



27 – 29 Tryon Road, Lindfield

SSD - 78669234

Transport Impact Assessment

Prepared for:

Bridgestone Projects

1 December 2025



PROJECT INFORMATION

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We confirm this transport impact assessment report addresses the requirement of SEAR No. 78669234 and relevant State and local legislation, policies, and guidelines. I further confirm that none of the information contained in this document is false or misleading.

A handwritten signature in black ink, appearing to read 'J. Milston'.

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1 Introduction

1.1 Background

Bridgestone Projects engaged JMT Consulting to carry out a traffic and transport assessment of the State Significant Development Application (SSDA) for the site 27 – 29 Tryon Road, Lindfield (the site). The proposed development (SSD-78669234) is for the demolition of existing structures and the construction of a 9-storey residential flat building with in-fill affordable housing and associated works. The proposal will include:

- Demolition of existing structures and site preparation / earthworks;
- Construction of 4 basement levels including 101 car parking spaces with vehicular access via Tryon Lane;
- Construction of a 9 storey residential flat building including 65 units comprising a mix of 2 and 3 bedroom apartments; and 14 affordable units;
- Communal open spaces on the ground floor and roof terrace; and
- Landscape works including tree replacement.

1.2 Site location

The subject site is located at 27-29 Tryon Road, Lindfield and is bounded by Tryon Road to the north and Tryon Lane to the south. Lindfield railway station is located approximately 250m west of the site as shown in Figure 1.

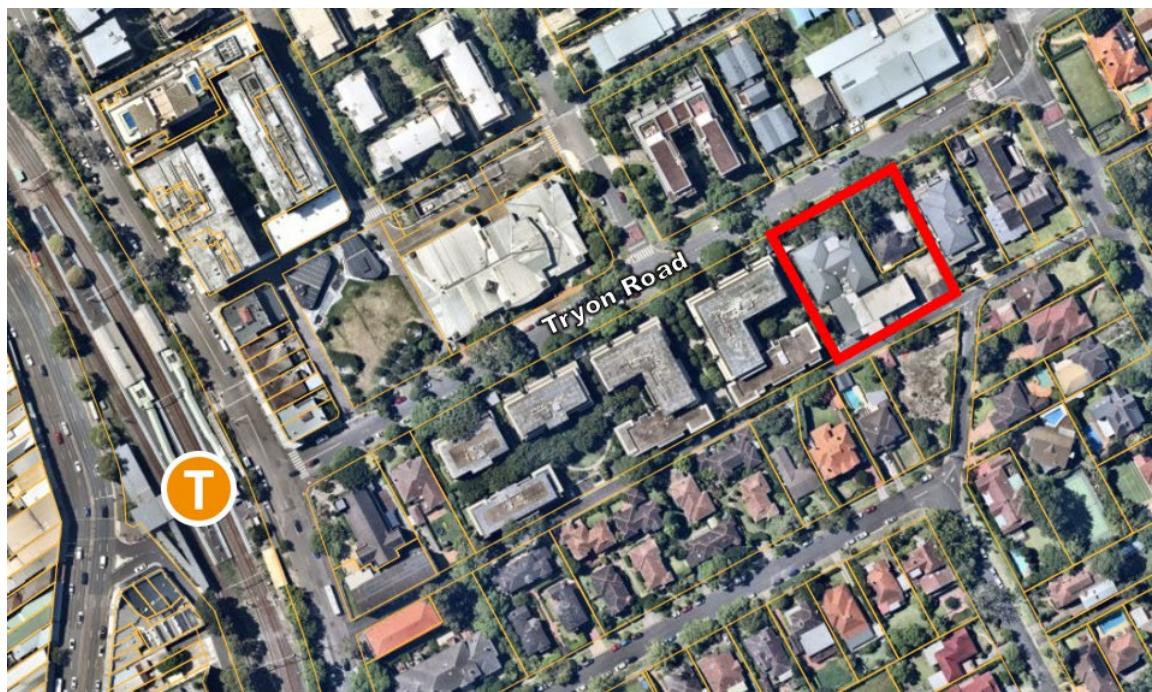


Figure 1 Site location

1.3 Report purpose

This report has been prepared in response to the Secretary's Environmental Assessment Requirements (SEARs) for SSD- 78669234 relevant to traffic and transport as summarised in Table 1 below.

Table 1 SEARs requirements

SEARs Item	Description of Requirement - SSD-78669234	Response
Item 9. Transport	<ul style="list-style-type: none"> Provide a Transport Impact Assessment (TIA) in accordance with the processes and methodology recommended in the Guide to Transport Impact Assessment (GITA) published by TfNSW. 	<p>As per the recently released GTIA the subject development is considered to have a 'low' impact level given the proposal does not meet the criteria for either Columns 2 and 3 of Schedule 3 in the State Environmental Planning Policy (Transport and Infrastructure) 2021. The GTIA recommends the development of a 'Transport Impact Statement' for this scale of development, covering the following items:</p> <ul style="list-style-type: none"> site location and context development scale and access arrangements trip generation and distribution <p>The above items have been addressed in this report.</p>
	<ul style="list-style-type: none"> 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. 	<p>The site is not located on a major on-road (bus) public transport corridor nor is it adjacent to a major road. Therefore future construction of the development is not forecast to cause significant disruptions to public transport, pedestrians, cyclists or general road users.</p> <p>A detailed CTMP will be prepared prior to any works commencing on site, this requirement can be reinforced via a suitably worded consent condition.</p> <p>Notwithstanding the above a preliminary CTMP has been prepared and outlined in Section 4 of this document.</p>

1.4 Response to submissions

Responses to the traffic and transport related submissions from government agencies received following the public exhibition of the development proposal (as lodged in May 2025) are provided in the following table:

Table 2 Response to traffic and transport related submissions – exhibited EIS

Agency	Agency Comment	Response
DPHI	<p>The proposal provides an at grade waste collection area within the side setback to 9-25 Tryon Road. The EIS states that this area has been designed for 10.5m long vehicle, however the Transport Impact Assessment notes that the area can accommodate a 6m long vehicle. Please clarify this discrepancy</p>	<p>The revised design includes a basement loading area that may accommodate a 6.7m long Ku-Ring-Gai Council waste collection vehicle</p>
DPHI	<p>The Department also notes the waste collection appears to be adjacent to balconies of the neighbouring residential flat building and is also opposite the rear yards of dwellings on the opposite side of Tryon Lane. The Department requests that you explore options, in consultation with Council, to:</p> <ul style="list-style-type: none"> use a smaller waste collection vehicle for the relocate the waste collection area within the basement, demonstrating acceptable clearance heights and swept paths provide a landscaped setback to the boundary 	<p>The revised design includes a basement loading area that may accommodate a 6.7m long Ku-Ring-Gai Council waste collection vehicle</p>
DPHI	<p>The proposal includes 123 resident spaces, which is 14 more spaces than the minimum rate provided by the Housing SEPP, and 13 visitor spaces, which is 2 more spaces than the Ku-ring-gai Development Control Plan (DCP).</p> <p>The Department notes that the site has excellent access to public transport, shops and services within Lindfield and recommends that you reduce the resident and visitor car parking spaces in line with the minimum rates within the Housing SEPP and DCP respectively.</p>	<p>The quantum of residential parking has been reduced to 90 resident parking bays and 11 visitor bays which aligns with the minimum requirements of the Housing SEPP 2021. This is a significant reduction when compared to the originally lodged EIS.</p>
DPHI	<p>Confirm that tandem parking spaces will be allocated to same apartment. Provide a parking schedule to confirm the allocation of parking spaces</p>	<p>Tandem parking bays will be allocated to the same apartment. Refer to separate parking schedule contained in the amended architectural package.</p>

Agency	Agency Comment	Response
DPHI	Confirm the number of car parking spaces that will be allocated to the affordable apartments	13 parking spaces are to be allocated for the affordable housing component.
DPHI	Consider providing parking for motorcycles, as an alternate mode of transport	8 motorcycle parking bays are now provided on basement level B1.
Council	No driveway longitudinal section starting from the centreline of the public road to the ground floor carpark entry has been submitted. The driveway gradient of 5% for the first 6m as per AS2890.1:2004 is to be demonstrated as well as confirming that a maximum 20% grade along the driveway access is not exceeded as per the requirements of Part 23.7 of the Ku-ring-gai DCP.	A cross section of the driveway from ground level through to basement is provided in the amended architectural package and Section 3.1 of this document - confirming the gradients utilised comply with relevant Australian Standard requirements
Council	Swept paths are to be submitted demonstrating that Council's Waste Collection Vehicle of 6.7m Mitsubishi Canter can enter and depart the garbage/room recycle storage area in a forward direction. The 6.4m SRV as shown is no longer adopted by Council.	Updated swept path analysis has been carried out using a 6.7m long rigid truck as per Council's advice
Council	Sight triangles are to be shown on the ingress and egress side of the driveway, at the property boundary demonstrating compliance with Figure 3.3 of AS2890.1:2004.	Sight triangles are provided in accordance with Figure 3.3 of AS2890.1:2004, refer to Section 3.1 of this document.

1.5 State Environmental Planning Policy (Transport & Infrastructure) 2021

With regards to the State Environmental Planning Policy (Transport & Infrastructure – T&I SEPP) 2021 the following is noted:

- The site does not have a direct frontage to a classified road, therefore not triggering the assessment requirements of clause 2.119 of the SEPP.
- The site does not adjoin a road with an annual average daily traffic volume of more than 20,000 vehicles, therefore not triggering the assessment requirements of the T&I SEPP; and
- The proposal will provide for fewer than 300 dwellings and is not expected to impact the operation of the local road network and is therefore not considered to be 'traffic generating development' as defined under Schedule 3 of the T&I SEPP.

2 Existing Transport Conditions

2.1 Road network

To manage the extensive network of roads for which councils are responsible under the Roads Act 1993, Transport for NSW (TfNSW) in partnership with local government established an administrative framework of *State*, *Regional*, and *Local Road* categories. State Roads are managed and financed by TfNSW and Regional and Local Roads are managed and financed by councils.

Regional Roads perform an intermediate function between the main arterial network of State Roads and council controlled Local Roads. Key State and Regional roads which provide access to the site are illustrated in Figure 2 below.

The Pacific Highway is a classified State road which serves as a major north-south arterial link in close proximity to the site, providing connectivity between the Warringah Freeway and M1 Pacific Motorway. The Pacific Highway is situated approximately 300m west of the subject site and is generally configured with a total of six traffic lanes.

Archbold Road is a Regional road located approximately 750m east of the site and provides an alternative north-south route to the Pacific Highway.

Tryon Road is a local road under the control of Ku-Ring-Gai Council comprising of one traffic lane in each direction plus kerbside car parking.

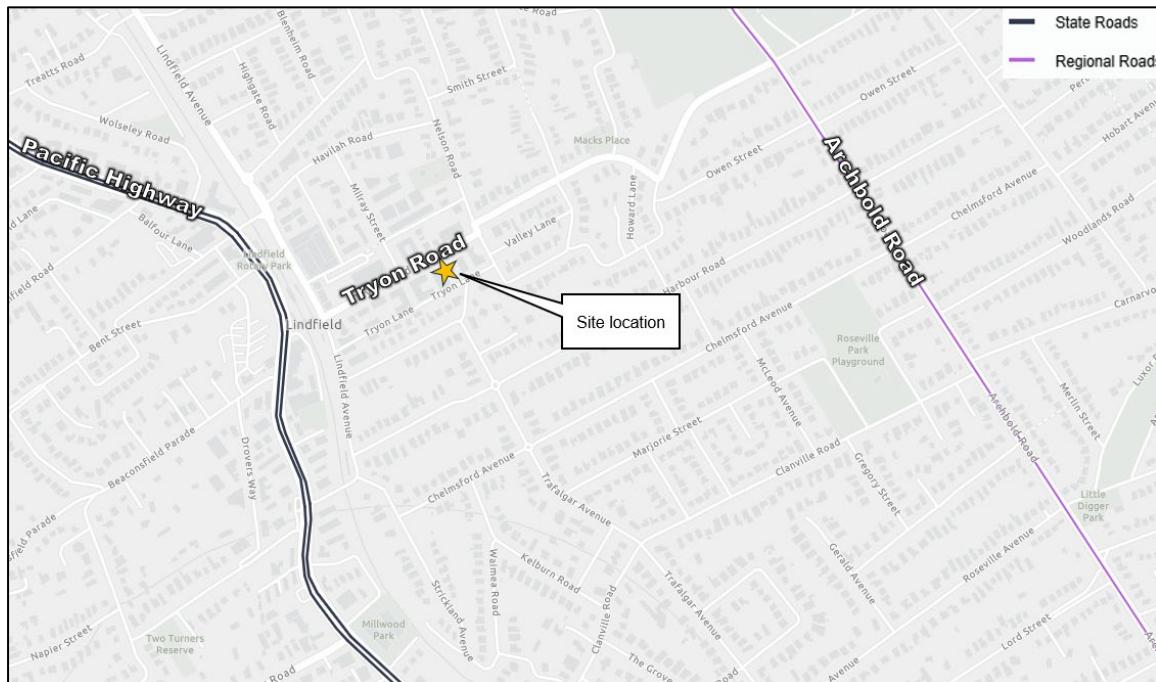


Figure 2 Road network serving the site

2.2 Existing traffic volumes

Traffic data was collected on Tryon Road over a weeklong period in August 2024. The data indicates that Tryon Road carries approximately 4,300 vehicles on a typical weekday - reflecting its status as a local road through the area. It should be noted that a road such as this in an urban environment can typically carry around 1,800 vehicles per hour (900 vehicles in each direction) whereas the data shows a maximum flow of approximately 350 vehicles per hour – indicating there is significant spare road capacity available.

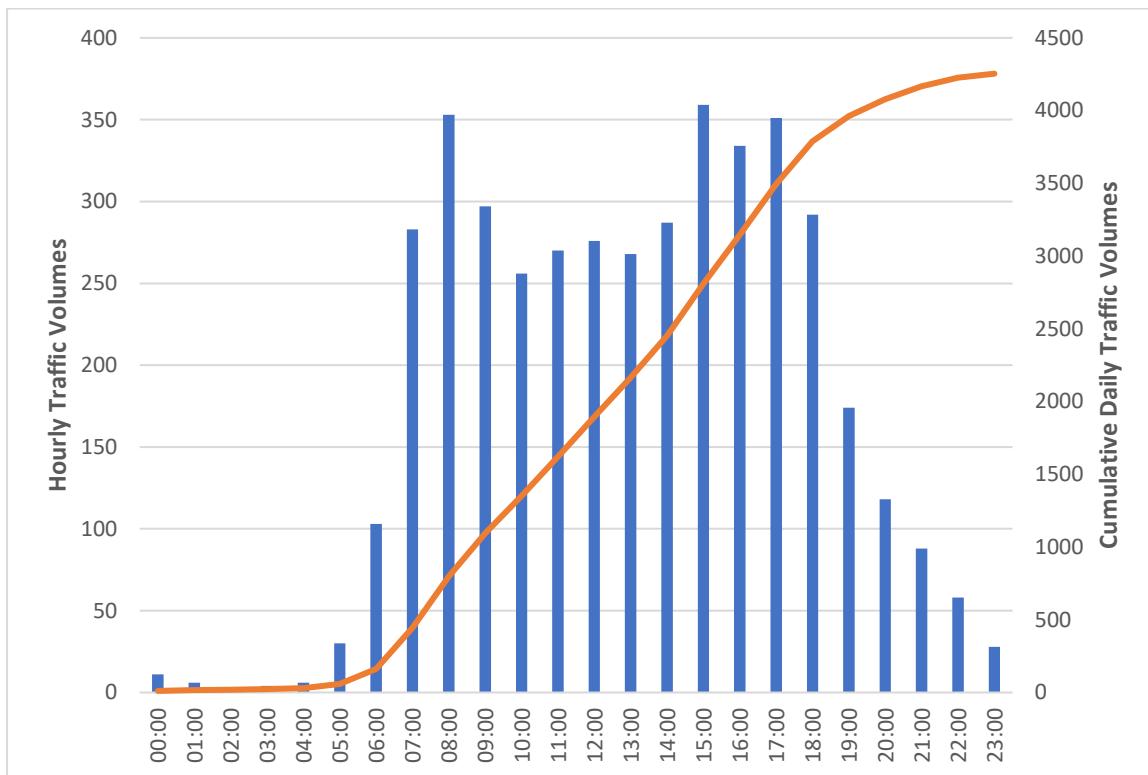


Figure 3 Existing traffic flows – Tryon Road

Traffic counts were also undertaken at the key intersection of Tryon Road and Lindfield Avenue to the immediate west of the site during the morning and afternoon peak hour periods in August 2024 – with this existing traffic data indicated in the figure below. This traffic data has formed the basis for the road network analysis undertaken in later sections of this document.

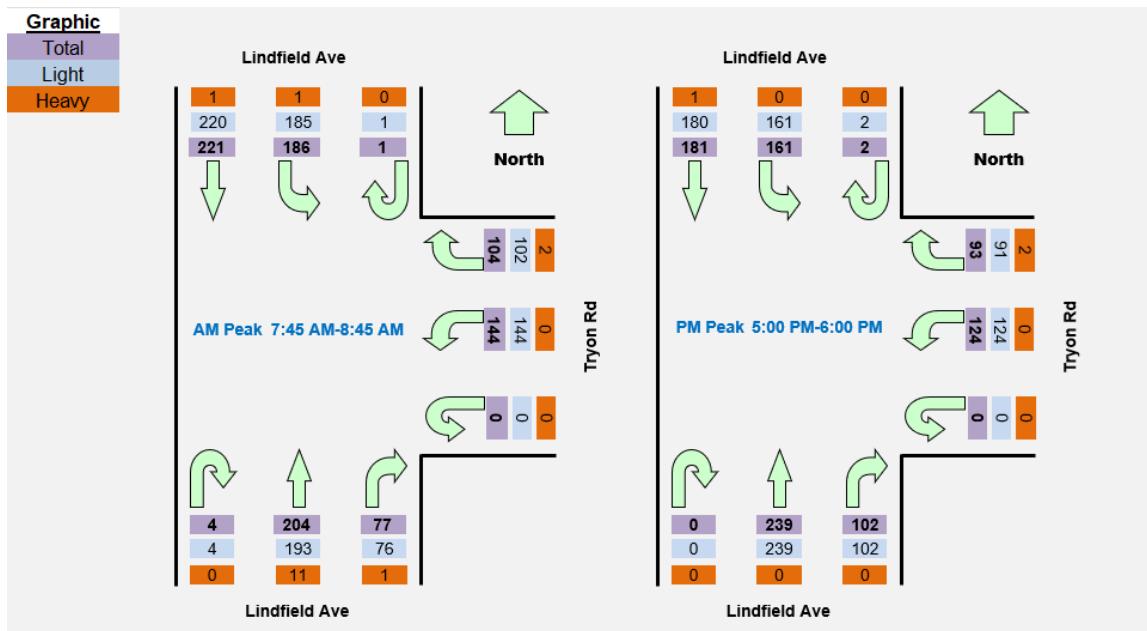


Figure 4 Traffic counts – Anderson Street / Day Street

2.3 Public transport

The site is located just approximately 250m or less than a five minute walk away from Lindfield heavy rail station and bus interchange. The heavy rail service provides frequent train services for T1 North Shore, Northern, and Western Line. During peak hours, T1 trains travel from Lindfield to the Sydney CBD, northern and western suburbs arrive at the station approximately every three to five minutes.

A number of bus routes are in close proximity to the site which complement these heavy rail services, including:

- Route 556: Lindfield <> East Killara – bus stop on Lindfield Avenue
- Route 558: Lindfield <> Chatswood – bus stop on Lindfield Avenue
- Route 565: Chatswood <> Macquarie University – bus stop on the Pacific Highway

In addition Lindfield Station is located only two stops away on the T1 heavy rail line from Chatswood, where passengers can interchange with the Sydney Metro service. Sydney Metro is a major public transport infrastructure project currently in the construction phase within proximity of the subject site. The Sydney Metro City and Southwest metro line which opened in August 2024 provides for significantly improved connectivity from the southwest and Sydney CBD to Chatswood and the northwest.

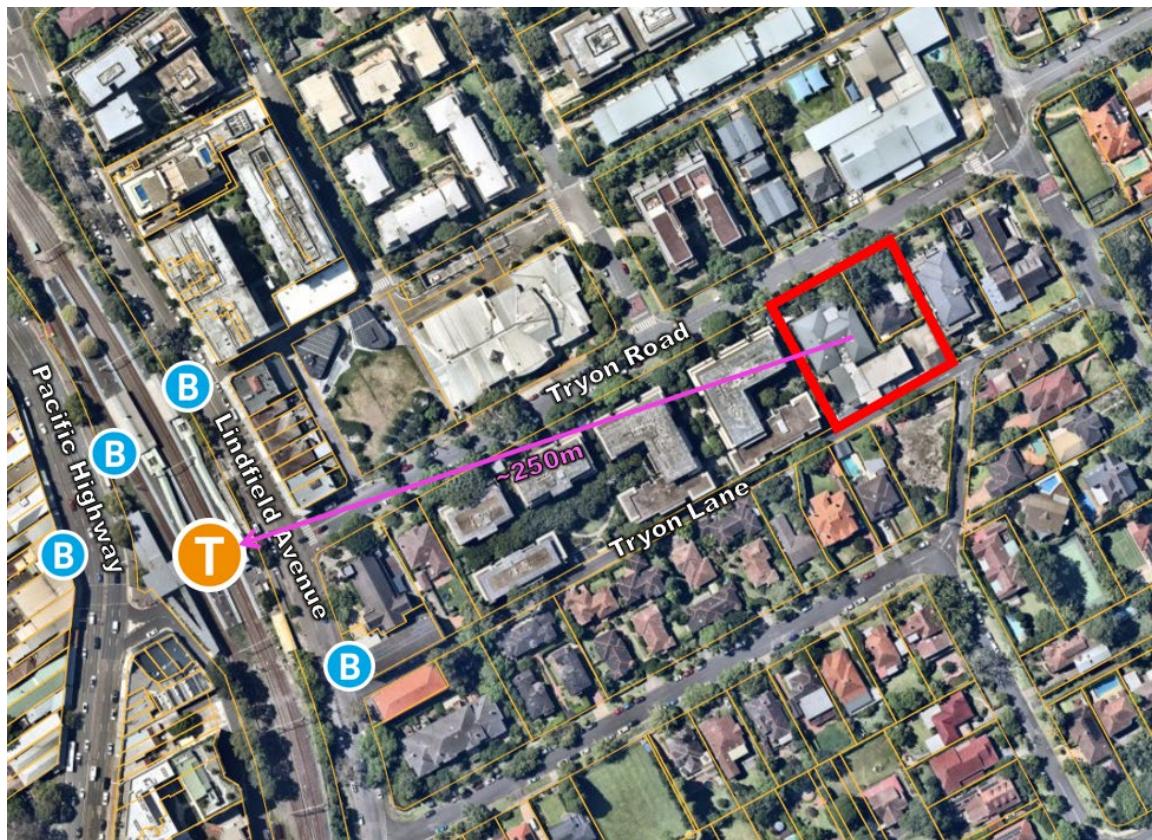


Figure 5 Public transport availability near the site

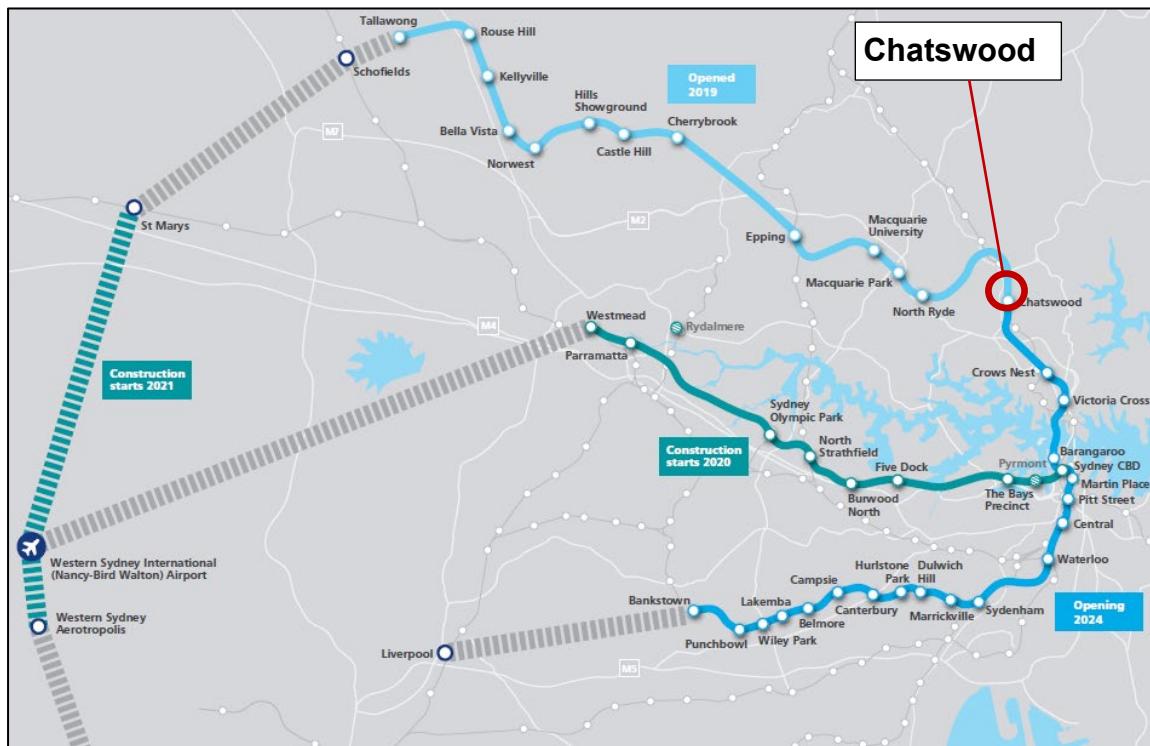


Figure 6 Sydney Metro network

Source: Transport for NSW

2.4 Active transport network

There is a well established network of pedestrian facilities in the vicinity of the site, with paved footpaths provided on both sides of all adjacent roads. The site also benefits from being surrounded by a number of formal pedestrian crossings as shown in Figure 7 below. The primary cycling corridor is along Nelson Road and Trafalgar Avenue to the east of the site, however a number of local streets carrying relatively low traffic volumes are also suitable for cycling.



Figure 7 Existing pedestrian infrastructure

2.5 Crash data

A review of crash data published by Transport for NSW for the most recent five year period has been reviewed and is shown in Figure 8. This indicates no recorded crash history immediately adjacent to the site on Tryon Road, with majority of crashes recorded along the Pacific Highway. Only a single (minor) incident was recorded at the intersection of Tryon Road and Lindfield Avenue – indicating no major concerns in relation to road safety at this location.

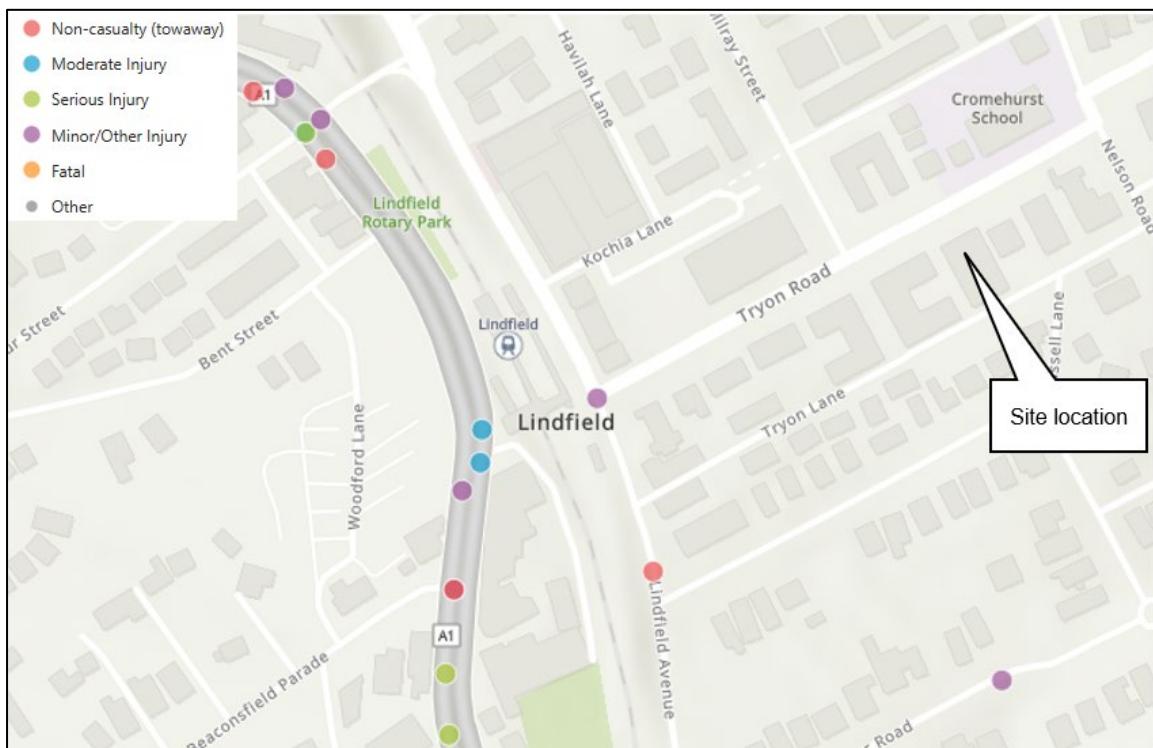


Figure 8 Crash data

Source: NSW Centre for Road Safety

3 Transport Impact Assessment

3.1 Vehicle site access

Under the SSDA a single point of access to the site would be provided by Tryon Lane at the southern end of the site as shown in Figure 9. This access point has been selected to minimise conflicts with pedestrians and general traffic along Trying Road which is the more active street. Vehicular access via Tryon Lane is also consistent with the adjacent major development to the immediate west of the site.

The vehicle access would be via a single driveway, facilitating independent two-way traffic movements and allowing access into the basement car park and loading area.

The vehicle access point has been designed in accordance with the design requirements set out in the relevant Australian Standard, namely AS2890.1:2004. Vehicle swept paths indicating the entry and exit of passenger vehicles from the site is provided on the following page – demonstrating suitable allowance for simultaneous movement of vehicles entering and exiting the site.

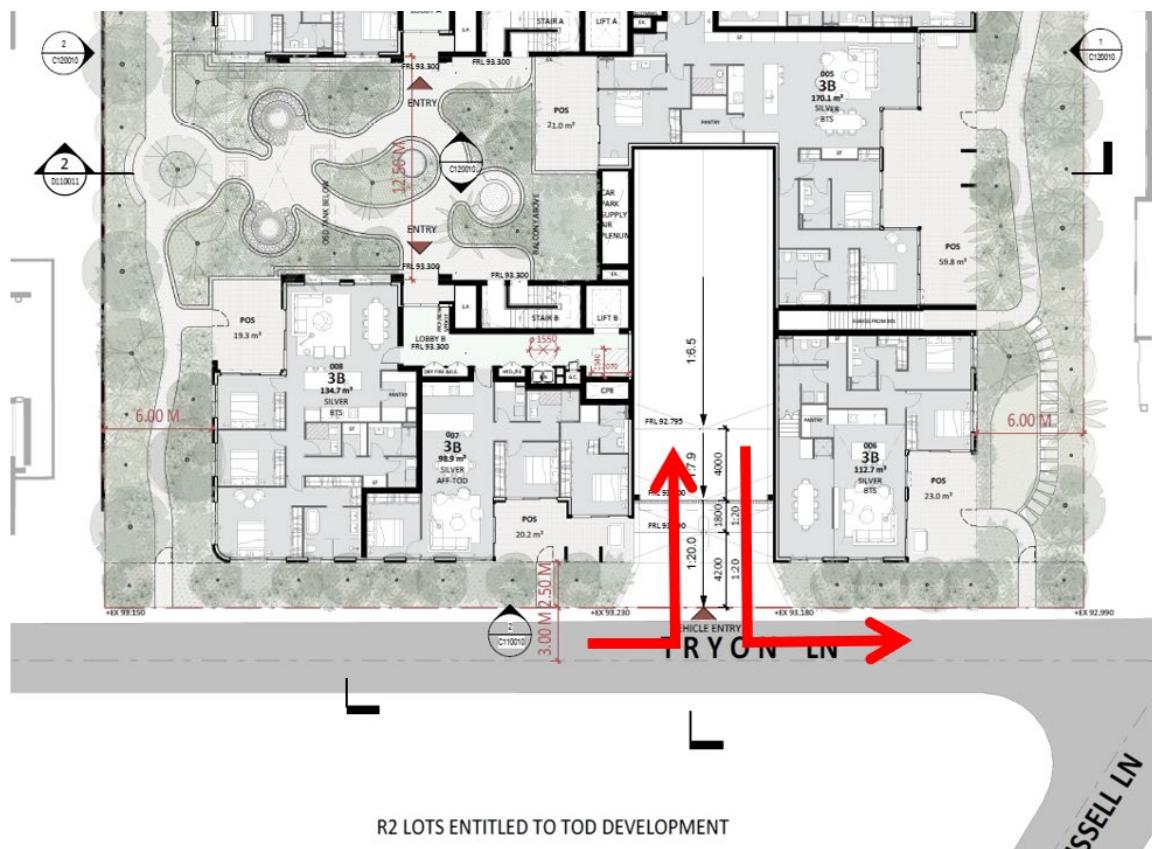


Figure 9 Proposed vehicle site access point

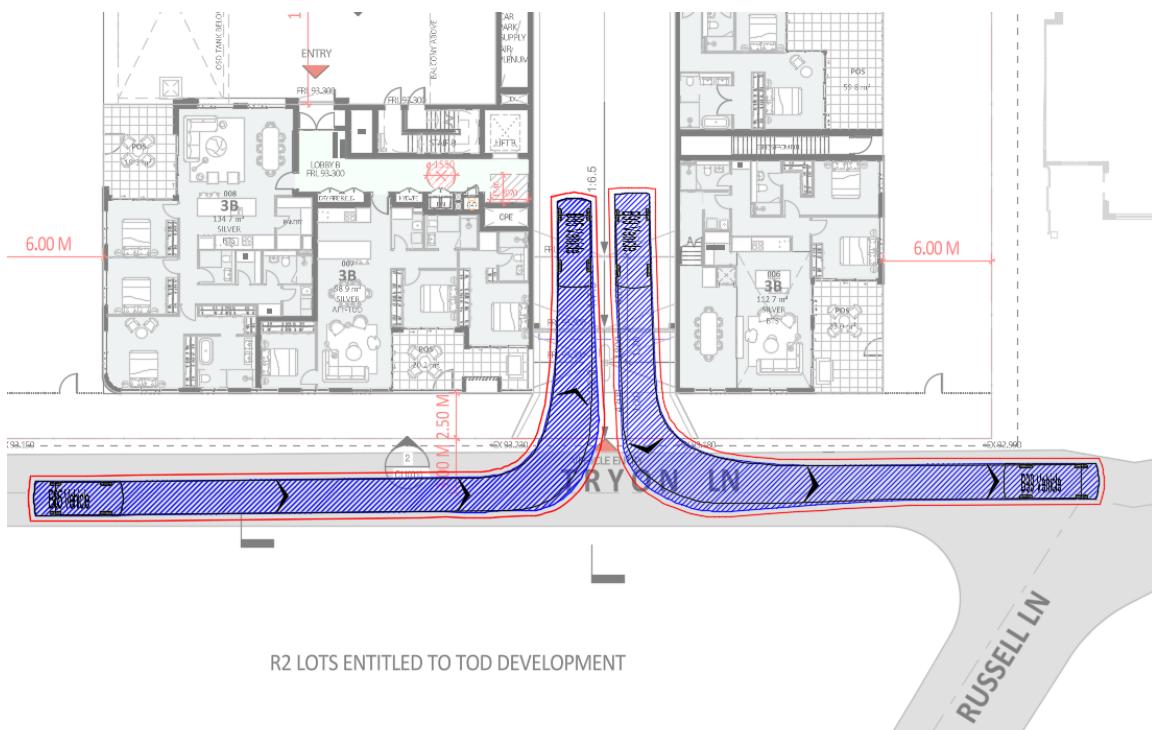


Figure 10 Swept paths - passenger vehicle entering and exiting the site

Sight triangles are provided in accordance with Figure 3.3 of AS2890.1:2004, refer to Figure 11.

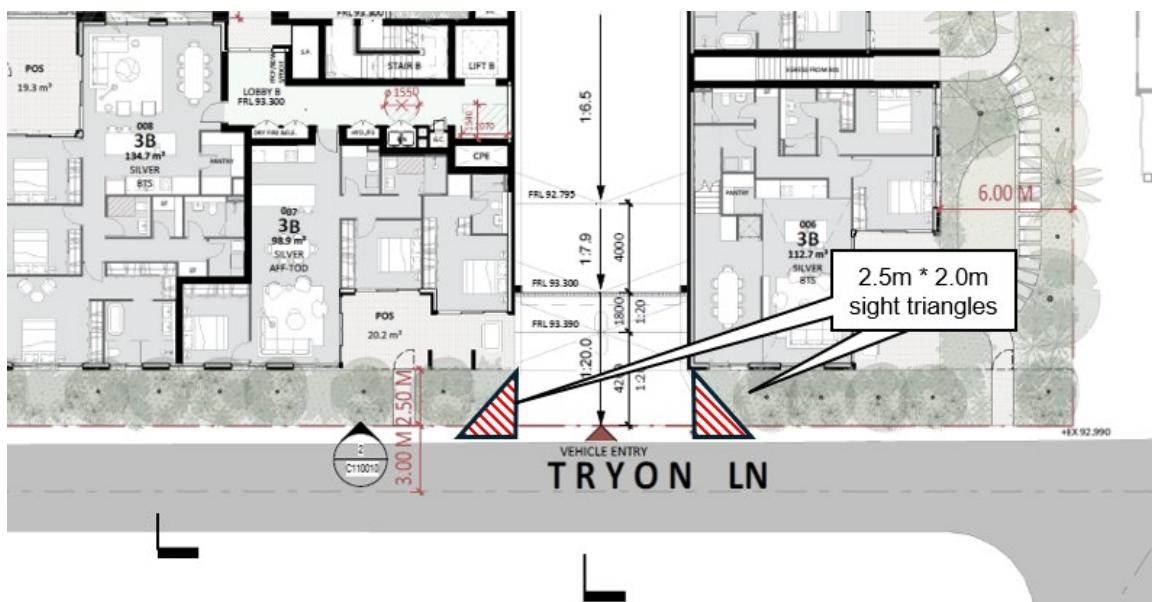


Figure 11 Driver sight triangles

A cross section of the driveway from ground level through to basement is provided in Figure 12, confirming the gradients utilised comply with relevant

Australian Standard requirements. A vertical clearance check using tracking software confirms the ramp profile does not result in any scraping of the underside of the vehicle.

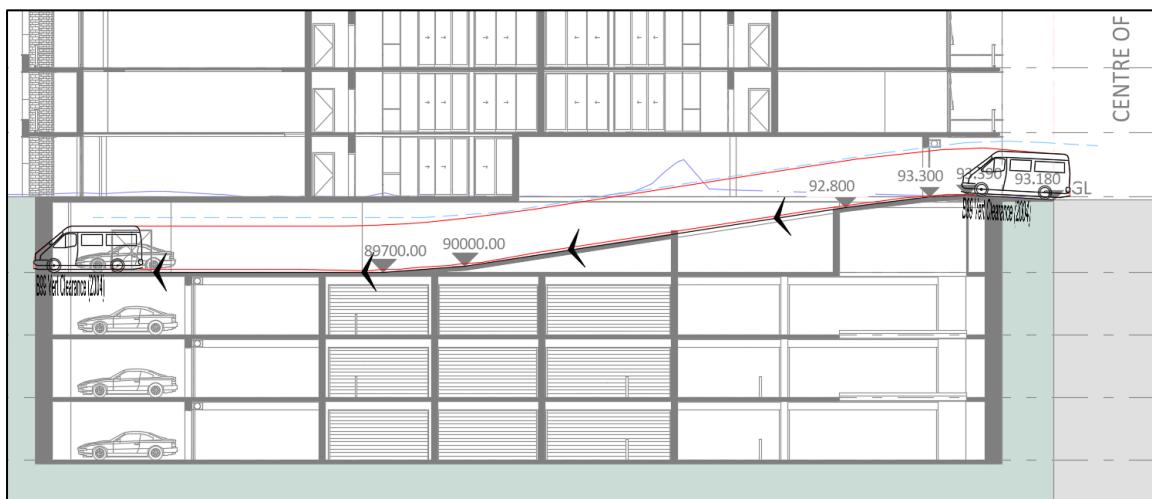


Figure 12 Ramp cross section

3.2 Car park design

The car park has been designed in accordance with AS2890.1 with respect to ramp gradients, circulation aisle widths and car space dimensions. A review of the plans has found that the car park layout complies with the requirements of AS2890.1-2004 for all uses. Relevant dimensions provided include aisles minimum 5.8 metres wide with parking spaces 2.4 metres wide by 5.4 metres long

The main entry ramp has a relatively flat gradient for the first 6m beyond the property boundary in accordance with AS2890.1. The following vehicle clearance heights will be provided in the on-site car parking areas to accommodate the safe movement of vehicles:

- 2.6m in the basement loading area to accommodate a Council waste collection vehicle; and
- 2.2m clearance height within the basement levels, as per the requirements of AS2890.1. The exception to this will be a 2.5m clearance height above accessible car parking spaces and adjoining shared areas as required under AS2890.6.

3.3 Loading area

The proposal includes an on-site loading dock which can accommodate a 6.7m Council Waste collection vehicle. The loading area is located at basement 1 level and will have a minimum clearance height of 2.6m as per the requirements of the Ku-Ring-Gai DCP.

The loading area is accessed via Tryon Lane. Vehicle swept paths have been developed to confirm the suitability of the design to accommodate the movement of a Council waste collection vehicles into and out of this loading area as demonstrated in the swept paths provided in Figure 13.

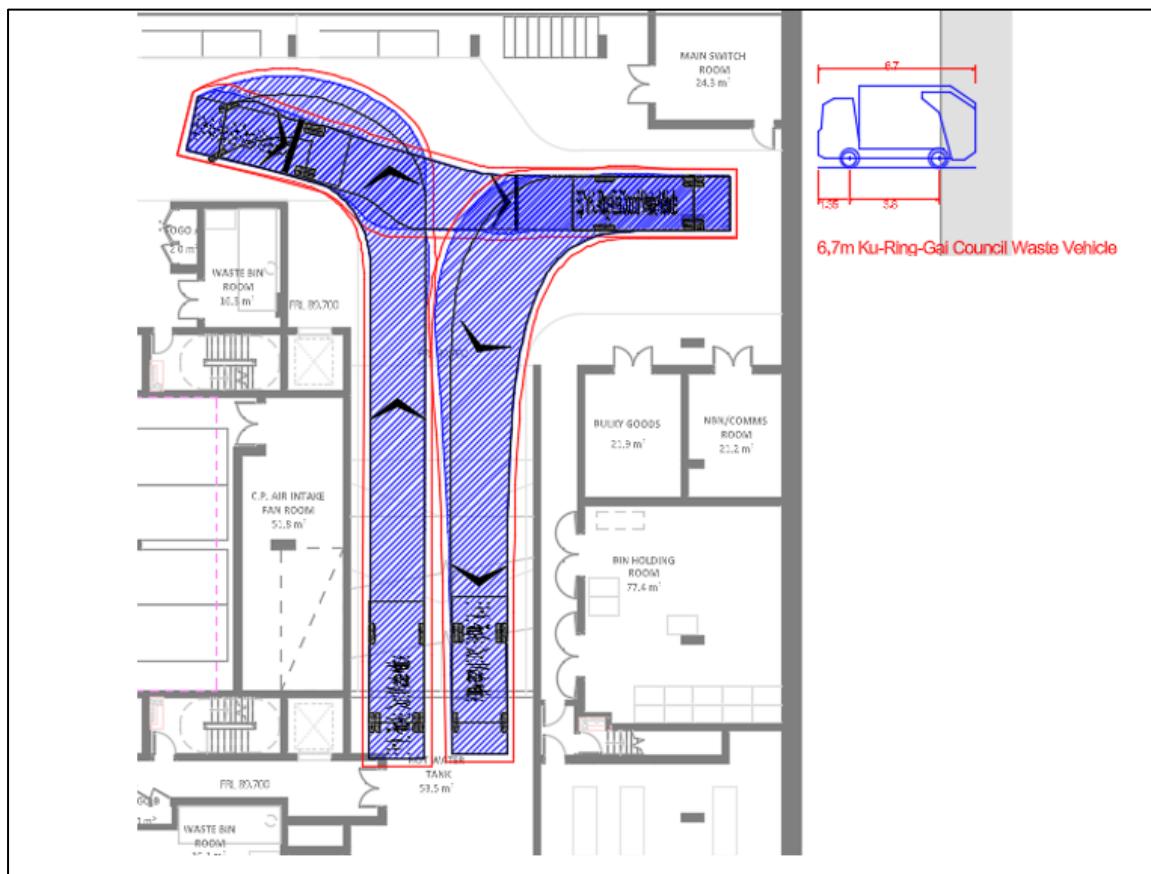


Figure 13 Swept paths – Council garbage truck

3.4 Car parking supply

Based guidance for in-fill affordable housing noted in Part 2, Division 1 of the Housing SEPP 2021, a consent authority may not refuse an in-fill affordable housing development, if the following **minimum** parking requirements met:

- For dwellings used for affordable housing
 - For each dwelling containing 1 bedroom – at least 0.4 parking spaces
 - For each dwelling containing 2 bedrooms – at least 0.5 parking spaces
 - For each dwelling containing at least 3 bedrooms – at least 1 parking space
- For dwellings not used for affordable housing
 - For each dwelling containing 1 bedroom – at least 0.5 parking spaces
 - For each dwelling containing 2 bedrooms – at least 1 parking spaces
 - For each dwelling containing at least 3 bedrooms – at least 1.5 parking spaces.

As shown in Table 3 the proposed number of car parking spaces for residents aligns with the minimum requirements of the Housing SEPP. In this context the proposed level of car parking is considered appropriate.

The Ku-Ring-Gai DCP specifies a **minimum** car parking rate for residential visitors of one space per 6 apartments. Based on the number of apartments to be provided the development should provide at least 11 residential visitor parking spaces. The proposal complies with this requirement by providing for 11 parking spaces for residential visitors.

Table 3 Car parking summary

Land Use	Type		No. of units	Minimum Parking Rate	Min. No. of Spaces	Parking provided	
Residents	Non-Affordable Housing	1 bed	0	0.5 / unit	0	90	
		2 bed	0	1.0 / unit	0		
		3/4 bed	51	1.5 / unit	77		
	Affordable Housing	1 bed	0	0.4 / unit	0		
		2 bed	3	0.5 / unit	2		
		3/4 bed	11	1.0 / unit	11		
Visitors			65	1 / 6 units	11	11	
Total			65	-	101	101	

* Rounded up to the nearest number

3.5 Bicycle parking

The Ku-Ring-Gai Council DCP outlines minimum bicycle parking requirements for the subject site, those being:

- 1 bicycle parking space per dwelling for residents; and
- 1 bicycle parking space per 10 dwellings for visitors.

The proposal complies with the above requirements by providing for approximately 65 bicycle parking spaces in the basement of the building. This includes the provision of storage cages which have adequate space to store a bicycle. All bicycle parking spaces would be provided in compliance with the requirements of the Australian Standard AS2890.3.

3.6 Motorcycle parking

The proposal includes eight motorcycle parking bays provided on basement level B1, all designed in accordance with the requirements of AS2890.1.

3.7 Accessible car parking

The proposal provides for accessible car parking spaces within the basement of the building. These accessible spaces have been designed in accordance with AS2890.6 or AS4299 including the provision of adjacent shared areas, wide 3.8m car spaces and clearance heights of 2.5m.

3.8 Forecast traffic generation

The Transport for NSW Guide to Transport Impact Assessment (GTIA) document published in 2024 outlines recommended vehicular trip rates for residential developments in close proximity to public transport. As the subject site is located within a five minute walk of Lindfield train station the standard vehicle trip generation rates outlined in the GTIA are appropriate to adopt, those being:

- AM Peak hour: 0.19 trips per apartment
- PM Peak hour: 0.15 trips per apartment

Based on the proposed development yield the following peak hour traffic generation could be expected:

- AM Peak hour: 12 vehicle trips
- PM Peak hour: 9 vehicle trips

3.9 Road network impacts

Traffic modelling has been undertaken using the TfNSW approved 'SIDRA' software to understand the existing and future operational performance of the nearby Tryon Road / Lindfield Avenue intersection. To consider a worst case / highly conservative scenario all traffic movements have been assumed to travel through the Tryon Road / Lindfield Avenue intersection, with vehicle movements distributed in line with current traffic flows as indicated in Figure 14.



Figure 14 Forecast traffic distribution

The traffic modelling metric used to analyse the performance of the intersections is intersection Level of Service (LOS). Level of Service is a measure that uses the average delay experienced by vehicles to categorically assign each approach and movement with a qualitative ordinal grade (A through F, with A being the best and F being the worst). RMS Traffic Modelling Guidelines indicate the average delay relating to each grade, this is outlined in Table 4. In typical urban environments it is typical for intersections to operate at Level of Service D or E and still remain within acceptable performance levels.

Table 4 Level of service grades / description

Level of service grade	Average delay (seconds)	Description
A	Less than 14	Good operation
B	15 to 28	Good with acceptable delays and spare capacity
C	29 to 42	Satisfactory
D	43 to 56	Operating near capacity
E	57 to 70	At capacity. At signals, incidents will cause excessive delays. Roundabouts require other control mode
F	Greater than 71	Unsatisfactory with excessive queuing

The traffic modelling (summarised in Table 5 below) indicates that the key intersection of Tryon Road / Lindfield Avenue will continue to operate at a strong level of service with the proposal in place – even under a worst case scenario where all traffic from the development passes through this intersection. In reality the traffic impacts will be lower than reported as vehicles associated with the development will disperse across a number of different routes rather than being concentrated through a single intersection as the modelling suggests.

Notwithstanding the conservative assumptions adopted the modelling indicates the intersection will experience no material change in performance or average delays for drivers when compared to current conditions.

With respect to Tryon Lane the proposal will add very limited traffic volumes of between 9 and 12 vehicles in peak hours which would have no material impact on the operation or safety of this laneway.

In this context the traffic impacts of the proposal are considered acceptable with no further analysis or mitigation measures required.

Table 5 Existing and future intersection performance

Time Period	Existing Intersection Performance			Existing Intersection Performance + Proposal		
	Level of Service	Degree of Saturation	Average Delay (s)	Level of Service	Degree of Saturation	Average Delay (s)
AM Peak Hour	B	0.66	12	B	0.66	12
PM Peak Hour	B	0.55	11	B	0.56	11

3.10 Cumulative traffic impacts

There are a number of nearby sites that are the subject of approved or pending development proposals which may have the potential to increase traffic movements on key roads surrounding the subject site. These sites, referred to as 'saved TOD sites', are all physically separated from the subject site and therefore any cumulative traffic impacts arising from these future developments would be limited – particularly for the key intersections along Tryon Road.

In addition surrounding sites within 400m of Lindfield train station have the potential for future development under the provisions of Ku-Ring-Gai Council's alternative Transit Oriented Development (TOD) scenario. These controls permit increased building heights for sites within the Lindfield centre and, if these sites are developed, have the potential to increase traffic in the surrounding area.

It is important to recognise that the proposal is forecast to add a negligible 9-12 traffic movements in the commuter peak hours of the day and therefore traffic impacts, even when considered other developments in the area, would be very minor. Traffic modelling undertaken as part of this study has demonstrated that the impact of additional trips associated with the proposal on the surrounding road network would be minimal – with no changes in level of service or typical delays for drivers in the area.

3.11 Preliminary Green Travel Plan

3.11.1 GTP overview

A Green Travel Plan is a package of measures put in place by the development occupants to try and encourage more sustainable travel. It is a means for a development to demonstrate a commitment and take a pro-active step towards improving the environmental sustainability of its activities.

More generally, the principles of a GTP are applied to all people travelling to and from a site. Government authorities are placing increasing emphasis on the need to reduce the number and lengths of motorised journeys and in doing so encourage greater use of alternative means of travel with less negative environmental impacts than the car.

3.11.2 GTP objectives

A GTP is a package of measures aimed at promoting and encouraging sustainable travel and reducing reliance on the private car. The GTP for the site will assist in reducing car reliance by promoting alternative, sustainable modes of travel. The GTP aims to encourage and support the broader use of sustainable travel options by the community in carrying out their daily activities.

Sustainable travel options include active transport (including travel by foot, bicycle and other non-motorised vehicles) and public transport. The GTP focuses on minimising the impact of events on the local and wider transport network and

encourages those accessing the site to do so by sustainable modes of transport, thereby reducing car dependency for residents, staff and visitors of the site.

The key objectives of the GTP are to:

- Achieve a high modal share for public transport, cycling and walking journeys for residents, staff and visitors of the site;
- Reduce private vehicle dependency as a means of access to the site;
- Ensure adequate facilities are provided at the site to enable users to travel by sustainable transport modes; and
- Raise awareness of, and actively encourage the use of, sustainable transport amongst users.

3.11.3 Potential strategies

A suite of potential measures is described below to be implemented as part of the GTP, which can be developed further as the development progresses.

Table 6 List of potential GTP measures

Action	Responsibility
Cycling	
Provide sufficient cycle parking to meet needs, which is easily accessible and secure	Developer
Provide adequate cycle parking facilities for visitors	Developer
Ensure cycle parking is clearly visible or provide signage to direct people to cycle bays	Building manager
Produce a map showing cycle routes and bike stands in the area	Building manager
Supply a communal toolkit for staff consisting of puncture repair equipment, a bike pump, a spare lock and lights.	Building manager
Promote the participation in annual events such as 'Ride to Work Day'	Tenants
Walking	
Identify tenants living near work that may be interested in walking to work	Building manager
Identify through the travel survey what incentives might need to be put in place for non-walkers to consider a mode shift	Building manager
Public Transport	
Develop a map showing public transport routes in the area	Building manager
Put up a noticeboard with leaflets and maps showing the main public transport routes to and from the site	Building manager
Carshare / Carpooling	
Develop a map showing car-share spots in the area to encourage staff and visitors to use a shared car (e.g. GoGet) if they are required to drive	Building manager and tenants

4 Preliminary Construction Traffic Management Plan

4.1 Overview

For the purposes of the SSDA a preliminary Construction Pedestrian Traffic Management Plan (CPTMP) has been prepared. This preliminary CPTMP outlines the key principles for how construction may be carried out on the site, subject to further planning to be undertaken during subsequent stages of the project. As the project is in very early concept phase details around construction timeframes, methodology and processes are not yet clear.

Prior to the commencement of construction for the site, a detailed CPTMP will be prepared. This will be reinforced through an appropriately worded condition of consent, with the purpose of the CPTMP to assess the proposed access and operation of construction traffic associated with the proposed development with respect to safety and capacity. The Contractor will be responsible for preparing the CPTMP, ensuring the following are addressed:

- Proposed construction vehicle routes;
- Indicative construction programme;
- Expected construction vehicle types and volumes;
- Car parking arrangements and site access during construction;
- Safety measures to minimise impacts to pedestrians and cyclists; and

The Contractor will also be responsible for monitoring and coordinating all vehicles entering and exiting the site.

4.2 Working hours

Working hours will be confirmed at the time of the development of the detailed CPTMP however are envisaged to take place during the following hours:

- Monday to Friday: 7am – 6pm
- Saturday: 8am – 1pm
- Sunday / public holiday: No work

The appointed contractor will be responsible for instructing and controlling all subcontractors regarding the hours of work. Any work outside the approved construction hours would be subject to specific prior approval.

4.3 Construction traffic routes

The construction vehicles routes to be utilised for the construction of the subject site would be selected in order to:

- Maximise vehicle use to the State and Regional road network, and not limit the extent of travel on residential streets;
- Avoid impacting concurrent construction projects in the vicinity of the site; and
- Minimise impacts to the public transport network

The potential construction vehicle routes are illustrated in Figure 15 and include:

From the south & north: Pacific Highway – Boundary Street – Archbold Street - Tryon Road

From the east: Warringah Road – Boundary Street – Archbold Street - Tryon Road

From the west: Fullers Road – Boundary Street – Archbold Street - Tryon Road

These construction routes will be confirmed during the preparation of the detailed CPTMP developed prior to the commencement of construction.

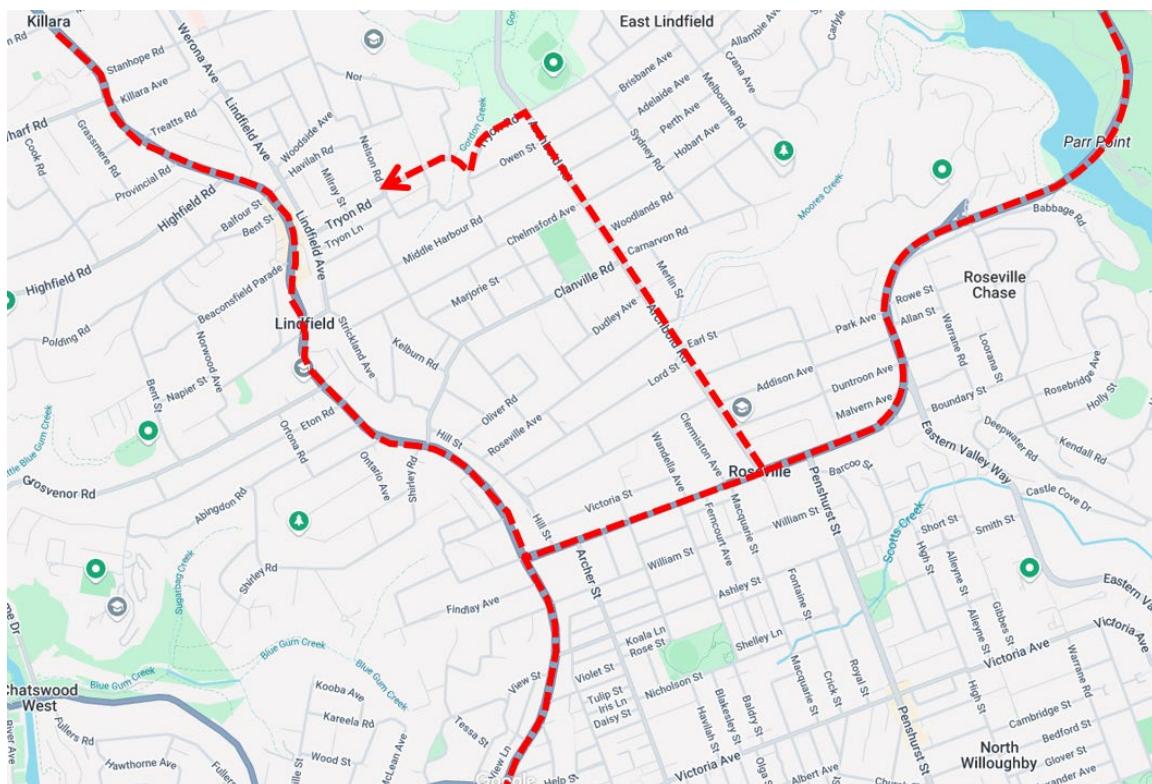


Figure 15 Potential construction vehicle routes

4.4 Construction vehicle volumes

The number of construction vehicles accessing the site on a typical day may be in the order of 30-40 vehicles. This figure will be confirmed following the appointment of a contractor and will form part of the detailed CPTMP to be prepared prior to the commencement of construction. It should be noted however that the level of construction vehicle traffic will be less than that generated during the operational phase of the project.

4.5 Works zones

To facilitate the construction project, a work zone may potentially be established on the southern side of Tryon Road adjacent to the site. The work zone would require the temporary removal of approximately 4 existing on-street parking spaces. The work zone would be approximately 25m in length and allow for large items to be lifted by cranes positioned within the site.

Should a works zone be installed on Tryon Road, a B-Class hoarding will be installed adjacent to the work zone to provide protection to pedestrians.

The requirement for this works zone will be confirmed following the appointment of a contractor at the time of the preparation of the detailed CPTMP.

4.6 Road closures and road occupancy

It is not anticipated that the works will necessitate the need for any road closures or occupation of roadways during the project. Should this need arise the appointed contractor would liaise closely with Council and TfNSW and schedule these works well in advance to minimise impacts to road users.

4.7 Size and type of vehicles

The site will have various types of construction vehicles accessing the site, including:

- 19m Single Articulated Vehicles (AVs) and 19m Truck and Dog Trailers;
- 12.5m Heavy Rigid Vehicles (HRVs)
- 8.8m Medium Rigid Vehicles (MRVs)
- 6.5m Small Rigid Vehicles (SRVs);
- Utes/vans

The largest construction vehicles accessing the site on a typical day will include 19m Articulated Vehicles and Truck and Dog Trailers. These vehicle types are consistent with those previously in use during the operation of the site as a Sydney metro construction works depot. Use of these longer vehicles are considered acceptable given that they will be primarily using arterial roads to access the site.

4.8 Impacts to pedestrians

Temporary fencing and hoardings will be installed along the site frontage on Tryon Road and Tryon Lane to maintain pedestrian movements and ensure the safety of pedestrians walking adjacent to the construction site. Footpaths will remain open at all times to pedestrians and therefore minimal impacts are anticipated.

Traffic controllers will be positioned at vehicle site access points to manage interactions between vehicles and pedestrians on the adjoining footpath. Traffic control plans for the site access points will be developed during the preparation of the detailed CPTMP (prior to the commencement of construction) which will further detail management arrangements to be in place to ensure the safety of pedestrians in the area.

4.9 Construction worker parking

Given the location of the site, workers will be encouraged to use public transport as a means of access. Initially, there would be very little on-site parking, however, once the basement and parking levels are completed, contractors may be able use these facilities subject to availability. All other parking will be the responsibility of the individual and those requiring car parking will be directed to the nearby public car parks. It is intended that the majority of contractors will be utilising the excellent public transport services to travel to and from the site.

The potential car parking arrangements will be outlined within the detailed Construction Traffic Management Plan (CTMP) to be prepared prior to the commencement of works on the site. This CTMP would outline how workers will travel to the site and measures to be in place to minimise impacts to the surrounding street network. These measures may include (but are not limited to):

- During site induction staff will be informed of the existing public transport network servicing the site
- Identification of suitable off-site parking areas from where workers can either walk or use public transport to access the site; and
- To support construction workers in utilising public transport, appropriate arrangements will be made for any equipment/ tool storage and drop-off requirements

4.10 Cumulative construction impacts

There may be other construction projects occurring at the same as the proposed works at the site. Ongoing review of cumulative heavy vehicle traffic generation and coordination of heavy vehicle routes used by these projects will be undertaken on a regular basis between the appointed contractor, Council and TfNSW to minimise impacts on the road network. As other CTPMPs become

available for adjacent projects, these will be reviewed by the contractor and discussions held with relevant stakeholders.

It is noted that the works at the site are anticipated to generate a relatively low level of construction vehicle activity of at most 10 vehicles per hour. This volume of vehicles would not impact the operation of the surrounding road network.

4.11 Emergency vehicle access

Emergency vehicle access will be maintained at all times, or if necessary site personnel will grant access to emergency vehicles entering the site itself.

The contractor will liaise with the NSW Police, Fire Brigade and emergency services agencies throughout construction and a 24-hour contact would be made available for 'out of hours' emergencies and access. The emergency services will be briefed

4.12 Mitigation measures – construction phase

Mitigation measures will be adopted during construction to ensure traffic movements have minimal impact on surrounding land uses and the community in general, and would include the following:

- Trucks to minimise the use of local streets for access to the construction site;
- Trucks to enter and exit the site in a forward direction;
- Pedestrians near the ingress/egress points will not be held unnecessarily.
- At construction vehicle access/egress points, priority is to be given to trucks accessing the site over trucks egressing the site so as to have no impact to traffic flow on surrounding roads (unless exceptional circumstances do not permit)
- Trucks to not circulate on the road network to wait to enter the site (unless exceptional circumstances do not permit)
- Restrict construction vehicle activity to designated routes which do not utilise any local roads;
- Truck drivers will be advised of the designated truck routes to/ from the site;
- Construction access from the external road network to mainly occur at signalised intersection;
- Pedestrian movements adjacent the construction site will be managed and controlled by site personnel where required;
- Pedestrian warning signs and construction safety signs/devices to be utilised in the vicinity of the site and to be provided in accordance with WorkCover requirements;
- Construction activity to be carried out in accordance with approved hours of work;

- Truck loads would be covered during transportation off-site;
- Establishment and enforcement of appropriate on-site vehicle speed limits which would be reviewed depending on weather conditions or safety requirements;
- Activities related to the construction works would not impede traffic flow along adjacent roads;
- Materials would be delivered and spoil removed during standard construction hours;
- Construction vehicles not to queue on adjacent streets;
- During site induction, workers will be informed of the existing bus, train and metro network servicing the site;
- To support construction workers in utilising public transport, appropriate arrangements will be made for any equipment/ tool storage and drop-off requirements; and
- Development and enforcement of driver charter.

The appointed contractor will include the following in all subcontract procurement packages as part of a driver code of conduct:

- a copy of the approved truck routes as previously detailed in this document.
- the approved maximum truck size
- any other entry restrictions, or site access restrictions as agreed to by the authorities.

All staff employed on the head contractor (including sub-contractors) would be required to undergo a site induction. The induction would include permitted access routes to and from the construction site for site staff and delivery vehicles, parking arrangements, as well as standard environmental, workplace health and safety, driver protocols and emergency procedures. The approved work hours must be included as part of this induction.

5 Summary

This transport impact assessment report has been prepared by JMT Consulting on behalf of Bridgestone Projects to support a State Significant Development Application for the site at 27 – 29 Tryon Road, Lindfield. Key findings of the assessment are as follows:

- The site is located approximately 250m east of Lindfield train station and bus interchange, making it highly accessible by public transport and therefore limiting the traffic related impacts of future development.
- Vehicles would access the basement car park via a single driveway access on Tryon Lane – consistent with adjoining developments. This arrangement minimises traffic and pedestrian related impacts on Tryon Road which will act as the main walking route to Lindfield Station.
- The proposal includes a loading area located within the site boundary to facilitate waste collection and site deliveries.
- The proposal provides for car parking consistent with the minimum and maximum requirements of the Ku-Ring-Gai DCP for building residents and visitors.
- Traffic modelling indicates that the proposal would have negligible impacts on the surrounding road network. The proposal is forecast to generate no more than 12 vehicle trips during the busiest hours of the day. The impact of these additional vehicle trips on the nearby Tryon Road / Lindfield Avenue intersection was tested, with modelling confirming no changes to current intersection performance with the advent of the proposal.
- Secure bicycle parking is provided in line with rates specified in the Ku-Ring-Gai DCP.

In the above context, the traffic and transport impacts arising from the proposal are considered acceptable.