

Proposed Seniors Housing Development

**97-99 Punchbowl Road,
Belfield**

TRAFFIC AND PARKING ASSESSMENT REPORT

9 June 2022

Ref 21229

TABLE OF CONTENTS

1. INTRODUCTION	1
2. PROPOSED DEVELOPMENT	4
3. TRAFFIC ASSESSMENT	7
4. PARKING ASSESSMENT	14

LIST OF ILLUSTRATIONS

Figure 1	Location
Figure 2	Site
Figure 3	Road Hierarchy
Figure 4	Existing Traffic Controls
Figure 5	Existing Public Transport

1. INTRODUCTION

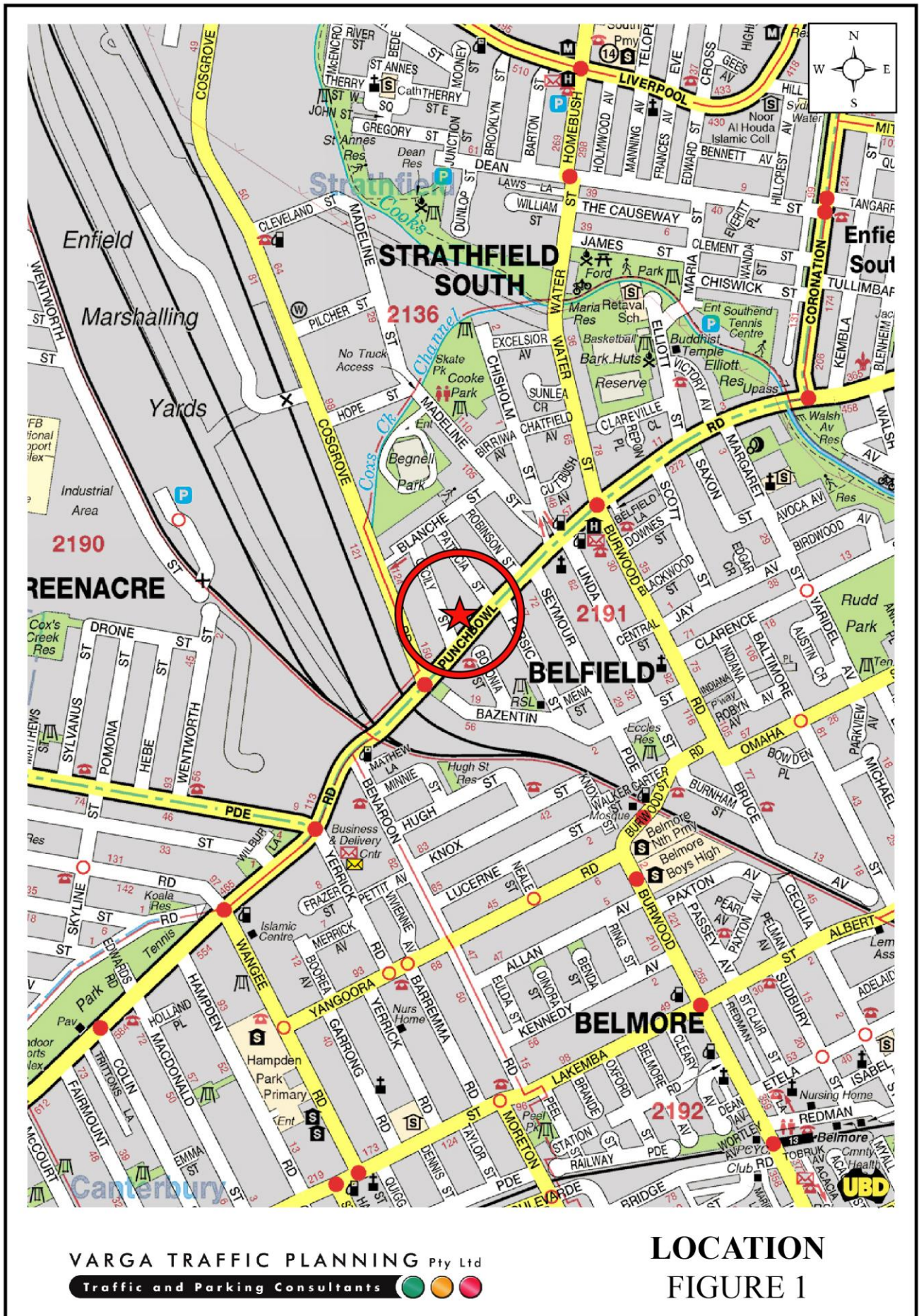
This report has been prepared on behalf of *Land & Housing Corporation* (LAHC) to accompany a development application for a *seniors housing* development proposal to be located at 97-99 Punchbowl Road, Belfield (Figures 1 and 2).

The proposed development involves the demolition of the existing structures on the site to facilitate the construction of a residential flat building comprised of seniors Independent Living Units (ILUs).

Off-street parking is to be provided in an at-grade, open-air car parking area at the rear of the site, with vehicular access to be provided via a driveway off Cecily Street.

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 north-eastern corner of the Punchbowl Road and Cecily Street intersection. The site has street frontages approximately 38 metres in length to Cecily Street, approximately 31 metres in length to Punchbowl Road, and occupies an area of approximately 1,100m².

The subject is currently occupied by 2 residential dwellings, each with a vehicle driveway off its frontage road.

A recent aerial image of the site and the surrounding area is provided below.



Source: NSW Government Spatial Services, SIX Maps

Proposed Development

The proposed development involves the demolition of the existing structures on the site to facilitate the construction of 8 seniors housing units as follows:

1 bedroom seniors housing units:	6 units
2 bedroom seniors housing units:	2 units
TOTAL:	8 units

Off-street parking is proposed for a total of 4 cars with vehicular access to the car parking facilities is to be provided via a new combined entry / exit driveway located at the northern end of the Cecily Street site frontage.

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



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.

Punchbowl Road is classified by the RMS as a *State Road* and provides the key east-west road link in the area, connecting Croydon Park and Punchbowl. It typically carries two traffic lanes in each direction in the vicinity of the site. Clearway restrictions apply on both sides of the road during commuter peak periods.

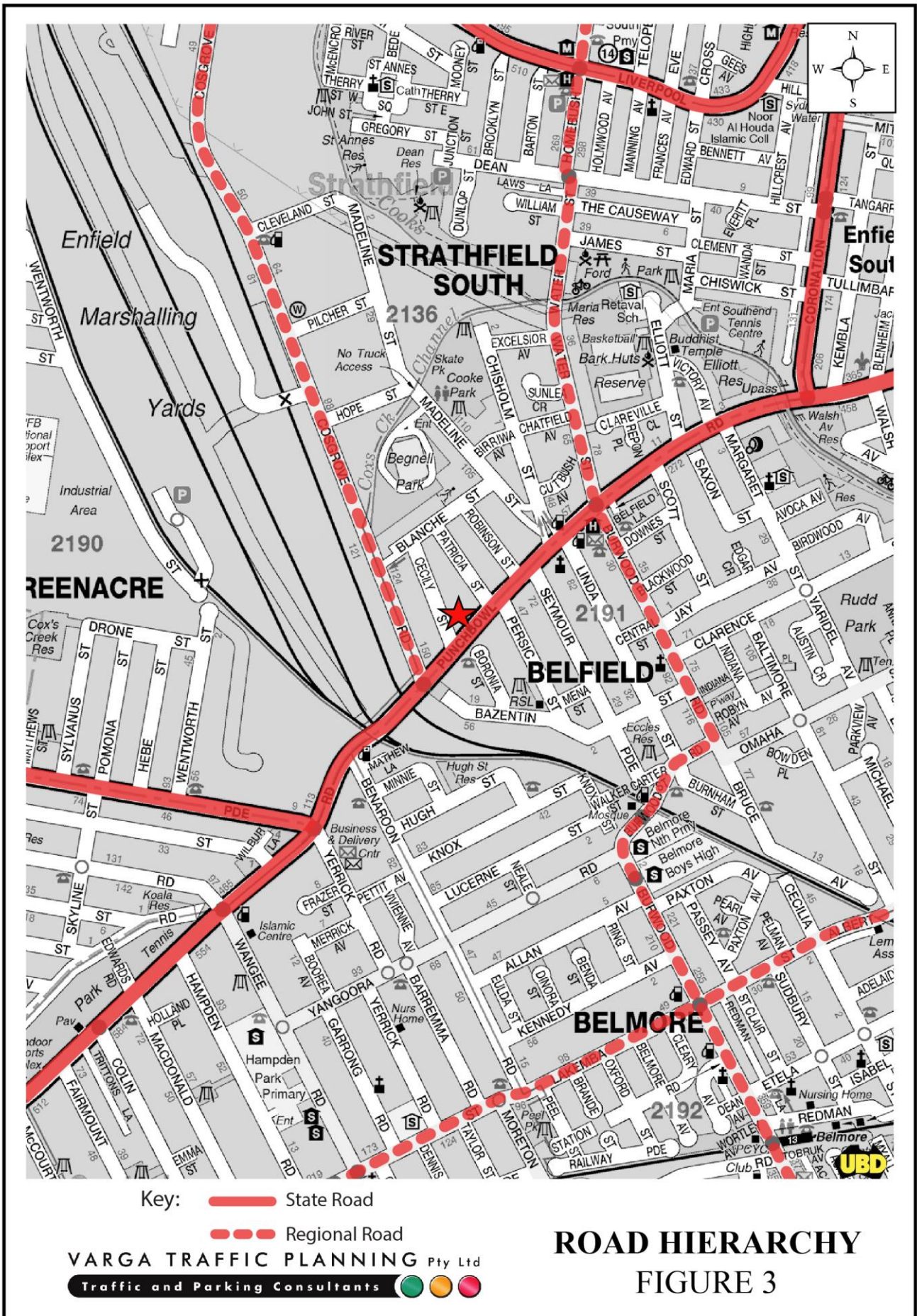
Cosgrove Road is classified by the RMS as a *Regional Road* and provides the key north-south road link in the area, connecting South Strathfield and Belfield. It typically carries one traffic lane in each direction in the vicinity of the site. Kerbside parking is generally permitted on both sides of the road.

Cecily 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.

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 Punchbowl Road
- a 50 km/h SPEED LIMIT which applies to Cecily Street and all other local roads in the area
- TRAFFIC SIGNALS in Punchbowl Road where it intersects with Cosgrove Road
- a LEFT-TURN ONLY restriction in Cecily Street onto Punchbowl Road.





Existing Public Transport Services

The existing public services available in the vicinity of the site are illustrated on Figure 5.

There is currently one bus service travelling directly past the site along Punchbowl Road, the 450 bus service which operates between Hurstville and Strathfield. There are currently 6 bus stops within 280m walking distance of the site, with the nearest bus stop located just 65m walking distance north-east of the site in Punchbowl Road.

The 450 bus service operates between 5:55am to 11:30pm on Mondays to Fridays, 6:55am to 11:00pm on Saturdays and 8:00am to 8:30pm on Sundays and public holidays. There are approximately 92 services operating on the adjacent road network in the vicinity of the site on weekdays, reducing to approximately 60 services per day on Saturdays and approximately 26 services per day on Sundays and public holidays.

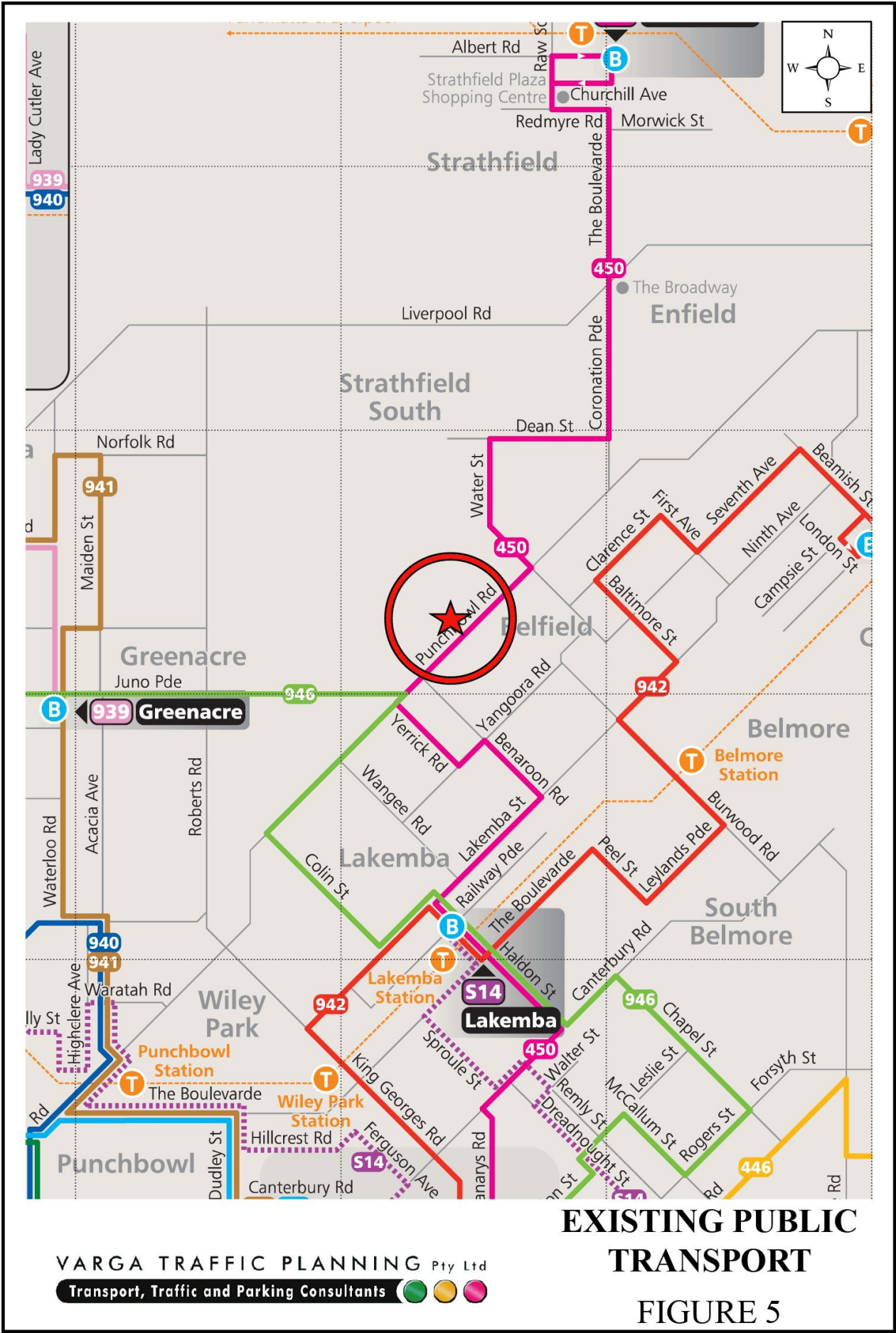
This equates to approximately 5 bus services per hour between the operational times on Mondays to Fridays, approximately 4 bus services per hour between the operational times on Saturdays and approximately 2 bus services per hour during the operational times on Sundays and public holidays.

In addition, the abovementioned bus service can also be exchanged with connecting train services at Hurstville, Beverly Hills, Lakemba and Strathfield railway station. Strathfield Station is one of Sydney's main public transportation hubs and provides a connection to 63 public transport services comprising trains, buses and taxis.

The site is therefore considered to be highly accessible to essential services and public transport options and is located within an *accessible area* as defined by the *SEPP (Housing) 2021*.

Projected Traffic Generation

The traffic implications of development proposals primarily concern the effects of the *additional* traffic flows generated as a result of a 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 - Landuse Traffic Generation (October 2002)* and the updated traffic generation rates in the recently published RMS *Technical Direction (TDT 2013/04a)* document.

The *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 the *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:

Housing for Seniors

0.4 peak hour vehicle trips per dwelling*

**Note that morning site peak hour does not generally coincide with the network peak hour.*

Application of the above traffic generation rate to the 8 seniors housing units outlined in the development proposal yields a traffic generation potential of approximately 3 vehicle trips per hour (vph) during the PM peak hour.

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.

The *Technical Direction* nominates the following traffic generation rates which are applicable to the existing residential dwellings on the site:

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 2 existing dwellings on the site yields a traffic generation potential of approximately 2 vph during both the AM and PM peak hour.

Accordingly, it is likely that the proposed development will result in a *nett reduction* the traffic generation potential of the site of 2 vph in the AM peak hour, and a *nett increase* in the traffic generation potential of the site of 1 vph in the PM peak hour, as set out below:

Projected Nett Change in Peak Hour Traffic Generation Potential of the site as a consequence of the development proposal		
	AM	PM
Projected Future Traffic Generation Potential:	0.0 vph	3.2 vph
Less Existing Traffic Generation Potential:	-1.9 vph	-2.0 vph
NETT CHANGE IN TRAFFIC GENERATION POTENTIAL:	-1.9 vph	1.2 vph

In any event, that projected *nett change* in traffic activity as a consequence of the development proposal is *negligible*, and will clearly not have any unacceptable traffic implications in terms of road network capacity.

4. PARKING IMPLICATIONS

Existing Kerbside Parking Restrictions

Unrestricted kerbside parking is generally permitted on both sides of Cecily Street in the vicinity of the site, including along the site frontage.

Off-Street Parking Provisions

The proposed *seniors housing* development is undertaken by LAHC in accordance with *SEPP (Housing) 2021*, however the *SEPP* does not nominate an off-street parking requirement for LAHC seniors housing developments.

Where possible, LAHC seeks to provide parking in accordance with the accessible area rates for LAHC residential developments to ensure that the development minimises any parking impacts on nearby properties, and provides maximum amenity for residents. As a *guide* therefore, the following parking rates have been adopted in this instance.

Division 6 Residential Development – Land and Housing Corporation

42 Development may be carried out without consent

- (1) This Division applies to residential development if–
 - (d) for development on land in an accessible area – the development will result in at least the following parking spaces–
 - (i) for each dwelling containing 1 bedroom – 0.4 parking spaces
 - (ii) for each dwelling containing 2 bedrooms – 0.5 parking spaces
 - (iii) for each dwelling containing at least 3 bedrooms – 1 parking space

Application of the above car parking rates to the 8 *seniors housing units* outlined in the development proposal yields an off-street car parking requirement of 4 car spaces.

The proposed development makes provision for 4 car parking spaces, thereby satisfying the above requirements, noting that it is used as a *guide* only.

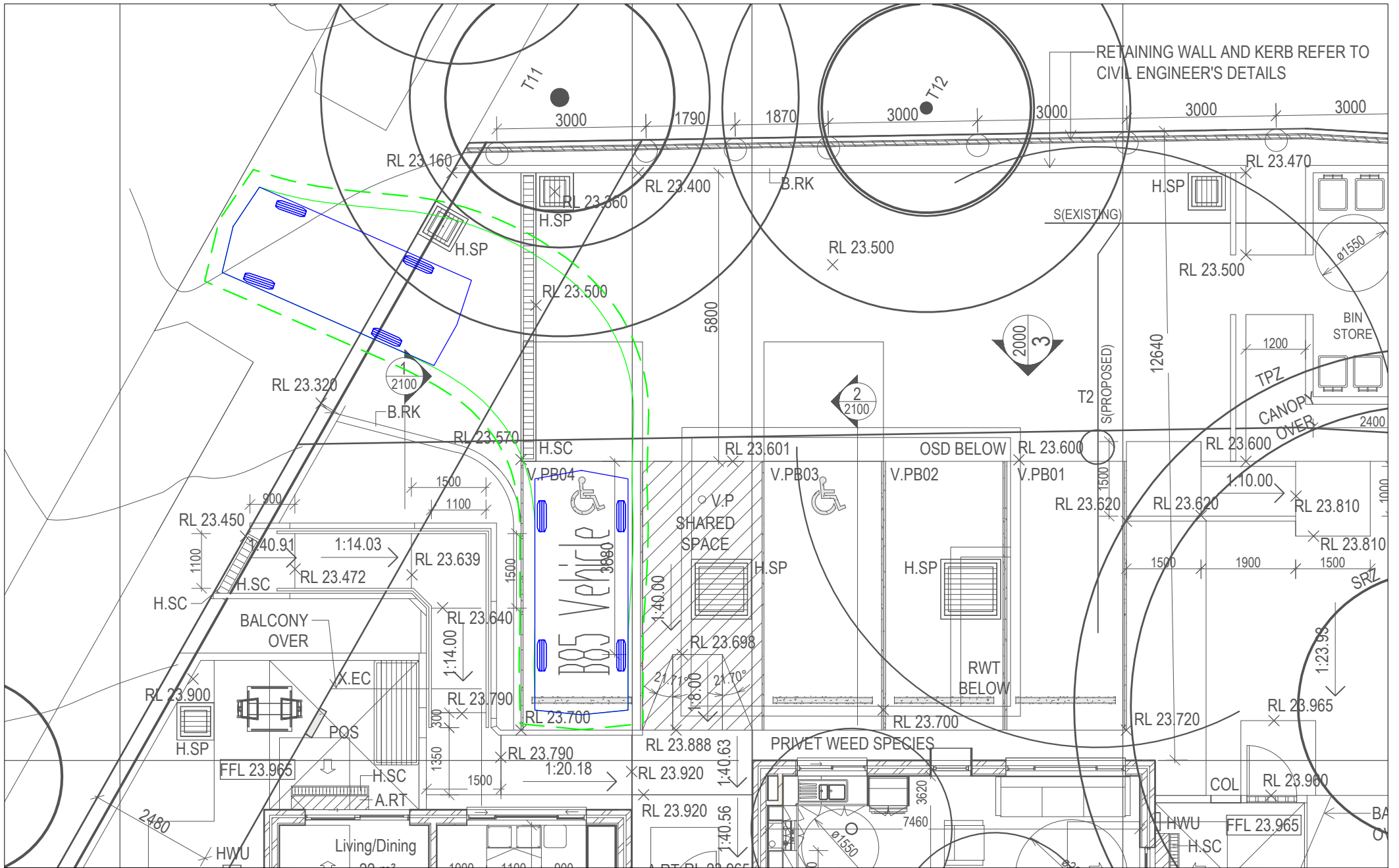
The geometric design layout of the proposed car parking facilities has been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Car Parking AS2890.1* and *Parking Facilities Part 6 - Off-Street Parking for People with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

It is noted in this regard that *AS2890.1* specifies a peak hour threshold of 30 vph which would require the provision of a two-way passing bay on the driveway for the first 6m from the property boundary. In this instance however, the proposed development is expected to generate only 3.2 vph during peak periods, and a passing bay on the driveway is therefore not required.

A series of *swept turning path* diagrams have also been prepared to demonstrate a B85 design vehicle can satisfactorily enter and exit each car space, and are attached in the following pages.

Conclusion

In summary, the proposed parking facilities have been provided using the parking rates for LAHC residential developments in accessible areas as a *guide*, and the parking layout complies with the Australian Standards and it is therefore concluded that the proposed development will not have any unacceptable parking implications.



VARGA TRAFFIC PLANNING Pty Ltd
 ABN 88 071 762 537
 Suite 6, Level 1
 20 Young Street
 Neutral Bay, NSW 2089

Phone +61 2 9904 3224
 PO Box 1968
 Neutral Bay, NSW 2089
 www.vargatrafic.com.au
 Sydney, Australia

PROJECT
 RESIDENTIAL DEVELOPMENT



DRAWING TITLE
B85
 Exit 1
 ADDRESS
 97-99 Punchbowl Road,
 Belfield

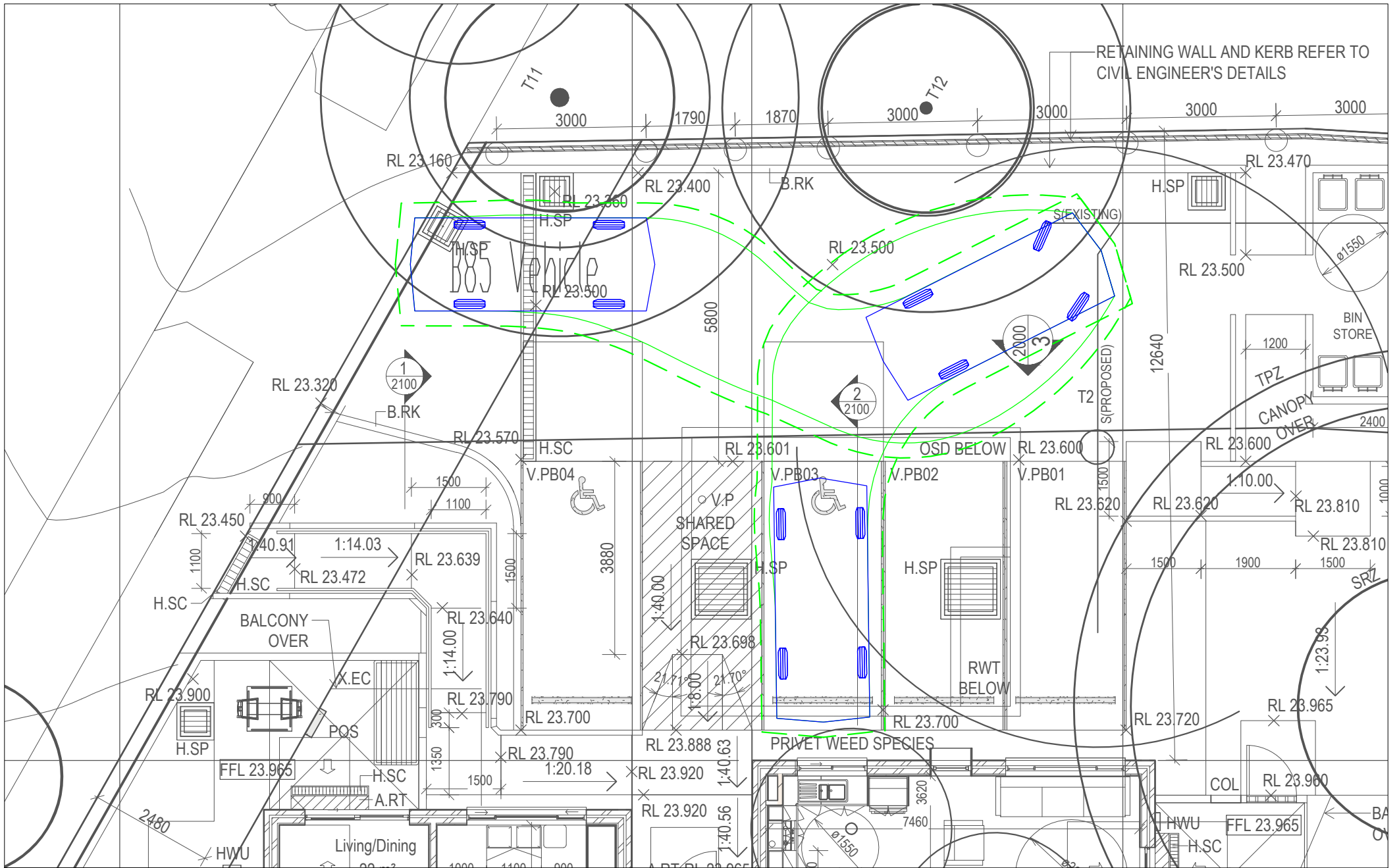
PROJECT NO.
 21229
 REVIEWED
 Robert Varga





1:100 @ A4

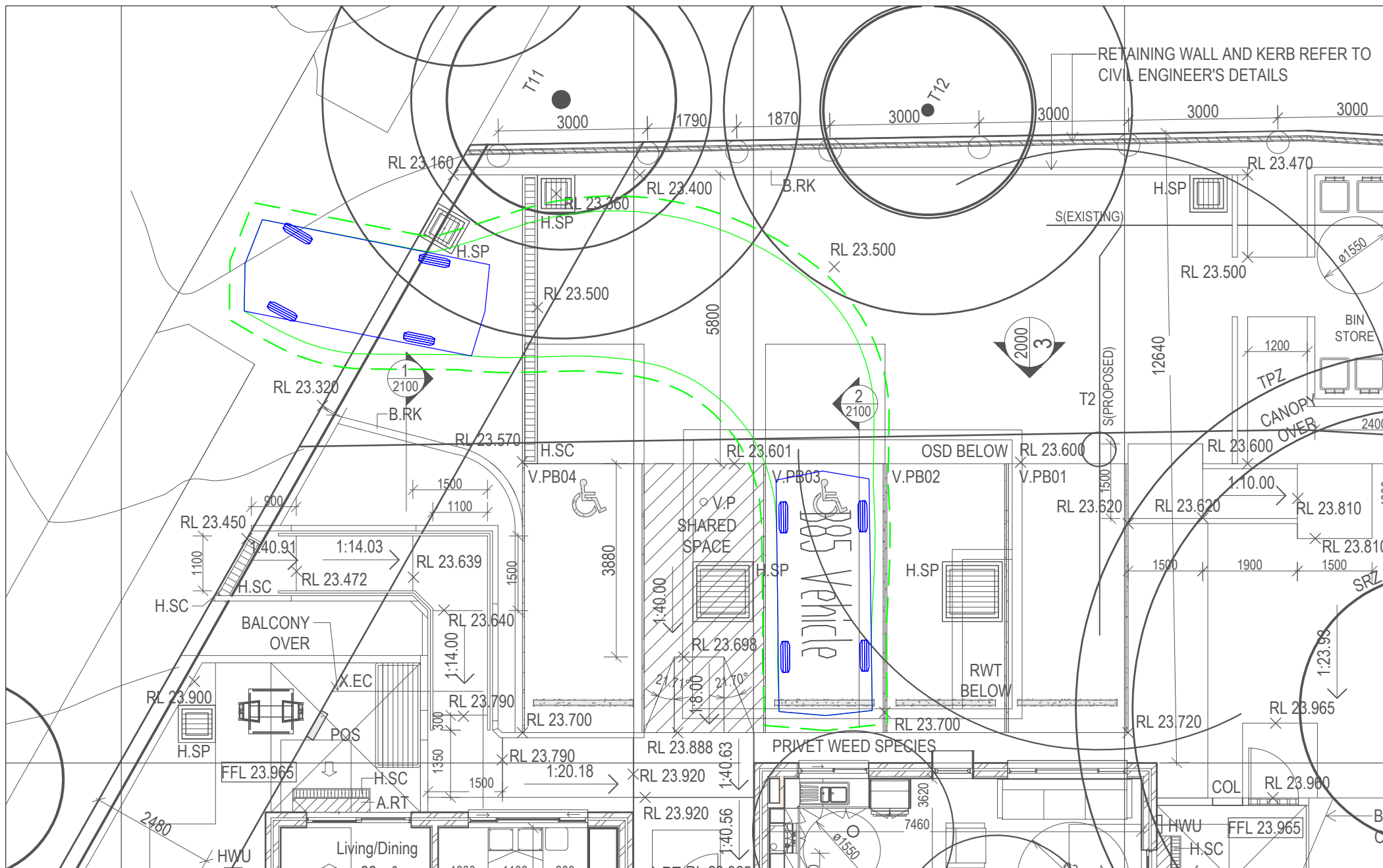
DATE DRAWN
 2022-6-9
 PREPARED
 Dominic Lin

VARGA TRAFFIC PLANNING Pty Ltd
 Transport, Traffic and Parking Consultants





<p>VARGA TRAFFIC PLANNING Pty Ltd ABN 88 071 762 537 Suite 6, Level 1 20 Young Street Neutral Bay, NSW 2089</p> <p>Phone +61 2 9904 3224 PO Box 1968 Neutral Bay, NSW 2089 www.vargatrafic.com.au Sydney, Australia</p> <p>PROJECT RESIDENTIAL DEVELOPMENT</p>	<p></p>	<p>DRAWING TITLE B85 Entry 2</p> <p>ADDRESS 97-99 Punchbowl Road, Belfield</p>	<p>PROJECT NO. 21229</p> <p>REVIEWED Robert Varga</p> <p>DATE DRAWN 2022-6-9</p> <p>PREPARED Dominic Lin</p>	<p>VARGA TRAFFIC PLANNING Pty Ltd</p> <p>Transport, Traffic and Parking Consultants</p> <p>  </p>
--	--	--	--	--



VARGA TRAFFIC PLANNING Pty Ltd
 ABN 88 071 762 537
 Suite 6, Level 1
 20 Young Street
 Neutral Bay, NSW 2089

Phone + 61 2 9904 3224
 PO Box 1968
 Neutral Bay, NSW 2089
 www.vargatrafic.com.au
 Sydney, Australia

PROJECT
 RESIDENTIAL DEVELOPMENT



DRAWING TITLE
B85
 Exit 2
 ADDRESS
 97-99 Punchbowl Road,
 Belfield

PROJECT NO.
21229
 REVIEWED
 Robert Varga

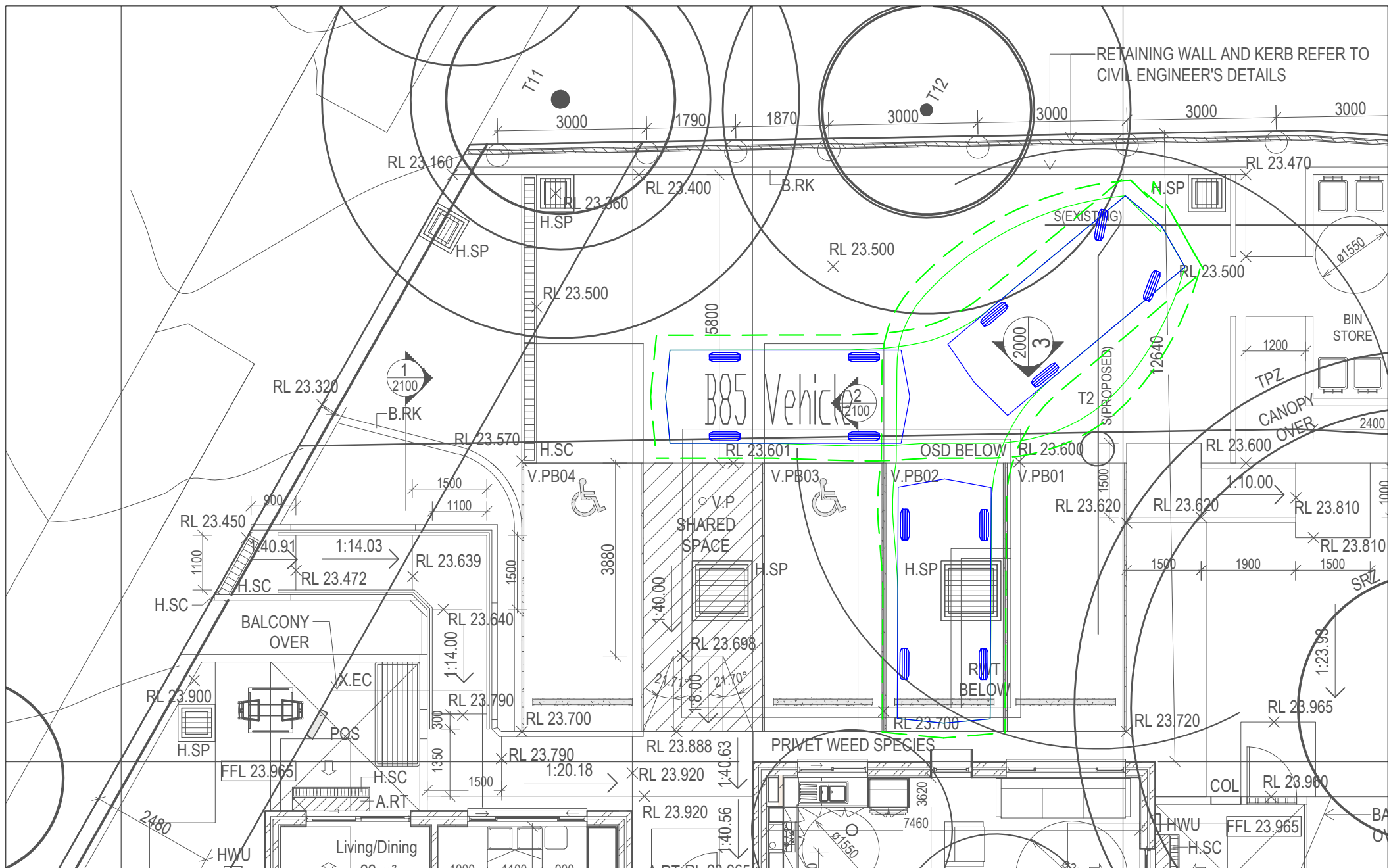
1:100 @ A4

DATE DRAWN
 2022-6-9
 PREPARED
 Dominic Lin

VARGA TRAFFIC PLANNING Pty Ltd

Transport, Traffic and Parking Consultants





VARGA TRAFFIC PLANNING Pty Ltd
 ABN 88 071 762 537
 Suite 6, Level 1
 20 Young Street
 Neutral Bay, NSW 2089

Phone +61 2 9904 3224
 PO Box 1968
 Neutral Bay, NSW 2089
 www.vargatrafic.com.au
 Sydney, Australia

PROJECT
 RESIDENTIAL DEVELOPMENT



DRAWING TITLE

B85

Entry 3

ADDRESS

97-99 Punchbowl Road,
 Belfield

PROJECT NO.

21229

REVIEWED

Robert Varga

1:100 @ A4

DATE DRAWN

2022-6-9

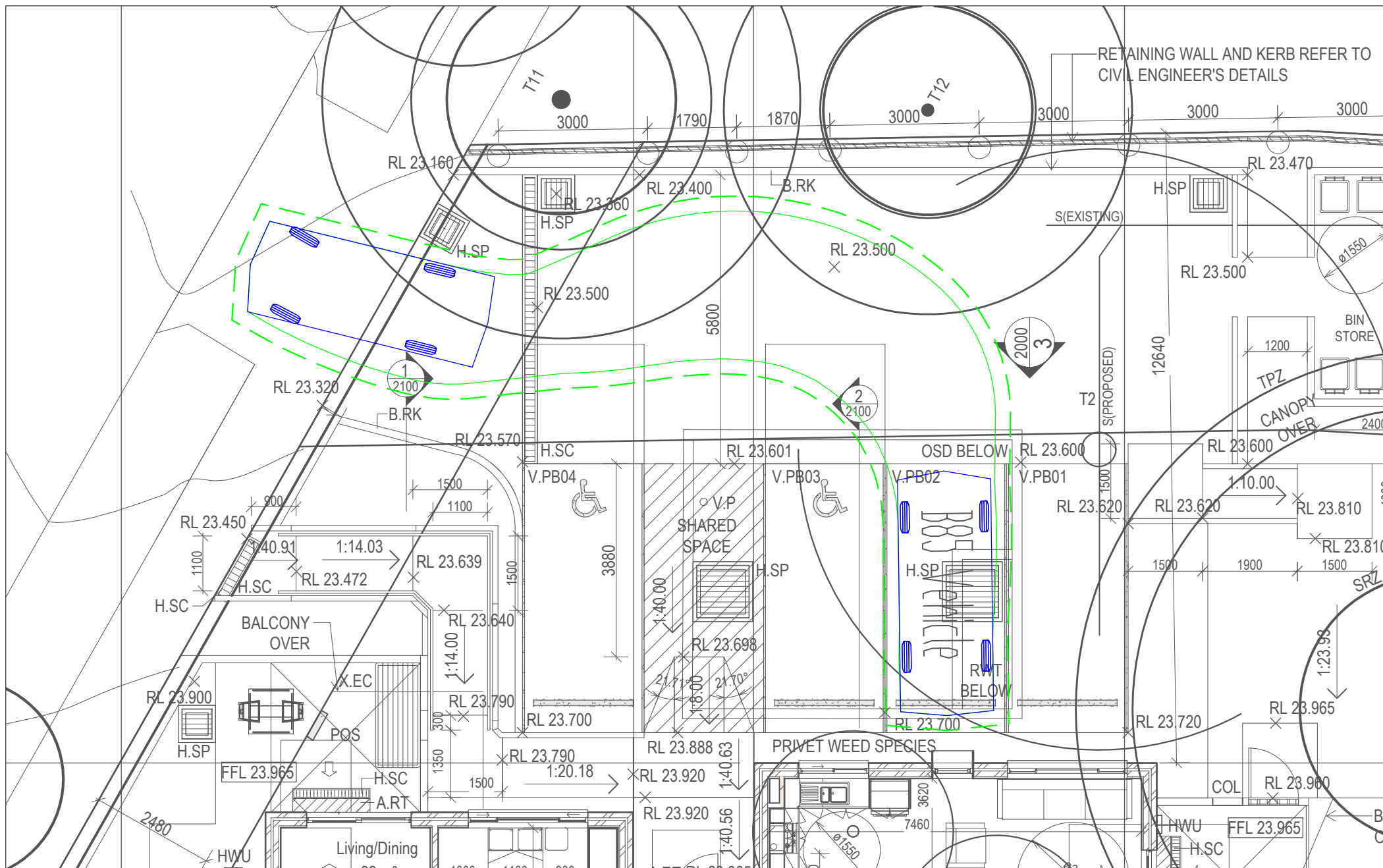
PREPARED

Dominic Lin

VARGA TRAFFIC PLANNING Pty Ltd

Transport, Traffic and Parking Consultants





VARGA TRAFFIC PLANNING Pty Ltd
 ABN 88 071 762 537
 Suite 6, Level 1
 20 Young Street
 Neutral Bay, NSW 2089

Phone + 61 2 9904 3224
 PO Box 1968
 Neutral Bay, NSW 2089
 www.vargatrafic.com.au
 Sydney, Australia

PROJECT
 RESIDENTIAL DEVELOPMENT



DRAWING TITLE
B85
 Exit 3
 ADDRESS
 97-99 Punchbowl Road,
 Belfield

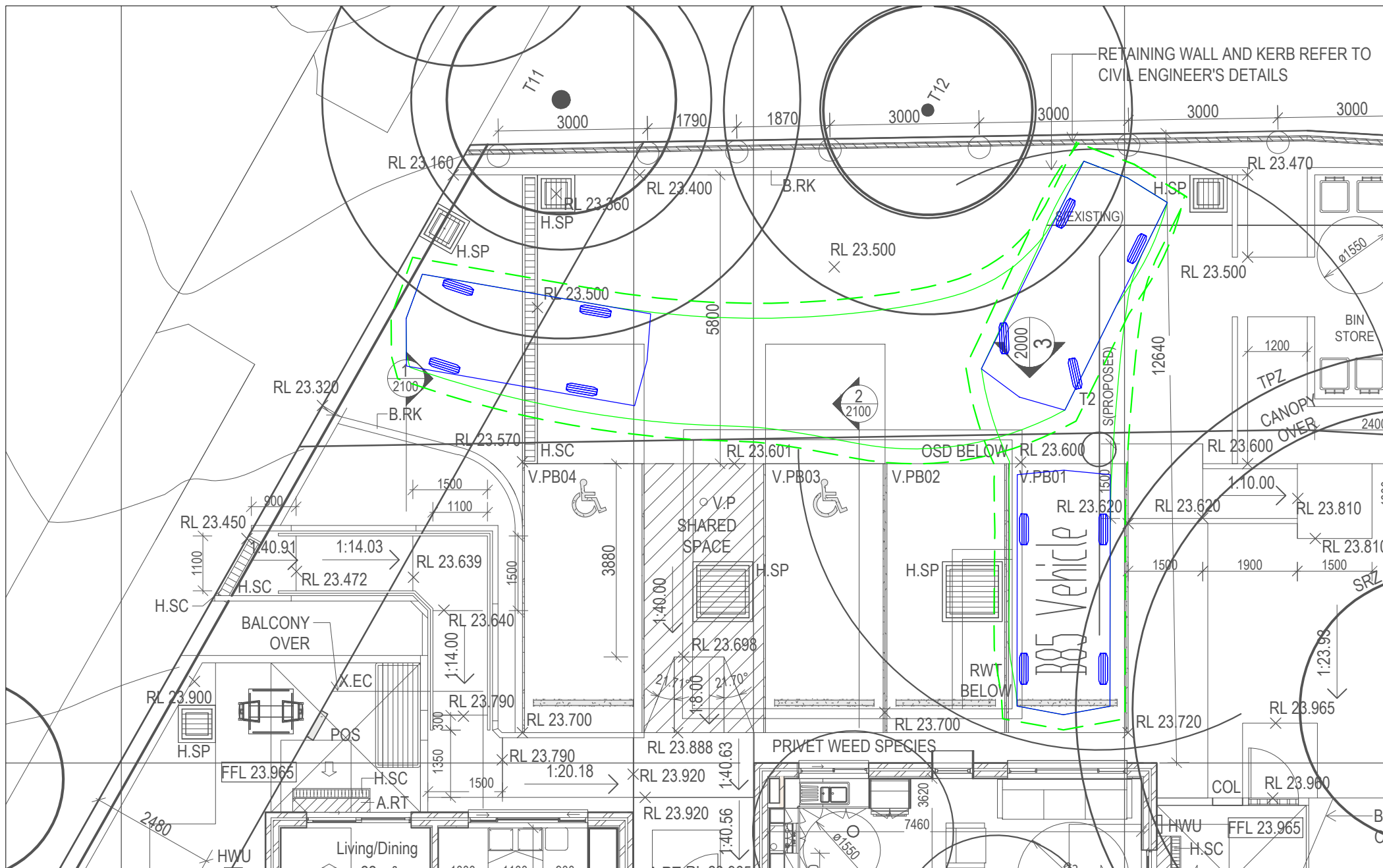
PROJECT NO.
21229
 REVIEWED
 Robert Varga

1:100 @ A4

DATE DRAWN
 2022-6-9
 PREPARED
 Dominic Lin

VARGA TRAFFIC PLANNING Pty Ltd
 Transport, Traffic and Parking Consultants





VARGA TRAFFIC PLANNING Pty Ltd
 ABN 88 071 762 537
 Suite 6, Level 1
 20 Young Street
 Neutral Bay, NSW 2089

Phone + 61 2 9904 3224
 PO Box 1968
 Neutral Bay, NSW 2089
 www.vargatrafic.com.au
 Sydney, Australia

PROJECT
 RESIDENTIAL DEVELOPMENT



DRAWING TITLE
B85
 Exit 4
 ADDRESS
 97-99 Punchbowl Road,
 Belfield

PROJECT NO.
21229
 REVIEWED
 Robert Varga
 DATE
 1:100 @ A4
 DATE DRAWN
 2022-6-9
 PREPARED
 Dominic Lin

VARGA TRAFFIC PLANNING Pty Ltd
 Transport, Traffic and Parking Consultants

