Traffic & Parking Assessment Report

28-38 Pacific Highway, St Leonards

Proposed Mixed Use Development

Ref 24159

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Table of Contents

1. Introduction

1.1 Project Summary

CJP has been engaged by Edsgear Pty Ltd to prepare a Traffic & Parking Assessment Report (TPAR) in support of a Development Application (DA) to Lane Cove Municipal Council, involving the construction of a new mixed use development situated at 28-38 Pacific Highway, St Leonards.

In summary, the DA involves the demolition of the existing buildings on the site and the construction of a new multi-storey mixed use building in their place, comprising 1,485m^2 of retail/commercial uses on the lower levels, with 99 hotel rooms on the levels above.

Off-street parking for cars, motorcycles, and bicycles is proposed to be provided within a new two-level basement parking area, all accessed via Marshall Lane.

Architectural plans for the proposed development have been prepared by TZG Architects and are reproduced in Appendix A.

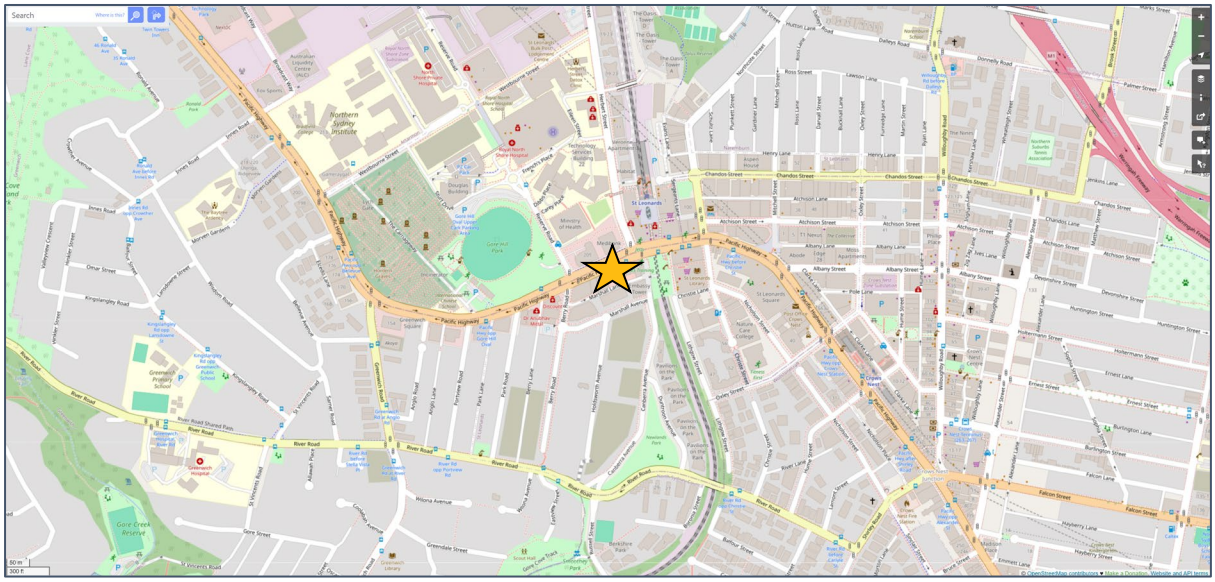


Figure 1.1 – Site Location (Source: OpenStreetMap)

1.2 Assessment Tasks

The purpose of this TPAR is to assess the traffic, parking, access, transport and servicing characteristics of the DA, and the associated impacts of the proposal on the surrounding road network, parking and transport environment. This can be briefly summarised below:

- Description of the existing site and its location
- Existing traffic & parking conditions
- Public and active transport infrastructure
- Traffic generation potential of the proposal and its impacts on the surrounding road network
- Off-street parking/loading/access requirements and provisions
- Design of access driveway and parking area layout

1.3 Relevant Planning Controls

The site lies within the Lane Cove Council (Council) Local Government Area (LGA), such that the relevant Council planning controls and strategies referenced in this TPAR include:

- Lane Cove Local Environmental Plan 2009 (Lane Cove LEP 2012, updated 10 November 2023)
- Lane Cove Development Control Plan 2009 (Lane Cove DCP 2009, updated 28 September 2023)
- Crows Nest Transport Oriented Development Precinct Design Guide (Design Guide, released November 2024)

1.4 Traffic, Transport & Parking Guidelines & Standards

In preparing this TPAR, references are also made to the following site access, traffic and parking guidelines:

- Roads & Maritime Service's Guide to Traffic Generating Developments 2002 (RMS Guide)
- RMS Technical Direction 2013/04a (TDT)
- TfNSW Guide to Transport Impact Assessment 2024 (GTIA)
- State Environmental Planning Policy (Transport & Infrastructure) 2021
- State Environmental Planning Policy Amendment (Crows Nest Transport Oriented Development Precinct) 2024
- Austroads Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments
- Australian Standards 2890.1:2004 – Off-Street Car Parking (AS2890.1)
- Australian Standards 2890.2:2018 – Off-Street Commercial Vehicle Facilities (AS2890.2)
- Australian Standards 2890.3:2015 – Bicycle Parking (AS2890.3)
- Australian Standards 2890.6:2022 – Off-Street Parking for People with Disabilities (AS2890.6)
- NSW Government's Planning Guidelines for Walking & Cycling (December 2004)
- National Construction Code (NCC)
- Building Code of Australia (BCA)

2. Existing Conditions

2.1 Site Location & Description

The subject site is located on the southern side of the Pacific Highway, midway between Berry Road & Canberra Avenue, and extends through to Marshall Lane. It is legally described as Lot D in DP419248, Lots A and B in DP418201, and Lot 1 in DP7460012. Additionally, it comprises the following properties:

- 28 Pacific Highway, St Leonards
- 30 Pacific Highway, St Leonards
- 32 Pacific Highway, St Leonards
- 38 Pacific Highway, St Leonards

The site has street frontages of approximately 40m in length to both the Pacific Highway and Marshall Lane, and occupies a total area of approximately 1,236m^2. A copy of the survey plan prepared by Axiom Spatial Surveyors is reproduced below.

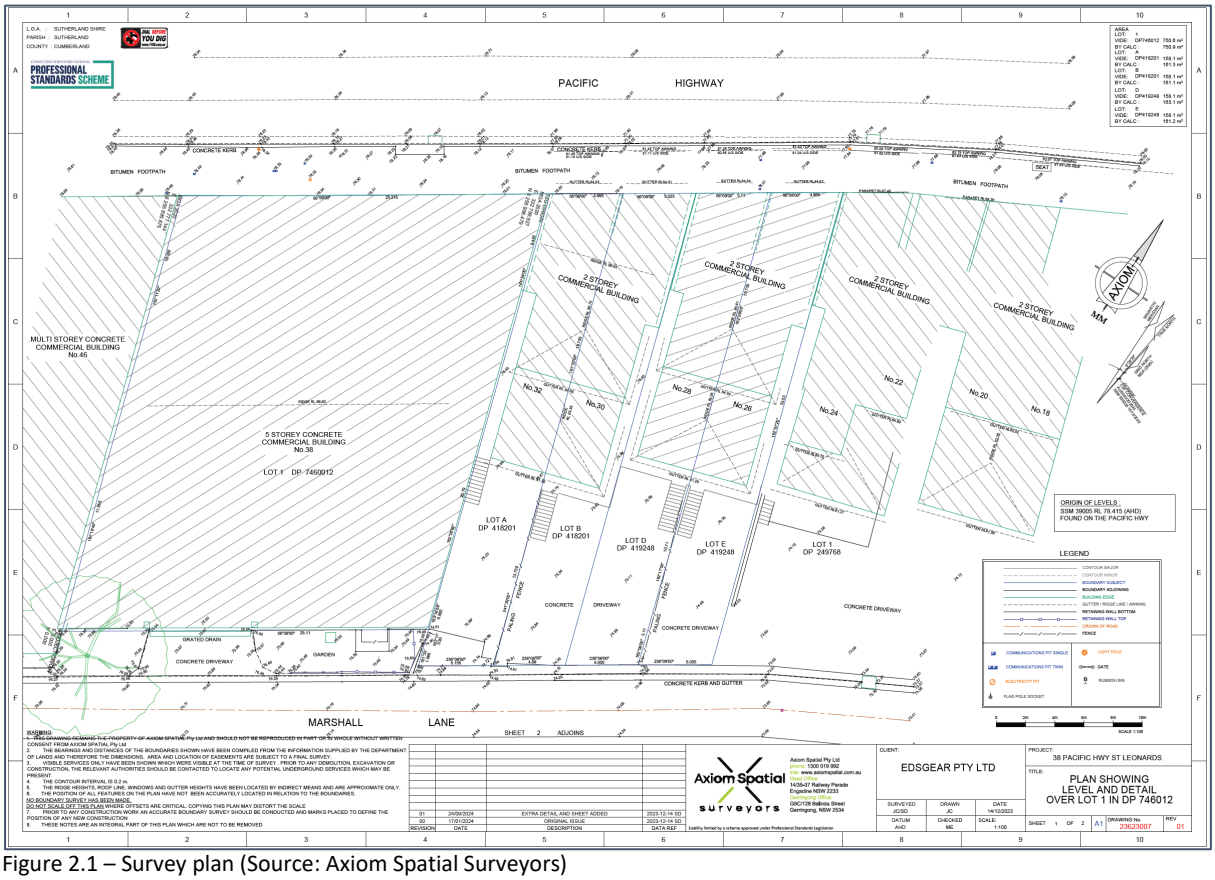


Figure 2.1 – Survey plan (Source: Axiom Spatial Surveyors)

Nos. 28, 30 & 32 Pacific Highway are two-storey semi-detached shop-top buildings, comprising a cumulative ground floor retail floor area of approximately 200m^2, along with 3 residences above. Off-street parking is provided for 2 cars per property in a tandem arrangement, accessed via Marshall Lane.

No.38 Pacific Highway is currently occupied by a five-storey commercial building with a cumulative floor area of 1,700m^2. Off-street parking is provided for 48 cars within a basement parking area accessed via Marshall Lane.

A recent aerial image of the site and its surroundings is reproduced on the following page, along with a series of Streetview images.

Figure 2.2 – Aerial map (Source: Nearmap)

Figure 2.3 – Streetview image of the Pacific Hwy site frontage, looking east (Source: Google Maps)

Figure 2.4 – Streetview image of the Pacific Hwy site frontage, looking west (Source: Google Maps)

Figure 2.5 – Streetview image of Marshall Ln site frontage, looking east (Source: Google Maps)

Figure 2.6 – Streetview image of Marshall Ln site frontage, looking west (Source: Google Maps)

2.2 Crows Nest Transit Oriented Development (TOD) Precinct

The site lies within the Crows Nest Transit-Oriented Development (TOD) Precinct. Crows Nest TOD Precinct, announced by the NSW Government in November 2024, is one of eight priority high-growth areas for accelerated rezoning, aimed to address Sydney's housing and infrastructure needs. This initiative will deliver approximately 5,900 new homes, alongside upgraded road networks, enhanced public spaces, and increased tree canopy for improved urban livability.

With a strong focus on sustainable transport and urban design, the precinct applies consistent maximum car parking rates to encourage public transport use, while minimising through traffic and the impact of vehicular access in public spaces. It prioritises safe and comfortable movement for people, supports a walkable environment with universal access, and ensures tree planting in parking areas to enhance greenery and biodiversity. Additionally, all new developments will include EV charging infrastructure, aligning with net-zero objectives and improving air quality.

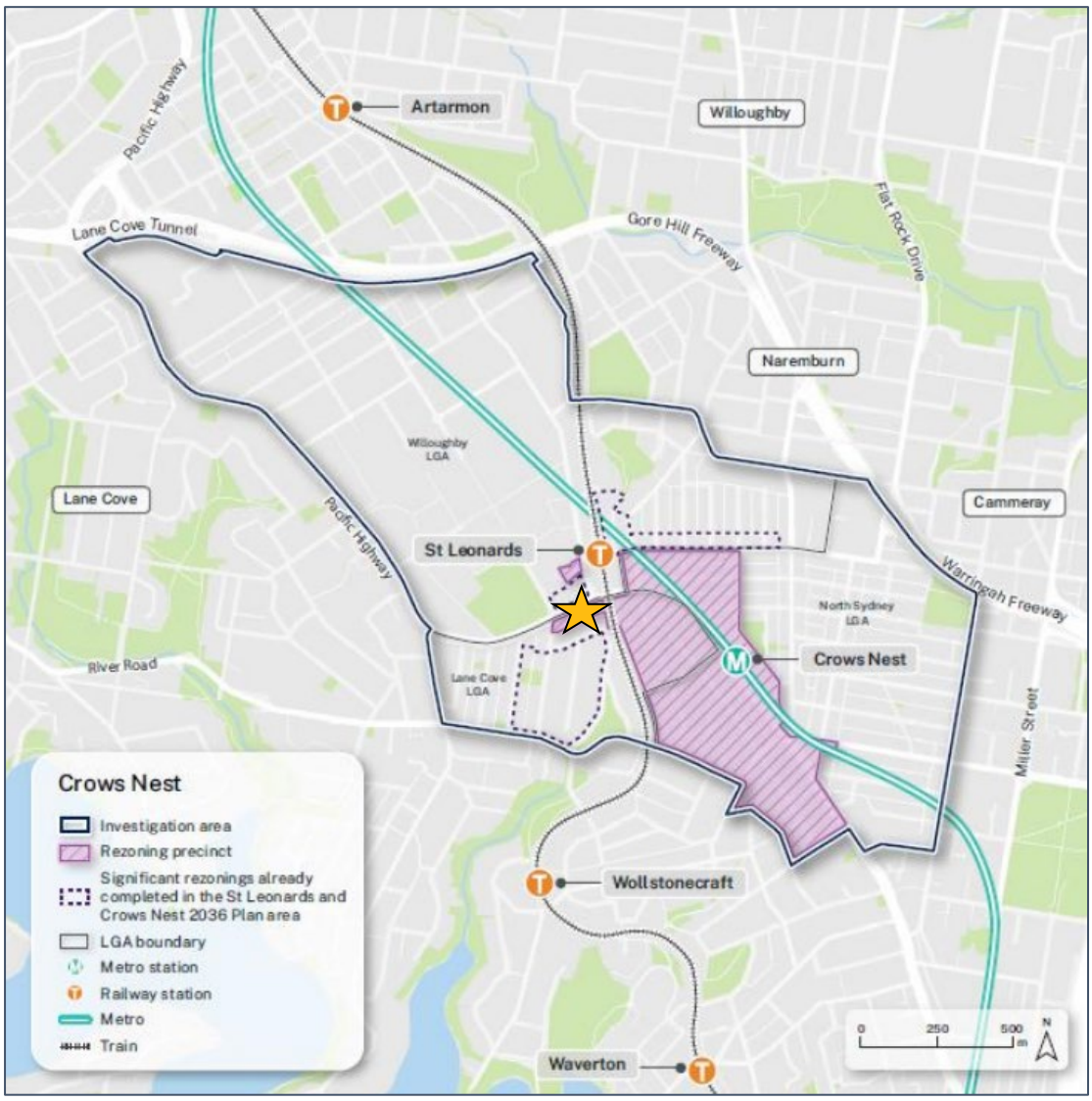


Figure 2.7 – Crows Nest TOD Precinct (Source: Crows Nest TOD Precinct Design Guide)

2.3 St Leonards Marshall Precinct

The site also lies within the St Leonards Marshall Precinct, as defined in Council's LCDCP 2010 Part D Commercial Development and Mixed Use Localities, and indicated in the plan extract on the following page. A number of objectives and controls apply to new development, with the following applicable to this TPAR:

- Objective 5 – To improve accessibility and connectivity for pedestrians from the residential areas to the south and west of the precinct to the station and the Pacific Highway
- Objective 7 – To minimise the impact of additional vehicle movements in the Precinct and areas adjacent to the Precinct
- Objective 10 – To prioritise a high-quality pedestrian friendly public domain
- Control 7 – Block A to have car parking underground or below Pacific Highway level, accessed from Marshall Lane.

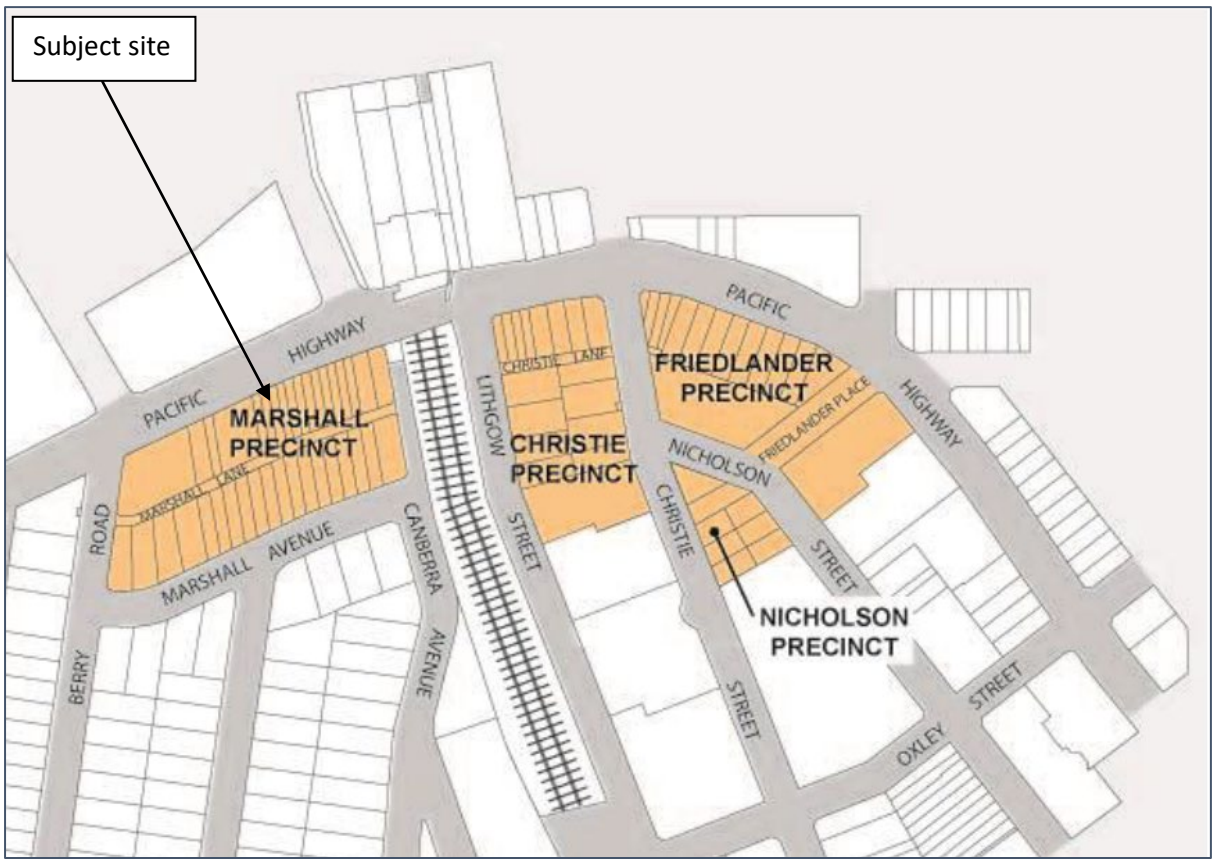


Figure 2.8 – St Leonards Key Precinct map (Source: LCDCP 2010, Part D, Diagram 1)

2.4 Existing Planning Controls

The site is zoned E2 Commercial Centre (previously B3 Commercial Core) under the Lane Cove Local Environmental Plan 2009, as indicated in the map below. Furthermore, State Environmental Planning Policy Amendment (Crows Nest Transport Oriented Development Precinct) 2024 specifies a maximum height of building control of 38m, whilst the maximum floor space ratio control is 5.1:1, as indicated in the map on the following page. The proposed development is permissible in the zone, subject to development consent.

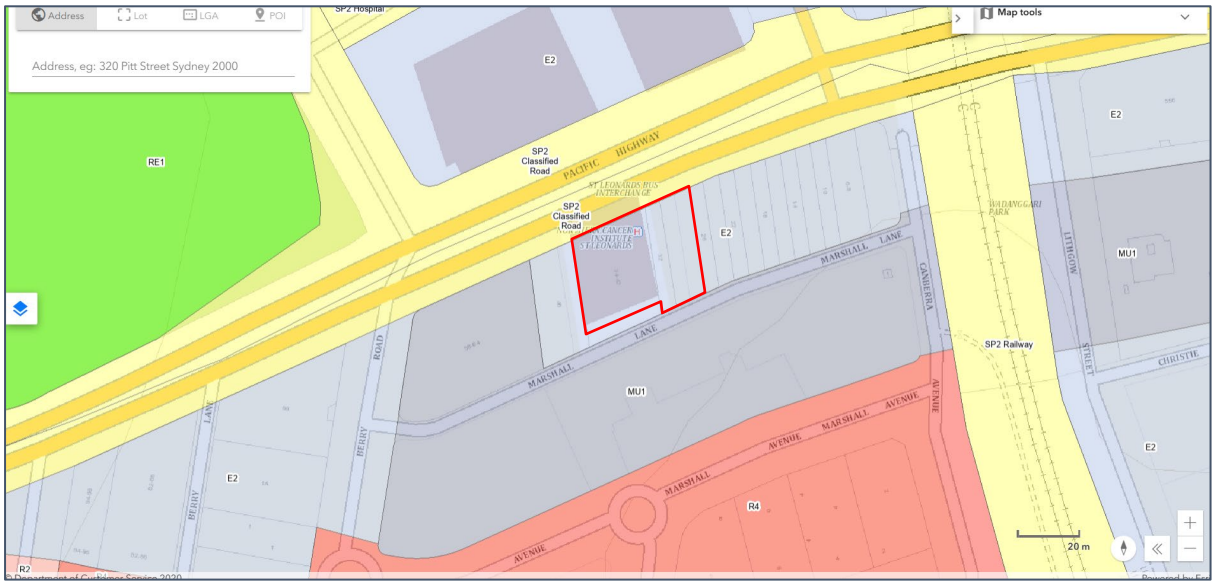


Figure 2.9 – Zoning map (Source: ePlanning Spatial Viewer)

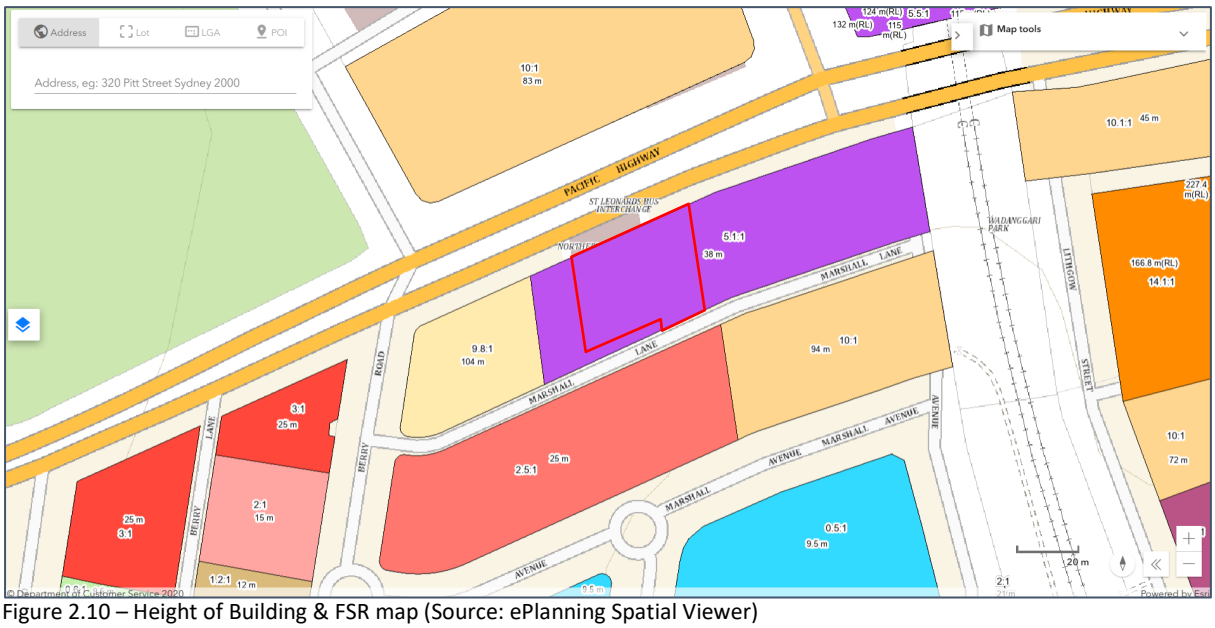


Figure 2.10 – Height of Building & FSR map (Source: ePlanning Spatial Viewer)

2.5 Greater Sydney Region Plan – A Metropolis of Three Cities

In 2018, the NSW Government released the Greater Sydney Region Plan: A Metropolis of Three Cities document. As the population grows, the goal is to rebalance economic and social opportunities across Greater Sydney by dividing Sydney into three core cities to allow residents to live within 30 minutes of their jobs, education and health facilities, services and other key places of interest. The three cities are known as:

- the Western Parkland City
- the Central River City
- the Eastern Harbour City.

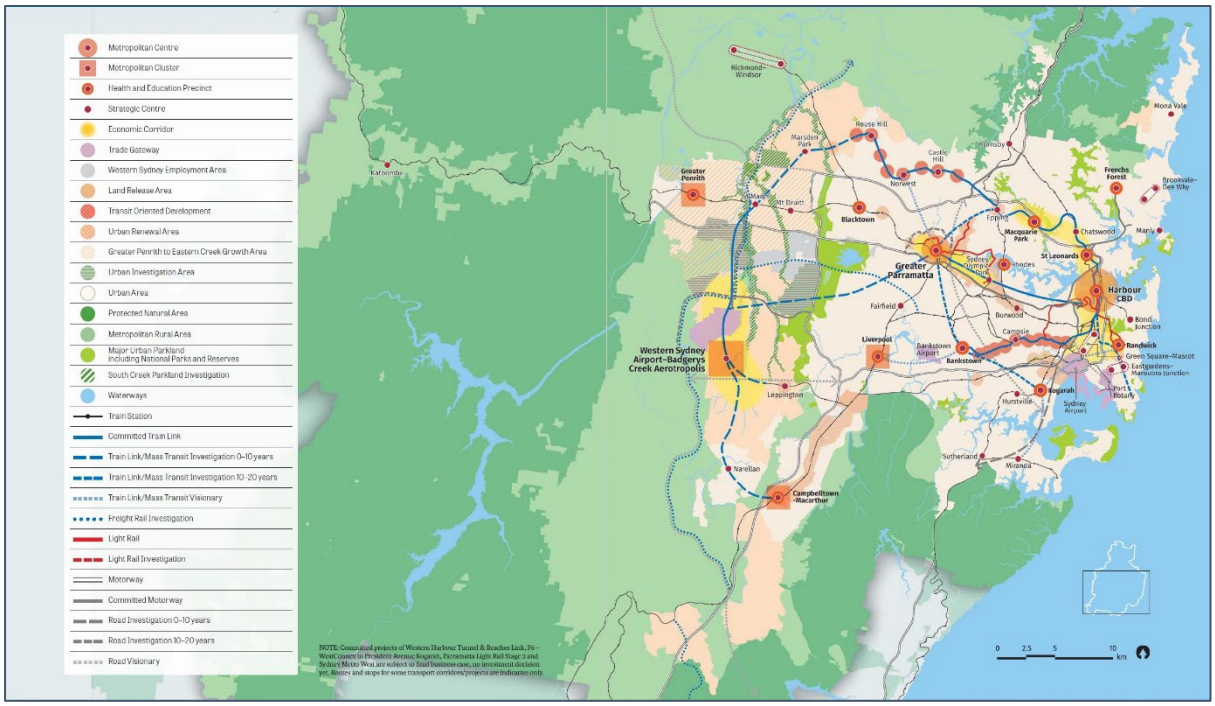


Figure 2.11 – Structure Plan (Source: Greater Sydney Region Plan: A Metropolis of Three Cities)

The vision brings new thinking to land use and transport patterns to boost Greater Sydney's liveability, productivity and sustainability by spreading the benefits of growth.

As the population of Greater Sydney is projected to grow to 8 million over the next 40 years, rebalancing economic and social opportunities will leverage that growth and deliver the benefits more equally and equitably across Greater Sydney.

The proposed mixed use building on the site thereby satisfies the objectives of the Plan by providing employment floor area within a 30 minute journey of the large areas of low/medium/high density residential and employment areas, including within the St Leonards centre itself.

2.6 Road Network

The Transport for NSW (TfNSW) road hierarchy comprises the following road classifications:

- State Roads: Freeways, Motorways and Primary Arterial Roads (TfNSW managed)
- Regional Roads: Secondary or Sub-Arterial (Council managed, partly funded by the State)
- Local Roads: Collector and Local Access Roads (Council managed)

The existing road hierarchy in the vicinity of the site is shown in the figure below, whilst the key roads and intersections are summarised as follows:

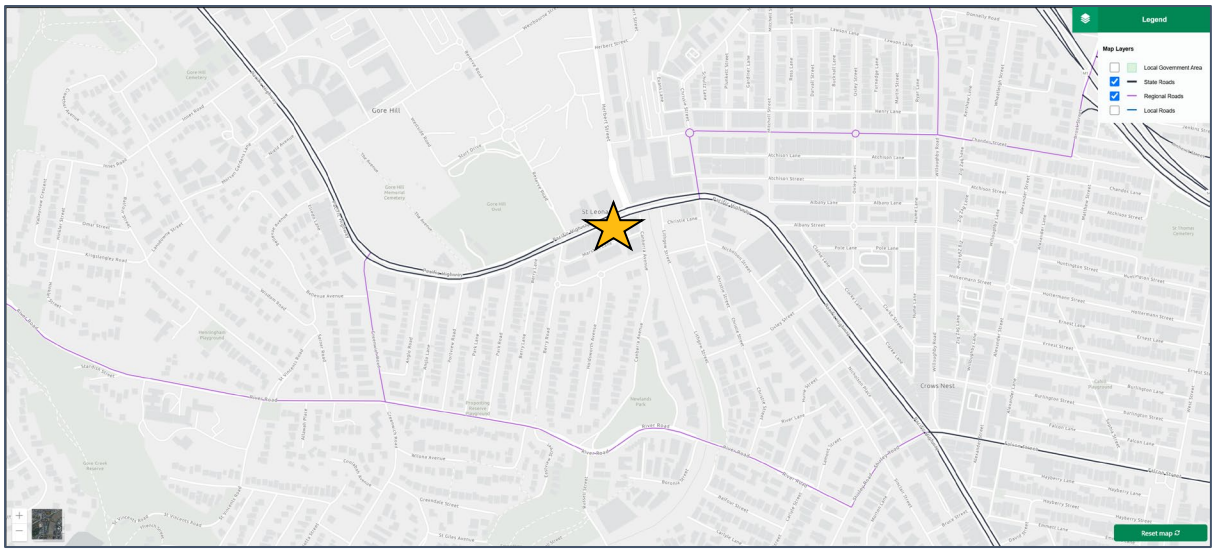


Figure 2.12 – Road Hierarchy (Source: Transport for NSW)

- The Pacific Highway is classified by TfNSW as a State Road which provides the key north-south road link in the area, linking North Sydney to Hornsby and beyond. It typically carries three traffic lanes in each direction, with turning lanes provided at key intersections, and Transit Lanes applying during commuter peak periods. Off-street parking is permitted at limited locations, outside of peak periods.

- Shirley Road, River Road, Northwood Road, River Road West, Bridge Street and Penrose Street are all classified by TfNSW as Regional Roads, providing a key east-west road link between the Pacific Highway and Burns Bay Road. They typically carry one to two traffic lanes in each direction, with kerbside parking generally permitted.

- Greenwich Road, between the Pacific Highway and River Road, is also classified by TfNSW as a Regional Road. It carries one traffic lane in each direction, with additional lanes provided on approach to the Pacific Highway and River Road. Kerbside parking is generally permitted, subject to signposted restrictions.

- Berry Road is a local road which provides vehicular and pedestrian access to frontage properties. It carries one traffic lane in each direction and meets the Pacific Highway at a signalised intersection. Kerbside parking is also generally permitted along both sides of the road.

- Marshall Lane is a local service lane that provides rear vehicular and pedestrian access to properties fronting the Pacific Highway and Marshall Avenue. Traffic flow is limited to one-way eastbound only, with kerbside parking not permitted.

2.7 Public Transport

The nearby public transport services are shown in the figure below. The site lies approximately 120m walking distance west of St Leonards railway station, which lies on the T1 North Shore and Western Lines as well as the T9 Northern Line, operating between Berowra, Hornsby, Epping, Richmond, Emu Plains and Sydney CBD.

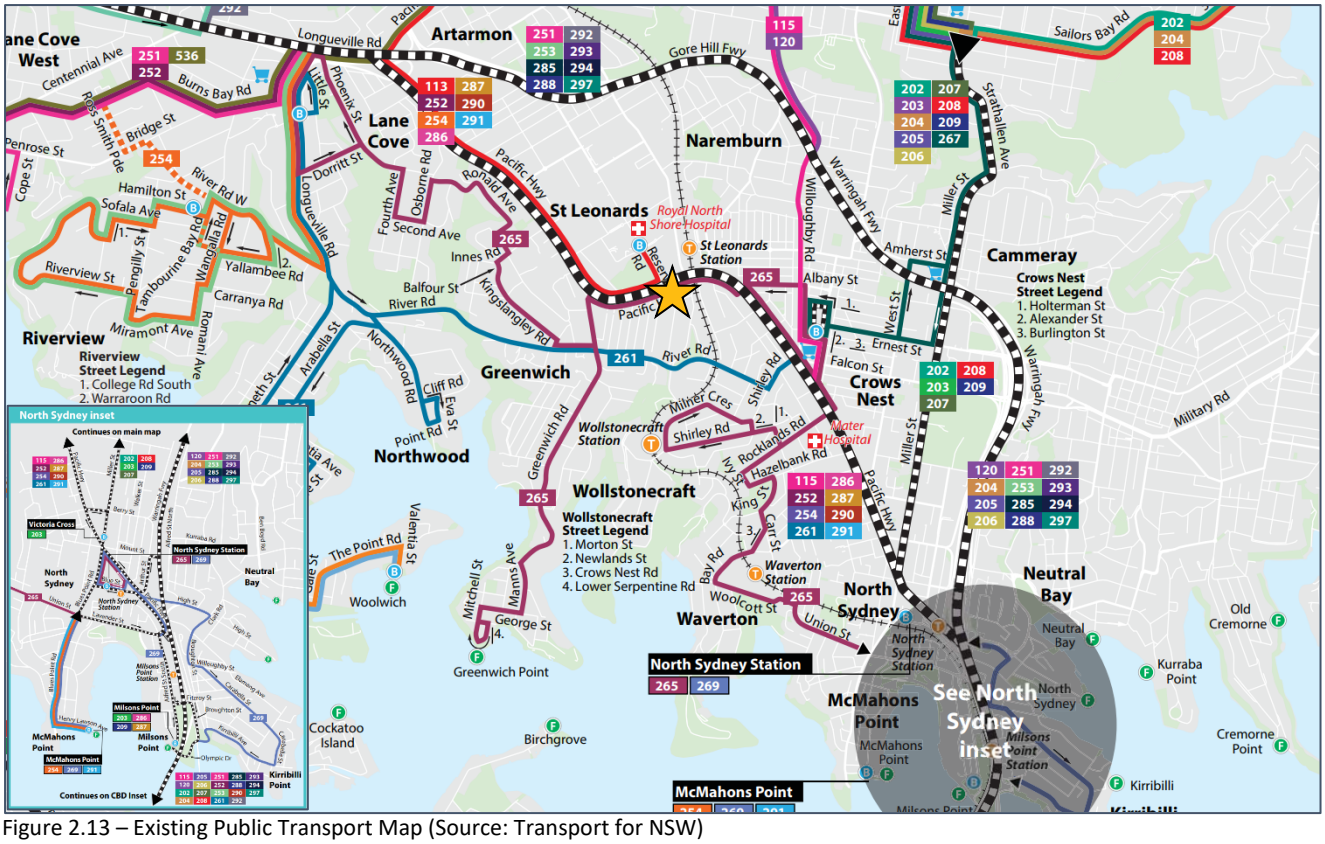


Figure 2.13 – Existing Public Transport Map (Source: Transport for NSW)

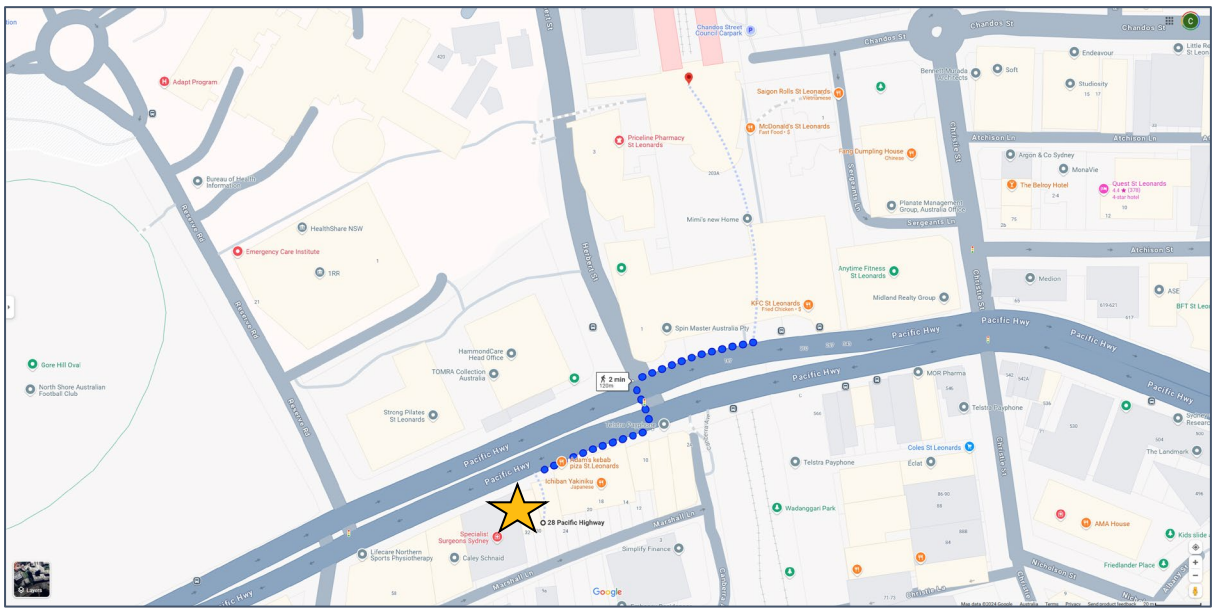


Figure 2.14 – Walking distance to/from St Leonards railway station (Source: Google Maps)

There are approximately more than 30 bus routes that operate within 400m radius of the site, the majority of which travel along the Pacific Highway. Collectively, these bus stops are serviced by an extensive amount of bus services into and out of the local area, including connections to suburban railway stations. The nearest bus stop is located outside St Leonards railway station, approximately 120m east of the site.

The subject site is also located within a 600m radial catchment to the new Crows Nest Metro Station which is located to the east of the site, on the eastern side of the Pacific Highway, in between Oxley Street and Hume Street.

Sydney Metro is Australia's biggest public transport project. By 2030, Sydney will have a network of four metro lines, 46 stations and 113km of new metro rail. Sydney Metro is revolutionising how Australia's biggest city travels, connecting Sydney's north west, west, south west and greater west to fast, reliable turn-up-and-go metro services with fully accessible stations.

The broader metro program includes the operational Metro North West Line and three projects under construction:

- City & Southwest
- West
- Western Sydney Airport

Sydney Metro enhances public spaces with vibrant transport precincts, acting as a catalyst for renewal and better connections. The metro program creates and supports new communities, improves amenity, and delivers new integrated station developments.

Sydney Metro is Australia's most technologically advanced railway, and is Australia's only fully-accessible, driverless train service. When Sydney Metro is extended into the central business district in 2024, metro rail will run from Sydney's booming North West region under Sydney Harbour, through new underground stations in the CBD.

There will be ultimate capacity for a metro train every two minutes in each direction under the city, a level of service never before seen in Sydney. Sydney's new metro railway will have a target capacity of about 40,000 customers per hour, similar to other metro systems worldwide. Sydney's current suburban system can reliably carry 24,000 people an hour per line.

Sydney Metro, together with signalling and infrastructure upgrades across the existing Sydney rail network, will increase the capacity of train services entering the Sydney CBD – from about 120 an hour today to up to 200 services beyond 2024.

The Chatswood to Sydenham section of the project covers the construction of a 15.5km section of rail line almost entirely comprised of underground rail tunnels –including beneath Sydney Harbour – with new stations at Crows Nest, Victoria Cross, Barangaroo, Martin Place, Pitt Street, Waterloo, and new underground platforms at Central.

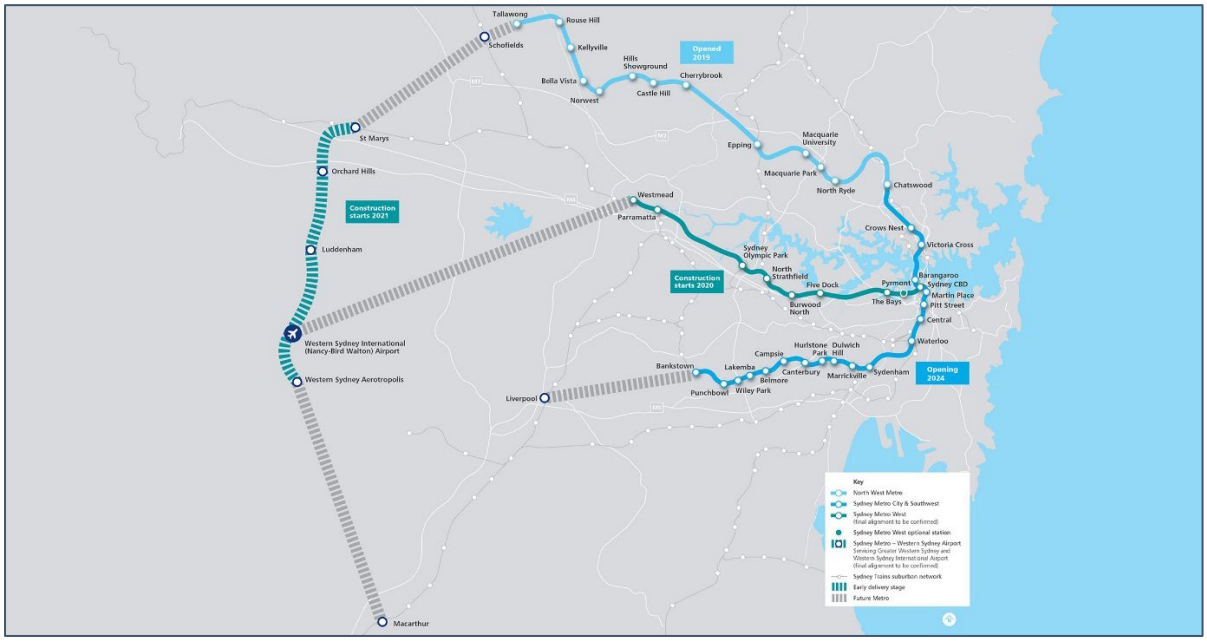


Figure 2.15 – Sydney Metro Map (Source: www.sydneymetro.info)

Research suggests that proximity to public transport services influence the travel mode choice for areas within 400m (approximately 5 minutes) of a bus stop and 800m of a railway station (approximately 10 minutes). As such, the proposed development has potential for future employees and hotel guests to utilise bus and rail for their trip to/from the subject site for business or leisure.

2.8 Active Transport

In addition to the public transport services available in the vicinity of the site, there is also a good level of pedestrian connectivity, including safe and convenient footpaths to the abovementioned bus stops and railway station. All future footpaths in the surrounding area are of good quality, with appropriate widths and pram ramps provided at most intersections.

The *Planning Guidelines for Walking and Cycling* identifies a number of city-scale design principles that can assist the creation of walkable and cyclable cities and neighbourhoods. These principles emphasise urban renewal and the creation of compact, mixed use, accessible centres around public transport stops.

At the neighbourhood scale, design principles can be reinforced through the creation of local and accessible centres and neighbourhoods with connected street patterns and road design which aim to reinforce local walking and cycling networks.

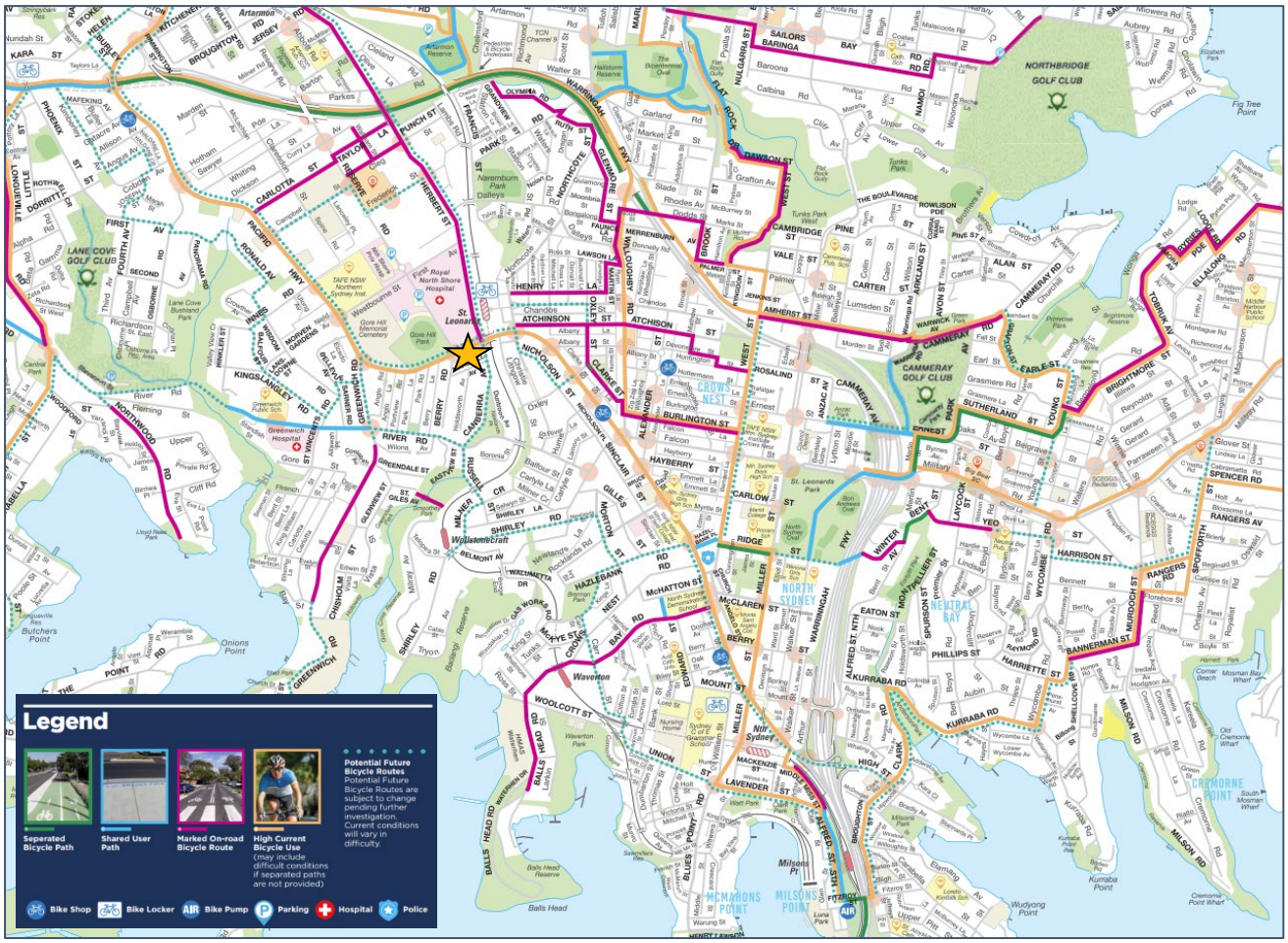


Figure 2.16 – Cycle Map (Source: North Sydney Council)

In particular, the *Guidelines* note that increased population density is an important element in creating a walkable and cyclable city. A compact development brings activities close together, making them more accessible by foot or by bicycle, without the need to use a car. Increased population density also enhances the viability of public transport services.

The existing bicycle network in the vicinity of the site is illustrated above. It highlights significant bicycle activity along Pacific Highway and outlines potential bicycle routes in the vicinity, including Canberra Avenue, Greenwich Road, River Road, and Russell Street.

For accessing the site, the recommended bicycle routes involve utilising Pacific Highway, transitioning to Berry Street, and finally proceeding via Marshall Lane. Once bicycle routes along Canberra Avenue, River Road, and Russell Street have been developed, cyclists may have the option to choose these routes for safer travel. This planned expansion of bicycle infrastructure aims to enhance overall safety and accessibility for cyclists in the area.

It is also noted that as part of the St Leonards South Precinct requirements, a 3.0m wide shared path is to be constructed along the full length of the Canberra Avenue, Marshall Avenue and Holdsworth Avenue.

2.9 Car Share Services

Car sharing is a flexible car rental model where individuals rent vehicles for short durations, typically by the hour. This option is particularly popular among those who intermittently require a car or need access to a different type of vehicle than their own. Car sharing "pods," where the cars are stationed, are strategically placed in areas of high demand and convenience, such as train stations and shopping centres.

This self-service approach not only aids in environmental preservation by curbing the number of vehicles on the road but also contributes to alleviating parking congestion. It offers a convenient, cost-effective, and eco-friendly solution to private vehicle ownership. Some of the car share operators providing service in New South Wales are GoGet, Flexicar, and Popcar.

In most instances, participation in car-sharing schemes necessitates membership enrolment. To locate the nearest available vehicle, members typically utilize an online search tool, and entry to the vehicle is facilitated using a membership card. After completing your journey, the customary practice involves returning the car to its initial parking location.

Access to existing car sharing locations within the vicinity of the site are shown below. It can be seen that there is an existing GoGet car sharing “pod” location along the northern side of Marshall Avenue.

The proposed mixed use development also makes provision for 2 on-site car share cars within the basement for the exclusive use of the future retail/commercial/hotel employees as well as hotel guests.

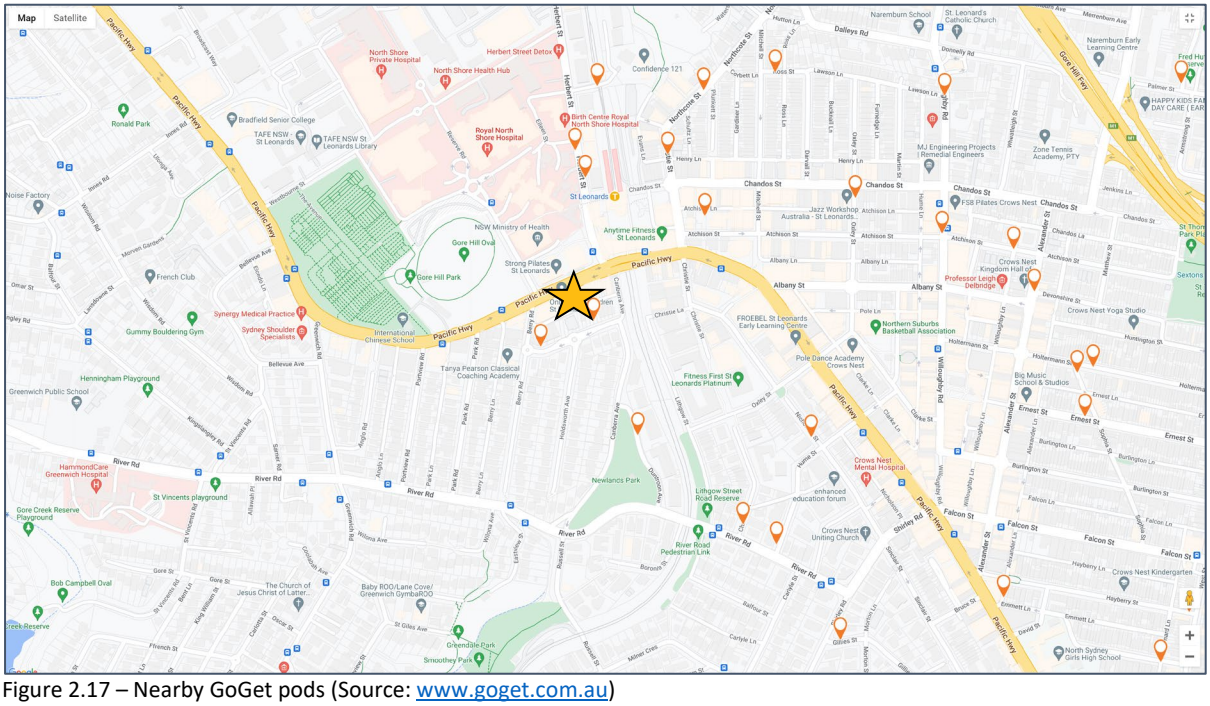


Figure 2.17 – Nearby GoGet pods (Source: www.goget.com.au)

Lane Cove Council supports design initiatives which support sustainable transport, including car sharing, because it encourages more sustainable travel habits by allowing a single vehicle to be used by a large number of people. This reduces road congestion and the competition for parking spaces, which ultimately benefits all road users.

Research undertaken by industry leaders, GoGet, indicates that in built up areas such as St Leonards, each car share space can replace in the order of 10 private vehicles.

2.10 Existing Surrounding Traffic Controls

The existing traffic controls in the vicinity of the site comprise:

- a 60km/h speed limit which applies to the Pacific Highway
- a 50km/h speed limit which applies to local roads in the area
- Traffic signals at the Pacific Highway, Berry Road & Reserve Road intersection, including a right-turn bay for eastbound traffic on the Pacific Highway turning into Berry Road
- A one-way eastbound restriction in Marshall Lane
- No vehicular connection between the Pacific Highway and Canberra Avenue
- No vehicular connection between River Road and Berry Road

2.11 Existing Surrounding Parking Restrictions

The existing parking restrictions in the vicinity of the site comprise:

- T3 Transit Lane restrictions along the southern side of the Pacific Highway
- 1P Ticket Parking restrictions outside No.38 Pacific Highway, between 9:30am-3pm weekdays and 8am-6pm Saturday
- No Stopping restrictions outside Nos. 28, 30 & 32 Pacific Highway at all times
- 1P Ticket Parking restrictions along both sides of Berry Road in the vicinity of the site between 8am-6pm weekdays
- No Parking restrictions along the northern side of the western end of Marshall Lane between 8:30am-6pm weekdays
- No Stopping/No Parking restrictions elsewhere along Marshall Lane, with the exception of waste collection vehicles in selected locations outside the completed and occupied developments along the southern side of the lane

3. Proposed Development

3.1 Development Description

The proposed development involves the demolition of the existing buildings on the site and the construction of a new multi-storey mixed use building in their place, comprising retail/commercial uses on the lower levels, with hotel rooms with rooftop communal area on the levels above. A private gymnasium is also proposed on basement level 2 for the exclusive use of hotel guests within the building.

Table 3.1 – Proposed Development Schedule	
Land Use	**Key parameters**
Hotel	99 rooms
Commercial/retail	1,485m^2

Figure 3.1 – Proposed Pacific Highway site frontage montage (Source: TZG Architects)

3.2 Parking Arrangements

Off-street parking is proposed for a total of 23 cars, 8 motorcycles, and 50 bicycles within a new two-level basement parking area, with a further 6 visitor bicycles spaces within the Pacific Highway colonnade, as set out in the table on the following page.

Table 3.2 – Proposed Parking Allocation	
Land Use	**Key parameters**
Hotel car parking	13 spaces (inc. 2 accessible spaces)
Commercial/retail car parking	7 spaces (inc. 1 accessible space)
Car share	2 spaces
Courier/delivery bay	1 space
Total	**23 spaces**
Bicycle parking – Class B	50 spaces
Bicycle parking – Class C	6 spaces
Motorcycle parking	8 spaces

3.3 Loading & Servicing Facilities

Servicing and deliveries are proposed to be undertaken by a variety of light commercial vehicles such as vans, utilities and the like, which can fit within a conventional car parking space. A dedicated courier/loading bay is therefore proposed to be provided within the basement level 1 parking area, in close proximity to the lift. Suitable wayfinding signage will be installed throughout the car park, directing delivery drivers to the loading bay.

Waste collection is to occur outside the rear of the site in Marshall Lane, consistent with the completed and occupied development located on the southern side of the lane, as indicated in the image below which is directly opposite the subject site.

Figure 3.2 – Streetview of waste collection arrangements for completed development opposite (Source: Google Maps)

3.4 Vehicular Access

Vehicular access to the parking area is proposed via a new 6.6m wide entry/exit driveway located towards the western end of the Marshall Lane frontage. Internally, LG-B1 ramp is a single lane/two-way ramp configured with traffic signals, with the “passive” signal set to green for entering vehicles, thereby minimising any negative impacts in Marshall Lane. Suitable waiting bays are proposed on both levels, ensuring orderly use of the ramps and the parking area in general.

4. Traffic Impact Assessment

4.1 Traffic Generation Guidelines

The traffic implications of development proposals primarily concern the *nett change* in the traffic generation potential of a site compared to its existing and/or approved uses, and its impact on the operational performance of the surrounding road network, particularly during the weekday morning and afternoon road network peak periods.

An indication of the traffic generation potential of the existing and proposed uses on the site is provided by reference to the following documents:

- RMS Guide to Traffic Generating Developments 2002 (RMS Guide)
- RMS Technical Direction 2013/04a (TDT)
- TfNSW Guide to Transport Impact Assessments 2024 (GTIA)

4.2 Proposed Development Traffic Generation

In terms of the proposed commercial/retail uses within the development, the abovementioned trip generation guides specify trip rates on a floor area basis, which is considered suitable in instances where car parking is provided in accordance with the DCP rates. In this instance, however, the proposed development seeks to constrain parking at levels below the DCP rates, consistent with the State Environmental Planning Policy Amendment (Crows Nest Transport Oriented Development Precinct) 2024.

Reference is therefore made to the TDT, Appendix D1 & D2, and the data of the surveyed commercial sites, including the number of car parking spaces provided on those sites and their respective peak trip generation. Accordingly, the TDT effectively determines that office blocks located within the Sydney metropolitan area have peak trip rates of:

- AM: 0.38 trips per car space
- PM: 0.32 trips per car space

With respect to the hotel component, neither the RMS Guide, the TDT nor the new GTIA specifies a trip rate applicable to hotel developments, particularly those located in super high-density areas such as St Leonards.

For the purposes of this assessment, it has been conservatively assumed that half of the 13 hotel car parking spaces will turnover during the weekday AM & PM peak periods.

Based on the abovementioned trip rates and assumptions, the proposed mixed use development has a traffic generation potential of approximately 9 vph during the weekday AM & PM peak periods, as set out in the table below.

Table 4.1 – Proposed Peak Period Traffic Generation

Land Use	Key Parameters	Trip Rate		Traffic Generation*	
		AM	PM	AM	PM
Hotel	13 car spaces	0.5 trips/car space	0.5 trips/car space	6.5	6.5
Commercial/retail	7 car spaces	0.38 trips/car space	0.32 trips/car space	2.7	2.2
Total				**9.2**	**8.7**

* entry/exit combined

4.3 Existing Development Traffic Generation

The existing land uses on the site are generally defined as "Commercial" and "Residential". Whilst it is noted there are existing retail shops within the semi-detached buildings, the location of the site dictates that the vast majority of customers are foot traffic, such that the only vehicular trips associated with these existing shops would be potentially staff movements, if any. As such, the commercial trip rates have also been applied to the retail shops in this instance.

Based on the commercial *per car space* trip generation rates and also the prescribed residential (medium density) trip rates, the existing development on the site has a traffic generation potential of approximately 17-20 vehicle trips during the weekday AM & PM periods, as set out in the table below.

Table 4.2 – Existing Peak Period Traffic Generation

Land Use	Key Parameters	Trip Rate		Traffic Generation*	
		AM	PM	AM	PM
Residential	3 units	0.65 trips/unit	0.65 trips/unit	2.0	2.0
Commercial/retail	48 car spaces	0.38 trips/car space	0.32 trips/car space	18.2	15.4
Total				**20.2**	**17.4**

* entry/exit combined

4.4 Traffic Impact

As noted above, the traffic implications of development proposals primarily concern the *nett change* in the traffic generation potential of a site compared to its existing and/or approved uses.

Based on the above assessment, the proposed development is expected to result in a theoretical *nett reduction* of approximately 11 vph during the weekday AM peak and approximately 9 vph during the weekday PM peak, as set out in the table below.

Table 4.3 – Nett Reduction in Peak Traffic Generation

Period	Proposed Peak Trips	Existing Peak Trips	Nett Peak Trips
AM Peak Hour	9.2 vph	20.2 vph	-11.0 vph
PM Peak Hour	8.7 vph	17.4 vph	-8.7 vph

That projected *nett reduction* in traffic activity as a consequence of the subject site will clearly not have any unacceptable traffic implications in terms of road network capacity or traffic-related environmental effects. Furthermore, the planning controls which apply to the site dictate that a multi-storey building is permissible and envisaged, as is the traffic activity associated with that density. Accordingly, the road network operation is expected to remain at the same level of service and is therefore supportable on traffic grounds.

The above projected traffic generation potential is also aligned with the Crows Nest TOD Precinct's objectives of reducing car dependency and promoting sustainable transport choices. The site's excellent access to high-frequency public transport—including St Leonards Train Station and Crows Nest Metro Station—further supports a mode shift towards walking, cycling, and transit use, ensuring that vehicle trips remain minimal while fostering a vibrant, pedestrian-friendly urban environment.

5. Access, Parking & Servicing Assessment

5.1 Applicable Car Parking Rates

The off-street car parking rates applicable to the hotel and retail/commercial components of the development proposal are specified in the Lane Cove DCP 2009, Part R, Traffic, Transport & Parking, Table 2, as set out below.

Table 2 – Car parking rates near St Leonards Railway Station

Proposed Use	Residents/Employees	Customers/Visitors
Hotel/motel	2 spaces + 1 per 20 rooms (staff parking)	1 space per 3 rooms + 1 space per 20m² of convention/conference facility + 1 space per 10 seats in restaurant 1 disabled space per 10 car spaces (minimum 1 disabled space)
Commercial & Mixed Use Development (Commercial component)		
Office premises or business premises	1 space per 100m² gross floor area (GFA) + 1 disabled space per 10 car spaces (minimum 1 disabled space)	N/A
Shop	1 space per 110m² 1 disabled space per 20 car spaces (minimum 1 disabled space)	
Restaurant or cafe	1 space per 110m² 1 disabled space per 20 car spaces (minimum 1 disabled space)	

(Source: Lane Cove Council DCP 2009, Part R, Table 2)

5.2 Car Parking Requirements

With respect to the retail/commercial component of the proposal, it is not yet known what the future uses will be. For the purposes of this assessment, therefore, it has been assumed that the lower ground and ground floor levels of the building will be retail shops (and/or potentially restaurants/cafés), with the ground floor mezzanine area being offices.

Application of the various DCP parking rates to the proposed land uses within the development, yields an off-street car parking requirement of 53 car parking spaces, as set out in the table on the following page.

Table 5.1 –Off-Street Car Parking Requirements			
Land use	**Quantum**	**Car Parking Rate**	**LCDCP 2009 Requirement**
Hotel	99 rooms	Employees: 2 spaces *plus* 1 space/20 rooms Customers: 1 space/3 rooms *plus* 1 space/20m^2 conference facility *plus* 1 space/10 seats restaurant *plus*	7.0 spaces 33.0 spaces 0 spaces 0 spaces
Sub-total			40.0 spaces
Retail	1,133m^2	1 space per 110m^2	10.3 spaces
Commercial	258m^2	1 space per 100m^2	2.6 spaces
Sub-total			12.9 spaces
Total			**52.9 spaces**

5.3 Accessible Car Parking

Table 2 of Lane Cove DCP 2009, as shown in Section 5.1 of this report, also includes the disabled parking requirements applicable to the hotel and retail/commercial components of the development proposal.

With respect to the retail/commercial component of the proposal, it is not yet known what the schedule of parking spaces will be. For the purposes of this assessment, it has conservatively been assumed that the retail shops and office spaces will be shared and will apply the same rate of *1 disabled space/10 spaces*.

Application of the disabled parking rates yields a disabled car parking requirement of 2 accessible parking spaces, as set out in the table below.

Table 5.2 – Accessible Car Parking Requirements			
Land use	**Quantum**	**Accessible Car Parking Rate**	**DCP 2009 Requirement**
Hotel	13 spaces	1 disabled space/10 spaces (minimum 1 disabled space)	1.3 spaces
Commercial/retail	7 spaces	1 disabled space/10 spaces (minimum 1 disabled space)	0.7 spaces
Total			**2.0 spaces**

The above requirement is satisfied by the proposed provision of 2 accessible parking spaces for the hotel component and 1 accessible parking space for the retail/commercial component of the development proposal.

5.4 Proposed Car Parking Provisions

The proposed development includes a total of 22 off-street car parking spaces (excluding the courier/delivery bay).

With respect to the equivalent parking rate for the proposed car share spaces, whilst it is noted that Lane Cove Council specifies a rate of *1 car share car = 3 private cars*, it is for developments *not* located near St Leonards railway station. At the same time, advice from market leaders, GoGet, indicates that for built up areas such as St Leonards, the equivalent rate is *1 car share car = 10 private cars.* For the purposes of this assessment, therefore, a rate of *1 car share car = 5 private cars* has been adopted.

Accordingly, the proposed provision of 22 car parking spaces (excluding the courier/loading bay) is the equivalent of 30 private car parking spaces, thereby resulting in a numerical shortfall of 22 spaces under the Lane Cove DCP 2009 requirements.

Table 5.2 – Proposed Off-Street Car Parking Allocation		
Parking space type	**No. of spaces proposed**	**Equivalent parking provision**
Hotel	13 spaces (inc. 2 accessible spaces)	13 spaces
Commercial/retail	7 spaces (inc. 1 accessible space)	7 spaces
Car share	2 spaces	10 spaces
Sub-Total	**22 spaces**	**30 spaces**
Courier/delivery bay	1 space	1 space
Total	**23 spaces**	**31 spaces**

The proposed provision of 30 (equivalent) spaces is considered acceptable in this instance given the Crows Nest TOD Precinct strongly advocates for reducing car parking provisions across all land uses to align with its transit-oriented development principles. The site is located near St Leonards Train Station and Crows Nest Metro Station, offering frequent, high-capacity public transport services that significantly reduce the reliance on private vehicles. Additionally, the inclusion of car share spaces, which provide a higher equivalent parking capacity, further supports sustainable travel choices. The overall approach seeks to prioritise pedestrian-friendly environments, minimise vehicular impacts on public spaces, and promote active and public transport, consistent with the precinct's vision for a highly accessible, low-emission urban environment.

5.5 Bicycle & Motorcycle Parking Rates and Provisions

The off-street bicycle parking rates applicable to the hotel component and the commercial/retail component of the development proposal are specified in Lane Cove DCP 2009, Part R, Traffic, Transport & Parking, Table 3, as set out below.

Table 3 – Bicycle parking rates		
Proposed Use	**Residents/Employees**	**Customers/Visitors**
Tourist and Visitor Accommodation		
Hotel/motel	1 per 4 staff	1 rack + 1 rack per 20 rooms
Commercial & Mixed Use Development (Commercial component)		
Office premises or business premises	1 per 300m^2 GFA	1 rack + 1 rack per 800m^2 GFA
Shop	1 per 50m^2 GFA	2 racks + 1 rack per 200m^2 over 200m^2 GFA
Restaurant or cafe	1 per 50m^2 GFA	2 racks + 1 rack per 200m^2 over 200m^2 GFA

(Source: Lane Cove Council DCP 2009, Part R, Table 3)

In terms of motorcycle parking, DCP 2009 specifies that, *"developers shall provide 1 motorcycle parking space per 15 car spaces for all types of development"*.

With respect to the retail/commercial component of the proposal, it is not yet known what the future uses will be. Again, for the purposes of this assessment it has again been assumed that the lower ground and ground floor levels of the building will be retail shops (and/or potentially restaurants/cafés), with the ground floor mezzanine area being offices.

With respect to the hotel component of the proposal, the number of staff is also not yet finalised. For the purposes of this assessment, it has been assumed that for 99 hotel rooms, there will be 12 staff onsite (including manager, assistant manager, reception, kitchen staff, housekeeping, cleaners, *etc.)* at any given time, less after-hours.

Application of the aforementioned rates and assumptions to the various components of the development proposal, yields an off-street bicycle parking requirement of 41 spaces and a motorcycle parking requirement of 2 spaces, as set out in the table below.

Table 5.3 – Bicycle & Motorcycle Parking Requirements & Provisions				
Use	**Quantum**	**Rate**	**Requirement**	**Proposed**
Hotel – employees	99 rooms (assumed 12 staff)	1 space/4 staff	3.0 spaces	
Hotel – visitors		1 rack + 1 rack/20 rooms	6.0 spaces	
Retail – staff	1,133m^2	1 space/50m^2	22.7 spaces	
Retail – visitors		2 racks + 1 rack/200m^2 over 200m^2	6.7 spaces	
Commercial – staff	258m^2	1 space/300m^2	0.9 spaces	
Commercial – visitors		2 racks + 1 rack/800m^2	2.3 spaces	
Total			**41.6 spaces**	**50 x Class B 6 x Class C**
Motorcycles	22 car spaces	1 space/15 car spaces	1.5 spaces	8 spaces

In response, the proposed development makes provision for 8 x motorcycle spaces within basement level 1, along with 50 x Class B bicycle spaces within a secure room also within basement level 1. A further 6 x Class C bicycle racks are also proposed underneath the colonnade fronting the Pacific Highway.

6. Design Assessment

6.1 Applicable Design Standards

The following design standards have been used as the basis for compliance with respect to the vehicular access, parking & loading requirements:

- Australian Standards 2890.1:2004 – Off-Street Car Parking (AS2890.1)
- Australian Standards 2890.2:2018 – Off-Street Commercial Vehicle Facilities (AS2890.2)
- Australian Standards 2890.3:2015 – Bicycle Parking (AS2890.3)
- Australian Standards 2890.6:2022 – Off-Street Parking for People with Disabilities (AS2890.6)

Whilst the vehicular access, parking & loading area has been designed in accordance with the above Australian Standards, it is expected that a condition of consent would be imposed requiring reconfirmation of compliance at the Construction Certificate stage (CC). Any minor amendments required to the current DA design can therefore be addressed at the CC stage.

6.2 Vehicular Access and Circulation Design

The following key compliances are noted with respect to the vehicular access design and circulation system:

- 6.077m wide two-way entry/exit driveway in excess of "Category 1" requirements
- first 6m of the ramp within the property boundary @ maximum downgrade of 5% (1:20)
- top and bottom 2m straight internal ramp transitions @ 12.5% (1:8)
- maximum ramp gradients of 25% (1:4)
- 3.6m wide (inc. kerbs) single lane, two-way internal ramp, widening on the bend
- 6.8m wide aisle within the lower ground parking area
- 5.8m wide aisle within the basement level 1 parking area
- 1m "aisle extension" requirement at the end of the B1 dead-end parking aisle offset by way of a turning bay
- minimum 2.2m overhead clearance provided throughout the vehicular circulation system
- traffic signals at the top and bottom of the internal ramp, displaying the green lantern to entering traffic at all times, unless triggered by a vehicle existing the basement.

Further to the above, the vehicular access and internal circulation arrangements have been designed to accommodate the swept turning path requirements of the B99 design vehicle as specified in AS2890.1, allowing them to circulate into/out of the basement parking area without difficulty, pass another vehicle, and to enter and exit the site in a forward direction at all times. Swept turn path diagrams are reproduced in Appendix B.

6.3 Parking Design

The following key compliances are noted with respect to the parking area design and the AS2890 series:

- minimum 5.4m long x 2.4m wide accessible car parking spaces *plus* adjacent 5.4m long x 2.4m wide "shared areas", in accordance with AS2890.6

- minimum 2.5m overhead clearance provided above the accessible parking spaces and adjacent shared areas
- 5.4m long x 2.4m wide standard car parking spaces in accordance with User Class 1/1A requirements
- additional 300mm width for parking spaces located against walls
- minimum 2.2m overhead clearance provided above all vehicle parking spaces, except for accessible parking spaces that require 2.5m overhead clearance
- no obstructions within the “design envelope” of any car parking spaces
- motorcycle parking spaces designed in accordance with AS2890.1
- bicycle parking areas designed in accordance with AS2890.3
- all vehicles are able to enter and exit the basement in a forward direction at all times.

6.4 Recommendations

In order to ensure the internal vehicular access ramp operates efficiently, the following recommendations are made:

- the internal ramp should include a set of traffic signals at the top and bottom, with the default signal displaying green for entering vehicles
- provide convex mirrors at the top and bottom of the internal ramp
- linemark and signpost WAIT/HOLD lines within the basement and lower ground floor parking areas

7. Preliminary Construction Traffic Management Considerations

7.1 Overview

This section provides an overview of the Construction Traffic Management Plan (CTMP) procedures and policies to be implemented as part of the construction works associated with the proposed development. Specifically, this overview CTMP considers the following:

- construction site access arrangements
- anticipated truck volumes during the various construction stages
- truck routes to / from the site
- requirements for works zones
- pedestrian and cyclist access
- site personnel parking
- traffic control measures
- overview of CTMP requirements.

7.2 Traffic Management Principles

The general principles of traffic management during construction activities are as follows:

- minimise the impact on pedestrian and cyclist movements
- maintain appropriate public transport access
- minimise the loss of on-street parking
- minimise the impact on adjacent and surrounding buildings
- maintain access to / from adjacent buildings
- restrict construction vehicle movements to designated routes to / from the site
- manage and control construction vehicle activity near the site
- carry out construction activity in accordance with approved hours of works.

7.3 Work Hours

In accordance with Lane Cove Council's standard working hours, all building construction and works as well as deliveries must be restricted to within the hours of 7:00 am to 5:30 pm Monday to Friday. During weekdays, high noise-generating activities, such as rock breaking and saw cutting, must be limited to the hours between 8 am and 5 pm, with a designated quiet period from 12 noon to 1:30 pm.

On Saturdays, work is permitted from 8 am to 12 noon, however, high noise activities such as excavation, haulage truck movement, rock picking, sawing, jack hammering, or pile driving are not permitted during this time. Failure to adhere to these guidelines may result in the issuance of a breach of consent P.I.N.

No work is allowed on Sundays and Public Holidays, except during emergencies.

Demolition and excavation works must be restricted to within the hours of 8:00 am to 5:00 pm Monday to Friday only. For the purposes of this condition:

a) “Building construction” means any physical activity on the site involved in the erection of a structure, cladding, external finish, formwork, fixture, fitting of service installation and the unloading of plant, machinery, materials or the like.

b) “Demolition works” means any physical activity to tear down or break up a structure (or part thereof) or surface, or the like, and includes the loading of demolition waste and the unloading of plant or machinery.

c) “Excavation work” means the use of any excavation machinery and the use of jackhammers, rock breakers, excavators, loaders, or the like, regardless of whether the activities disturb or alter the natural state of the existing ground stratum or are breaking up/removing materials from the site and includes the unloading of plant or machinery associated with excavation work.

7.4 Site Access and Loading

All demolition and excavation works will be undertaken entirely within the site, with trucks accessing the site via Marshall Lane. Due to site and laneway constraints, trucks may need to reverse into the site under traffic control. All vehicles must be able to exit the site in a forward direction.

During the construction stage, formally signposted Works Zones will likely be required along the Pacific Highway and Marshall Lane frontages of No.38. As noted in the foregoing, time-restricted kerbside parking is currently permitted along the Pacific Highway, directly outside No.38, between 9:30am-3pm weekdays and 8am-6pm Saturdays. Subject to TfNSW endorsement, the Pacific Highway Works Zone would be restricted to the same hours. With respect to the Marshall Lane Works Zone, it is noted that the site boundary steps inwards, away from the edge of the road, such that a truck could stand outside the existing and proposed building as well as off the laneway carriageway.

As part of a detailed CTMP prepared at the construction certificate (CC) stage, traffic control plans (TCP) will be prepared in accordance with the principles of TfNSW’s Traffic Control at Work Sites Technical Manual (Issue 6.1 – 28 February 2022). The TCPs primarily show where construction signs will be located at specific locations (such as uncontrolled intersections) along the truck route to warn other road users of the increase in construction vehicle movements.

A tower crane will also be required to be installed to transfer material from the trucks onto the site.

Access to the neighbouring sites by emergency vehicles would not be affected by the works as the road and footpath frontages would be unaffected. Emergency protocols on the site would include a requirement for site personnel to assist with emergency access from the street. All truck movements to the site and/ or incident point would be suspended and cleared.

7.5 Construction Staff Parking

At this stage of the project, the number of construction workers for the project is still unknown. During demolition and excavation, there will unlikely be any opportunity for on-site contractor parking. Notwithstanding, once the superstructure is complete, parking may be possible within the basement. Furthermore, workers will be encouraged to use public transport to access the site.

During site induction, workers will be informed of the existing bus and rail network servicing the site. Appropriate arrangements will be made for any equipment / tool storage and drop-off requirements. This will be confirmed and detailed further in a future Construction Traffic Management Plan to be prepared by the appointed contractor.

7.6 Heavy Vehicle Traffic Generation

At this stage of the project, a schedule of estimated truck movements is not yet known. This will be confirmed and detailed further in a future Construction Traffic Management Plan to be prepared by the appointed contractor. In any event, there are not expected to be any unacceptable implications in terms of road network capacity during the construction process. Construction vehicle movements will also be minimised during peak hours, where possible.

7.7 Heavy Vehicle Access Route

Heavy vehicle movements seeking to access the site and/or rear Works Zone would approach the site along the Pacific Highway and turn left/right into Berry Road, before turning left into Marshall Lane. Upon exit, trucks would head east along Marshall Lane back to Canberra Avenue, right turn onto Marshall Avenue, right turn onto Berry Road and left or right turn back onto the Pacific Highway.

Heavy vehicles utilising the Pacific Highway Works Zone would simply approach the site from the south along the Pacific Highway, before pulling into the Works Zone. Upon exit, the trucks would simply depart to the north, and if required, left turn onto Greenwich Road, left turn onto River Road and head back to the Pacific Highway.

7.8 Hoarding, Pedestrian & Cyclist Access

Where required, B-Class hoardings will be installed along the perimeter of the works area where overhead works are occurring, in order to maintain and ensure safe pedestrian and cyclist passage adjacent to the site, including along the entire Pacific Highway site frontage. Where B-Class hoarding is not required, A-Class hoarding / fencing will be provided to provide separation between the work site and pedestrians.

Truck movements will be avoided during peak hours where possible to minimise the impact on pedestrians and cyclists.

7.9 Summary of CTMP Requirements

This section provides an overview of the CTMP procedures that will be implemented for the demolition, excavation and construction of the proposed development. A detailed CTMP will be prepared at the Construction Certificate stage and will cover the following additional information:

- description of the existing site and its location
- existing road network and traffic conditions
- construction programme
- heavy vehicle access route

- works zone details
- public and active transport infrastructure
- construction traffic generation estimates and its impacts on the surrounding road network
- hoarding
- site amenities
- sediment control
- neighbour notification
- contractor parking
- site inductions
- approved construction work hours
- swept path analysis of heavy vehicle access to the site
- assessment of on-street parking impacts
- emergency vehicle access
- traffic control plan(s)
- contact details of key project personnel

In preparing any future detailed CTMP, reference will be made to the following policies and guidelines:

- TfNSW Traffic Control at Work Sites Technical Manual (Issue 6.1 – 28 February 2022)
- Australian Standards AS1742.3: Traffic Control Devices for Works Sites on Road
- Notice of Determination for the proposed SSDA and any relevant consent conditions

8. Conclusion

In summary, the proposed DA involves the demolition of the existing buildings on the site and the construction of a new multi-storey mixed use building in their place, comprising 1,551m^2 of retail/commercial uses on the lower levels, with 99 hotel rooms with communal areas on the levels above.

Off-street parking for cars, motorcycles, and bicycles will be provided within a new two-level basement parking area, all accessed via Marshall Lane.

Based on the findings contained within this report, the following conclusions are made:

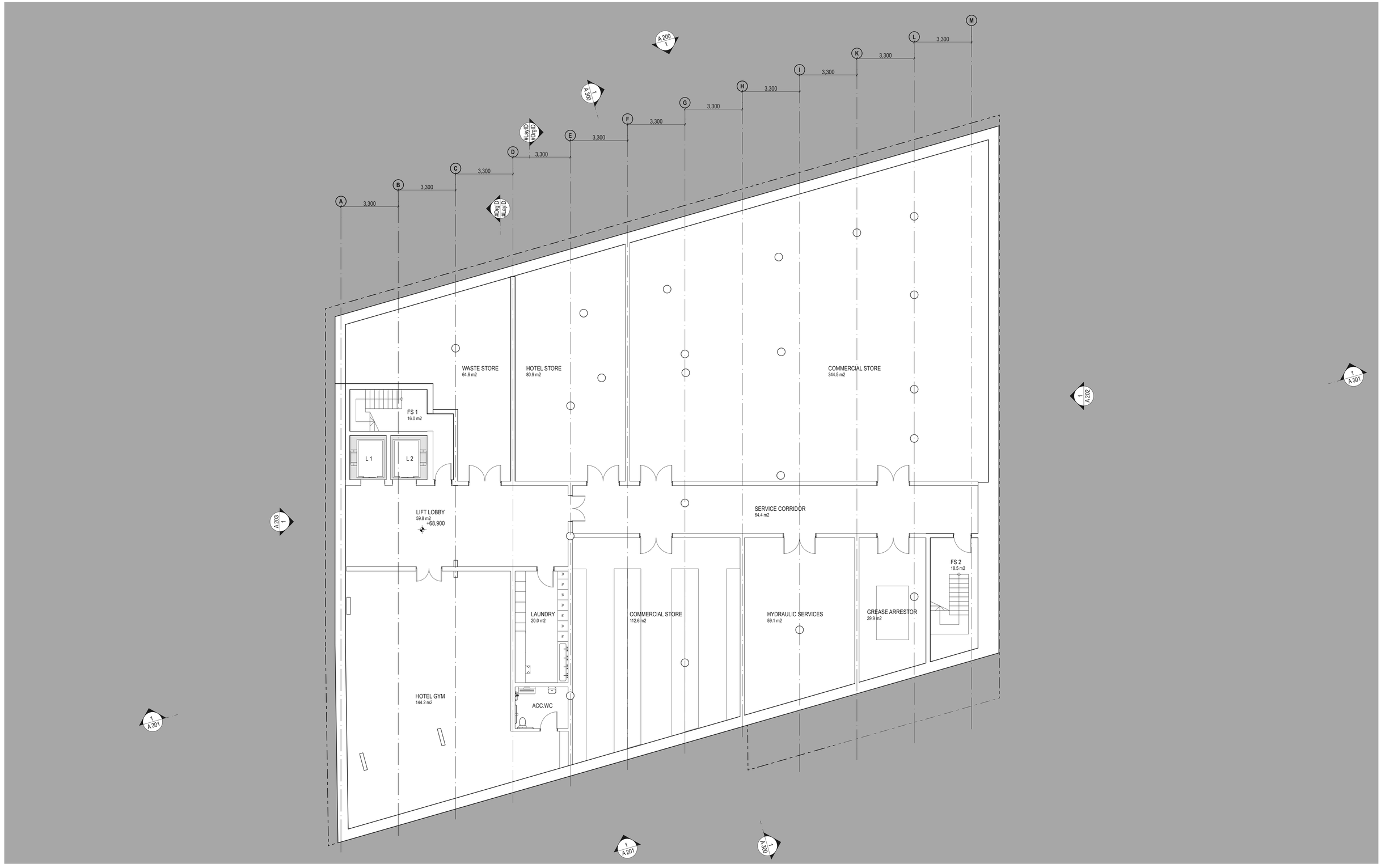
- the site is located within 400m to a variety of bus services which also provide connections to the suburban railway network
- St Leonards railway station is also located a mere 120m walking distance east of the site
- The new Crows Nest Metro station is also located within a 600m radial catchment of the site
- the proposed development is expected to generate approximately 9 vehicle trips during the weekday AM & PM road network peak periods
- when compared to the existing uses on the site, the proposed development is expected to result in a *nett reduction* of approximately 9-11 vehicle trips during the weekday AM & PM road network peak periods
- the proposed *nett change* is consistent with the planning controls which apply to the site, and is not expected to result in any unacceptable traffic implications to the surrounding road network
- the proposed provision of 22 car parking spaces, including 2 car share spaces, is considered appropriate given the Crows Nest TOD Precinct's objectives of reducing car dependency and promoting sustainable transport choices
- the proposed development satisfies the number motorcycle and bicycle parking requirements under the LCDCP 2009
- the proposed vehicular access and parking area design complies with the relevant requirements of the AS2890 series.

In light of the foregoing assessment, it is therefore concluded that the proposed development is supportable on vehicular access, traffic, parking and servicing grounds and will not result in any unacceptable implications.

CJP | CONSULTING ENGINEERS

Appendix A

Proposed Architectural Plans



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06.08.25	01	ISSUE FOR DA

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Project
38 PACIFIC HIGHWAY

Phase
DEVELOPMENT APPLICATION

Job No.
20019

Drawing Title
GENERAL ARRANGEMENT PLAN - B2

Drawing No. A 100
Rev No. 01

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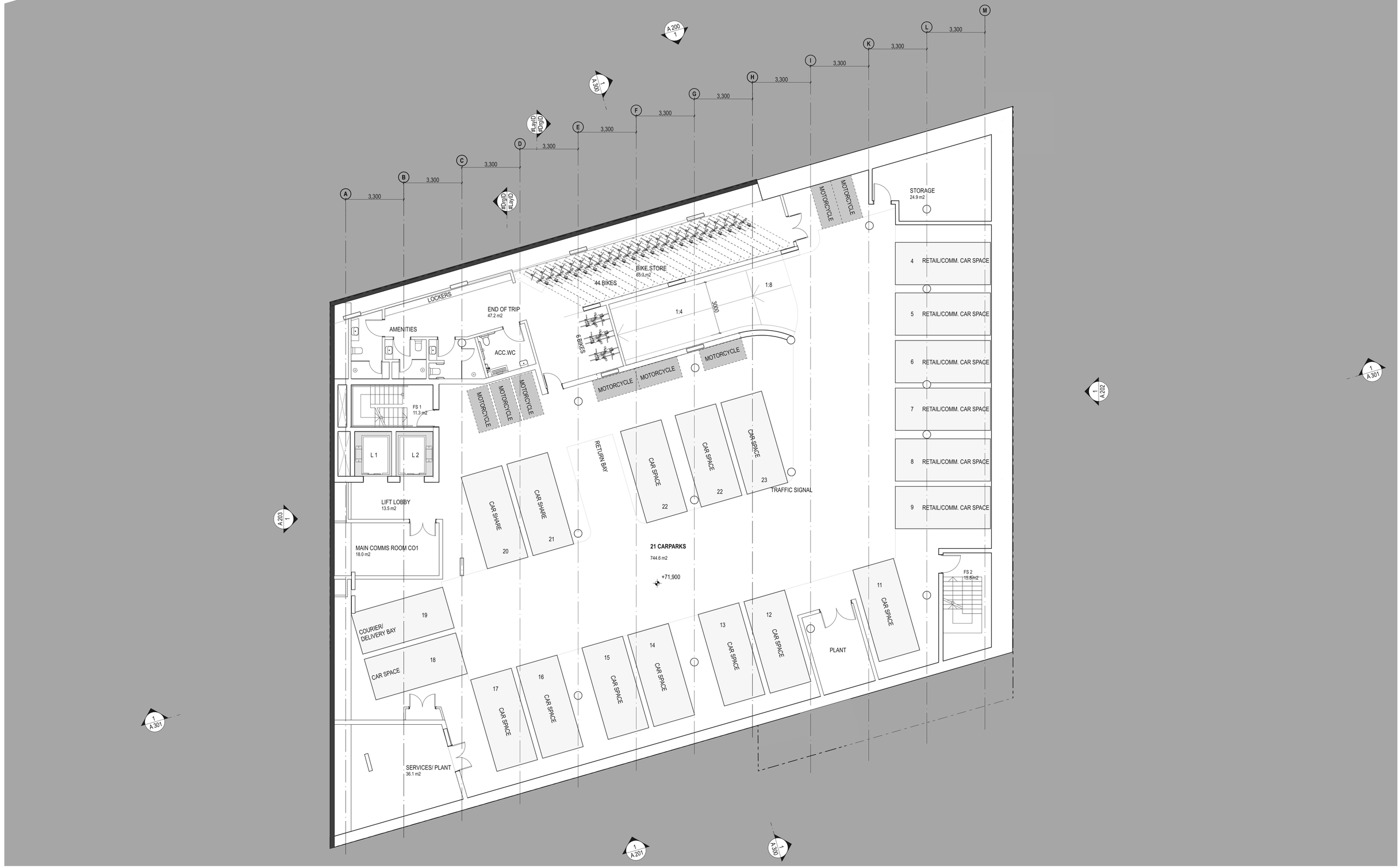

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Phase
DEVELOPMENT APPLICATION

Job No.
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Drawing Title
GENERAL ARRANGEMENT PLAN - B1

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Rev No. 01

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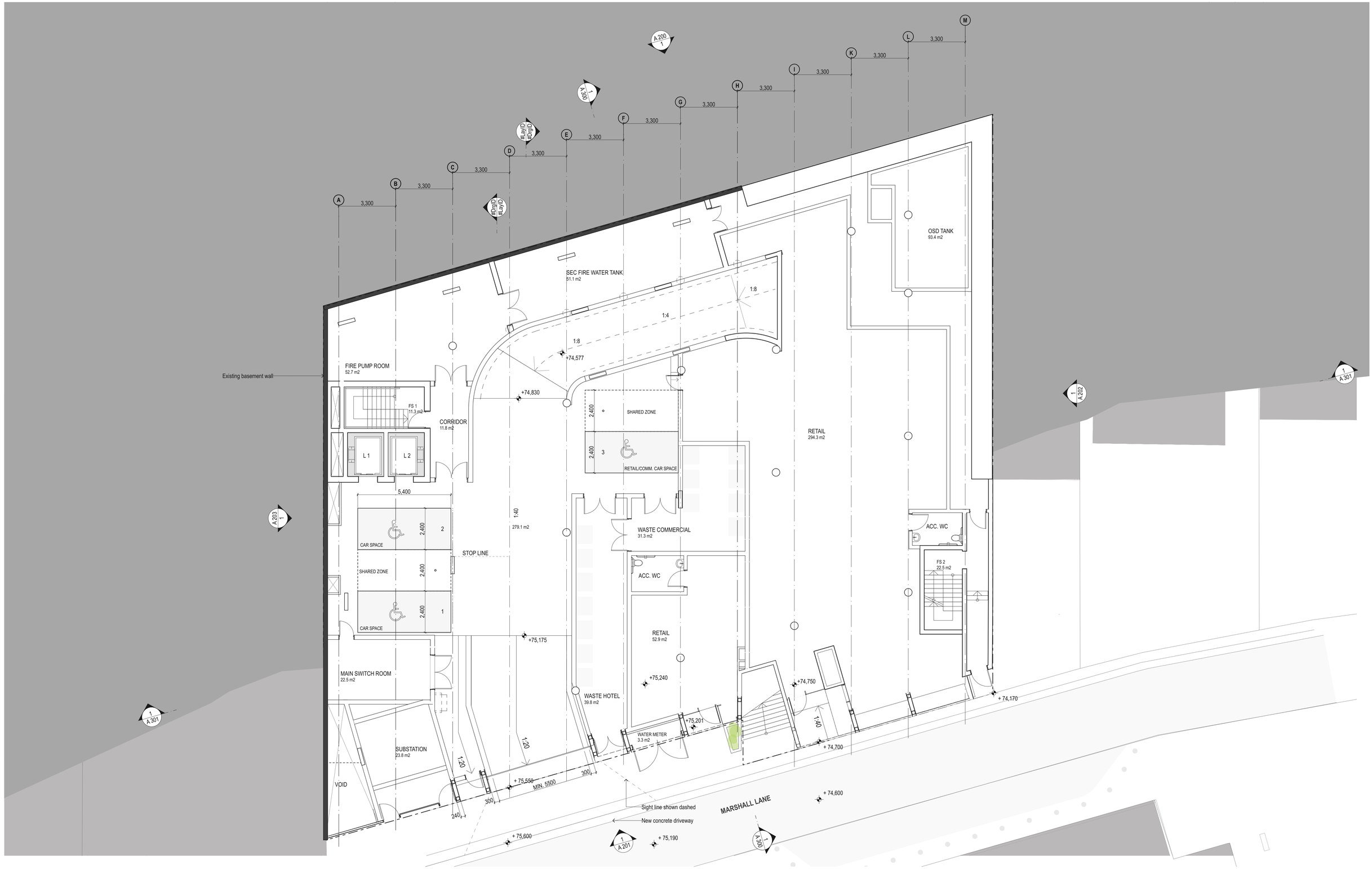

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Drawing Title
GENERAL ARRANGEMENT PLAN - LG

Drawing No. A 102
Rev No. 01

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Drawing Title
GENERAL ARRANGEMENT PLAN - GF

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Rev No. 01

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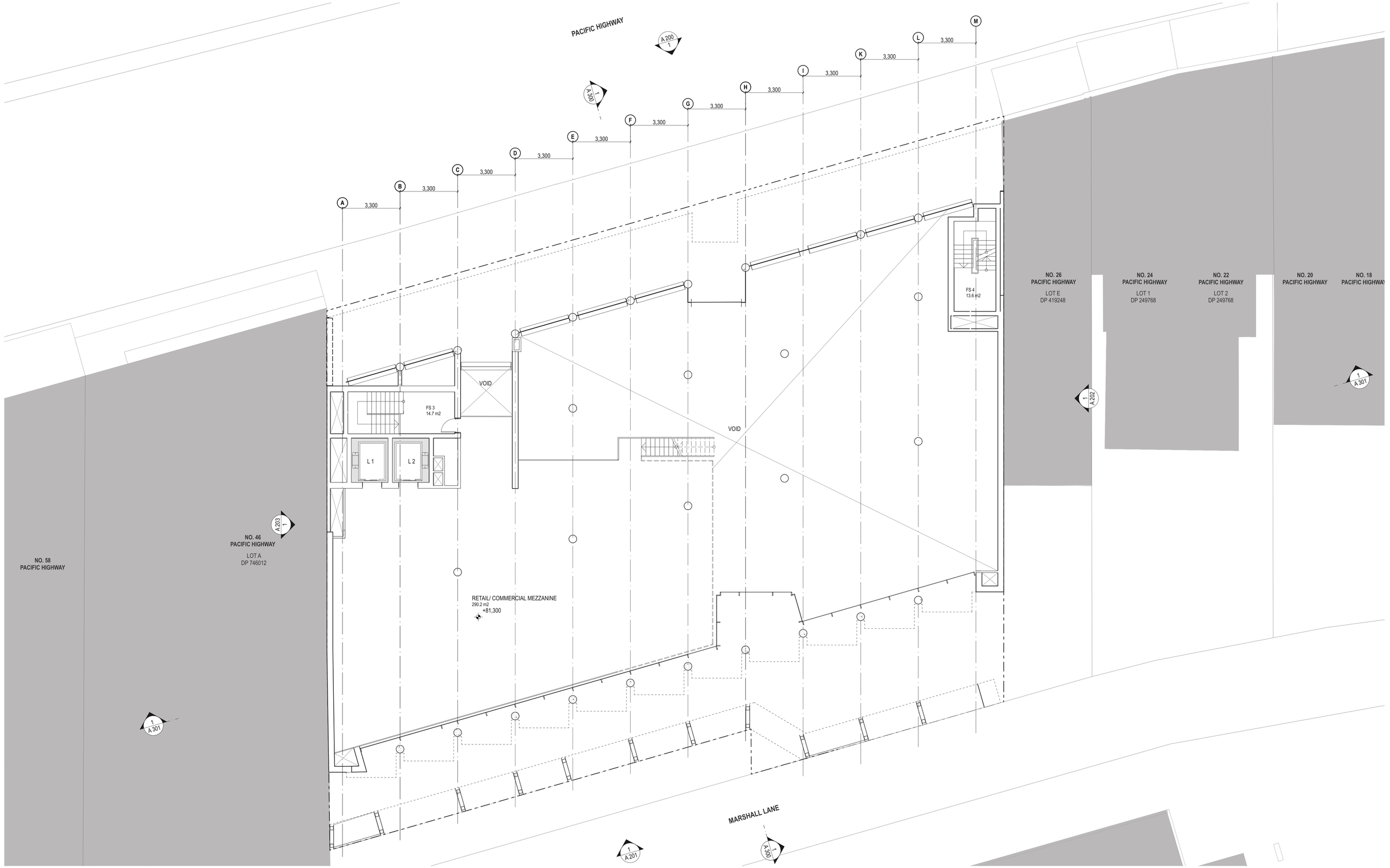

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Project
38 PACIFIC HIGHWAY

Phase
DEVELOPMENT APPLICATION

Job No.
20019

Drawing Title
GENERAL ARRANGEMENT PLAN - MEZZANINE

Drawing No. A 104
Rev No. 01

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Fire Engineer
Voss Grace + Partners

Landscape Architects
Melissa Wilson Landscape Architects

Vertical Transport
JHA Consulting Engineers

Quantity Surveyor
Berco Consulting

Traffic
CJP Consulting Engineers

Waste Enginner
MRA Consulting Group

Acoustic Engineer
PWNA

Access + BCA
BM+G

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Nominated Architects
Peter Tonkin NSW Registration 4147
Tim Greer NSW Registration 5603

Client
EDSGEAR

T
E eric@tgc.com.au

Project
38 PACIFIC HIGHWAY

Phase
DEVELOPMENT APPLICATION

Job No.
20019

Drawing Title
GENERAL ARRANGEMENT PLAN - 1F

Drawing No. A 105
Rev No. 01

Scale 1:100@A1 1:200@A3

0 1 2 4 m @A1
0 2 4 8 m @A3

Drawn
WR,FM,IR

Checked
TG

Date
18/3/2025

North

DATE	ISSUE	DESCRIPTION:
19.03.2025	01	ISSUE FOR DA

Structure + Civil Engineer
Northrop Consulting Engineers

Services Engineer
O&S Consulting

Town Planner
Paro Consulting

ESD Consultant
Dsquared Consulting

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Project
38 PACIFIC HIGHWAY

Phase
DEVELOPMENT APPLICATION

Job No.
20019

Drawing Title
SECTIONS - 1

Drawing No. A 300
Rev No. 01

Scale 1:100@A1 1:200@A3

0 1 2 4 m @A1
0 2 4 8 m @A3

Drawn
WR,FM,IR

Checked
TG

Date
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Project
38 PACIFIC HIGHWAY

Phase
DEVELOPMENT APPLICATION

Job No.
20019

Drawing Title
SECTIONS - 2

Drawing No. A 301
Rev No. 01

Scale 1:100@A1 1:200@A3

0 1 2 4 m @A1
0 2 4 8 m @A3

Drawn
WR,FM,IR

Checked
TG

Date
18/3/2025

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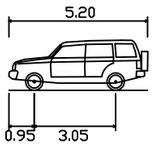
Appendix B

Swept Turn Paths

SWEPT PATH KEY:

- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY



B99

	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	6.0
Steering Angle	: 33.9

Plotted by Dominic Aloc

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PRELIMINARY PLAN

FOR DISCUSSION PURPOSES ONLY SUBJECT TO CHANGE WITHOUT NOTIFICATION

WARNING

THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY.
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28-38 PACIFIC HIGHWAY, ST LEONARDS
CAR PARK COMPLIANCE REVIEW - LOWER GROUND
B99 ENTRY AND EXIT PATH

N

SCALE 0 3.0 6.0 1:300 @ A3

DRAWING NO. 24159-D01-V2

SHEET NO. 01 OF 02

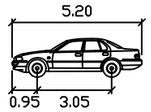
ISSUE DATE 12 March 2025

DRAWN BY D. ALOC

REVIEWED BY C. PALMER

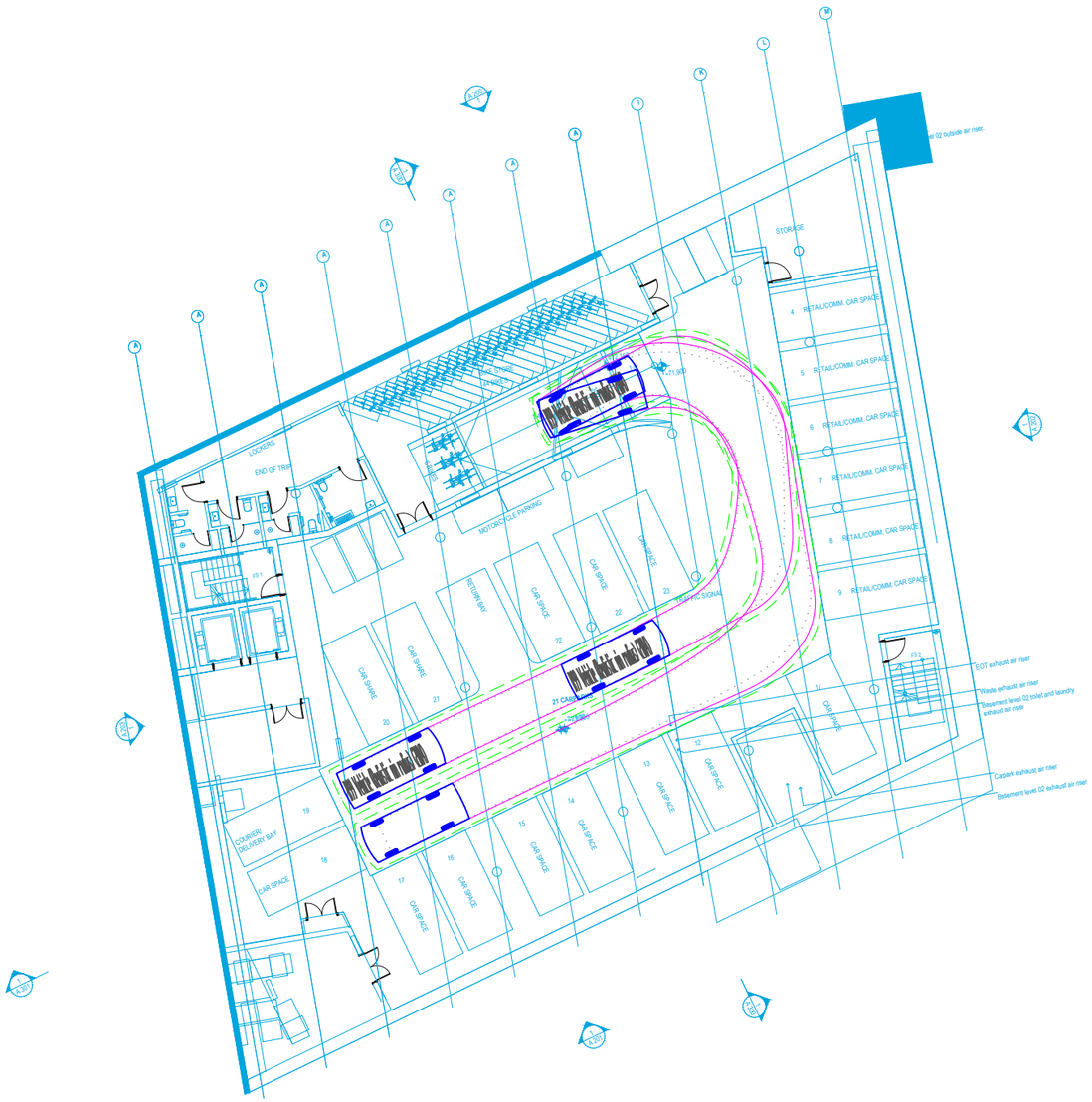
SWEPT PATH KEY:

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY



B99

	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	6.0
Steering Angle	: 33.9



Plotted by CJP CONSULTING ENGRS

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28-38 PACIFIC HIGHWAY, ST LEONARDS
CAR PARK COMPLIANCE REVIEW - BASEMENT 1
B99 CIRCULATION PATH

N

SCALE 0 3.0 6.0 1:300 @ A3

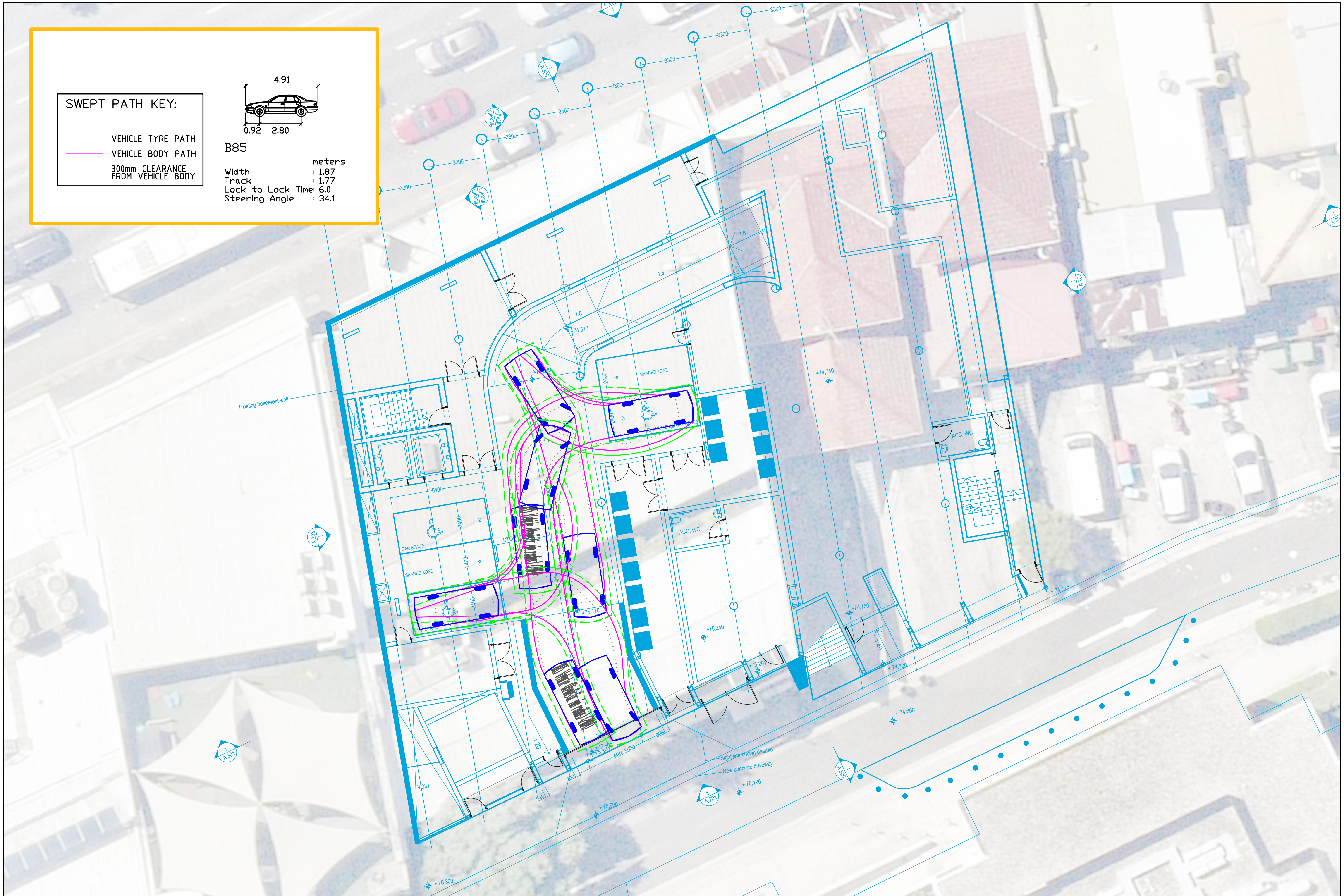
DRAWING NO. 24159-D01-V1

SHEET NO. 02 OF 07

ISSUE DATE 12 March 2025

DRAWN BY D. ALOC

REVIEWED BY C. PALMER



Plotted by Dominic Aloc

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28-38 PACIFIC HIGHWAY, ST LEONARDS
CAR PARK COMPLIANCE REVIEW - LOWER GROUND (CAR SPACES 1 & 3)
B85 ENTRY AND EXIT PATHS

N

SCALE 0 2.0 4.0 1:200 @ A3

DRAWING NO. 24159-D01-V2

SHEET NO. 02 OF 02

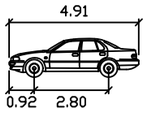
ISSUE DATE 12 March 2025

DRAWN BY D. ALOC

REVIEWED BY C. PALMER

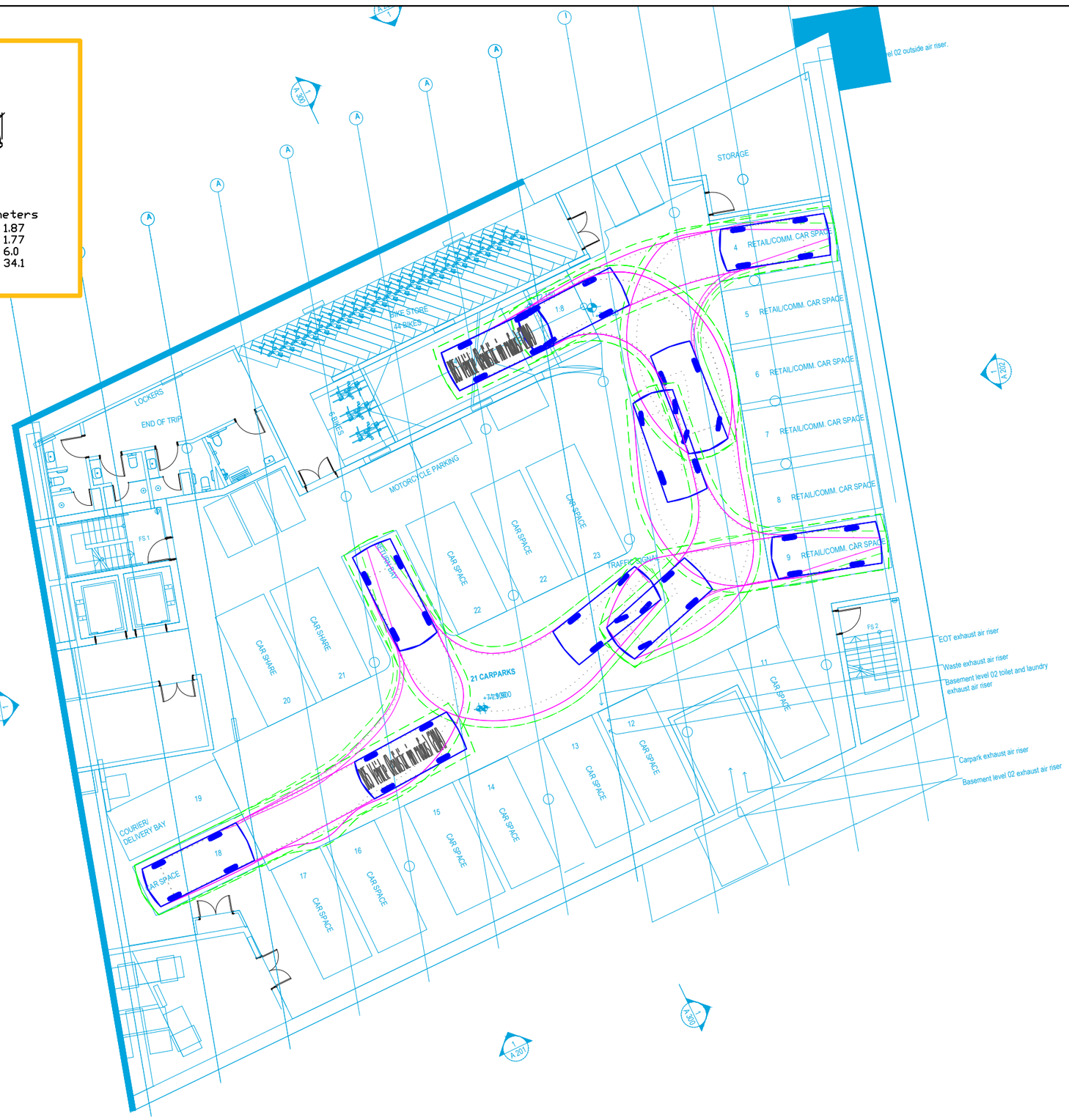
SWEPT PATH KEY:

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY



B85

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



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28-38 PACIFIC HIGHWAY, ST LEONARDS
CAR PARK COMPLIANCE REVIEW - BASEMENT 1 (CAR SPACES 4, 9 & 18)
B85 ENTRY AND EXIT PATHS

N

SCALE 0 2.0 4.0 1:200 @ A3

DRAWING NO. 24159-D01-V1

SHEET NO. 04 OF 07

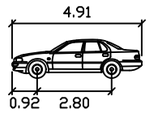
ISSUE DATE 12 March 2025

DRAWN BY D. ALOC

REVIEWED BY C. PALMER

SWEPT PATH KEY:

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY



B85

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

Plotted by CJP CONSULTING ENGRS

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28-38 PACIFIC HIGHWAY, ST LEONARDS
CAR PARK COMPLIANCE REVIEW - BASEMENT 1 (CAR SPACES 11 & 20)
B85 ENTRY AND EXIT PATHS

N

SCALE 0 2.0 4.0 1:200 @ A3

DRAWING NO. 24159-D01-V1

SHEET NO. 05 OF 07

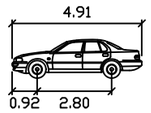
ISSUE DATE 12 March 2025

DRAWN BY D. ALOC

REVIEWED BY C. PALMER

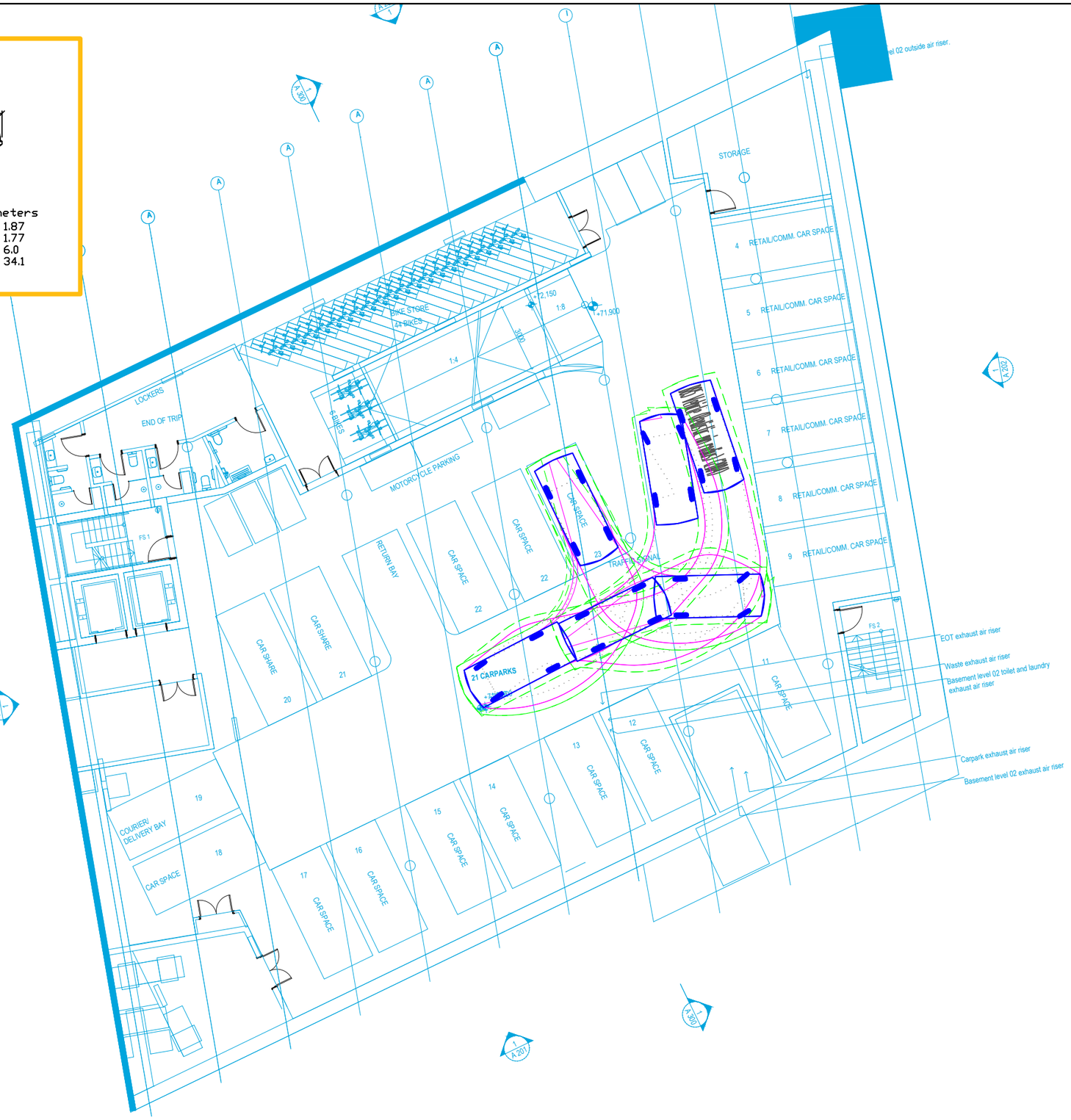
SWEPT PATH KEY:

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY



B85

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



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28-38 PACIFIC HIGHWAY, ST LEONARDS
CAR PARK COMPLIANCE REVIEW - BASEMENT 1 (CAR SPACE 23)
B85 ENTRY AND EXIT PATH

N

SCALE 0 2.0 4.0 1:200 @ A3

DRAWING NO. 24159-D01-V1 | SHEET NO. 06 OF 07

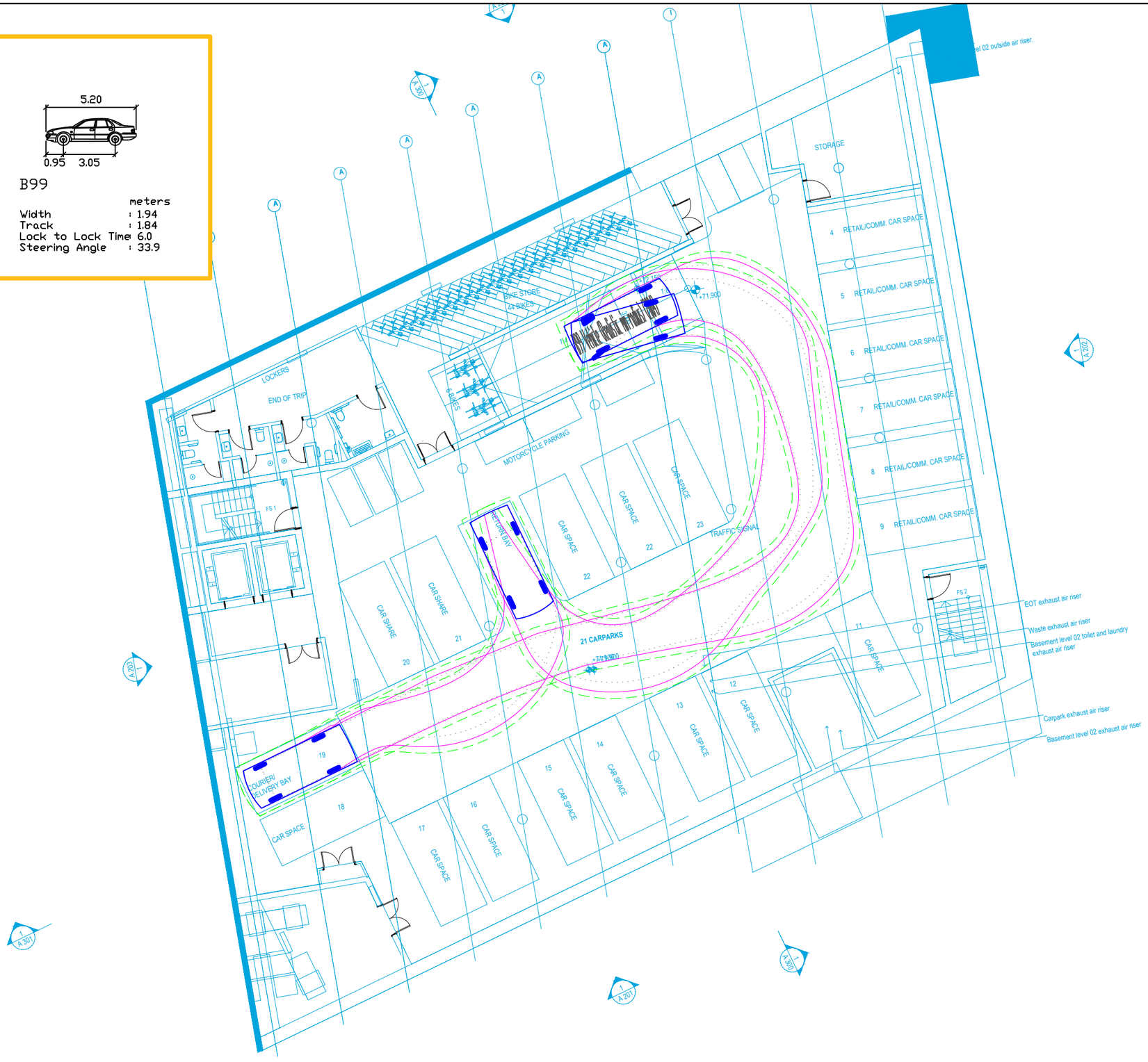
ISSUE DATE 12 March 2025 | DRAWN BY D. ALOC | REVIEWED BY C. PALMER

SWEPT PATH KEY:

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY

B99

	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	6.0
Steering Angle	: 33.9



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28-38 PACIFIC HIGHWAY, ST LEONARDS
CAR PARK COMPLIANCE REVIEW - BASEMENT 1 (CAR SPACE 19)
B99 ENTRY AND EXIT PATH

N

SCALE 0 2.0 4.0 1:200 @ A3

DRAWING NO. 24159-D01-V1 | SHEET NO. 07 OF 07

ISSUE DATE 12 March 2025 | DRAWN BY D. ALOC | REVIEWED BY C. PALMER