



Our Ref: 250101c-251113

13 November 2025

DASCO Australia Pty Ltd  
Level 2, 9 George Street  
NORTH STRATHFIELD NSW 2137

**Attention: Mr Jack Maalouf**

Dear Jack,

**RE: 14-16 MARSHALL AVE, 2-10 BERRY RD AND 5-9 HOLDSWORTH AVE  
ST LEONARDS PROPOSED RESIDENTIAL DEVELOPMENT (DA56/2023) –  
S4.55 TRAFFIC AND PARKING REVIEW**

As requested, MLA Transport Planning (MLA) has conducted a traffic and parking review to accompany a S4.55 modification application to be lodged with Lane Cove Council (Council). The S4.55 application seeks approval for additional development uplift, involving a 30 per cent increase in residential gross floor area in line with the State Government's policy housing supply policy, which encourages the delivery of affordable housing in well located areas. The S4.55 application also seeks approval for the modifications to the approved car park layout and an amendment to the wording of Condition #69 in the Consent. Our findings are contained herein.

### **Background**

In March 2024, the Sydney North Planning Panel granted development approval DA56/2023 for a proposed residential development at 14-16 Marshall Avenue, 2-10 Berry Road and 5-9 Holdsworth Avenue, St Leonards.

The approval is for the demolition of all existing buildings and the construction of three residential flat buildings (ranging from 10 to 11 storeys) comprising a total of 185 dwellings and basement parking for 249 vehicles over five basement levels.

Following the approval of the original DA, a S4.55 modification application is now being prepared for submission to Council seeking approval for additional development uplift in line with the State Government's housing reform to address the State's housing shortage. One of the key reforms has resulted in amendments to the State Environmental Planning Policy (Housing) 2021 (Housing SEPP) to encourage the

development of affordable housing in well-located areas by allowing developers to increase the floor space ratio (FSR) and building height by 20 to 30 percent, provided that at least 10 to 15 percent of the building's gross floor area is designated as affordable housing.

The modification application seeks approval to add 46 apartments, along with associated modifications to the approved basement car park, including the addition of an extra basement level. The modification application also seeks approval to amend the wording to Condition #69 of the development consent, which deals with car parking provision.

This traffic statement assesses the traffic and parking implications arising from the proposed S4.55 modifications.

Following the initial submission of the S4.55 modification application in June 2025, the architectural plans were revised to address Council's comments. This traffic statement has been updated to reflect the revised architectural plans.

## Approved Development

Development consent DA56/2023 permits the construction of three residential flat buildings accommodating a total of 185 apartments with the following mix:

- 41 x 1-bedroom apartments
- 87 x 2-bedroom apartments
- 48 x 3-bedroom apartments, and
- 9 x 4-bedroom apartments.

The approval includes the construction of a 5-level combined basement car park providing a total of 249 car parking spaces as shown on the stamped architectural plans. The parking allocation is as follows:

- 208 residential car parking spaces including 38 accessible parking spaces
- 37 residential visitor car parking spaces including one accessible parking space
- 2 car wash bays, and
- 2 car share spaces.

The approved plans also show the following bicycle and motorcycle parking provisions:

- 47 residential bicycle parking spaces
- 20 visitor bicycle parking spaces, and
- 17 motorcycle parking spaces.

Additionally, an on-site loading facility with two service vehicle bays, one accommodating service vehicles up to an Australian Standard 8.8m long medium rigid vehicle (MRV) and the other one up to a 6.4m long small rigid vehicle (SRV), is also shown on the approved plans.

### Proposed S4.55 Modifications

This S4.55 modification application proposes the following modifications in relation to traffic and parking:

- amendments to the approved number and mix of residential apartments (as shown in Table 1 below)
- adjustments to car parking provision to accommodate the revised number and mix of apartments, and
- re-configuration of the car park layout to align with the updated development plans, allowing for additional car parking spaces, while generally maintaining the approved car park layout.

Table 1 compares the approved development metrics against those proposed in this S4.55 application.

**Table 1: Comparison of Approved Development with Proposed Modifications**

Land Use	Approved Development	Proposed S4.55 Modifications	Change
1-Bedroom Dwellings	41 Dwellings	45 Dwellings	+4
2-Bedroom Dwellings	87 Dwellings	105 Dwellings	+18
3-Bedroom Dwellings	48 Dwellings	67 Dwellings	+19
4-Bedroom Dwellings	9 Dwellings	8 Dwellings	+1
<b>Total</b>	<b>185 Dwellings</b>	<b>225 Dwellings</b>	<b>+40</b>

As shown above, the revised scheme proposes an increase of 40 residential dwellings, increasing the total number of apartments from 185 to 225.

The revised proposed development includes a total of 41 affordable apartments, comprising 38 apartments dedicated as affordable housing in accordance with the Housing SEPP. These constitute 15 per cent of the proposed development's total floor space.

The revised scheme proposes modifications to the approved car park layout. The proposed modifications include the addition of a sixth basement level to accommodate the increased parking requirement. The updated car park will now

comprise six levels, new Basement 03 effectively duplicating the layout of the original Basement 02.

Improvements have also been made to the car park layout beneath the Area 14 building on Basement 02, where two previously approved dead-end aisles have been removed and replaced with a continuous U-shaped aisle to allow for improved vehicle circulation. Basement 03, being a duplication of Basement 02, also incorporates this improved circulation design.

It is further noted that vehicular access would remain unchanged i.e. a 2-lane, 2-way combined entry and exit driveway off Holdsworth Avenue, shared by both general traffic and service vehicle traffic, as originally approved.

The revised architectural plans of the basement car parking are provided in Attachment One.

In addition, the modification application seeks approval to amend the wording to Condition #69 by replacing the word minimum with maximum, as follows:

69. C.9.T - Car parking allocation and restrictions on excess spaces

*Car parking spaces shall be allocated as per the established ~~minimum~~ **maximum** car parking rates (rounded up to the nearest whole number) in Table 1 of Part R: Traffic, Transport, and Planning of the LCDCP 2010. The subdivision and sale of excess car parking spaces is prohibited.*

The proposed amendment to the condition aims to strike a balance between providing adequate parking for future residents and supporting sustainable transport options, without creating excessive parking supply that could increase car usage or place additional parking demand on surrounding streets. The proposed amendment is also in keeping with Council stated objectives in their development control plan, including:

- manage demand for travel
- promote sustainable and active transport
- promote car share schemes, and
- reduce new users' reliance on the private car.

## Parking Effects of Proposed S4.55 Modifications

### Car Parking Requirements

Development consent DA56/2023 for the proposed development includes a consent condition, namely Condition #69, which stipulates car parking to be provided in accordance with Table 1 in Part R Traffic, Transport and Parking in Lane Cove Council's Lane Cove Development Control Plan 2010 (LCDCP).

In light of the above consent condition, car parking requirements for the revised proposed development has been assessed against Table 1 from LCDCP. This is presented in Table 2.

**Table 2: Car Parking Requirement**

Dwellings Size	No. of Dwellings	LCDCP Parking Rates	Car Parking Requirement
1-Bedroom	45 Dwellings	1.0 space per dwelling	45
2-Bedroom	105 Dwellings	1.5 spaces per dwelling	157.5
3-Bedroom	67 Dwellings	2.0 spaces per dwelling	134
4-Bedroom	8 Dwellings	2.0 spaces per dwelling	16.0
Visitors	-	1.0 space per 4 dwellings	56.25
<b>Total (Say)</b>	<b>225</b>	-	<b>409</b>

Based on the LCDCP parking requirements presented in Table 2, the revised proposed development is required to provide a total of 409 car parking spaces comprising 353 resident car parking spaces and 56 visitor car parking spaces.

The revised proposed development includes a total of 340 car parking spaces. The parking allocation is as follows:

- 316 residential car parking spaces
- 22 residential visitor car parking spaces, and
- 2 car share spaces.

It is noted that the proposed car parking provision is less than the requirement set out in LCDCP. However, given the development's strategic location, being within walking distance of St Leonards Railway Station, the Crows Nest Metro Station, and a range of local amenities and services including Royal North Shore Hospital and TAFE St Leonards campus across the Pacific Highway, the shortfall in parking is not expected to contribute to any adverse parking impacts on the surrounding street network. The proposed parking provision represents a well-balanced approach, supporting

sustainable transport objectives while still meeting the parking demands of future residents and visitors.

In relation to the visitor car parking space requirement set out in the LCDCP, it is considered that the required parking rate of one visitor car parking space per four apartments to be excessive.

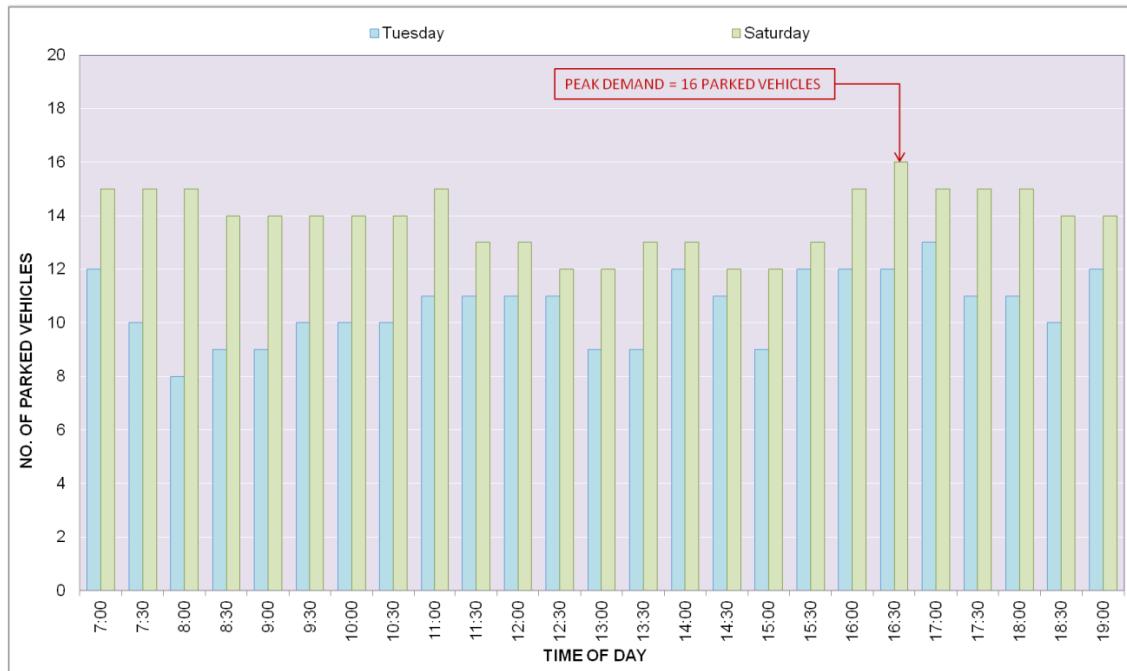
To assess the appropriateness of this rate, reference is made to a parking demand survey that was carried out in August/September 2013 at Stage 1 of the East Quarter development in Hurstville. Stage 1 of the East Quarter development includes 168 residential apartments with 30 car parking spaces for residential visitors. The survey was carried out by GTA Consultants (now Stantec), and the results are contained in a DA traffic assessment report (also prepared by the author of this traffic assessment) that accompanied a development application to Georges River Council. The East Quarter site is located within walking distance to two railway stations with direct train services to Sydney CBD as well as being located near the Hurstville Town Centre, an urban setting not too dissimilar to that of the subject site.

The surveys were conducted on two separate days (Tuesday 3 September and Saturday 31 August 2013) from 7:00am to 7:00pm.

The surveys found that the parking demand for visitor parking was typically around 12 to 14 parked vehicles with a peak demand of 16 parked vehicles at any one time. The peak parking demand occurred at 4:30pm on a Saturday afternoon. The peak parking demand for Tuesday was 13 parked vehicles. With a peak demand of 16 vehicles, this equates to a parking demand rate of approximately one space per 10 units.

The survey results are presented in Figure 1 which has been reproduced from the DA traffic report prepared by GTA Consultants.

**Figure 1: East Quarter Hurstville Visitor Parking Survey Results**



Source: GTA Consultants (Ref: East Quarter Stage 3 Proposed Mixed Use Development 93 Forest Road, Hurstville Traffic and Parking Impact dated 8 December 2015)

Applying the surveyed visitor parking rate obtained from the parking demand survey, the subject revised proposed development would require 22 visitor car parking spaces to be provided.

Therefore, the provision of 22 visitor car parking spaces is not expected to create any additional parking demand on the surrounding streets and is deemed acceptable.

Under the circumstances, the proposed overall car parking provision for the revised proposed development is considered to be satisfactory.

### Accessible Car Parking

LCDCP requires accessible parking for residents to be provided at a rate of one accessible car space per one adaptable housing unit plus one accessible visitor car space per 50 visitor car parking spaces provided (with a minimum of one accessible space).

The revised proposed development includes 45 adaptable apartments. As such, the revised proposed development is required to provide 45 accessible parking for residents.

In relation to accessible parking for visitors, the revised proposed development proposes to provide 22 visitor car parking spaces. As such, the proposed development is required to provide one visitor accessible car parking space.

The architectural car park plans indicate a total of 47 accessible car parking spaces for residents and one accessible visitor car parking space. Therefore, the proposed accessible parking provision for the proposed development is satisfactory.

### **Bicycle Parking**

LCDCP requires bicycle parking to be provided at the following rates:

- residents – one space per four dwelling, and
- visitors – one space plus one space per 10 dwellings.

On this basis, the revised proposed development is required to provide 56 residential bicycle parking spaces and 22 visitor bicycle parking spaces.

The revised proposed development includes 58 residential bicycle parking spaces and 25 visitor bicycle parking spaces. As such, the proposed bicycle parking provision is satisfactory.

### **Motorcycle Parking**

LCDCP requires one motorcycle parking space per 15 car spaces provided with each motorcycle space having dimensions of 1.2m by 3.0m. Accordingly, the revised proposed development is required to provide 23 motorcycle parking spaces.

The revised proposed development includes 25 motorcycle parking spaces. Therefore, the proposed motorcycle parking provision is satisfactory.

### **Loading Facility**

The revised proposed development includes an on-site loading facility with three loading bays which is one more than that in the approved development. These loading bays will continue to accommodate service vehicles up to an MRV and an SRV as approved

The loading bays comprises one large bay and two smaller bays. The large bay has dimensions of 8.8m long by 3.5m wide, while the smaller ones have dimensions of 6.4m long by 3.5m wide, accommodating MRV and SRV vehicles, respectively. The loading bay has minimum headroom of 4.5m.

Service vehicles accessing the site will share access with general traffic. Service vehicles accessing the site can enter and exit the site in a forward direction.

Swept path analysis of an MRV and SRV accessing the loading dock has been conducted. The relevant swept path diagrams are provided in Attachment Two which indicate these service vehicles can access the loading dock satisfactorily.

## Car Park Design Review

The layout of the proposed basement car park in the revised scheme remains largely consistent with the approved design, except for the addition of an extra basement level, namely Basement 03, and the re-design of Basement 02 (and Basement 03) which replaces two dead aisles with a U-shaped circulation aisle near the lift lobby to Area 14 building to improve traffic flows in this area.

The revised car park is a 6-level facility. Basement 03, the lowest level, together with Basements 01 and 02, is configured a reverse L-shaped layout that occupies the entire site. The Ground Floor and Level 01 car parks have a rectangular configuration oriented from north to south occupying Areas 13 and 15 of the site with access from Holdsworth Avenue partially occupying Area 14 at Ground Floor. The highest level of the car park, Level 02, occupies the site within Area 13.

The car park on each level with Area 13 provides a single central parking aisle in a north-south direction, while the car park within Areas 14 and 15 provides two aisles oriented in an east-west direction. In all cases, 90-degree car spaces arranged along the aisles. A single lane, 2-way straight ramp, located at the western boundary of the car park in Area 15, is proposed to provide access between parking levels. The single lane, 2-way ramp will be provided with traffic management measures including red/green lights, waiting bays with vehicle presence sensors and signage to safely and efficiently regulate the traffic flow on the ramp. This arrangement is consistent with the approved car park design from the original development application.

MLA's review of the new car park plans confirms that the car parking spaces have minimum dimensions of 2.4m wide by 5.4m long with aisle width of 5.8m. The proposed dimensions of the car parking spaces comply with the Australian Standard AS2890.1:2004 as Class 1A car parking facility. Class 1A car parking facility is suitable for resident and employee parking.

The proposed accessible car spaces and associated shared areas have dimensions of 2.4m wide by 5.4m long in compliance with AS2890.6:2009. These spaces are proposed to be allocated to adaptable apartments and visitor parking. In addition, some accessible car parking spaces have dimensions of 3.8m wide by 5.4m long which complies with AS4299 for accessible car parking spaces and are proposed to be allocated to adaptable apartments.

The design review of the car park also assessed the following design elements:

- access driveway from Holdsworth Avenue has been provided a maximum slope of 1:20 for the first 6.0m behind the property boundary and slightly increased to 1:16 before arriving at the loading facility
- internal car park ramp has been provided with a width of 5.8m plus 0.3m wide kerbs on both sides with a maximum grade of 1:4 and appropriate transitions

- access ramps used by service vehicles have been provided with a maximum slope of 1:16
- an additional of width of 0.3m has been provided for car spaces adjacent to a wall
- all columns are located outside of the parking space design envelope
- blind aisles have been provided with an extension of 1.0m beyond the last car parking space
- single sided aisles (where one side is confined by a vertical obstruction higher than 0.15m) have been provided with an additional 0.3m in width with the exception of the row of parking opposite the Area 14 lift lobby where an aisle width of 5.050m has been provided, which has been compensated by a 0.6m separation zone on either side of the car space to assist with access into the car spaces
- minimum clear head heights of 2.2m for general car parking spaces and 2.5m for accessible parking spaces have been provided within the basement car park as required by AS2890.1 and AS2890.6
- loading bays has been provided with dimensions of 8.8m by 3.5m and 6.4m by 3.5m with an additional working area at the rear with minimum dimensions of 3.5m by 2.5m and headroom of 4.5m
- bicycle parking spaces are proposed as a Class B facility with dimensions of 0.5m by 1.8m, and
- motorcycle parking spaces have dimensions of 3.0m by 1.2m.

Swept path diagrams provided in Attachment Two show an Australian Standard 5.2m long B99 vehicle accessing the car park as well as the MRV and SRV accessing their respective loading bays.

The swept path diagrams indicate that a B99 vehicle can access the car parking satisfactorily. Similarly, swept paths for the MRV and the SRV are also satisfactory.

In addition, swept path analysis of a B99 vehicle accessing car parking spaces in front Area 14 lift lobby, where reduced aisle width has been provided, has also been conducted. This demonstrates a B99 vehicle can access these car spaces satisfactorily.

From the above, the design the car parking spaces and service vehicle bays complies with the design requirements set out in the relevant Australian Standard for car parking facilities, namely AS2890.1:2004, AS2890.2:2018, AS2890.3:2015 and AS2890.6:2009.

## Traffic Effects of Proposed S4.55 Modifications

### *Previous Traffic Assessment*

The original development application was accompanied by a traffic assessment report prepared by Varga Traffic Planning (Ref: 21167 dated 27 April 2023).

The traffic assessment report assessed the traffic effects of the proposed development based on 187 residential apartments. It adopted traffic generation rates from *Technical Direction TDT 2013/04a* for high density residential flat buildings, being 0.19 vehicle trips per peak hour per unit during the morning peak and 0.15 vehicle trips per peak hour per unit during the evening peak period.

The DA traffic report estimated that the proposed development would generate approximately 36 vph and 28 vph during the morning and evening peak periods respectively.

The DA traffic report concluded that:

*That projected increase in traffic activity as a consequence of the development proposal is consistent with the site's FSR and height controls under the Lane Cove LEP, which have already been considered by Council as part of the rezoning of the St Leonards South Area precinct, is consistent with the Masterplan traffic study, and will therefore not have any unacceptable traffic implications in terms of road network capacity.*

*It is also pertinent to note that with respect to any traffic modelling required to accompany the application, discussions have been held with Council's traffic engineer, Mr John Gill, who advised that if the proposal complies with the LEP planning controls, then further modelling is not required as it has already been assessed as part of the rezoning Masterplan traffic study.*

### *Current Scheme Traffic Assessment*

Using the same traffic assessment methodology from the DA traffic report (i.e. adopting traffic generation rates of 0.19 and 0.15 vehicle trips per peak hour per dwelling during the morning and evening peak periods respectively), the revised proposed development with 225 dwellings is expected to generate approximately 43 vph during the morning peak period and 34 vph during the evening peak period.

In comparison, the original DA traffic assessment estimated that the proposed development having 187 dwellings would generate 36 vph and 28 vph during the morning and evening peak periods respectively. The revised proposed development is

therefore expected to generate an additional 7 vph during the morning peak period and 6 vph during evening peak period compared to the original assessment.

A net increase of 7 vph in the development traffic is considered low. This equates to approximately one additional vehicle every eight to nine minutes. The additional development traffic represents less than one per cent of the two-way peak hour traffic volumes on Pacific Highway and River Road and approximately five per cent of the two-way peak hour traffic on Christie Street.

This level of traffic increase is well within the normal day-to-day traffic fluctuation which typically ranges between 10 to 15 per cent. Furthermore, the additional development traffic will be dispersed across the surrounding road network as it is distributed among different traffic movements at various intersections near site.

Additionally, when the additional development traffic is input into an intersection traffic modelling tool such as SIDRA, because of the low additional development traffic, it is unlikely to register any noticeable changes to modelled intersection performance results.

Furthermore, it is noted that the rezoning Masterplan traffic study, with agreement from the then RMS, adopted traffic generation rates of 0.14 and 0.07 vehicle trips per peak hour per unit during the morning and evening peak periods respectively. In comparison, the rates adopted in the original DA traffic assessment are 36 per cent higher in the morning peak period and 114 per cent higher in the evening peak period than those adopted in the masterplan traffic study.

Adopting the traffic generation rates from the Masterplan traffic study, the revised proposed development with 225 apartments would generate approximately 32 vph and 16 vph during the morning and evening peak periods respectively. This level of development traffic is less than that estimated for the proposed development which was subsequently approved.

In the light of the above, the traffic effects of the proposed development is considered to be satisfactory.

## Summary and Conclusion

MLA has conducted a traffic and parking review for this S4.55 modification application to modify the approved development at 14-16 Marshall Avenue, 2-10 Berry Road and 5-9 Holdsworth Avenue, St Leonards.

The proposed modifications related to traffic and parking in this S4.55 application include:

- changes to the approved number and mix of residential apartments
- changes to car parking provision to reflect the revised apartment numbers and mix

- reconfiguration of the car park layout to align with the revised development while generally maintaining the approved design, including the addition of an extra basement level, and
- amending the wording to Condition #69 by replacing the word minimum with maximum.

In terms of parking effects, the revised proposed development proposed to provide car parking for both residents and visitors at a slightly reduced rate representing a balance approach meeting the sustainable transport objective needs and likely future parking demand. The reduction in car parking is considered satisfactory for reasons explained earlier in the report.

In terms of traffic effects, the proposed modifications are not expected to result in traffic impacts worse than previously assessed on behalf of Council. In light of this, the traffic effects arising from the revised proposed development are considered acceptable.

Overall, the traffic and parking aspects of the proposed development are considered to be satisfactory.

Yours sincerely,



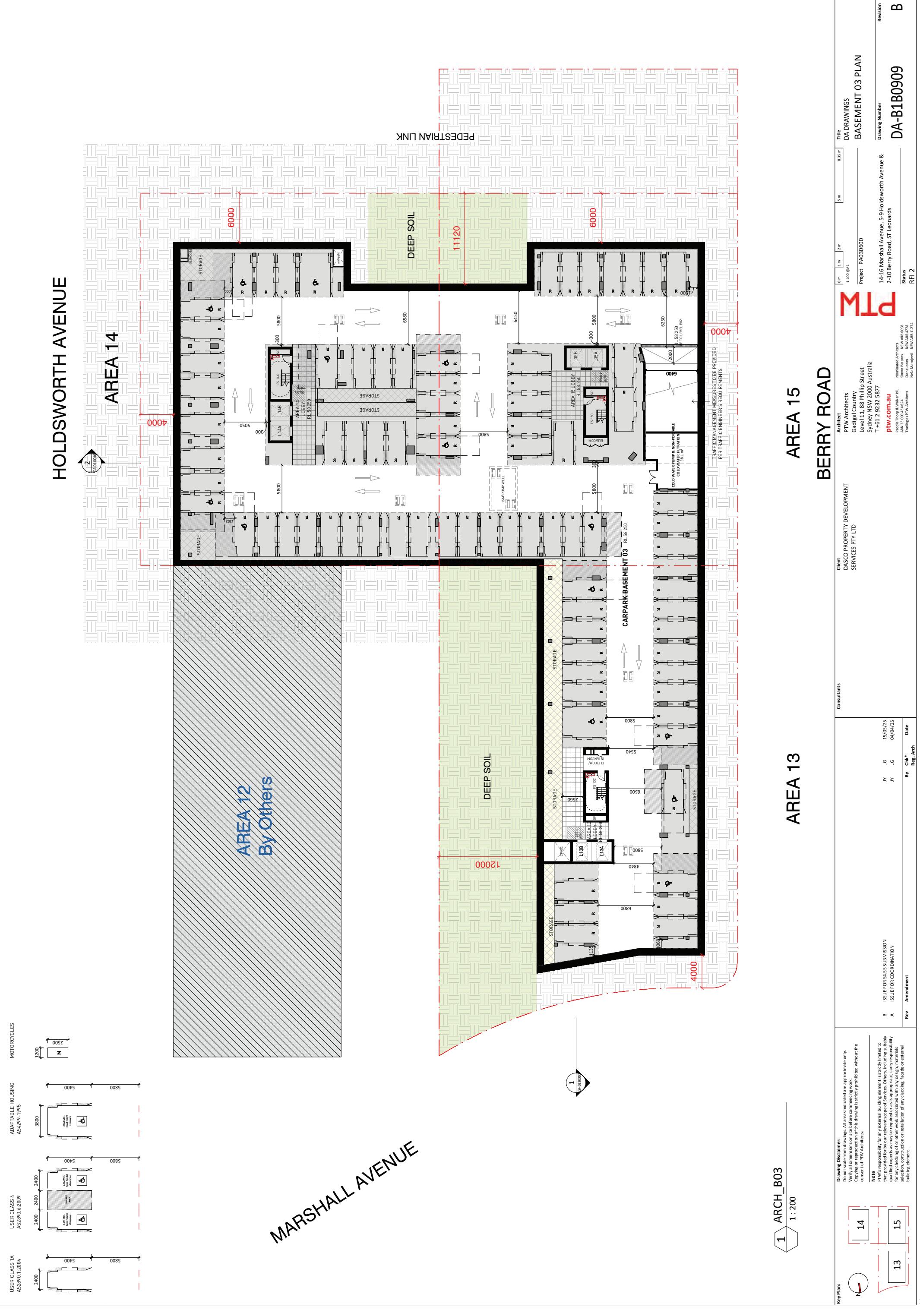
Michael Lee  
Director

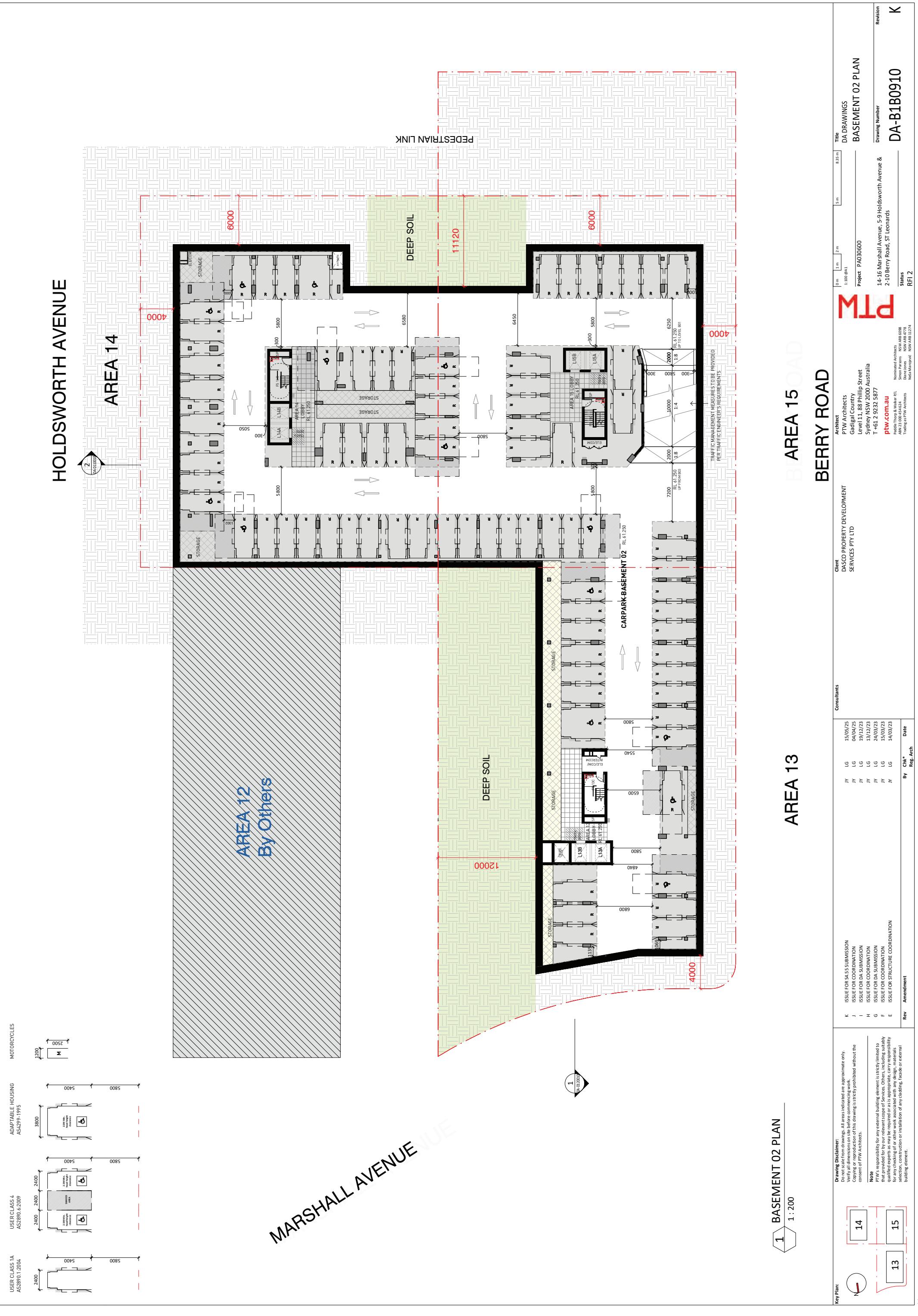
Encl. Attachment One – Revised Architectural Car Park Plans  
Attachment Two – Swept Path Diagrams



# Attachment One

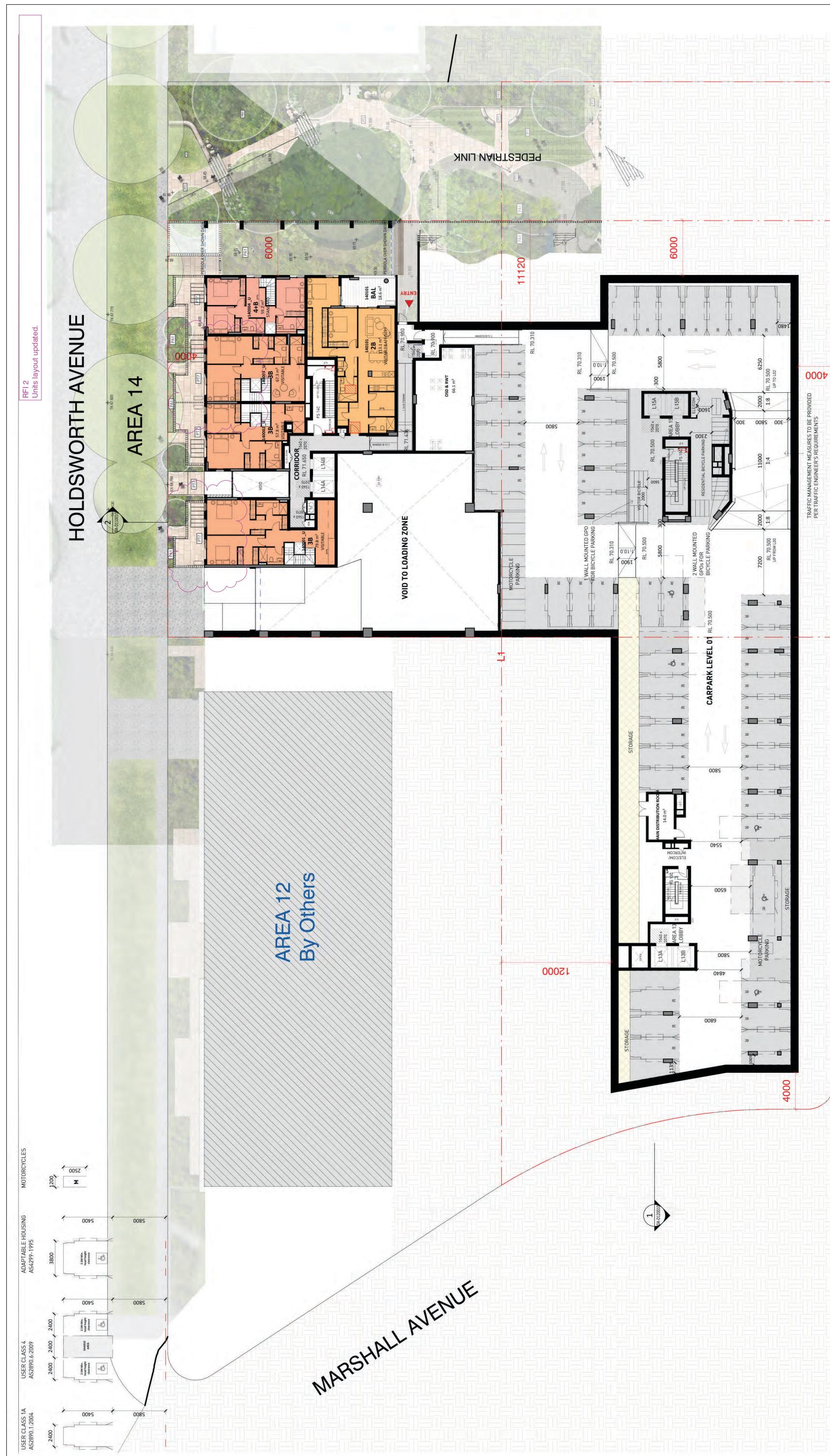
Revised Architectural Car Park Plans











## LEVEL 01 PLAN

**Key Plan:**

14

15

13

N

**Drawing Disclaimer:**  
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vertical dimensions are relative  
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# Attachment Two

## Swept Path Diagrams

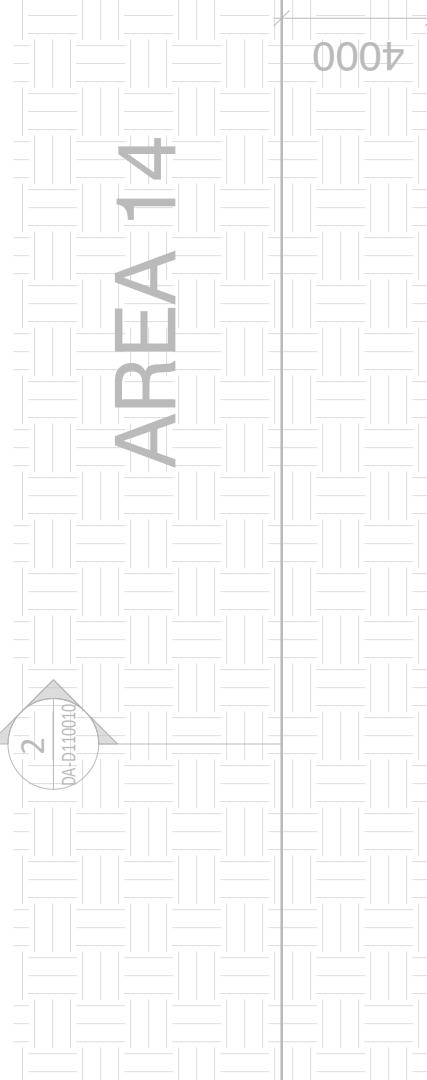


VEHICLE EXITING

## HOLDSWORTH AVENUE

### AREA 14

DA-D110010  
2



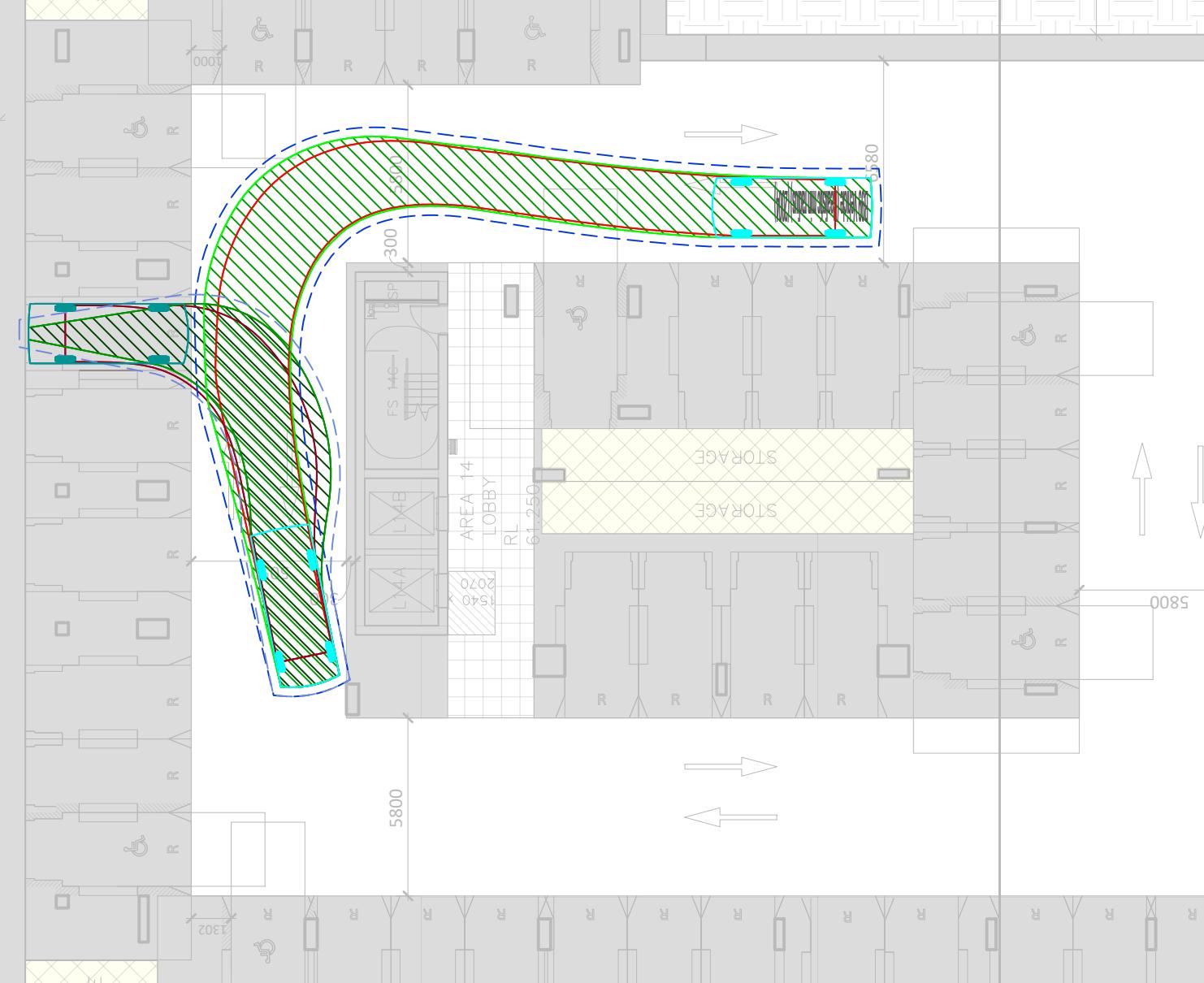
## HOLDSWORTH AVENUE

### AREA 14

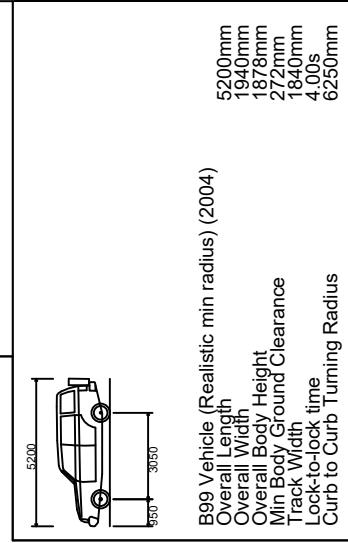
DA-D110010  
2



VEHICLE ENTERING



KEY:  
Forward   
Reverse   
Wheel Path   
Body Envelope   
Clearance (300mm) 



DATE: 13 NOVEMBER 2025  
DRAWING NO.: 25010CAD006A-002  
SCALE: 1:200@A3

REV.: A  
DRAWING TITLE:  
SWEPT PATH ANALYSIS -  
AS2890.1 5.2M B99 VEHICLE  
ACCEESSING CAR SPACE WITH  
REDUCED AISLE WIDTH

PROJECT:  
14-16 MARSHALL AVE, ST  
LEONARDS PROPOSED  
RESIDENTIAL DEVELOPMENT









## Attachment Two

Car Share Letter from ArcEnergy



15/09/2025

Project Ref: AEG20180

**Re: Car Share Program 14 Marshall Avenue, St Leonards NSW 2065**

To whom it may concern,

Arc Energy Group is pleased to confirm that we will be implementing a Car Share Program for the site 14 Marshall Avenue, St Leonards NSW 2065 under the embedded network in partnership with Ollo (formerly Outbound), our dedicated electric vehicle partner.

As part of this initiative, we have confirmed the allocation of two vehicles for the program. We will liaise closely with all required stakeholders, including project subcontractors and strata, to ensure the smooth and effective implementation of the car sharing scheme.

We look forward to delivering this sustainable transport option as part of our broader commitment to innovative and integrated energy solutions.

Please don't hesitate to get in touch should you required further information.

Kind regards,



**Elise Pearson**

Senior Project Manager

[elise.pearson@arcenergygroup.com.au](mailto:elise.pearson@arcenergygroup.com.au)

0401 968 578



15/09/2025

Project Ref: AEG20180

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Kind regards,



**Elise Pearson**

Senior Project Manager

[elise.pearson@arcenergygroup.com.au](mailto:elise.pearson@arcenergygroup.com.au)

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