TRAFFIC IMPACT AND PARKING ASSESSMENT

PROPOSED RESIDENTIAL DEVELOPMENT
16 LOWANA STREET
VILLAWOOD

DATE: 11 MARCH 2024

OUR REFERENCE: 221048

BY: ANTHONY OSTE

Author	**Anthony Oste**	
Approved by	**Alistair McKerron**	
REVISION	**DATE**	**DESCRIPTION**
A	Jan 2024	DRAFT For comment
B	Feb 2024	Part 5 Issue
C	March 2024	Revised Part 5 Issue

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1 INTRODUCTION

1.1 GENERAL

Greenview Consulting has been engaged by the client to undertake a review of traffic and parking at the subject site. This report must be read in conjunction with the other Development Application documents and other relevant information, including:

- DKT Studio design drawings (February 2024)
- Canterbury Bankstown Development Control Plan 2023
- RTA Guide to Traffic Generating Developments Version 2.2 (October 2002) and more recent supplements, as adopted by Transport for New South Wales (TfNSW)
- State Environmental Planning Policy (Housing) 2021

This purpose of this report is to:

- Describe the site and the proposed development scheme;
- Describe the road network serving the site and the prevailing traffic conditions;
- Assess the adequacy of the proposed parking provision;
- Assess the potential traffic implications;
- Assess the suitability of the proposed vehicles access, internal circulation and servicing arrangements.

2 EXISTING CONDITIONS

2.1 SITE DESCRIPTION

The subject site is located on the northern side of Lowana St, refer **Figure 2.1**. The site is currently zoned R3 – Medium Density Residential under the Canterbury-Bankstown Local Environmental Plan 2023 and is currently occupied by a single storey residential dwelling.

Figure 2.1 Site Location

The development as proposed consists of the removal of the existing structures and construction of a two-storey residential building containing four units and an at-grade car parking area at the rear of the site containing four car parking spaces. Vehicular access is provided via a single lane driveway from Lowana Street.

2.2 EXISTING ROAD CONDITIONS

The Roads & Maritime Services (RMS, now TfNSW) broadly classifies all roads into three administrative classes: state, regional and local. A detailed description of each administrative class is provided in "NSW Road Management Arrangements" (December 2008), however in general:

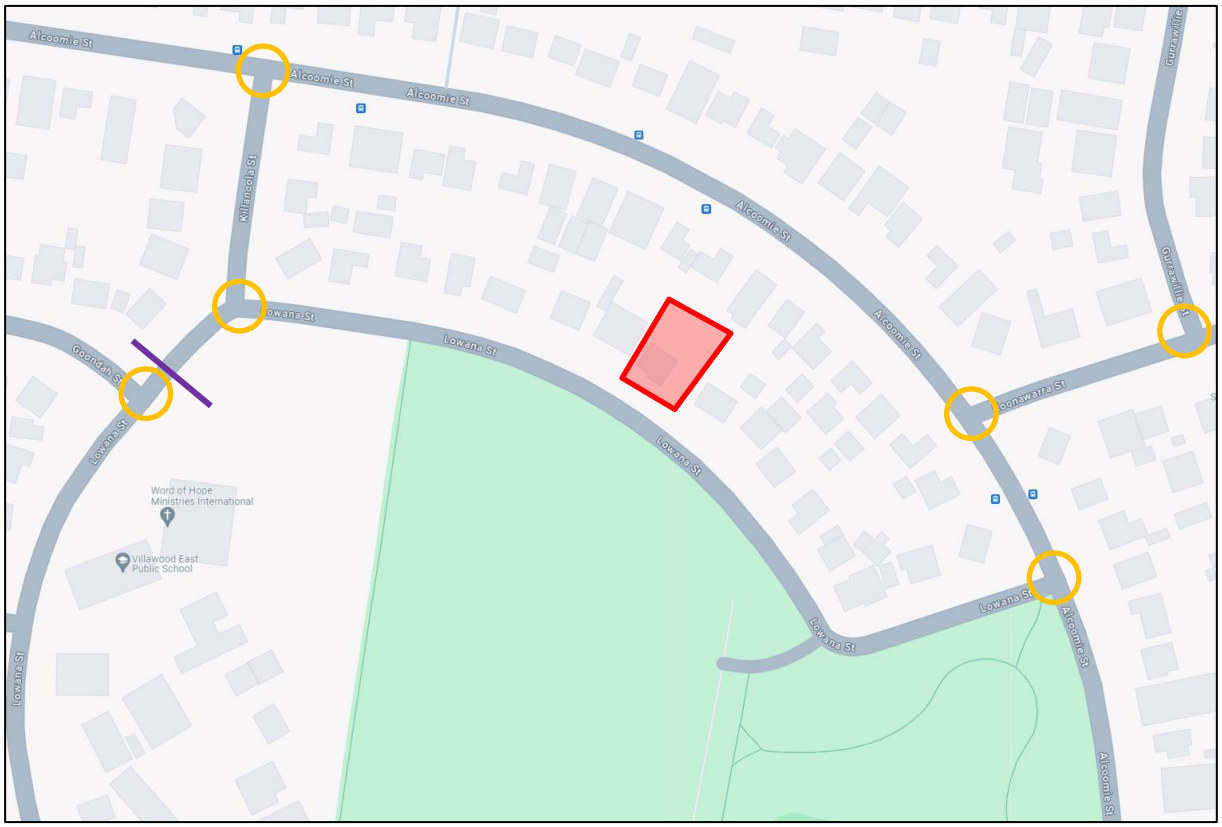
> **State Roads** are the major arterial links throughout NSW and within major urban areas. They are the principle traffic carrying and linking routes for the movement of people and goods within the Sydney, Newcastle, Wollongong and Central Coast urban areas and which connect between these urban centres, the major regional towns, the major regions of the State and the major connections interstate.
>
> **Regional Roads** are routes of secondary importance between State Roads and Local Roads which together with the State Roads, provide the main connections to and between smaller towns and districts and perform a sub arterial function in major urban areas.
>
> **Local Roads** comprise the remaining Council controlled roads which provide for local circulation and access.

Lowana Street is a local road of approximately 7m in width, accommodating two way traffic flow and kerbside parking on both sides of the road. Kerbside parking is unrestricted, typical of a residential setting. The default 50km/h speed limit applies. The speed limit is reduced adjacent to Villawood East Public School to 40km/h between 8-9:30am and 2:30-4pm.

Alcoomie Street is a local collector road of approximately 10m in width, accommodating two way traffic flow and kerbside parking on both sides of the road. Kerbside parking is unrestricted, typical of a residential setting, with some bus zones present. The default 50km/h speed limit applies.

2.3 EXISTING ROAD FEATURES

The existing road features which apply to the road network in the vicinity of the site are illustrated in **Figure 2.2**.



Key

Site

School Zone

Priority controlled intersection

Figure 2.2 Existing Road Features

2.4 TRAFFIC DATA

As far as we are aware, there a no readily available traffic counts in the local vicinity.

2.5 PUBLIC TRANSPORT

The closest bus stop to the subject site is located on Alcoomie Road, approximately 240m walking distance to the east. The bus stop services routes 905 (Bankstown to Fairfield) and S4 (Chester Hill to Fairfield via Carramar & Villawood).

The subject site is not within walking distance of a train station, with Leightonfield Train Station located approximately 1km to the north.

2.5.1 ACCESSIBLE AREA

The *State Environmental Planning Policy (Housing) 2021 – Schedule 10* defines an accessible area as:

> *accessible area means land within—*
>
> *(c) 400m walking distance of a bus stop used by a regular bus service, within the meaning of the Passenger Transport Act 1990, that has at least 1 bus per hour servicing the bus stop between—*
>
> *(i) 6am and 9pm each day from Monday to Friday, both days inclusive, and*
>
> *(ii) 8am and 6pm on each Saturday and Sunday.*

The service span of bus route 905 at Alcoomie Road is 5:49am to 9:45pm on weekdays, 6:50am to 9:49pm on Saturday and 8:50am to 9:49pm on Sunday and public holidays. There is one or more bus service per hour during these service spans. As a bus stop servicing route 905 is located 240m walking distance away, the subject site meets the requirements of an accessible area.

Bus route 905 provides access to a number of commercial areas, employment hubs and public amenities as depicted in **Figure 2.3**.

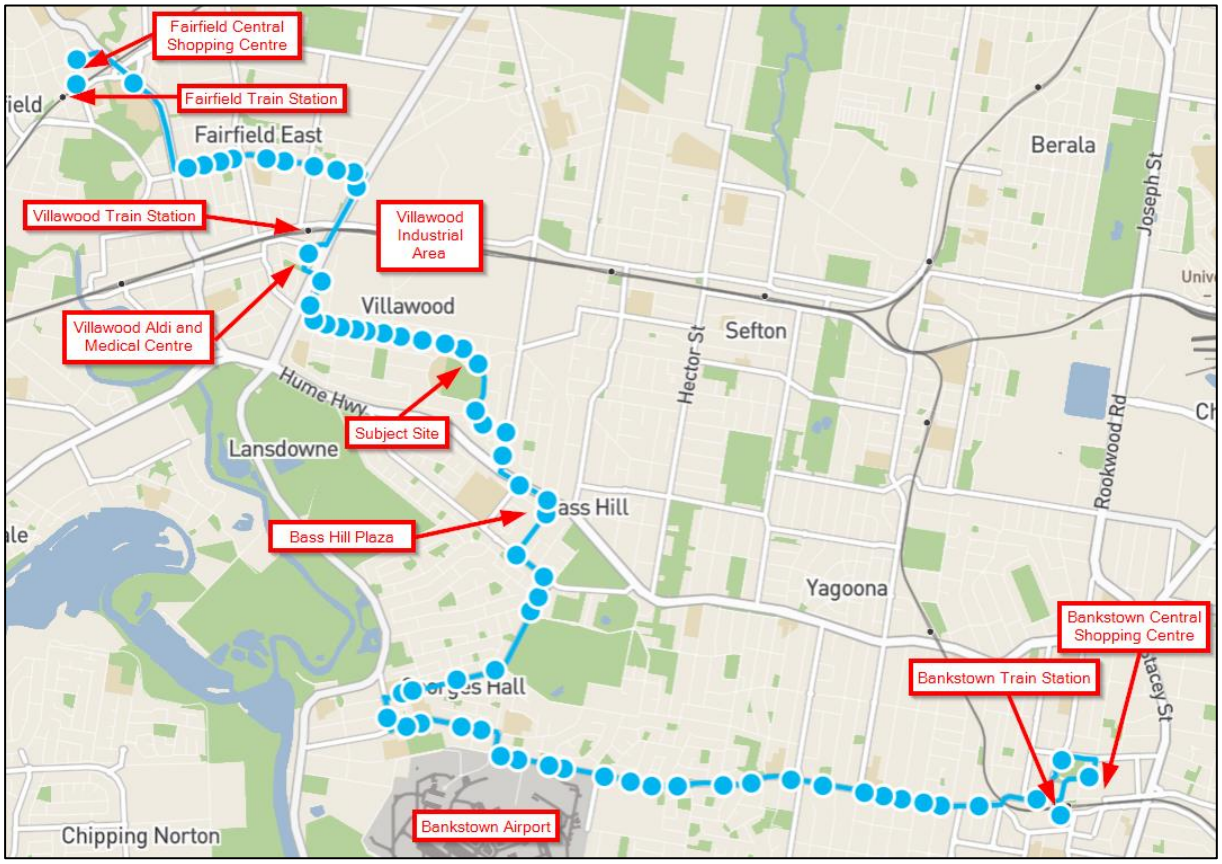


Figure 2.3 Bus Rote 905 and Key Landmarks

3 PROPOSED DEVELOPMENT

3.1 PROPOSED DEVELOPMENT DESCRIPTION

The proposed development comprises of four units and an at grade car parking area. The scale of the proposed relevant to traffic and parking impacts is as follows:

- Four (4) units comprising of:
    - Two (2) two-bedroom units;
    - Two (2) three-bedroom units.
- Four (4) car parking spaces.

3.2 ONSITE PARKING PROVISIONS

The proposed is a project of the NSW Department of Planning and Environment and therefore, reference is made to the *State Environmental Planning Policy (Housing) 2021 – Division 6 Residential development—relevant authorities* which states the following car parking requirements:

> ***42 Development to which division applies***
> *(1) This Division applies to residential development if—*
> *(e) for development on land in an accessible area—the development will result in the following number of parking spaces—*
> *(i) for each dwelling containing 1 bedroom—at least 0.4 parking spaces,*
> *(ii) for each dwelling containing 2 bedrooms—at least 0.5 parking spaces,*
> *(iii) for each dwelling containing at least 3 bedrooms—at least 1 parking space,*

The parking requirements of the proposal are summarised in **Table 3.1**, noting that the development is being made by a social housing provider.

Table 3.1 Car Parking Requirements

Land Use	Scale	Authority	Rate	Spaces Required
Residential	2 x two-bed units	SEPP Housing 2021	0.5 spaces per unit	1
	2 x three-bed units		1 space per unit	2

The proposal requires the provision of three (**3**) car parking spaces to satisfy the requirements of the Housing SEPP 2021. The proposed car parking layout includes the provision of four (**4**) car parking spaces, satisfying and exceeding the requirements of the Housing SEPP 2021.

Accessible Parking

No accessible parking is required by the *State Environmental Planning Policy (Housing) 2021* and as such, none is provided.

3.3 SITE ACCESS & SERVICING

It is currently proposed that the at-grade car parking area will be accessed via the road frontage of Lowana Street, refer **Figure 3.1**.

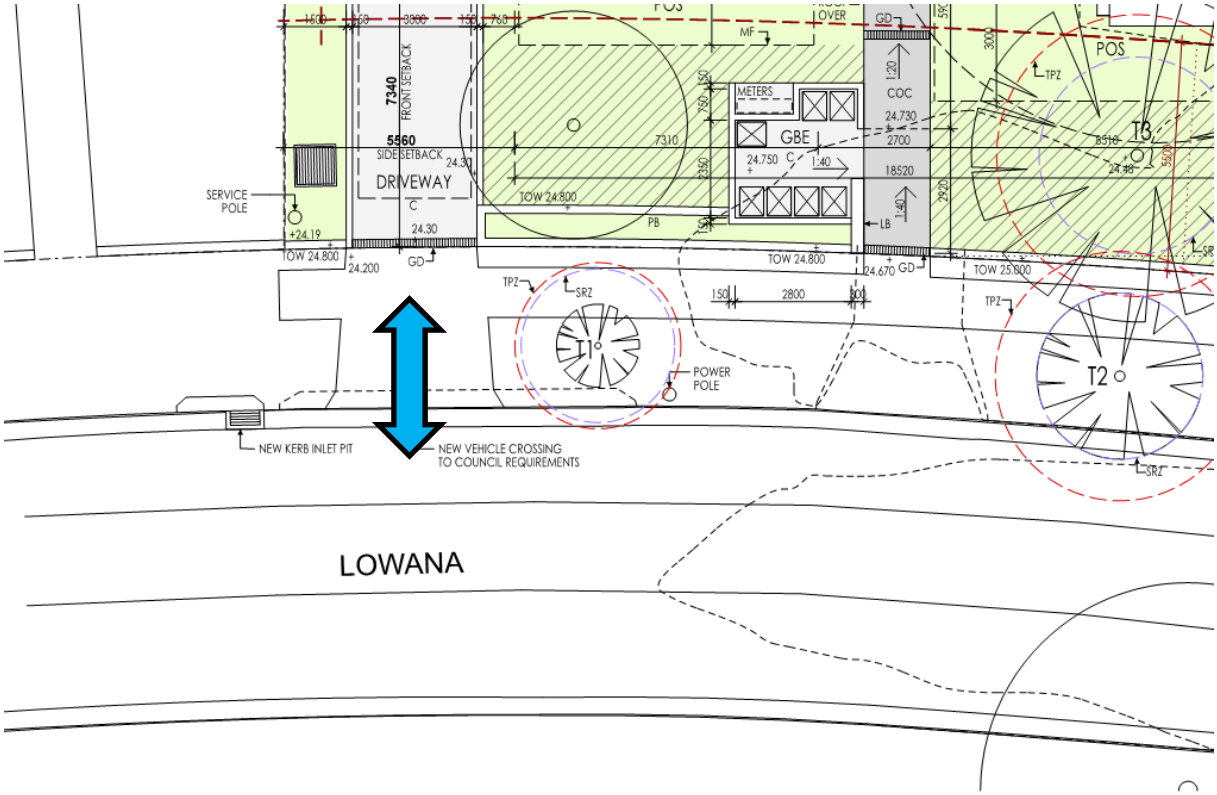


Figure 3.1 Proposed Entry / Exit Point

Swept Paths Analysis

We have undertaken swept-path analysis using Autotrack (refer attached turning plans), this analysis indicates that:

- A B99 vehicle can access and egress from the proposed driveway to Lowana Street;
- A B85 vehicle can access and egress from all proposed car parking spaces in an adequate number of manoeuvres.

Garbage Collection

It is expected that the garbage will be conducted by Council kerbside waste collection service, as the surrounding dwellings.

3.4 PEDESTRIAN CONSIDERATIONS

There is no existing formal pedestrian footpath along the Lowana Street frontage.

3.5 DESIGN COMPLIANCE

The proposed car parking and vehicular access design has been assessed to achieve the relevant requirements of AS2890.1:2004, including:

- Adequate dimensions of car parking spaces of minimum 2.4m by 5.4m;
- Adequate circulation roadway widths;
- Vehicular access driveway of 3m width at the property boundary allow for access and egress for vehicles sized up to an Australian Standard B99 vehicle.
- Adequate clearance of at least 300mm to high objects from trafficable areas.

Due to the single lane access driveway providing access to the rear at-grade car parking area from Lowana Street, it is recommended that convex mirrors be installed to allow drivers of vehicles within the car parking area to see along the driveway and wait for inbound vehicles if required. One or multiple convex mirrors should be placed such that drivers in all four car parking spaces have visibility along the driveway. It is noted that this provision is deemed satisfactory due to the low traffic volumes expected to be generated by the subject site and no on-site visitor parking and thereby, the likelihood of a vehicle entering and exiting the property at the same time is extremely low.

The locations of wheel stops, bollards, signage and other traffic furniture are to be confirmed during the Construction Certificate stage of the development and are to satisfy the relevant Australian Standard requirements.

4 TRAFFIC GENERATION

4.1 TRAFFIC GENERATION

The *RTA Guide to Traffic Generating Developments October 2002* as adopted by TfNSW and more recent supplements provide estimated traffic generation rates for various development types, which have been applied accordingly to the proposal.

> ***3.3.2 Medium density residential flat building***
> *Weekday peak hour vehicle trips = 0.4-0.5 per dwelling.*

The expected traffic generation as a result of the scale of the proposed development is calculated in **Table 4.1**, noting that the reduction in traffic due to the removal of the existing development at the subject site has not been considered.

Table 4.1 Traffic Generated Under Proposed Conditions

Land Use	Scale	Peak Period	Rate	Trips	Split (1)
Medium Density Residential	4 units	AM	0.5 per unit	2	0 in, 2 out
		PM	0.5 per unit	2	2 in, 0 out

Note (1) Assumes 20% inbound, 80% outbound in the AM peak and 80% inbound, 20% outbound in the PM peak.

The proposed development is expected to generate in the order of two (**2**) vehicle trips in both the AM peak hour period (0 in, 2 out) and PM peak hour period (2 in, 0 out). This scale of traffic generation is relatively minor and as such, no noticeable impacts to the surrounding traffic environment are expected as a result of the proposed.

5 CONCLUSIONS

We conclude that:

- We believe that the proposed development will not have a significant impact on the traffic in the local network.
- We believe the development will not have a significant impact on the locale in terms of the traffic efficiency, amenity, safety, and/or road pavement life.
- The car parking design achieves the relevant requirements of AS2890.
- The proposed development achieves the minimum required number of parking spaces as per the parking requirements outlined in **Table 3.1**.

Yours faithfully,
For & on behalf of Greenview,

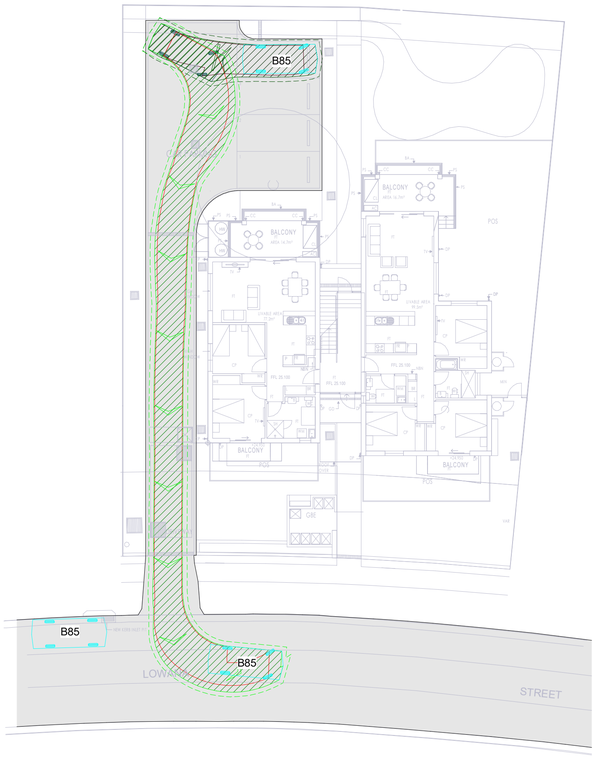
Anthony Oste
Traffic Designer

Alistair McKerron B.E., M.I.E.(Aust), CP Eng,
NPER No. 2220277
Senior Project Engineer

APPENDICES
SWEPT PATH ANALYSIS – GREENVIEW CONSULTING

GROUND FLOOR - B85 ENTRY 1a
Scale: 1 : 200

GROUND FLOOR - B85 ENTRY 1b
Scale: 1 : 200



GROUND FLOOR - B85 EXIT 1
Scale: 1 : 200

LEGEND

- PATH OF VEHICLE BODY FORWARDS
- PATH OF VEHICLE BODY BACKWARDS
- PATH OF VEHICLE WHEELS
- BODY OF VEHICLE
- CLEARANCE ENVELOPE

B85 VEHICLE

OVERALL LENGTH	4.910m
OVERALL WIDTH	1.870m
OVERALL BODY HEIGHT	1.260m
MIN BODY GROUND CLEARANCE	0.120m
TRACK WIDTH	1.770m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	5.750m

REV.	DATE	BY	DESCRIPTION
3	11.03.2024	JPS	PART 5 ISSUE
2	14.02.2024	JC	DA ISSUE
1	24.01.2024	AO	PRELIMINARY ISSUE

PROPOSED DEVELOPMENT

16 Lowana Street, Villawood, NSW

DKT STUDIO

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DESIGN: JC	DRAWN: JC	CHECKED: AMcK	SIZE: A1	SCALE: As indicated

CIVIL DESIGN

GROUND FLOOR TURNING PATHS SHEET 1

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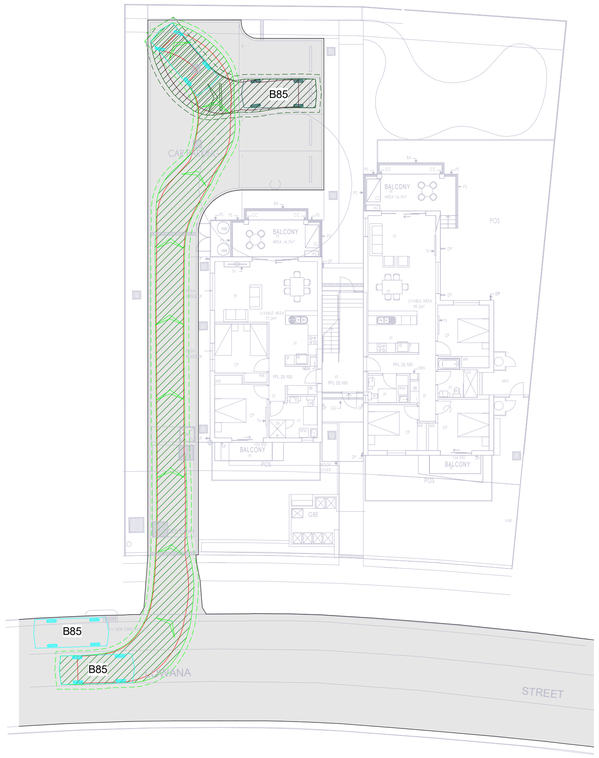
C10 3



GROUND FLOOR - B85 ENTRY 2
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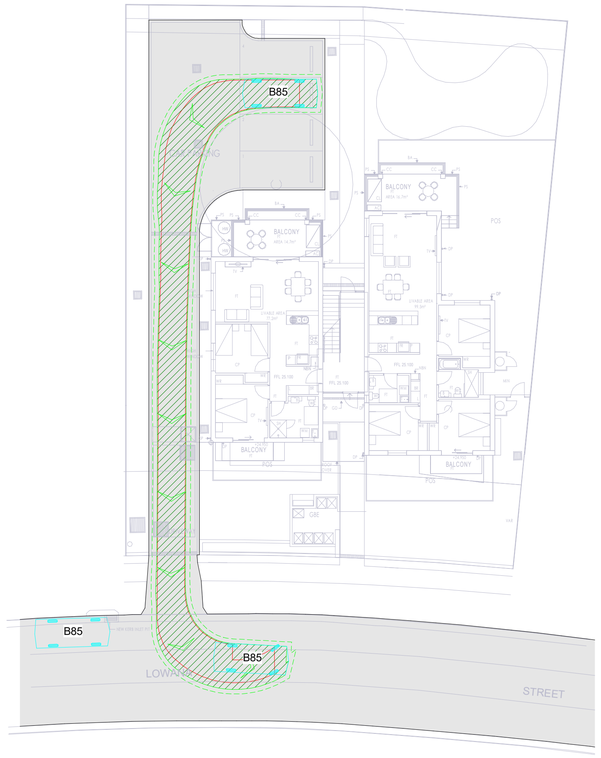

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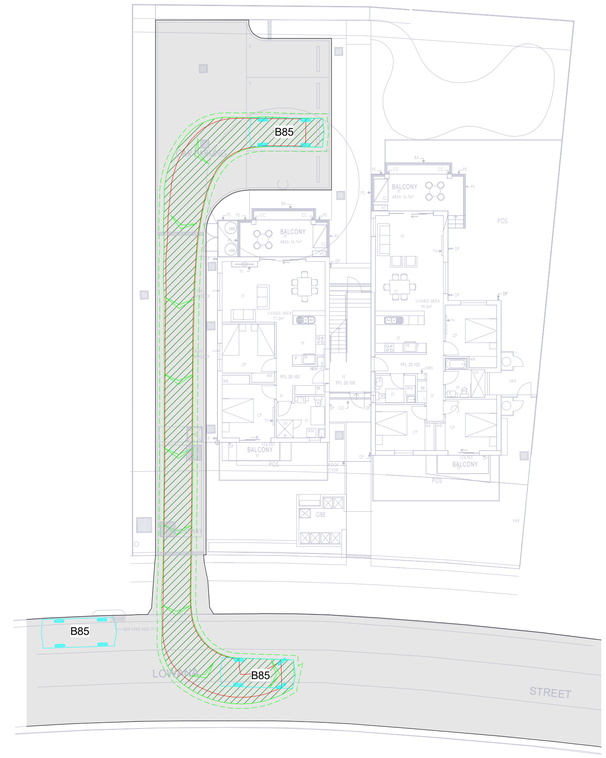

GROUND FLOOR - B85 EXIT 3
Scale: 1 : 200

LEGEND

- PATH OF VEHICLE BODY FORWARDS
- PATH OF VEHICLE BODY BACKWARDS
- PATH OF VEHICLE WHEELS
- BODY OF VEHICLE
- CLEARANCE ENVELOPE

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GROUND FLOOR TURNING PATHS SHEET 2

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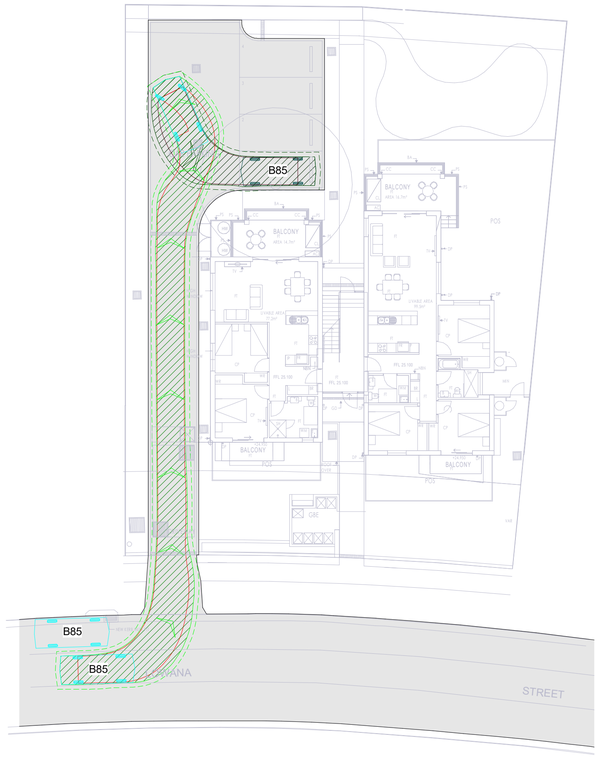
C11 3



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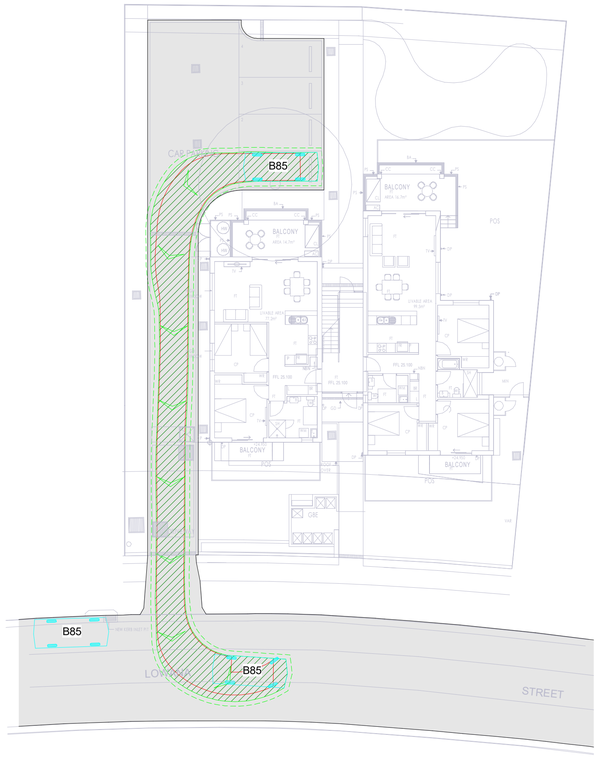

GROUND FLOOR - B85 EXIT 4
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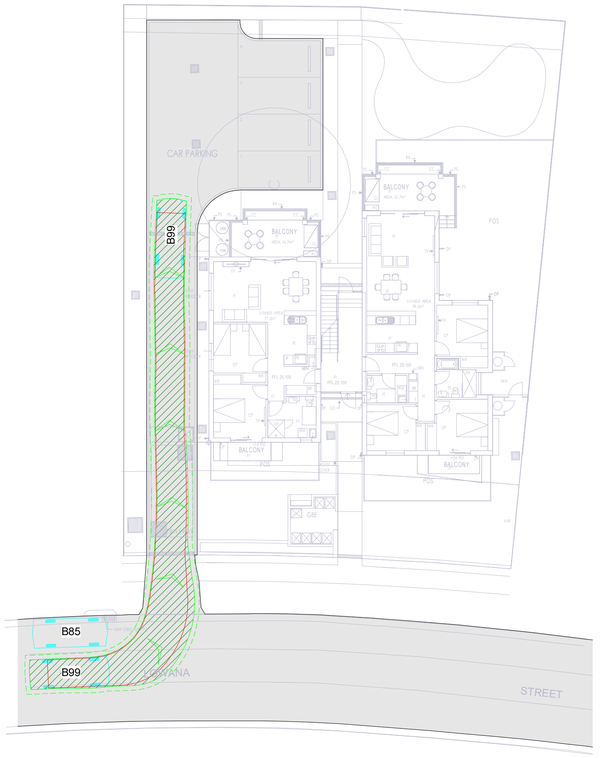

GROUND FLOOR - B99 ENTRY 1
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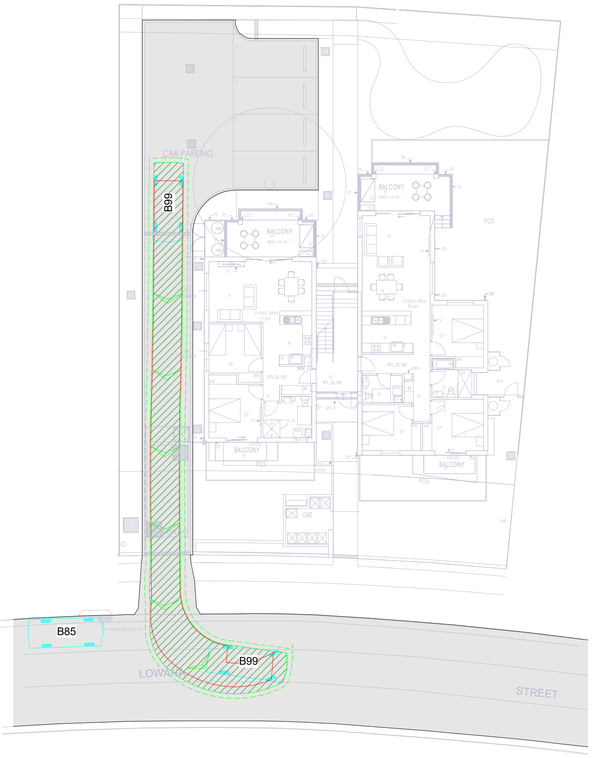

GROUND FLOOR - B99 EXIT 1
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- PATH OF VEHICLE WHEELS
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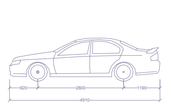
- CLEARANCE ENVELOPE



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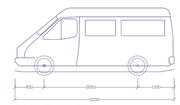

B99 VEHICLE

OVERALL LENGTH	5.200m
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.606m
MIN BODY GROUND CLEARANCE	0.120m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	8.000m

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CIVIL DESIGN

GROUND FLOOR TURNING PATHS SHEET 3

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