

Traffic Impact Assessment

32 Golf Avenue, Mona Vale
Proposed Residential Development

24001

Prepared for
LAXDTX 2 Pty Ltd

23 April 2025



Contact Information

Genesis Traffic	Suite 3, 53 Grandview Street, Pymble NSW 2073
	www.genesistraffic.com.au
	ABN 34 660 055 532
Email	bernard@genesistraffic.com.au
Approved By	Bernard Lo

Document Information

Report	Traffic Impact Assessment
Client	LAXDTX 2 Pty Ltd
Proposal	Proposed Residential Development
Architect	Walsh Architects
Project Location	32 Golf Avenue, Mona Vale
Council	Northern Beaches Council
Job Number	24001
Date	23/04/2025

Document History

Version	Effective Date	Description of Revision	Prepared by	Reviewed by
1	10/04/2025	For Issue - Draft	BB	BL
2	23/04/2025	For Issue	BB	BL



Table of Contents

1	Introduction	5
1.1	Background	5
1.2	Scope of Works	5
1.3	Reference Documents	6
2	Proposed Development	7
3	Existing Conditions	8
3.1	Site and Surrounding Context	8
3.2	Road Network	9
3.3	Traffic Controls	10
3.4	Public Transport Services	11
4	Parking Assessment	13
4.1	Car Parking Requirements	13
4.2	Loading and Servicing Requirement & Arrangement	14
5	Access and Circulation Design	15
5.1	Access	15
5.2	Car Lift	15
5.3	Design Assessment and Internal Circulation	15
5.4	Swept Path Analysis	17
6	Traffic Assessment	18
6.1	Existing Traffic Conditions	18
6.2	Existing Traffic Generation	18
6.3	Development Traffic Generation	18
6.4	Overall Traffic Generation and Distribution	18
7	Conclusion	19



Attachments

Attachment 1 Architectural Plan

Attachment 2 Turning Path Assessment

Tables

Table 3-1	Surrounding Road Network	9
Table 3-2	Surrounding Traffic Controls	10
Table 3-3	Bus Services Provision	12
Table 4-1	DCP Car Parking Rates	13
Table 4-2	TfNSW Guideline Requirement	13
Table 4-3	Required Car Parking Spaces	14
Table 5-1	Off-street Car Parking (AS2890.1:2004) Criteria	15

Figures

Figure 1-1	Site	5
Figure 3-1	Site Context	8
Figure 3-2	Road Network	9
Figure 3-3	Local Public Transport Locations	11

1 Introduction

1.1 Background

This report has been prepared to accompany a Development Application to Northern Beaches Council for a Proposed Residential Development at 32 Golf Avenue, Mona Vale (Figure 1-1).

Figure 1-1 Site



Source: Metromap (Modified by Genesis Traffic)

1.2 Scope of Works

The purpose of this report is to:

- describe the proposed development scheme
- describe the existing site, 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 vehicle access, internal circulation and servicing arrangements

1.3 Reference Documents

Reference has been made to the following documents when preparing this report:

- Australian Standard Part 1: Off-street Car Parking (AS2890.1:2004)
- Pittwater Development Control Plan 2021
- Guide to Transport Impact Assessment, TfNSW, 2024
- SEPP 65 Apartment Design Guide
- Guide to Traffic Generating Developments, Updated Traffic Surveys, RMS, TDT 2013/14a





2 Proposed Development

The proposal seeks consent for a development outcome that involves:

- 11 apartments in the following composition:
 - 2 x two-bedroom apartment(s)
 - 8 x three-bedroom apartment(s)
 - 1 x four-bedroom apartment(s)
- Basement carpark (2 levels) - 24 car spaces

Vehicle access will be provided at Golf Avenue.

Details of the proposal are indicated in the architectural plans prepared by Walsh Architects which accompany the submission and are reproduced in part in **Attachment 1**.

3 Existing Conditions

3.1 Site and Surrounding Context

The development site (Figure 3-1) is legally known as Lots 1,2,3 and 4 in SP57603, located at 32 Golf Avenue, Mona Vale. The site occupies an area of 1,394m² and has frontage to Golf Avenue.

Figure 3-1 Site Context



Source: Metromap and Google Map (Modified by Genesis Traffic)

The existing site is occupied by four (4) townhouses at present (see inset above), with a vehicle access point located at Golf Avenue.

The adjoining and surrounding land uses include:

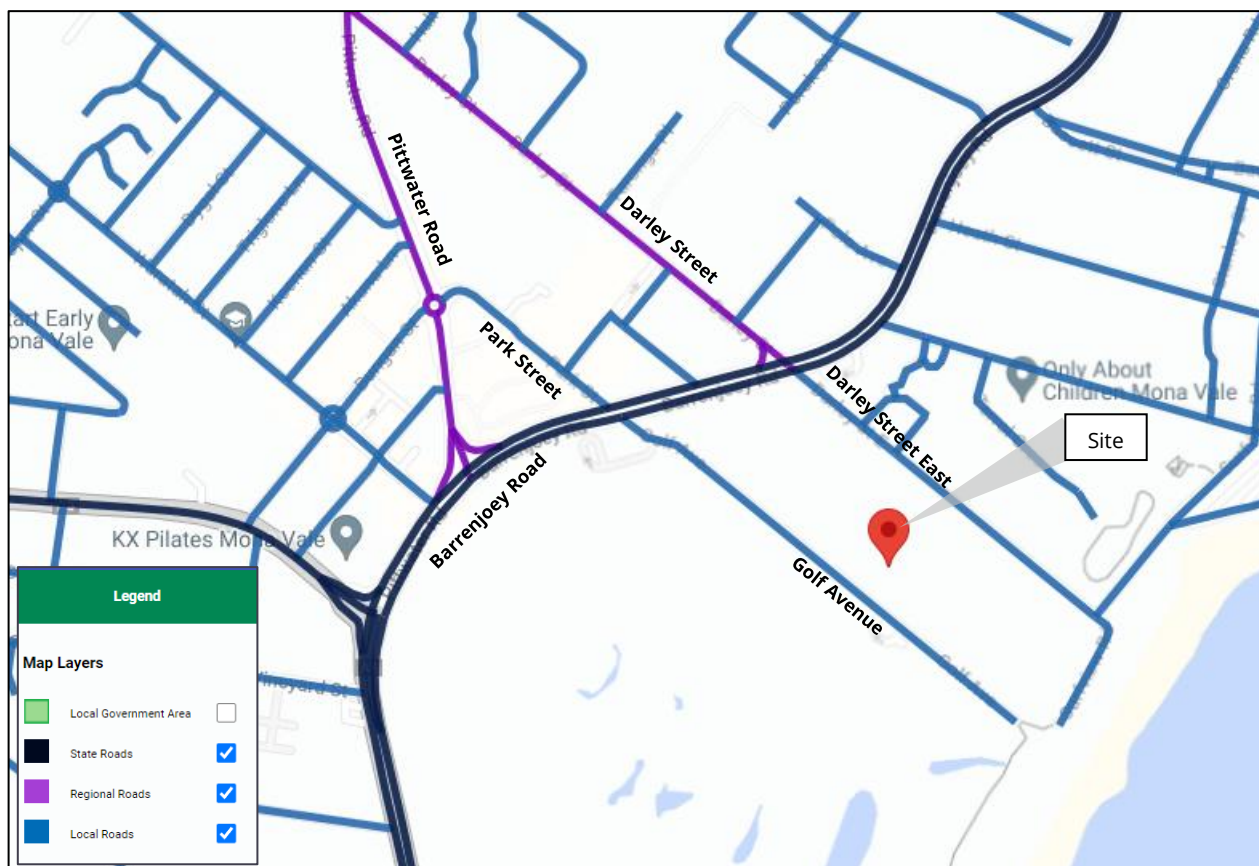
- Mona Vale Golf Club located opposite to the site
- Adjoining residential development to the north, east and west
- Retail and industrial premises 400m to the northeast
- Mona Vale Beach 350m to the east



3.2 Road Network

The existing road network serving the site area (Figure 3-2) are detailed in Table 3-1:

Figure 3-2 Road Network



Source: TfNSW (modified by Genesis Traffic)

Table 3-1 Surrounding Road Network

Road Name	Descriptions
Barrenjoey Road	- State Road - Speed limit 60km/h 3 lane(s) in each direction - No Stopping restriction along west side of the street - Clearway restriction between 6am - 10pm on Monday to Friday along east side of the street
Pittwater Road	- Regional Road - Speed limit 60km/h 3 lane(s) in each direction



	Unrestricted on-street parking along both sides of the street except time restricted (2P) parking near the retail premises
Golf Avenue	- Local Road - Speed limit 50km/h 1 lane(s) in each direction - Parallel parking along the northern side of the street and 90° angle parking along the southern side of the street
Park Street	- Local Road - Speed limit 40km/h 1 lane(s) in each direction - Time restricted (1P and 2P) on-street parking between 8am-6pm on Monday to Friday and 8am-12pm on Saturday along both sides of the street

3.3 Traffic Controls

The traffic controls on the road system in the vicinity of the site comprise (Table 3-2):

Table 3-2 Surrounding Traffic Controls

Traffic Control	Location
Traffic Signal	- Intersection(s) of: - Barrenjoey Road and Golf Avenue - Barrenjoey Road and Darley Street East - Barrenjoey Road and Pittwater Road
Bus Zone	- Along part(s) of - Barrenjoey Road
No Right Turn	From Barrenjoey Road to Pittwater Road

3.4 Public Transport Services

The local public transport services are illustrated in Figure 3-3.

Figure 3-3 Local Public Transport Locations



Source: Metromap (Modified by Genesis Traffic)

Local bus service(s) is within walking distance (500m) of the site, as follows (Table 3-3).



Table 3-3 Bus Services Provision

Bus Line	Bus Route
155	Bayview Garden Village to Narrabeen and Frenchs Forest
182	Mona Vale to Narrabeen
185	Mona Vale to Narrabeen via Warriewood Valley
196	Mona Vale to Gordon
197	Mona Vale to Macquarie University via Gordon
199	Palm Beach to Manly via Mona Vale & Dee Why
190X	North Avalon to City Wynyard (Express Service)



4 Parking Assessment

4.1 Car Parking Requirements

The applicable car parking rates (Table 4-1) are provided in Section B6.3 in Pittwater DCP.

Table 4-1 DCP Car Parking Rates

Land Use	Element	Parking Rates
Multi Dwelling Housing, Residential Flat Buildings and Shop-Top Housing:	One-Bed	1.0 space(s) per dwelling
	Two- or more Bed	2.0 space(s) per dwelling
	Visitor	1 space(s) per 3 dwellings

The assessment notes that the development site is located within 400m of a B4 equivalent zoned land (~390m). As such, the parking requirement under the SEPP 65 Apartment Design Guide is relevant, reproduced as follows:

“On land zoned and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use, or equivalent in a nominated regional centre, the minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant Council, whichever is less.”

On this basis, the now updated Transport Impact Assessment Guide by TfNSW (2024) specifies the following rates for medium density developments (Table 4-2).

Table 4-2 TfNSW Guideline Requirement

Land Use	Element	Parking Rates
Multi Dwelling Housing, Residential Flat Buildings and Shop-Top Housing:	One-Bed	1.0 space(s) per dwelling
	Two-Bed	1.7 space(s) per dwelling
	Three or more Bed	2.0 space(s) per dwelling
	Visitor	1 space(s) per 5 dwellings



Application of the proposal using the above criteria would indicate the following requirement(s) in Table 4-3.

Table 4-3 Required Car Parking Spaces

Element	Unit/GFA	DCP Criteria	SEPP 65 Criteria	Provision
Two-Bed	2 unit(s)	4	3.4 (3)	24
Three-Bed	8 unit(s)	16	16	
Four-Bed	1 unit(s)	2	2	
Visitor	11 unit(s)	3.7 (4)	2.2 (2)	
Total		26 *	23*	24 spaces

**The lower requirement between the SEPP and the DCP applies in this case.*

Accordingly, it is proposed to provide 24 parking spaces to comply with the above criteria. These spaces will include:

- 22 x Residents
- 2 x Visitors

The proposed arrangement meets the relevant SEPP and DCP criteria.

4.2 Loading and Servicing Requirement & Arrangement

Consistent with the surrounding waste collection arrangement, refuse collection will occur on-street along the site frontage of Golf Avenue. All loading activities related to deliveries, courier activity, maintenance etc. will rely on the ample on-street parking in the vicinity of the site, as is normal for domestic development of this nature.



5 Access and Circulation Design

5.1 Access

The proposed access driveway will be located at Golf Avenue.

Details of the access design and geometry are discussed in Section 5.3.

5.2 Car Lift

Vehicle access between Basement 1 and Basement 2 will be facilitated via a single car lift, as the inclusion of a conventional circulation ramp is not feasible within the constraints of the building footprint. The car lift will have minimum internal dimensions of 3m in width and 6m in depth, as detailed in the plans provided in Attachments 1 and 2.

5.3 Design Assessment and Internal Circulation

A detailed review of the carpark has been undertaken to assess its conformance with AS2890.1 design criteria. The assessment outcome is tabulated below for ease of reference.

Table 5-1 Off-street Car Parking (AS2890.1:2004) Criteria

Features	Requirement	Provision	Compliance	Notes
Access Driveways				
Access Width	(Category 1) 3.0m - 5.5m	6.1m	Yes	
Access Driveway Location	6m clear from intersection	Provided	Yes	
Sight Triangle (Pedestrian)	2.5m long x 2.0m wide	Provided	Yes	
Sight Distance (50km/h)	Min 45m	Provided	Yes	
First 6m Ramp Grade	Max 5% (1:20)	Not Provided	No	Note 1
Circulation Roadways / Ramp				
Ramp Grade	Private Carpark: Max 25% (1:4)	1:4	Yes	
Transitions	Min 2.0m	2.0m	Yes	
Grade Transitions	Max 12.5% (1:8)	12.5%	Yes	
Roadways Width (Two-way)	Min 5.5m	>5.5m	Yes	
Kerbs	300mm on both sides	Provided	Yes	

Headroom Clearance	Min 2.2m	Provided	Yes	
Parking Modules				
Car Space Dimension	User Class 1A 5.4m long x 2.4m wide	5.4m long x 2.4m wide	Yes	
Aisle Width	User Class 1A 5.8m	>5.8m	Yes	
Door Clearance	300mm	Provided	Yes	
Blind Aisle	Min 1.0m	>1.0m	Yes	
Headroom Clearance	Min 2.2m	>2.2m	Yes	
Gradient	Max 5% (1:20)	1:20	Yes	

Note 1:

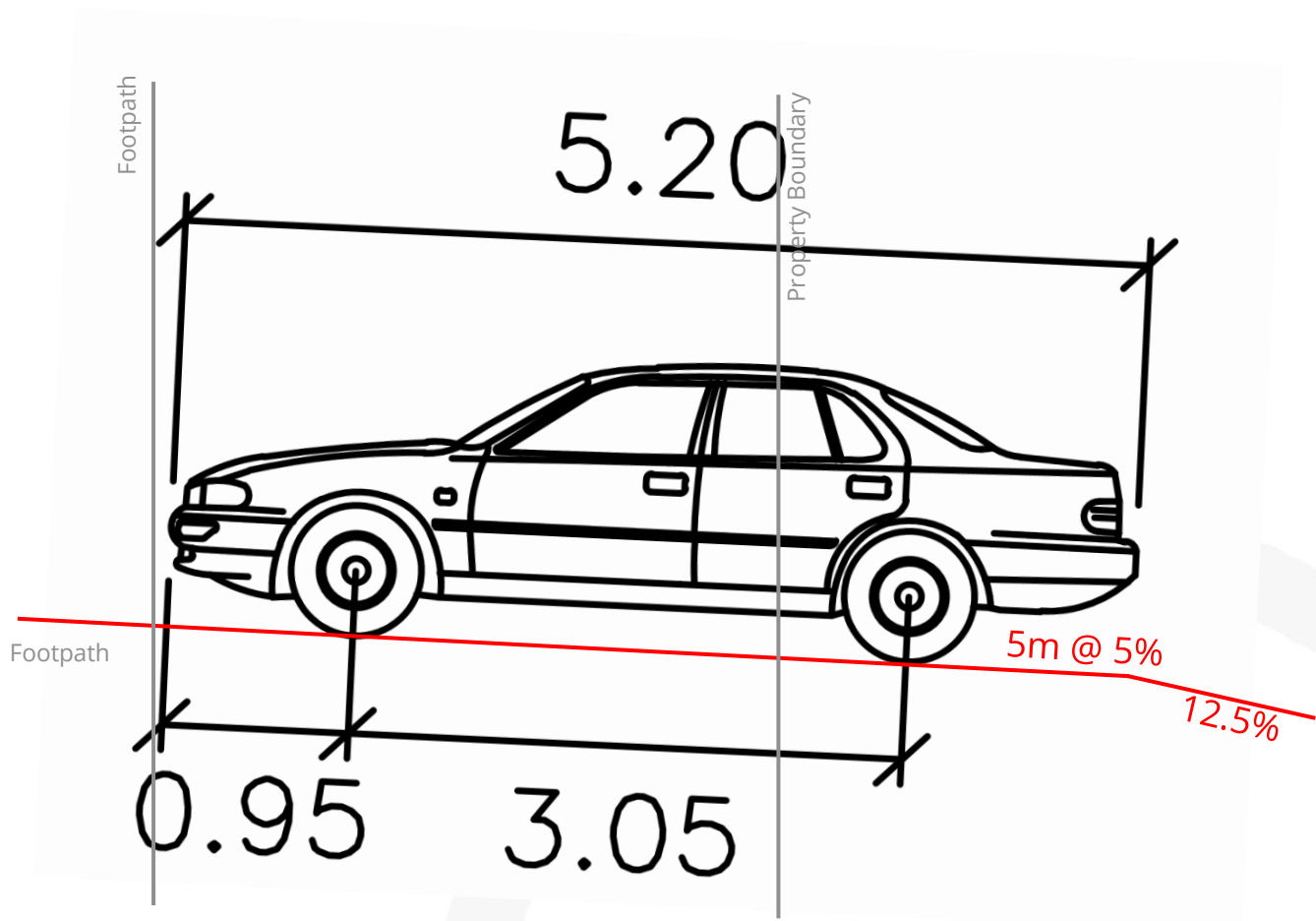
It is not possible to provide a 5% ramp in the first 6m of the ramp. The proposal is for an alternative arrangement.

The design intent of the 5% for first 6m of the ramp is to enable a departing car to stand on a relatively level surface such that its driver can see a pedestrian on/near the frontage footpath. There is a relatively level surface (approximately 3.5m) between the property boundary and the footpath frontage, as demonstrated below.



Source: Google Map (modified by Genesis Traffic)

When the departing vehicle stops before the footpath it will stand on a 5% surface, as illustrated below:



Source: AutoTurn Standard AS2890.1 B99 template

Therefore, the drivers' sightlines towards pedestrians on the footpath will be readily available under the proposed arrangement, satisfying AS2890.1's design objective for pedestrian safety.

Note 3:

A car turntable is provided in the basement to facilitate cars manoeuvring in/out from the garage. Details of a swept path assessment demonstrating a satisfactory vehicle movement are provided in **Attachment 2**.

In summary, the design provisions in relation to the access, car parking circulation and arrangement generally comply with assessed design criteria.

5.4 Swept Path Analysis

All critical vehicle movements in the proposed car parking facility have been assessed using Autoturn. Details of the assessment outcome, which demonstrate a satisfactory design provision, are provided in **Attachment 2**.



6 Traffic Assessment

6.1 Existing Traffic Conditions

Observations in the site's locality reveal a generally free-flowing operation on Golf Avenue during peak periods. There is no apparent capacity constraint in the immediate surrounding road network during peak periods.

6.2 Existing Traffic Generation

The Guide to Transport Impact Assessment (2024) specifies average peak hour traffic generation rates for medium-density residential development in Sydney areas, as follows:

Sydney Area

- 0.39 vehicle trips per hour (vtpH) per unit during the AM peak hour
- 0.37 vehicle trips per hour (vtpH) per unit during the PM peak hour

Based on the above, the existing 4 townhouse units would generate 2 vtpH during the AM and PM peak periods.

6.3 Development Traffic Generation

Applying the above trip rates to the 11 residential units would indicate a peak hour traffic generation outcome of 4 vtpH.

6.4 Overall Traffic Generation and Distribution

Based on the above assessment, the additional traffic generation will equal an average of:

$$\text{Development traffic (4 vtpH)} - \text{existing traffic (2 vtpH)} = 2 \text{ vtpH}$$

Accordingly, traffic generation of this order of magnitude represents an average flow of 1 vehicle movement every 30 minutes and will not present any difficulty or perceptible impact on the intersections in the vicinity of the site.

On this basis, the assessment found the proposal unlikely to result in an adverse traffic implication on the local road network.



7 Conclusion

The traffic and parking assessment undertaken for the Proposed Residential Development at 32 Golf Avenue, Mona Vale has drawn the following conclusions:

- The traffic generation of the proposed development will not present any adverse traffic implications.
- The proposed residential parking provision will comply with the SEPP65 and the Council's DCP criteria and will adequately serve the development.
- The proposed access, internal circulation and parking arrangements will be appropriate to AS design criteria.

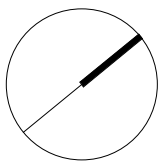
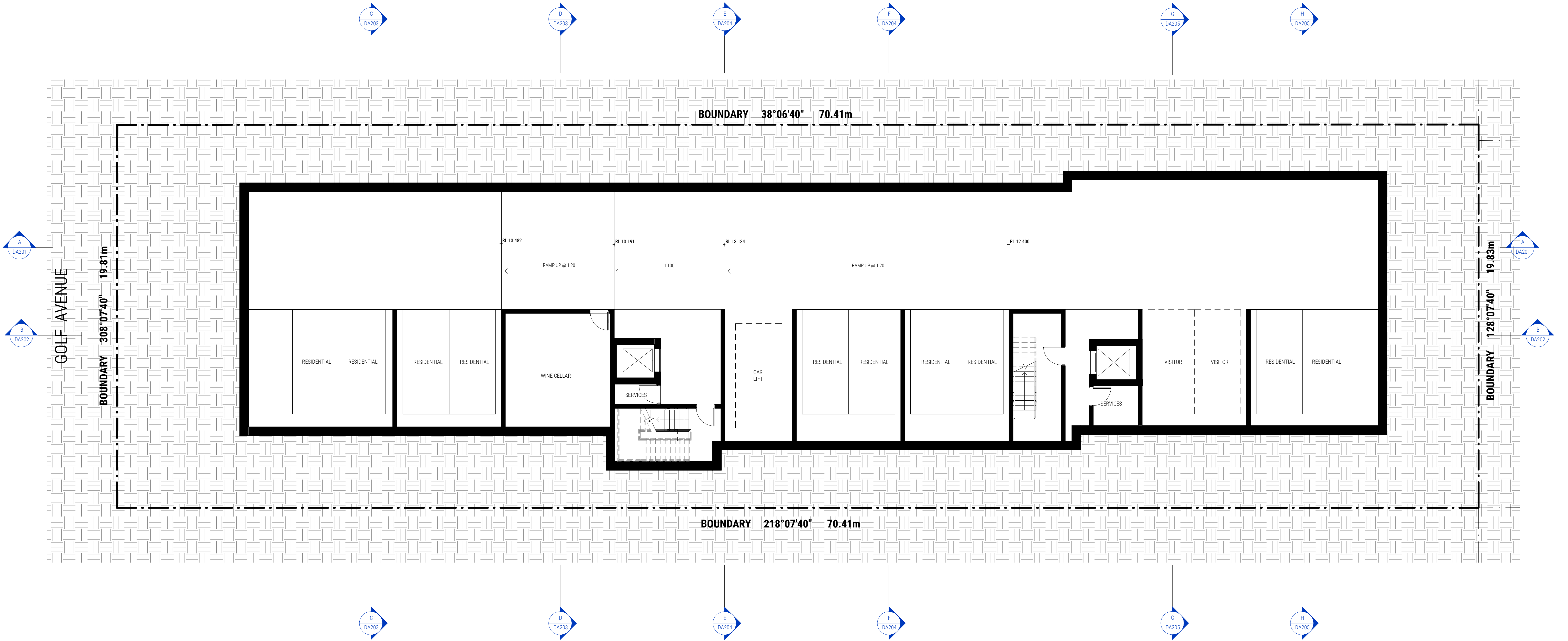


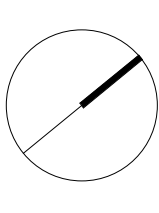
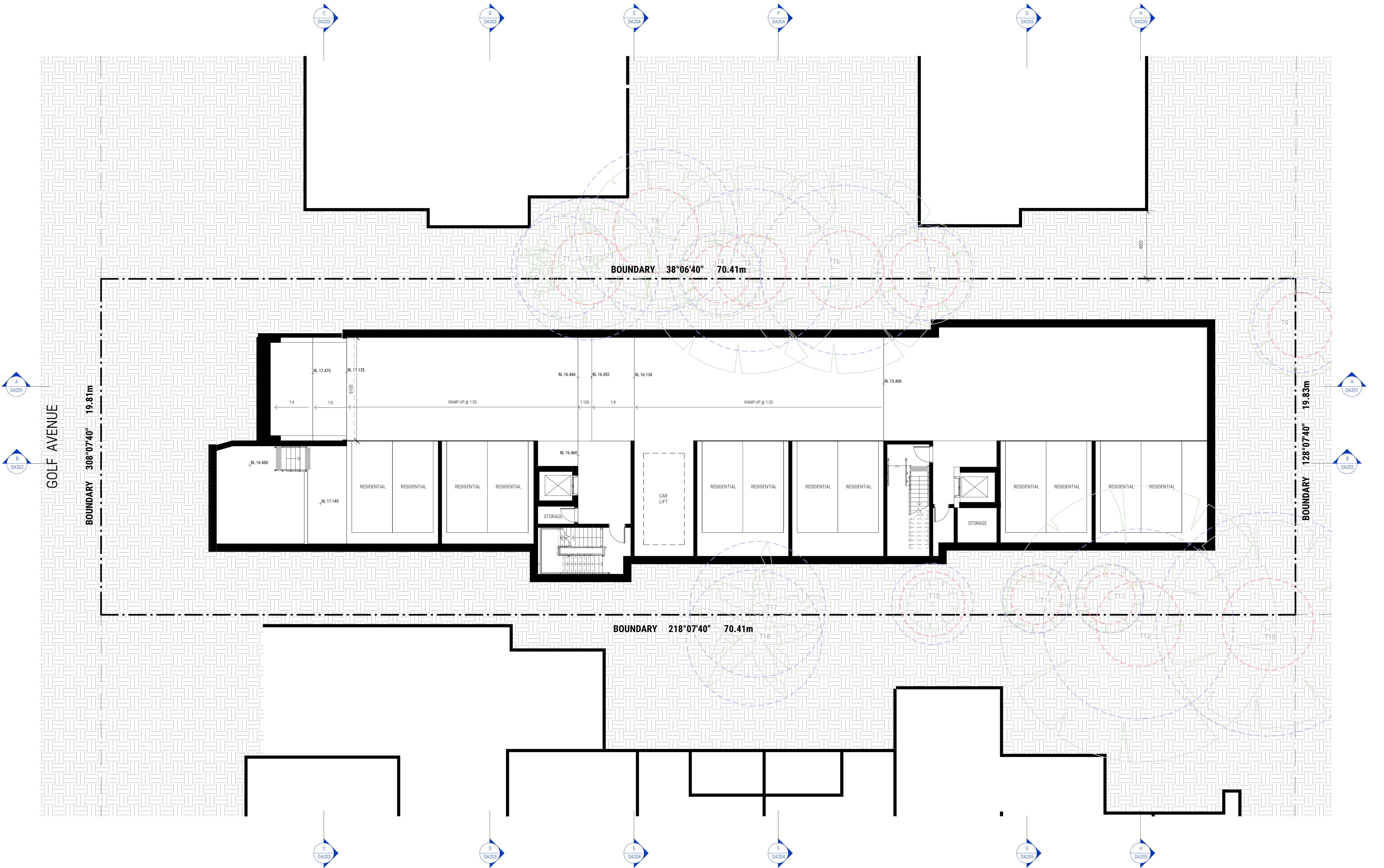


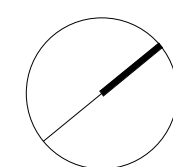
Attachment 1

Architectural Plan











A SECTION A-A
DA201 1:100 @ A1

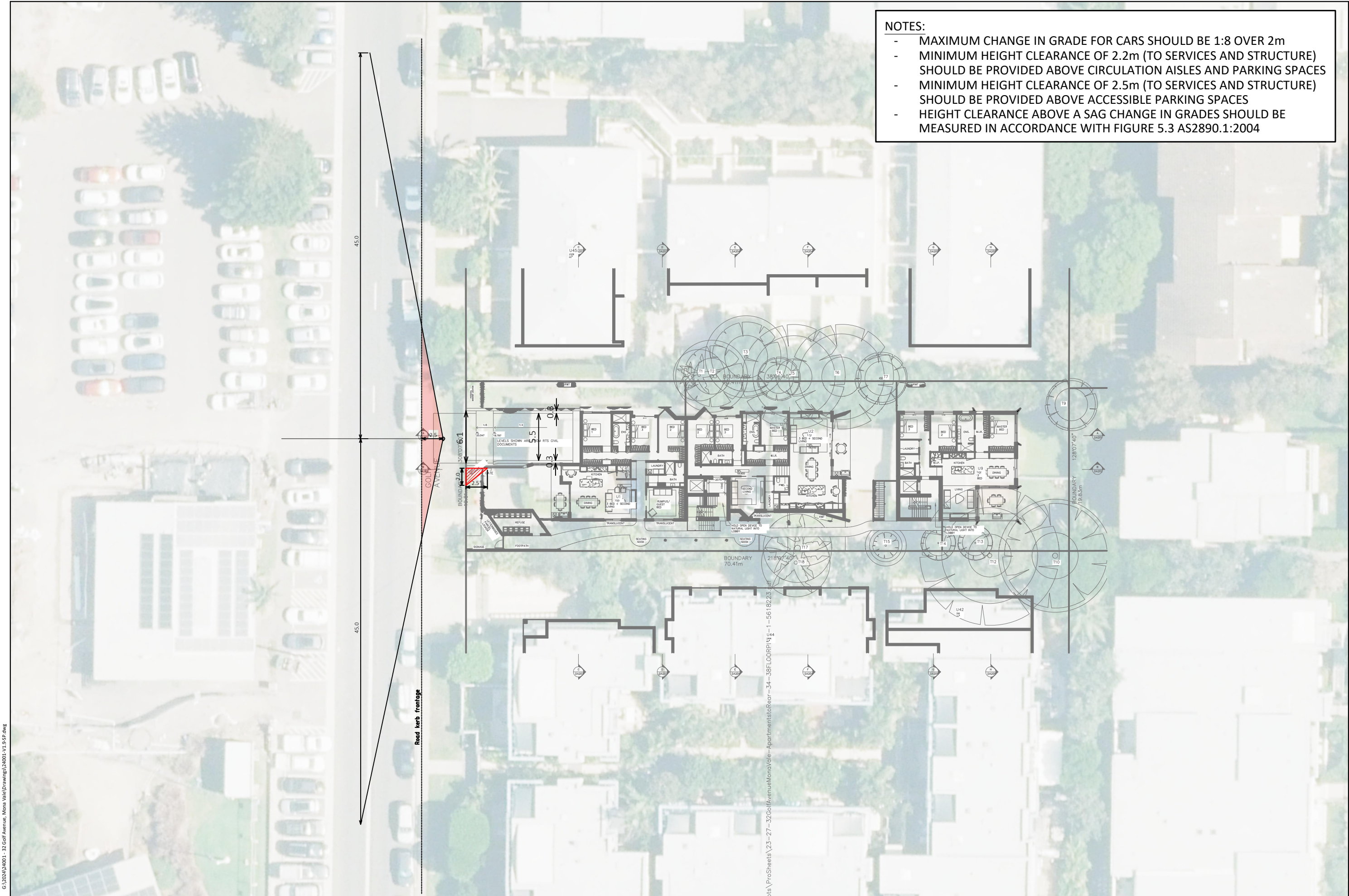


Attachment 2

Turning Path Assessment

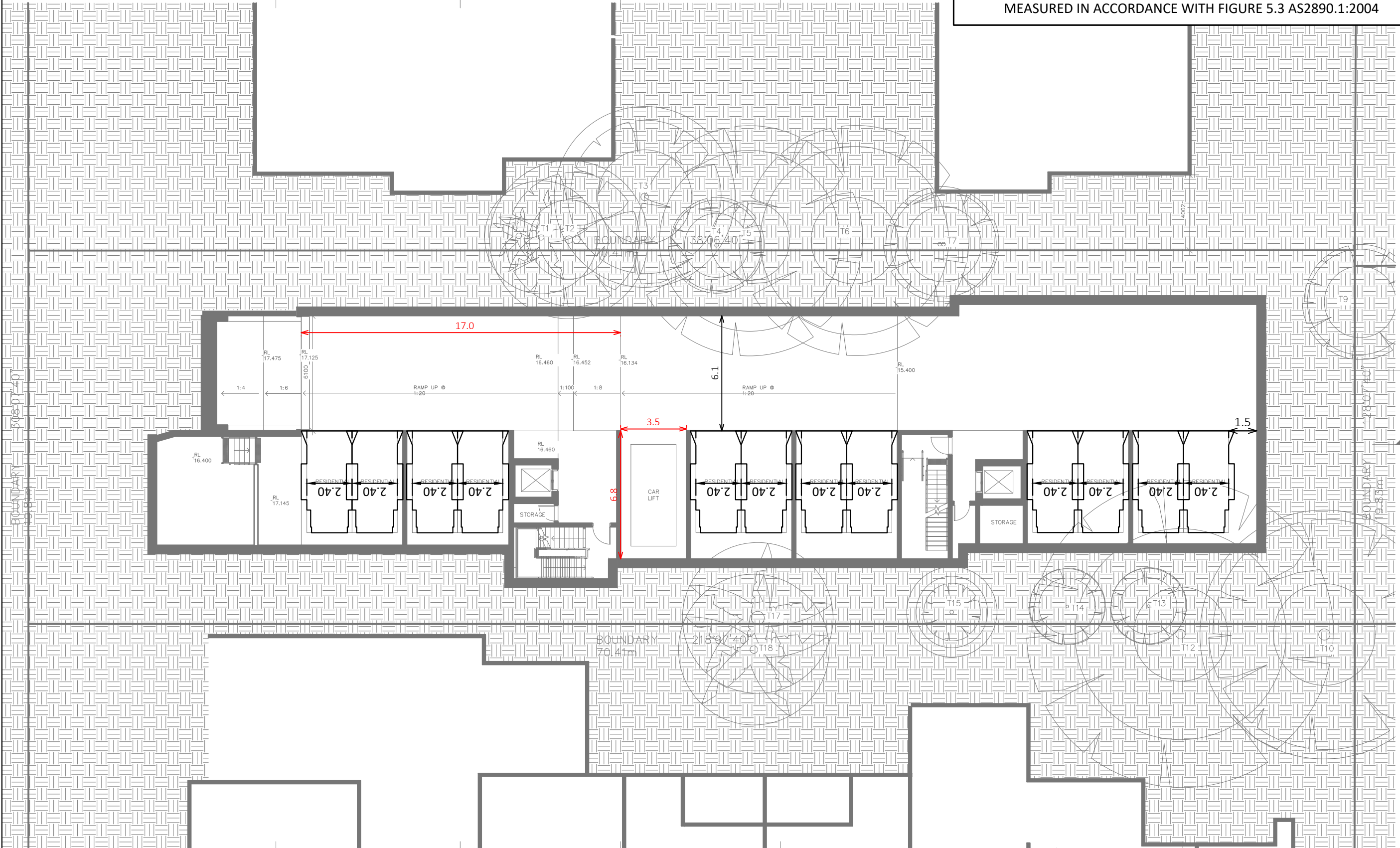


- NOTES:
- MAXIMUM CHANGE IN GRADE FOR CARS SHOULD BE 1:8 OVER 2m
 - MINIMUM HEIGHT CLEARANCE OF 2.2m (TO SERVICES AND STRUCTURE) SHOULD BE PROVIDED ABOVE CIRCULATION AISLES AND PARKING SPACES
 - MINIMUM HEIGHT CLEARANCE OF 2.5m (TO SERVICES AND STRUCTURE) SHOULD BE PROVIDED ABOVE ACCESSIBLE PARKING SPACES
 - HEIGHT CLEARANCE ABOVE A SAG CHANGE IN GRADES SHOULD BE MEASURED IN ACCORDANCE WITH FIGURE 5.3 AS2890.1:2004



NOTES:

- MAXIMUM CHANGE IN GRADE FOR CARS SHOULD BE 1:8 OVER 2m
- MINIMUM HEIGHT CLEARANCE OF 2.2m (TO SERVICES AND STRUCTURE) SHOULD BE PROVIDED ABOVE CIRCULATION AISLES AND PARKING SPACES
- MINIMUM HEIGHT CLEARANCE OF 2.5m (TO SERVICES AND STRUCTURE) SHOULD BE PROVIDED ABOVE ACCESSIBLE PARKING SPACES
- HEIGHT CLEARANCE ABOVE A SAG CHANGE IN GRADES SHOULD BE MEASURED IN ACCORDANCE WITH FIGURE 5.3 AS2890.1:2004



32 GOLF AVENUE, MONA VALE
BASEMENT 1
COMPLIANCE ASSESSMENT

DRAWING REF NO. 24001-V1.9-SP

SHEET NO. 02 OF 07

DRAWING REFERENCE (SOURCE):
20250403

ISSUE DATE 10 April 2025

DESIGNED BY
B.BUI, A.XIA

REVIEWED BY
B.LO

SCALE
A3 0 2.0 4.0 1:200

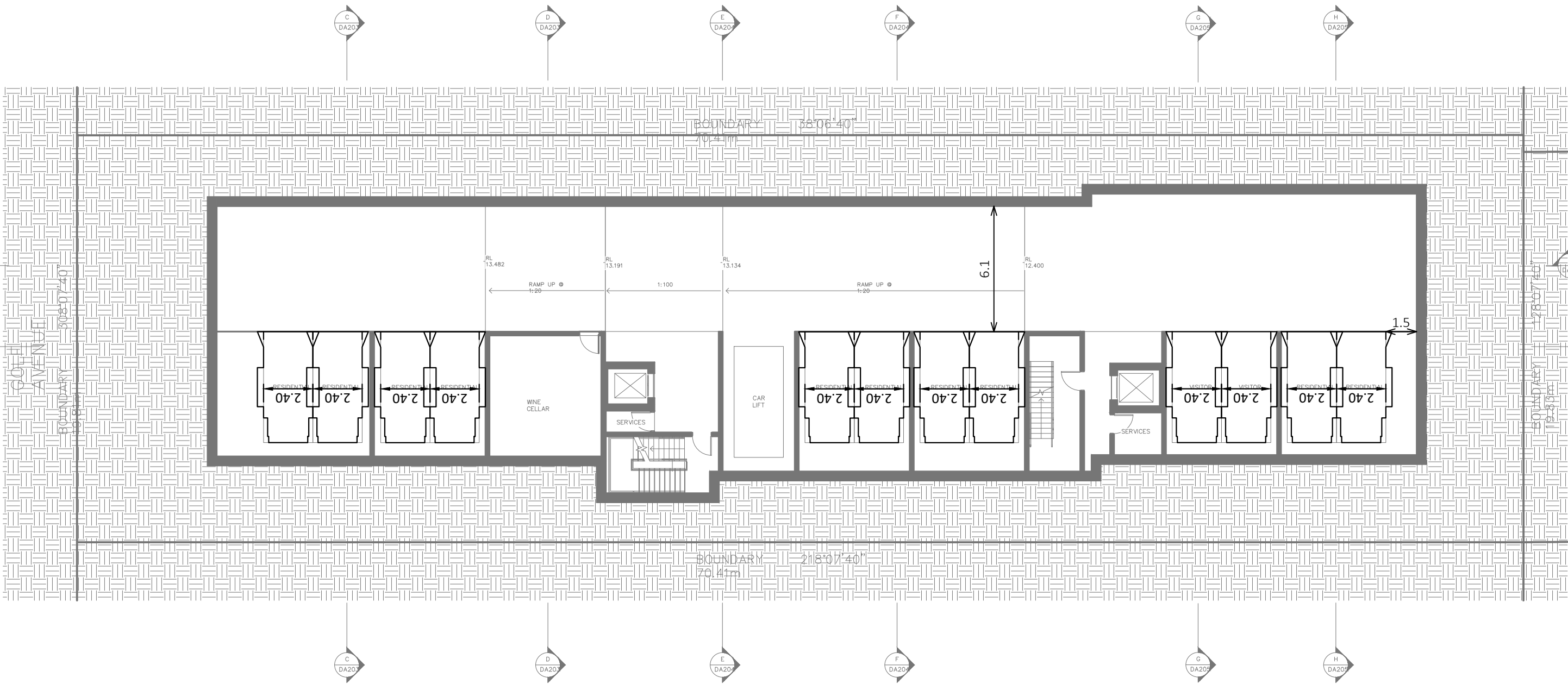


PRELIMINARY PLAN
FOR DISCUSSION PURPOSES
ONLY SUBJECT TO CHANGE
WITHOUT NOTIFICATION

WARNING
THE LOCATION OF UNDERGROUND SERVICES
ARE APPROXIMATE ONLY
THE EXACT LOCATIONS SHALL BE PROVEN ON SITE.
ALL EXISTING SERVICES SHOWN ARE NOT GUARANTEED.

GenesisTraffic

- NOTES:
- MAXIMUM CHANGE IN GRADE FOR CARS SHOULD BE 1:8 OVER 2m
 - MINIMUM HEIGHT CLEARANCE OF 2.2m (TO SERVICES AND STRUCTURE) SHOULD BE PROVIDED ABOVE CIRCULATION AISLES AND PARKING SPACES
 - MINIMUM HEIGHT CLEARANCE OF 2.5m (TO SERVICES AND STRUCTURE) SHOULD BE PROVIDED ABOVE ACCESSIBLE PARKING SPACES
 - HEIGHT CLEARANCE ABOVE A SAG CHANGE IN GRADES SHOULD BE MEASURED IN ACCORDANCE WITH FIGURE 5.3 AS2890.1:2004



32 GOLF AVENUE, MONA VALE
BASEMENT 2
COMPLIANCE ASSESSMENT

DRAWING REF NO. 24001-V1.9-SP

SHEET NO. 03 OF 07

DRAWING REFERENCE (SOURCE):
20250403

ISSUE DATE 10 April 2025

DESIGNED BY
B.BUI, A.XIA

REVIEWED BY
B.L.O

SCALE
A3

0 2.0 4.0 1:200

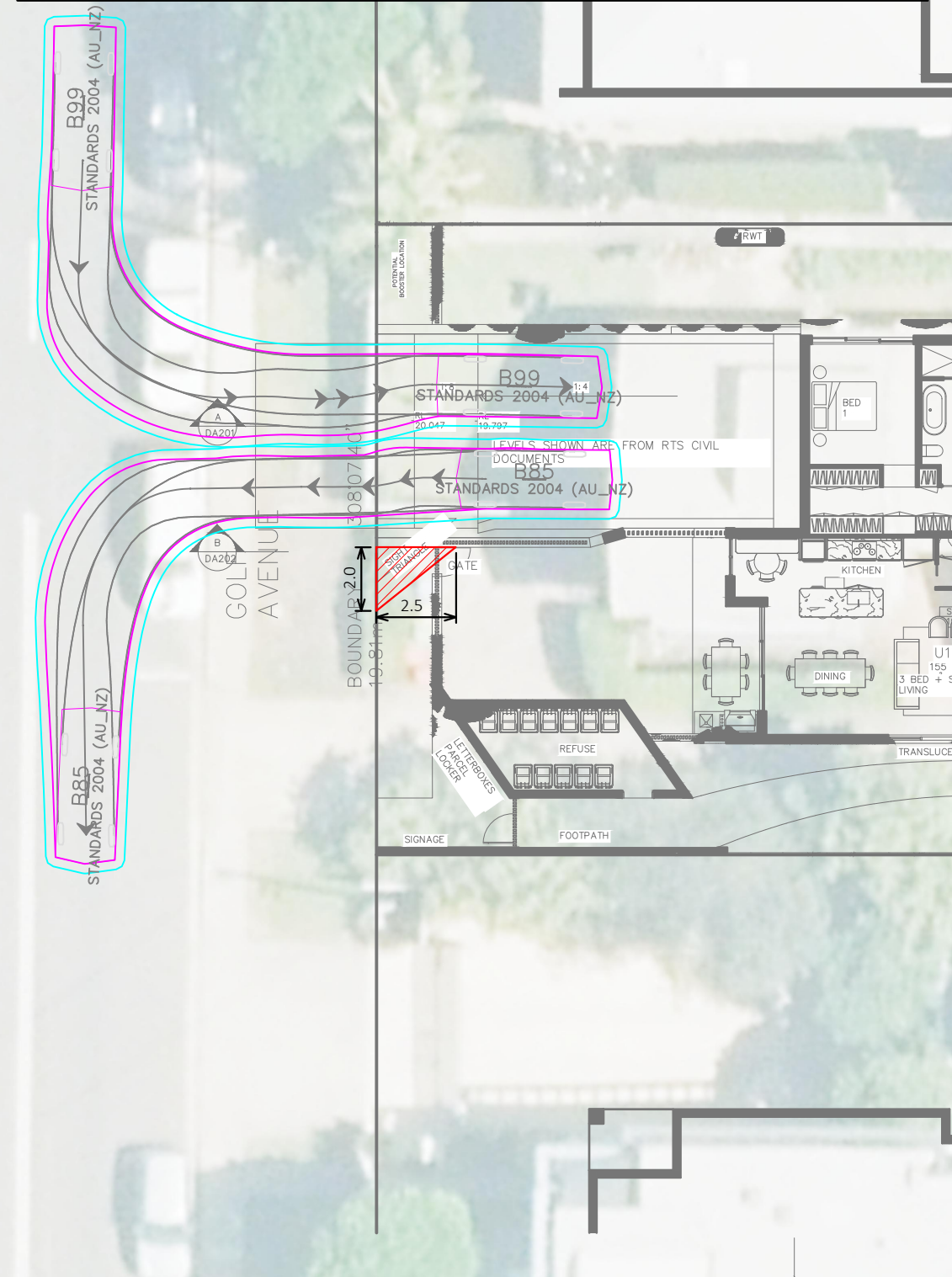
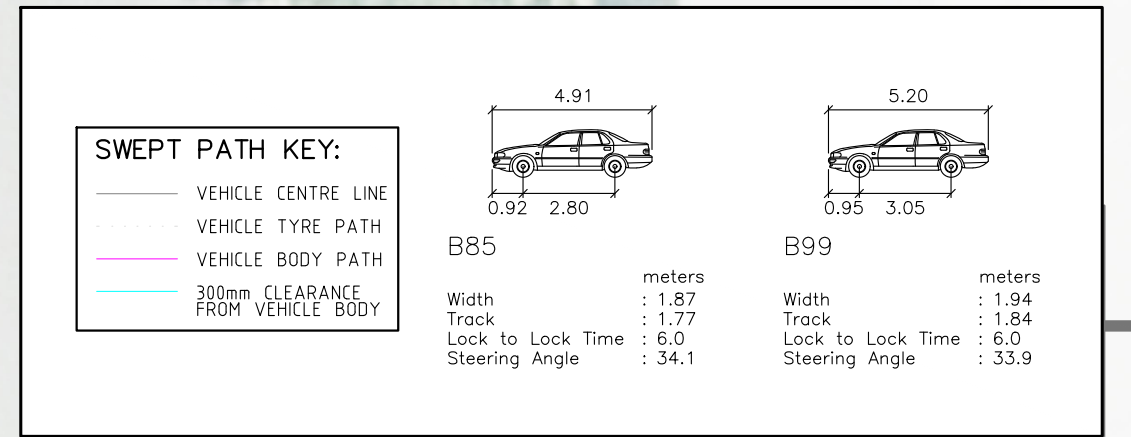
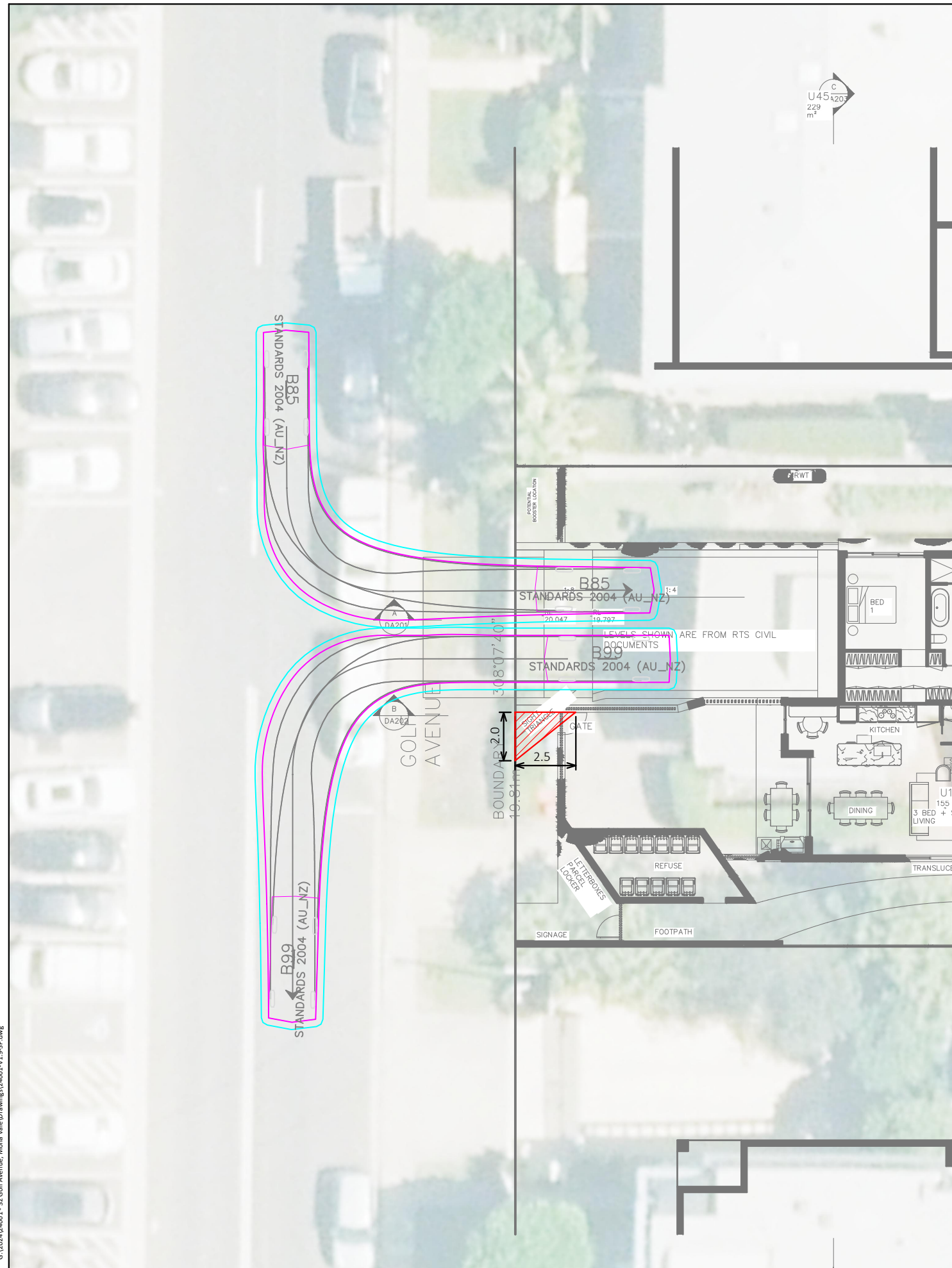


PRELIMINARY PLAN
FOR DISCUSSION PURPOSES
ONLY SUBJECT TO CHANGE
WITHOUT NOTIFICATION

WARNING
THE LOCATION OF UNDERGROUND SERVICES
ARE APPROXIMATE ONLY
THE EXACT LOCATIONS SHALL BE PROVEN ON SITE
ALL EXISTING SERVICES SHOWN ARE NOT GUARANTEED



6:\2024\24001- 32 Golf Avenue, Mona Vale\Drawings\24001-V1.9-SP.dwg
Plotted by Liam McKinnon



32 GOLF AVENUE, MONA VALE
GROUND LEVEL
SWEPT PATH ASSESSMENT - B99 AND B85 STANDARD VEHICLE

DRAWING REF NO. 24001-V1.9-SP

SHEET NO. 04 OF 07

DRAWING REFERENCE (SOURCE):
20250403

ISSUE DATE 10 April 2025

DESIGNED BY
B.BUI, A.XIA

REVIEWED BY
B.LO

SCALE
A3 0 2.0 4.0 1:200



PRELIMINARY PLAN
FOR DISCUSSION PURPOSES
ONLY SUBJECT TO CHANGE
WITHOUT NOTIFICATION

WARNING
THE LOCATION OF UNDERGROUND SERVICES
ARE APPROXIMATE ONLY
THE EXACT LOCATIONS SHALL BE PROVEN ON SITE
ALL EXISTING SERVICES SHOWN ARE NOT GUARANTEED

GenesisTraffic

VEHICLE CENTRE LINE

VEHICLE TYRE PATH

VEHICLE BODY PATH

300mm CLEARANCE FROM VEHICLE BODY

4.91

0.92

2.80

0.92

2.80

5.20

0.95

3.05

0.95

3.05

B85

Width : 1.87

Track : 1.77

Lock to Lock Time : 6.0

Steering Angle : 34.1

B99

Width : 1.94

Track : 1.84

Lock to Lock Time : 6.0

Steering Angle : 33.9

NOTES:

- MAXIMUM CHANGE IN GRADE FOR CARS SHOULD BE 1:8 OVER 2m
- MINIMUM HEIGHT CLEARANCE OF 2.2m (TO SERVICES AND STRUCTURE) SHOULD BE PROVIDED ABOVE CIRCULATION AISLES AND PARKING SPACES
- MINIMUM HEIGHT CLEARANCE OF 2.5m (TO SERVICES AND STRUCTURE) SHOULD BE PROVIDED ABOVE ACCESSIBLE PARKING SPACES
- HEIGHT CLEARANCE ABOVE A SAG CHANGE IN GRADES SHOULD BE MEASURED IN ACCORDANCE WITH FIGURE 5.3 AS2890.1:2004

32 GOLF AVENUE, MONA VALE
BASEMENT 1
SWEPT PATH ASSESSMENT - B85 AND B99 PASSING

DRAWING REF NO. 24001-V1.9-SP

DRAWING REFERENCE (SOURCE):
20250403

ISSUE DATE 10 April 2025

DESIGNED BY
B.BUI, A.XIA

REVIEWED BY
B.L.O

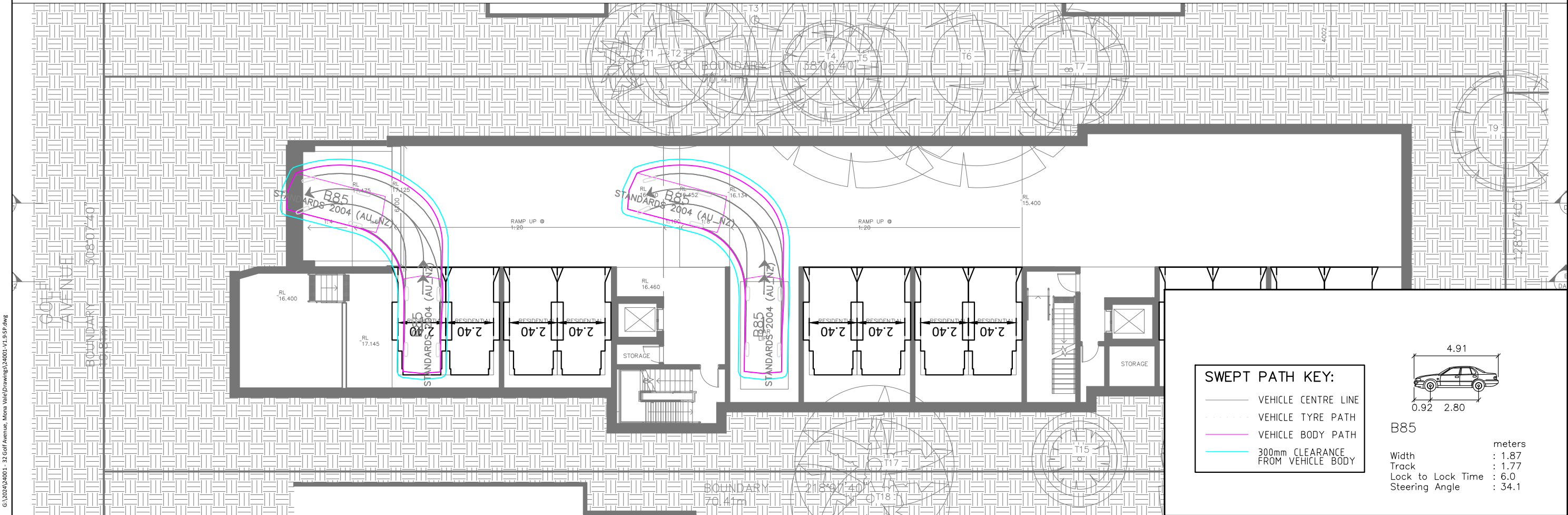
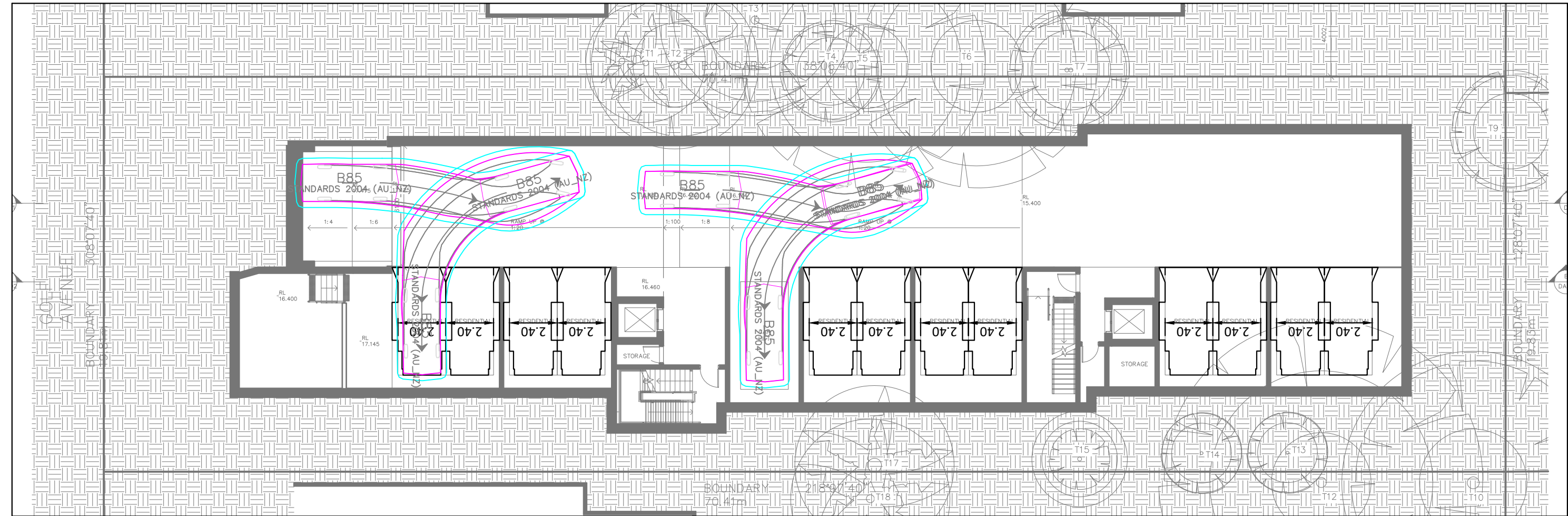
SCALE
A3

0 1.0 2.0 1:100

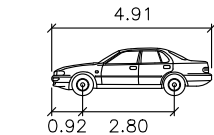
PRELIMINARY PLAN
FOR DISCUSSION PURPOSES
ONLY SUBJECT TO CHANGE
WITHOUT NOTIFICATION

WARNING
THE LOCATION OF UNDERGROUND SERVICES
ARE APPROXIMATE ONLY
THE EXACT LOCATIONS SHALL BE PROVIDED ON SITE.
ALL EXISTING SERVICES SHOWN ARE NOT GUARANTEED.

GenesisTraffic



SWEPT PATH KEY:	
	VEHICLE CENTRE LINE
	VEHICLE TYRE PATH
	VEHICLE BODY PATH
	300mm CLEARANCE FROM VEHICLE BODY



B85	
Width	: 1.87
Track	: 1.77
Lock to Lock Time	: 6.0
Steering Angle	: 34.1

32 GOLF AVENUE, MONA VALE
BASEMENTS 1 & 2
SWEPT PATH ASSESSMENT - B85 STANDARD VEHICLE

DRAWING REF NO. 24001-V1.9-SP

SHEET NO. 06 OF 07

DRAWING REFERENCE (SOURCE):
20250403

ISSUE DATE 10 April 2025

DESIGNED BY
B.BUI, A.XIA

REVIEWED BY
B.LO

SCALE
A3 0 2.0 4.0 1:200



PRELIMINARY PLAN
FOR DISCUSSION PURPOSES
ONLY SUBJECT TO CHANGE
WITHOUT NOTIFICATION

WARNING
THE LOCATION OF UNDERGROUND SERVICES
ARE APPROXIMATE ONLY
THE EXACT LOCATIONS SHALL BE PROVEN ON SITE.
ALL EXISTING SERVICES SHOWN ARE NOT GUARANTEED.



B99
(NZ)



6:\2024\24001-1-32 Golf Avenue, Mona Vale\Drawings\24001-V1.9-SP.dwg
Plotted by Liam Mironja

32 GOLF AVENUE, MONA VALE
SECTION PLAN
GROUND AND HEIGHT CLEARANCE ASSESSMENT

DRAWING REF NO. 24001-V1.9-SP

SHEET NO. 07 OF 07

DRAWING REFERENCE (SOURCE):
20250403
ISSUE DATE 10 April 2025

DESIGNED BY
B.BUI, A.XIA
SCALE
A3
0 2.0 4.0
1:200

REVIEWED BY
B.LO



PRELIMINARY PLAN
FOR DISCUSSION PURPOSES
ONLY SUBJECT TO CHANGE
WITHOUT NOTIFICATION

WARNING
THE LOCATION OF UNDERGROUND SERVICES
ARE APPROXIMATE ONLY
THE EXACT LOCATIONS SHALL BE PROVEN ON SITE.
ALL EXISTING SERVICES SHOWN ARE NOT GUARANTEED.





Better Developments with
Genesis Traffic