Safe Accessible Transport Program – Chester Hill Station

Traffic, Transport and Access Impact Assessment

Transport for NSW

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Abbreviations

Term	Definition
ABS	Australian Bureau of Statistics
CBD	Central Business District
CCP	Commuter Car Park Program
CCTV	Closed-circuit television
CDRL	Contract Deliverables Requirements List
CEMP	Construction Environment Management Plan
CML	Concessional Mass Limit
CTMP	Construction Traffic Management Plans
DA	Development Application
DDA	Disability Discrimination Act 1992
DPHI	Department of Planning, Housing and Infrastructure
DSAPT	Disability Standards for Accessible Public Transport 2002
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW)
EP&A Regulation	Environmental Planning and Assessment Regulation 2021 (NSW)
EPA	Environment Protection Authority
GAV	General access vehicle
GML	General mass limit
HML	Higher mass limit
HV	Heavy vehicle
kmph	Kilometre per hour
LGA	Local government area
LoS	Level of service
LV	Light vehicle
NSW	New South Wales
NHVR	National heavy vehicle regulator
OSOM	Oversize overmass
PBS	Performance-based standards
RAV	Restricted access vehicle
REF	Review of environmental factors
RUM	Road user movement
SPV	Special purpose vehicle
SSD	State Significant Development
TAP	Transport Access Program

Term	Definition
Transport	Transport for NSW
TGSI	Tactile ground surface indicators
TTIA	Traffic, transport and access impact assessment

1 Introduction

1.1 Purpose of this report

This report documents the traffic, transport and access impact assessment (TTIA) conducted to support the Chester Hill Station upgrade (the Proposal) for the Safe Accessible Transport program. The assessment was completed to support the Review of Environmental Factors (REF) and has been prepared by Aurecon Australasia Pty Ltd on behalf of Transport for NSW (Transport). For the purposes of these works, Transport is the proponent and determining authority under Part 5, Division 5.1 of the *Environmental Planning and Assessment Act 1979 (NSW)* (EP&A Act).

This report has been prepared having regard to sections 5.5 and 5.7 of the EP&A Act, and section 171 of the *Environmental Planning and Assessment Regulation 2021 (NSW)* (EP&A Regulation), to ensure that Transport takes into account to the fullest extent possible, all matters affecting or likely to affect the environment as a result of the Proposal.

The objective of this TTIA is to:

- Provide an overview of the nearby existing transport network which may be impacted by the Proposal, considering all modes of transport such as vehicles, freight, public transport (including rail) and active transport
- Provide detail on the construction and operation, including expected trip generation
- Describe and assess the potential impacts of construction and operation of the Proposal on the surrounding transport network
- Assess the cumulative impacts of planned infrastructure programs and significant developments which are anticipated in the area surrounding the Proposal
- Propose mitigation measures to manage traffic and transport impacts of the Proposal.

1.2 The Proposal

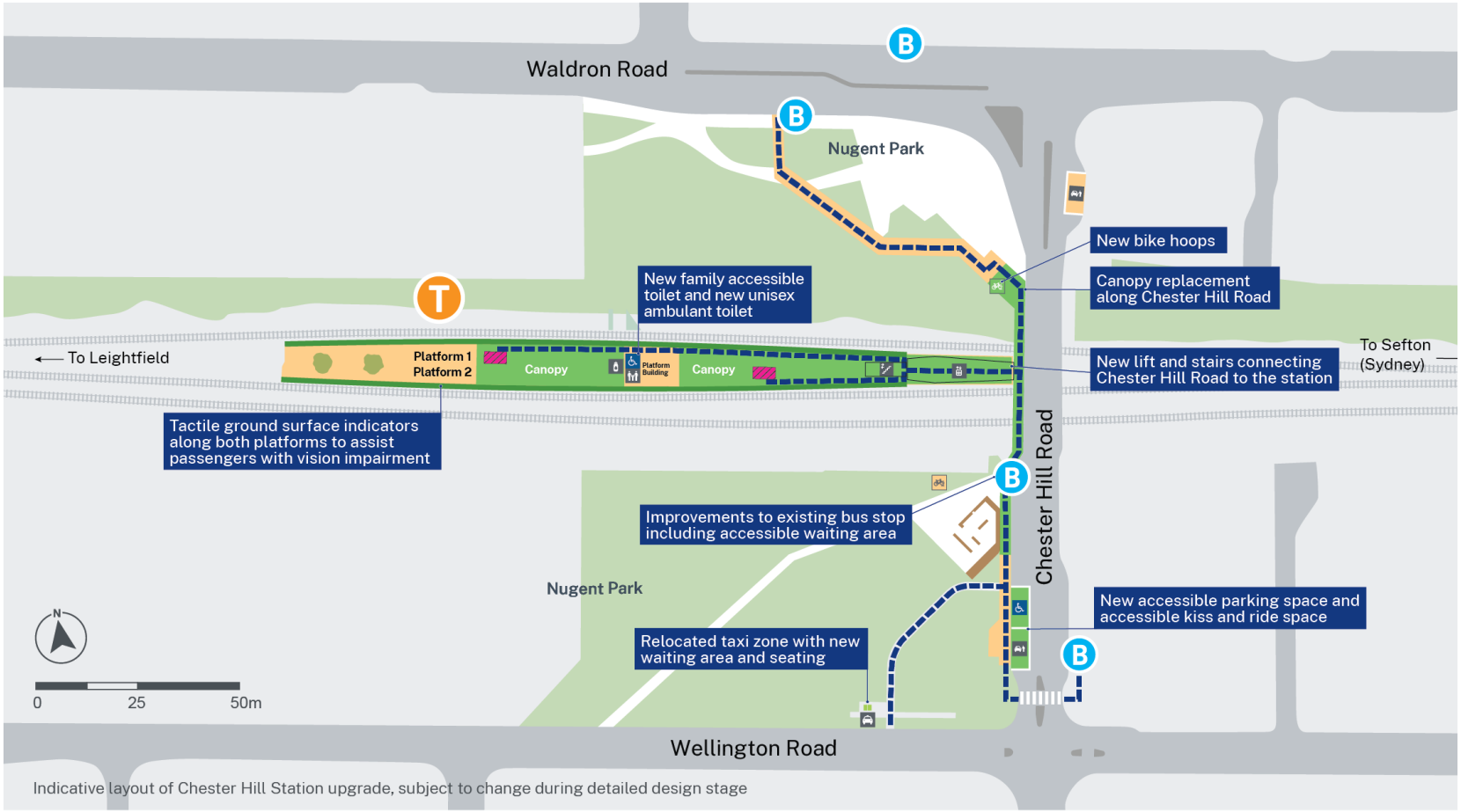
The key features of the Proposal to provide accessibility upgrades to Chester Hill Station would include:

- construction of an elevated walkway at the existing Station entrance from the Chester Hill Road overbridge to provide access to the platform via a new lift and new stairs
- changes to canopies at the Station including:
- replacement of the existing platform canopies
- provision of a new canopy west of the platform building
- replacement of existing street-level canopies along Chester Hill Road at the overbridge, the approach to the Station entrance, and bus stops
- provision of one new accessible parking space and a new accessible kiss and ride space with seating on Chester Hill Road (west)
- relocation of the taxi rank to Wellington Road with a new footpath through Nugent Park south and a new shelter and seating
- upgrades to both bus stops on Chester Hill Road including shelter and seating
- provision of additional bicycle parking in Nugent Park north and south
- regrading and resurfacing of localised areas on the platform and installation of tactile ground surface indicators (TGSIs)
- modifications to the existing Station building, including the provision of a new unisex ambulant and a family accessible toilet and a new Station storage room

- ancillary work, including Station power supply upgrade, protection and relocation of services and utilities, handrails and fencing, new ticketing facilities including additional Opal card readers, improvement to Station communication systems (including CCTV cameras, help points and a public phone), landscaping and wayfinding signage.

An overview of the key features and location of the Proposal are provided in Figure 1-1 and Figure 1-2.

Proposed key features of Chester Hill Station upgrade



KEY

- Proposed Features
- Existing Features
- Boarding Assistance Zone
- Accessible path of travel
- New stairs
- New lifts and landings
- New accessible water refill
- New family accessible toilet
- Bicycle hoops
- Accessible kiss and ride space
- Accessible parking space
- Bus stop
- Taxi

Figure 1-1 Proposed key features of Chester Hill Station upgrade

Source: Aurecon, TfNSW, NSW Spatial Services (DCS), ESRI

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Projection: GDA2020 MGA Zone 56

Figure 1-2: Proposal footprint

2 Policy and planning context

The State legislation and policies applicable to this traffic and transport assessment are outlined in the following sections.

2.1 State legislation

2.1.1 Roads Act 1993

The objectives of the *Roads Act 1993* include the following:

- Set out the rights of members of the public to pass along the road
- Set out the rights of person who own land adjoining a public road to have access to the public road
- Establish the procedures for opening and closing of a public road
- Provide for the classification of roads, declare road authorities for both classified and unclassified roads and to confer certain functions of road authorities
- Provide for distribution of functions conferred by the act between road authorities
- Regulate carrying out of various activities on public roads.

Section 138(1)(a) of the *Roads Act 1993* describes activities not permitted without consent of the appropriate road authority including:

- A person must not:
  - Erect a structure or carry out a work in, on or over a public road
  - Dig up or disturb the surface of a public road
  - Remove or interfere with a structure, work or tree on a public road
  - Connect a road (whether public or private) to a classified road (being roads declared as a highway, main road, secondary road or tourist road).

2.2 Policy and strategic plans

2.2.1 NSW Heavy Vehicle Access Policy Framework 2018

NSW *Heavy Vehicle Access Policy Framework 2018* developed by Transport outlines a strategic approach to heavy vehicle access in NSW for both State and council roads aimed at achieving safe and efficient movement of road freight.

With staged implementation, the framework aims to create a performance-based standards (PBS) network with connectivity across the whole NSW road network to unlock freight productivity. This policy provides a strategic planning approach to heavy vehicle access and streamlined policy promoting access on a network basis rather than ad hoc decisions for access via permits.

2.2.2 2026 Road Safety Action Plan

The *2026 Road Safety Action Plan* developed by the NSW Government sets out a road safety delivery framework that focuses on enhancing education and local engagement, transforming the safety of the road network and accelerating safety features in vehicles. The plan adopts the principles of the Safe System approach, which aims to eliminate fatal and serious road injuries to all road users. The key priority areas highlighted in *2026 Road Safety Action Plan* are:

- Creating safer country roads and urban places
- Enhancing road safety in local communities
- Increasing the safety of light vehicles (LVs), heavy vehicles (HVs) and protective equipment
- Making safer choices on our roads
- Ensuring the safety of vulnerable and other at-risk road users.

The mitigation measures identified in Section 8 consider the approach to road safety and the key principles identified by the *2026 Road Safety Action Plan*, that aim to provide a safe temporary road environment.

2.2.3 Traffic Control at Work Sites – Technical Manual

The *Traffic Control at Work Sites* technical manual Version 6.1 (Transport, 2022) was developed by Transport to be applied to work sites requiring temporary traffic management. The purpose of this manual is to ensure best practices for traffic control at work sites. The manual also guides personnel involved in design, operation, and inspection of temporary traffic management plan to understand their obligation under *Work Health and Safety Act 2011* and the *Work Health and Safety Regulation 2017*. The technical manual contains instruction for the following:

- Managing risks associated with temporary traffic management
- Developing a traffic management plan
- Design, select, obtain approval, record and storing traffic guidance schemes
- Undertaking traffic management in several specific situations.

The technical manual refers to *Australian Standards AS1742 Manual of Uniform Traffic Control Devices (Standards Australia, AS1742))*, *Australian Standards AS1743 Road Signs – Specifications (Standards Australia, AS1743*) and *Australian Standards AS*2700 *Colour standards for general purposes (Standards Australia, AS2700)*. The mitigation measures identified in Section 8 include the implementation of this manual at all traffic control sites during the construction and operation of the Proposal.

2.2.4 Active Transport Strategy

The Active Transport Strategy is developed by the NSW Government and draws on the Future Transport Strategy and its vision for walking, bike riding and personal mobility across NSW. The strategy sets out some key actions to connect communities and encourage more people to choose active transport.

The Proposal contributes to the key action of supporting multimodal journeys by integrating active and public transport by providing additional bicycle parking on both sides of Nugent Park along Chester Hill Road to enhance the customer experience and promote active travel.

2.2.5 Movement and place

The objective of the Movement and Place Framework, developed by Transport, is the movement of people and creating equitable, accessible, safe, and enjoyable places. It encourages the design of well-connected, safe and efficient transport networks that support economic growth, reduce congestion and minimise environmental impacts.

The scope of work in the Proposal does not change the surrounding street network and public transport services, with only minor modifications proposed to the footpaths to improve accessibility. Further to this point, the changes proposed do not significantly change the level of demand placed on these streets and footpaths. On this basis, the Proposal is not specifically a Movement and Place project and adherence to the objectives is not required. However, the Proposal does generally align with the objectives, as it would significantly contribute to creating a more equitable, accessible, safe, and enjoyable place for users of Chester Hill Station and the surrounding community. This would occur through the following elements:

- Improving permeability through the station, including access between the different levels of the station
- Additional bicycle parking at the station access on Chester Hill Road to enhance the customer experience and promote active travel. The bicycle parking has been located to connect with the existing cycle network surrounding the station.

2.2.6 NSW Disability Inclusion Action Plan 2021-2025

The *NSW Disability Inclusion Action Plan (DIAP) 2021-2025* was developed by the NSW Government and seeks to provide actions to support making mainstream services and community facilities more accessible for people with a disability. The plan sets out four focus areas for all of Government. Focus Area Two aims to create liveable communities. This Focus Area actions an increase in the availability and accessibility of public and private transport options for people with disability.

The Proposal has been developed with consideration of the objectives of this plan and seeks to provide equitable access to Chester Hill Station. Improved access to Chester Hill Station, through Proposal features such as the new lift and accessible footpaths, as well as improvements to the customer experience at the station for customers with mobility constraints including people with a disability, through the implementation of new hearing loops, upgraded signage and wayfinding and improved accessibility to station toilets, would contribute to Focus Area Two in this plan.

3 Assessment

3.1 Assessment approach and methodology

The assessment method for the TTIA considers four key elements:

- Pedestrian and cyclists (active transport)
- Public transport (trains and buses)
- Local roads and parking
- Road traffic.

The assessment criteria for the assessment of road traffic are outlined in the Guide to Traffic Management – Part 3 Transport Studies and Analysis Methods (Austroads, 2020).

A qualitative assessment was carried out to identify potential impacts on the road, public transport and active transport during construction and operation of the Proposal. The method for the assessment involved:

- Review of the existing environment including available traffic data, existing and future land uses, crash data, and public transport information.
- Review of equipment and construction compound areas.
- Trip generation forecasts for construction vehicles, and a qualitative assessment of the likely impacts during construction.
- Identification of construction impacts, including construction traffic and impacts on pedestrians, cyclists and local access.
- Identification of potential vehicle generating activities associated with building and material waste during demolition and construction.
- Recommendations for mitigation measures to alleviate the identified transport, traffic and access impacts associated with construction and operation of the Proposal.

Given the minor nature of station upgrade works when considered from a traffic impact perspective, operational modelling was not carried out. There is relatively little traffic generated and negligible ongoing impacts.

3.2 Limitations

During the development of this TTIA, the following limitations were presented:

- The origin of the components required for the construction of the Proposal is unknown and can be expected to have multiple points of origin. This assessment is based on the most likely routes which connect to higher order roads.
- The source and quantity of materials would be determined during the detailed design phase of the Proposal and would consider the requirements of the *Transport for NSW Sustainable Design Guidelines – Version 4.0* (Transport, 2019). Materials would be sourced from local suppliers where practicable. Reuse of existing and recycled materials would be undertaken where practicable.
- This assessment is limited to a desktop assessment with publicly available information.

3.3 Key assumptions

The following key assumptions informed this assessment:

- The proposed scope of work is unlikely to generate new or impact on vehicular traffic considering no new parking, roads or retail is proposed, therefore no traffic counts or modelling conducted as part of this study.

- The construction methodology is still being developed and the exact number of vehicle trips assumed for this TTIA are estimated based on the anticipated workforce. The anticipated number of vehicle trips may vary depending on the Proposal and Contractor requirements.
- Conservative assumptions have been made utilising the construction data from similar projects and are anticipated to offer a realistic, yet conservative assessment. The conservative assessment includes assuming that the entirety of the construction workforce would travel to the Proposal area using private vehicles.
- The anticipated construction vehicle types and numbers have been derived based on assumptions made relating to the site accessibility, volume of material to be transported from the construction site, materials required to be delivered to the construction site and construction activities.
- It is assumed that all construction workers, material delivery, site management staff and inspection works would travel to the site during the AM and depart during the PM. As such, a 50% split was applied to the total daily trips during non-possession and possession periods to determine the trips travelling to and away from the Proposal area.
- Construction material delivery and staff trips can have various points of origin. To distribute the anticipated daily trips during non-possession and possession periods, it is assumed that 40% of trips would arrive from the northern direction and 60% would arrive via from the southern direction on Chester Hill Road. This is further discussed in Section 5.4.4
- Vehicle trips departing the site are assumed to travel on the same roads used to arrive at the Proposal area.
- The source and quantity of materials, construction plant and equipment would be determined during the detailed design phase of the Proposal. To allow for a high-level assessment of any route requirements, the origin for materials, construction plant and equipment is assumed to be from the most direct routes from the National Heavy Vehicle Regulator (NHVR) approved road networks, to the Proposal area.
- Special purpose vehicles are assumed to travel on the most direct route via its approved network, to the Proposal area. If any local or unapproved roads are required to access the Proposal area, the shortest and most direct route off the respective approved networks was adopted for the purpose of this assessment.
- The pedestrian operational performance for the Proposal was adopted from the Chester Hill Station Concept Design Report which was prepared by Aurecon in 2023. It is assumed that the static pedestrian modelling results obtained are reflective of operational performance of the Proposal. Assumptions adopted for the static pedestrian modelling are outlined in Section 6.5.

4 Existing environment

4.1 Proposal area

Chester Hill Station is located within the Canterbury-Bankstown local government area (LGA) and is accessed from Chester Hill Road. Chester Hill is a mostly residential suburb with light industrial and business developments located near the station along the railway corridor. Chester Hill Station is located on the T3 Bankstown Line, approximately 25 km west of the Sydney central business district (CBD). Given the nature of this Proposal and focus on the Chester Hill Station upgrade works, it is unlikely to impact on the traffic conditions during construction and in operation, as referenced per the assumptions in Section 3.3. The operational footprint is outlined in Figure 4-1.

Source: Aurecon, TfNSW, NSW Spatial Services (DCS), ESRI

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Projection: GDA2020 MGA Zone 56

Figure 4-1: Location of the proposal

4.2 Road network

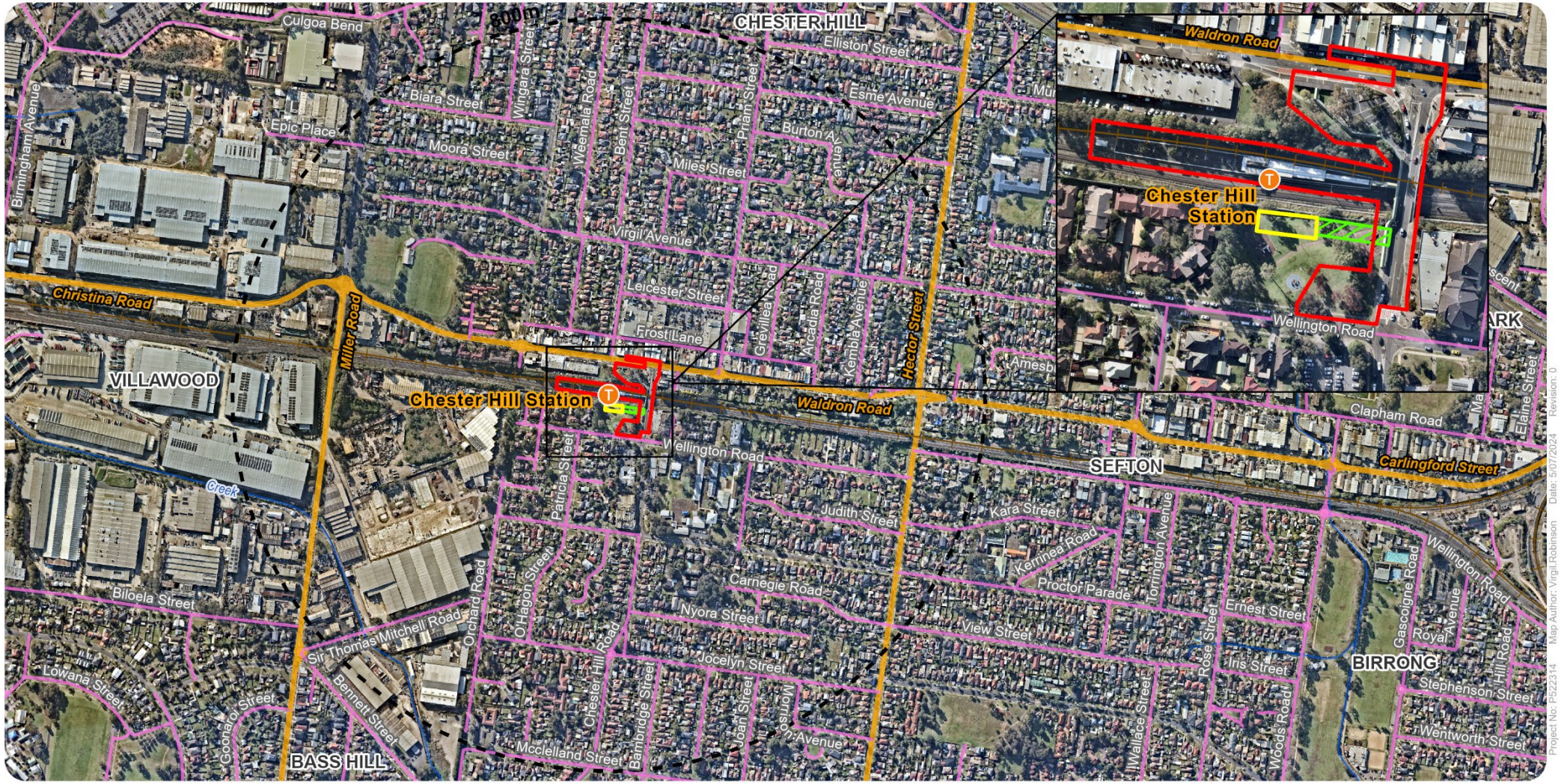
It is important to understand the existing road network which facilitates access to the Proposal area and its connectivity to the broader network. To ensure that links were captured between local and higher order roads, the study area for the assessment of the existing road network was identified with an 800-metre radius around the Proposal site. The key roads within the study area are Waldron Road, Miller Road, Christina Road, Hector Street, Chester Hill Road and Wellington Road which facilitate access to Chester Hill Station.

The road categories align with the established administrative framework of State, Regional and Local Road categories by Transport which are displayed in Figure 4-2 and outlined in Table 4-1. There are no State roads within the Study area.

Table 4-1 Road category descriptions (Source: Transport)

Category	Description
State	State roads form the primary arterial road[1] network throughout NSW and within major urban areas. State roads are all classified roads and are the principal traffic carrying and linking routes for the movement of people and goods within the Sydney, Newcastle, Wollongong and Central Coast urban area and which connect between these urban centres, the major regional towns, the major region of the State and the major connections interstate. Transport is responsible for managing the primary traffic function of State roads. This includes funding and determining priorities, as well as regulating the activities of third parties on the road and access to adjoining land to promote road safety, traffic efficiency and protect the road asset.
Regional	Regional roads are the lesser trafficked classified roads (which are not State roads) and some of the more important unclassified roads. State roads provide the main connections to and between smaller towns and districts and perform the function of sub-arterial roads[2] in major urban area. Councils manage and maintain Regional roads with funding assistance from Transport.
Local	Local roads are all public roads that are not State or Regional roads. These roads are unclassified and provide access for local circulation and access. They are managed and maintained by local councils.

[1] **Arterial road** – a road that predominantly carries through traffic from one region to another, forming principal avenues of travel for traffic movements.
[2] **Sub-arterial road** – a road connecting arterial roads to areas of development and carrying traffic directly from one part of a region to another.



Proposal area
Site compound
Study area (800m buffer)
Vehicle access path
Train Station
Railway
Watercourse

TfNSW Road Network Classification
Local roads
Regional roads

Source: Aurecon, TfNSW, NSW Spatial Services (DCS), ESRI

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0 100 200 m

Projection: GDA2020 MGA Zone 56

Figure 4-2: Road classification map

4.2.1 Waldron Road

Waldron Road is a regional road which runs in an east-west alignment. At its western extent, it terminates at the roundabout with Christina Road and Miller Road, and at the eastern extent it terminates at a roundabout with Helen Street and Carlingford Street. It is a two-way road with one lane in each direction, auxiliary turning lanes are provided at key intersections. Waldron Road has a posted speed limit of 40 kilometres per hour (kmph) between Frank Bamfield Oval (towards the west) and Hector Street (towards the east). Outside of this section of Waldron Road, a posted speed limit of 60 kmph applies. In addition to the bus zones provided on both sides of the road, a dedicated bus lane is provided on the southern side of the road, west of Chester Hill Road. Restricted on-street parking is generally permitted on both sides of the road at sign-posted locations.

4.2.2 Hector Street

Hector Street is a regional road which runs in a north-south alignment. At the northern extent, it terminates at the intersection with Boundary Road, and at the southern extent, it terminates at the intersection with Hume Highway. It is a two-way road with one lane in each direction and a posted speed limit of 60 kmph. A school zone speed limit of 40 kmph applies on Hector Street in the vicinity of Chester Hill Public School. Bus lanes are also provided on both sides of the road. Unrestricted on-street parking is permitted on both sides of the street.

4.2.3 Miller Road

Miller Road is a regional road which runs in north-south alignment. At the northern extent, it terminates at the intersection with Barbers Road, and at the southern extent it terminates before the intersection with Hume Highway. It is a two-way road with one lane in each direction and has a posted speed limit of 50 kmph north of the roundabout with Waldron Road and Christina Road. Outside of this section, a posted speed limit of 60 kmph applies. On the northern leg of Miller Road, there is 2P restricted on-street parking on the eastern side of the road between Epic Place and Frank Bamfield Oval. Outside of this section, there is unrestricted on-street parking provided on both sides of the road which service the industrial developments.

4.2.4 Christina Road

Christina Road is a regional road which runs in an east-west alignment. At the eastern extent, it terminates at the roundabout with Waldron Road and Miller Road, and at the western extent it terminates at an intersection with River Avenue and the on- and off-ramp to Woodville Road. It is a two-way road with one lane in each direction, auxiliary turning lanes are provided at key intersections. Waldron Road has a posted speed limit of 40 kmph between Frank Bamfield Oval (towards the west) and Hector Street (towards the east). Outside of this section of Waldron Road, a posted speed limit of 60 kmph applies. In addition to the bus zones provided on both sides of the road, a dedicated bus lane is provided on the southern side of the road, west of Chester Hill Road. Restricted on-street parking is generally permitted on both sides of the road at sign-posted locations.

4.2.5 Chester Hill Road

Chester Hill Road is a local road that runs in a north-south alignment. At the northern extent, it terminates at the signalised intersection with Waldron Road, and at the southern extent it terminates at the intersection with Hume Highway. It is a two-way road with one lane in each direction and has a posted speed limit of 40 kmph between Proctor Parade (towards the south) and Waldron Road (towards the north). Outside of this section of Chester Hill Road, a posted speed limit of 60 kmph applies. A school zone speed limit of 40 kmph applies on Chester Hill Road in the vicinity of Chester Hill Public School.

North of Chester Hill Station, a kiss and ride area is provided on the eastern side of the Chester Hill Road, towards its intersection with Waldron Road. South of Chester Hill Station, bus zones are provided on both sides of Chester Hill Road, a taxi zone is provided on the western side of the road towards the intersection with Wellington Road. There is a raised pedestrian crossing to access the station on the northern leg of the intersection with Wellington Road.

Restricted on-street parking is provided on the western side of Chester Hill Road at sign-posted locations. On the northern side of the station, the restricted on-street parking spaces function as a kiss and ride area. On the southern side of the station, the restricted off-street parking spaces also function as a loading zone and primarily service the adjoining mixed-used developments.

Within the Proposal study area, Chester Hill Road intersects with the following roads:

- Waldron Road, a signalised intersection with all vehicular turning movements permitted.
- Wellington Road, a priority-controlled (give-way) intersection with Chester Hill Road having priority over Wellington Road. All vehicular turning movements are permitted.

4.2.6 Wellington Road

Wellington Road is a local road which runs in an east-west alignment. At the eastern leg, it terminates at the intersection with Hector Street and at the western leg it terminates at a cul-de-sac. It is a two-way road with one lane in each direction and a posted speed limit of 40 kmph between Patricia Street (towards the west) and Victoria Street (towards the east). Outside of this section of Wellington Road, a posted speed limit of 50 kmph applies. A school zone speed limit of 40 kmph applies on Wellington Road in the vicinity of Chester Hill Public School.

On the western leg of Wellington Road, there is 4P/12P off-street parking dedicated to Chester Hill Library visitors on the southern side of the road before the intersection with Chester Hill Road. There is unrestricted parking along the remainder of the street. There is also a taxi zone provided on the northern side of the road adjoining Nugent Park south.

On the eastern leg of Wellington Road, there is 1P on-street parking on both sides of the road which primarily service Chester Hill Public School, Chester Hill Community Centre and other adjoining mixed-use developments. Outside of this section, unrestricted parking is permitted for the remainder of the road.

4.3 Road network crash history

Understanding the crash history around the Proposal area provides important insights into existing safety issues and can identify high-risk areas, the types and causes of accidents and patterns in driver behaviour. To understand these insights for the roads facilitating access to and surrounding the Proposal site, the study area for the road network crash history was delineated using a 300-metre radius. Historical crash data between 2018 and 2022 was sourced for the Canterbury-Bankstown local government area (LGA) to identify crash trends and issues within the Proposal area. A map of the historic crash locations and severities are shown within Figure 4-3 and a historical crash data summary is provided in Table 4-2.

Table 4-2 Historical crash data summary within the study area in 2018 to 2022

Road	Degree of Crashes	Number of Crashes
Waldron Road	Serious injury	2
	Moderate injury	6
	Minor	1
	Non-casualty (towaway)	2
Chester Hill Road	Moderate injury	1
	Minor	1
	Non-casualty (towaway)	1
Proctor Parade	Serious injury	1
Total		**15**

Proposal area
Site compound
Study area (300m buffer)
Vehicle access path
Rail station
Railway
Watercourse

Crash locality severity*
- Non-casualty (towaway)
- Moderate injury
- Serious injury
- Minor/Other injury

*Note: Locations are approximate

Source: Aurecon, TfNSW, NSW Spatial Services (DCS), ESRI

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0 50 100 m

Projection: GDA2020 MGA Zone 56

Figure 4-3: Study area crash history

The historical crash data shows crash clusters in the vicinity of the key intersections to the Proposal area. The nature of the accidents and the NSW road user movement (RUM) codes are detailed below. It is also noted that no accidents resulting in fatalities within the study area occurred between 2018 and 2022.

- The Waldron Road / Campbell Hill Road intersection is a roundabout with Waldron Road as the major road, having priority over the minor road of Campbell Hill Road. This intersection experienced three accidents during the period of 2018 to 2022, with all accidents occurring during daylight.
  - An accident resulting in a moderate injury occurred in 2021 during daylight and was classified as a 'rear end' collision (RUM code – 21).
  - An accident resulting in a moderate injury occurred in 2022 during daylight and was classified as a 'pedestrian nearside' collision (RUM code – 0).
  - An accident resulting in a minor injury occurred in 2019 during daylight and was classified as a 'right through' collision (RUM code – 30).
- The Waldron Road / Bent Street intersection is a T-junction with Waldron Road as the major road, having priority over the minor road of Bent Street. At the intersection on Waldron Road, there is a short right-turn lane onto Bent Street. The intersection experienced two accidents during the period of 2018 to 2022, with the accidents occurring during daylight and dark lighting conditions.
  - An accident resulting in a serious injury occurred in 2020 during daylight and was classified as a 'pedestrian nearside' collision (RUM code – 0).
  - An accident resulting in a moderate injury occurred in 2019 during dark lighting conditions and was classified as a 'leaving parking' collision (RUM code – 42).
- The Waldron Road / Priam Street intersection is a roundabout with Waldron Road as the major road, having priority over the minor road of Priam Street. The intersection experienced two accidents during the period of 2018 to 2022, with both accidents occurring during dark lighting conditions.
  - An accident resulting in a moderate injury occurred in 2018 during dark lighting conditions and was classified as a 'pedestrian nearside' collision (RUM code – 0).
  - An accident resulting in a moderate injury occurred in 2020 during dark lighting conditions and was classified as a 'rear end' collision (RUM code – 30).
- The road section on Waldron Road between Charles Place and Keenan Lane experienced two accidents during the period of 2018 to 2022, with both accidents occurring during daylight.
  - An accident resulting in a serious injury occurred in 2020 during daylight and was classified as a 'pedestrian on footpath / median' collision (RUM code – 6).
  - An accident resulting in a moderate injury occurred in 2022 during daylight and was classified as an 'off road left into object / parked vehicle' collision (RUM code – 71).
- The road section after the Waldron Road / Priam Street intersection experienced one accident during the period of 2018 to 2022, with the accident occurring during daylight.
  - An accident resulting in a non-casualty occurred in 2020 during daylight and was classified as an 'off road right into object / parked vehicle' collision (RUM code – 73).
- The road section on Waldron Road between Priam Street and Arcadia Road experienced one accident during the period of 2018 to 2022, with the accident occurring during daylight.
  - An accident resulting in a non-casualty occurred in 2020 during daylight and was classified as a 'right-off carriageway into object / parked vehicle' collision (RUM code – 73).
- The Chester Hill Road / Wellington Road intersection is a priority-controlled (give-way) cross-intersection with Chester Hill Road as the major road, having priority over the minor road of Wellington Road. The intersection experienced two accidents during the period of 2018 to 2022, with the accidents occurring during daylight and dark lighting conditions.
  - An accident resulting in a minor injury occurred in 2020 during dark lighting conditions and was classified as a 'cross traffic' collision (RUM code – 10).

- An accident resulting in a moderate injury occurred in 2021 during daylight and was classified as a 'cross traffic' collision (RUM code – 10).

- The Chester Hill Road / Proctor Parade intersection is a roundabout with Chester Hill Road as the major road, having priority over the minor road of Proctor Parade. This intersection experienced one accident during the period of 2018 to 2022, with the accident occurring dark lighting conditions.
  - An accident resulting in a non-casualty occurred in 2018 during dark lighting conditions and was classified as a 'out of control on carriageway' collision (RUM code – 74).
- The road section on Proctor Parade between O'Hagon Street and Savoy Crescent experienced one accident during the period of 2018 to 2022, with the accident occurring during dark lighting conditions.
  - An accident resulting in a serious injury occurred in 2022 during dark lighting conditions and was classified as a 'pedestrian far side' collision (RUM code – 2).

From the historical crash data, there were no accidents within the Proposal area, however there were 15 accidents within the buffer area between 2018 and 2022. Five clusters involving accidents at intersections were identified. The historical crash data showed a total of five vehicle collisions with pedestrians along Waldron Road. There has since been a reduction in the posted speed limit to 40 kmph from 50 kmph and traffic calming measures have been introduced by council (raised pedestrian crossings) at the intersection of Chester Hill Road / Wellington Road, Waldron Road / Bent Street and Waldron Road / Campbell Hill Road intersections in early to mid-2021.

4.4 Access and movement

This section details the existing access and movement network around the Proposal site, focusing on rail and bus connectivity, as well as pedestrian and cycling infrastructure. Understanding the public transport network and point-to-point connectivity services is important for assessing access to the Proposal site and its integration with the broader network. To capture all relevant public transport options and routes, the study area was defined using a 500-metre buffer as shown in Figure 4-4. Similarly, the pedestrian and cycling network was examined within a 200-metre buffer to cover routes within a 5-minute walk of the Proposal site that would aid last-mile connectivity planning, as shown in Figure 4-5.

4.4.1 Rail connectivity

Chester Hill Station is serviced by the T3 Bankstown Line which operates between Liverpool or Lidcombe and Central Station (Sydney) via Bankstown. Chester Hill Station has two platforms with Platform 1 services running to Central & the City Circle via Bankstown and Platform 2 services running to Liverpool. Trains in both directions have a frequency of every 10 to 30 minutes during weekdays and every 30 minutes during weekends. A summary of the rail services arriving at and departing from Chester Hill Station is provided in Table 4-3.

Table 4-3 Rail service summary from Chester Hill Station

Direction of travel	Number of Services per Day		
	Typical AM Peak 7:00 – 9:00 AM	Typical PM Peak 4:00 – 6:00 PM	Typical Off Peak 9:00AM – 4:00 PM
Towards Central Station	8	5	15
From Central Station	5	5	15

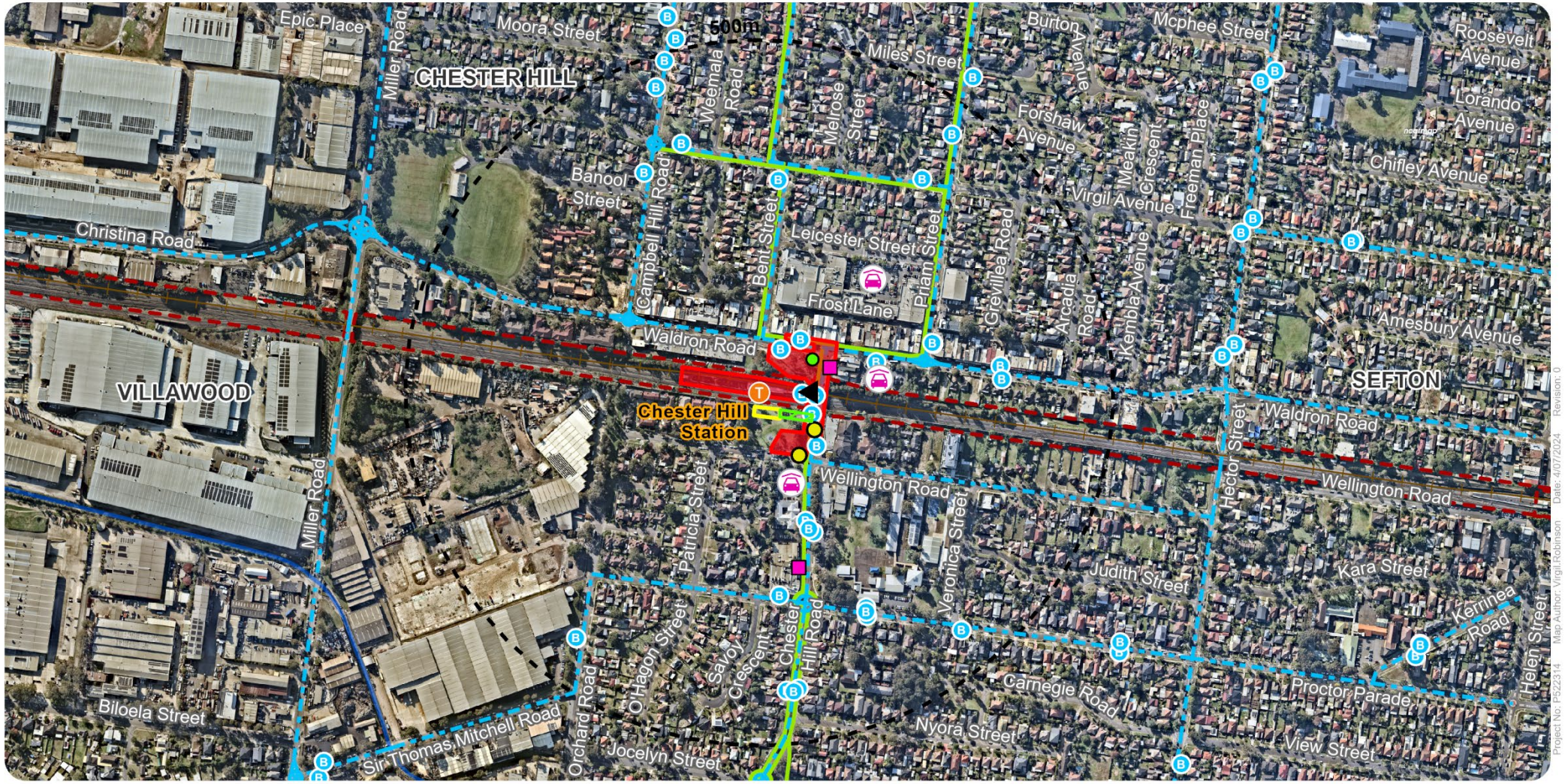
4.4.2 Bus connectivity

There are several bus services, including school bus services, that operate within the vicinity of the station. These bus services provide connectivity to key trip origins and destinations within Canterbury-Bankstown Council LGA and between City of Parramatta LGA to Georges River LGA via Cumberland Council LGA.

Additionally, there are night bus services running to Sydney CBD via Strathfield and public-school bus services. The school bus services provide transit to Chester Hill High School, and from Trinity Catholic College Auburn and Sefton High School. Bus stops are located on Chester Hill Road, Waldron Road, Campbell Hill Road, Priam Street and Hector Street. Figure 4-4 shows the existing public transport network around Chester Hill Station. Additionally, the bus services and their frequency at Chester Hill Station are summarised in Table 4-4.

Table 4-4 Bus service summary from Chester Hill Station

Bus number	Bus route	Frequency
916	Chester Hill to Guildford	On weekdays between 7:45 AM to 3:30 PM, the service operates every 15 minutes during the AM peak. There are no services during the PM peak. Buses are irregular and infrequent with a total of seven services for the entire day. There are no weekend services.
M91	Hurstville to Parramatta via Padstow & Chester Hill	On weekdays between the 5:35 AM to 11:30 PM or 10:30 PM, the services operate every 10 minutes during the AM and PM peaks. There are 12 services during each of the peak periods. On Saturday between 6:45 AM to 9:30 PM, the service operates every 15-20 minutes. On Sunday between 7:15 AM to 9:30 PM, the service operates every 20-30 minutes.
N50	Liverpool to City Town Hall via Strathfield (Night Service)	On weekdays and weekends between 1:00 AM to 5:00 AM, the service operates every hour.
S2	Sefton to Granville	On weekdays between 8:55 AM to 2:30 PM, the service operates hourly between 8:55 AM to 10:55 AM and 12:25 PM to 2:25 PM. There are no weekend services.
S402	Yagoona to Chester Hill High School	On weekdays, there is one school bus service to Chester Hill High School at 8:35 AM each day.
S407	Trinity Catholic College Auburn to Chester Hill	On weekdays, there is one school bus service from Trinity Catholic College Auburn to Chester Hill at 3:45 PM each day.
S603	Sefton High School to Fairfield	On weekdays, there is one school bus service each day from Sefton High School to Fairfield at 2:40 PM on Monday and Tuesday and 3:35 PM on Wednesday to Friday.



Proposal area
Site compound
Study area (500m buffer)
Vehicle access path
Rail station
Railway
Railway boundary
Railway station entry
Existing cycle parking
Existing cycle routes
Bus stops
Bus routes
Parking areas
Kiss and Ride
Taxi zone
Watercourse

Source: Aurecon, TfNSW, NSW Spatial Services (DCS), ESRI

1:8,000 @ A4
0 100 200 m

Projection: GDA2020 MGA Zone 56

Safe Accessible Transport program - Chester Hill Transport Impact Assessment

Figure 4-4: Existing public transport

4.4.3 Point-to-point connectivity

Taxi zones are currently provided on the north-western corner of the Chester Hill Road / Wellington Road intersection, adjoining Nugent Park (south). On the western side of Chester Hill Road, an indented taxi zone is provided which connects with the bus zone. On the northern side of Wellington Road, the taxi zone occupies a section of on-street parking (approximately 30 metres in length).

4.4.4 Walking and cycling

Pedestrian footpaths are provided on all roads leading to and within the Proposal area as shown in Figure 4-5. However, there is limited cycling infrastructure which includes on-road cycle routes along Campbell Hill Road, Bent Street, Chester Hill Road and Priam Street. Cycle parking facilities around the station include six bike hoops currently provided to the north and south of the station entry along Chester Hill Road along cycle routes that extend towards South Granville and Bass Hill.

There is a general lack of wayfinding signage for the station entry, coupled with visual clutter and access congestion that makes the entrance difficult to find or access.

Source: Aurecon, TfNSW, NSW Spatial Services (DCS), ESRI

1:3,250 @ A4
0 25 50 m

Projection: GDA2020 MGA Zone 56

Safe Accessible Transport program - Chester Hill Transport Impact Assessment

Figure 4-5: Existing pedestrian and cyclist routes

4.4.5 Vehicle parking

The existing vehicle parking arrangements around the Proposal site were examined using a 200-metre buffer to cover routes within a 5-minute walk, aligning with commuter preferences and aiding last-mile connectivity planning. This buffer also accounts for areas potentially affected by construction workers occupying parking spaces and ongoing construction activities.

Unrestricted on-street parking is available along the local roads in the vicinity of the Proposal area including Wellington Road and Chester Hill Road, south of Wellington Road. Restricted off-street parking (1P) and a loading zone is provided on the north-eastern corner of the Chester Hill Road/Wellington Road intersection and primarily cater for the mixed-use development located on that corner. On the eastern side of Chester Hill Road, towards Waldron Road, restricted on-street parking (5-minutes) also provides and functions as a kiss and ride area. Restricted on-street parking (15-minutes to 1P) and loading zones are provided on both sides of Waldron Road.

On the broader road network, there is substantial on-street parking, all day parking along nearby streets including Wellington Road and Patricia Street in the south and Bent Street, Weemala Street and Campbell Hill Road. There are no dedicated, on-street, universally accessible parking spaces located in a close proximity to Chester Hill Station. A taxi zone is situated to the south of the station, on Chester Hill Road adjoining Nugent Park south. A review of historical aerials was undertaken which indicate that on-street parking utilisation on local roads nearby such as Patricia Street, Proctor Parade, Veronica Street and Wellington Road west of Veronica Street is generally low throughout the week.

There is currently no commuter car park serving Chester Hill Station however there are publicly available, restricted off-street car parking areas near Chester Hill Station which are summarised in Table 4-5. The parking arrangements for the context of the Proposal area are shown in Figure 4-6.

Table 4-5 Off-street parking arrangement near Chester Hill Station

Car park location	Parking restriction	Accessed via
Chester Hill Library	4P and 12P	Wellington Road
Wellington Road Car Park	1P (Mon – Fri, 8:30 AM – 6 PM) & (Sat, 8:30 AM – 12:30 PM)	Wellington Road
Waldron Road Car Park	3P (7 AM – 7 PM)	Waldron Road
Chester Square Shopping Centre	3P (Mon – Sun)	Priam Street and Leicester Street
Weemala Street Car Park	-	Weemala Street
Priam Street Car Park	-	Priam Street

- Proposal area
- Site compound
- Study area (200m buffer)
- Existing cycle parking
- Rail station
- Vehicle access path
- Kiss and Ride

Existing parking arrangements

- Kiss and Ride
- Off-street parking
- On-street parking
- Taxi zone

Source: Aurecon, TfNSW, NSW Spatial Services (DCS), ESRI

1:4,000 @ A4

0 50 100 m

Projection: GDA2020 MGA Zone 56

Safe Accessible Transport program - Chester Hill Transport Impact Assessment

Figure 4-6: Existing parking arrangements

4.5 Haulage routes

Heavy vehicles (HV) that conform with mass requirements within the definitions of General Access Vehicles (GAV) and are under 19 metres in length do not require a notice or permit from the National Heavy Vehicle Regulator (NHVR) to operate on the road network surrounding the Proposal area. Larger vehicles are required to travel on their relevant approved road network and if other road links are required, consultation with the NHVR and Transport should be undertaken to seek approval to travel on the unapproved roads, Access and loading restrictions would be complied with unless specific exemptions are provided.

The indicative haulage routes shown in Figure 4-7 are expected to cater for general construction traffic.

The sections shown with a dashed line indicate roads that are limited to vehicles under three tonnes. This includes:

- Waldron Road between Miller Road and Hector Street
- Wellington Road between Chester Hill Road and Hector Street.

Furthermore, vehicles accessing the Proposal area via route D are also limited to a maximum height clearance of 4.6 metres due to the bridge on Hector Road which carries the rail line above.

Considering these road restrictions, route A which connects to Chester Hill Road via Hume Highway is expected to be the primary access route to the Proposal area. This route is devoid of vehicle weight restrictions and height restrictions, making it suitable for general construction vehicles over three tonnes. Route A also allows construction vehicles to avoid travelling through multiple unapproved local roads. Although Chester Hill Road is not part of the approved SPV road network, consultation with the NHVR and Transport should be undertaken to seek the necessary approval to travel on this road. Additionally, a swept path analysis should be conducted for the selected route to identify if any road upgrades or localised works are required to accommodate the vehicle movements. It is noted that vehicles larger than 19-metre B-doubles (over 50 tonnes) are not expected to be used for the construction of the Proposal.

The existing bridge over the rail line on Chester Hill Road, which connects Waldron Road and Wellington Road may not be traversed on by higher class SPV vehicles, as it is not part of the approved network and travel on any load bearing structures is subject to consultation with the relevant authorities. Additionally, the existing bridge cannot support SPV performing operational tasks. A suitable area would need to be established to accommodate the movement and operation of the SPV required for the construction of the Proposal.

Figure 4-7 Indicative haulage route trips for general construction traffic

5 Assessment of potential construction impacts

This section describes the traffic, transport and access impacts that would result from the construction activities.

5.1 Proposal construction activities

The construction methodology would be further developed during the detailed design of the Proposal by the nominated Contractor in consultation with Transport.

The construction activities for the Proposal are identified in Table 5-1. This staging is indicative and is based on the current concept design and may change once the detailed design methodology is finalised. The staging is also dependent on the Contractor's preferred methodology, program and sequencing of work. The staging and activities are often concurrent to increase efficiency and reduce impact on the community and construction timeframes.

Table 5-1 Proposal construction activities

Stage	Activities
Site establishment and enabling works	■ Establishment of the site compound (including erection of fencing, site office, amenities and plant and material storage areas, and vehicle access from Chester Hill Road) ■ Temporary relocation of the bus stop on the western side of Chester Hill Road further south, relocation of the taxi stand to Wellington Road , demolition of the paved seating area within Nugent Park (south) and creation of vehicle access to and from site compound from Chester Hill Road ■ Carry out validation of site investigations and the location of utility services ■ Relocation of services and utilities as needed, and running, testing and commissioning of temporary service routes ■ Installation of construction barriers, lighting and hoardings.
Decommissioning works	■ Installation of temporary access stairs at the existing station entrance and subsequent decommissioning of the existing stairs ■ Decommissioning of existing canopies at street level near the existing station entrance, along Chester Hill Road for vehicle access to site compound and at platform level ■ Decommissioning of light poles at platform levels as required.
Substructure works	■ Piling works to support the new elevated walkway and lift shaft and excavations for platform canopy footings ■ Installation of a foundation (around 16 metres long adjacent to the existing platform) for the new elevated walkway and lift shaft (foundation would be fenced off and inaccessible to the public) ■ Construction of a concrete column to support the new elevated walkway ■ Construction of supports for the new stairs.
New elevated walkway, stairs and lift	■ Construction of the new elevated walkway, including installation of the structural pier and horizontal beams ■ Installation of the new lift, including: – Formwork and reinforcement for lift pit and walls – Steelwork for lift shaft and canopy roofing

Stage	Activities
	– Lift car and motor – Cladding and glazing for the lift shaft – Lift finishing works, including mechanical and glass lift elements at street level ■ Installation of new stairs and connection to the new elevated walkway ■ Installation of lightweight screens along the new elevated walkway and stairs ■ Installation of canopies.
Platform works	■ Temporary removal/reinstatement of platform furniture ■ Regrading of the platform, including installation of TGSIs to provide compliant accessible paths throughout the station ■ Installation of new canopies, including extended canopies to the boarding assistance zone ■ Resurfacing of other areas of the platform where impacted by construction activities, including services trenching works.
Station building modifications	■ Installation of a temporary toilet on the platform ■ Removal and relocation of the existing internal wall between the existing unisex toilet and cleaners' room ■ Demolition of the existing tiles and fittings and removal of existing partition walls ■ Demolition of the existing slab and removal of external step to align floor level with platform level ■ Installation of new dividing wall to create the family accessible toilet and ambulant toilet ■ Waterproofing and replacement of doors, tiles and trim to match existing heritage features ■ Installation of new fittings and fixtures ■ Relocation of cleaners' storage and equipment to new cleaners' room (in existing staff room) ■ Reconfiguration of the existing storage room and staff toilet to provide a new shared services equipment room and separate staff toilet.
Station access and interchange facilities works	■ Construction of the accessible parking space and kiss and ride space on Chester Hill Road ■ Kerb adjustments and footpath regrading work along Chester Hill Road to allow for compliant access to the new accessible parking space and kiss and ride space ■ Footpath regrading work and installation of TGSIs at the bus stop at Nugent Park, Chester Hill Road ■ Relocation of the taxi rank from Chester Hill Road to Wellington Road and construction of the compliant footpath to this location through Nugent Park south ■ Installation of bicycle hoops (three in Nugent Park north and two in Nugent Park south).
Electrical upgrades	■ Earthing and bonding of electrical equipment and new or modified structures ■ Removal of the existing isolation transformer on the eastern side of the Chester Hill Road overbridge

Stage	Activities
	■ Installation of a new isolation transformer behind the rail corridor fence on the eastern side of Chester Hill Road ■ Trenching works for new cable routes ■ Installation of a new metering board for the new isolation transformer at the rail corridor fence (due to this fence restricting access to the new isolation transformer location) ■ Installation of a new switchboard under the new stairs ■ Electrical works for the new lift ■ Installation of new lighting, including at the station entrance, at the new lift landing, along the new stairs, on new platform canopies and new canopies on Chester Hill Road, in the reconfigured toilets in the station building and along the new path through Nugent Park (south) towards the relocated taxi rank.
Finishing works	■ Removal of the site office, temporary amenities and plant and equipment storage areas ■ Remediation of the site compound and vehicle access, as required ■ Removal of any temporary supports for the new elevated walkway ■ Installation of new utilities, including new cable routes, drainage infrastructure and cables for hearing induction loops and CCTV cameras ■ Installation of artwork ■ Reinstallation of platform furniture, including vending machines and opal card poles ■ Commissioning of new assets, including the new lift ■ Landscaping along the platform and installation of fencing near the new elevated walkway foundation to restrict public access ■ Installation of signage and wayfinding ■ Removal of temporary access stairs.

5.2 Ancillary facilities

Construction of the Proposal would require a temporary site compound to accommodate a site office, amenities, laydown, storage area for materials, plant and equipment and the like. The site compound is proposed to be in Nugent Park south, shown in Figure 4-1. The site compound would be accessed via a proposed 10-metre-wide vehicle access off Chester Hill Road. The area nominated for the site compound is on land owned by Council. The location of the site compound would be subject to further consideration by the Contractor and may be adjusted to suit the Proposal's needs.

The station platform would also be used as a temporary laydown area and for potential spoil storage for the duration of construction. Laydown/storage areas would be appropriately fenced off and would not inhibit customer access to the platform during the construction period. Furthermore, existing hi-rail access points would be used for track plant and equipment to gain access to the track and traverse to the worksite and for power supply upgrade work during possession periods. The nearest access points are at the southern extent of Campbell Hill Road and the southern extent of Keenan Lane, both of which can be accessed via Waldron Road. The locations of access points are shown in Figure 4-1.

Other worksite areas may be established during the course of the construction period and would be staged to minimise inconvenience to the customers and adjacent public areas. All established worksite areas would include suitable demarcation, hoarding or fencing.

5.3 Construction work hours and duration

The majority of work required for the Proposal would be undertaken during standard construction hours, which are defined by the NSW Environment Protection Authority (EPA) as follows:

- 7.00 am to 6.00 pm Monday to Friday
- 8.00 am to 1.00 pm Saturdays
- no work on Sundays or public holidays.

Construction of the Proposal may require certain work outside of standard hours, including night work and work during scheduled rail possessions. Rail possessions are temporary closures of the rail network. It is anticipated that approximately four rail possessions would be required throughout construction. The purpose of conducting work outside of standard hours is to minimise disruptions to customers, pedestrians, motorists, and nearby sensitive receivers. Out of hours work may also be scheduled outside of rail possession periods to reduce the potential impact on the wider community and road network. For example, this could involve facilitating deliveries, minor road work, and platform work.

Subject to approval, early construction works are expected to commence in early 2025 and would have a timeframe of approximately 18 months.

5.4 Construction traffic and parking impacts

This section summarises the assessment of the key potential Proposal construction impacts. Given the scope, the site is not expected to generate excessive volumes of waste or heavy vehicle volumes. As such, it is not proposed to enforce an approved heavy vehicle hourly volume.

5.4.1 Construction traffic generation

During non-possession periods, an average of about 20 construction workforce staff are expected per day. During possession periods, up to 50 construction workforce staff are expected on the Proposal during peak periods. A worst-case scenario of all construction staff travelling to and from the Proposal area by private vehicles has been assumed for a conservative assessment. This equates to:

- 40 light vehicle (LV) trips per day during non-possession periods by construction staff
- 100 LV trips per day during possession periods by construction staff.

Site management and inspections are also likely to occur and while these would be encouraged to arrive via public transport, these are expected to be increase the residual amount of up to 10 LV trips per day.

Construction vehicle trips due to the movement of site material and supply drop off is expected to occur uniformly throughout the day. A conservative allowance of 20 heavy vehicle (HV) trips per day has been made.

Construction vehicle trips due to the movement of construction plant and equipment such as mobile cranes, which are classified as special purpose vehicles (SPV), are expected to be occasional (not expected every day). A conservative allowance of 10 two-way SPV trips throughout the construction period has been made.

Overall, a total of 70 (50 LV trips and 20 HV trips) vehicle trips per day can be expected outside of possession periods and a total of 130 (110 LV trips and 20 HV trips) vehicle trips per day can be expected during possession periods. The trips by construction staff to and from the Proposal area are expected to occur outside of the road network peak periods and is not expected to have any additional impacts on the performance of the road network. A summary of the construction traffic generated, excluding construction waste trips is provided in Table 5-2.

Table 5-2 Summary of construction traffic two-way trips (excluding construction waste trips)

Vehicle type	Trip purpose	Non-possession period two-way trips	Possession period two-way trips
LV	Movement of construction staff	40 trips per day	100 trips per day
	Site management and inspections	10 trips per day	
HV	Site material and supply drop off	20 trips per day	
SPV	Movement of plant and equipment	10 trips throughout construction period	

5.4.2 Construction waste

In addition to construction vehicle movements, construction activities have the potential to generate waste through excess use of materials during construction and demolition works. Construction activities would be undertaken according to the Construction Environment Management Plan (CEMP) developed by the construction Contractor to address waste management and reduction practices.

It is estimated that excavations and earthworks would generate approximately 280 cubic metres of excavated material. Excavated material would be reused onsite where possible or disposed of in accordance with the relevant legislative requirements.

For a conservative assessment, it is assumed that all the excavated material would be disposed of using heavy rigid trucks or truck and dog configurations, which are commonly used for transportation of construction waste. Construction waste vehicle trips are not expected to occur throughout the entire construction period and are likely to occur only during the early phases of construction when demolition is taking place. The approximate carrying capacities and the additional trips generated are summarised in Table 5-3.

Table 5-3 Summary of construction waste vehicle trips

HV type	Carrying capacity	Maximum length	Trips to transport 280 m^3 of waste
Heavy Rigid Truck	~15 m3	12.5 m	38 two-way HV trips (19 trips to the site / 19 trips away from the site)
Truck and Dog	~43 m3	19.0 m	14 two-way HV trips (7 trips to the site / 7 trips away from the site)

5.4.3 Haulage routes

Designated access routes for heavy vehicle movements during demolition, construction and spoil removal would be via the regional roads accessed from arterial (State) road networks as much as practically possible. Access movements should be restricted to ‘left in’ and ‘left out’ where possible.

It is anticipated that most of the heavy vehicle traffic generated by the construction of the Proposal would be general heavy vehicles up to 19 m B-double (under 50 tonnes), therefore no road upgrades are required, subject to a detailed route survey for higher order vehicles.

Temporary traffic management may be implemented for any works including when mobile cranes and other bulky items are required. The volumes for these vehicles would be occasional only (not expected every day) and when they occur, it would occur in isolated periods with any movements focused outside of network peak hours.

5.4.4 Impacts on road traffic

Three temporary, full weekend road closures of Chester Hill Road would be required to facilitate crane lifts to remove existing structures and install new infrastructure. There would also be some mid-week temporary partial road closures of Chester Hill Road, Waldron Road and Wellington Road to facilitate works to bus stops, footpaths, works for the new DDA compliant parking space, the kiss and ride space, the new taxi rank and the construction of the site compound and vehicle access in Nugent Park (south)

The three temporary, full weekend road closures of Chester Hill Road would require local traffic detours to cross over the existing rail line via local routes, as shown in Figure 5-1. The detour routes are expected to include:

- **Detour route 1**: Detour via Miller Road and Sir Thomas Mitchell Road
- **Detour route 2**: Detour via Hector Street.

Route 1 would increase vehicle travel times by approximately five minutes and Route 2, being the shorter route would increase vehicle travel times by approximately three minutes. It is expected that Route 2 would experience a higher detour utilisation due to it being a more direct detour route.

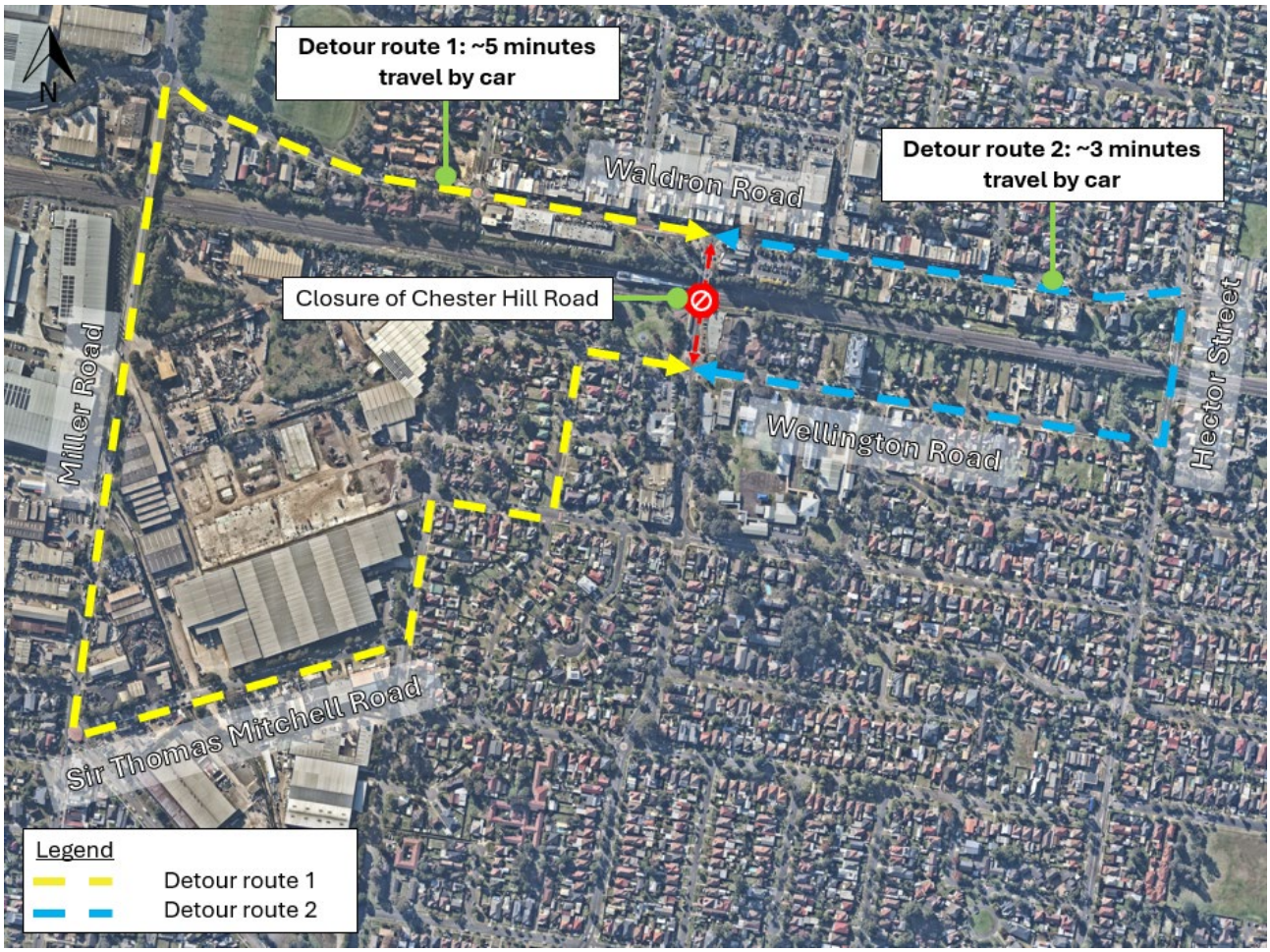


Figure 5-1 Detour routes during temporary road closures along Chester Hill Road

The partial road closures of Chester Hill Road, Waldron Road and Wellington Road would only close a portion of the road or a single lane, while allowing access to at least one trafficable lane. During the partial road closures, it is expected that traffic flow would decrease slightly and travel time for vehicles would have a minor increase.

Appropriate detour routes and/or other traffic management arrangements would be implemented when these roads are temporarily closed. Temporary road closures would result in a minor increase in travel time for vehicles travelling on a detour route. Chester Hill Road is expected to experience short delays when access to the site compound is under traffic control for larger vehicle access.

All roadwork would be undertaken on a progressive basis whilst ensuring minimal space and time is required to undertake particular phases of work. The City of Canterbury-Bankstown Council would be consulted about any traffic changes and a traffic control plan, in accordance with AS1742.3, would be prepared for approval by Council prior to construction.

As detailed in Section 5.4.1, construction of the Proposal is expected to generate a total of 70 vehicle trips per day during non-possession periods, and a total of 130 vehicle trips per day during possession periods. As such, to assess the potential daily impact due to the construction traffic, a daily split of 50% of trips travelling to the Proposal area in the AM, and 50% of trips travelling away from the Proposal area in the PM has been assumed. Therefore, the additional trips due to the construction of the Proposal is expected to be:

- **Non-possession periods**:
  - AM: 35 vehicle trips travelling to the Proposal area
  - PM: 35 vehicle trips travelling away from the Proposal area.
- **Possession periods**:
  - AM: 65 vehicle trips travelling to the Proposal area
  - PM: 65 vehicle trips travelling away from the Proposal area.

It is expected that vehicle trips would have multiple points of origin. The distribution of construction staff trips has been estimated based on the percentage of people employed as technicians and trade workers in the surrounding suburbs using Census 2021 data from the Australian Bureau of Statistics (ABS). The data indicates that some of the suburbs with the highest percentage of technicians and trade workers are:

- Milperra: 15.4%
- Georges Hall: 14.2%
- Riverwood: 12.9%.

It is assumed that 40% of all vehicle trips would arrive from the north of the Proposal area via Waldron Road. Of this 40%, 30% are assumed to be travelling westbound on Waldron and 10% travelling eastbound on Waldron Road to access the site. The remaining 60% of vehicle trips are assumed to originate from the south via Chester Hill Road, as it is the most direct road off the Hume Highway. Utilising the assumed trip distributions, the anticipated additional trips on the Proposal area's immediate road network in the AM are outlined in Table 5-4.

Table 5-4 Distribution of daily vehicle trips during the AM

Proposal area access road	Distribution percentage	Non-possession periods vehicle trips (rounded to nearest number)	Possession periods vehicle trips (rounded to nearest number)
Eastbound on Waldron Road	10%	4 trips	7 trips
Westbound on Waldron Road	30%	11 trips	20 trips
Northbound on Chester Hill Road	60%	21 trips	39 trips

Vehicle trips away from the Proposal area are expected to utilise the same routes but in the opposite direction. The trips by construction staff to and from the Proposal area are expected to occur outside of the road network peak periods. Overall, the low volume of additional vehicle trips is not expected to have any impacts on the performance of the road network.

Hi-rail access points would be used for track plant and equipment to gain access to the track and traverse to the worksite and for power supply upgrade work during possession periods. The locations of access points that could be used for the construction of the Proposal are included in Figure 4-1. The access points would be accessed from either Campbell Hill Road or Keenan Lane, both via Waldron Road. Traffic movements

around access points are anticipated to result in short-term, minor traffic impacts. Potential impacts from site access via access points would be managed through the CEMP.

5.4.5 Impacts on parking

The constrained nature of the site means that off-street car parking for all construction personnel would not be possible. As such, workers are likely to access the worksite via public transport or use public on-street or off-street parking nearby the site. Subject to the extent of the full and/or partial road closures of Chester Hill Road, Waldron Road and Wellington Road, some on-street parking spaces may temporarily be unavailable, including parking in front of the retail developments along the eastern side of Chester Hill Road, south of the station. A review of recent aerials between 2021 to 2024 was undertaken which indicate that on-street parking utilisation on local roads nearby such as Patricia Street, Proctor Parade, Veronica Street and Wellington Road (west of Veronica Street) is generally low throughout the week. These roads primarily front residential developments, and as such parking for commuters and retail trade is not expected to be affected. As mentioned in Section 4.4.5, there is substantial on-street parking which can accommodate construction worker vehicles during possessions (20 vehicles) and non-possession (50 vehicles) periods. Parking impacts from construction worker parking is therefore expected to be low throughout the entirety of the construction period.

Consultation between the Contractor and City of Canterbury Bankstown Council would be conducted to establish dedicated car parking areas for construction workers to ensure there is minimal impact on the parking in the surround area (where possible).

Access to the restricted off-street parking and loading zone located on the north-eastern corner of the Chester Hill Road/Wellington Road intersection, which primarily caters for the mixed-use development located on the corner, would also remain accessible throughout construction and would not be impacted.

The existing bus zones on Chester Hill Road would also be temporarily relocated and remain accessible by the public. As such, on-street parking spaces are expected to experience a higher utilisation throughout the construction period. However, due to the Proposal area being highly accessible by public transport, only minimal impacts to public parking are generally expected during construction.

5.5 Impacts on public transport

5.5.1 Rail connectivity

Rail services would not be impacted by the construction works of the Proposal. Access to platforms would be maintained and any changes to the access through the station would be sign posted to ensure adequate wayfinding. The decommissioning works for the Proposal would involve the decommissioning of the existing stairs and installation of temporary access stairs at the existing station entrance. These works would take place during a scheduled rail possession. The T3 Bankstown Line (between Sydenham and Bankstown) will be shut down for a period of up to 12 months, commencing between July and October 2024 for the Sydney Metro City & Southwest project. Chester Hill Station will be indirectly impacted by the T3 Bankstown Line shutdown before the Proposal commences. Chester Hill Station would remain operational during this shutdown period. A comprehensive temporary transport plan will be in place to support the final conversion, which will include dedicated, frequent bus routes, including express routes. Extensive communication will take place with affected communities in the lead up to the final conversion shutdown.

5.5.2 Bus connectivity

During the site establishment of the site compound in Nugent Park (south), including the construction of the 10-metre-wide vehicle access path, the existing bus stop along the western side of Chester Hill Road would be temporary relocated 10 to 15 metres southwards. Additionally, bus stops would be temporarily relocated during temporary road closures along Chester Hill Road. Bus services would not be significantly impacted by the construction works of the Proposal. For most of the construction period access to bus services would be

maintained and any changes to the access through the station would be sign posted to ensure adequate wayfinding.

During the three temporary, full weekend road closures of Chester Hill Road, the bus service route M91 (Hurstville to Parramatta via Padstow & Chester Hill) would be impacted. This bus service would be required to travel on the detour route options outlined in Section 5.4.4. Prior to any impacts to bus routes consultation with the relevant bus operators and authorities would be undertaken.

For a period of 12 months commencing between July and October 2024, bus routes travelling to and surrounding Chester Hill Station may experience potential route and timetable changes during the T3 Bankstown Line shutdown for the Sydney Metro City & Southwest project. A comprehensive temporary transport plan will be in place to support the final conversion, which will include dedicated, frequent bus routes, including express routes. Extensive communication will take place with affected communities in the lead up to the final conversion shutdown.

5.5.3 Impacts on point-to-point connectivity

The existing taxi zone on the western side of Chester Hill Road would be permanently relocated to the existing taxi zone on the northern side of Wellington Road, adjoining Nugent Park south. The existing taxi zone on Wellington Road is expected to remain accessible throughout construction. As such, it is expected that there would be minimal impacts to the operation of point-to-point services.

5.6 Impacts on walking and cycling

The Proposal area would undergo construction works which would impact the existing layout and access to the station. The construction works include the:

- Kerb adjustments and regrading works to the existing footpath along Chester Hill Road
- Site establishment of the site compound vehicle access, which includes the partial demolition of the canopy along Chester Hill Road and an area of paving and seating on within Nugent Park south
- Construction of a new accessible path in Nugent Park (south) to connect to the relocated taxi rank on Wellington Road
- Demolition of the existing street canopy and installation of a new canopy
- Removal of the existing access stairs and construction of new stairs and installation of a new lift.

Temporary access stairs would be provided at the existing Chester Hill Station entrance for pedestrians during the construction works. Access to the station platform would not be inhibited during construction.

Nugent Park (south) would be partially closed off to pedestrians for the establishment of the site compound and vehicle access.

During works to the canopy and station interchange facilities, pedestrians travelling from the south of the Station would be required to take a detour route via the eastern side of Chester Hill Road and cross the signalised pedestrian crossing to reach the temporary Station access point from Nugent Park (north). This may cause a slight increase in travel time of approximately five minutes for pedestrians, however implementing these diversions would be avoided wherever possible and if required would be limited to very short periods of time. Overall, impacts to pedestrians as a result of construction work are expected to be minimal.

Erection of suitable demarcation, hoarding and fencing would be required to provide temporary enclosure of work sites and work areas to safely separate the public from the construction works and to facilitate the delivery of plant and materials.

Hoarding would be required in areas of high pedestrian usage such as along Chester Hill Road, including any temporary closure or diversion of pedestrian throughfares as well as management of pedestrians around worksites and past work site access points. Additionally, works on the station platform would be appropriately fenced off and would not inhibit customer access to the platform during the construction period

except for possession periods. During possession periods the entire station may be closed to the public, although this would not impact customers as there would be no trains running.

Traffic movements around the access point on Keenan Lane may pose a risk to pedestrians given its proximity to the nearby carpark and commercial area on Waldron Road. Potential impacts from site access via this access point would be managed through the CEMP.

There may be temporary impacts to cycling infrastructure during construction for the period when the four existing bike hoops in Nugent Park (north) have been removed and prior to the five new bike hoops being installed to both sides of Nugent Park.

During full road closures on Chester Hill Road, cyclists would be required to use the same anticipated detour routes detailed in Section 5.4.4. During the canopy and Station interchange construction works, cyclists would be required to temporarily detour to the pedestrian pathway on the eastern side of Chester Hill Road. Furthermore, during temporary road closures or other isolated aspects of construction management, cyclists may be required to dismount at select points.

There are no proposed impacts to the broader pedestrian and cycling network, as such delays and impacts from pedestrian and cyclist detours are expected to be minimal.

5.7 Impacts on emergency vehicles

Emergency vehicle access would not be impeded or modified from the current arrangements as part of the construction. Under *NSW Road Rules 2014 – Rule 305* and *306,* emergency vehicles may be permitted to travel on roads closed for construction when responding to emergencies but must exercise due care and take precautions to ensure safety. Access through closed roads for emergency vehicles is also subject to the ongoing construction works.

During construction, the Contractor shall notify emergency services with any changes to access for an emergency. The contractor shall also consult with the local authorities and emergency services to determine the priority access routes to all sections of the Proposal area, and emergency vehicle and service access requirements throughout construction.

5.8 Impacts on delivery/service vehicles and other kerbside uses

Chester Hill Station currently contains general waste bins and recycling bins on the platform, in addition to general waste bins along the canopy approaches to the station on Chester Hill Road. Additional general waste bins are located in Nugent Park north as well as at bus stops on Chester Hill Road and Waldron Road. Waste is removed from site by licenced waste contractors and disposed of at licenced waste facilities. The construction works is expected to have minimal impacts on the current servicing arrangements and waste contractors would be consulted on any impacts.

The construction works would not impact any existing delivery/service vehicle operations to the existing developments in the vicinity of the Proposal area.

6 Assessment of potential operational impacts

This section describes the traffic, transport and access impacts that would result from the operation of the Proposal.

6.1 Impacts on road traffic

The ongoing operation of the Proposal is not expected to have any changes to the existing performance of the road network.

6.2 Impacts on parking and other kerbside uses

The Proposal would provide the following:

- New accessible kiss and ride area on the western side of Chester Hill Road, towards Wellington Road.
- New accessible parking space adjoining the new accessible kiss and ride area, on the western side of Chester Hill Road, towards Wellington Road.
- Permanent relocation of the existing taxi rank on Chester Hill Road to Wellington Road. The existing taxi zone on the northern side of Wellington Road, adjoining Nugent Park south would absorb the relocated taxi rank.

Aside from the permanent relocation of the existing taxi rank on Chester Hill Road to Wellington Road, the Proposal would not result in a permanent loss to on-street or off-street parking spaces. The operation of the new facilities is expected to have negligible impact on the performance of the existing parking inventory. Furthermore, it is expected that there would be no impacts to any existing on-street loading and mail zones in the vicinity of the Proposal area.

6.3 Impacts on public transport

The operation of the Proposal would reinstate the existing bus stop on the eastern side of Chester Hill Road and would be upgraded to provide accessible waiting areas. Additionally, the existing bus zones on the western side of Wellington Road and the northern side of Waldron Road would also be upgraded to provide accessible waiting areas. The Proposal is not expected to have any impact on the existing operation of public transport.

6.4 Impacts on point-to-point connectivity

Two car parking spaces would be permanently removed on the western side of Chester Hill Road, south of the station for the provision of the new taxi zone. The operation of the Proposal would relocate the existing taxi zone on Chester Hill Road to Wellington Road, south-west of the station. A new accessible footpath, and a new accessible waiting area with seating would be provided for users, which would make it easier for customers to identify where to stand and thereby improve the usability of the area for taxi and ride-share users. Overall, point-to-point connectivity services would be improved.

6.5 Impacts on pedestrians

The Proposal would provide new accessible footpaths on the western side of Chester Hill Road, immediately connecting to the Chester Hill Station. A new accessible footpath would also be provided through Nugent Park south to connect to the new taxi rank on Wellington Road. This would provide an improved user experience and accessibility for pedestrians.

A study was done in 2023 to assess the future year 2042 + 15% demand growth for Chester Hill Station (*Transport Access Program Tranche 4 – Chester Hill Station Concept Design Report Revision C)*. Operationally, pedestrians would adapt to the environment and there is significant capacity for them to utilise

the upgraded space. Pedestrian modelling assessment was done in 2023 to check whether the proposed Chester Hill Station Upgrade infrastructure meets the patronage needs of a 2042 + 15% scenario during the AM and PM peak. The scope of the pedestrian static modelling includes safety, functionality, and feasibility for the pedestrian movement in the Chester Hill Station Upgrade.

The performance design criteria for static modelling analysis are in accordance with Fruin Levels of Service (LoS), listed in Table 6-1 below. The requirement is to achieve an LoS Category C or better for all pedestrian movement-related space and infrastructure. Figure 6-1 provides a visual example of the circulation density in each level of service.

Table 6-1 Levels of service (LoS)

LoS	Walkway persons/minute/m	Stairs persons/minute/m	Queuing m^2/person
A	≤ 23	≤ 16	≥ 1.21
B	23 - 33	16 - 23	1.21 - 0.93
C	33 - 49	23 - 33	0.93 - 0.65
D	49 - 66	33 - 43	0.65 - 0.28
E	66 - 82	43 - 56	0.28 - 0.19
F	> 82	> 56	< 0.19
Source: Adapted from Fruin Pedestrian Planning and Design (1971)			

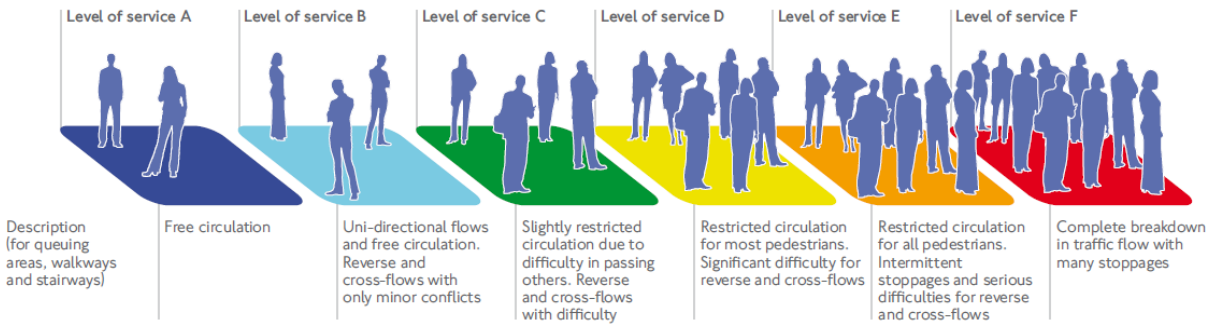


Figure 6-1 Level of service (LoS) diagram

The LoS evaluations were undertaken based on the dimensions of the proposed Station design, as listed above in Table 6-1.

The future year 2042 + 15% demand growth for Chester Hill Station is provided below for the station entry and exit in the AM and PM peak. Table 6-2 provides the pedestrian flow for Chester Hill Station based on the station entry and exit data for the AM and the PM peak periods.

Table 6-2 Pedestrian flow for Chester Hill Station

Peak Period (Proportional split)	AM Entry (74%)	AM Exit (26%)	AM Total	PM Entry (34%)	PM Exit (66%)	PM Total
3-hours (person/3hours)	739	260	998	334	664	998
1-hour (person/hour)	332	117	449	137	272	409
15-minutes (person/15 min)	90	32	121	36	71	106

The pedestrian modelling assessment demonstrates the proposed Chester Hill Station Upgrade infrastructure meets the patronage needs of year 2042 + 15% scenario. The key station infrastructure all satisfy the performance criteria of LoS Category B or better during the AM and PM peak 15-minute.

6.6 Impact on cyclists

The Proposal would provide new bicycle parking hoops in the immediate vicinity of the Chester Hill Station. Three new bicycle hoops would be provided in Nugent Park north and two in Nugent Park south. The double-sided bicycle hoops would accommodate a total of 10 bicycles and is expected to match existing usage.

6.7 Impact on emergency vehicles

There are no expected impacts on emergency vehicles as a result of operation of the Proposal.

6.8 Impact on loading and servicing

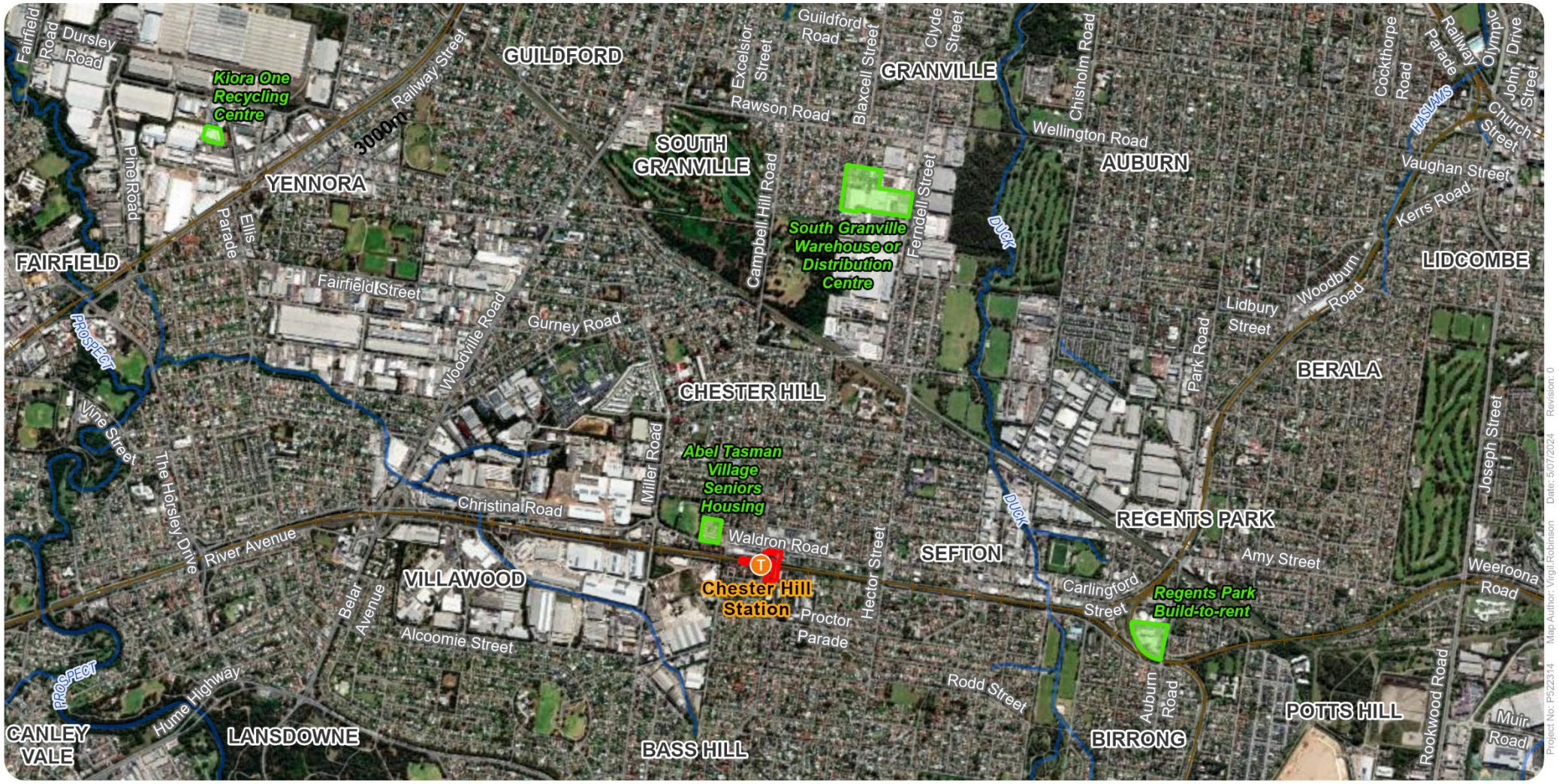
The operation of the Proposal is not expected to have any impacts on the existing loading arrangements for developments immediately surrounding the site.

7 Cumulative impacts

Cumulative impacts occur when two or more projects are carried out concurrently and in close proximity to one another. The impacts may be caused by both construction and operational activities and can result in a greater impact to the surrounding area than would be expected if each project was undertaken in isolation. Multiple projects undertaken at a similar time/similar location may also lead to construction fatigue in local communities, particularly around noise, traffic and air quality impacts, if not appropriately managed.

Other future major projects planned near the site that have the potential to generate cumulative impacts are included in Figure 7-1. The cumulative impact assessment has considered projects within the suburb of Chester Hill and projects that have anticipated construction routes that coincide with the Proposal. These projects were identified using City of Canterbury-Bankstown Approved Development Register and the Department of Planning, Housing and Infrastructure (DPHI) Major Projects Planning Portal in June 2024. A short summary of past, present and future projects and the anticipated cumulative impacts are provided in Table 7-1.

There is expected to be negligible cumulative impacts given consideration of other project timings and locations.

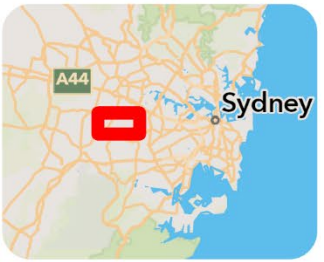


Path: C:\Users\Virgil.Robinson\Aurecon Group\526819 - Safe Accessible Transport Program Planning Approvals Contractor - GIS\Pro\P526819_SATP_TIA_v2.aprx

Revision: 0 Date: 5/07/2024 Map Author: Virgil.Robinson Project No: P522314

Proposal area
Site compound
Rail station
Railway
Nearby developments*
Watercourse
Road

*Note: Locations are approximate



Source: Aurecon, TfNSW, NSW Spatial Services (DCS), ESRI

1:30,000 @ A4
0 500 1,000 m

Projection: GDA2020 MGA Zone 56

Safe Accessible Transport program - Chester Hill Transport Impact Assessment

Figure 7-1: Nearby developments

Table 7-1 Cumulative impacts summary

Project number	Reference and Project name	Project description	Relationship to Project footprint	Potential cumulative impact
1	Regent Park Build-to-Rent (SSD-20724880)	The project would also include three levels of basement car parking, landscaping works, retail and cafes on the ground level and upgrades to Auburn Road to minimise traffic impacts.	This project is located around two kilometres east of the Proposal and involves to construction of five residential buildings featuring 558 new apartments.	The Construction Traffic Management Plan (CTMP) prepared for the project indicated that vehicles travelling to the site via Auburn Road. This route is unlikely to coincide with the routes what construction staff workers for the Chester Hill Station Upgrade would travel on which are expected to include Waldron Road and Chester Hill Road. Therefore, minimal cumulative impacts are expected. In addition, the project would result in minor traffic increases on local roads during operation.
2	Abel Tasman Village Seniors Housing (SSD-49937206)	The project would involve the redevelopment of the existing seniors housing development, including the construction and operation of five buildings, the highest of which would be up to seven storeys high. An EIS is currently being prepared for three of the buildings, which would include 55 independent living units and an additional 106 beds in a residential care facility. The anticipated construction of this project would involve the following: ■ Demolition of an existing service station and remediation of the site as needed ■ Tree removal ■ Excavation works to accommodate basement parking ■ Demolition of existing buildings ■ Construction of the new buildings and driveway access from Waldron Road.	This project is located approximately 150 metres northwest of Chester Hill Station on Waldron Road.	The Abel Tasman Village Seniors Housing project is currently at the stage of preparing the EIS. The proposed project is anticipated to result in increased traffic movements from construction vehicles. Due to the close proximity of the project, if the construction coincides with the Chester Hill Station Upgrade, Waldron Road is expected to impacted with increased traffic movements from construction vehicles. However, there is currently insufficient data to accurately consider the impacts from this project towards its cumulative impacts.

Project number	Reference and Project name	Project description	Relationship to Project footprint	Potential cumulative impact
3	Henry Lawson Drive Upgrade Stage 1A	The project involves upgrades to Henry Lawson Drive between Keys Parade, Milperra to Tower Road, Bankstown Aerodrome. The overall project consists of upgrading a 1.3 kilometre length of Henry Lawson Drive, including intersection upgrades.	The project is located around six kilometres southwest of the Proposal.	The project is currently under construction and is anticipated to be completed mid-2026. The project's Traffic and Transport Impact Assessment Report indicated that the surrounding road network would experience an additional: ■ 60 heavy vehicles per day ■ 70 light vehicles per day. The report indicates that the main roads what will be impacted by the project's construction are Milperra Road, Tower Road, Auld Avenue and Keys Parade. Due to the project being located approximately six kilometres from the Proposal area, no cumulative impacts are anticipated.
4	Kiora One Recycling Centre (SSD-40425066)	The project would involve the development of a waste and resource recovery facility including the fit-out of an existing warehouse complex. The facility would be capable of processing 180,000 tonnes of liquid waste and 20,000 tonnes of hazardous waste per year.	This project is located around four kilometres northwest of the Proposal.	The Kiora One Recycling Centre is currently at the stage of preparing the EIS. ■ Construction impacts as a result of the project would include minor traffic impacts. ■ The operation of the project would have traffic impacts associated with the delivery and offtake of waste by trucks and the movement of staff to and from the facility. Due to the project being locate approximately four kilometres from the Proposal, if the construction coincides with the Chester Hill Station Upgrade, no cumulative impacts are anticipated. However, there is currently insufficient data to accurately consider the impacts from this project towards its cumulative impacts.
5	South Granville Warehouse and Distribution Centre (SSD-51310208)	The project would involve the construction and operation of an industrial logistics and distribution facility. The facility would include three	This project is located around 1.5 kilometres north of Chester Hill Station.	The construction of the project would result in generation of construction traffic for the delivery of

Project number	Reference and Project name	Project description	Relationship to Project footprint	Potential cumulative impact
		warehouse buildings, parking facilities and landscaping works.		plant and equipment and for construction worker travel. Operational impacts associated with the project would include: ■ the removal of parking on Straits Avenue (which would result in benefits such as a wider carriageway for two-way traffic flow and a reduction in vehicular access crossovers). The project's Transport Management & Accessibility Plan indicates that during the construction of the project, the construction vehicles are anticipated to access the site via Boundary Road and Ferndell Street. Boundary Road connects to Priam Street which can be accessed by Waldron Road. During the construction of the project, the anticipated traffic volumes are: ■ AM Peak = 100 vehicular movements per hour ■ PM Peak = 92 vehicular movements per hour. During the operation of the project, the development will generate: ■ AM Peak = 100 vehicles/hour ■ PM Peak = 92 vehicles/hour. The project's Construction Environmental Management Plan report indicates that the construction works are anticipated to take approximately two years, subject to receiving approval. Due to the anticipated access route for construction vehicles of the project, if the construction coincides with the Chester Hill Station Upgrade, Waldron Road is expected to impacted with increased traffic movements from construction vehicles.

Project number	Reference and Project name	Project description	Relationship to Project footprint	Potential cumulative impact
				However, the majority of the construction traffic generated by the Chester Hill Station Upgrade are expected to arrive at the site via Chester Hill Road. Therefore, assuming that construction movements would primarily occur outside of the road network peak hours, the cumulative impacts are anticipated to be minor.

8 Environmental management measures

This section provides a summary of the recommended construction and operational management measures to mitigate against, monitor and manage any traffic, transport and access impacts described in Sections 5 to 7 and are outlined in Table 8-1.

Table 8-1 Environmental management measures for traffic, transport and access impacts

Impact	Environmental management measure	Timing
Road Condition Reports	Prior to construction commencement, road condition surveys and reports on the condition of roads and footpaths to be affected by construction shall be prepared and provided to Transport for information. Any damage resulting from the construction of the Proposal, aside from that resulting from normal wear and tear, shall be repaired at the Contractor's expense.	Pre-construction and post-construction
Authorisation for Road Use	Relevant authorisation(s) from the appropriate road authority would be obtained for the proposed operational changes to Chester Hill Road, such as changes to parking and bus stops.	Operation
Road Occupancy Licence(s)	The temporary full and partial road closures and traffic management controls on Chester Hill Road, Waldron Road and Wellington Road will be managed and implemented in accordance with the provisions of Road Occupancy Licence(s).	Pre-construction/ construction
Notification of changes to traffic conditions	Emergency services, public transport operators, and other key users will be notified in advance of changes to traffic conditions as a result of the construction of the Proposal. This will include notifying bus operators about detour routes for the affected M91 service, which would be impacted during temporary full weekend closures of Chester Hill Road.	Pre-construction/ construction
Construction worker parking	Consultation will be carried out with City of Canterbury Bankstown to investigate dedicated car parking areas for construction workers to ensure there is minimal impact on the parking in the surrounding area.	Pre-construction/ construction
Consultation regarding pedestrian safety	Consultation will be carried out with City of Canterbury Bankstown Council regarding opportunities to minimise safety risks to pedestrians associated with the pedestrian crossing at the Chester Hill Road / Wellington Road intersection.	Pre-construction/ construction

9 Conclusion

Subject to approval, the proposed construction is expected to commence in late 2024, with main works commencing early 2025, and would have a timeframe of approximately 18 months. The worst-case impacts that are anticipated to be associated with the construction of the Proposal is the focus of this TTIA and the most construction workers and construction vehicle traffic are summarised below:

- **Non-possession periods**:
  - AM: 35 vehicle trips travelling to the Proposal area
  - PM: 35 vehicle trips travelling away from the Proposal area.
- **Possession periods**:
  - AM: 65 vehicle trips travelling to the Proposal area
  - PM: 65 vehicle trips travelling away from the Proposal area.

The worse-case impacts anticipated as a result of the construction and operation of the Proposal are temporary and minor in nature. The key findings of this impact assessment are as follows:

- The surrounding road network is anticipated to operate as per the existing conditions throughout the construction of the Proposal as any additional vehicle trips by construction workers would be made outside of the road network peak hours.
- Throughout the day, additional trips due to the movement of material and for supply delivery would occur. However, these trips are expected to be low in volume and would have minimal impacts to the performance of the road network.
- Minor impacts on the road network are expected due to the three temporary, full weekend closure of Chester Hill Road, over the existing rail line, and partial closures of Chester Hill Road, Waldron Road and Wellington Road. This closure would require local traffic to detour, however it is expected that the impacts would be temporary and minor in nature.
- The full and partial road closures would have minor impacts on public transport as a minor pedestrian detour would be required, however, the impacts would be temporary in nature.
- The on-street parking around the Proposal area would experience a higher utilisation due to the construction of the Proposal. However, recent aerials indicate that there is generally low utilisation of on-street parking, as such, the impacts to on-street parking are expected to be minor.
- No road safety impacts are anticipated as a result of the construction and operation of the Proposal.

Despite the absence of any significant impacts, several best practice mitigation measures are proposed by this TTIA to minimise an impacts or inconveniences as a result of the Proposal.

10 References

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