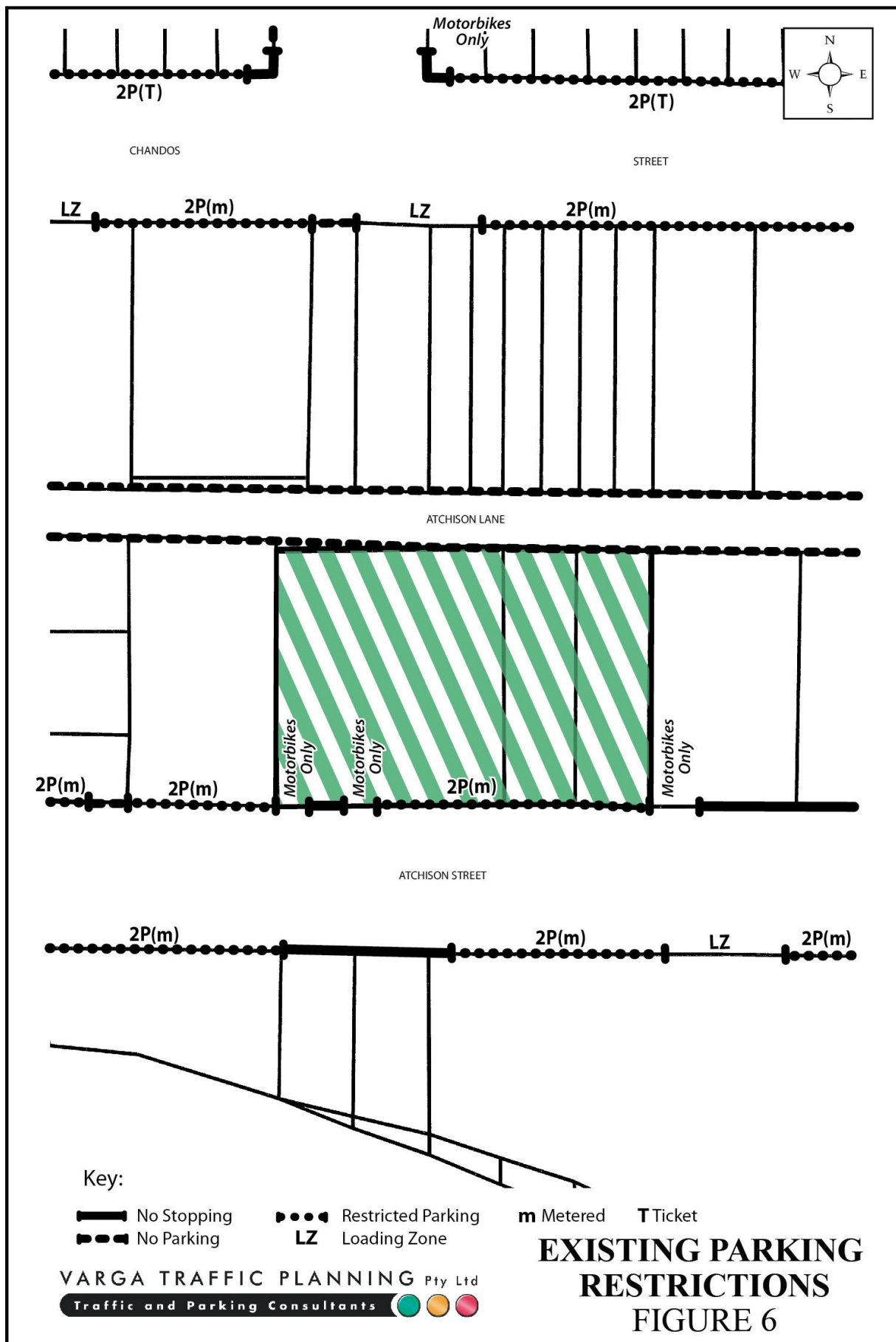
1 space per 5 rooms

Refreshment Room

1 space per 50m² GFA

Non Residential Component (not listed in the specific use schedule)

1 space per 400m² in St Leonards



Application of the above *DCP 2002* parking requirements to the various components of the development proposal reveals that the *maximum* number of off-street parking spaces that may be provided on the site is 154 parking spaces, as set out below:

Residential Apartments (200 Apartments):	142.5 spaces
Serviced Apartments (38 Apartments):	7.6 spaces
Retail/Café (187m ²):	3.7 spaces
Shops (227.5m ²):	0.6 spaces
TOTAL:	154.4 spaces

The proposed development makes provision for a total of 168 off-street parking spaces thereby resulting in a “surplus” of 14 spaces when assessed under Council’s *DCP 2002* parking requirements.

By way of comparison, reference is also made to the previously approved scheme of 173 residential apartments, 76 serviced apartments and 238m² of retail/café floor area. Application of the above *DCP 2002* parking requirements to the various components of the previously approved development reveals that the *maximum* number of off-street parking spaces that may be provided on the site should have been 146 parking spaces, as set out below:

Residential Apartments (173 Apartments):	126.0 spaces
Serviced Apartments (76 Apartments):	15.2 spaces
Retail/Café (238m ²):	4.8 spaces
TOTAL:	146.0 spaces

The previously approved development made provision for a total of 168 off-street parking spaces thereby resulting in a “surplus” of 22 spaces when assessed under Council’s *DCP 2002* parking requirements.

Further reference is also made to the *maximum* off-street parking requirements outlined in Council’s *Draft Development Control Plan 2012, Section 10 – Car Parking and Transport* document in the following terms:

Residential Flat Buildings (All Zones)

Studio, one & two bedroom apartments:	1.0 spaces per dwelling
Three or more bedrooms:	2.0 spaces per dwelling
Visitors:	0.25 spaces per dwelling

Serviced Apartments

1 space per 5 rooms

Food & Drink Premises

1 space per 50m² GFA

Non Residential uses (not listed in Table B-10.3 Specific Uses)

1 space per 400m² in St Leonards

Application of the above *Draft DCP 2012* parking requirements to the various components of the development proposal reveals that the *maximum* number of off-street parking spaces that may be provided on the site is 272 parking spaces, as set out below:

Residential Apartments (200 Apartments):	200.0 spaces
Visitors:	50.0 spaces
Serviced Apartments (38 Apartments):	7.6 spaces
Retail/Café (187m ²):	3.7 spaces
Shops (227.5m ²):	0.6 spaces
TOTAL:	271.9 spaces

As mentioned above, the proposed development makes provision for 168 off-street parking spaces, thereby not exceeding the *maximum* parking requirement of 272 spaces specified in Council's *Draft DCP 2012*.

In the circumstances, given the site's location and access to a large variety of public transport services, it is considered that the proposed provision of 168 parking spaces is considered appropriate and in the circumstances, it is concluded that the proposed development will not have any unacceptable parking implications.

Council's *DCP 2002* and *Draft DCP 2012* also require motorcycle and bicycle parking to be provided at the following rates:

Motorcycles:	1 motorcycle space for every 10 car spaces
Bicycles:	1 bicycle space per 5 dwellings (residents), <i>plus</i> 1 bicycle space per 10 dwellings (visitors), <i>plus</i> 1 bicycle space per 20 motel rooms

Application of the above *minimum* motorcycle and bicycle parking requirements to the various components of the development proposal yields an off-street parking requirement of 17 motorcycle spaces, 40 resident bicycle spaces, 20 visitor bicycle spaces and 2 serviced apartment bicycle spaces.

The proposed development makes provision for a total of 18 motorcycle spaces and 60 bicycle spaces, therefore satisfying Council's *minimum* Parking Code requirements.

Loading/Service Provisions

The proposed new mixed-use building is expected to be serviced by a variety of light commercial vehicles up to and including 8.8m long MRV trucks. The loading dock is to be located on Level 0 (ground floor level) adjacent to the eastern boundary of the site. Vehicular access to the loading dock is to be provided via the eastern driveway in Atchison Lane, with the trucks reversing off the street into the dock, allowing it to depart the site in a forward direction.

The geometric design layout of the proposed loading facilities have been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 2 - Off-Street Commercial Vehicle Facilities AS2890.2* in respect of loading dock dimensions and service area requirements for MRV trucks.

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