

Proposed Residential Development

28-32 Evan Street, Penrith

TRAFFIC AND PARKING ASSESSMENT REPORT

19 December 2017

Ref 17142

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TABLE OF CONTENTS

1. INTRODUCTION	1
2. PROPOSED DEVELOPMENT	4
3. TRAFFIC ASSESSMENT	10
4. PARKING ASSESSMENT	16

LIST OF ILLUSTRATIONS

Figure 1	Location
Figure 2	Site
Figure 3	Road Hierarchy
Figure 4	Existing Traffic Controls

1. INTRODUCTION

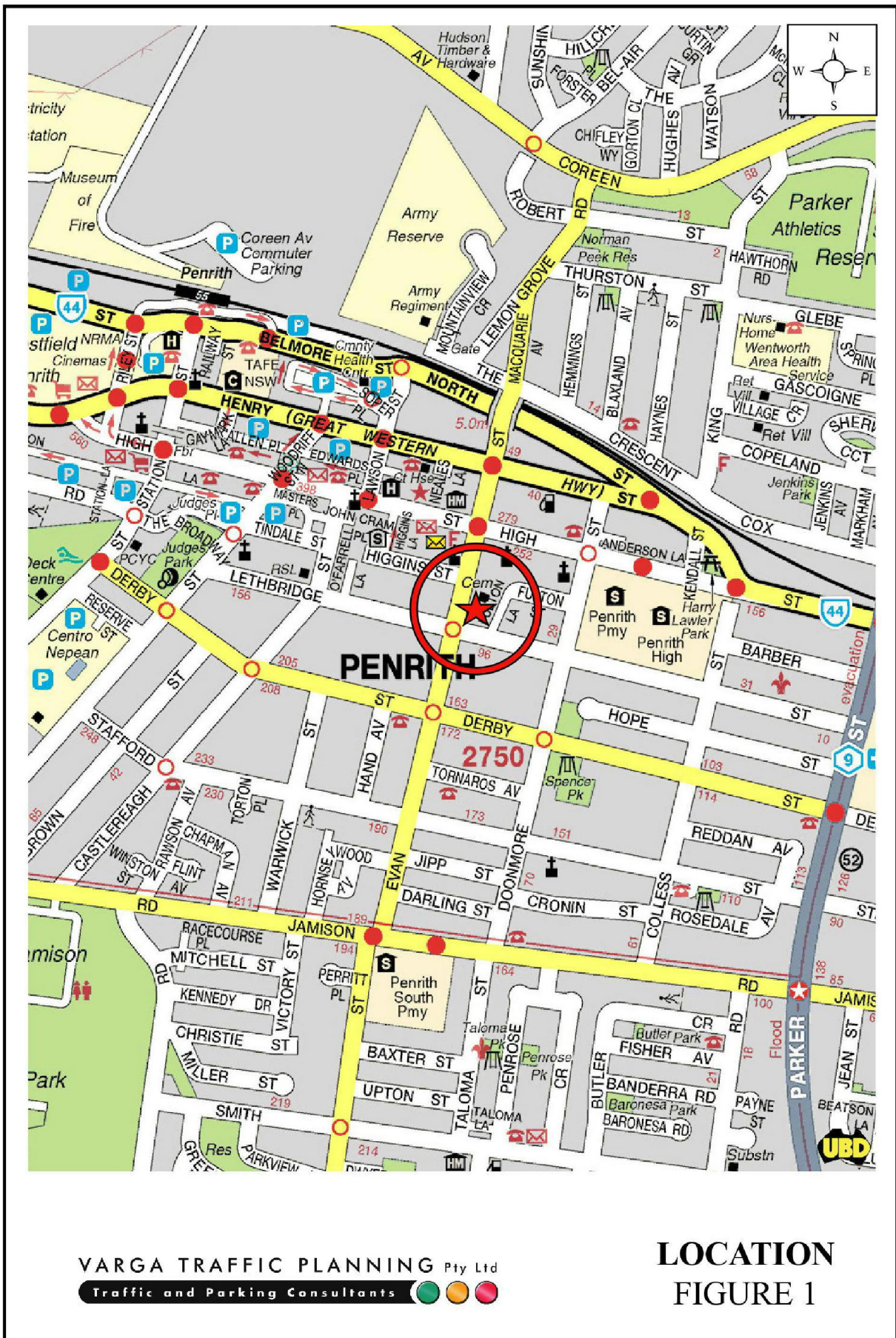
This report has been prepared to accompany a development application to Penrith City Council for a residential development proposal to be located at 28-32 Evan Street, Penrith (Figures 1 and 2).

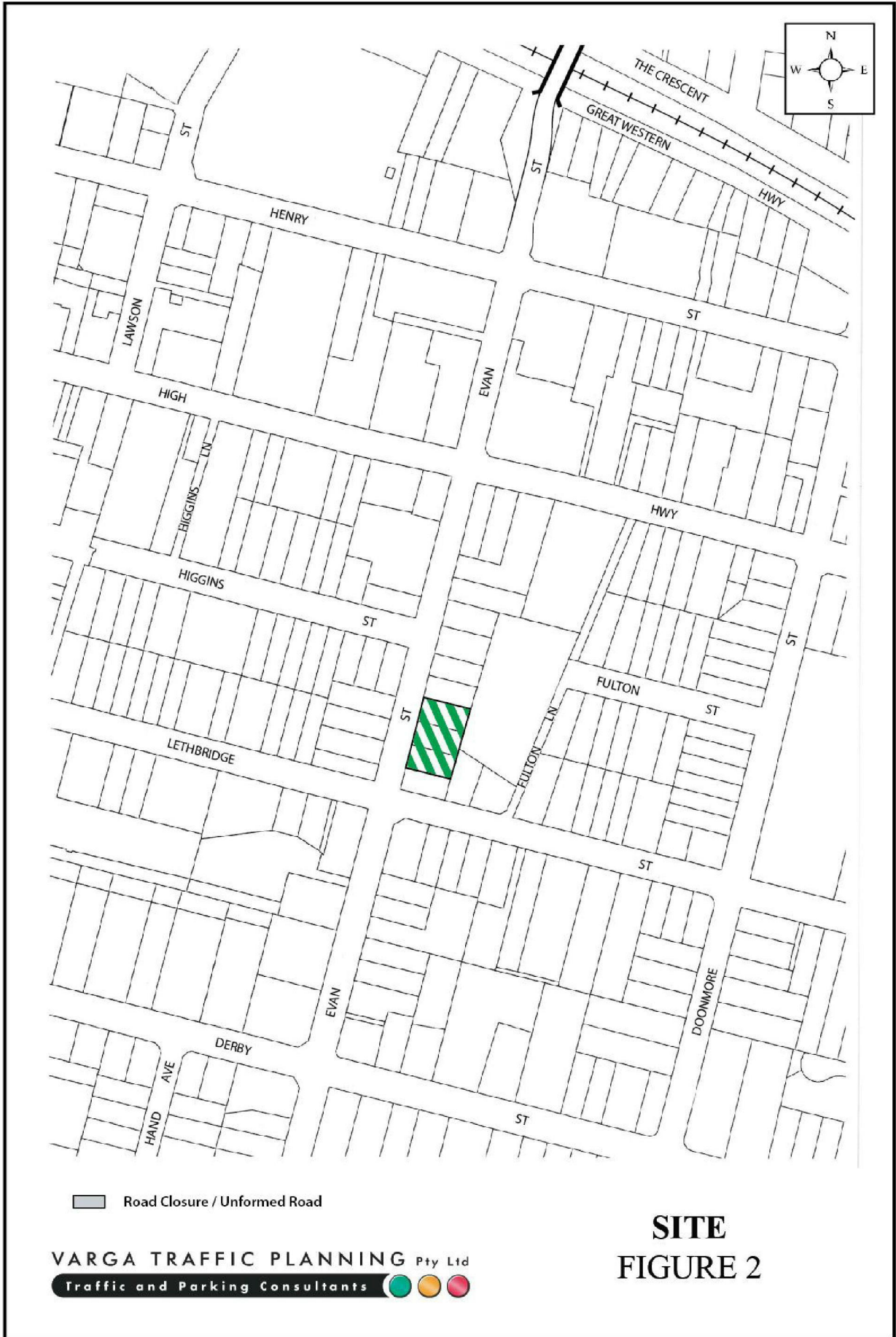
The proposed development will involve the demolition of the three existing residential dwellings on the site to facilitate the construction of a new residential apartment building.

Off-street car parking is to be provided in a basement car parking area in accordance with Council's requirements.

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
- 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 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 eastern side of Evan Street immediately north of the Evan Street/Lethbridge Street intersection. The site has a street frontage of approximately 49 metres in length to Evan Street and occupies a total area of approximately 1,600m².

The subject site is currently occupied by three residential dwelling houses with associated carports accessed via separate vehicular driveways off Evan Street

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



Source: Nearmap, 9 September 2017

Proposed Development

The proposed development will involve the demolition of the existing residential dwelling houses on the site to facilitate the construction of a new residential apartment building.

A total of 54 residential apartments are proposed as follows:

Studio apartment:	1
1 bedroom apartment:	29
2 bedroom apartment:	20
3 bedroom apartment:	4
TOTAL APARTMENTS:	54

Off-street parking is proposed for a total of 71 cars (including 6 accessible spaces) and 14 bicycles in a new multi-level basement car parking area in accordance with Council's requirements.

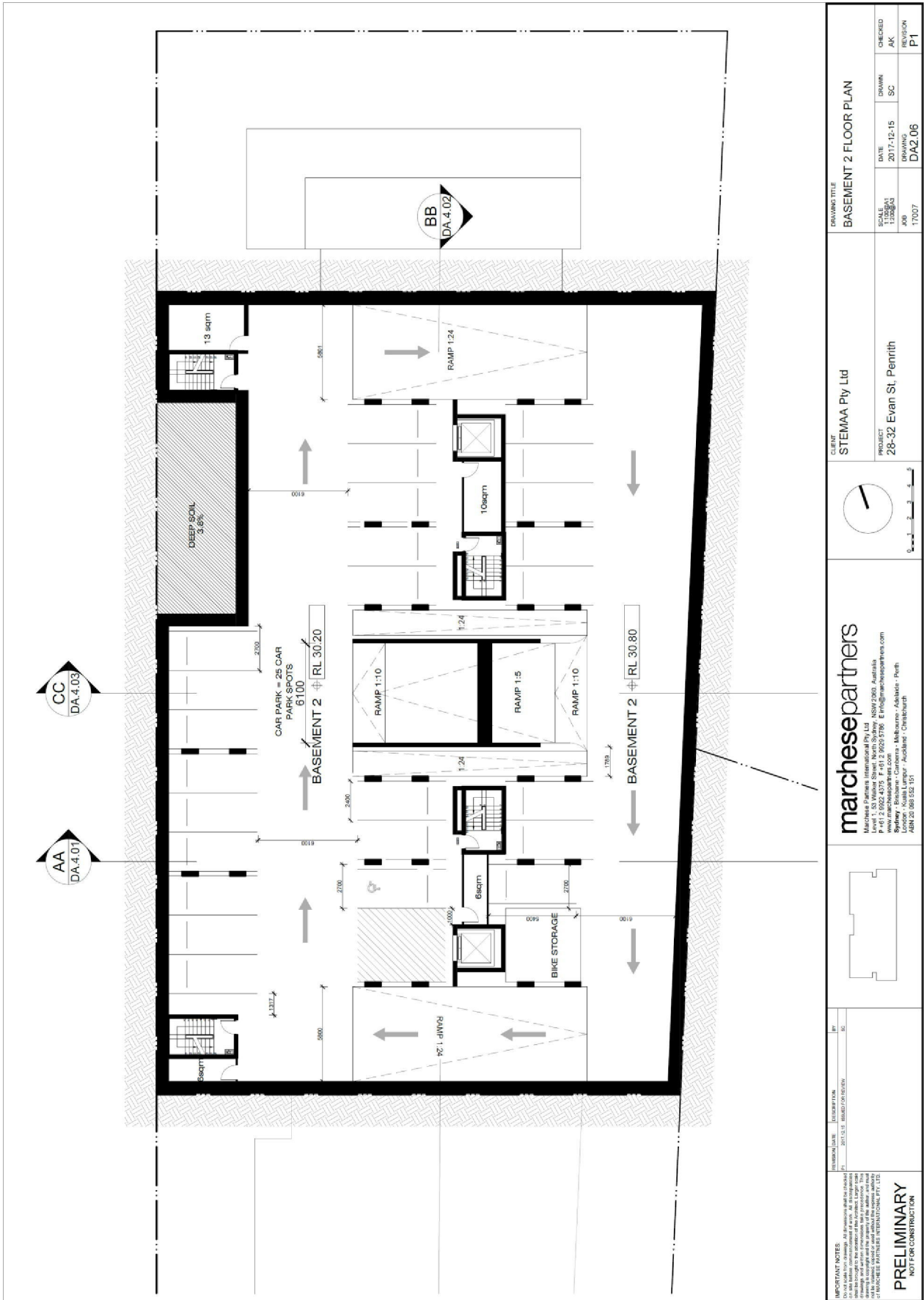
Vehicular access to the car parking facilities is to be provided via a new entry/exit driveway located approximately mid-way along the Evan Street site frontage.

Garbage collection for the proposed development is expected to be undertaken by Council's waste contractor using a 10.5m long rigid truck. A dedicated loading/servicing bay is proposed on the ground floor level, indented into the site adjacent the western site boundary, and will be accessed directly from Evan Street. The proposed loading/servicing bay will also be equipped with carwash facilities allowing it to be used as a carwash bay outside of garbage collection times.

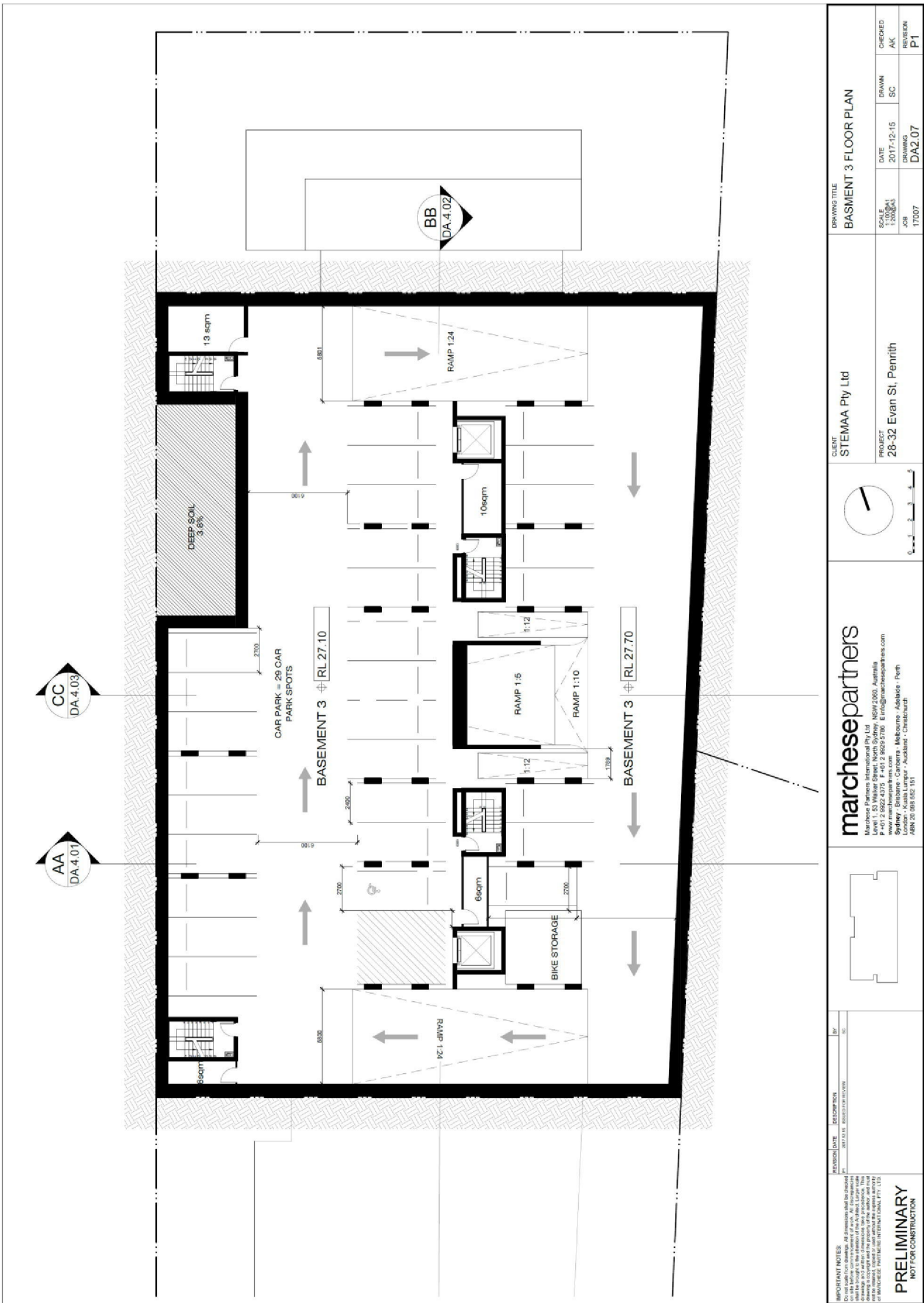
Plans of the proposed development have been prepared by *Marchese Partners International* and are reproduced in the following pages.



<p>IMPORTANT NOTES: All dimensions shall be as indicated on this drawing unless otherwise stated. All work shall be in accordance with the Australian Standards and the relevant Building Code of Australia. The client is responsible for ensuring that the site is suitable for the proposed development and that all necessary approvals have been obtained. The architect is not responsible for any errors or omissions in this drawing.</p> <p>PRELIMINARY NOT FOR CONSTRUCTION</p>	<p>SECTION LINE: INFORMATION: REFERENCE: DATE: 2017.01.15</p>	<p>PROJECT: CLIENT: DRAWING TITLE: CHECKED: REVISION: REVISION:</p> <p>28-32 Evan St, Penrith STEMAA Pty Ltd GROUND FLOOR PLAN AKE SC P1</p>
	<p>SCALE: 1:1000 (A1)</p> <p>DATE: 2017-12-15</p> <p>SCALE: 1:1000 (A1)</p> <p>DATE: 2017-12-15</p> <p>SCALE: 1:1000 (A1)</p> <p>DATE: 2017-12-15</p>	<p>PROJECT: CLIENT: DRAWING TITLE: CHECKED: REVISION: REVISION:</p> <p>28-32 Evan St, Penrith STEMAA Pty Ltd GROUND FLOOR PLAN AKE SC P1</p>



<p>IMPORTANT NOTES:</p> <p>1. This drawing is preliminary and is not to be used for construction purposes without the written approval of the author.</p> <p>2. The author is not responsible for any errors or omissions in this drawing.</p> <p>3. The author is not responsible for any errors or omissions in this drawing.</p> <p>4. The author is not responsible for any errors or omissions in this drawing.</p> <p>5. The author is not responsible for any errors or omissions in this drawing.</p>	<p>DATE: 2017.12.15</p> <p>SCALE: 1:100</p> <p>PROJECT: 28-32 Evan St, Penrith</p>	<p>DATE: 2017.12.15</p> <p>SCALE: 1:100</p> <p>PROJECT: 28-32 Evan St, Penrith</p>	<p>DATE: 2017.12.15</p> <p>SCALE: 1:100</p> <p>PROJECT: 28-32 Evan St, Penrith</p>	<p>DATE: 2017.12.15</p> <p>SCALE: 1:100</p> <p>PROJECT: 28-32 Evan St, Penrith</p>
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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.

The Great Western Highway is classified by the RMS as a *State Road* and provide the key east-west road link in the area, linking Sydney CBD and Emu Plains. It typically carries one to three traffic lanes in each direction depending on location, with additional lanes provided at key intersections.

Jamison Road is classified by the RMS as a *Regional Road* and provides another key east-west road link in the area, linking Mulgoa Road and Bringelly Road. It typically carries two traffic lanes in each direction with opposing traffic flows separated by linemarking.

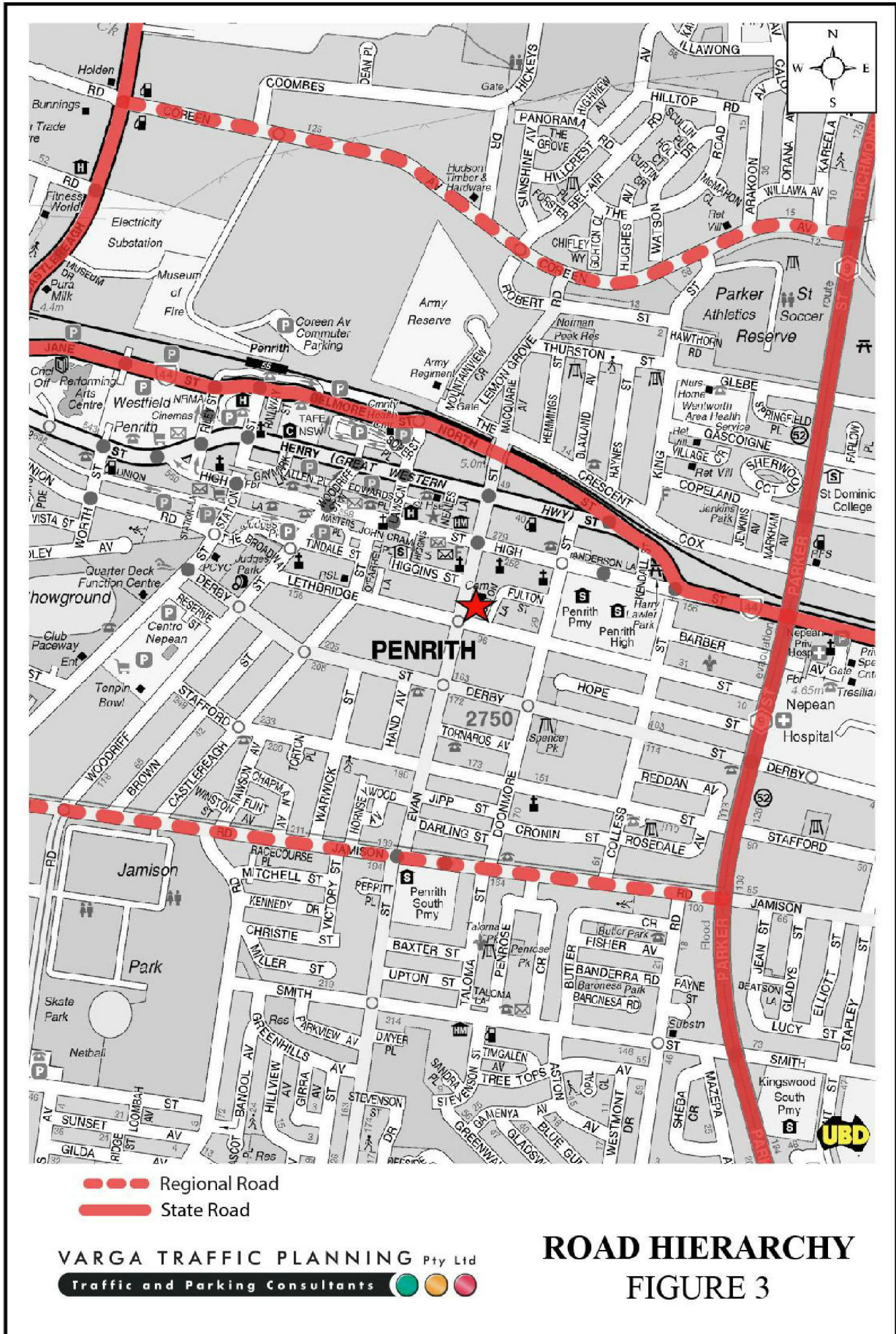
High Street and Woodriff Street is a local, unclassified road that function as a collector route in the local area, linking Great Western Highway and Jamison Road. It typically carries one lane of traffic in each direction. Kerbside parking is generally permitted along both sides of the road.

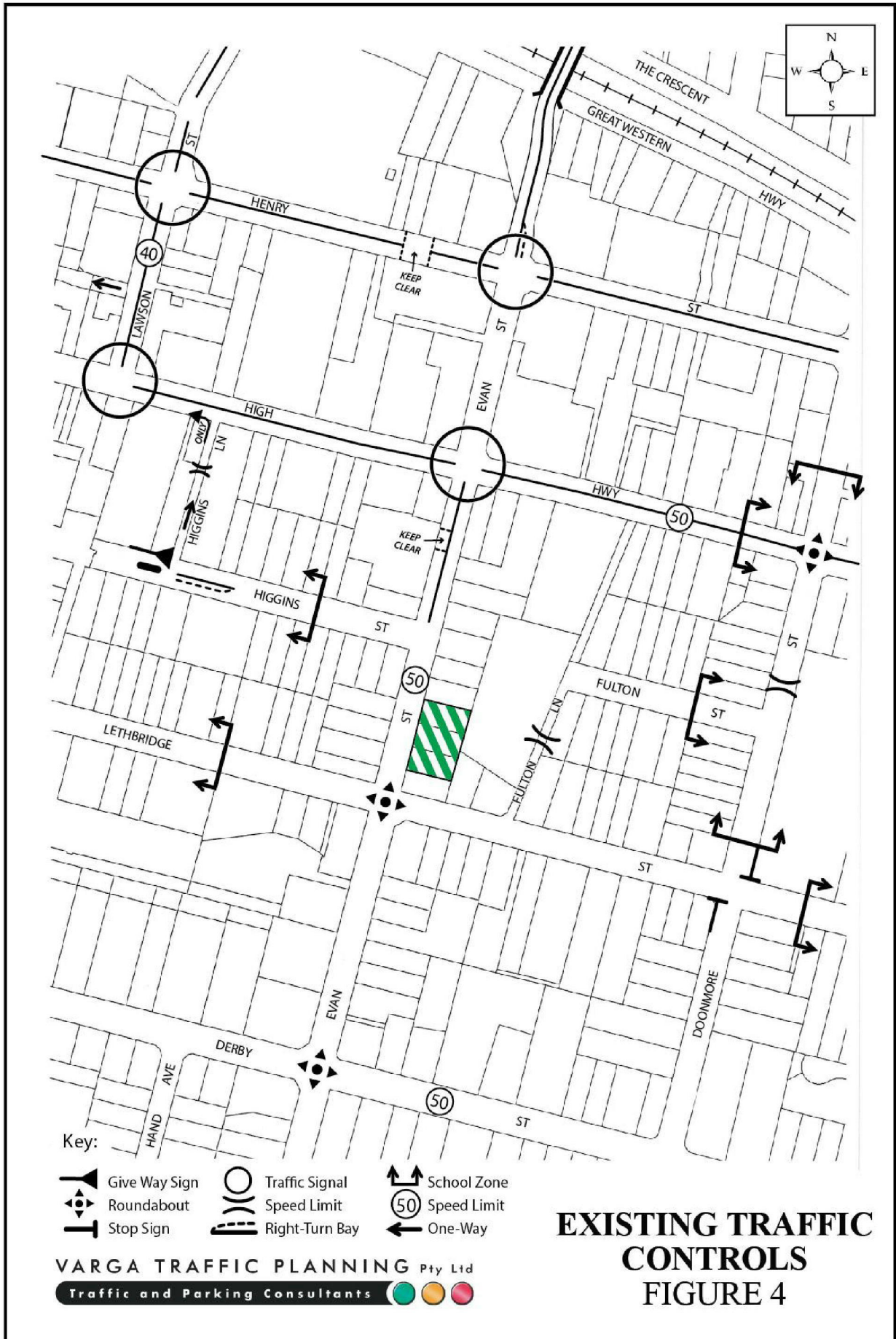
Evan Street, Lethbridge Street and Higgins Street are local, unclassified road which are primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted along both sides of the road.

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 50 km/h SPEED LIMIT which applies to Evan Street, Lethbridge Street and all other local roads in the area





- 40 km/h SCHOOL ZONE restrictions in local roads in the immediate vicinity of St Nicholas of Myra Primary School and also Penrith Public School
- ROUNDABOUTS in Evan Street where it intersects with Lethbridge Street and Derby Street
- TRAFFIC SIGNALS in Evan Street where it intersects with High Street and Henry Street.

Projected Traffic Generation

The traffic implications of a development proposal 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 during the morning and afternoon commuter peak periods.

An indication of the traffic generation potential of the development proposal is provided by reference to the Roads and Maritime Services' publication *Guide to Traffic Generating Developments, Section 3 – Land Use 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 development proposal:

High Density Residential Flat Dwellings

AM: 0.19 peak hour vehicle trips per unit

PM: 0.15 peak hour vehicle trips per unit

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

Definition

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

Factors

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

Application of the above traffic generation rates to the 54 residential units outlined in the development proposal yields a traffic generation potential of approximately 10 vehicle trips per hour (vph) during the AM commuter peak period and 8 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 existing 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 development proposal.

The RMS *Technical Direction* nominates the following traffic generation rates which are applicable to the existing development:

Low Density Residential Dwellings (Sydney Areas)

0.95-0.99 peak hour vehicle trips per dwelling

Application of the above traffic generation rates to the three existing residential dwellings on the site yield a traffic generation potential of approximately 3 vph during both the AM and PM commuter peak periods.

Accordingly, it is likely that the proposed development will result in a *nett increase* in the traffic generation potential of the site of approximately 7 vph during the AM commuter peak period and 5 vph during the PM commuter peak periods as set out below:

**Projected Nett Increase in Peak Hour Traffic Generation Potential
of the Site as a Consequence of the Development Proposal**

	AM	PM
Projected Future Traffic Generation Potential:	10.3 vph	8.1 vph
Less Existing Traffic Generation Potential:	-2.9 vph	-3.0 vph
NETT INCREASE IN TRAFFIC GENERATION POTENTIAL:	7.4 vph	5.1 vph

That projected nett increase in traffic activity as a consequence of the development proposal is minimal, consistent with the zoning objectives of the site, and will clearly not have any unacceptable traffic implications in terms of road network capacity.

4. PARKING IMPLICATIONS

Existing Kerbside Parking Restrictions

There are generally no kerbside parking restrictions that applies along the local roads in the immediate vicinity of the site, including along the entire site frontage.

Off-Street Car Parking Provisions

The off-street car parking requirements applicable to the development proposal are specified in the *Penrith Development Control Plan 2014, Section C10 Transport Access and Parking* document in the following terms:

Residential Flat Buildings

1 space per 1 or 2 bedrooms

2 spaces per 3 or more bedrooms

1 space per 40 units for service vehicles

In addition, visitor parking is to be provided for developments that have 5 or more dwellings at 1 space per every 5 dwellings, or part thereof.

1 space for car washing for every 50 units, up to a maximum of 4 spaces per building.

Application of the above car parking rates to the 54 residential units outlined in the development proposal yields a minimum off-street car parking requirement of 58 resident spaces, 11 visitor spaces, 1 service bay and 1 carwash bay, as set out below:

Residents (54 Dwelling):	58.0 spaces
Visitors:	10.8 spaces
Service vehicle:	1.4 spaces
Carwash bay:	1.1 spaces
TOTAL:	71.2 spaces

The proposed development makes provision for a total of 71 off-street car parking spaces (including 6 accessible spaces and 4 small car spaces) in a multi-level basement car parking area, plus 1 dual use service/car wash bay located on the ground floor level, thereby satisfying Council's car parking requirements.

The geometric design layout of the proposed car parking facilities has been designed to generally comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Car Parking AS2890.1:2004* and *Parking Facilities Part 6 - Off-Street Parking for People with Disabilities AS2890.6:2009* in respect of parking bay dimensions, aisle widths and overhead clearances.

Off-Street Bicycle Parking Provisions

The off-street bicycle parking requirements applicable to the development proposal are also specified in the *Penrith DCP 2014, Section C10 Transport Access and Parking* document in the following terms:

“Bicycle parking in accordance with the suggested bicycle parking provision rates for different land use types in the document ‘Planning Guidelines for Walking and Cycling’ (NSW Government 2004). Bicycle parking spaces should comply with AS2890.3:1993 Bicycle Parking Facilities.”

Reference is therefore made to the *Planning Guidelines for Walking and Cycling 2004* document, which nominates the following minimum off-street bicycle parking requirements applicable to the development proposal:

Bicycle Parking

Residents:	minimum 20% of total number of units
Visitors:	minimum 5% of total number of units

Application of the above bicycle parking requirements to the 54 residential units outlined in the development proposal yields a minimum off-street bicycle parking requirement of 11 resident spaces and 3 visitor spaces.

The proposed development makes provision for a total of 14 bicycle parking spaces located in bicycle storage cages spread across the basement levels, thereby satisfying Council’s bicycle parking requirements.

Loading/Service Provisions

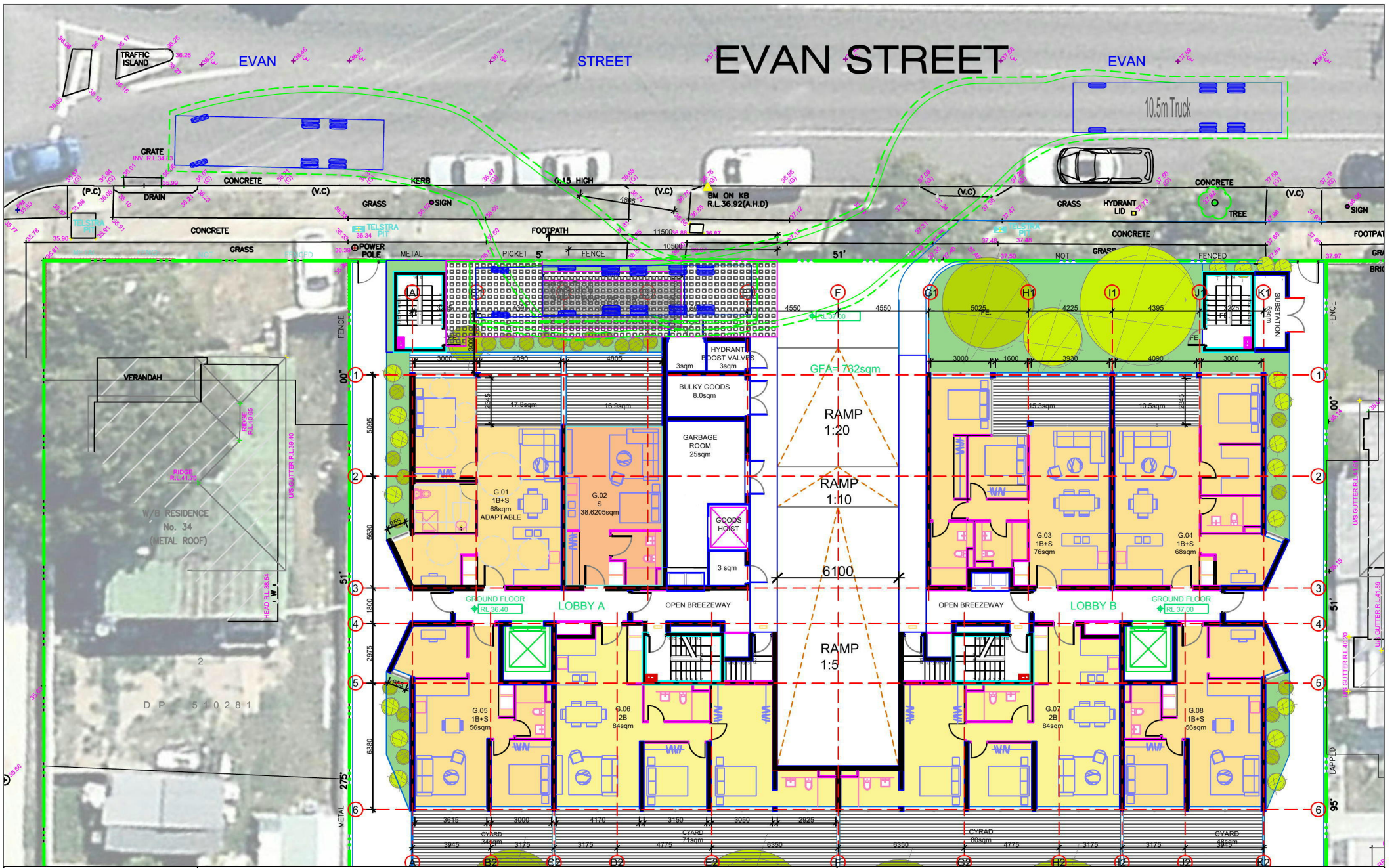
The proposed new residential apartment building is expected to be serviced by Council's waste contractor using a 10.5 metres long rigid truck.

A dedicated loading/service area is proposed on the ground floor level, indented into the site adjacent the western site boundary, and will be accessed directly from Evan Street. The manoeuvring areas and driveway have been designed to accommodate the *swept turning path* requirements of these 10.5m trucks, allowing them to enter and exit the site whilst travelling in forward gear at all times, as demonstrated by the attached *swept turning path* diagrams.

The geometric design layout of the proposed loading/service area has 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 10.5m long rigid trucks.

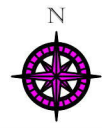
Conclusion

In summary, the proposed parking and loading facilities satisfy the relevant requirements specified in 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.



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PROJECT
 RESIDENTIAL DEVELOPMENT



DRAWING TITLE
 Ground Floor
 10.5m Truck Entry & Exit
 1:200 @ A4

ADDRESS
 28-32 Evan Street,
 Penrith

PROJECT NO.
 17142

DATE DRAWN
 2017-11-17

REVIEWED
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PREPARED
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VARGA TRAFFIC PLANNING Pty Ltd
 Transport, Traffic and Parking Consultants