Proposed Residential Development

824-834 Forest Road, Peakhurst

TRAFFIC AND PARKING ASSESSMENT REPORT

29 November 2018

Ref 18428

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants

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TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

1. INTRODUCTION

This report has been prepared to accompany a Development Application to Council for a residential development proposal to be located at 824-834 Forest Road, Peakhurst (Figures 1 and 2).

The proposed development involves the demolition of the six existing dwelling houses and outbuildings on the site to facilitate the construction of a new residential apartment development, comprising two separate buildings.

Off-street parking is to be provided in accordance with *SEPP (Affordable Rental Housing 2009)* and Council's requirements, and will be located in a new shared basement car parking area.

Vehicular access to the car parking facilities is to be provided via a new entry/exit driveway located along the western end of the Forest Road site frontage.

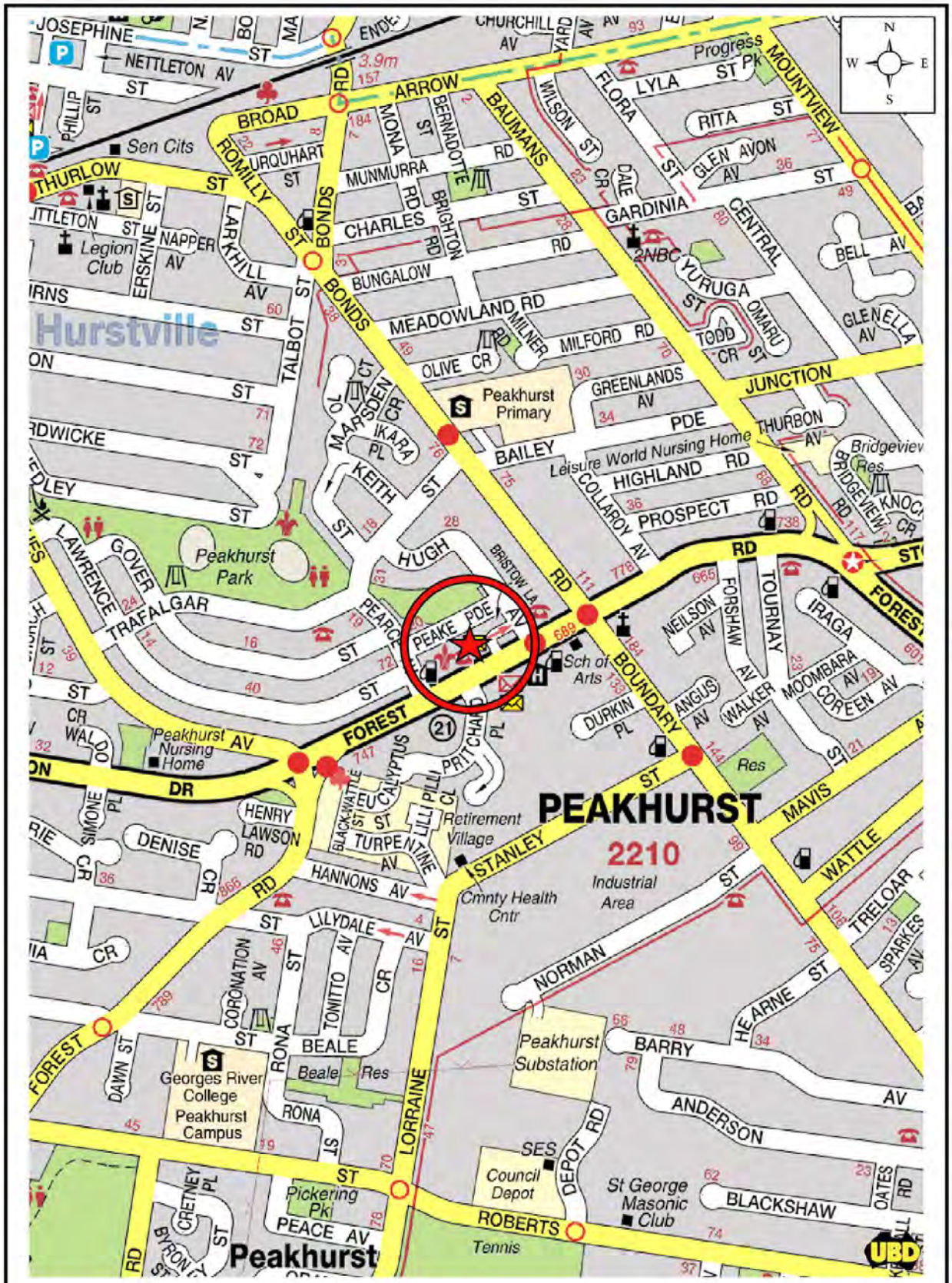
Turning movements in/out of the proposed driveway are to be restricted to the safest and simplest Left-In Left-Out (LILO) turning movements by the raised concrete median central island in Forest Road.

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
- reviews the public transport services available 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 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.



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LOCATION
FIGURE 1


MILFORD RD
OLIVE CR
GREENSLANDS AVE
N
W
E
S
ELDONS ST
CLEANDER CT
CR
BONDS RD
TALBOT ST
MARSDEN
IKARA PL
BAILEY
PDE
HARDWICKE ST
KEITH ST
ST
COLLAROY
HIGHLAND RD
HEDLEY ST
KEITH ST
BONDS RD
PROSPECT RD
TRAFALGAR
HUGH AVE
AVE
HUGH
FOREST RD
TRAFALGAR ST
PEARCE
PEAKE PDE
BRISTOW LA AVE
GOVER ST
BOUNDARY
AVE
ANGUS AVE
LAWRENCE ST
FOREST RD
PRITCHARD PL
DURKIN PL
RD
JACQUES AVE
PRITCHARD PL
PRITCHARD PL
HENRY LAWSON DR
HENRY LAWSON RD
RD
STANLEY ST
FOREST
HANNONS AVE
PARK ST
LILYDALE AVE
LORRAINE ST
NORMAN ST
RONA ST
TONITTO AVE
BEALE CR
Road Closure / Unformed Road
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Traffic and Parking Consultants
SITE
FIGURE 2

2. PROPOSED DEVELOPMENT

Site

The subject site is located on the northern side of Forest Road, directly adjacent the Peakhurst Shopping Centre car park and opposite the Pritchard Place intersection. The site has a street frontage of approximately 98m in length to Forest Road and occupies an area of approximately 4,071m^2.

The subject site is zoned *R3 Medium Density Residential* and adjoins the Peakhurst neighbourhood shops, which includes a range of essential shops and services such as a supermarket, fruit market, bottle shop, post office, pharmacy, newsagency, dentist, hairdressers and the local post office.

The subject site is currently occupied by six residential dwelling houses, with detached garages and outbuildings. Vehicular access to the site is provided via respective driveways off Forest Road.

Proposed Development

The proposed development involves the demolition of the existing buildings on the site to facilitate the construction of a new residential development, comprising two separate residential apartment buildings

A total of 72 residential apartments (including 29 *affordable* dwellings and 8 *adaptable* dwellings) are proposed in the new development as follows:

	BLOCK A	*BLOCK B*	*TOTAL*
1 bedroom	13	11	24
2 bedrooms	21	21	42
3 bedrooms	3	3	6
TOTAL	**37**	**35**	**72**

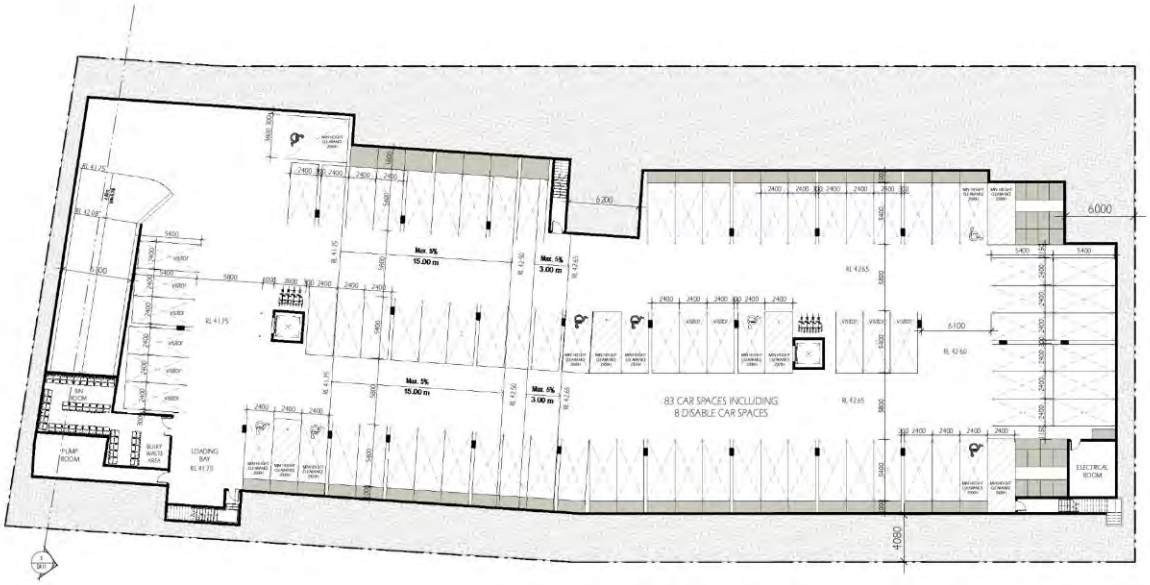
Off-street parking is proposed for a total of 83 cars (including 8 disabled spaces) in accordance with Council and *SEPP (Affordable Rental Housing) 2009* requirements, and is to be located in a new single-level basement car parking area.

Vehicular access to the car parking facilities is to be provided via a new entry/exit driveway located along the western end of the Forest Road site frontage.

Turning movements in/out of the proposed driveway are to be restricted to the safest and simplest Left-In Left-Out (LILO) turning movements by the raised concrete median central island in Forest Road.

Waste collection is expected to be undertaken by a private waste contractor using a small garbage truck similar in size to a standard SRV. A service area is to be located on the basement level, adjacent to the garbage holding area. Vehicular access to the service area is to be provided via the abovementioned proposed site access driveway in the Forest Road.

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



BASEMENT
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1 : 400 @ A3 sheet

ISSUE	AMENDMENT	DATE	DRAWN	CHECK
A	ISSUED FOR DA SUBMISSION	30/7/18	VV	JA

Drawing is NOT VALID if issued for use, unless checked

TRUE NORTH

Zhinar Architects Pty Ltd
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+61 2 8893 8883
www.zhinar.com.au
29 495 869 790
Ruzicom Wael Chiang Kudsiae Kweei (nsw) 4578 : Nominated Architect

PROJECT STATUS:
Development Application

PROJECT NAME:
PROPOSED RESIDENTIAL DEVELOPMENT
824 - 834 FOREST ROAD
PEAKHURST, NSW 2210
L.G.A. : GEORGES RIVER COUNCIL

SHEET TITLE:
BASEMENT PLAN

SCALE

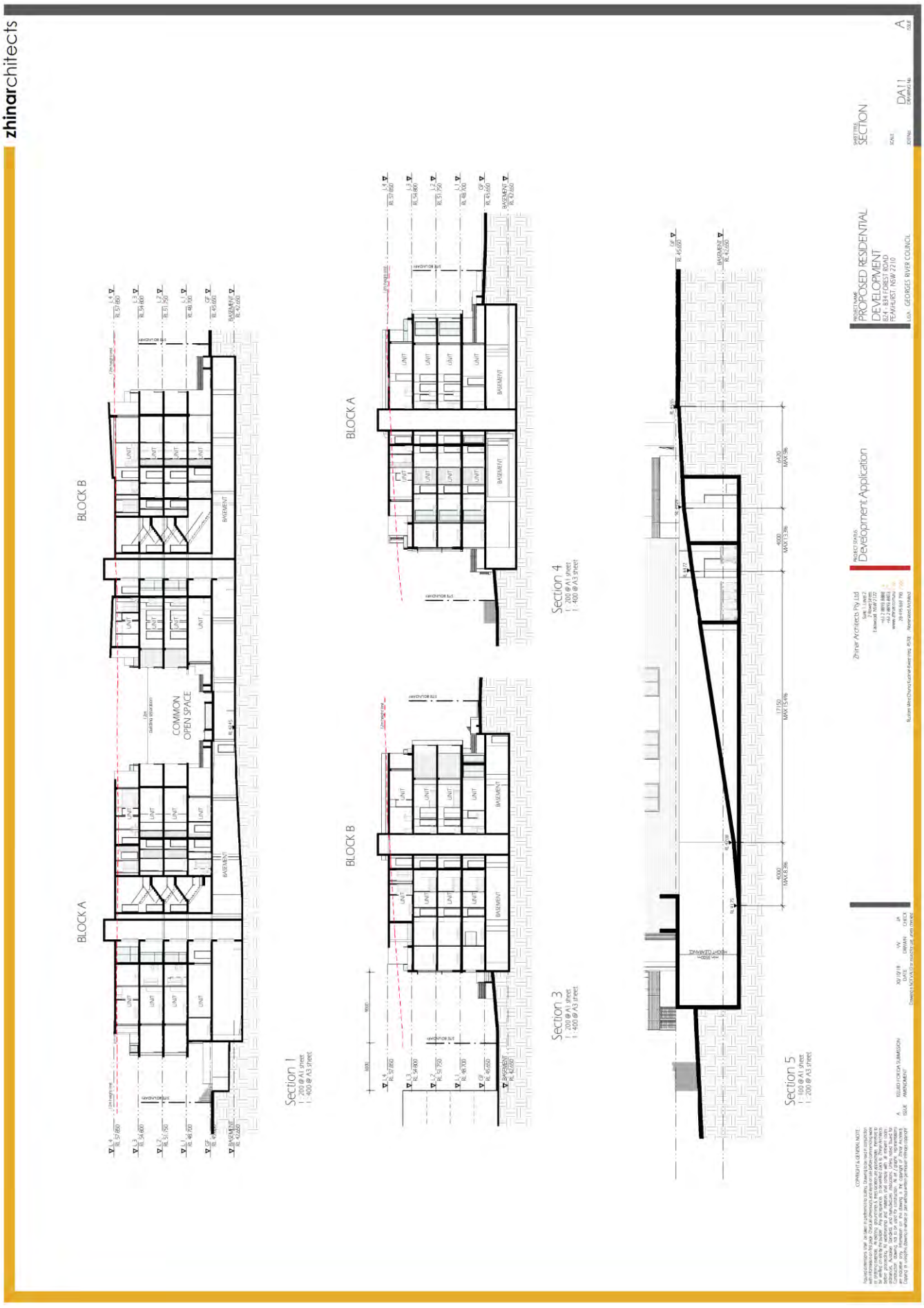
JOB No.

DA04
DRAWING No.

A
ISSUE

VARGA TRAFFIC PLANNING PTY LTD


zhinarchitects
GROUND FLOOR PLAN
1:200 @ A1 sheet
1:400 @ A3 sheet
FOREST ROAD
GROUND LEVEL PLAN
DA05
PROPOSED RESIDENTIAL DEVELOPMENT
824 - 834 FOREST ROAD
PEAKHURST NSW 2210
LGA - GEORGES RIVER COUNCIL
Development Application
Zhinar Architects Pty Ltd


zhinarchitects
BLOCK A
BLOCK B
COMMON OPEN SPACE
Section 1
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BLOCK A
BLOCK B
Section 3
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Section 4
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Section 5
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PROJECT STATUS
Development Application
PROJECT NAME
PROPOSED RESIDENTIAL DEVELOPMENT
824 - 834 FOREST ROAD
PEAKHURST NSW 2210
LGA GEORGES RIVER COUNCIL
SHEET TITLE
SECTION
SCALE
DA11
DRAWING No.
A
ISSUE
JOB No.
Zhinar Architects Pty Ltd
Nominated Architect
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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.

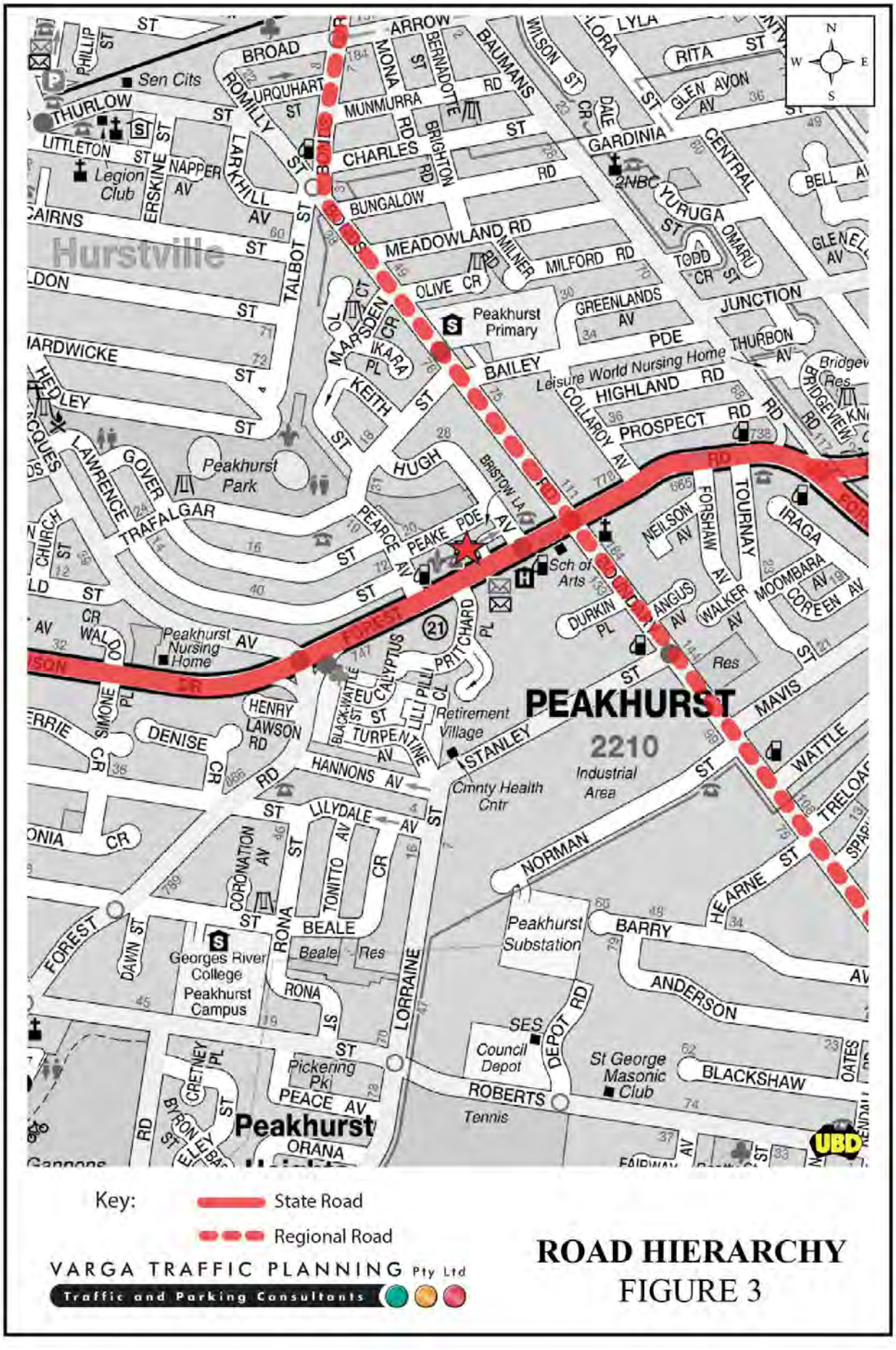
Henry Lawson Drive and Forest Road are classified by the RMS as *State Roads* which provide the key east-west road link in the area, linking Villawood to Arncliffe. They typically carry three traffic lanes in each direction in the vicinity of the site with opposing traffic flows separated by a central median island. Kerbside parking is generally permitted along both sides of the road.

Bonds Road and Boundary Road are classified by the RMS as *Regional Roads* which provide a key north-south *collector route* through the area. They typically carry one traffic lane in each direction with kerbside parking generally permitted.

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 Henry Lawson Road and also Forest Road
- a 50 km/h SPEED LIMIT which applies to all other roads in the local area
- a PEDESTRIAN SIGNALISED CROSSING along Forest Road, immediately west of Hugh Avenue
- TRAFFIC SIGNALS in Henry Lawson Drive / Forest Road where it intersects with Jacques Avenue
- TRAFFIC SIGNALS in Forest Road where it intersects with Bonds Road/Boundary Road, with additional right turn holding lanes provided along Forest Road


Key:
State Road
Regional Road
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Traffic and Parking Consultants
ROAD HIERARCHY
FIGURE 3
PEAKHURST
2210
Hurstville
Peakhurst
Peakhurst Park
Peakhurst Primary
Georges River College Peakhurst Campus
Peakhurst Substation
Peakhurst Nursing Home
Retirement Village
Leisure World Nursing Home
Cmnty Health Cntr
Industrial Area
Council Depot
St George Masonic Club
Pickering Pki
Beale Res
Bridgeview Res
Legion Club
Sch of Arts
Tennis
Sen Cits
2NBC
FOREST RD
PEAKE PDE
BAILEY RD
HIGHLAND RD
PROSPECT RD
KEITH ST
HUGH ST
TRAFALGAR AV
PEARCE AV
STANLEY ST
NORMAN ST
HANNONS AV
LILYDALE AV
BEALE ST
RONA ST
ROBERTS
ANDERSON
BARRY
HEARNE ST
MAVIS ST
WATTLE ST
LORRAINE
DEPOT RD
BLACKSHAW
MEADOWLAND RD
BUNGALOW
CHARLES RD
MUNMURRA RD
GARDINIA
JUNCTION
GREENLANDS AV
OLIVE CR
MILFORD RD
MILNER RD
BRISTOW LA
TOURNAY
IRAGA
NEILSON AV
FORSHAW AV
WALKER AV
DURKIN PL
ANGUS AV
MOOMBARA AV
COREEN AV
HENRY LAWSON RD
DENISE CR
SIMONE PL
PRITCHARD PL
EUCALYPTUS ST
BLACK-WATTLE ST
TURPENTINE AV
LILLI PILLI CL
CORONATION AV
TONITTO AV
DAWN ST
CRETNEY PL
BYRON ST
ORANA
PEACE AV
THURLOW ST
LITTLETON ST
ERSKINE AV
NAPPER AV
LARKHILL AV
CAIRNS ST
TALBOT ST
HARDWICKE ST
HEDLEY ST
LAWRENCE ST
GOVER ST
CHURCH ST
WALDO CR
MARSDEN CR
IKARA PL
OLIVE CT
BROAD ST
ROMILLY ST
URQUHART ST
MONA ST
BERNADOTTE ST
BRIGHTON RD
BAUMANS RD
WILSON ST
DALE CR
RITA ST
GLEN AVON AV
CENTRAL AV
YURUGA ST
OMARU ST
TODD CR
BELL AV
GLENELG AV
THURBON AV
COLLAROY AV
PHILLIP ST
ARROW ST
LYLA
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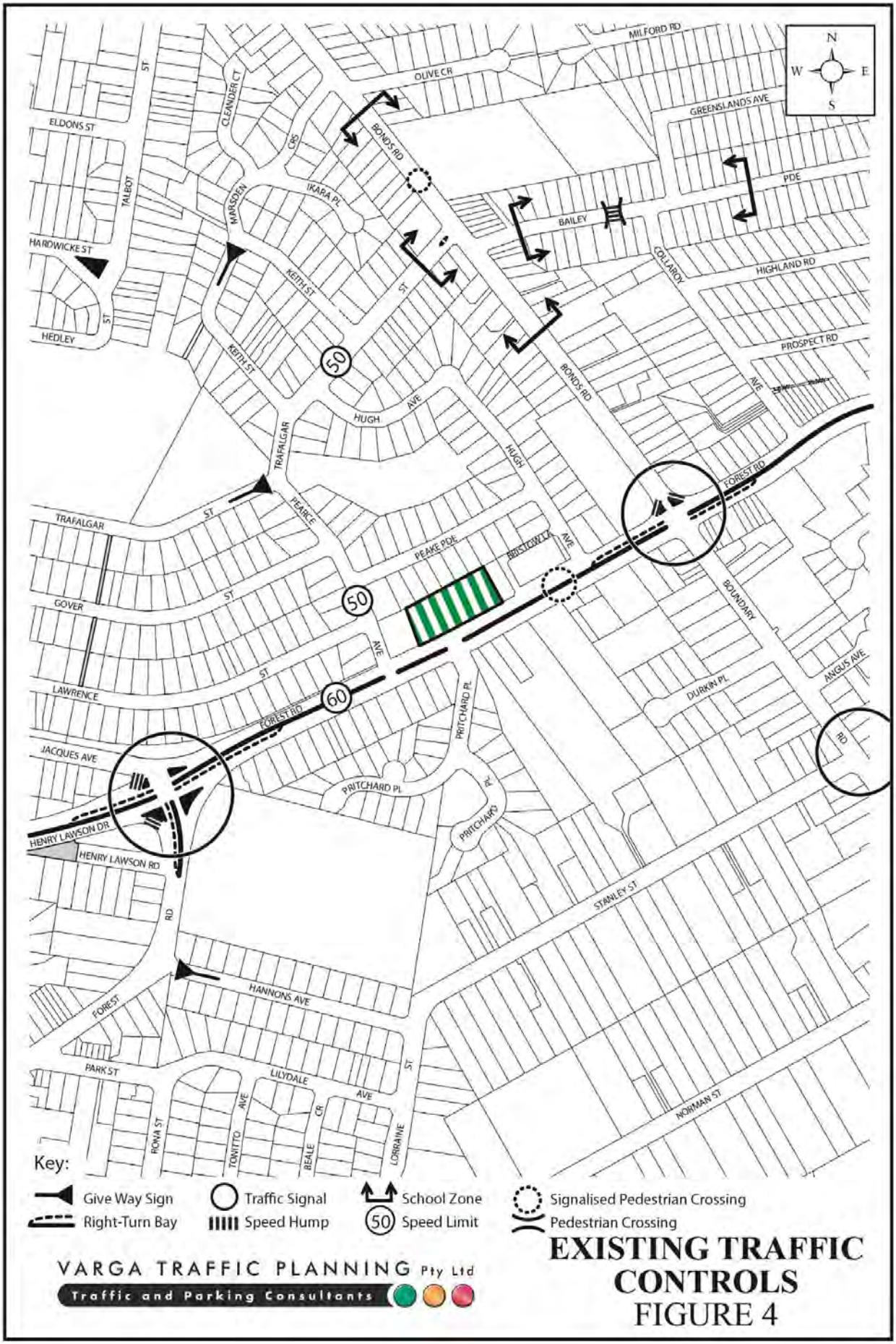
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MILFORD RD
OLIVE CR
GREENSLANDS AVE
ELDONS ST
CLEANDER CT
CRS
BONDS RD
IKARA PL
MARSDEN
TALBOT
ST
BAILEY
PDE
HARDWICKE ST
KEITH ST
COLLAROY
HIGHLAND RD
HEDLEY
50
HUGH
AVE
PROSPECT RD
TRAFALGAR
PEARCE
FOREST RD
PEAKE PDE
BRISTOW LY
GOVER
BOUNDARY
ANGUS AVE
LAWRENCE
60
DURKIN PL
JACQUES AVE
PRITCHARD PL
HENRY LAWSON DR
HENRY LAWSON RD
STANLEY ST
HANNONS AVE
FOREST
PARK ST
LILYDALE
NORMAN ST
RONA ST
TONITTO
BEALE
LORRAINE
Key:
Give Way Sign
Right-Turn Bay
Traffic Signal
Speed Hump
School Zone
50 Speed Limit
Signalised Pedestrian Crossing
Pedestrian Crossing
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Traffic and Parking Consultants
EXISTING TRAFFIC CONTROLS
FIGURE 4

- a RIGHT TURN HOLDING BAY in Forest Road turning onto Pritchard Place.

Existing Public Transport Services

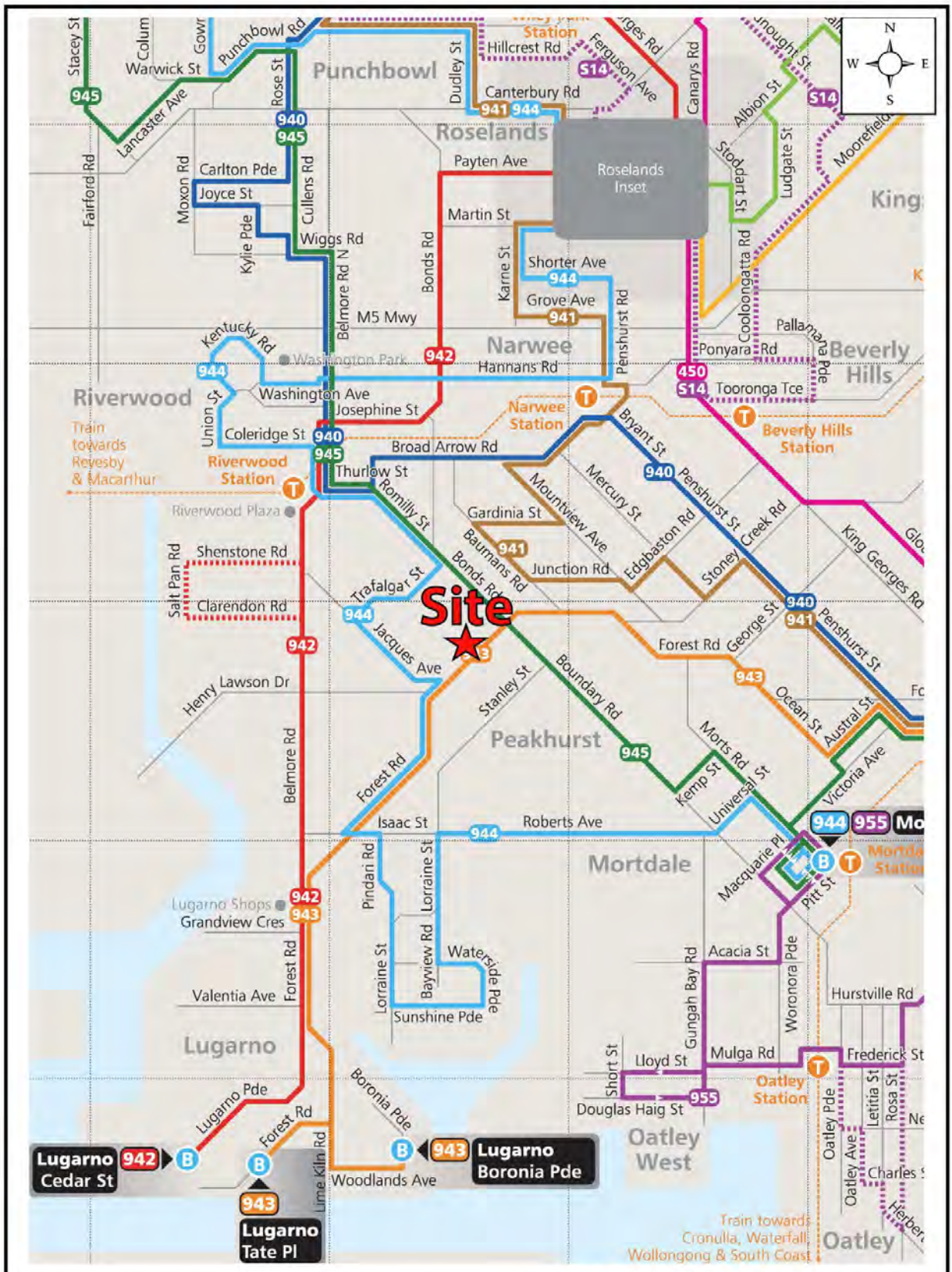
The existing public transport services located in close proximity to the site are illustrated on Figures 5a and 5b. There are currently two bus services within an easy 100m walking distance of the site which traverses along Forest Road *plus* the 944 bus service which operates along Trafalgar Street which is approximately 280m walking distance from the site.

Notably, these bus services include the high-frequency intra-regional *Metrobus M91* which operates between Parramatta and Hurstville via Chester Hill & Padstow. The *Metrobus* service 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.

In total, there are more than 280 bus services per day travelling near the site on weekdays, decreasing to nearly 130 bus services per day on Saturdays and 100 services on Sunday and public holidays, as set out below:

Bus Routes and Frequencies							
Route No.	**Route**	**Weekdays**		**Saturday**		**Sunday**	
		IN	**OUT**	**IN**	**OUT**	**IN**	**OUT**
943	Lugarno to Hurstville	32	31	19	19	10	10
944	Mortdale to Bankstown via Peakhurst Heights	34	36	11	10	10	9
M91	Parramatta to Hurstville via Chester Hill & Padstow	72	77	38	38	35	35
TOTAL		**139**	**144**	**18**	**18**	**55**	**54**

All of the abovementioned bus services can also be used to interchange with connecting train services at numerous railway stations in the west, south and south-western Sydney areas including Parramatta, Granville, Chester Hill, Yagoona, Padstow, Hurstville, Bankstown, Penshurst, Punchbowl, Narwee, Riverwood and Mortdale Railway Stations.



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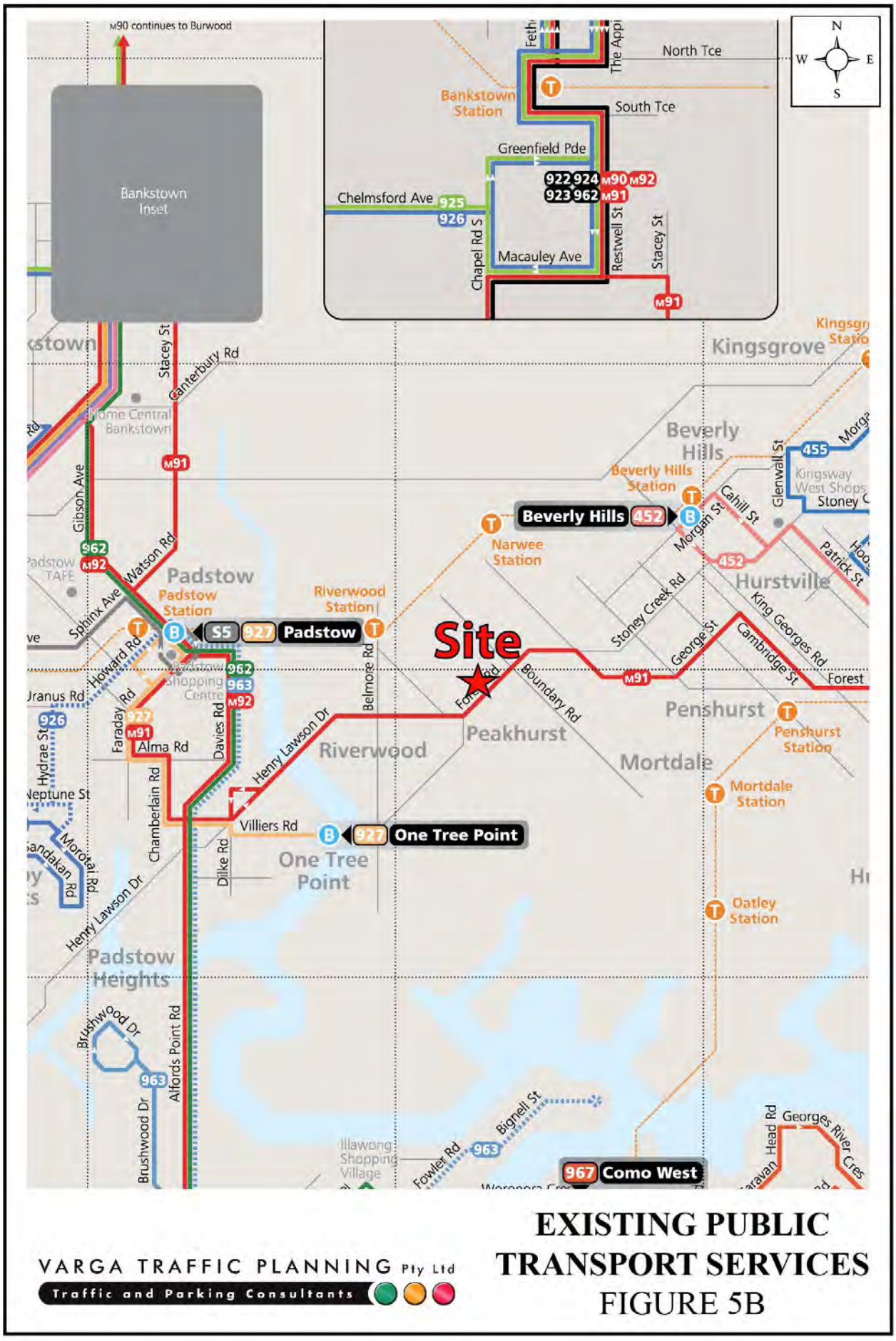
Traffic and Parking Consultants

EXISTING PUBLIC TRANSPORT SERVICES
FIGURE 5A



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EXISTING PUBLIC TRANSPORT SERVICES
FIGURE 5B

The site is therefore located within an *accessible area* in accordance with the *SEPP (Affordable Rental Housing) 2009* requirements, being located less than 100m from the M91 bus stop, and is considered to be located in an ideal location for an affordable housing development.

Projected Traffic Generation

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 - 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 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

Application of the above traffic generation rates to the 72 residential apartments outlined in the development proposal yields a traffic generation potential of approximately 14 vehicle trips per hour (vph) during the AM commuter peak period and approximately 11 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* in traffic generation potential of the site expected to occur as a consequence of the development proposal.

The TDT 2013/04a nominates the following traffic generation rates which are applicable to the existing development:

Low Density Residential Dwellings

AM: 0.95 peak hour vehicle trips per dwelling

PM: 0.99 peak hour vehicle trips per dwelling

Application of the above traffic generation rates to the 6 existing dwelling houses on the site yields a traffic generation potential of approximately 6 vph during 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 8 vph during the AM commuter peak period and approximately 5 vph during the PM commuter peak period 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:	13.7 vph	10.8 vph
Less Existing Traffic Generation Potential:	-5.7 vph	-5.9 vph
NETT INCREASE IN TRAFFIC GENERATION POTENTIAL:	**8.0 vph**	**4.9 vph**

That projected increase in traffic activity as a consequence of the development proposal is *minimal*, consistent with the R3 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

The existing kerbside parking restrictions which apply to the road network in the vicinity of the site are illustrated on Figure 6 and comprise:

- CLEARWAY restrictions along northern side of Forest Road a during the *morning* weekday commuter peak period

- CLEARWAY restrictions along southern side of Forest Road a during the *afternoon* weekday commuter peak period

- NO STOPPING restrictions in the vicinity of the Forest Road/Pearce Avenue and also Forest Road/Pritchard Place intersections

- BUS ZONES located at regular intervals along both sides of Forest Road

- generally UNRESTRICTED kerbside parking along both sides of Forest Road outside of commuter peak periods, including along the site frontage, and throughout the local area

Off-Street Parking Provisions

The off-street parking requirements applicable to the affordable housing component of the development proposal are specified in *State Environmental Planning Policy (Affordable Rental Housing) 2009* in the following terms:

Division 1 **In-fill affordable housing**

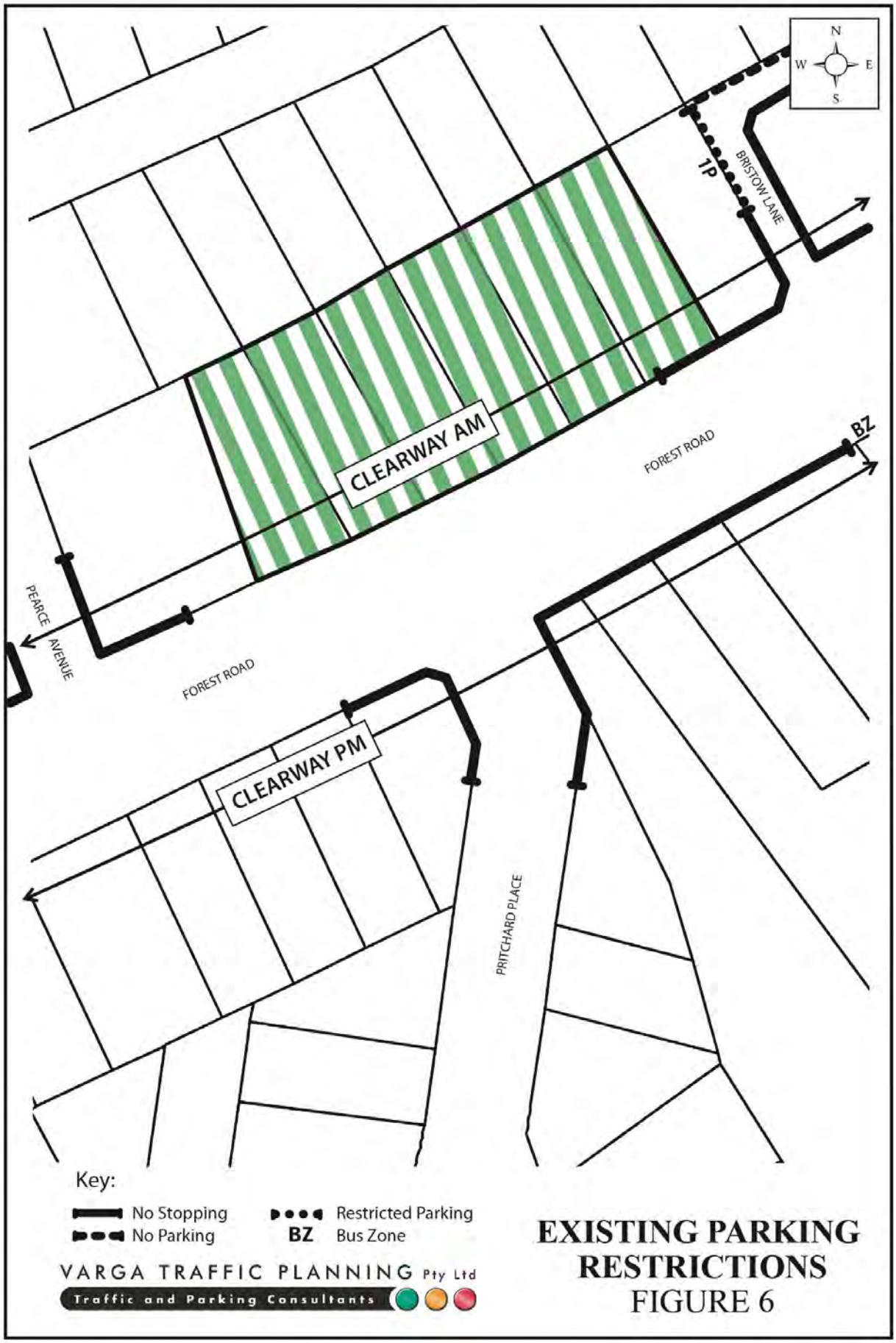
14 Standards that cannot be used to refuse consent

(2) General

A consent authority must not refuse consent to development to which this Division applies on any of the following grounds:

(a) **parking**

if:


N
W
E
S
1P
BRISTOW LANE
CLEARWAY AM
FOREST ROAD
BZ
PEARCE AVENUE
FOREST ROAD
CLEARWAY PM
PRITCHARD PLACE
Key:
No Stopping
No Parking
Restricted Parking
BZ Bus Zone
VARGA TRAFFIC PLANNING Pty Ltd
Traffic and Parking Consultants
EXISTING PARKING RESTRICTIONS
FIGURE 6

(i) in the case of a development application made by a social housing provider for development on land in an accessible area, at least 0.4 parking spaces are provided for each dwelling containing 1 bedroom, at least 0.5 parking spaces are provided for each dwelling containing 2 bedrooms and at least 1 parking space is provided for each dwelling containing 3 or more bedrooms, or

(ii) in any other case-at least 0.5 parking spaces are provided for each dwelling containing 1 bedroom, at least 1 parking space is provided for each dwelling containing 2 bedrooms and at least 1.5 parking spaces are provided for each dwelling containing 3 or more bedrooms.

The off-street parking requirements applicable to the other (standard or non-SEPP) dwellings within the development proposal are specified in *Hurstville Development Control Plan No.1, Part 3.1 – Vehicle Access Parking and Manoeuvring* document in the following terms:

Residential Accommodation	
1-2 bedroom apartment:	1 space per dwelling
3 or more bedroom apartment:	2 spaces per dwelling
Visitors:	1 space per 4 dwellings (or part thereof)

Application of the above parking requirements to the Affordable Housing and other (standard or non-SEPP) residential apartments yields an off-street car parking requirement of 83 parking spaces as set out below:

CUMULATIVE PARKING REQUIREMENTS

Affordable Dwellings (SEPP)	
1 bed (10 apartments)	5.0 spaces
2 bed (16 apartments)	16.0 spaces
3 bed (3 apartments):	4.5 spaces
Visitors:	n/a
Total (29 apartments):	**25.5 spaces**
Standard Dwellings (DCP)	
1 bed (14 apartments)	14.0 spaces
2 bed (26 apartments):	26.0 spaces
3 bed (3 apartments):	6.0 spaces
Visitors:	11.0 spaces
Total (43 apartments):	**57.0 spaces**
TOTAL PARKING REQUIRED:	**82.5 spaces**

Notwithstanding the above, it is understood that the *SEPP (Affordable Housing) 2009* applies to the whole development if it includes and *affordable housing* component, and on that basis the proposed development would require the provision of 61 car parking spaces.

In any event, the proposed development makes provision for a total of 83 off-street parking spaces, comprising 72 residential spaces and 11 visitor spaces, thereby satisfying both Council and *SEPP 2009* requirements.

Vehicular access to the proposed development is to be provided via a new vehicular access driveway located at the western end of the site frontage, off Forest Road.

Turning movements in/out of the proposed driveway are to be restricted to the safest and simplest Left-In Left-Out (LILO) turning movements by the raised concrete median central island in Forest Road.

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 Car Parking AS2890.1 - 2004* in respect of parking bay dimensions, ramp gradients and aisle widths.

Loading/Servicing Provisions

The proposed residential apartment building is expected to be serviced by a private waste contractor using small garbage trucks similar in size to a standard SRV. A service area is to be located on the basement level, adjacent to the garbage holding area.

The manoeuvring areas has been designed to accommodate the *swept turning path* requirements of these SRV trucks, allowing them to enter and exit the site in a forward direction at all times, as per the attached *swept turning path* diagram.

In summary, the proposed parking and loading facilities satisfy the relevant requirements specified in Council's *DCP*, *SEPP (Affordable Rental Housing) 2009* and 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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DA11

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Sydney, Australia

PROJECT
RESIDENTIAL DEVELOPMENT

N

DRAWING TITLE
6.4M SRV TRUCK TURNING PATH
Entering / Exiting Loading Bay Area

1:200 @ A4

ADDRESS
824-834 Forest Road,
Peakhurst

PROJECT NO.
18428

DATE DRAWN
2018-10-25

REVIEWED
ROBERT VARGA

PREPARED
DONALD LEE

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants