



**1 - 5 Nelson Road, Lindfield**

**SSD - 82899468**

**Transport Impact Assessment**

Prepared for:

**Castle Hill No. 3 Pty Ltd**

29 May 2025

### PROJECT INFORMATION

<b>Project Name:</b>	1 - 5 Nelson Road, Lindfield
<b>Client:</b>	Castle Hill No. 3 Pty Ltd
<b>Project Number:</b>	2541
<b>Prepared By:</b>	JMT Consulting

### DOCUMENT HISTORY

Document Title	Revision	Date issued	Author
Transport Impact Assessment – 1-5 Nelson Road	Draft	21.05.25	JM
Transport Impact Assessment – 1-5 Nelson Road	Issue	29.05.25	JM

*We confirm this transport impact assessment report addresses the requirement of SEAR No. 82899468 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.*



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# 1 Introduction

## 1.1 Background

JMT Consulting was engaged to carry out a traffic and transport assessment of a Stage 1 Concept State Significant Development Application (SSDA) for the site 1 - 5 Nelson Road, Lindfield (the site). The concept proposal envisages the future construction of a multi storey residential flat building with in-fill affordable housing and associated works. A subsequent detailed SSDA is to be lodged for the site following the Concept SSDA approval.

## 1.2 Site description

The site is located on the eastern side of Nelson Road to the east of the railway line. This site comprises of 3 parcels of land and is known as No. 1-5 Nelson Road, Lindfield with a legal description of Lots 6, 7 and 8 in DP 9789.

The site has an area of 4,967m<sup>2</sup> with a frontage to Nelson Road measuring approximately 60m in length.

The site is located approximately 450m east of the Pacific Highway, which is a major arterial route, providing regular buses servicing the Lindfield Learning Village, Killara, Gordon and Chatswood.

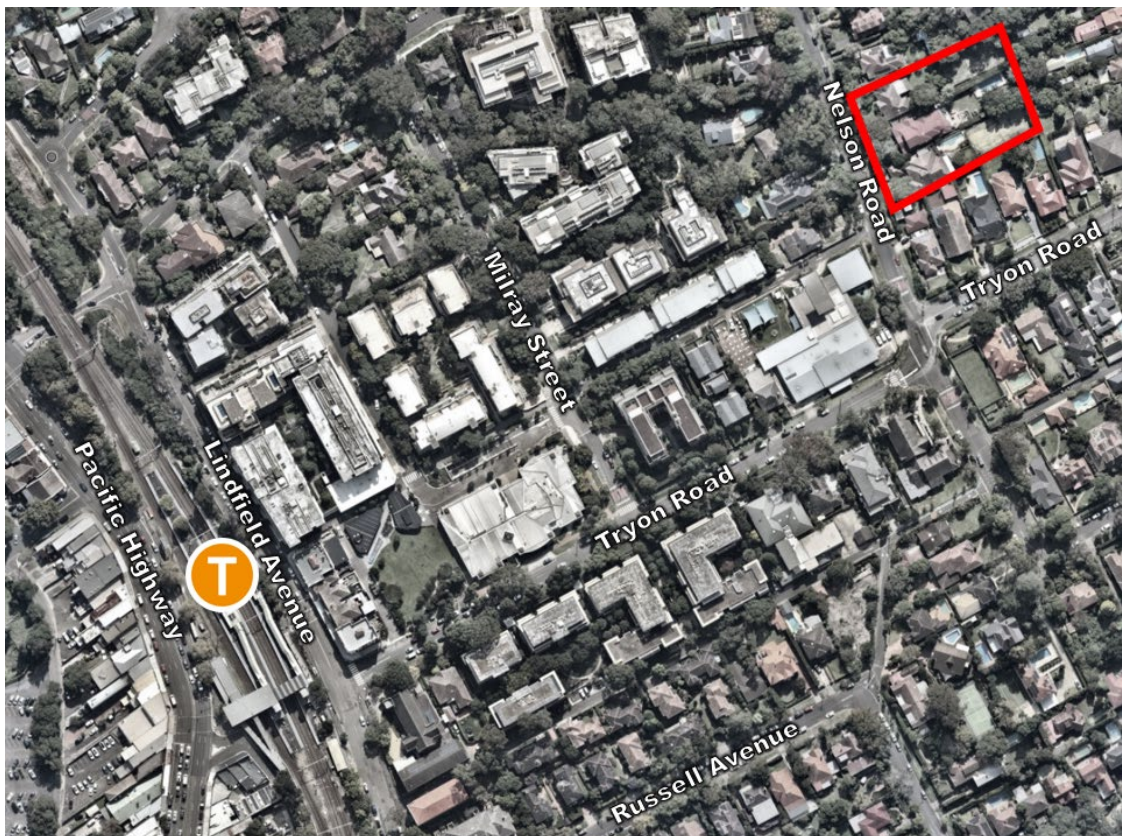


Figure 1 Site location

### 1.3 Report purpose

This report has been prepared in response to the Secretary's Environmental Assessment Requirements (SEARs) for SSD- 82899468 relevant to traffic and transport as summarised in Table 1 below.

Table 1 SEARs requirements

SEARs Item	Description of Requirement - SSD- 82899468	Response
<i>Item 9. Transport</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<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"> <li>site location and context</li> <li>development scale and access arrangements</li> <li>trip generation and distribution</li> </ul> <p>The above items have been addressed in this report.</p>

### 1.4 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.

Nelson 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.

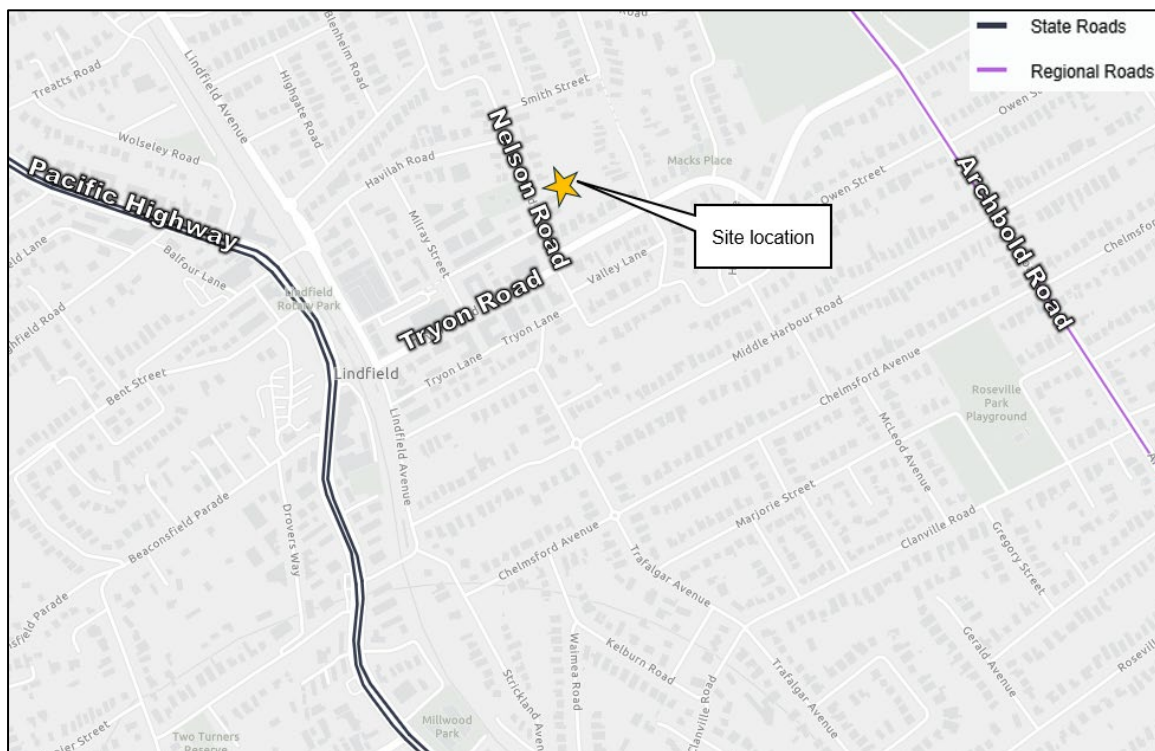


Figure 2 Road network serving the site

## 2.2 Existing traffic volumes

Traffic counts were undertaken at the key intersections near the site during the morning and afternoon peak hour periods on Thursday 8 May 2025– with this existing traffic data indicated in the following figures. This traffic data has formed the basis for the road network analysis undertaken in later sections of this document.

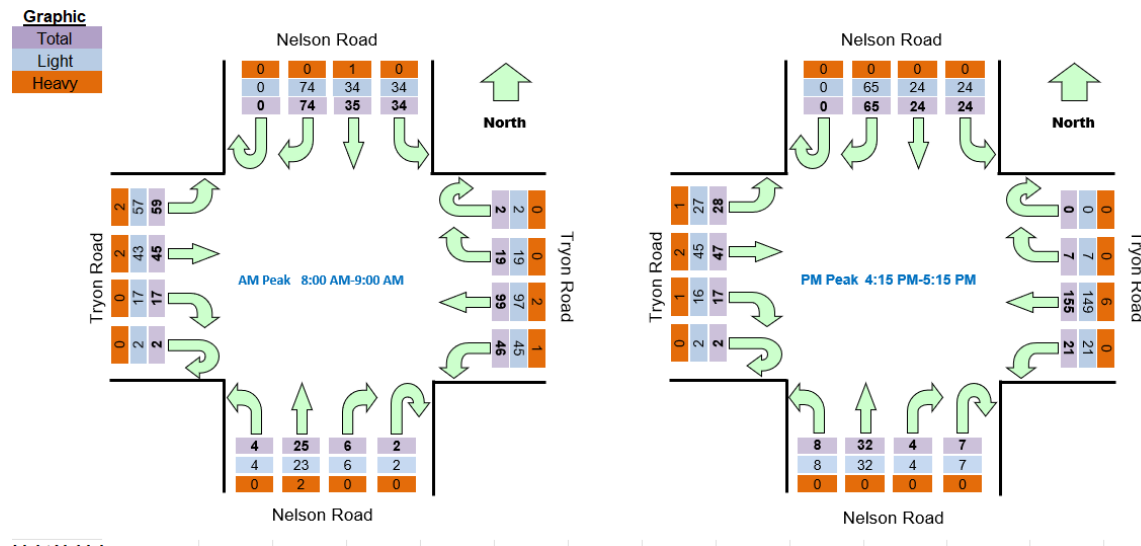


Figure 3 Traffic counts – Tryon Road / Nelson Road

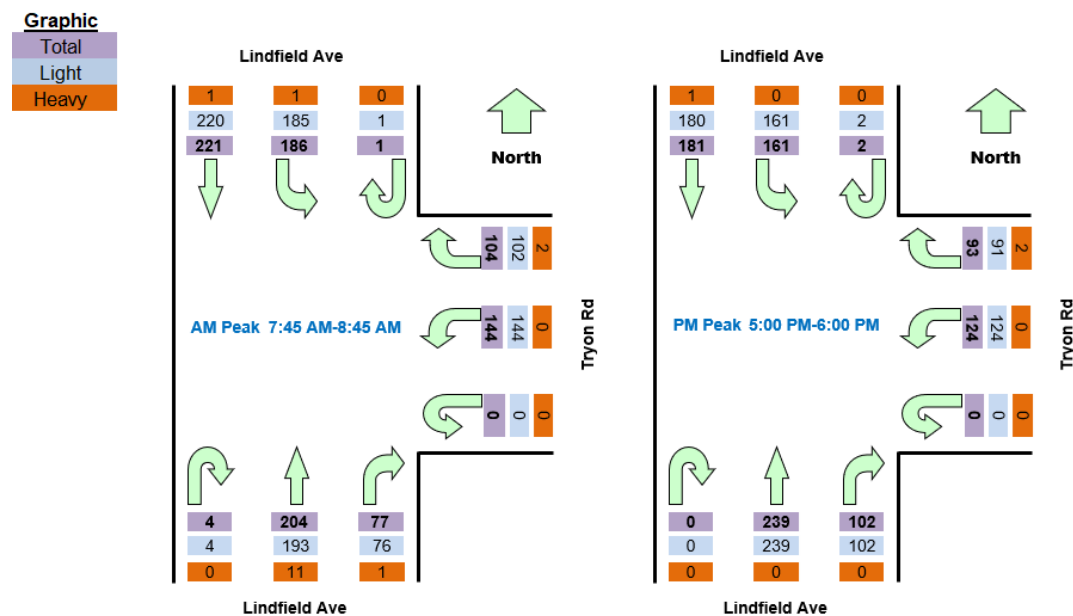


Figure 4 Traffic counts – Tryon Road / Lindfield Avenue



## 2.3 Public transport

The site is located just approximately 400m (as the crow flies) or 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.

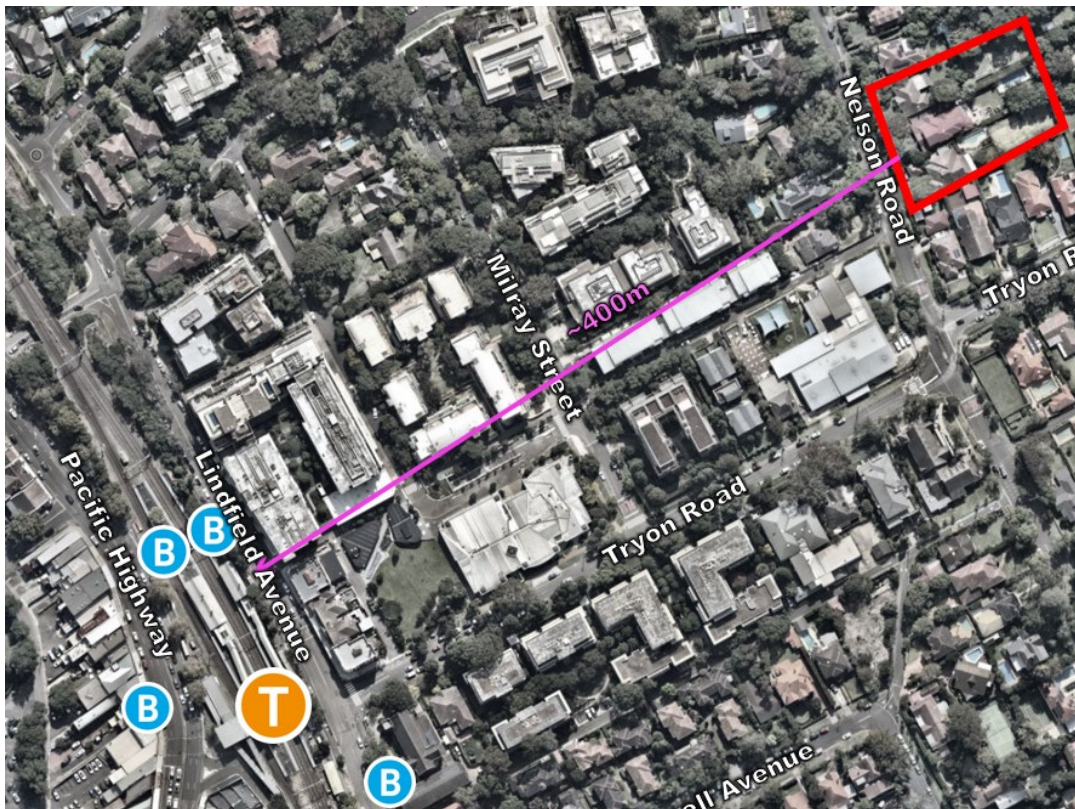


Figure 5 Public transport availability near the site

## 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 including Nelson Road. The site also benefits from being surrounded by a number of formal pedestrian crossings as shown in Figure 6 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 6 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 review and is shown in Figure 7. This indicates no recorded crash history immediately adjacent to the site on Nelson Road, with majority of crashes recorded along the Pacific Highway. This indicates no major concerns in relation to road safety at this location.

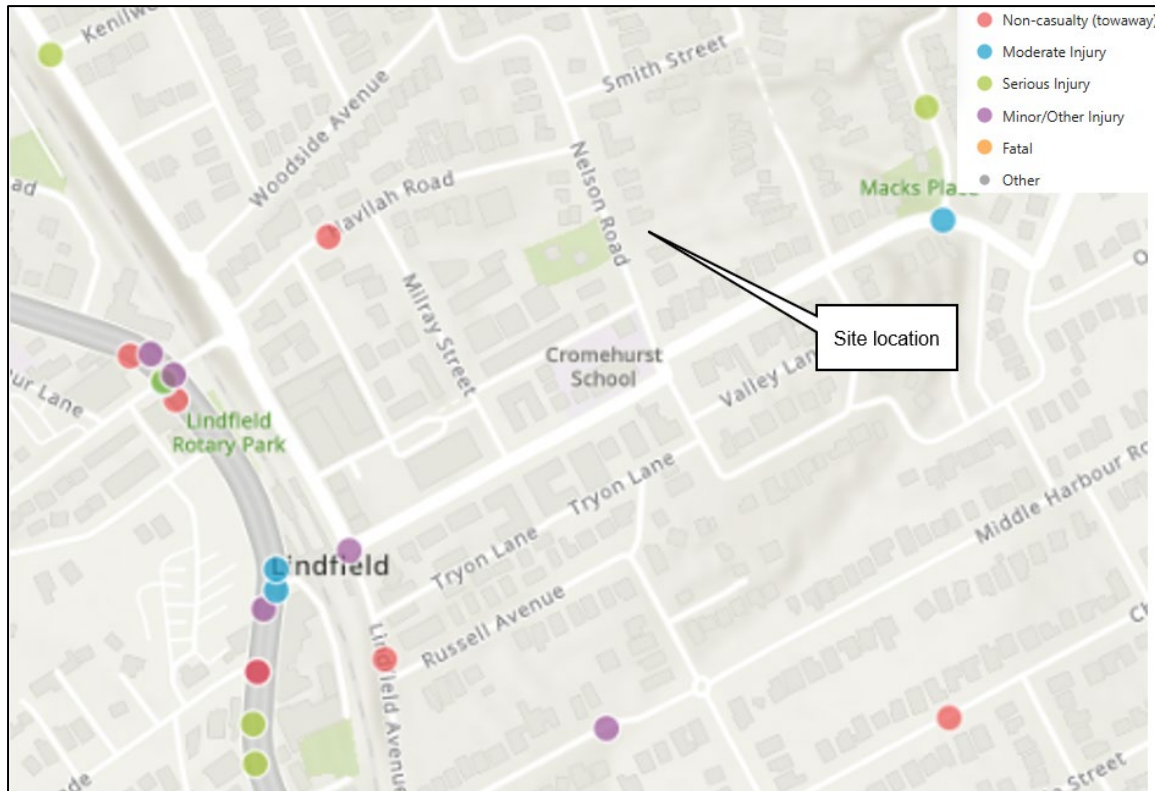


Figure 7 Crash data

Source: NSW Centre for Road Safety

### 3 Transport Impact Assessment

#### 3.1 Vehicle site access

Figure 8 below outlines the proposed site access strategy under the reference scheme prepared for the concept proposal which includes a single driveway access via the southern end of Nelson Road. The car park access driveway and entry/exit ramp has been designed to accommodate the simultaneous two-way movement of traffic into and out of the site.

The driveway location as envisaged in the reference scheme supporting the Concept proposal is shown in Figure 5 below.



Figure 8 Proposed site access strategy

Swept path analysis for the site access point has been undertaken based on the reference scheme prepared for the Concept Proposal. This analysis indicates that vehicles can simultaneously enter and exit the site satisfactorily from Nelson Road, with swept paths shown in Figure 9.

The final design for the vehicle driveway and internal circulation will be carried out at the detailed SSDA stage of the project.

Figure 9 Swept path analysis – site entry via Nelson Road

### 3.2 Car park design

The car park is to be designed as part of a future detailed SSDA for the site in full with AS2890.1 with respect to ramp gradients, circulation aisle widths and car space dimensions. The design for the reference scheme confirms the ability for a compliant car parking area to be delivered for the site.

### 3.3 On-street car parking

As the proposal would accommodate all car parking and loading on-site, as well as retain the existing vehicle access driveway location, no existing on-street car parking would be impacted by the proposal. The removal of redundant driveways along the site frontage of Nelson Road will provide Council with the opportunity to introduce additional on-street parking – representing a benefit to the surrounding community.



### 3.4 Loading area

The reference scheme prepared for the Concept proposal includes an on-site loading dock which can accommodate a range of service vehicles including a 6m Council Waste collection vehicle as required under the Ku-Ring- Gai Council DCP 2024 (Part 25 Waste Management). The loading area can be access via Nelson Road and is combined with the residential car park entry / exit point.

The reference scheme includes a loading dock design that allows for trucks to enter and exit the site in a forwards direction. The loading dock is of sufficient size to accommodate two trucks parked at any one time.

Swept path analysis for the loading area, demonstrating both an 8.8m Medium Rigid Vehicle (MRV) and a 6.4m Small Rigid Vehicle (SRV) can be accommodated within the loading dock, is provided as Figure 10.



Figure 10 Swept path analysis – loading area

The final design of the loading dock will be carried out at the detailed SSDA stage of the project.



### 3.5 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:

- (i) 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
- (ii) 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.

The minimum car parking requirements are prescribed as a non-discretionary development standard under Section 19(2)(e) and (f) of the Housing SEPP, which if complied with, prevents the consent authority from requiring more onerous standards. Specifically, Section 4.15(2) of the EP&A Act states that if a DA complies with the non-discretionary development standards in an EPI, the consent authority:

- (a) is not entitled to take those standards into further consideration in determining the development application, and*
- (b) must not refuse the application on the ground that the development does not comply with those standards, and*
- (c) must not impose a condition of consent that has the same, or substantially the same, effect as those standards but is more onerous than those standards, and the discretion of the consent authority under this section and section 4.16 is limited accordingly.*

Given the parking standard provides a minimum rate, any proposed car parking provision beyond the minimum rates still meets the controls in Section 19(e) and (f) of the Housing SEPP.

Further, adequate car parking provision is required to cater to the travel needs of downsizers, aging owner-occupiers and young families as public transport does not meet all the travel needs of these residents, especially for destinations not well-served by public transport.

In this context car parking rates for the site are proposed as follows:

- 1 bedroom unit: 1 space per dwelling
- 2 bedroom unit: 1.5 spaces per dwelling
- 3/4 bedroom unit: 2.0 spaces per dwelling

Application of the above car parking rates to the indicative unit mix developed as part of the reference scheme would yield approximately 250 parking spaces. This level of car parking provision is closely aligned to those recommended under the Ku-Ring-Gai DCP, with this comparison provided in Table 2.

Table 2 Car parking analysis

Type		No. of units	Proposed car parking rates		Ku-Ring-Gai DCP parking rate	
			Parking Rate	No. of Spaces	Parking Rate	No. of Spaces
Residential apartments	1 bed	34	1.0 / unit	251	1.0 / unit	227
	2 bed	98	1.5 / unit		1.25 / unit	
	3/4 bed	35	2.0 / unit		2.0 / unit	
Total		167	-		-	

As the application is a Stage 1 Concept SSDA the final quantum of car parking spaces is not yet determined. This will be confirmed at the time of the detailed SSDA stage of the project when the apartment mix and basement car parking configuration is finalised.

### 3.6 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.

Any future detailed development application lodged for the site would comply with the above bicycle parking rates. This would include secure parking facilities for residents to support cycling as a mode of transport to the site.

### 3.7 Car share

The Housing SEPP does not stipulate a rate for the provision of car share spaces, but Part 17B.1(14) of KDCP requires that at least one car share space is to be provided in the basement per 90 dwellings or part thereof for high-density residential apartment buildings, totalling a requirement of two car share spaces at the site.

The provision of car share spaces increases the site's sustainable transport credentials and can form a benefit to the nearby community if made publicly accessible to all. Car share provision will be made in accordance with Council's requirements and documented as part of a future detailed Development Application to be lodged for the site.

### 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 under the Concept Proposal apartments the following peak hour traffic generation could be expected:

- AM Peak hour: 31 vehicle trips
- PM Peak hour: 25 vehicle trips

### 3.9 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 are summarised in Table 3.

Table 3 Summary of nearby development sites

Application No.	Type	Address	Proposal	Status
SSD-78493518	SSDA	2-8 Highgate Road, Lindfield	Residential Development with In-Fill Affordable Housing	On Exhibition
SSD-79261463	SSDA	2-4 Woodside Ave & 1-3 Reid Street, Lindfield	Residential development with in-fill affordable housing	On Exhibition

Application No.	Type	Address	Proposal	Status
SSD-78669234	SSDA	27-29 Tryon Road, Lindfield	Residential development with in-fill affordable housing	On Exhibition
SSD-78156462	SSDA	12-16 Bent Street, Lindfield	Residential development with in-fill affordable housing	On Exhibition
SSD-82900461	SSDA	24-28 Middle Harbour Rd, Lindfield	Residential development with in-fill affordable housing	On Exhibition
SSD-81623209	SSDA	9 - 21 Beaconsfield Parade, Lindfield	Residential development with in-fill affordable housing	Preparing EIS
SSD-82899468	SSDA	1-5 Nelson Rd, Lindfield	Concept Proposal for a residential flat building with infill affordable housing	Preparing EIS
SSD-82709458	SSDA	19 - 25 Balfour Street, Lindfield	Residential development with in-fill affordable housing	Preparing EIS

For the projects currently on exhibition the relevant traffic reports have been reviewed to determine the extent of additional traffic movements on nearby intersections. These additional traffic movements have been considered in the traffic modelling supporting the project – thereby considering cumulative impacts of adjacent developments in the area.

For other applications in the nearby area that are still in the preliminary stages (preparing EIS), it is uncertain if the projects will proceed or would be approved. In addition, there is no available traffic study available for assessment. Therefore, the nearby major projects cannot be assessed in the cumulative assessment.

### 3.10 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 site intersections – those being:

- Tryon Road / Lindfield Avenue
- Tryon Road / Nelson Road

Vehicle movements have been distributed on the surrounding road network in line with current traffic flows and based on Australian Bureau of Statistics Journey to Work data in relation to place of work for residents of Lindfield. The forecast traffic distribution is indicated in Figure 11.



Figure 11 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
<b>A</b>	Less than 14	Good operation
<b>B</b>	15 to 28	Good with acceptable delays and spare capacity
<b>C</b>	29 to 42	Satisfactory
<b>D</b>	43 to 56	Operating near capacity
<b>E</b>	57 to 70	At capacity. At signals, incidents will cause excessive delays. Roundabouts require other control mode
<b>F</b>	Greater than 71	Unsatisfactory with excessive queuing

The traffic modelling (summarised in Table 5 and Table 6) indicates that the key intersections on Nelson Road and Tryon Road will continue to operate at a strong level of service with the proposal in place. The intersections will experience no material change in performance or average delays for drivers when compared to current conditions. The existing Level of Service A or B is maintained following the proposed development of the site along with other cumulative traffic impacts.

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

Table 5 Existing and future intersection performance (AM peak hour)

Intersection	Existing Intersection Performance			Existing Intersection Performance + Cumulative Impacts + Proposal		
	Level of Service	Degree of Saturation	Average Delay (s)	Level of Service	Degree of Saturation	Average Delay (s)
Tryon Road / Lindfield Avenue	B	0.66	12	B	0.68	12
Tryon Road / Nelson Road	A	0.17	7	A	0.18	7



Table 6 Existing and future intersection performance (PM peak hour)

Intersection	Existing Intersection Performance			Existing Intersection Performance + Cumulative Impacts + Proposal		
	Level of Service	Degree of Saturation	Average Delay (s)	Level of Service	Degree of Saturation	Average Delay (s)
Tryon Road / Lindfield Avenue	B	0.55	11	B	0.57	11
Tryon Road / Nelson Road	A	0.19	7	A	0.21	7

### 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 7 List of potential GTP measures

Action	Responsibility
<b>Cycling</b>	
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
<b>Walking</b>	
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
<b>Public Transport</b>	
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
<b>Carshare / Carpooling / Parking</b>	
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
Provision of electric vehicle charging infrastructure	Developer

### 3.12 Construction traffic management

Prior to the commencement of construction for the site a detailed CPTMP is to be prepared. The Contractor will be responsible for preparing the CTPMP, 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.

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;
- 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 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.

## 4 Summary

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This transport impact assessment report has been prepared by JMT Consulting to support a Stage 1 Concept State Significant Development Application for the site at 1 – 5 Nelson Road, Lindfield. Key findings of the assessment are as follows:

- The site is located approximately 400m 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.
- Under the reference scheme for the Concept proposal vehicles would access the basement car park and loading dock via a single driveway access on Nelson Road. This arrangement provides a suitable means of vehicle access to the site and would be confirmed as part of a future detailed Development Application to be lodged for the site.
- The reference scheme includes a loading area located within the site boundary to facilitate waste collection and site deliveries.
- Car parking rates adopted for the reference scheme closely align with the parking rates recommended by Ku-Ring-Gai Council in their DCP.
- Traffic modelling indicates that the proposal would have negligible impacts on the surrounding road network. Key intersections on Nelson Road and Tryon Road surrounding the site are forecast to maintain a strong 'Level of Service A or B' with the advent of the proposed development.
- Secure bicycle parking is to be provided as part of a future detailed DA in line with rates specified in the Ku-Ring-Gai DCP.

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

## **Appendix A: Traffic Modelling Outputs**

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# MOVEMENT SUMMARY

 **Site: [1] AM Peak Existing** (Tryon / Lindfield)  
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site  
Site Category: (None)  
Give-Way (Two-Way)  
**Site Scenario: 1 | Local Volumes**

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[ Total HV ]	[ Total HV ]	[ Total HV ]	[ Total HV ]				[ Veh. veh	Dist ] m				km/h
			veh/h	%	veh/h	%	v/c	sec							
South: Lindfield Ave															
2	T1	All MCs	215	5.4	215	5.4	0.471	8.0	LOS A	3.2	23.5	0.71	0.82	1.03	46.8
3	R2	All MCs	85	1.2	85	1.2	0.471	11.2	LOS A	3.2	23.5	0.71	0.82	1.03	50.2
Approach			300	4.2	300	4.2	0.471	8.9	NA	3.2	23.5	0.71	0.82	1.03	48.2
East: Tryon Road															
4	L2	All MCs	152	0.0	152	0.0	0.142	7.3	LOS A	0.6	4.0	0.47	0.69	0.47	51.5
6	R2	All MCs	109	1.9	109	1.9	0.483	25.3	LOS B	1.7	12.1	0.90	1.04	1.23	32.4
Approach			261	0.8	261	0.8	0.483	14.9	LOS B	1.7	12.1	0.65	0.84	0.79	44.3
North: Lindfield Ave															
7	L2	All MCs	197	0.5	197	0.5	0.661	12.0	LOS A	6.3	44.0	0.78	1.05	1.50	41.8
8	T1	All MCs	234	0.5	234	0.5	0.661	10.7	LOS A	6.3	44.0	0.78	1.05	1.50	44.4
Approach			431	0.5	431	0.5	0.661	11.3	NA	6.3	44.0	0.78	1.05	1.50	43.2
All Vehicles			992	1.7	992	1.7	0.661	11.5	NA	6.3	44.0	0.72	0.92	1.17	45.0

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).  
Vehicle movement LOS values are based on average delay per movement.  
Minor Road Approach LOS values are based on average delay for all vehicle movements.  
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
Two-Way Sign Control Capacity Model: SIDRA Standard.  
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).  
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.  
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.  
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

# MOVEMENT SUMMARY

Site: [2] AM Peak Existing + Proposal (Tryon / Lindfield)  
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site  
Site Category: (None)  
Give-Way (Two-Way)  
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[ Total HV ]		[ Total HV ]					[ Veh.	Dist ]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				
South: Lindfield Ave															
2	T1	All MCs	215	5.4	215	5.4	0.490	8.3	LOS A	3.5	25.1	0.71	0.85	1.07	46.4
3	R2	All MCs	100	1.1	100	1.1	0.490	11.6	LOS A	3.5	25.1	0.71	0.85	1.07	50.0
Approach			315	4.0	315	4.0	0.490	9.3	NA	3.5	25.1	0.71	0.85	1.07	48.0
East: Tryon Road															
4	L2	All MCs	163	0.0	163	0.0	0.153	7.4	LOS A	0.6	4.3	0.47	0.69	0.47	51.5
6	R2	All MCs	120	1.8	120	1.8	0.545	27.4	LOS B	2.0	14.2	0.91	1.06	1.32	31.4
Approach			283	0.7	283	0.7	0.545	15.8	LOS B	2.0	14.2	0.66	0.85	0.83	43.7
North: Lindfield Ave															
7	L2	All MCs	211	0.5	211	0.5	0.680	12.4	LOS A	6.7	47.0	0.79	1.08	1.57	41.4
8	T1	All MCs	234	0.5	234	0.5	0.680	11.1	LOS A	6.7	47.0	0.79	1.08	1.57	43.9
Approach			444	0.5	444	0.5	0.680	11.7	NA	6.7	47.0	0.79	1.08	1.57	42.7
All Vehicles			1042	1.6	1042	1.6	0.680	12.1	NA	6.7	47.0	0.73	0.95	1.22	44.6

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).  
Vehicle movement LOS values are based on average delay per movement.  
Minor Road Approach LOS values are based on average delay for all vehicle movements.  
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
Two-Way Sign Control Capacity Model: SIDRA Standard.  
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).  
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.  
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.  
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

# MOVEMENT SUMMARY

Site: [4] PM Peak Existing + Proposal (Tryon / Lindfield)  
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site  
Site Category: (None)  
Give-Way (Two-Way)  
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand		Arrival		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			Flows		Flows					[ Veh. Dist ]					
			[ Total HV ] veh/h	%	[ Total HV ] veh/h	%				v/c	sec				veh
South: Lindfield Ave															
2	T1	All MCs	252	0.0	252	0.0	0.543	8.4	LOS A	4.3	30.4	0.73	0.88	1.16	46.4
3	R2	All MCs	125	0.0	125	0.0	0.543	11.3	LOS A	4.3	30.4	0.73	0.88	1.16	50.0
Approach			377	0.0	377	0.0	0.543	9.4	NA	4.3	30.4	0.73	0.88	1.16	48.1
East: Tryon Road															
4	L2	All MCs	142	0.0	142	0.0	0.127	7.1	LOS A	0.5	3.6	0.44	0.66	0.44	51.6
6	R2	All MCs	106	2.0	106	2.0	0.513	27.9	LOS B	1.8	12.8	0.91	1.05	1.27	31.1
Approach			248	0.8	248	0.8	0.513	16.0	LOS B	1.8	12.8	0.64	0.83	0.80	43.5
North: Lindfield Ave															
7	L2	All MCs	186	0.0	186	0.0	0.574	10.3	LOS A	4.6	32.1	0.74	0.94	1.23	43.4
8	T1	All MCs	191	0.6	191	0.6	0.574	8.9	LOS A	4.6	32.1	0.74	0.94	1.23	46.2
Approach			377	0.3	377	0.3	0.574	9.6	NA	4.6	32.1	0.74	0.94	1.23	44.8
All Vehicles			1002	0.3	1002	0.3	0.574	11.1	NA	4.6	32.1	0.71	0.89	1.10	45.6

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).  
Vehicle movement LOS values are based on average delay per movement.  
Minor Road Approach LOS values are based on average delay for all vehicle movements.  
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
Two-Way Sign Control Capacity Model: SIDRA Standard.  
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).  
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.  
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.  
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

# MOVEMENT SUMMARY

Site: [3] PM Peak Existing (Tryon / Lindfield)  
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site  
Site Category: (None)  
Give-Way (Two-Way)  
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop of Rate	Number of Cycles to Depart	Aver. Speed
			[ Total HV ]		[ Total HV ]					[ Veh. veh	Dist ] m				
			veh/h	%	veh/h	%									
South: Lindfield Ave															
2	T1	All MCs	252	0.0	252	0.0	0.522	8.1	LOS A	4.0	28.3	0.72	0.85	1.11	46.8
3	R2	All MCs	107	0.0	107	0.0	0.522	10.9	LOS A	4.0	28.3	0.72	0.85	1.11	50.3
Approach			359	0.0	359	0.0	0.522	9.0	NA	4.0	28.3	0.72	0.85	1.11	48.3
East: Tryon Road															
4	L2	All MCs	131	0.0	131	0.0	0.117	7.1	LOS A	0.5	3.2	0.44	0.66	0.44	51.6
6	R2	All MCs	98	2.2	98	2.2	0.449	25.4	LOS B	1.5	10.8	0.89	1.03	1.18	32.4
Approach			228	0.9	228	0.9	0.449	14.9	LOS B	1.5	10.8	0.63	0.82	0.76	44.2
North: Lindfield Ave															
7	L2	All MCs	169	0.0	169	0.0	0.550	10.0	LOS A	4.2	29.6	0.73	0.91	1.18	43.8
8	T1	All MCs	191	0.6	191	0.6	0.550	8.6	LOS A	4.2	29.6	0.73	0.91	1.18	46.6
Approach			360	0.3	360	0.3	0.550	9.2	NA	4.2	29.6	0.73	0.91	1.18	45.2
All Vehicles			947	0.3	947	0.3	0.550	10.5	NA	4.2	29.6	0.70	0.87	1.05	46.1

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).  
Vehicle movement LOS values are based on average delay per movement.  
Minor Road Approach LOS values are based on average delay for all vehicle movements.  
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
Two-Way Sign Control Capacity Model: SIDRA Standard.  
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).  
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.  
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.  
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

# MOVEMENT SUMMARY



Site: [5] AM Existing (Tryon / Nelson)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site  
Site Category: (None)  
Stop (Two-Way)  
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[ Total HV ]	[ Total HV ]	[ Total HV ]	[ Total HV ]				[ Veh. ]	[ Dist ]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Nelson Road (S)															
1	L2	All MCs	4	0.0	4	0.0	0.020	5.7	LOS A	0.0	0.3	0.07	0.18	0.07	55.8
2	T1	All MCs	26	8.0	26	8.0	0.020	0.1	LOS A	0.0	0.3	0.07	0.18	0.07	58.1
3	R2	All MCs	6	0.0	6	0.0	0.020	5.6	LOS A	0.0	0.3	0.07	0.18	0.07	55.5
Approach			37	5.7	37	5.7	0.020	1.7	NA	0.0	0.3	0.07	0.18	0.07	57.4
East: Tryon Road (E)															
4	L2	All MCs	48	2.2	48	2.2	0.167	8.3	LOS A	0.7	4.8	0.22	0.93	0.22	50.9
5	T1	All MCs	104	2.0	104	2.0	0.167	8.7	LOS A	0.7	4.8	0.22	0.93	0.22	50.9
6	R2	All MCs	20	0.0	20	0.0	0.167	9.5	LOS A	0.7	4.8	0.22	0.93	0.22	50.7
Approach			173	1.8	173	1.8	0.167	8.7	LOS A	0.7	4.8	0.22	0.93	0.22	50.9
North: Nelson Road (N)															
7	L2	All MCs	36	0.0	36	0.0	0.083	5.6	LOS A	0.4	2.7	0.10	0.43	0.10	53.6
8	T1	All MCs	37	2.9	37	2.9	0.083	0.1	LOS A	0.4	2.7	0.10	0.43	0.10	55.8
9	R2	All MCs	78	0.0	78	0.0	0.083	5.5	LOS A	0.4	2.7	0.10	0.43	0.10	53.4
Approach			151	0.7	151	0.7	0.083	4.2	NA	0.4	2.7	0.10	0.43	0.10	54.0
West: Tryon Road (W)															
10	L2	All MCs	62	3.4	62	3.4	0.119	8.3	LOS A	0.5	3.4	0.16	0.94	0.16	50.8
11	T1	All MCs	47	4.4	47	4.4	0.119	8.9	LOS A	0.5	3.4	0.16	0.94	0.16	50.7
12	R2	All MCs	18	0.0	18	0.0	0.119	9.6	LOS A	0.5	3.4	0.16	0.94	0.16	50.7
Approach			127	3.3	127	3.3	0.119	8.7	LOS A	0.5	3.4	0.16	0.94	0.16	50.7
All Vehicles			487	2.2	487	2.2	0.167	6.8	NA	0.7	4.8	0.16	0.72	0.16	52.2

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).  
Vehicle movement LOS values are based on average delay per movement.  
Minor Road Approach LOS values are based on average delay for all vehicle movements.  
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
Two-Way Sign Control Capacity Model: SIDRA Standard.  
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).  
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.  
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.  
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.



# MOVEMENT SUMMARY

 **Site: [5 (2)] AM Existing + Proposal (Tryon / Nelson)**  
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site  
Site Category: (None)  
Stop (Two-Way)  
**Site Scenario: 1 | Local Volumes**

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[ Total HV ]	[ Total HV ]	[ Total HV ]	[ Total HV ]				[ Veh. veh	Dist ] m				km/h
			veh/h	%	veh/h	%	v/c	sec							
South: Nelson Road (S)															
1	L2	All MCs	4	0.0	4	0.0	0.020	5.7	LOS A	0.0	0.3	0.07	0.18	0.07	55.8
2	T1	All MCs	26	8.0	26	8.0	0.020	0.1	LOS A	0.0	0.3	0.07	0.18	0.07	58.1
3	R2	All MCs	6	0.0	6	0.0	0.020	5.6	LOS A	0.0	0.3	0.07	0.18	0.07	55.5
Approach			37	5.7	37	5.7	0.020	1.7	NA	0.0	0.3	0.07	0.18	0.07	57.4
East: Tryon Road (E)															
4	L2	All MCs	48	2.2	48	2.2	0.182	8.3	LOS A	0.8	5.3	0.24	0.93	0.24	50.8
5	T1	All MCs	117	1.8	117	1.8	0.182	8.8	LOS A	0.8	5.3	0.24	0.93	0.24	50.8
6	R2	All MCs	20	0.0	20	0.0	0.182	9.8	LOS A	0.8	5.3	0.24	0.93	0.24	50.7
Approach			185	1.7	185	1.7	0.182	8.8	LOS A	0.8	5.3	0.24	0.93	0.24	50.8
North: Nelson Road (N)															
7	L2	All MCs	36	0.0	36	0.0	0.091	5.6	LOS A	0.4	3.0	0.10	0.44	0.10	53.6
8	T1	All MCs	37	2.9	37	2.9	0.091	0.1	LOS A	0.4	3.0	0.10	0.44	0.10	55.7
9	R2	All MCs	92	0.0	92	0.0	0.091	5.5	LOS A	0.4	3.0	0.10	0.44	0.10	53.3
Approach			164	0.6	164	0.6	0.091	4.3	NA	0.4	3.0	0.10	0.44	0.10	53.9
West: Tryon Road (W)															
10	L2	All MCs	85	2.5	85	2.5	0.137	8.2	LOS A	0.6	4.0	0.15	0.93	0.15	50.8
11	T1	All MCs	47	4.4	47	4.4	0.137	9.1	LOS A	0.6	4.0	0.15	0.93	0.15	50.7
12	R2	All MCs	18	0.0	18	0.0	0.137	9.9	LOS A	0.6	4.0	0.15	0.93	0.15	50.6
Approach			151	2.8	151	2.8	0.137	8.7	LOS A	0.6	4.0	0.15	0.93	0.15	50.7
All Vehicles			537	2.0	537	2.0	0.182	6.9	NA	0.8	5.3	0.16	0.73	0.16	52.1

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).  
Vehicle movement LOS values are based on average delay per movement.  
Minor Road Approach LOS values are based on average delay for all vehicle movements.  
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
Two-Way Sign Control Capacity Model: SIDRA Standard.  
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).  
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.  
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.  
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

# MOVEMENT SUMMARY



Site: [6] PM Existing (Tryon / Nelson)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site  
Site Category: (None)  
Stop (Two-Way)  
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[ Total HV ]	%	[ Total HV ]	%	v/c	sec		[ Veh. ]	Dist ]				km/h
South: Nelson Road (S)															
1	L2	All MCs	8	0.0	8	0.0	0.024	5.6	LOS A	0.0	0.2	0.04	0.16	0.04	56.0
2	T1	All MCs	34	0.0	34	0.0	0.024	0.0	LOS A	0.0	0.2	0.04	0.16	0.04	58.4
3	R2	All MCs	4	0.0	4	0.0	0.024	5.5	LOS A	0.0	0.2	0.04	0.16	0.04	55.7
Approach			46	0.0	46	0.0	0.024	1.5	NA	0.0	0.2	0.04	0.16	0.04	57.7
East: Tryon Road (E)															
4	L2	All MCs	22	0.0	22	0.0	0.188	8.1	LOS A	0.8	5.6	0.24	0.95	0.24	51.1
5	T1	All MCs	163	3.9	163	3.9	0.188	8.8	LOS A	0.8	5.6	0.24	0.95	0.24	50.9
6	R2	All MCs	7	0.0	7	0.0	0.188	9.0	LOS A	0.8	5.6	0.24	0.95	0.24	50.8
Approach			193	3.3	193	3.3	0.188	8.7	LOS A	0.8	5.6	0.24	0.95	0.24	50.9
North: Nelson Road (N)															
7	L2	All MCs	25	0.0	25	0.0	0.066	5.7	LOS A	0.3	2.2	0.12	0.45	0.12	53.5
8	T1	All MCs	25	0.0	25	0.0	0.066	0.1	LOS A	0.3	2.2	0.12	0.45	0.12	55.6
9	R2	All MCs	68	0.0	68	0.0	0.066	5.6	LOS A	0.3	2.2	0.12	0.45	0.12	53.2
Approach			119	0.0	119	0.0	0.066	4.4	NA	0.3	2.2	0.12	0.45	0.12	53.8
West: Tryon Road (W)															
10	L2	All MCs	28	0.0	28	0.0	0.097	8.1	LOS A	0.4	2.6	0.20	0.93	0.20	50.9
11	T1	All MCs	49	4.3	49	4.3	0.097	8.7	LOS A	0.4	2.6	0.20	0.93	0.20	50.7
12	R2	All MCs	18	5.9	18	5.9	0.097	10.1	LOS A	0.4	2.6	0.20	0.93	0.20	50.4
Approach			96	3.3	96	3.3	0.097	8.8	LOS A	0.4	2.6	0.20	0.93	0.20	50.7
All Vehicles			454	2.1	454	2.1	0.188	6.9	NA	0.8	5.6	0.18	0.73	0.18	52.2

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).  
Vehicle movement LOS values are based on average delay per movement.  
Minor Road Approach LOS values are based on average delay for all vehicle movements.  
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
Two-Way Sign Control Capacity Model: SIDRA Standard.  
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).  
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.  
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.  
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

# MOVEMENT SUMMARY

 **Site: [6 (2)] PM Existing + Proposal (Tryon / Nelson)**  
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site  
Site Category: (None)  
Stop (Two-Way)  
**Site Scenario: 1 | Local Volumes**

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[ Total HV ]	[ Total HV ]	[ Total HV ]	[ Total HV ]				[ Veh. ]	[ Dist ]				
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Nelson Road (S)															
1	L2	All MCs	8	0.0	8	0.0	0.024	5.6	LOS A	0.0	0.2	0.04	0.16	0.04	56.0
2	T1	All MCs	34	0.0	34	0.0	0.024	0.0	LOS A	0.0	0.2	0.04	0.16	0.04	58.4
3	R2	All MCs	4	0.0	4	0.0	0.024	5.5	LOS A	0.0	0.2	0.04	0.16	0.04	55.7
Approach			46	0.0	46	0.0	0.024	1.5	NA	0.0	0.2	0.04	0.16	0.04	57.7
East: Tryon Road (E)															
4	L2	All MCs	22	0.0	22	0.0	0.212	8.1	LOS A	0.9	6.3	0.26	0.94	0.26	51.0
5	T1	All MCs	163	3.9	163	3.9	0.212	8.9	LOS A	0.9	6.3	0.26	0.94	0.26	50.8
6	R2	All MCs	23	0.0	23	0.0	0.212	9.5	LOS A	0.9	6.3	0.26	0.94	0.26	50.7
Approach			208	3.0	208	3.0	0.212	8.9	LOS A	0.9	6.3	0.26	0.94	0.26	50.8
North: Nelson Road (N)															
7	L2	All MCs	25	0.0	25	0.0	0.075	5.7	LOS A	0.4	2.5	0.12	0.46	0.12	53.4
8	T1	All MCs	25	0.0	25	0.0	0.075	0.1	LOS A	0.4	2.5	0.12	0.46	0.12	55.5
9	R2	All MCs	83	0.0	83	0.0	0.075	5.6	LOS A	0.4	2.5	0.12	0.46	0.12	53.1
Approach			134	0.0	134	0.0	0.075	4.6	NA	0.4	2.5	0.12	0.46	0.12	53.6
West: Tryon Road (W)															
10	L2	All MCs	60	0.0	60	0.0	0.121	8.1	LOS A	0.5	3.4	0.18	0.93	0.18	50.9
11	T1	All MCs	49	4.3	49	4.3	0.121	8.9	LOS A	0.5	3.4	0.18	0.93	0.18	50.7
12	R2	All MCs	18	5.9	18	5.9	0.121	10.3	LOS A	0.5	3.4	0.18	0.93	0.18	50.4
Approach			127	2.5	127	2.5	0.121	8.7	LOS A	0.5	3.4	0.18	0.93	0.18	50.7
All Vehicles			516	1.8	516	1.8	0.212	7.1	NA	0.9	6.3	0.18	0.74	0.18	52.0

Site Level of Service (LOS) Method: Delay (NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).  
Vehicle movement LOS values are based on average delay per movement.  
Minor Road Approach LOS values are based on average delay for all vehicle movements.  
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).  
Two-Way Sign Control Capacity Model: SIDRA Standard.  
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).  
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.  
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).  
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.  
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.