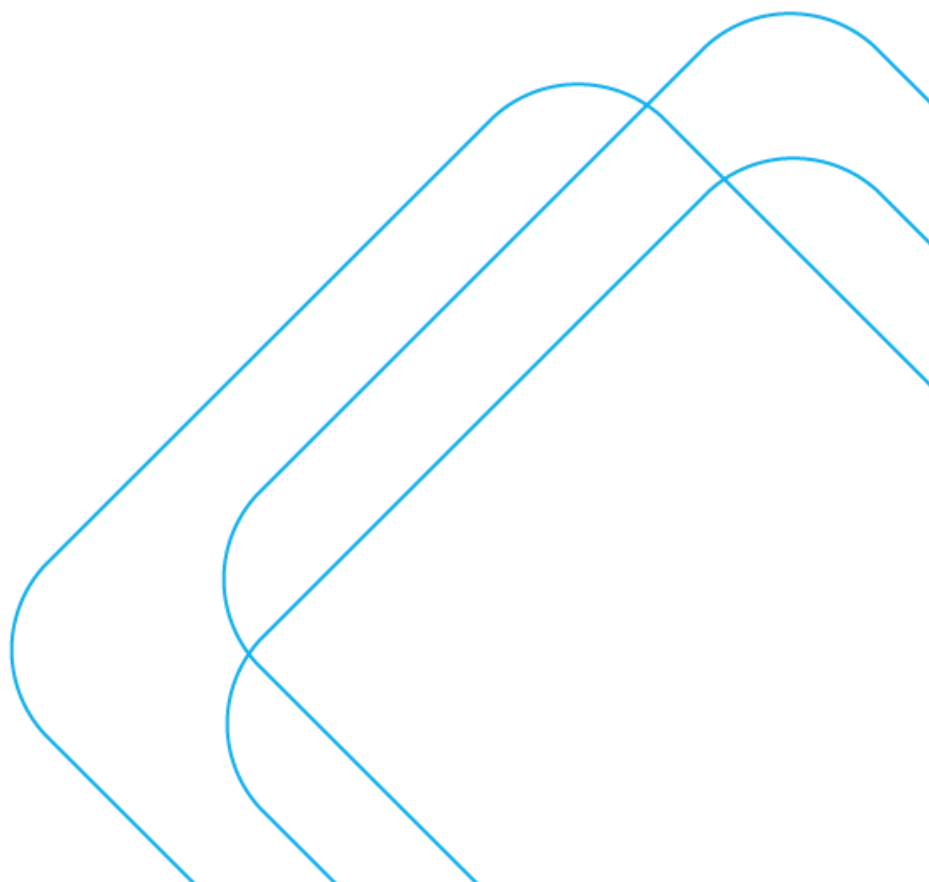


CHATSWOOD 'DIVE SITE' BUILD-TO-RENT SSDA

Transport Impact Assessment &
Preliminary CTMP

4 DECEMBER 2025

SCT Consulting acknowledges
the traditional owners of the lands
on which we work.
We pay our respects to Elders
past, present and emerging.



Quality Assurance

Project:	Chatswood 'Dive Site' Build-to-Rent SSDA		
Project Number:	SCT_00770		
Client:	Landcom	ABN:	79 268 260 688
Prepared by:	SCT Consulting PTY. LTD. (SCT Consulting)	ABN:	53 612 624 058

Information	Name	Position	Signature
Author:	Helen Aberra	Consultant	-
Reviewer:	Sharif Fayad	Senior Consultant	
Authoriser:	Andy Yung	Director	

Version	Date	Details
1.0	31 October 2025	Draft report
2.0	27 November 2025	Final report
3.0	28 November 2025	Updated final report
4.0	4 December 2025	Updated final report



© SCT Consulting PTY LTD (SCT Consulting)

SCT Consulting's work is intended solely for the use of the Client and the scope of work and associated responsibilities outlined in this document. SCT Consulting assumes no liability with respect to any reliance that the client places upon this document. Use of this document by a third party to inform decisions is the sole responsibility of that third party. Any decisions made or actions taken as a result of SCT Consulting's work shall be the responsibility of the parties directly involved in the decisions or actions. SCT Consulting may have been provided information by the client and other third parties to prepare this document which has not been verified. This document may be transmitted, reproduced or disseminated only in its entirety and in accordance with the above.

Contents

Executive Summary	i
1.0 Introduction	1
1.1 Project background	2
1.2 Purpose of this study	4
1.3 Report structure	4
1.4 Consultation	4
2.0 Strategic Context	6
2.1 State planning context	7
2.1.1 Connecting NSW Strategy	7
2.1.2 NSW Movement and Place Framework	7
2.1.3 Road User Space Allocation Policy	9
2.1.4 State Environment Planning Policy (Housing) 2021	10
2.1.5 State Environment Planning Policy (Transport and Infrastructure) 2021	10
2.2 Local planning context	11
2.2.1 Community Strategic Plan: Our Future Willoughby 2032	11
2.2.2 Willoughby City Local Strategic Planning Statement (2020)	11
2.2.3 Willoughby Integrated Transport Strategy 2036 (2020)	12
2.2.4 Draft City Council Cycling Strategy and Action Plan 2034	13
2.2.5 Chatswood CBD Strategic Planning and Urban Design	14
2.2.6 Future Conditions Report: Chatswood CBD Strategic Study	15
3.0 Understanding the context	16
3.1 Site context	17
3.2 Land use	18
3.3 Travel Behaviour	18
3.4 Pedestrian facilities	21
3.5 Cycling facilities	22
3.6 Public transport	23
3.6.1 Rail network	23
3.6.2 Bus network	24
3.7 Road network	26
3.7.1 Key corridors	26
3.7.2 Surrounding movement restrictions	27
3.7.3 Crash data	28
3.7.4 Traffic data	29
3.7.5 Intersection performance	30
4.0 Proposal	32
4.1 Introduction	33
4.2 Access arrangements	34
4.2.1 Residential car parking	34
4.2.2 Servicing area	35
4.3 Parking arrangements	36
4.4 Green Travel Plan	37
5.0 Transport appraisal	40
5.1 Trip generation	41
5.2 Trip distribution and route assignment	42
5.3 Transport impacts	43
5.3.1 Walking and cycling	43

5.3.2	Public transport	43
5.3.3	Road network	43
5.3.4	Parking impact	43
5.4	Addressing the Transport and Infrastructure SEPP	44
6.0	Preliminary CTMP	45
6.1	Introduction	46
6.2	Construction site access	46
6.3	Construction hours	46
6.4	Construction traffic volume	46
6.5	Construction impact on parking	47
6.6	Construction impact on pedestrian and cyclist access	47
6.7	General mitigations	47
6.8	Detailed CTMP requirements	48
7.0	Summary of findings	49
7.1	Proposal	50
7.2	Transport and parking impacts	50
7.3	Mitigation measures	51

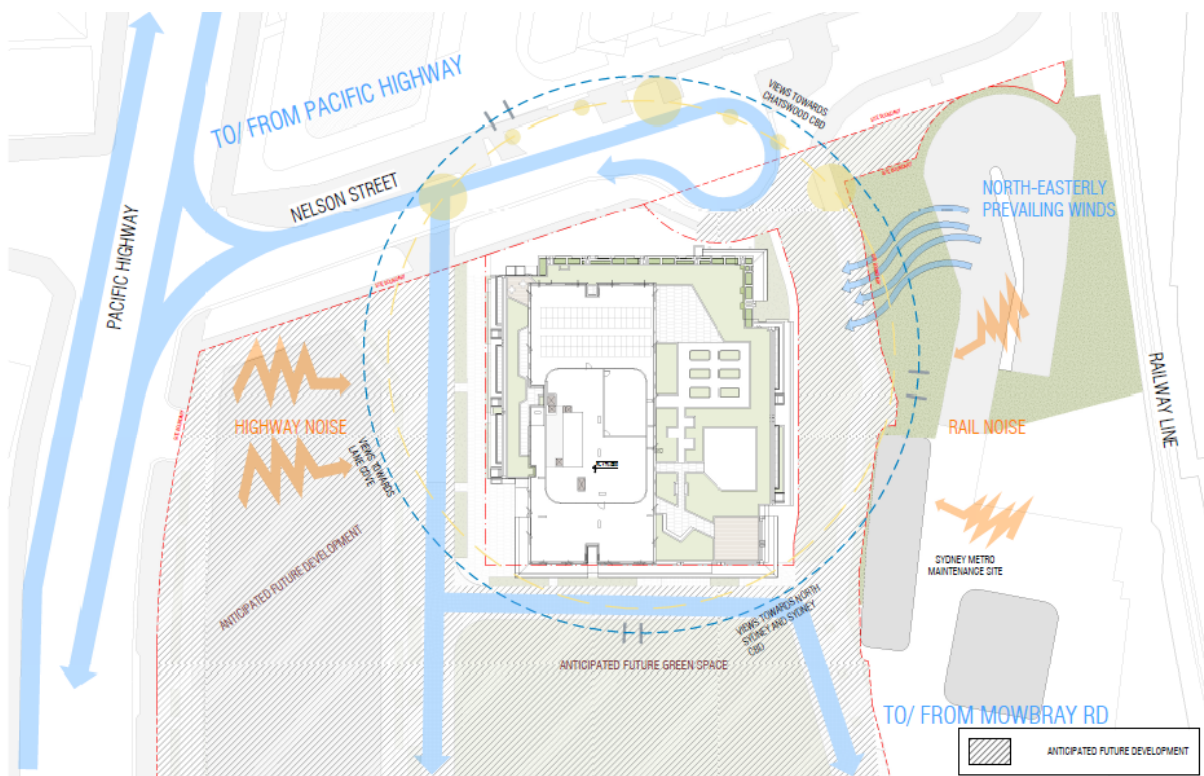
Executive Summary

The site, known as 'Chatswood Dive Site', has had a Concept state significant development application (SSDA) and Concurrent Rezoning Proposal submitted concurrently with this proposal. The Concept SSDA and Concurrent Rezoning Proposal was supported by a Transport Management and Accessibility Plan, prepared by SCT Consulting, which detailed the overall master plan and the associated transport impacts. This project is for the Build-to-Rent (BTR) component of the overall master plan (shown in **Figure ES-1**).

The proposal involves the site preparation and development of a 23-storey mixed use development, consisting of commercial premises and a residential flat building with 180 build-to-rent dwellings. The building includes 4 storey podium and an additional 19 storey residential tower, including retail premises, services, lobby and communal open space. The proposed works include the preparation of the site, including connection of services and utilities and site fill to align with existing public domain.

This Transport Impact Assessment has been prepared to support an SSDA (ref. SSD-100006957) for the proposed BTR development.

Figure ES-1 Build-to-Rent building



Source: FK, 2025

Existing conditions

The site is in the dense urban context of Chatswood CBD. As such, it features a well-established and highly connected transport network that supports its role as a major commercial and retail centre.

The area benefits from excellent public transport accessibility, anchored by the Chatswood Interchange, which integrates heavy rail, metro, and numerous bus services providing strong links to the Sydney CBD and surrounding suburbs.

Pedestrian connectivity is generally very good with a fine-grained street layout, wide footpaths and multiple signalised crossings that facilitate safe and convenient movement throughout the CBD. Cycling facilities are gradually improving, although cycling remains secondary to other modes.

The road network is heavily trafficked, with key arterial routes such as the Pacific Highway and Mowbray Road carrying significant volumes of through and local traffic, resulting in periods of congestion, particularly during peak hours. Traffic modelling indicates that all intersections operate satisfactorily except for the Pacific Highway | Mowbray Road intersection. This intersection prioritises through traffic on Pacific Highway, shifting delays to other lower order roads (Mowbray Road and Mowbray Road West). As such, it was observed that queues would propagate (particularly in the AM peak) along Mowbray and Hampden Roads.

Transport and parking impacts

Based on the appraisal undertaken, the following impacts from the proposed development were observed:

- Walking and cycling
 - The development is expected to generate up to 109 walking and cycling trips (including linked to public transport trips) during peak periods, a small increase that can be easily accommodated within the existing and planned active transport network.
- Public Transport
 - An additional 83 AM and 98 PM public transport trips are anticipated, which can be comfortably absorbed by the surrounding public transport network given the available spare capacity at nearby train stations and bus services.
- Road network
 - The proposal is expected to generate up to 29 vehicle trips per peak hour, equivalent to about one vehicle every two minutes. This is a minimal addition that falls within normal daily traffic variations and would have negligible impact on the road network operations.
- Parking
 - The DCP requirements are contextually appropriate and suitable for developments in the Willoughby LGA. The total parking provision exceeds the DCP requirements and therefore, no adverse parking impacts are anticipated.
- Construction
 - The project is in its early stages, with many elements of the construction activities unconfirmed. However, considering the size of the development, it is not anticipated to have a major impact on the network performance. Before construction, a detailed construction traffic management plan (CTMP) would be developed, in consultation with the relevant authorities, which would seek to minimise any delays, disruptions, and safety risks.

In conclusion, the surrounding existing and planned transport network is forecast to be able to accommodate the increased demand from the proposal. No mitigation measures are required to support the operation of the proposed BTR development at the Chatswood Dive Site.



Introduction

1

1.1 Project background

The site known as the Chatswood 'Dive Site' consists of 20 lots located at 339 Mowbray Road, 569 Pacific Highway, 589 Pacific Highway, L 591 Pacific Highway, 607 Pacific Highway, 5 Bryson Street, and 8 Bryson Street, Chatswood. The site details are as shown in **Table 1-1**.

Table 1-1 Related Lot/Section/Plan for Chatswood 'Dive Site'

Address	Lot/Section/Plan
339 Mowbray Road, Chatswood	1/-/DP243111, 2/-/DP537580, 5/-/DP65670, 18/-/DP60346, 4/-/DP65670, 6/-/DP65670, 2/-/DP221896, 5/-/DP524631, 6/-/DP66854
569 Pacific Highway, Chatswood	1/-/DP204133
589 Pacific Highway, Chatswood	1/-/DP216408, 1/-/DP508715, 3/-/DP58646
L 591 Pacific Highway, Chatswood	1/-/DP503447
607 Pacific Highway, Chatswood	1/-/DP537580, 3/-/DP455907, 4/-/DP455907
5 Bryson Street, Chatswood	3/-/DP961402
8 Bryson Street, Chatswood	6/-/DP72759
Bryson Street, Chatswood	2/-/DP1223080

The site is located within the Willoughby City Local Government Area, approximately 7km north of Sydney CBD, and approximately 650 metres south of Chatswood Train Station and 650 metres north-west of Artarmon Train Station. The site is situated within the Chatswood CBD.

The site has a total area of approximately 18,854 square metres, however the BTR site is 2,789 square metres.

The site is located on the corner of Pacific Highway and Mowbray Road, with a northern site frontage to Nelson Street. The site is surrounded by detached residential development to the north, west and partially south. To the south of the site includes functioning industrial uses. The site's eastern interface is to a functioning entrance to the Sydney Metro line and acts as a buffer to the rail line directly east. The current site context is illustrated in **Figure 1-1**.

Figure 1-1 Site plan



Source: FK Australia, 2025

This BTR SSDA will seek consent for:

- Site subdivision and construction of a high density 23-storey mixed-use building for the delivery of 180 apartments, including a mixed-use podium and residential tower with a height of approximately 79.25m, and associated services, including the:
 - Ground floor, including 5 residential dwellings facing the future streetscape, residential lobby and internal services, commercial/retail tenancies, services, lift shaft and fire stairs.
 - Level 1 and 2 Podium, including 8 dwellings per floor inclusive of 5 terraces on Level 1, 37 car spaces total, services, lift core and fire stairs.
 - Level 3 Podium, including the communal internal amenity area and communal outdoor space, services, lift core and fire stairs.
 - Level 4-10 Tower, including 8 dwellings, services, lift core and fire stairs.
 - Level 11-22 Tower, including 9 dwellings, services, lift core and fire stairs.
 - Civil works, earthworks, and external landscaping, consisting of a mix of hard and green space and a public art feature.

1.2 Purpose of this study

This Transport Impact Assessment (TIA) has been prepared to support a state significant development application (SSDA) (ref. SSD- SSD-100006957) for the proposed development known as 'Chatswood 'Dive Site' Built-to-Rent' SSD located at 339 Mowbray Road, Chatswood.

The proposal involves the site preparation and development of a 23-storey mixed use development, consisting of commercial premises and a residential flat building with 180 build-to-rent dwellings. The building includes 4 storey podium and an additional 19 storey residential tower, including retail premises, services, lobby and communal open space. The proposed works include the preparation of the site, including connection of services and utilities and site fill to align with existing public domain.

A proposal for SSD requires the preparation of an Environmental Impact Statement (EIS). This report has been prepared in support of the EIS and its purpose is to assess and mitigate any transport impacts that arise from the proposal. The report aims to address the following Secretary's Environmental Assessment Requirements (SEARs):

- Section 9 – Transport
 - *Provide a Transport Impact Assessment (TIA) in accordance with the processes and methodology recommended in the Guide to Transport Impact Assessment (GTIA) published by TfNSW.*
 - This report satisfies this requirement.
 - *If the construction of the development would cause interruptions to regular pedestrian and transport routes (including public transport, active transport or general traffic), a preliminary Construction Traffic (or Transport) Management Plan (CTMP) should be prepared as part of the TIA to mitigate any such impacts.*
 - This has been addressed in **Section 6.0**.

I, Andy Yung, confirm this Transport Impact Assessment addresses the study requirements requirement of SEAR No. 9 (Transport) and relevant State and local legislation, policies, and guidelines including Guide to Transport Impact Assessments (TfNSW, 2024). I further confirm that none of the information contained in this report is false or misleading.

1.3 Report structure

- **Section 2.0** summarises the relevant planning and transport policies and strategies.
- **Section 3.0** describes the existing transport and traffic conditions surrounding the development site.
- **Section 4.0** provides more details about the design and access of the Essential Worker BTR building, as part of the SSDA.
- **Section 5.0** outlines the methodology and findings of the impact assessment.
- **Section 6.0** details the Preliminary Construction Traffic Management Plan and proposed mitigation measures.
- **Section 7.0** summarises the conclusions and recommendations of the assessment.

1.4 Consultation

As discussed in **Section 1.1**, this submission is being concurrently assessed with the wider the Concept SSDA and Rezoning Proposal for the overall master plan.

Transport for NSW (TfNSW) and Sydney Metro have been part of a Transport Working Group (TWG) that collaborated on the development of the overall master plan. As such, TfNSW is aware of the BTR component and is anticipating this SSDA submission. The consultations from the Rezoning Proposal stage have been summarised in **Table 1-2**.

Table 1-2 Technical Working Group meetings

Meeting #	Date	Participants	Key topics
Inception	1 July 2025	TfNSW and Landcom	- Introducing the proposal to TfNSW - Discussion of the potential access strategies to be supported by TfNSW. - Discussion of key issues that need to be addressed as part of the master plan development.
TWG #1	16 July 2025	TfNSW, Landcom, FK and SCT	- Progress update - Traffic modelling approach - Setback requirements on Mowbray Road for SP2 zone
TWG #2	24 July 2025	TfNSW, Landcom, FK and SCT	- Proposed access arrangements - Discussion on issues for each proposal - Shortlisted options
TWG #3	30 July 2025	TfNSW, Landcom, FK and SCT	- Refined access arrangements - Updated master plan
TWG #4	20 August 2025	TfNSW, Landcom, FK and SCT	- Internal network design (to be a shared zone) - Discussion of Sydney Metro access requirements
TWG #5	17 September 2025	TfNSW, Landcom, FK and SCT	- Refined access arrangements with the incorporation of Sydney Metro requirements - Refined shared zone design (exclusion of a transition zone) - Sydney Metro identified the requirement for a fire appliance access - Mowbray Road Hampden Road proposed redesign to improve pedestrian experience
TWG #6	29 September 2025	TfNSW, Landcom, FK and SCT	- Further discussion regarding design Mowbray Road Hampden Road - Discussion on modelling methodology
TWG #7	15 October 2025	TfNSW, Landcom, FK, Arcadis and SCT	- Program updates - Further discussion regarding the shared zone design.
TWG #8	29 October 2025	TfNSW, Landcom, FK, Arcadis and SCT	Discussion of Mowbray Road Hampden Road design
TWG #9	12 November 2025	TfNSW, Landcom, FK, Arcadis and SCT	- Discussion of shared zone design - Discussion of Mowbray Road Hampden Road intersection design

Following the consultation meetings, several changes were incorporated into the design and methodology to reflect the outcomes of the discussions. These were:

- Modelling methodology (intersections to model)
- Final access strategy
- Intersection design of Mowbray Road | Hampden Road intersection
- Shared zone design to accommodate a fire appliance vehicle at the Sydney Metro Maintenance Facility
- Further offset of access driveway for Towers A & B to minimise the risk of queue spillback onto Pacific Highway.



Strategic Context

2

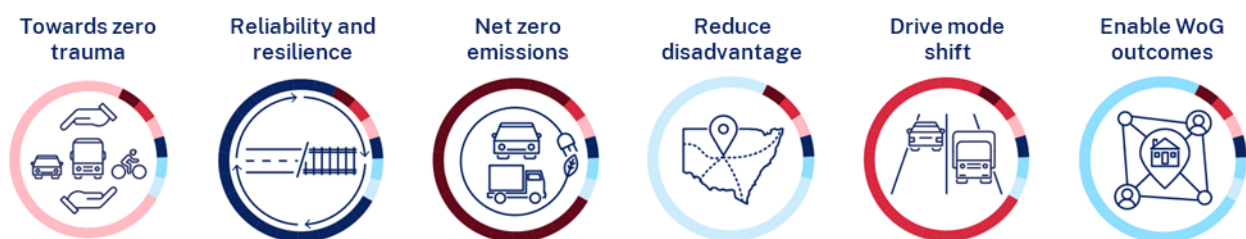
2.1 State planning context

2.1.1 Connecting NSW Strategy

The Connecting NSW Strategy sets the direction for Transport for NSW to make travel across the state safe, reliable, accessible and sustainable. It responds to major challenges such as population growth, ageing infrastructure, climate impacts, rising maintenance costs, and inequitable access to transport. The strategy focuses on “getting back to basics” by improving safety (aiming for zero transport trauma), restoring reliability of roads and public transport, and making infrastructure more resilient to weather, disruptions and future demands. It also commits to cutting transport emissions by transitioning fleets to zero-emission technologies, expanding public and active transport options, and supporting the shift to electric and low-emissions vehicles. The strategy identifies six priorities (shown in Figure 2-1) that work together to better connect communities across NSW:

- **Towards zero trauma** – eliminate deaths and serious injuries across all transport modes.
- **Restore reliability & build resilience** – reduce disruptions, improve maintenance, and strengthen the network against extreme weather.
- **Transition to net zero emissions** – decarbonise operations, support EV uptake, and enable cleaner freight.
- **Reduce transport disadvantage** – ensure fair access to jobs, services, and opportunities, especially for regional, low-income, Aboriginal and vulnerable communities.
- **Reimagine road space to drive mode shift** – make walking, cycling, public transport and freight rail more attractive than private car use.
- **Enable whole-of-government outcomes** – support housing delivery, economic productivity, energy transition and Closing the Gap

Figure 2-1 The six priorities



Source: *Connecting NSW Strategy* (Transport for NSW, 2025)

Implications to the site

The proposal will aim to align with the principles of the Connecting NSW Strategy. Particular focus is placed on mode shift to reduce reliance on cars and transition to net zero emissions.

2.1.2 NSW Movement and Place Framework

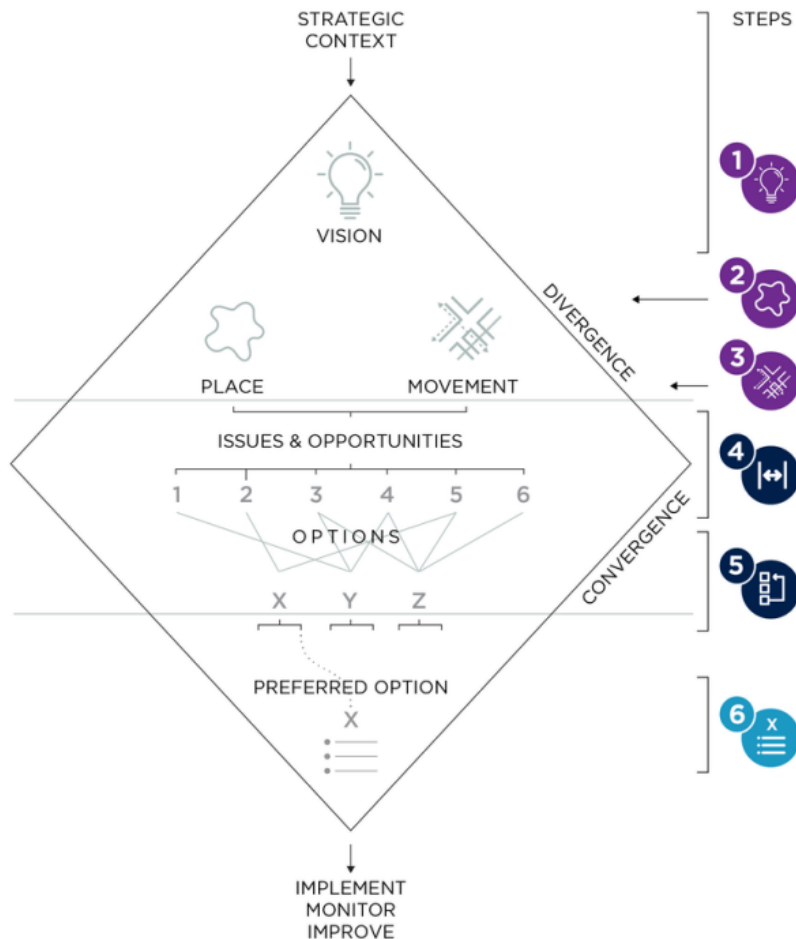
TfNSW has adopted the *Movement and Place Framework* for planning and managing its road network. The Place-based planning approach embedded in the *Movement and Place Framework* involves a collaborative, spatial, long-term approach to develop contextual responses that better meet the needs of local people and their environment in a defined geographic location. The Framework aims to support and build thriving communities and is ideally characterised by partnering and shared design, shared stewardship, and shared accountability for outcomes and impacts. This plan has used a place-based approach, with land use, urban form, and population demographics playing key roles. It also provides a standard structure for place-based transport and urban planning across NSW. The objectives of the Framework are to achieve roads and streets that:

- Contribute to the network of public space within a location where people can live healthy, productive lives, meet each other, interact, and go about their daily activities.

- Are enhanced by transport and have the appropriate space allocation to move people and goods safely and efficiently and connect places. Supporting the Place recognises that trade-offs may be required to fit the objectives best.

The *Movement and Place Framework* sets out a collaborative approach for practitioners, stakeholders, and the community to work together, shown in **Figure 2-2**, as well as criteria for measuring and evaluating the alignment of movement and Place.

Figure 2-2 Movement and place framework



This Practitioner's Guide to Movement and Place provides practitioners with a collaborative, iterative process that can guide consultation, analysis, decision-making, and evaluation throughout the life cycle of a plan or project. It details the importance of considering the whole street, which includes people walking and cycling and spending time in places. There are also a variety of Built Environment Indicators, which are based on qualities that contribute to a well-designed built environment. The ones relevant to this study are as follows:

- Active transport
 - Catchments assess the walkability/cyclability of a network. It provides an understanding of what can be accessed within a set distance.
 - Permeability provides an insight into the extent to which an urban area permits ease of movement for people walking and cycling. It is a direct count of intersections within a 1km hexagon. Depending on the number of intersections, the result will be related to a Level of Service (LoS) ranging from A to F (**Figure 2-3**), with F being the least number of intersections.

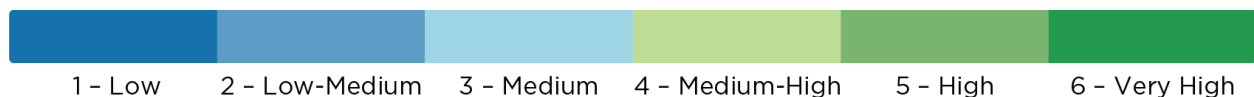
Figure 2-3 Permeability index (LoS F to A, left to right)



– Public transport

- Public Transport Accessibility Level (PTAL) suggests how well the Place is connected to public transport services for any selected place. It does not cover trips by car. **Figure 2-4** shows the different PTAL categories.

Figure 2-4 Public Transport Accessibility Levels



Implications to the site

The proposal will be assessed against the Built Environment Indicators (BEI) detailed in this section.

2.1.3 Road User Space Allocation Policy

The *Road User Space Allocation Policy* applies to the entirety of the public road reserve from boundary to boundary on proposed and existing classified roads in built-up areas in regional and metropolitan NSW, except for motorways.

By implementing this policy, Transport ensures that the allocation of road user space is a deliberate exercise that considers the place, function, and movement requirements of roads to achieve the strategic intent and outcomes set out in state-wide, metropolitan, and regional strategies and plans. An action that assists in achieving these objectives is optimising how space is allocated throughout the day, week or year, including the dynamic control of space, access, priority level, speed, and kerbside use through signage, signals, and other technology.

It also notes that when allocating road user space based on the network vision and road functions, it is important to consider all road users in order of:

- Walking (including equitable access for people of all abilities)
- Cycling (including larger legal micromobility devices)
- Public transport, freight, and deliveries
- Point-to-point transport
- General traffic and on-street parking for private motorised vehicles.

Implications to the site

The proposal will consider the different modes of transport and pay particular focus on the sustainable forms of transport. The assessment will be conducted in the order identified above.

2.1.4 State Environment Planning Policy (Housing) 2021

The *State Environment Planning Policy (Housing) 2021*, or HSEPP, facilitates the development of affordable and diverse housing in the right places and for every stage of life. The HSEPP includes the planning provisions for:

- Boarding houses
- **Build-to-rent housing**
- Senior's Housing
- Caravan parks and manufactured home estates
- Group homes
- Retention of existing affordable rental housing
- Secondary dwellings (granny flats)
- Social and affordable housing
- Short-term rental accommodation
- Design quality of residential apartment development.

Implications to the site

The proposal will be submitting as a concurrent State Significant Development Application for the BTR housing component. The BTR dwellings will need to consider the Housing SEPP provisions including the ones relating to car parking.

2.1.5 State Environment Planning Policy (Transport and Infrastructure) 2021

The *State Environmental Planning Policy (Transport and Infrastructure) 2021* aims to facilitate the planning and development of transport and infrastructure systems while ensuring environmental sustainability and community benefits. The SEPP outlines the planning rules for delivering most infrastructure works across NSW, includes rules for:

- Providing greater flexibility in the location of infrastructure and services
- Allowing for efficient development of land for infrastructure
- Identifying projects where environmental impacts are likely to be minimal as exempt or complying development
- Outlining the approval process and assessment requirements for infrastructure proposals
- Allowing for consultation with relevant public authorities and communities about infrastructure development.

Particular focus was put on the following sections in the TISEPP:

- Section 2.97 Development involving access via level crossings
- Section 2.119 Development with frontage to classified road
- Section 2.122 Traffic-generating development, specifically for development identified in:
 - Schedule 3 Traffic-generating development to be referred to TfNSW.

Implications to the site

This transport assessment will need to consider the relevant provisions of the TISEPP and evaluate their applicability to the proposal.

2.2 Local planning context

2.2.1 Community Strategic Plan: Our Future Willoughby 2032

Our Future Willoughby 2032 (the Community Strategic Plan (CSP)) outlines the community's vision and long-term priorities, shaped by consultation and a mid-term review of the 2028 plan. The CSP identifies the community's aspirations for a diverse, liveable, and prosperous city, with five key outcomes to achieve this vision (as shown in **Figure 2-5**). This outcome emphasises the following objectives:

- Improved transport options and connections
- Better congestion and parking management
- Fostering resilience and accessible services.

Key priorities include enhancing transport choices, reducing traffic congestion, and promoting accessible services across the community.

Figure 2-5 CSP Key outcomes to achieve



Source: Our Future Willoughby 2032, Willoughby City Council

Implications to the site

This CSP supports the creation of cities that are well connected, liveable, vibrant and promote accessible services. The proposal will need to consider how it interacts with the surrounding infrastructure to ensure it integrates with the surrounding movement network.

2.2.2 Willoughby City Local Strategic Planning Statement (2020)

The *Local Strategic Planning Statement (LSPS)* outlines the 20-year vision, planning priorities and actions for land use in the Willoughby City Council. The transport specific actions are informed by Future Transport 2056 and the State Infrastructure Strategy. It focuses on key themes such as creating a liveable, productive, and sustainable cities, while ensuring infrastructure aligns with growth.

Relevant directions and Council priorities related to traffic and transport include:

- Enhance walking and cycling connections in Willoughby, reducing car use and expanding path networks
- Develop Chatswood as a major transport hub, increasing residents, workers, and peak-hour commuters
- Collaborate with organisations to expand infrastructure, including increasing capacity at Chatswood Bus Interchange with Transport for NSW
- Connecting Willoughby's network of centres with each other and with Greater Sydney through mass transit.

The LSPS presents key planning priorities aligning with the *Greater Sydney Commission's Greater Sydney Region Plan* and *North District Plan*.

Implications to the site

The LSPS identifies key traffic and transport considerations when delivering housing. The proposal will need to consider how its design supports strategic housing growth near public transport hubs, minimises car dependency and enables walkable access to local amenities.

2.2.3 Willoughby Integrated Transport Strategy 2036 (2020)

The *Willoughby Integrated Transport Strategy 2036* is aligned with the *Community Strategic Plan (CSP) Our Future Willoughby 2028* and reflects the major vision for transport in the area. The Strategy aims to provide quality transport options to help achieve a future of sustainable transport behaviour.

The strategy focuses on:

- Increased and more efficient public transport
- Up-to-date physical and digital connectivity
- Greater variety and ease of parking options
- Decreased traffic congestion
- Improved sustainability and active transport options
- The development of safe and walkable neighbourhoods to promote community health and wellbeing.

Figure 2-6 Congestion points in Willoughby LGA

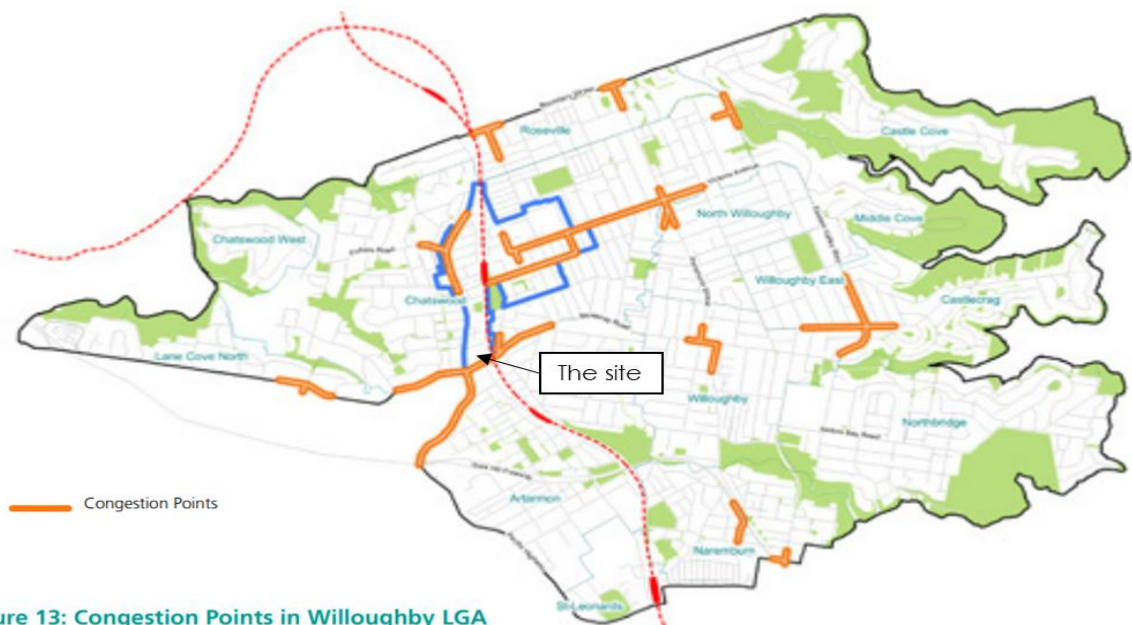


Figure 13: Congestion Points in Willoughby LGA

Source: Willoughby Integrated Transport Strategy 2036

The Strategy identifies congestion points within the LGA including Mowbray Road (as shown in **Figure 2-6**). Key transport specific initiatives that will impact the site includes:

- Complete all actions associated with dedication of road widening at the Sydney Metro City & Southwest 'dive site' at the intersection of the Pacific Highway and Mowbray Road
- Continue to develop and complete priority actions to improve traffic flow in and around the Chatswood CBD
- Investigate and prepare a report on the benefits of car sharing and carpooling including setting targets for these transport modes

- Work with Transport for NSW to continue identifying potential ‘pinch point’ road network improvements and other measures including the possibility for peak hour tidal flows on the Pacific Highway.

Implications to the site

The Strategy identifies that the site will benefit from the delivery of dedicated road widening at Pacific Highway and Mowbray Road. This will help alleviate the congestion point located directly in front of the site.

2.2.4 Draft City Council Cycling Strategy and Action Plan 2034

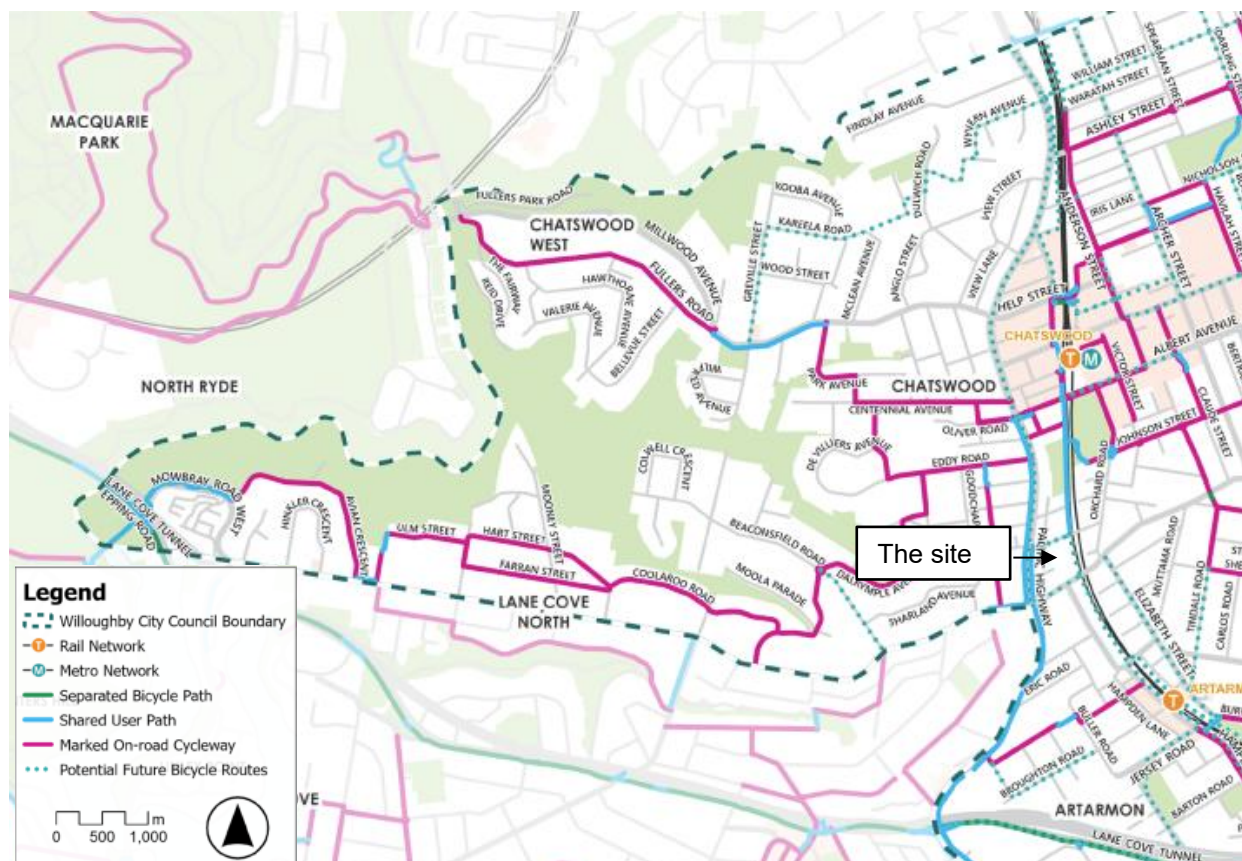
The *Draft City Council Cycling Strategy and Action Plan 2034* is an update of the *Willoughby Bike Plan (2017)*, aiming to address the evolving needs of the cycling community. The Strategy provides a roadmap for cycling, micromobility, and integrated transport initiatives over the next decade.

The Strategy outlines key cycling priorities focused on safety, connectivity, integration, and promoting cycling, along with a timeline for implementing actions to achieve these goals with key actions which may impact the site being:

- Expand existing low-speed zones to cover key local centres and explore options for lowering speed limits on select Council roads.
- Create a strategic bicycle network in Willoughby, connecting key routes from Chatswood CBD to important destinations across the City.
- Revise sections of the regional bicycle network within Willoughby to align with the TfNSW strategic cycleway network.

The site is also well located to take advantage of the cycle network as shown in **Figure 2-7**.

Figure 2-7 Willoughby Bicycle Network Plan (extract)



Source: Cycling Strategy and Action Plan 2034

The site is located within close proximity to potential future bicycle routes planned to take place on Pacific Highway, Mowbray Road, Elizabeth Street and Hampden Road. The future bicycle routes will expand on the existing network to provide safe and direct cycling links that can be used by people of all ages and abilities.

Implications to the site

The site will benefit from the delivery of the new Chatswood to St Leonards Cycleway proposed via Hampden Road and Herbert Street linking to Mowbray Road, Chatswood. The work will include a two-way cycleway and shared paths along the east side of the road in Hampden Road and Herbert Street. The cycle way will enable a future bicycle connection to Chatswood CBD and Pacific Highway via the Sydney Metro Chatswood Dive Site connections.

2.2.5 Chatswood CBD Strategic Planning and Urban Design

The *Chatswood CBD Planning and Urban Design Strategy (CCPUDS) (2020)* outlines a 20-year vision for the precinct, focusing on increased population and employment growth. The Strategy includes the subject site within the CBD boundary and proposes new links, open space, and landscaping to prioritise pedestrian and cycling connections as shown in **Figure 2-8** and **Figure 2-9**. An 'open-air 24-hour through-site link' is shown through the subject site.

Figure 2-8 Expansion of Chatswood CBD Boundary

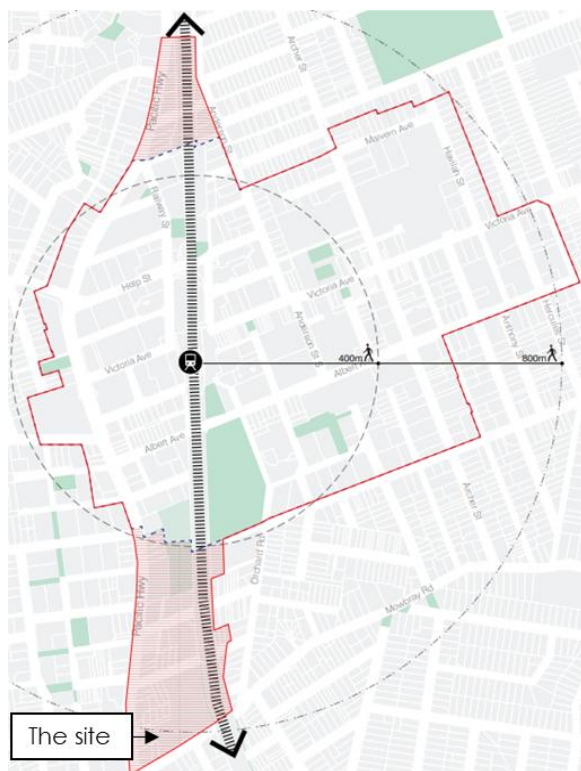
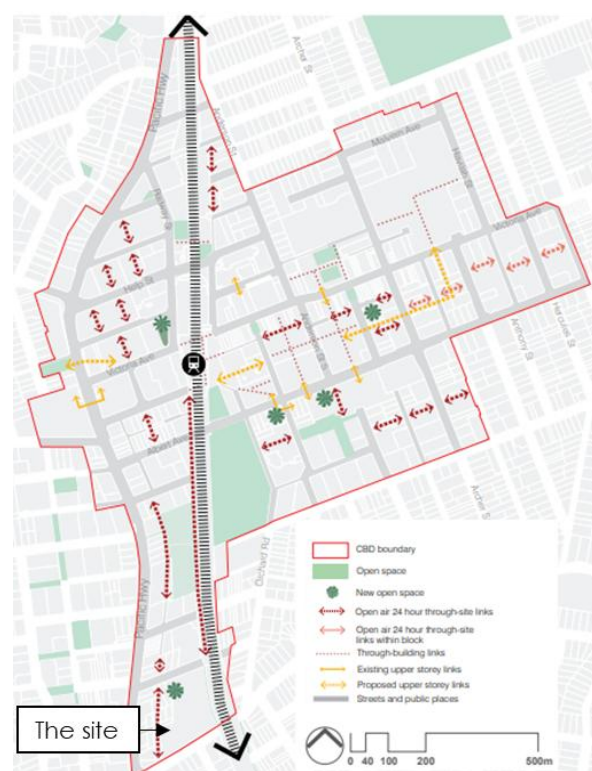


Figure 2-9 Connection points in Willoughby LGA



The CBD Strategy employs a Travel Demand Management approach seeking to modify travel decisions to achieve more desirable transport, social, economic and environmental objectives. Applicable site-specific traffic and transport issues are to be addressed as follows:

- Vehicle entry points rationalised to minimise streetscape impact, with one entry/exit per site and loading docks in basements
- Vehicles enter and exit in a forward direction
- All loading/unloading to occur on-site
- Reduce car parking by applying RMS (now Transport for NSW) rates for sites near public transport and encouraging car share and reciprocal parking strategies.

2.2.6 Future Conditions Report: Chatswood CBD Strategic Study

The *Future Conditions Report: Chatswood CBD Strategic Study*, provides analysis of traffic modelling for 2036 for both the base case and uplift case (consistent with the CCPUDS uplift scenario). The maps are shown below in **Figure 2-10** and **Figure 2-11**.

Figure 2-10 Expansion of Chatswood CBD Boundary

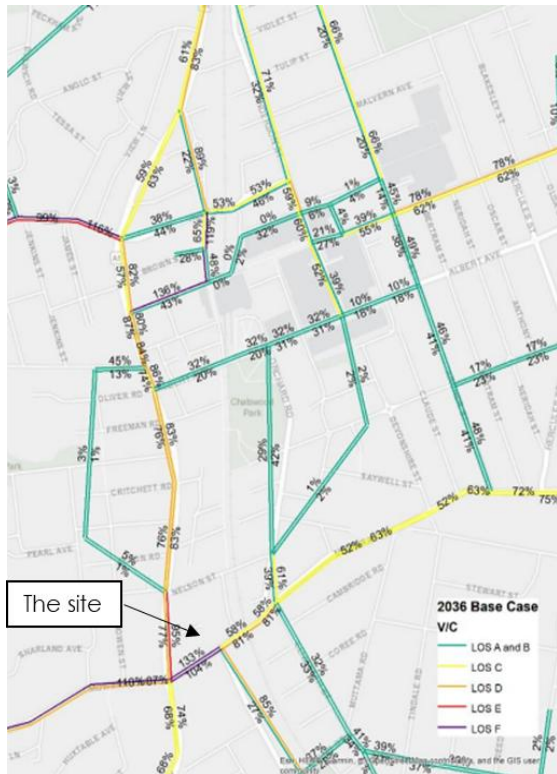
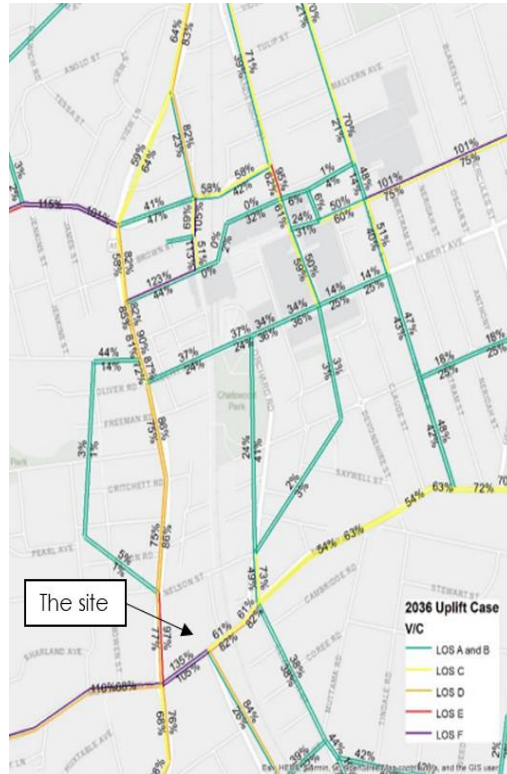


Figure 2-11 Congestion points in Willoughby LGA



Despite an expected shift toward public transport, the report indicates that private vehicle trips are expected to increase. The study found that differences between the base and uplift scenarios primarily affect the internal road network within the Chatswood CBD, which is likely influenced by variations in population and employment distributions across the precinct.

Changes in the Level of Service (LoS) of the roads surrounding the site (Pacific Highway and Mowbray Road) are shown to be 1-2% higher than the base case in the uplift scenario, which remains at LoS F.

This suggests that performance at the Pacific Highway | Mowbray Road intersection is already strained. While population growth in the CBD will obviously mean more traffic, the impact of additional traffic is unlikely to make the problems already experienced much worse.

Implications on the site

The future conditions report provides an understanding of the future traffic conditions of Chatswood CBD. Considering the already constraint network, the proposal should prioritise supporting a shift to more sustainable forms of transport to avoid compounding on the traffic congestion.



Understanding the context

3

3.1 Site context

The site known as the Chatswood 'Dive Site' consists of 20 lots located at 339 Mowbray Road, 569 Pacific Highway, 589 Pacific Highway, L 591 Pacific Highway, 607 Pacific Highway, 5 Bryson Street, and 8 Bryson Street, Chatswood. The site details are as shown in **Table 1-1**.

Table 3-1 Related Lot/Section/Plan for Chatswood 'Dive Site'

Address	Lot/Section/Plan
339 Mowbray Road, Chatswood	1/-/DP243111, 2/-/DP537580, 5/-/DP65670, 18/-/DP60346, 4/-/DP65670, 6/-/DP65670, 2/-/DP221896, 5/-/DP524631, 6/-/DP66854
569 Pacific Highway, Chatswood	1/-/DP204133
589 Pacific Highway, Chatswood	1/-/DP216408, 1/-/DP508715, 3/-/DP58646
L 591 Pacific Highway, Chatswood	1/-/DP503447
607 Pacific Highway, Chatswood	1/-/DP537580, 3/-/DP455907, 4/-/DP455907
5 Bryson Street, Chatswood	3/-/DP961402
8 Bryson Street, Chatswood	6/-/DP72759
Bryson Street, Chatswood	2/-/DP1223080

The site is located within the Willoughby City Local Government Area, approximately 7km north of Sydney CBD, and approximately 650 metres south of Chatswood Train Station and 650 metres north-west of Artarmon Train Station. The site is situated within the Chatswood CBD.

The site has a total area of approximately 18,854 square metres, however the BTR site is 2,789 square metres.

The site is located on the corner of Pacific Highway and Mowbray Road, with a northern site frontage to Nelson Street. The site is surrounded by detached residential development to the north, west and partially south. To the south of the site includes functioning industrial uses. The site's eastern interface is to a functioning entrance to the Sydney Metro line and acts as a buffer to the rail line directly east. The current site context is illustrated in **Figure 1-1**.

Figure 3-1 Site plan



Source: FK Australia, 2025

3.2 Land use

The surrounding land use is shown in **Figure 3-2**. The site is located within an area zoned as MU1: Mixed Use and is bounded by infrastructure zoning that denotes Pacific Highway, Mowbray Road and the rail corridor.

To the west, along Pacific Highway is land zoned for Productivity Support. To the north and east, towards Orchard Road and Mowbray Road, the area is predominantly Medium Density Residential. South and south-west of the site, land transitions from Medium Density to High Density Residential.

Supporting the residential clusters are several Public and Private Recreation zones scattered around to encourage pedestrian activity.

Figure 3-2 Existing land use



3.3 Travel Behaviour

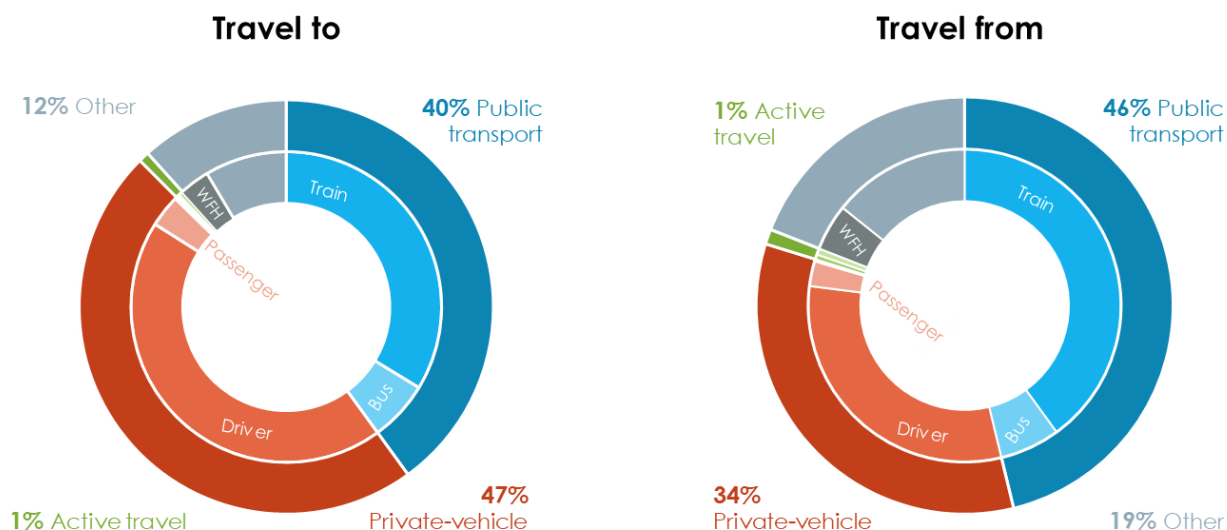
The Australian Bureau of Statistics (ABS) Census data from 2016 was analysed to develop an understanding of residents' existing travel behaviour in the vicinity of the site. The 2016 Census data was chosen for analysis because it would provide a better representation of typical travel behaviour. This is because the 2021 data (the most recent dataset) was collected during 2021, which fell during the COVID-19 statewide lockdowns.

Specifically, the travel mode share of the residents was derived from the Method of Travel to Work data, which asked people about the method(s) they typically use to travel to their place of work. The Residents' Place of Work (POW) and Workers' Usual Residence (UR) data were analysed to determine the major employment-based origins and destinations within the relevant Statistical Area 2 (SA2). The site is located in the Chatswood (East) – Artarmon SA2.

Figure 3-3 summarises the travel mode share for employees and residents. In 2016, the results for employees travelling to Chatswood indicated that private vehicles were the primary mode of transport, accounting for 47 per cent. This was followed by public transport accounting for 40 per cent, and active transport at 1 per cent.

In contrast, Chatswood residents' main mode of transport was reported to be public transport at 46 per cent. This was followed by private vehicles at 34 per cent and one per cent active travel. Trains were reported as the main form of public transport at 34 and 40 per cent for employees and residents, respectively.

Figure 3-3 Existing travel behaviour in Chatswood (East) – Artarmon



Source: Australian Bureau of Statistics, 2016

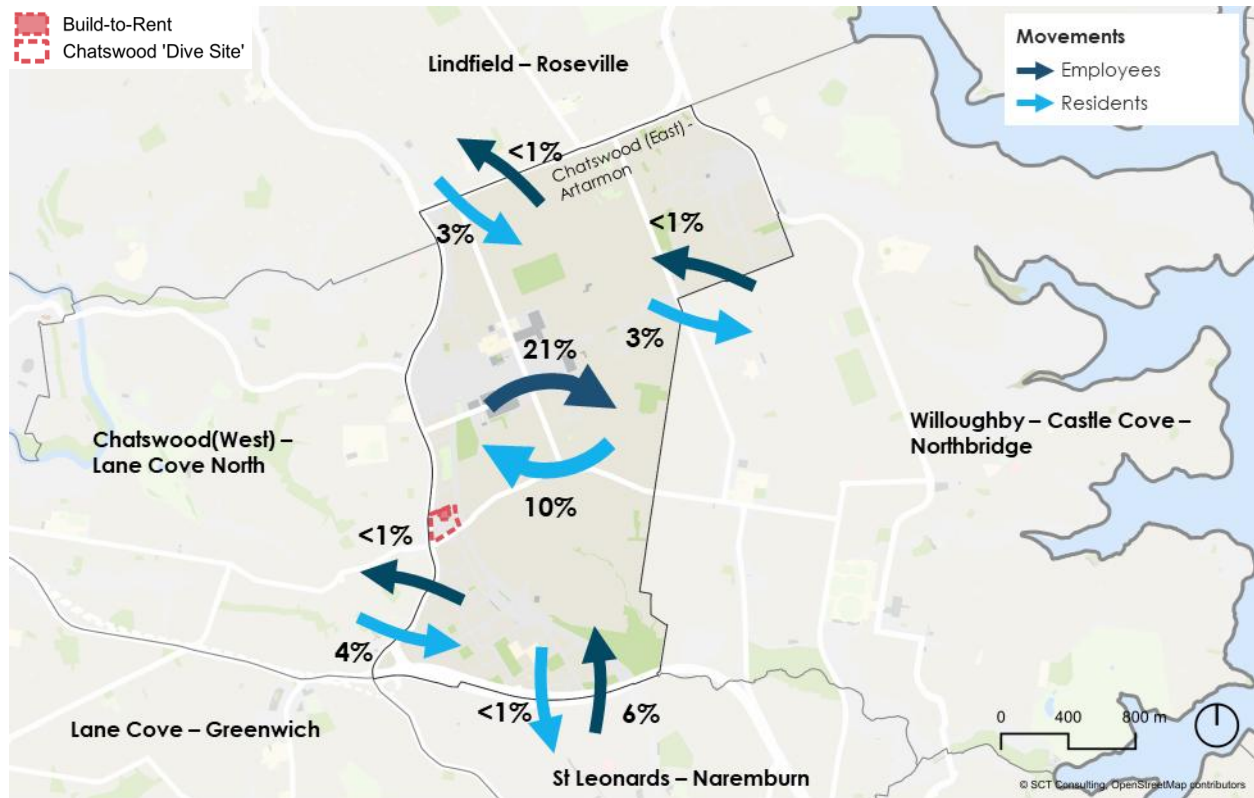
The top five destinations for residents and origins for employees in Chatswood (East) - Artarmon are tabulated in **Table 3-2**. Among residents commuting out for work, Sydney – Haymarket – The Rocks was the most common destination, attracting 27 per cent of commuters. Other locations such as Chatswood (East) - Artarmon (21 per cent), North Sydney - Lavendar Bay (6 per cent), and St Leonards - Naremburn (6 per cent) also featured in the top five, suggesting a pattern of short-distance, inner-urban commuting likely facilitated by strong public transport links and active travel options such as cycling.

Conversely, the data on where employees working in Chatswood (East) - Artarmon originate from shows a more localised commuting pattern. Around 10 per cent of workers came from within Chatswood (East) - Artarmon itself, indicating some level of self-containment among residents who also work locally. Surrounding suburbs such as Chatswood (West) – Lane Cove North (4 per cent), Lindfield - Roseville (3 per cent), Willoughby - Castle Cove - Northbridge (3 per cent), and Gordon Killara (3 per cent) also contribute to the local workforce, highlighting a regional labour pool mainly drawn from nearby areas. The movements to the surrounding SA2s are shown in **Figure 3-4**.

Table 3-2 Top 5 destinations/origins for residents and employees within the Chatswood (East) – Artarmon

Employee usual place of residence (Top 5)	% of total	Places of work (Top 5)	% of total
Chatswood (East) - Artarmon	10%	Sydney - Haymarket - The Rocks	27%
Chatswood (West) - Lane Cove North	4%	Chatswood (East) - Artarmon	21%
Lindfield - Roseville	3%	North Sydney - Lavendar Bay	6%
Willoughby - Castle Cove - Northbridge	3%	St Leonards - Naremburn	6%
Gordon - Killara	3%	Macquarie Park - Marsfield	5%

Figure 3-4 Local movements to the surrounding SA2s



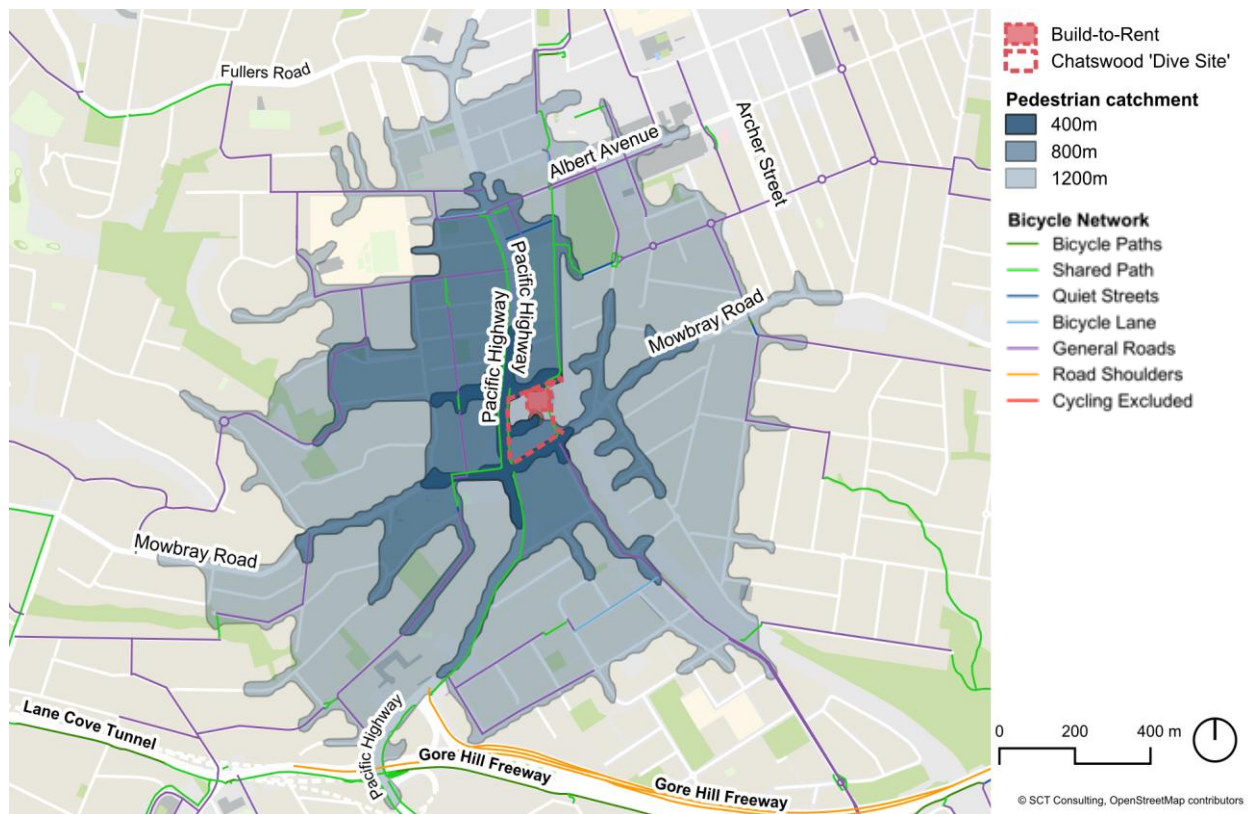
Source: Australian Bureau of Statistics, 2016, *Method of Travel to Work*

3.4 Pedestrian facilities

The site is well served by pedestrian infrastructure, as shown in **Figure 3-5**. The pedestrian facilities surrounding the site provide safe and efficient walking connections with Chatswood CBD (within 800m to 1km of the site), particularly Frank Channon Walk that provides an off-road shared path between the site and Chatswood CBD and station interchange. All streets bounding the site have a footpath on both sides of the road, with a majority of the streets within 400m having a footpath on at least one side.

Traffic signals at the Mowbray Road | Pacific Highway intersection, including the Mowbray Road site access with Hampden Road, provide signalised pedestrian crossing facilities across these major corridors, enabling pedestrians to access facilities on the other side of Mowbray Road and Pacific Highway.

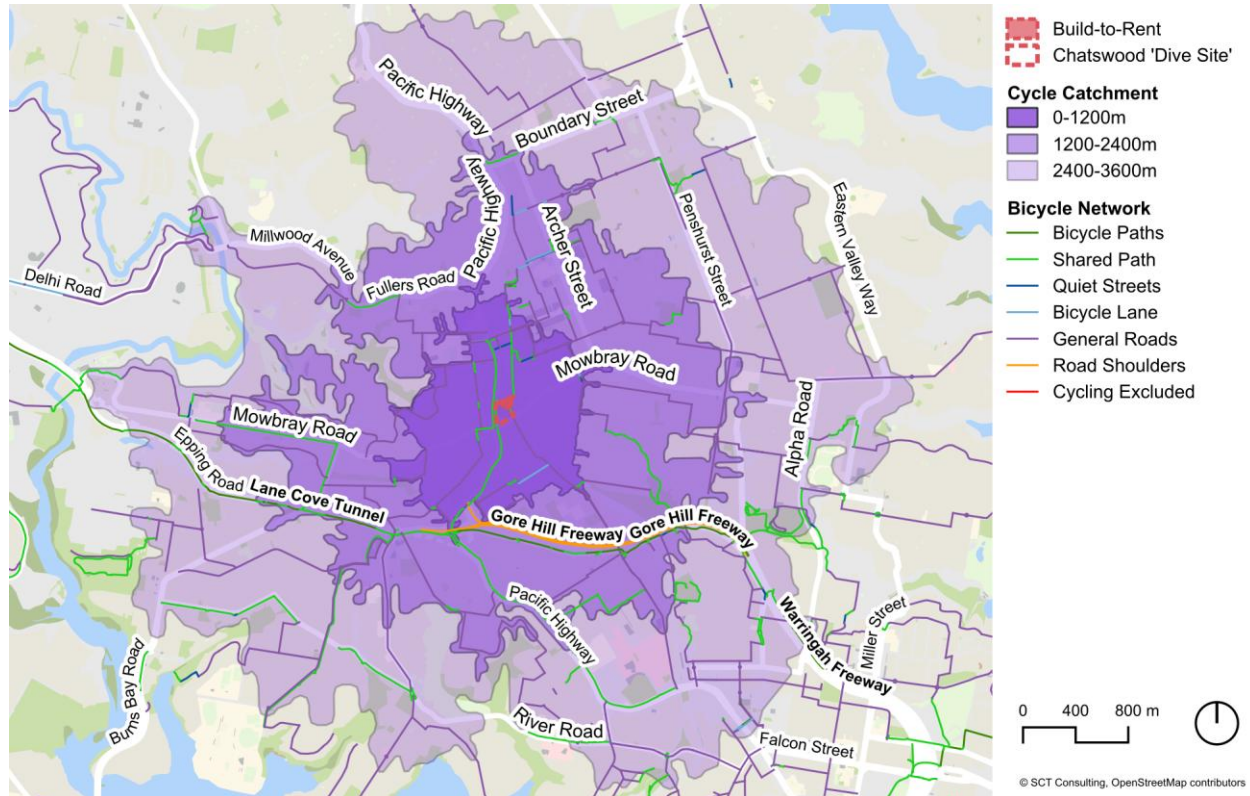
Figure 3-5 Pedestrian catchments



3.5 Cycling facilities

The surrounding cycle facilities are shown in **Figure 3-6**. The site is relatively well connected to the broader cycling network, with a shared path (Frank Channon Walk) along the eastern boundary of the site that runs along the length of the railway corridor between the site and Chatswood CBD and station interchange. The cycle paths on Pacific Highway and Epping Road also connect to the broader cycling network.

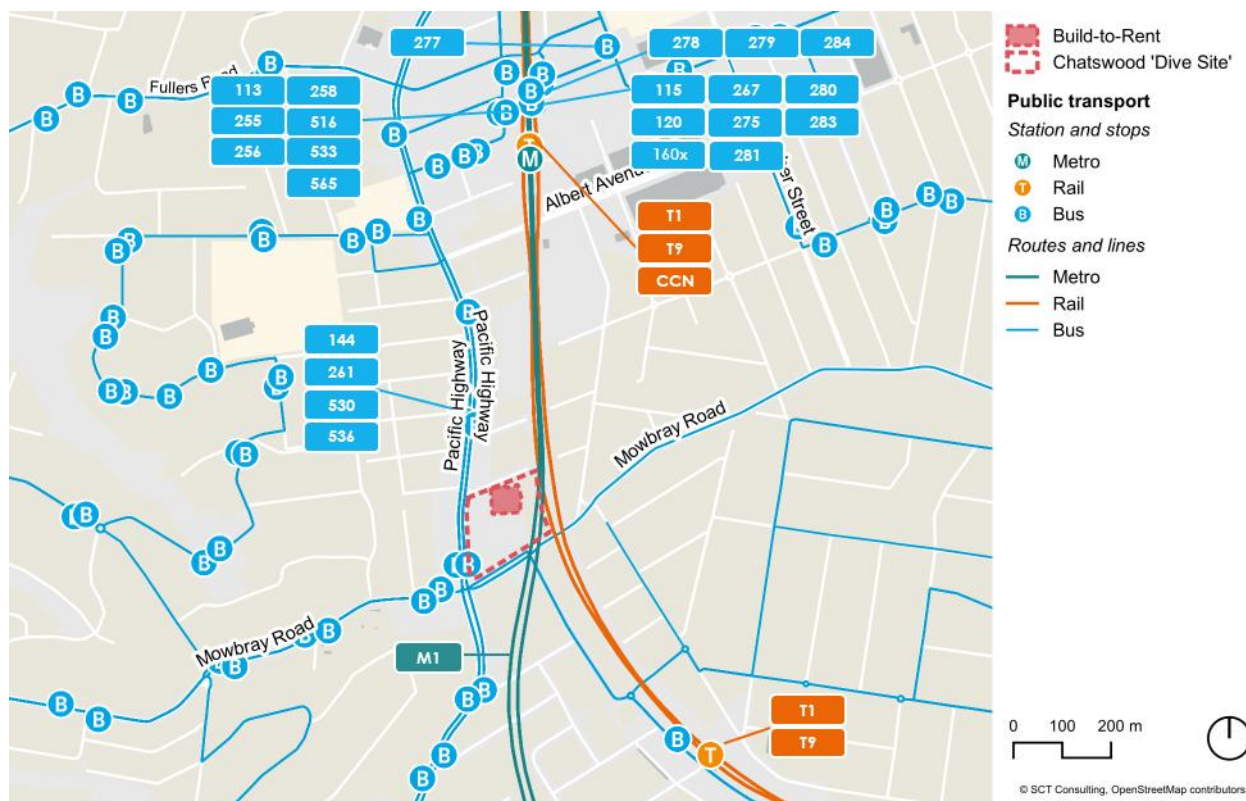
Figure 3-6 Cycle Network



3.6 Public transport

The site is well-positioned to take advantage of the highly accessible existing public transport network, which offers multiple options. The accessible public transport routes surrounding the site are shown in **Figure 3-7**.

Figure 3-7 Public transport network



3.6.1 Rail network

The site has very good connectivity to high-frequency rail services, with access to both train and metro services within 800m of the site. The closest train stations are Artarmon and Chatswood, both within a 10-minute walk of the site.

Chatswood Station is serviced by three train lines, including the T1-Berowra to City Line, T9-Hornsby to North Shore Line and the CCN-Central to Newcastle Line, in addition to the M1-Sydenham to Tallawong metro service. The T1 service operates at a frequency of 5-15 minutes during peak periods, while the T9 operates every 15 minutes during peak periods. The metro line also operates at a high frequency with services every four minutes during peak periods.

The rail occupancy data was derived from the Rail Opal Assignment (ROAM) system. The data provides an estimated range (in bins of 20 persons) of persons on a rail/metro service. As a conservative assumption, the analysis below takes the larger value of the range. This means the occupancy percentages would always be higher than they actually are.

Table 3-3 provides a summary of the ROAM data, detailing rail occupancies on weekdays before arrival at Chatswood Station. It is important to note that ROAM data currently only considers seated capacity. However, in urban areas, especially around the Sydney CBD, it is normal for passengers to stand on rail and metro services. These are high-frequency, short-distance trips where standing is common, particularly during peak hours. As such, this has been factored into the occupancy percentages shown in the table.

On average, all train and metro services at Chatswood Station are less than half full during the peak hours.

Table 3-3 Existing train occupancy

Route number	Average Occupancy	
	Weekday AM (8-9am)	Weekday PM (5-6pm)
T9	27%	13%
T1	44%	42%
CCN	12%	11%
Metro North West & Bankstown Line	46%	27%

Source: TfNSW Transport Open Data, 2025

3.6.2 Bus network

The bus network surrounding the site is presented in **Figure 3-7**. The bus stops are serviced by a combination of routes, providing access to the Northern Beaches (Dee Why and Frenchs Forest), Burwood, Gladesville and the City via the bus stops located within the vicinity of the site and Chatswood Station. The AM and PM peak hour frequency for these bus stops is summarised in **Table 3-4**.

Table 3-4 Existing AM and PM bus frequency

Route number	Route description	Weekday AM (8-9am)		Weekday PM (5-6pm)	
		Northbound / Eastbound	Southbound / Westbound	Northbound / Eastbound	Southbound / Westbound
115	Chatswood to North Sydney Station (Loop Service)	6	6	5	6
120	Chatswood to City QVB (Loop Service)	6	6	8	8
144	Chatswood to Manly via St Leonards	5	5	6	0
160X	Chatswood to Dee Why via Frenchs Forest (Express Service)	7	6	7	6
255	Chatswood to Colwell Cres and Beaconsfield Rd	2	0	2	0
256	Chatswood to Chatswood West (Loop Service)	2	0	0	0
258	Chatswood to Lane Cove West	0	0	1	0
261	North Sydney to Lane Cove via Longueville	1	0	0	0
267	Greenwich to Chatswood via Crows Nest	2	2	2	2
277	Chatswood to Castle Cove (Loop Service)	3	0	3	0
278	Chatswood to Killarney Heights (Loop Service)	0	4	0	5
279	Chatswood to Frenchs Forest (Loop Service)	0	1	0	0

Route number	Route description	Weekday AM (8-9am)		Weekday PM (5-6pm)	
		Northbound / Eastbound	Southbound / Westbound	Northbound / Eastbound	Southbound / Westbound
280	Chatswood to Warringah Mall	3	3	3	3
281	Chatswood to Davidson (Loop Service)	3	3	3	0
283	Chatswood to Belrose (Loop Service)	3	0	4	0
284	Chatswood to Terrey Hills and Duffys Forest	1	1	0	0
516	Chatswood to Top Ryde City via North Ryde	3	2	3	3
565	Macquarie University to Chatswood	3	3	3	2
530	Chatswood to Burwood	2	2	3	3
533	Chatswood to Sydney Olympic Park via North Ryde and Rhodes	0	4	0	4
536	Chatswood to Gladesville via Hunters Hill	0	1	0	2
Total		52	49	53	44

The bus occupancy data was derived from the Bus Opal Assignment Model (BOAM). The data provides an estimated range (in bins of 20 persons) of persons on a bus service. As a conservative assumption, the analysis below takes the larger value of the range. This means the occupancy percentages would always be higher than reality.

Table 3-5 provides a summary of the BOAM data, detailing bus occupancies on weekdays prior to their arrival on Pacific Highway. Buses beginning their journey at Chatswood Station would have zero occupancy and therefore has been omitted from the table below. On average, all buses approaching the bus stop are less than half full and it is also expected that buses departing from Chatswood Interchange would also have plenty of available capacity.

Table 3-5 Existing bus occupancy

Route number	Average Occupancy	
	Northbound	Southbound
144	43%	30%
261	34%	-
530	31%	37%
536	30%	33%

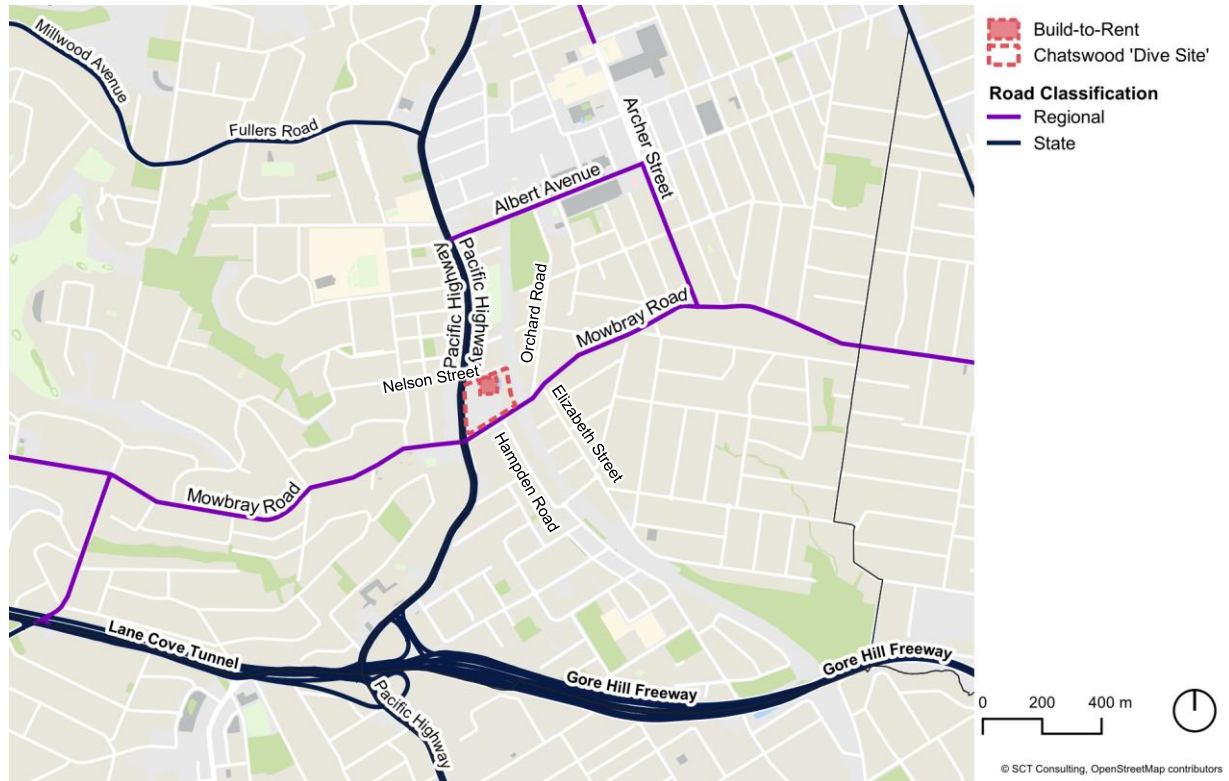
Source: TfNSW Transport Open Data, 2025

3.7 Road network

3.7.1 Key corridors

The site is bounded by Mowbray Road to the south, Pacific Highway to the west and Nelson Street to the north. The road network surrounding the site is presented in **Figure 3-8**.

Figure 3-8 Road network



The characteristics of the key roads adjacent to the site include:

- **Pacific Highway (A1)** – is a key north - south link connecting the site to the City of Sydney and suburbs further north of Sydney. It is a two - way state road, with three lanes of traffic in each direction. The road has a speed limit of 60km/h speed limit (in the vicinity of the site and through Chatswood CBD) and footpaths on both sides, with signalised crossings at each major intersection. No parking is available on both sides of the road during and outside of clearway restricted hours.
- **Mowbray Road** – is a regional road that connects Willoughby to the east and Lane Cove to the west that joins Epping Road. The road runs in an east - west direction with generally two lanes of traffic in each direction. A 50km/h speed limit applies within the vicinity of the site and footpaths are available on either side of the road. No parking is also available on both sides of the road between Pacific Highway and Elizabeth Street.
- **Nelson Street** – is an east-west local road that provides the residential development access to Pacific Highway. The road is a two-way street with a single traffic lane in each direction and on-street parking typically permitted on both sides. Footpaths are provided on both sides, with a speed limit of 50km/h. The footpaths directly connect the Frank Channon Walk that provides safe access to Chatswood station.
- **Hampden Road** – is a local collector road that runs in a north–south direction, connecting Mowbray Road (to the north) and Artarmon Station (to the south). It facilitates access to residential properties, small-scale commercial uses, and local services. The road generally accommodates a single lane of traffic in each direction, with on-street parking permitted along sections outside of peak periods. The posted speed limit is 50km/h, with footpaths provided on both sides.
- **Orchard Road** – is a local road running perpendicular to Mowbray Road, providing access to local residential and mixed-use developments in Chatswood CBD. It operates as a two-way street with one traffic lane in each direction and on-street parking available on both sides. Footpaths are continuous on both sides of the carriageway, and the speed limit is 50km/h.

- **Elizabeth Street** – is a local north-south road that connects the local suburb of Artarmon with Mowbray Road, serving local traffic movements and property access. It operates as a two-way street with a single lane in each direction, with on-street parking available along most sections. Footpaths are provided on both sides, supporting pedestrian connectivity to nearby residential and commercial areas. The road has a posted speed limit of 50km/h.

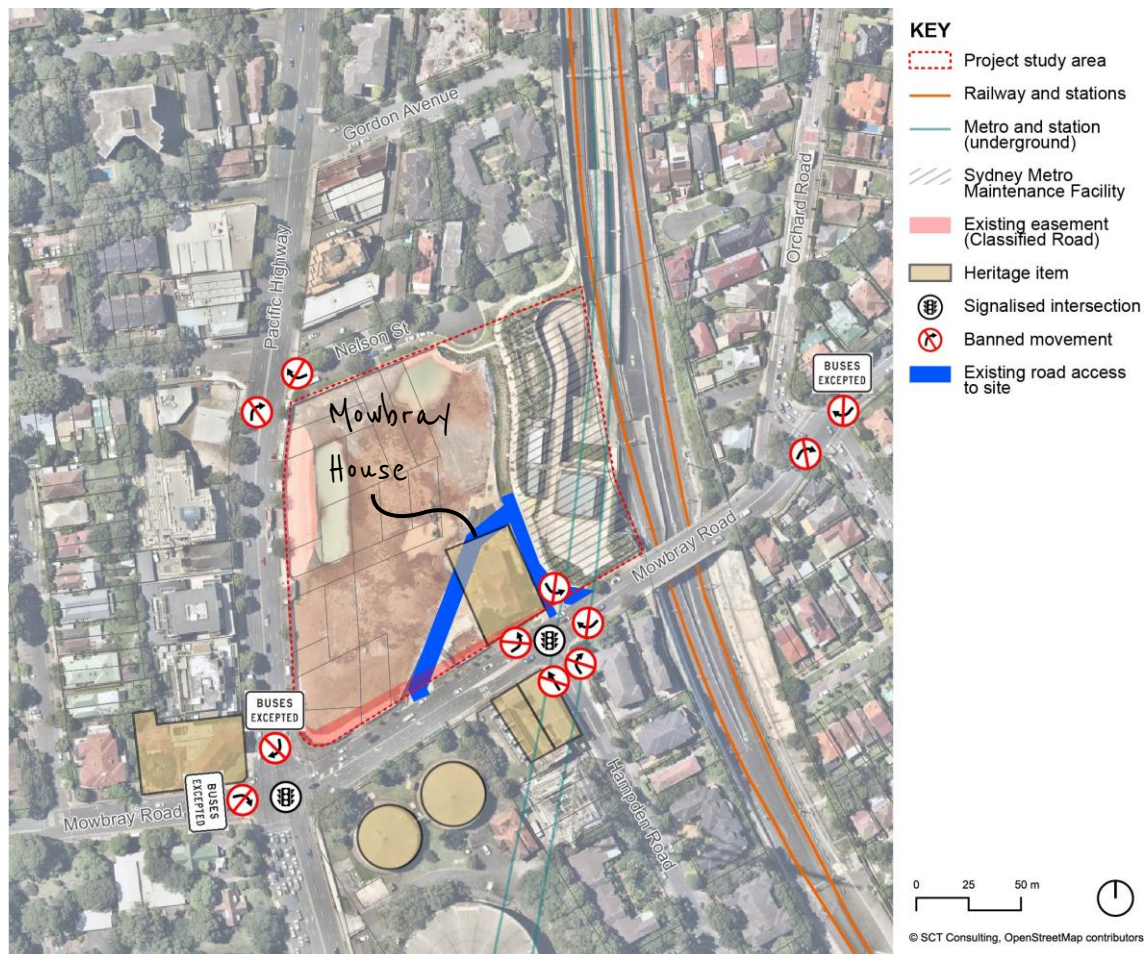
3.7.2 Surrounding movement restrictions

The road network surrounding the site imposes several movement restrictions, particularly at intersections, to manage the traffic efficiency of major corridors. These restrictions help reduce delays and the risk of collisions at busy intersections but also influence local accessibility and route choice for vehicles. The movement restrictions and existing access arrangement to the overall site is shown in **Figure 3-9**.

At the Pacific Highway | Mowbray Road intersection, right-turn movements are restricted in and out of Mowbray Road West. Both of these prohibited movements are still made available for buses. Similarly, at the Pacific Highway | Nelson Street intersection, access is limited to left-in/left-out only, preventing right-turns in both directions to reduce conflicts with through traffic on the Highway. Signage at Mowbray Road | Orchard Road stop right turns into Orchard Road and Elizabeth Street. At Mowbray Road | Hampden Road, movements from Hampden Road are limited to left out only.

The current site access is along Mowbray Road, which provides vehicular access to the Sydney Metro Maintenance Facility. It is provided via two connections along Mowbray Road – one providing ingress and the other egress. The connections form a one-way loop heading eastbound, entering via a left turn entry only closer to Pacific Highway and exiting at the Mowbray Road | Hampden Road intersection via a right turn movement towards Pacific Highway (as shown in **Figure 3-9**). The purpose of this arrangement is to ensure access to the Sydney Metro Maintenance Facility. Currently, there is no access to the site via Nelson Street.

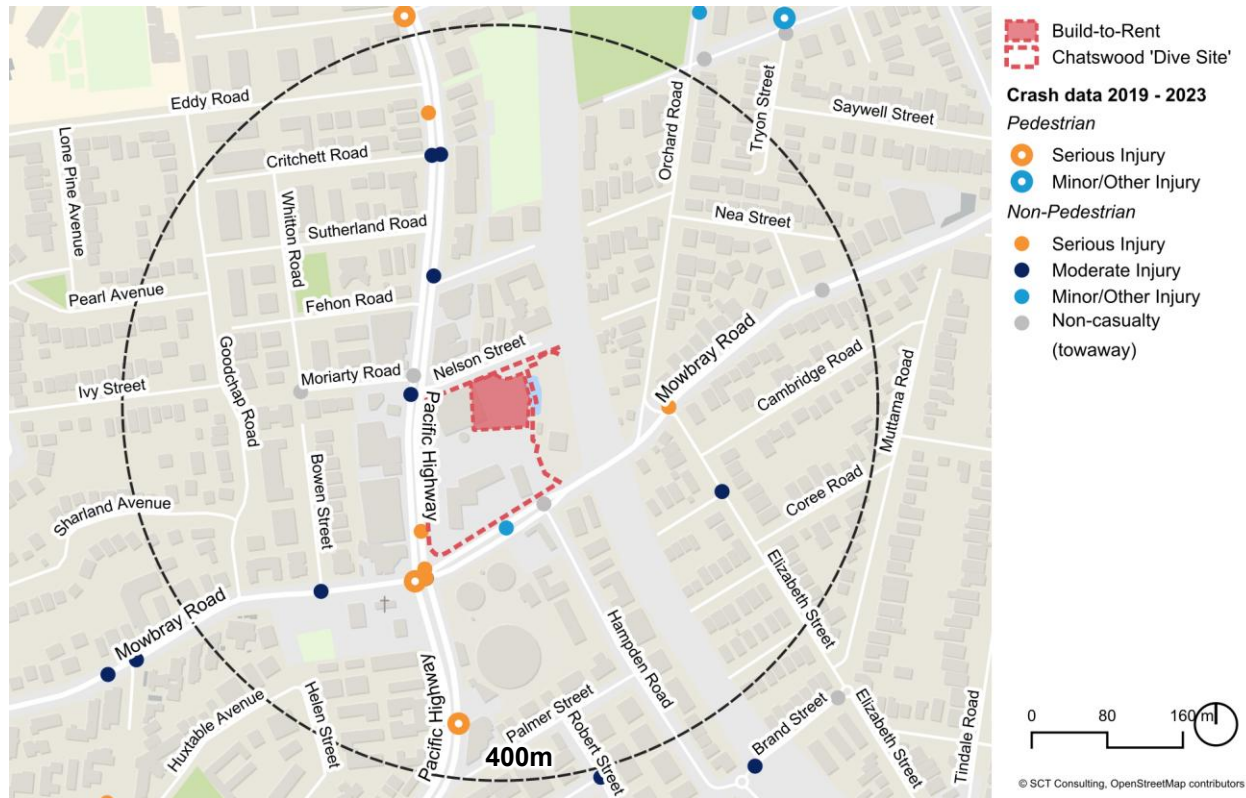
Figure 3-9 Existing access arrangements



3.7.3 Crash data

Figure 3-10 summarises the location of crashes from 2019 to 2023 around the site. Most crashes have occurred along Pacific Highway.

Figure 3-10 Crash data



Overall, the majority of crashes (21 crashes) around the site have occurred on Pacific Highway. The degree of crash typically ranged between non-casualty to serious injury crashes, the most common being a rear-end crash. Between 2019 and 2023, no fatal crashes have occurred with an 400m radius of the site. The frequency breakdown for each crash type is outlined in **Table 3-6**.

Table 3-6 Crash by severity

Type	Fatal	Serious Injury	Moderate Injury	Minor/Other Injury	Non-casualty/towaway
Pedestrian	0	2	0	0	0
Non-Pedestrian	0	5	10	5	8

3.7.4 Traffic data

Surveys were conducted on 30 July 2025 during 7.30-9.30am and 3-6pm for the intersections shown in **Figure 2-10**. Turning movement count data was collected at the following locations:

1. Pacific Highway | Mowbray Road
2. Mowbray Road | Hampden Road
3. Mowbray Road | Elizabeth Street | Orchard Road
4. Pacific Highway | Nelson Street.

The AM peak period was identified as between 8am and 9am, while the PM peak period occurred between 3.45pm and 4.45pm.

Figure 3-11 Surveyed intersections



The traffic volumes at the surveyed intersections are summarised in **Table 3-7**.

Table 3-7 Traffic volumes at key intersections

Intersection name	Peak hour traffic demand	
	AM (8-9am)	PM (3.45-4.45pm)
Pacific Highway Mowbray Road	5,277	5,425
Mowbray Road Hampden Road	2,504	2,057
Mowbray Road Elizabeth Street Orchard Road	2,299	2,213
Pacific Highway Nelson Street	3,115	3,482

In the AM peak, approximately 60% of vehicles travelling on Pacific Highway were travelling southbound while the PM peak had a more equal distribution with 54% travelling northbound. On Mowbray Road, almost double the number of vehicles were travelling eastbound in the AM peak whereas almost equal proportion of vehicles were travelling eastbound and westbound in the PM peak.

3.7.5 Intersection performance

3.7.5.1 Assessment metrics

Intersection Level of Service (LoS) is a typical measure used by traffic engineers to identify when roads are congested. The Level of Service, as defined in the *Transport Modelling Guidelines* (Transport for NSW, 2025), is provided in **Table 3-8**.

Table 3-8 Level of Service definitions

Level of Service	Average delay (d) per vehicle in seconds	Performance explanation
A	$d \leq 14.5$	Good operation
B	$14.5 < d \leq 28.5$	Good with acceptable delays and spare capacity
C	$28.5 < d \leq 42.5$	Satisfactory
D	$42.5 < d \leq 56.5$	Operating near capacity
E	$56.5 < d \leq 70.5$	At capacity; at signals, incidents will cause excessive delays. Roundabouts require other control method.
F	$d > 70.5s$	Unsatisfactory with excessive queuing, requires other control method.

Source: *Transport for NSW, 2025, Transport Modelling Guidelines*.

There is a difference between LoS determination between traffic signals and non-signalised. For traffic signals, the average movement delay and level of service should be taken over all movements. For roundabouts and priority control intersections (with Stop and Give Way signs or operating under the T-junction rule), the critical movement for LoS assessment should be the one with the worst movement delay.

As acknowledged in the *Guide to Transport Impact Assessments* (Transport for NSW, 2024), a comparison of the existing and future average delay provides a better appreciation of the impact of a proposal, and not simply the change in the level of service.

In addition, the Degree of Saturation (DoS) is included to complement the LoS measure. The DoS is a measure of the volume/capacity for the worst turning movement at the intersection. A DoS of 1.0 implies the turning movement is at capacity.

3.7.5.2 Modelling results

SIDRA Intersection 9.1 modelling was undertaken for key intersections surrounding the site. Traffic modelling was conducted for the development peak hours during 8-9am and 5-6pm. Although the PM network peak was 3.45-4.45pm, the modelling was conducted for 5-6pm as it better reflects the peak activity for the development's uses. The difference in traffic volumes between the network peak and the typical development peak (5-6pm) is minimal, with only 2% variation across the network. The modelling results are shown in **Table 3-9**.

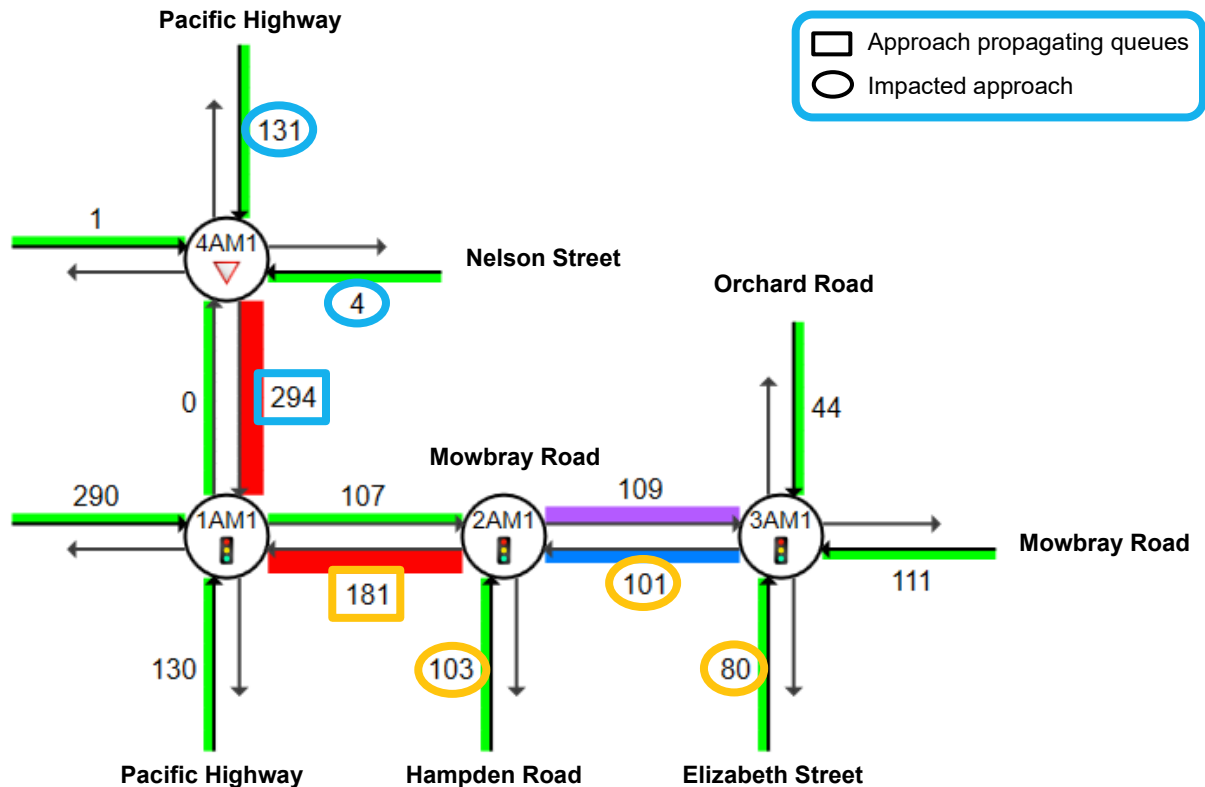
Table 3-9 Existing year modelling results

Intersection name	Weekday AM peak			Weekday PM peak		
	Delay	LoS	DoS	Delay	LoS	DoS
Pacific Highway Mowbray Road	62	E	0.97	33	C	0.88
Mowbray Road Hampden Road	16	B	0.77	8	A	0.63
Mowbray Road Elizabeth Street Orchard Road	23	B	0.68	32	C	0.46
Pacific Highway Nelson Street	8	A	0.34	9	A	0.36

In terms of overall network performance, the results show that all intersections operate satisfactorily except for the Pacific Highway | Mowbray Road intersection. This intersection prioritises through traffic on Pacific Highway, shifting delays to minor roads (Mowbray Road and Mowbray Road West). As such, it was observed that queues would propagate (particularly in the AM peak) along Mowbray and Hampden Roads. The 95th percentile queue lengths on

each approach for the AM peak period are shown in **Figure 3-12**. The propagated queues were observed in the model, although not reflected in the LoS or DoS performance. This is because the 'unsatisfactory' performance relates to the delays caused from the Pacific Highway | Mowbray Road intersection. Similarly, performance of the Pacific Highway | Nelson Street intersection remained satisfactory; however, queues along Pacific Highway were observed and modelled to surpass the Nelson Street intersection by around 131m. The propagated queues impact Hampden Road, Elizabeth Street and Nelson Road as it reduces the ability of cars to enter the lanes.

Figure 3-12 95th percentile queue length (metres) during the AM peak period



In terms of individual intersection performance:

- The Pacific Highway | Mowbray Road intersection is almost operating at capacity with a DoS ranging between 0.88 and 0.97 and delays of up to 62 seconds during the worst peak period. This is expected, considering the heavy traffic volumes on Mowbray Road and Pacific Highway.
- The Mowbray Road | Hampden Road intersection operates with 23 per cent available capacity in the PM peak hour. Delays are also minimal at 16 seconds in the worst peak. In contrast, the AM peak operates better at DoS 0.63 and minimal delays of up to eight seconds.
- The Mowbray Road | Elizabeth Street intersection is operating well, with some spare capacity particularly in the PM peak period although there is some delay experienced (up to 32 seconds).
- The Pacific Highway | Nelson Street intersection also operates very well, with minimal delays and plenty of spare capacity.



Proposal

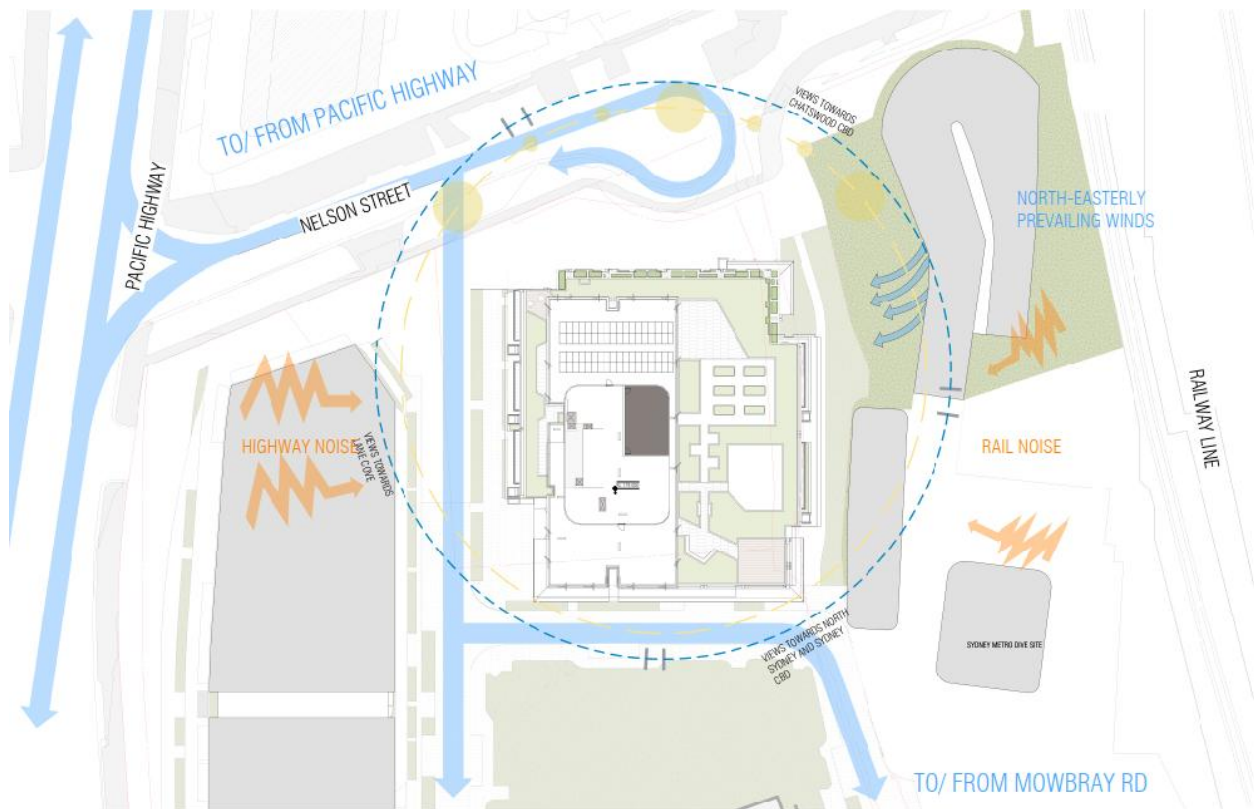
4

4.1 Introduction

The Chatswood 'Dive Site' Concept SSDA involves the construction of a 23-storey (including ground floor) residential flat building with 180 BTR dwellings. The BTR SSDA will seek consent for:

- The construction of a high density 23-storey mixed-use building for the delivery of 180 apartments, including a mixed-use podium and residential tower with a height of approximately 85m, and associated services, including the:
 - Ground floor, including 5 residential dwellings facing the future streetscape, residential lobby and internal services, commercial/retail tenancies, services, lift shaft and fire stairs.
 - Level 1 and 2 Podium, including 3 and 8 dwellings, 37 car spaces total, services, lift core and fire stairs.
 - Level 3 Podium, including the communal internal amenity area and communal outdoor space, services, lift core and fire stairs.
 - Level 4-13 Tower, including 8 dwellings, services, lift core and fire stairs.
 - Level 14-22 Tower, including 9 dwellings, services, lift core and fire stairs.
 - External landscaping, consisting of a mix of hard and green space, with a public art feature which integrates with the delivery of highly landscaped public open space that interfaces with Frank Channon Walk.

Figure 4-1 BTR site context



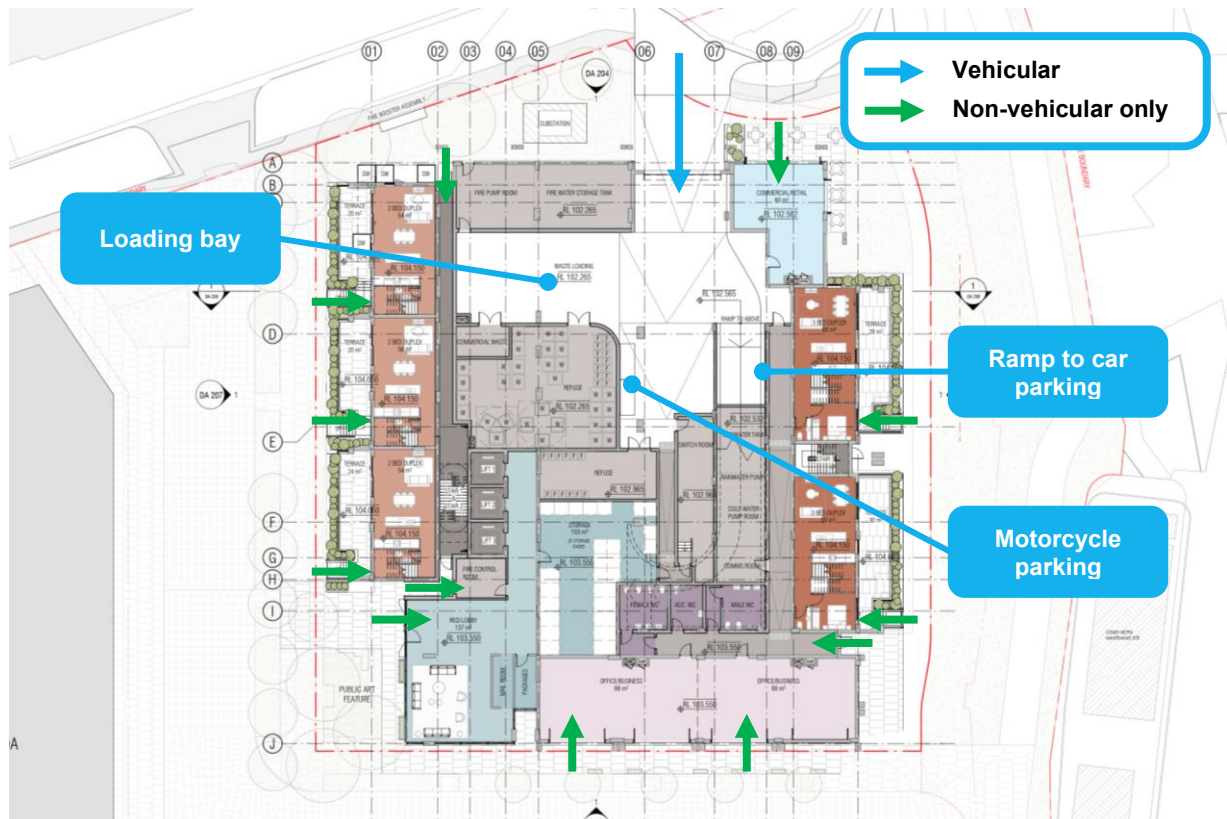
Source: FK, 2025

4.2 Access arrangements

Vehicular access to the BTR development is provided via Nelson Street and is connected to the existing cul-de-sac. The driveway provides access for both residential traffic and service vehicles. Pedestrian access is provided from multiple points around the building to maximise permeability. The proposed access arrangements for the BTR building are shown in **Figure 4-2**.

The primary focus of the access arrangements is to prioritise the permeability of non-vehicular traffic. Hence, there are ample opportunities for non-vehicular traffic to access compared to the vehicular traffic.

Figure 4-2 Proposed access arrangements



Source: FK, 2025 | SCT annotations

4.2.1 Residential car parking

The development has two levels of podium car parking, both above ground floor level. Access to each level is via a one-lane, two-way ramp controlled by a traffic signal system. While this arrangement does not strictly comply with the prescriptive ramp width requirements of AS2890.1:2004, it is considered to meet the Standard's performance objectives.

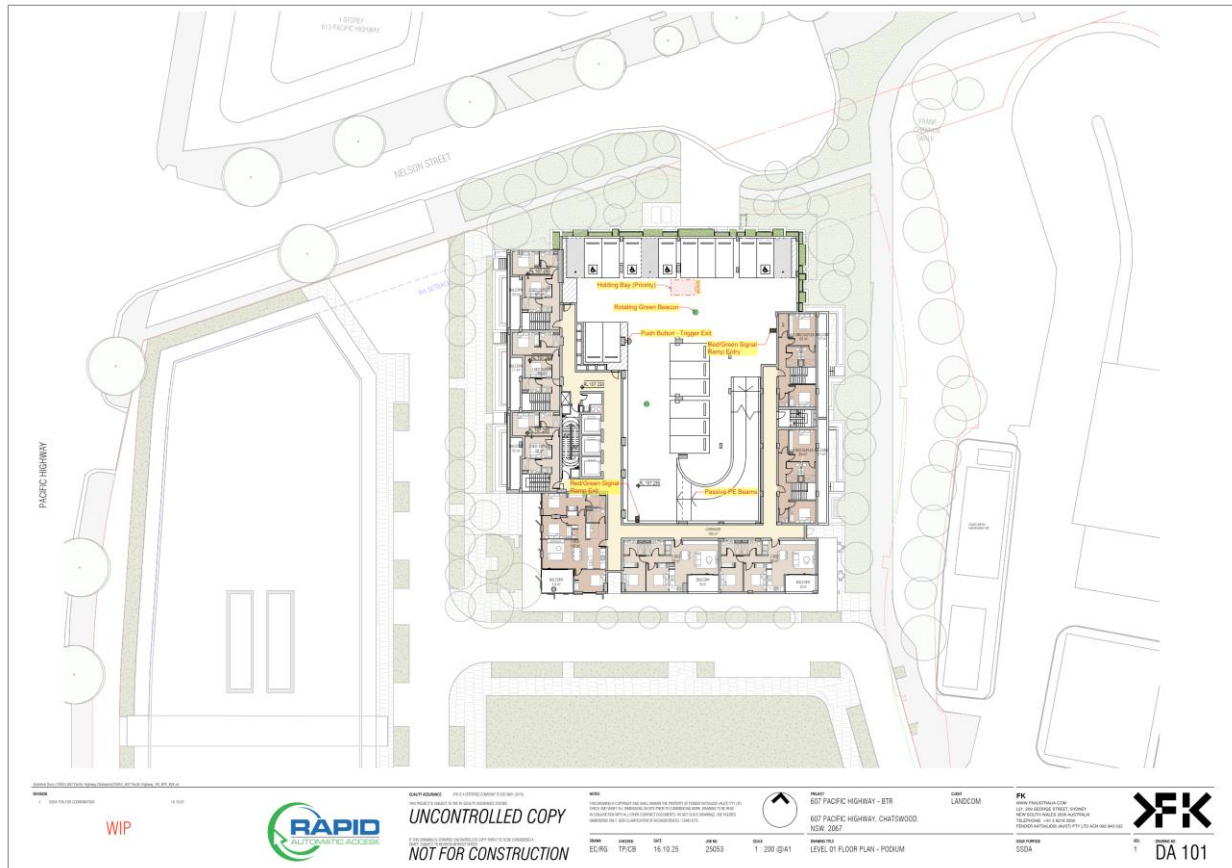
The parking accommodates only 39 spaces (37 car and 2 motorcycle spaces), which, according to Clause 3.2.2 of AS2890.1 2004, would generate relatively low traffic volumes with limited potential for two-way conflicts. Clause 3.2.2 identifies a threshold of '30 or more movements (in and out combined)' requiring provision for a two-way driveway. Although the clause refers explicitly to driveways, the same principle can reasonably be extrapolated to ramp design, as both situations involve the potential for two-way vehicle conflicts within a constrained width. Using the trip generation (discussed in **Section 5.1**), the car park is expected to generate a maximum of 29 vehicle trips during a peak period, which is below the movement threshold.

Providing traffic signals at each end of the ramp will effectively control vehicle movements, ensuring that only one direction of traffic uses the ramp at any given time. This controlled operation provides an equivalent level of safety and functionality to that of a fully compliant two-way ramp. Due to site constraints, achieving a compliant two-way ramp width (minimum 11.8m in radius) would require a substantial increase in ramp footprint. This would reduce the available parking supply and negatively affect the overall layout efficiency and the design outcome of the car park.

and the building. Additionally, it is important to note that the car parking layout (including access location) has been influenced by feedback received from the State Design Review Panel (SDRP).

The suitability of this solution has been supported by the traffic signal designer, Rapid Automatic Access, who developed a preliminary operational design (shown in **Figure 4-3**). This design was developed to ensure there is sufficient space available prior to the detailed design stage. The design will be further refined during the construction certificate stage, including operational details.

Figure 4-3 Example traffic signal configuration for Level 1 by Rapid Automatic Access

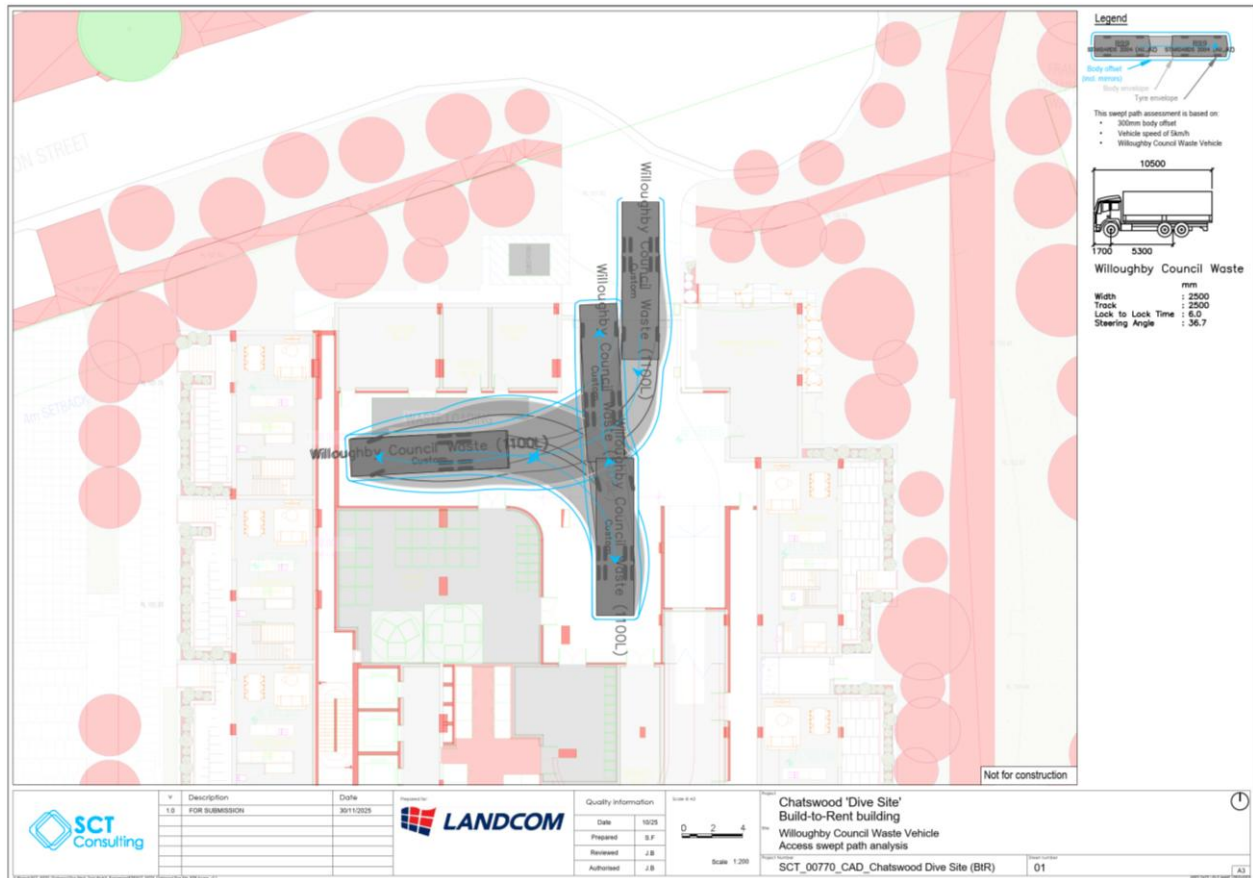


Source: Rapid Automatic Access, 2025

4.2.2 Servicing area

The service area shares the same access point as the residential car parking and is located on the ground floor, as illustrated in **Figure 4-2**. It has been designed to accommodate the largest anticipated service vehicle, which is Willoughby Council's waste collection truck. The waste collection vehicle measures 10.5 metres in length and conforms to the standard Heavy Rigid Vehicle (HRV) specifications for turning radii. The swept path analysis is shown in **Figure 4-4**. As shown the layout and design of the service area are fully compliant with the requirements of AS2890.2:2018.

Figure 4-4 Swept path of Council Waste vehicle in and out of the loading dock



4.3 Parking arrangements

Parking provision will comply with the Housing SEPP and Willoughby Council DCP. The priority of the provision is to meet parking demand needs, while discouraging car ownership. This ensures that the proposal aligns with the principles and visions of the various state and local transport plans. The parking requirements and the development's provisions are presented in **Table 4-1**.

The development provides a total of 37 car spaces, which is one space short of the required provision. The shortfall relates to the retail component. It also provides two motorcycle parking spaces on the ground floor as required by the Willoughby DCP.

To support sustainable initiatives, the development aims to provision for EV chargers. However, this will be included as part of the detailed design stage.

Table 4-1 Proposed parking strategy

Parking type	Rate	Required	Provision	Requirement source
Residential (BTR)				
Vehicles	0.2 spaces per dwelling (min.)	36	36	Housing SEPP
Bicycle	1 Class A or B parking spaces per 10 units 1 Class C (rails/racks) per 10 apartments for visitors	18 Class A/B spaces 18 Class C	18 Class A/B spaces Class C spaces are to be provided in the public domain	Willoughby DCP
Motorcycle	1 space per 20 car parking spaces 1 visitor space per 10 motorcycle spaces	2	2	Willoughby DCP
Business land uses				
Vehicles (Food and beverage)	1 space per 145m ² GFA (min.)	1	0	Willoughby DCP
Vehicles (Commercial)	1 space per 670m ² GFA (min.)	1	1	Willoughby DCP
Motorcycle	Employees: 1 space per 20 car parking spaces Visitor: 1 visitor space per 10 motorcycle spaces	0	0	Willoughby DCP
Bicycle (All)	– 1 Class A or B bicycle space per 10 car parking spaces – Minimum 1 Class C bicycle space or 1 space per 10 Class A or B bicycle spaces, whichever is the greater	1 Class A/B 1 Class C	2 Class A/B spaces	Willoughby DCP

4.4 Green Travel Plan

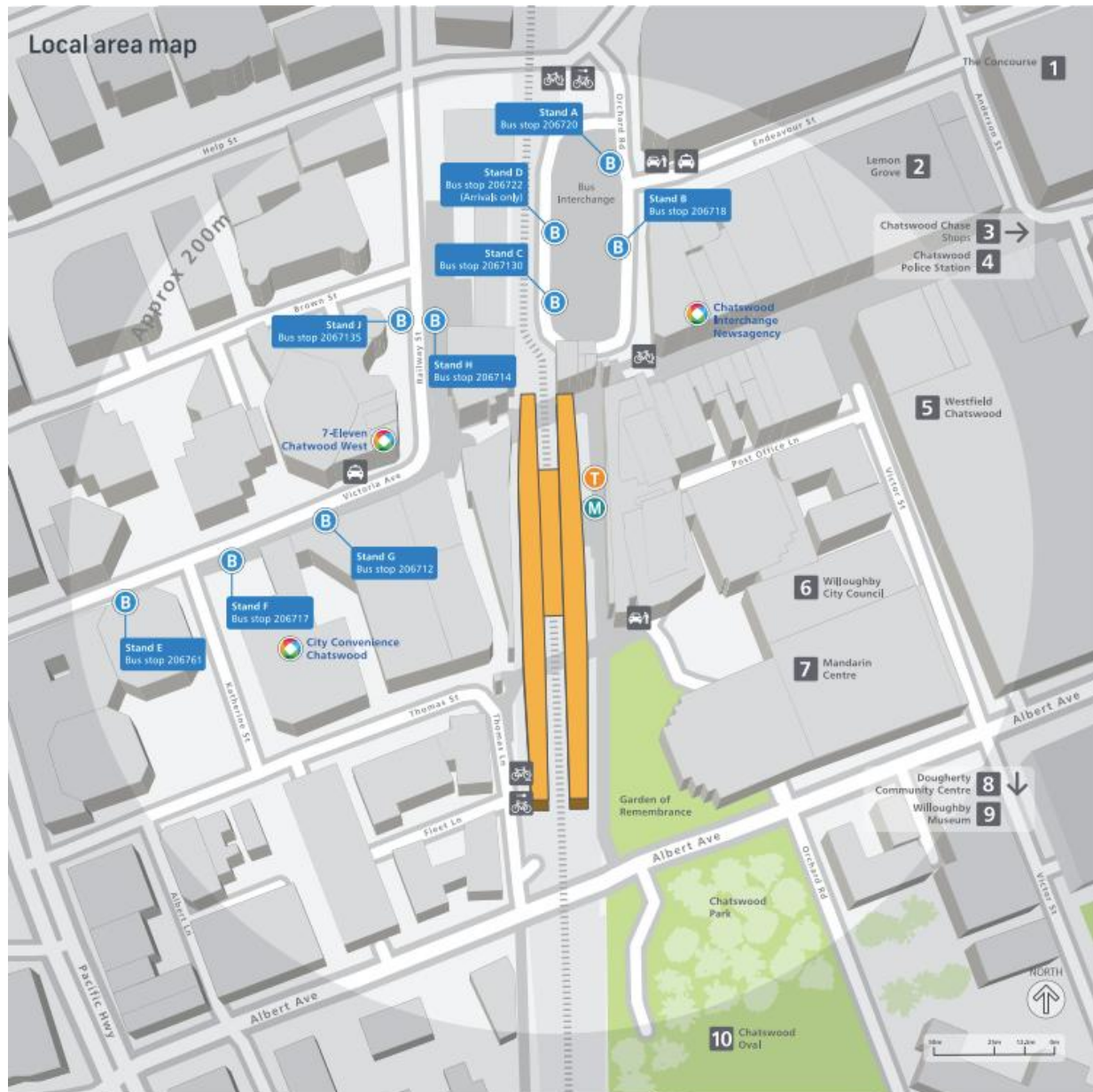
A Green Travel Plan (GTP) is a set of initiatives that seek to encourage people to travel by public transport, walking, or cycling. This is often known as Travel Demand Management (TDM), where policies, objectives, measures and targets are applied to influence travel behaviour.

GTPs largely focus on the adequate provision of infrastructure and services and programs/initiatives that encourage people to use them. As parking and roadways enable car use, investment and thoughtful design in active transport infrastructure and public transport services are needed to enable sustainable travel behaviour. For this site, the GTP should propose to:

- Provide a highly permeable and safe walking and cycling network, connecting regional routes and major transport hubs.
- Have adequate, safe and accessible bicycle parking opportunities.
- Provide safe and direct access to public transport services to establish a non-car travel behaviour.
- Discourage private car ownership by limiting parking provision and introducing suitable alternatives such as car sharing.

The development is within 650m (10-minute walk) of Chatswood Station and Artarmon train station. The station has well-maintained amenities, including commuter parking, bike racks and bus connections, offering a convenient multimodal transport hub for the growing community. The station is vital in enhancing connectivity and accessibility within the Chatswood CBD.

Figure 4-5 Facilities available at Chatswood Train Station



Source: Transport for New South Wales

The presence of adequate, well-lit, sheltered waiting areas and frequent services can improve public transport accessibility and attractiveness. Given the reduced parking rates and the availability of bus and train services within the region, public transport is likely to be the key mode of transport for the residents of the proposed development.

Additionally, a range of initiatives that could encourage the uptake of active and public transport have been tabulated in **Table 4-2**.

Table 4-2 Sustainable travel initiatives

Mode	Initiative
Public Transport	- Provide residents with public transport information and estimated travel times to key destinations. - Information can be in the form of bus network maps circulated to residents or made available in shared spaces, e.g. in the building lobby or car park. - Clear signage and wayfinding to support bus stop access.

Mode	Initiative
Active Transport	– Provide residents with maps of active transport routes around the LGA. – Provide e-bike charging facilities within the bicycle parking area. – Provide sufficient lighting and surveillance at the entrance and pathways within the site to safely access bicycle parking and the local walking network. – Promotion of bicycle initiatives – such as cycle-to-work days, free bike check-up events, and bike riding lessons.
Car use	– The development is proposing reduced parking rates (as part of the Housing SEPP), limiting car use and vehicle trips. – Decrease personal car dependency (car ownership) by introducing dedicated car share facilities near the site.
Monitoring	– While developing a Travel Plan to manage travel demand and reduce reliance on car travel, it is more important to monitor and evaluate the effectiveness of individual measures and the need to adjust them. – Different initiatives may have different levels of effectiveness for this specific site. Monitoring mode share and people's sentiment will be key to understanding how to encourage sustainable travel behaviour in the proposed site and subsequent developments. – Include car share provider in the ongoing monitoring of the GTP initiatives, particularly ensuring a sufficient supply of car sharing services within close walking distance.



Transport appraisal

5

5.1 Trip generation

The proposal comprises residential and non-residential uses. Person and vehicle trip generation were calculated using the GTIA 2024 and the *Guide to Traffic Generating Developments* (TDT 2013/04a).

To accurately estimate traffic generated by the residential component, site-specific person- and vehicle-trip generation rates were used. The trip generation rate was extracted from the TDT 2013/04a, which provides a rate for high-density residential dwellings in Chatswood and St Leonards.

The standard rate for small suburban shopping centres within the GTIA 2024 was used to estimate the trips generated by the retail component of the development.

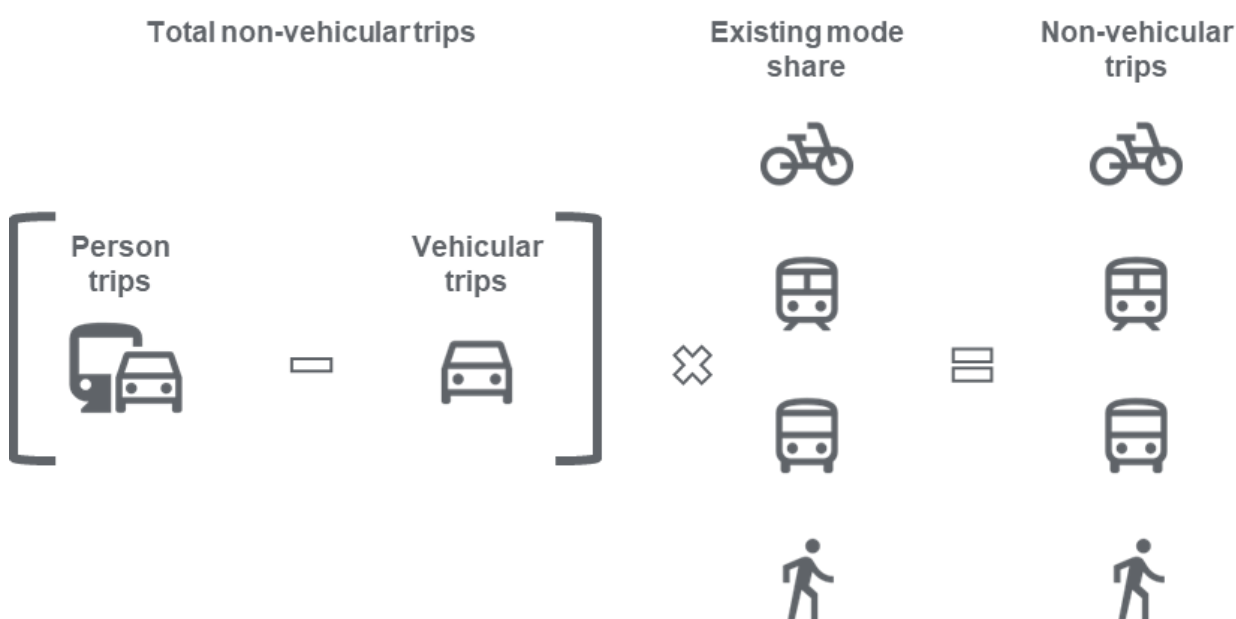
It is noted that the estimated trips generated by the residential component are very conservative, as the BTR element has a parking provision of only 0.2 spaces per dwelling, which would likely generate fewer trips. However, the standard vehicle trip-generation rate was applied in a worst-case scenario. The rates used are shown in **Table 5-1**.

Table 5-1 Person trip generation rates

Land use	Peak hour person trip rate		Vehicular trip rate		Source
	AM	PM	AM	PM	
Residential (BTR)	0.64	0.82	0.14	0.10	TDT 2013/04a - Average of St Leonards and Chatswood sites
Commercial	2.49/100 m ² GFA	1.84/100 m ² GFA	1.69/100 m ² GFA	1.20/100 m ² GFA	Office blocks (2010), GTIA, 2024
Retail	3.58/100 m ² GFLA	7.46/100 m ² GFLA	1.78/100 m ² GFLA	3.71/100 m ² GFLA	Shopping centre (2011), GTIA, 2024

With the person and vehicular trip generation established, the remaining trip generation was estimated using the methodology illustrated in **Figure 5-1**. The difference between person and vehicle trips was split between modes based on existing travel behaviour.

Figure 5-1 Trip generation methodology for the non-vehicular trips



As a conservative assumption, no linked trips were included in this trip generation analysis. The results are shown in **Table 5-2**.

Table 5-2 Trip generation results

Land use	AM	PM
Person trips		
Residential (BTR)	115	122
Commercial (sqm)	5	3
Retail (sqm)	2	5
Vehicle trip generation		
Residential (BTR)	25	17
Commercial (sqm)	3	2
Retail (sqm)	1	2
Rail		
Residential (BTR)	70	82
Commercial (sqm)	1	1
Retail (sqm)	1	2
Bus		
Residential (BTR)	11	13
Commercial (sqm)	0	0
Retail (sqm)	0	0
Walking		
Residential (BTR)	1	1
Commercial (sqm)	0	0
Retail (sqm)	0	0
Cycling		
Residential (BTR)	8	10
Commercial (sqm)	0	0
Retail (sqm)	0	0

5.2 Trip distribution and route assignment

The calculated trip generation is for typical weekday AM and PM peak periods. Most trips during these periods are for employment purposes (i.e. commuting to and from work). Therefore, the most suitable distribution model would be using the Journey to Work dataset. The top SA2 destinations were grouped into the different cardinal directions to make assigning to the road network easier. The data revealed the following:

Table 5-3 Employee and resident distribution

Cardinal direction	Employees	Residents	Route assignment	
			IN	OUT
North	37%	43%	Pacific Highway	Orchard Road
South	59%	23%	Pacific Highway	Mowbray Road

Cardinal direction	Employees	Residents	Route assignment	
			IN	OUT
East	4%	0%	-	Pacific Highway
West	0%	33%	Mowbray Road	-

The percentage of internal trips was added to north direction for residents and the western direction for employees as the site is located at the far south-western side of the SA2 boundary. Hence, any internal trips would have to travel either north or west.

5.3 Transport impacts

5.3.1 Walking and cycling

Walking and cycling trips were estimated to be a maximum of 109 trips (including public transport trips). This level of trip generation is relatively low for active transport trips and can be accommodated by the existing and planned network. Majority of active and public transport would either be travelling to Chatswood Westfield (for the public transport interchange) or to the Pacific Highway bus stops to use the bus services.

The connections between the site and those locations are wide shared paths or the internal master plan network.

5.3.2 Public transport

The proposal is expected to generate an additional 83 and 98 public transport trips during the AM and PM peak periods. The modest increase in demand can be comfortably accommodated by the surrounding public transport network, which includes Chatswood and Artarmon Stations, both within a walking distance of the site.

BOAM data for nearby bus stops along Pacific Highway indicates an average capacity of 70%, while ROAM data for Chatswood Station shows the metro and train services operate with at least 50% spare capacity during the peak periods. These findings confirm the existing public transport network is well equipped to handle the minor increase in public transport trips as a result of the proposal.

5.3.3 Road network

Road network impacts were assessed as part of the broader Planning Proposal, which considered the cumulative traffic impacts of the overall master plan. The proposed development (BTR component only) represents a single component of the overall master plan and its impacts have been assessed as part of the TMAP.

This development is expected to generate a maximum of 29 vehicle trips during any peak period, which is equivalent to one vehicle every two minutes. Without consideration for the planning proposal's modelling, this level of traffic generation alone is relatively low and falls well below typical daily fluctuations experienced during peak periods.

Additionally, with the main access to the development being from Nelson Street, the modelling reveals sufficient available capacity at the Pacific Highway | Nelson Street intersection and on Pacific Highway to support the additional trips generated by the BTR development.

5.3.4 Parking impact

The proposed parking provision is generally in line with the requirements of the Housing SEPP and Willoughby Council DCP. The shortfall in the proposal is not expected to have any parking impacts due to the following reasons:

- If the development was to use Council's minimum parking rates, then it would only need 30 car spaces to be compliant. The current parking provision is 37, which is seven more spaces than required by the DCP. Unlike the Housing SEPP, which imposes a blanket provision for the state, the DCP rates are contextually appropriate and aligned with the specific needs and strategic vision of the local area.
- Given the relatively small size of the retail component, it is anticipated to serve an ancillary role and not attract a significant volume of trips. Most trips to and from the retail space are expected to be internal to the master plan area, with additional pedestrian and cycling traffic likely originating from Frank Channon Walk.

5.4 Addressing the Transport and Infrastructure SEPP

Responses to the relevant clauses in the Transport and Infrastructure SEPP are shown in **Table 5-4**.

Table 5-4 Response to applicable clauses in the Transport and Infrastructure SEPP 2021

Clause	Item	Response
2.122 Traffic-generating development		
(1) This section applies to development specified in Column 1 of the Table to Schedule 3 that involves—	(a) new premises of the relevant size or capacity, or	Per Schedule 3 of the Transport and Infrastructure SEPP, this development falls under the definition of relevant size or capacity as it: Provides vehicular and pedestrian access to the Pacific Highway and Mowbray (classified roads). Exceeds the 75-dwelling threshold (per Column 3 of Schedule 3).
(3) A public authority, or a person acting on behalf of a public authority, must not carry out development to which this section applies that this Chapter provides may be carried out without consent unless the authority or person has—	(a) given written notice of the intention to carry out the development to TfNSW in relation to the development, and	This submission is a concurrent PP and SSDA. TfNSW and Sydney Metro have been part of a Transport Working Group that developed the access strategy for this master plan. As such, TfNSW is aware of the BTR component and is anticipating this submission. Any additional commentary provided as part of the formal notice and exhibition process will be addressed accordingly.
(4) Before determining a development application for development to which this section applies, the consent authority must—	(a) give written notice of the application to TfNSW within 7 days after the application is made, and	
(4)(b) take into consideration—	(ii) the accessibility of the site concerned	
	(iii) any potential traffic safety, road congestion or parking implications of the development.	
(5) The consent authority must give TfNSW a copy of the determination of the application within 7 days after the determination is made.		



Preliminary CTMP

6

6.1 Introduction

The project is in its early stages, with many elements of the construction activities yet to be confirmed. Therefore, a preliminary Construction Traffic Management Plan (CTMP) has been developed based on the confirmed elements. Before construction, the delivery partner/contractor will prepare a detailed construction traffic management plan (CTMP) or a Construction Traffic and Pedestrian Management Plan (CTPMP), which may need to be approved by relevant authorities. The CTMP or CTPMP includes Temporary Traffic Management Plans (TTMP) and a Driver's Code of Conduct.

6.2 Construction site access

Access to the construction site is expected to be provided predominantly via Nelson Street. Given the scale of this development, it is anticipated that only one access (from Nelson Street) will be sufficient to cater for the construction traffic demand.

6.3 Construction hours

Construction hours would be implemented in accordance with Willoughby Council requirements and the conditions of consent. A general council requirement is that construction be undertaken between Monday and Friday, 7am-5pm, and on Saturday, 7am-12pm. Any additional requirements will be included in the development application.

6.4 Construction traffic volume

The construction traffic volume required to deliver this proposal has not yet been determined. However, it is not expected to be major given the size of the development. The principal contractor will need to confirm the anticipated movements in the development of the Construction Traffic Management Plan (CTMP).

The site is also well positioned to take advantage of the strong public transport connectivity along the Pacific Highway and the nearby multimodal, high-frequency Chatswood Station.

For those who cannot use public transport (i.e., deliveries), it is expected that traffic would predominantly arrive via Pacific Highway and Mowbray Road. When accessing the site, vehicles are expected to take a path with minimal delay, either turning left from Pacific Highway onto Nelson Street or turning left from Mowbray Road to access the site directly.

Figure 6-1 Potential access routes to the construction site



Source: Nearmap, 2025

6.5 Construction impact on parking

The construction site is located close to high frequency public transport, on-street parking and off-street car parks. Some on-street parking is available on surrounding local residential streets although restrictions apply on most areas within walking distance of the site. Parking is also available to the north at various car parks including Westfield Chatswood, Chatswood Meriton, Chatswood Chase and several other car parks along Albert Street and Victoria Avenue.

Considering that the site is well located within the Chatswood CBD and high frequency public transport, it is expected that most construction workers will arrive primarily via public transport or parking near the site or within the site itself. Considering, the size of the site, it is expected that on-site parking will be provided, and a work zone permit will not be required to support the demand for construction parking.

Specific parking requirements based on construction staging will need to be further considered by the principal contractor under the detailed CTMP. The following measures could be implemented to encourage staff to utilise public transport:

- Provision of a secure tool storage facility on-site to allow tradespeople to safely store tools required for the project, allowing them to use public transport to travel to and from the site daily.
- During the site induction phase and regular management meetings, staff would be instructed to use public transport when travelling to the site and to follow public transport timetables. Workers would also be informed of restricted parking conditions on-site and the surrounding road network.

6.6 Construction impact on pedestrian and cyclist access

The Roads Act does not give any special treatment to trucks leaving a construction site. Vehicles already on the road have right of way. Vehicles entering, exiting and driving around the site will always be required to give way to pedestrians and cyclists.

All vehicles are recommended to enter and exit the site in a forward direction to ensure that pedestrians and drivers have clear sight distances and can easily gauge any hazards. During the construction phase appropriate signage and pedestrian detours must be provided to support any footpath closures. Signage and hoarding locations will be determined as part of the detailed CTMP.

6.7 General mitigations

The following mitigations are proposed to reduce the impact of traffic movements on the community:

- Truckloads are to be covered during transportation
- Neighbouring properties are to be notified of construction works and timing. Any comments would be recorded and taken into consideration when planning construction activities.
- All activities, including materials delivery, are to be conducted fully within the sites and, therefore, would not impede traffic flow along local roads.
- Materials are to be delivered, and spoil removed during standard construction hours.
- Avoidance of idling trucks alongside sensitive receivers
- Deliveries are planned to ensure a consistent and minimal number of trucks arriving at the site at any time.
- Additionally, to manage driver conduct the following measures are to be implemented:
- All truck movements will be scheduled
- Vehicles are to enter and exit the site in a forward direction along the travel path shown on delivery maps
- Drivers are to always give way to pedestrians and plants.

6.8 Detailed CTMP requirements

The Principal Contractor will develop a detailed CTMP and include/formalise the following information:

- Description of construction activities, duration and work hours
- Detailed assessment of construction traffic impacts, including any cumulative impacts from surrounding developments
- Details regarding one-off activities such as crane installation and other equipment
- Swept path analysis of heavy vehicle access to the site
- Detailed assessment of on-street parking impacts
- Detailed strategy for pedestrian diversion
- Emergency vehicle access
- Traffic Guidance Schemes
- Contact details of key project personnel

Any work zones or permits required will be sought from Willoughby Council. It is not anticipated that long term work zones on Nelson Street will be required for the construction of the BTR development.



Summary of findings

7

7.1 Proposal

A concurrent SSDA will be lodged for Chatswood Dive Site Rezoning Proposal. The BTR portion is proposed to have 180 high-density build-to-rent (BTR) dwellings supported by 242m² of non-residential GFA. The non-residential GFA comprises commercial and retail elements being 176m² and 60m², respectively. A total of 37 car parking and two motorcycle spaces are provided in the two-level podium car park.

7.2 Transport and parking impacts

The proposed BTR development is a single component of the overall master plan, meaning all its impacts on the surrounding transport network have also been considered in the Planning Proposal. The following impacts from the proposed development were observed:

- **Walking and cycling**
 - The development is expected to generate up to 109 walking and cycling trips (including linked to public transport trips) during peak periods, a small increase that can be easily accommodated within the existing and planned active transport network.
- **Public Transport**
 - An additional 83 AM and 98 PM public transport trips are anticipated, which can be comfortably absorbed by the surrounding public transport network given the available spare capacity at nearby train stations and bus services.
- **Road network**
 - The proposal is expected to generate up to 29 vehicle trips per peak hour, equivalent to about one vehicle every two minutes. This is a minimal addition that falls within normal daily traffic variations and would have negligible impact on the road network operations.
- **Parking**
 - The DCP requirements are contextually appropriate and suitable for developments in the Willoughby LGA. The development has a shortfall in parking for the retail component, which is expected to be acceptable as the overall parking provision exceeds the DCP requirements. As such, there are no adverse parking impacts anticipated.
- **Construction**
 - The project is in its early stages, with many elements of the construction activities unconfirmed. However, considering the size of the development, it is not anticipated to have a major impact on the network performance. Before construction, a detailed construction traffic management plan (CTMP) would be developed, in consultation with the relevant authorities, which would seek to minimise any delays, disruptions, and safety risks.

In conclusion, the surrounding existing and planned transport network is forecast to be able to accommodate the increased demand from the proposal. No mitigation measures are required to support the operation of the proposed BTR development at the Chatswood Dive Site.

7.3 Mitigation measures

A summary of the mitigation measures discussed in this report have been included in **Table 7-1**. The necessary mitigation measures for this proposed are largely embedded in the delivery of the proposal itself, with minimal changes to the surrounding road network or public transport required.

Table 7-1 Summary of mitigation measures

Mitigation measure	Explanation	Timing
Minimise parking provision	Adopts minimum Housing SEPP and Willoughby DCP parking rates.	Forms part of this proposal.
Provision for bicycle parking	Adopt Council's minimum rates for bicycle parking and end-of-trip facilities to encourage cycling.	Forms part of this proposal.
Construction Traffic Management Plan (CTMP)	Devise a CTMP for the construction activities to mitigate/manage any potential construction impacts.	Prior to construction.



Thoughtful Transport Solutions

Suite 4.03, Level 4, 157 Walker Street, North Sydney NSW 2060
sctconsulting.com.au