DOC22/236651

01 April 2022

Michael Cassel
Planning Secretary
Department of Planning, Industry and Environment
Locked Bag 5022
Parramatta NSW 2124

Attention: Shiraz Ahmed

Dear Mr Ahmed

RE: New Primary School in Mulgoa Rise, Glenmore Park (SSD 11070211): Construction Worker Transportation Strategy in accordance with Condition B20.

I refer to the New Primary School in Mulgoa Rise, Glenmore Park approved on 18 March 2022.

In accordance with the requirements of Condition B20, attached to this letter we provide the Construction Worker Transportation Strategy, in order to minimise demand for parking in nearby public and residential streets.

Should you wish to discuss the above further please do not hesitate to contact the undersigned.

Yours sincerely,

Justin Barrett
Senior Project Director
Schools Infrastructure NSW

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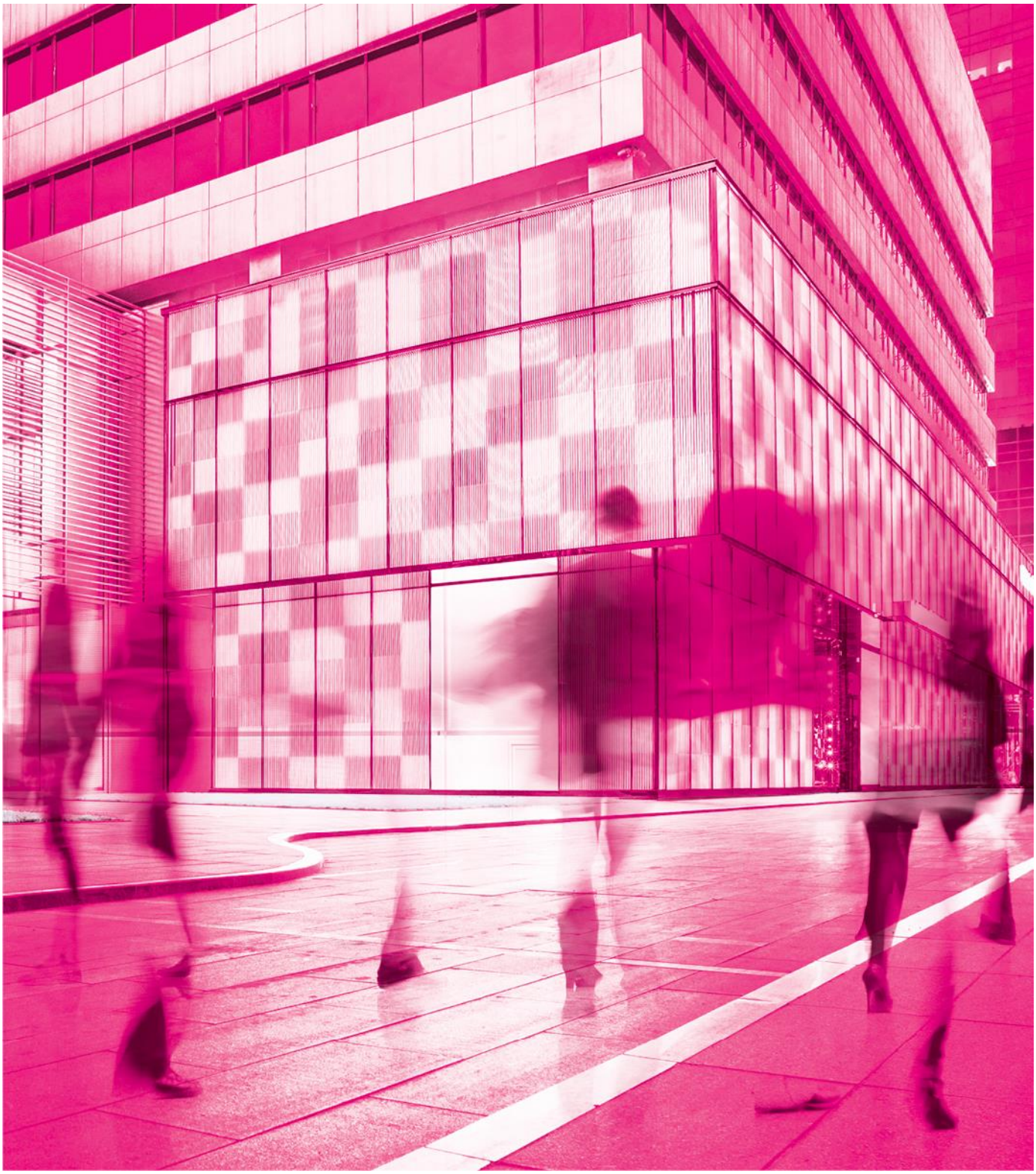

construction worker transport strategy

New Primary School in Mulgoa Rise

For Richard Crookes Constructions

22nd March 2022

parking;
traffic;
civil design;
wayfinding;

ptc.

ptc.

Document Control

New Primary School in Mulgoa Rise, Construction Transport Stratergy

Issue	Date	Issue Details	Author	Reviewed	For the attention of
1	22/03/22	CC issue	PD / HL	KB / DB	Joe Hanna

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The following stratergy is an excerpt from the Construction Traffic and Pedestrian Management Sub-Plan dated 22nd March 2022 And satisfies the following condition of SSD 11070211 - B20.

B20. Prior to the commencement of construction, the Applicant must submit a Construction Worker Transportation Strategy to the Certifier. The Strategy must detail the provision of sufficient parking facilities or other travel arrangements for construction workers in order to minimise demand for parking in nearby public and residential streets or public parking facilities. A copy of the strategy must be provided to the Planning Secretary for information.	Refer to Sections 4 and 5.12

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Contents

Content of this strategy is extracted from the CTPMP

REFER to CTPMP for full construction and pedestrian traffic management plan

4. Existing Transport Facilities

4.1 Road Hierarchy

The subject site is located in the suburb of Glenmore Park and is primary serviced by local roads including Deerubbin Drive to the north, Forestwood Drive to the south and Darug Avenue to the west.

A summary of the State, Regional and Council managed local roads serving the site is presented in Figure 5 and the following tables.

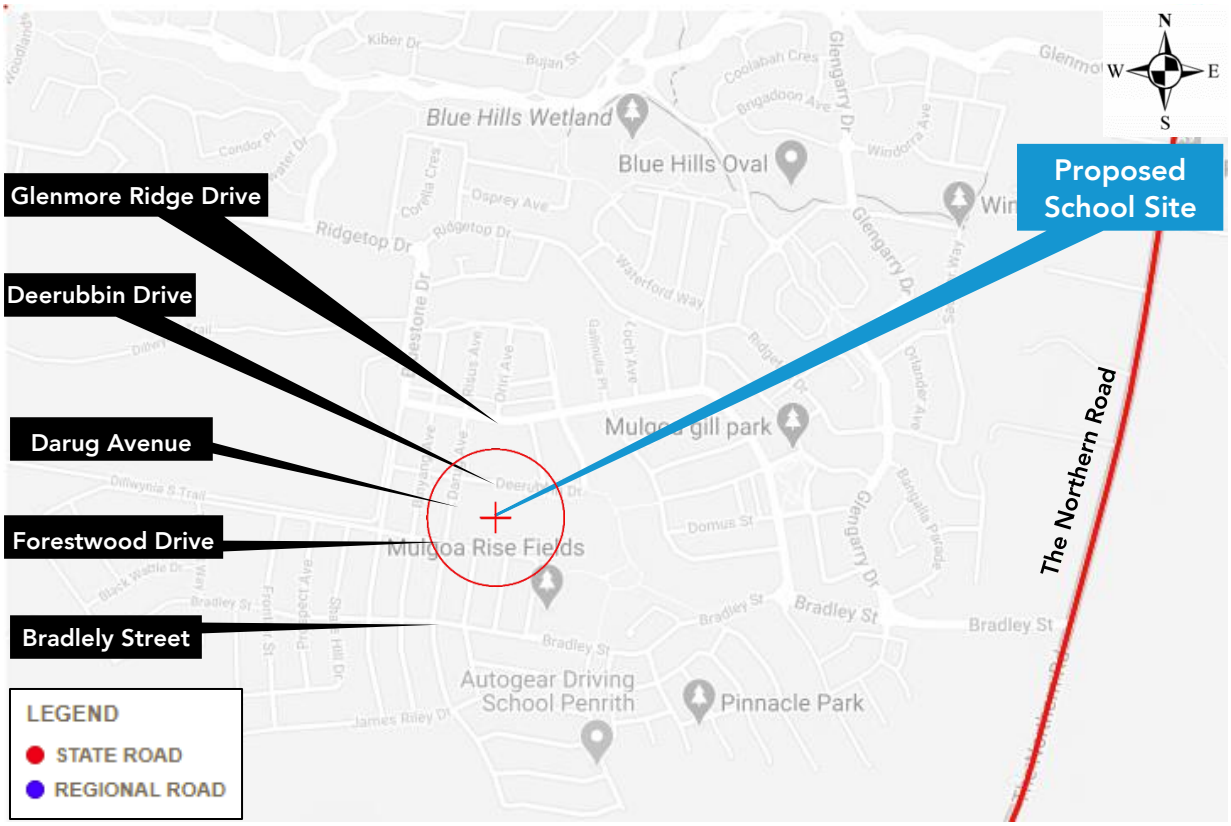

Figure 5 – Surrounding Road Network (Source: RMS Road Hierarchy)

The NSW administrative road hierarchy comprises the following road classifications, which align with the generic road hierarchy as follows:

State Roads - Freeways and Primary Arterials (RMS managed)

Regional Roads - Secondary or Sub Arterials (Council managed, partly funded by the State)

Local Roads - Collector and Local Access Roads (Council managed)

Table 1 – The Northern Road

The Northern Road	
Road Classification	State Road
Alignment	North-South
Number of Lanes	Varies, typically 1 lane in each direction. Road widens to 3 lanes southbound and 2 lanes northbound in the vicinity of the site
Carriageway Type	Undivided
Carriageway Width	Varies, typically 15m in section with 1lane in each direction. Approximately 21m in widest section near the vicinity of the site
Speed Limit	80km/h
School Zone	No
Parking Controls	No parking
Forms Site Frontage	No

Figure 6 – The Northern Road – Southbound towards Bradley Street

Table 2 – Glenmore Ridge Drive

Glenmore Ridge Drive	
Road Classification	Collector Road
Alignment	East-West in the vicinity of the site
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	12m
Speed Limit	50km/h
School Zone	No
Parking Controls	Unrestricted Parking
Forms Site Frontage	No

Figure 7 – Glenmore Ridge Drive – Westbound towards Darug Avenue

Table 3 – Bradley Street

Bradley Street	
Road Classification	Collector Road
Alignment	East - West
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	12m
Speed Limit	50km/h
School Zone	No
Parking Controls	Unrestricted
Forms Site Frontage	No

Figure 8 – Bradley Street – Westbound towards Parkway Avenue

Table 4 – Darug Aveneu

Darug Avenue	
Road Classification	Local Road
Alignment	North - South
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	12m
Speed Limit	50km/h
School Zone	No, but will be in the future
Parking Controls	Unrestricted
Forms Site Frontage	Yes

Figure 9 – Darug Avenue – Southbound towards Forestwood Drive

Table 5 – Deerubbin Drive

Deerubbin Drive	
Road Classification	Local Road
Alignment	East - West
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	12m
Speed Limit	50km/h
School Zone	No, but will be in the future
Parking Controls	Unrestricted
Forms Site Frontage	Yes

Figure 10 – Deerubin Drive – Westbound towards Darug Avenue

Table 6 – Forestwood Drive

Forestwood Drive	
Road Classification	Local Road
Alignment	East - West
Number of Lanes	1 lane in each direction
Carriageway Type	Undivided
Carriageway Width	11m
Speed Limit	50km/h
School Zone	No, but will be in the future
Parking Controls	Unrestricted
Forms Site Frontage	Yes

Figure 11 – Forestwood Drive – Eastbound towards Yerrang Avenue

4.2 Public Transport

The locality of the site has been assessed in the context of available forms of public transport that may be utilised by prospective staff and students. When defining accessibility, the *NSW Planning Guidelines for Walking & Cycling (2004)* suggests that 400m-800m is a comfortable walking distance to access public transport and local amenities.

Figure 12 illustrates 400m and 800m catchments from the proposed School site, together with the public transport options and network, which are available in the vicinity of the site. Details of public transport options available are outlined in the following sections.

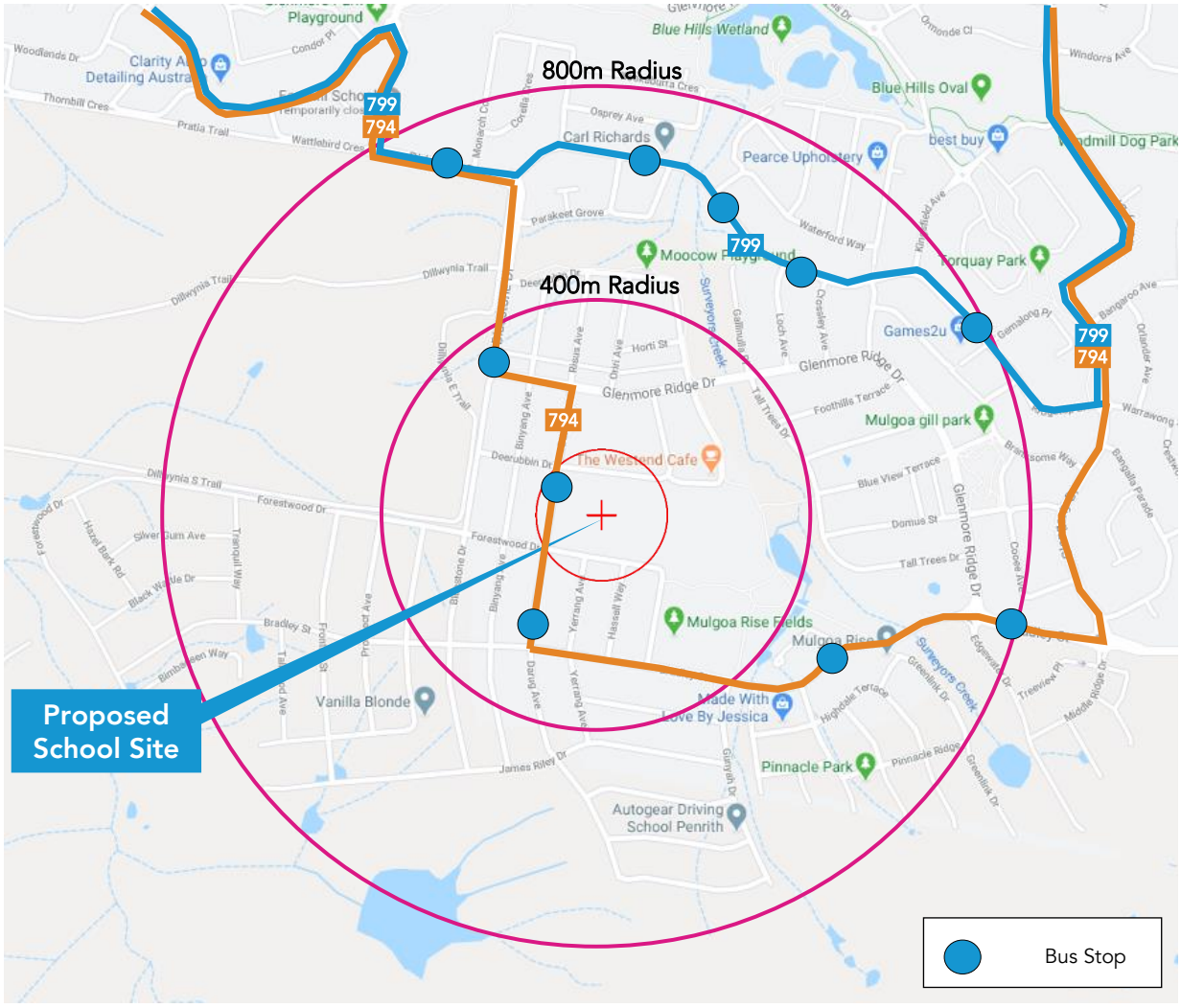

Figure 12 – 400m and 800m radius of the subject site

4.2.1 Bus Stops

As shown in Figure 12, there are a few bus services within the 400m and 800m catchment. The closest existing bus stop is located within 400m catchment along Darug Avenue, and serviced by 794 bus.

The closest bus stops and their relation to pedestrian gates of the proposed school are shown in Figure 13.

Currently, there is no pedestrian crossing connecting the school with the bus stop located on the western side of Darug Avenue.

Figure 13 – Nearest Bus Stops

4.2.2 Bus Services

Bus services, including coverage, approximate operation times and frequency during school peak hours are presented in Table 7.

Table 7 – Bus Service Summary (Source: Transport NSW)

Bus Route	Coverage	Bus Stop	Morning Peak	Bus Stop	Afternoon Peak
794	Penrith to Glenmore Park via The Northern Road	A	7:57, 8:35, 9:27	A	14:34, 15:47, 16:17
	Glenmore Park to Penrith via The Northern Road	B	7:51, 8:18, 8:54, 9:42	B	13:46, 15:07, 16:10

Considering potential construction times, the 794 bus timetable does not provide convenient services for workers.

The development is poorly serviced by bus, with services every 18 to 69 minutes throughout the day on weekdays, and therefore is not a reliable mode share option for staff.

4.3 Active Transport

Penrith Council's DCP Part E7B indicates that footpaths and shared paths are provided within the vicinity of the school, as shown in Figure 14.

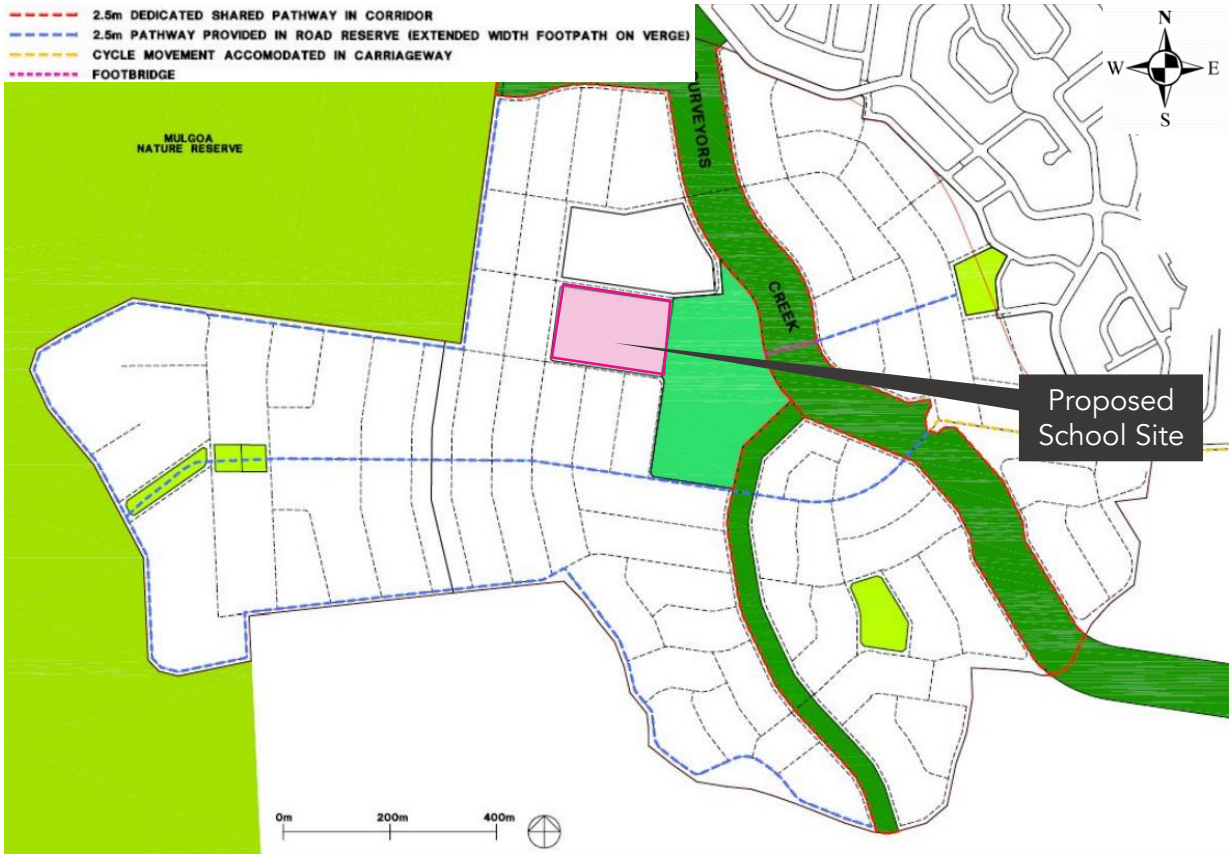

Figure 14 – Pedestrian and Cycle Network (Penrith Council DCP 2014)

Upon review of *nearmap* imagery it is known that footpaths and shared paths have been provided along major roads, biodiversity corridors and parklands, as per Council's DCP.

4.3.1 Cycling

As shown in Figure 14, the surrounding locality within the vicinity of the proposed site has some dedicated bicycle paths along Derrubin Drive and Tall Trees Drive.

4.3.2 Walking

Walking is viable transport option for distances under one kilometre (approximately 15-20min) and is often quicker for short trips door to door. Walking is also the most space efficient mode of transport for short trips and presents the highest benefits. Co-benefits where walking replaces a motorised trip include improved health for the individual, reduced congestion on the road network and reduced noise and emission pollution.

The pedestrian network in the locality of the proposed School site has been assessed to provide a reasonably high level of amenities within the vicinity of the school. Almost all roads in the vicinity of the site have footpaths on both sides. Pram ramps are generally provided at each end of the footpaths; however, there is a lack of formalised crossings in the vicinity of the site.

5. Concept Construction Worker transport Stratergy

5.1 Traffic Management Planning Process

Temporary Traffic Management (TTM) for the project has been planned in accordance with Transport for NSW (TfNSW), *Traffic control at work sites – Technical Manual, Issue No.6.0,* 14 September 2020 (TCAWS). The process is shown in Figure 15.

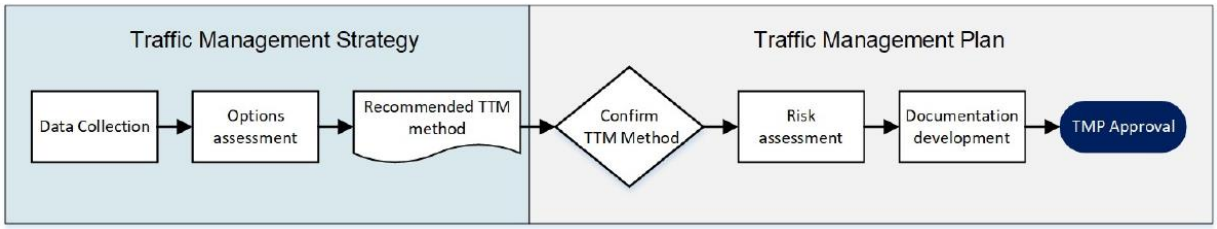

Figure 15 – TTM process

An iterative process is being adopted in collaboration with relevant stakeholders to adopt the most appropriate traffic management approach and develop the associated documents for the work.

5.2 Traffic Management Strategy

A traffic management strategy has been chosen to support the appropriate allocation of time, funds and resources for the project, and allow for consultation in determining the safest and most efficient way for road users to interact with the work site.

The traffic management strategy included consistent engagement with authorities throughout the development and submission of the CTMP. The CTMP process included the initial data collection and options assessment to ensure the lowest net risk for all stakeholders were considered. The following have been considered in determining the TTM method:

Detour options

No detours are necessary or proposed by the client and therefore, disproportionate amount of disruption to the road users will NOT be introduced.

Site location

The site of the works is primarily flat.

Work area

The area needed to safely perform the work does not require any road closure. NO Works Zone is required.

Vulnerable road users

Desire lines of pedestrians (students, staff, carers), cyclists, motorcyclists and users of scooters may impact on works or create undesired interaction between these road users and traffic.

Community facilities and needs

The presence of the bus stops on Darug Avenue in the vicinity of the site does not create conflict with the work.

5.3 Decision of TTM Method

After considering the factors in Section 5.2 and the recommendation of the client, the TTM method chosen is "Around (elimination)" as traffic can and will be completely separated from the work area. This method will provide the lowest overall net risk option

5.4 Objective

The traffic management plan associated with the construction activity aims to ensure the safety of all workers and road users within the vicinity of the construction site and following are the primary objectives:

- To minimise the impact of the construction vehicle traffic on the overall operation of the road network;
- To ensure continuous, safe and efficient movement of traffic for both the general public and construction workers;
- Installation of appropriate advance warning signs to inform users of the changed traffic conditions;
- To provide a description of the construction vehicles and the volume of these construction vehicles accessing the construction site;
- To provide information regarding the changed access arrangement and also a description of the proposed external routes for vehicles including the construction vehicles accessing the site; and
- Establishment of a safe pedestrian environment in the vicinity of the site.

5.5 Hours of Work

All works associated with construction will be restricted to time periods stipulated by the Conditions of Consent, which are as follows:

	Construction, including the delivery of materials to & from the site	**Works which do not exceed the existing background noise level plus 5dB(A)**	**Rock breaking, rock hammering, sheet piling, pile driving and similar**
Monday to Fridays	7:00am to 6:00pm	6:00pm to 7:00pm	9:00am to 12:00pm 2:00pm to 5:00pm
Saturdays	8:00am to 1:00pm	1:00pm to 4:00pm	9:00am to 12:00pm
Sunday, Public Holidays	No works to be undertaken without prior approval		

Construction activities may be undertaken outside of the above hours if required:

- by the Police or a public authority for the delivery of vehicles, plant or materials; or
- in an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or
- where the works are inaudible at the nearest sensitive receivers; or
- where a variation is approved in advance in writing by the Planning Secretary or its nominee if appropriate justification is provided for the works.

5.6 General Requirements

In accordance with Transport for NSW (TfNSW) requirements, all vehicles transporting loose materials will have to be entirely load covered and / or secured to prevent any large items, excess dust or dirt particles depositing onto the roadway during the travel to and from the site. All subcontractors must be inducted by the lead contractor to ensure that the procedures are met for all vehicles entering and exiting the construction site. The lead contractors will monitor the roads leading to and from the site and take all necessary steps rectify any road deposits caused by site vehicles.

Vehicles operating to, from and within the site shall do so in a manner, which does not create unreasonable or unnecessary noise or vibration. No tracked vehicles will be permitted or required on any paved roads. Public roads and access points will not be obstructed by any materials, refuse skips or the like, under any circumstances. No construction vehicles are permitted to double park, or park on the public road. No building materials, work sheds, vehicles, machines or the like shall be allowed to remain in the road reserve area without the written consent of Penrith City Council.

The applicant / contractor is required to follow and abide by the specific standard requirements for construction management as set out by the Department of Planning, Industry and Environment in any consent issued for the project.

5.7 Construction Phasing

The construction is planned to commence in March 2022 and finish in January 2023.

The works will involve the following:

- The buildings have been designed with consideration to hybrid of conventional and factory made prefabricated component method of construction.
- Construction of a car park to accommodate 17 parking spaces including 2 accessible parking spaces.

The construction timeline is shown in Table 8

Table 8 – Construction timeline

Construction Phases	Dates
Site Establishment	28.03.2022 – 08.04.2022
Earthworks & Piling	02.05.2022 – 25.06.2022
Construction	30.05.2022 – 18.01.2023
External Works	27.07.2022 – 14.01.2023

5.8 Construction Vehicles

The construction will involve the use of a number of different vehicle types in relation to the various tasks involved. A 20m long Articulated Vehicle (AV) is the largest vehicle anticipated to be used for all material removal and deliveries.

Types and number of vehicles that will require access to the site during different phases of the construction are shown in Table 9.

Table 9 – Types and number of construction vehicles

Construction Phases	Movements at peak	Range of vehicles during stage	Largest Vehicle
Earthworks & Piling	35-40/day	SRV, MRV, HRV, AV	AV
Site Establishment	5/day	MRV, HRV, AV	AV
Construction	15/day	SRV, MRV, HRV, AV	AV
External Works	5/day	SRV, MRV, HRV, AV	AV

All vehicles are to enter and exit the site in a forward direction.

Any oversized vehicle that is required to access the development site will be dealt with separately, with the submission of required permits to and subsequent approval by Penrith City Council.

5.9 Construction Vehicle Routes and a Swept Path Assessment

The site is located in the suburb of Glenmore Park and the proposed construction vehicle routes have regard for the surrounding traffic arrangements in the vicinity of the site. No queuing or marshalling of trucks is permitted on any public road and all loading and unloading of materials will be undertaken within the site.

All vehicle routes to the site are constrained to existing public roads that have the physical geometry to accommodate the turning movements. Approaching the site, some vehicle movements will entail the assistance of traffic controllers to manage a two-way flow along the surrounding roads. For signage and controls requirements in these cases refer to Section 5.10. The vehicle routes as shown in Figure 16.

All vehicles will enter the site via a temporary construction access on Darug Avenue, approximately 40m to the north of the intersection with Forestwood Drive (refer Section 5.6.2 for further detail). Vehicles travelling from the north, east or west will approach the site southbound via The Northern Road, turn right into Bradley Street, continue straight on Bradley Street, turn right into Darug Avenue and then turn right into the site.

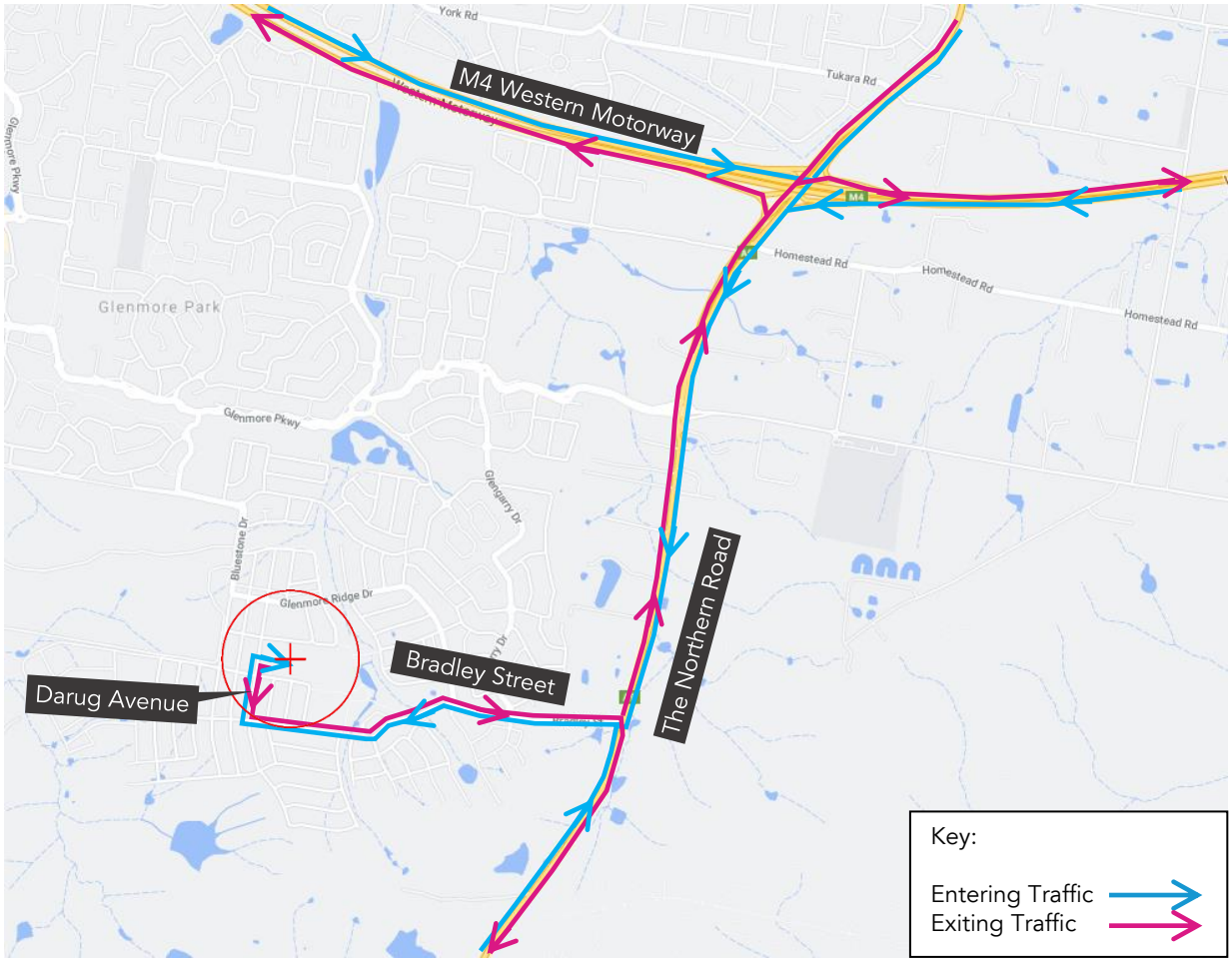

Figure 16 – Construciton Vehicle Routes

Vehicles travelling from the south will approach the site northbound via The Northern Road, turn left into Bradley Street, continue straight on Bradley Street, turn right into Darug Avenue and then turn right into the site.

All vehicles will exit the site via Darug Avenue in the southbound direction, turn left into Bradley Street and then turn left on The Northern Road to travel north, east and west or turn right on The Northern Road to travel south.

5.9.1 Key Intersections

The key intersections for the proposed School site are based on the construction vehicle routes. The key intersections in the vicinity of the site and their characteristics are listed below and shown in Figure 17.

- The Northern Road / Bradley Street: 3-arm signalised intersection
- Bradley Street / Glengarry Drive / Middle Ridge Drive: 4-arm roundabout intersection
- Bradley Street / Glenmore Ridge Drive / Edgewater Drive: 4-arm roundabout intersection
- Bradley Street / Darug Avenue: 4-arm give way intersection

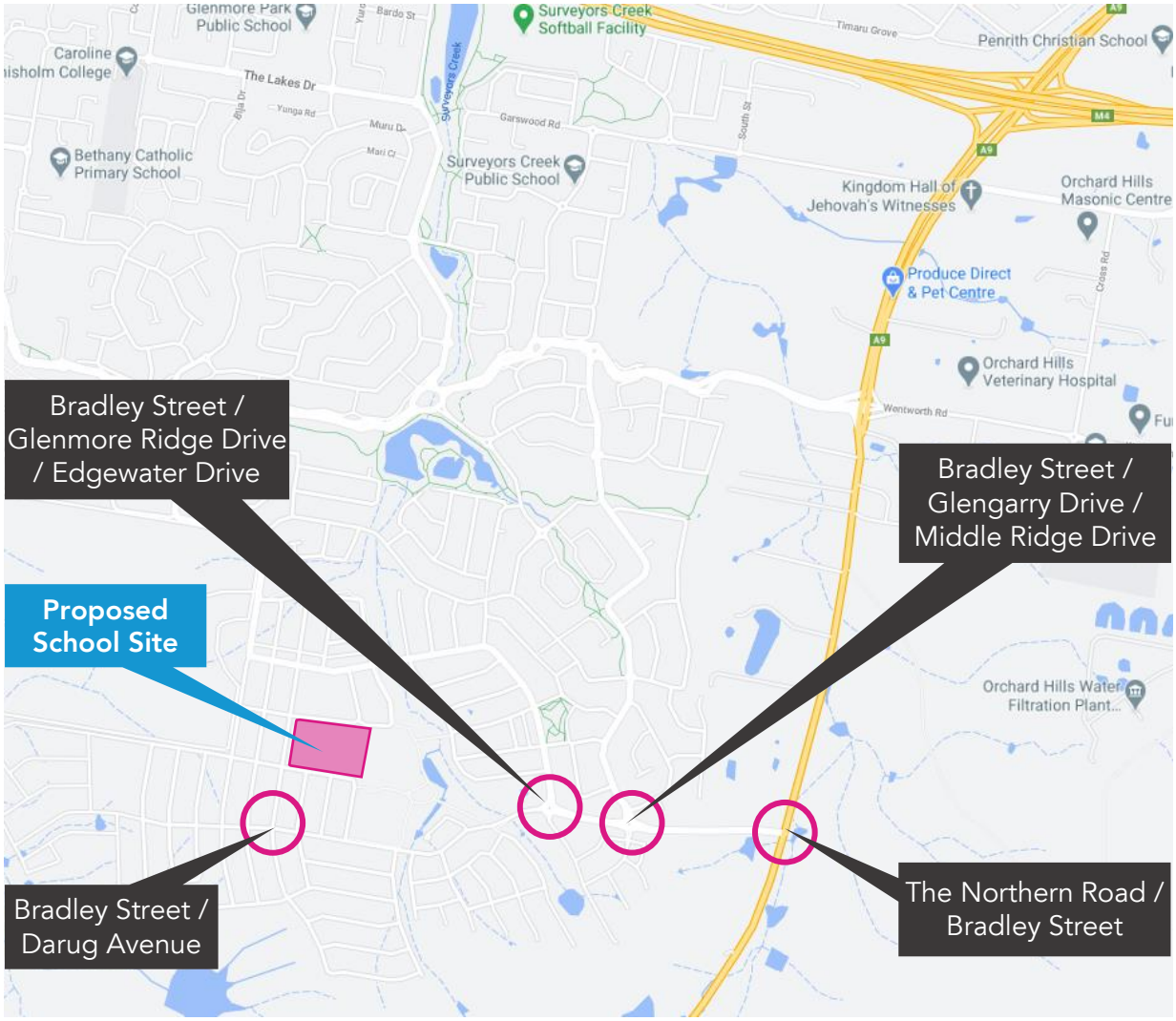

Figure 17 – Key Intersections

5.9.2 Swept Path Assessment

As discussed in Section 5.8, the largest anticipated vehicle approaching the site will be an AV. The construction trucks are to enter and exit the site via Darug Avenue. A temporary driveway and gate need to be constructed on Darug Avenue. A single driveway / gate will be used by entering and exiting trucks. The gate and driveway need to be at least 8 and 9 metres wide respectively to accommodate an AV. A swept path assessment of an AV entering and exiting the site via Darug Avenue is shown in Attachment 3.

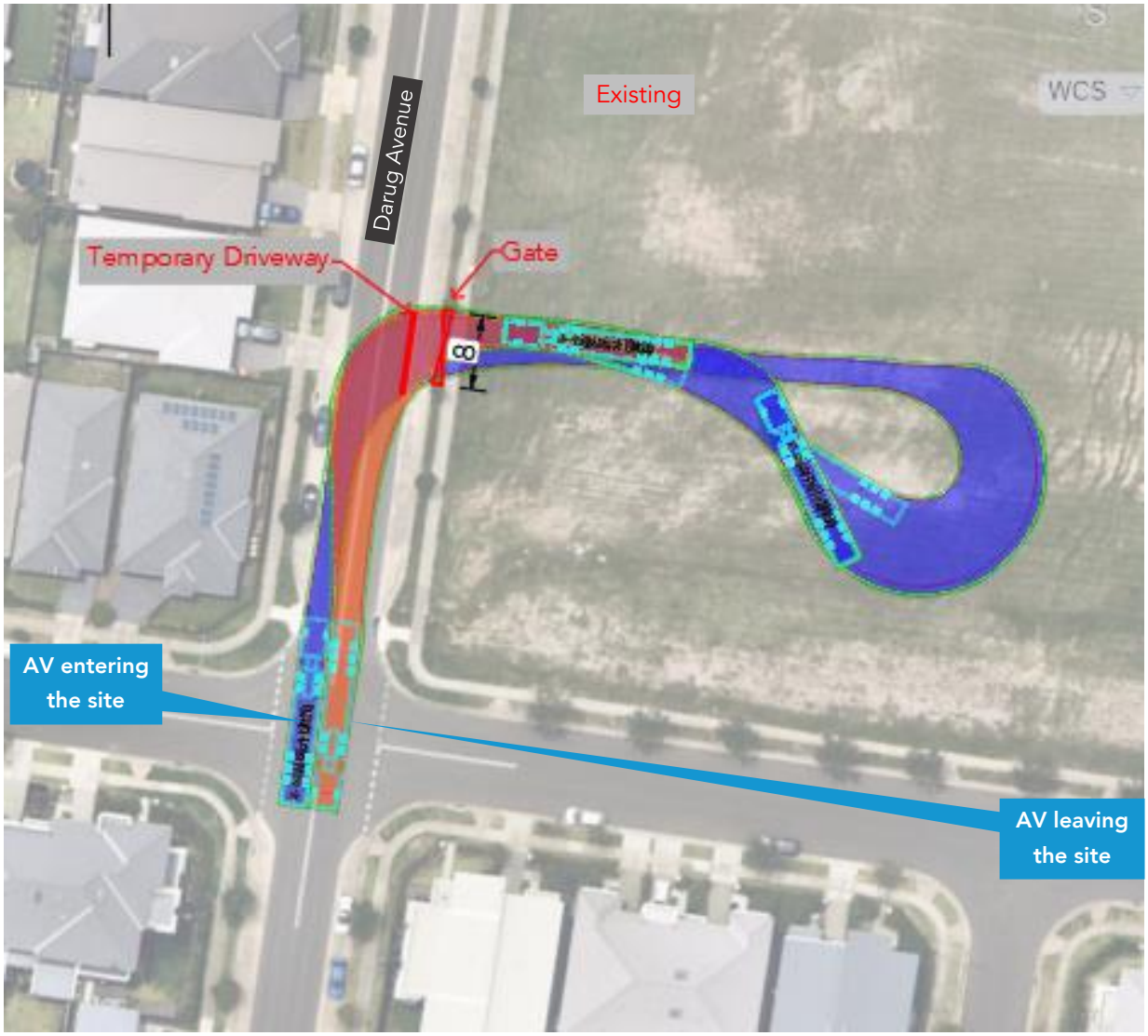

Figure 18 – AV entering and exiting the site via Darug Avenue

When entering and exiting the site the vehicles need to use the surrounding road network and intersections. For this reason, a swept path assessment has been undertaken to confirm that all required vehicle movements are possible. The following figures show AV movements at the key intersections as described in Section 5.9.1.

Any control measures are described in Section 5.10.

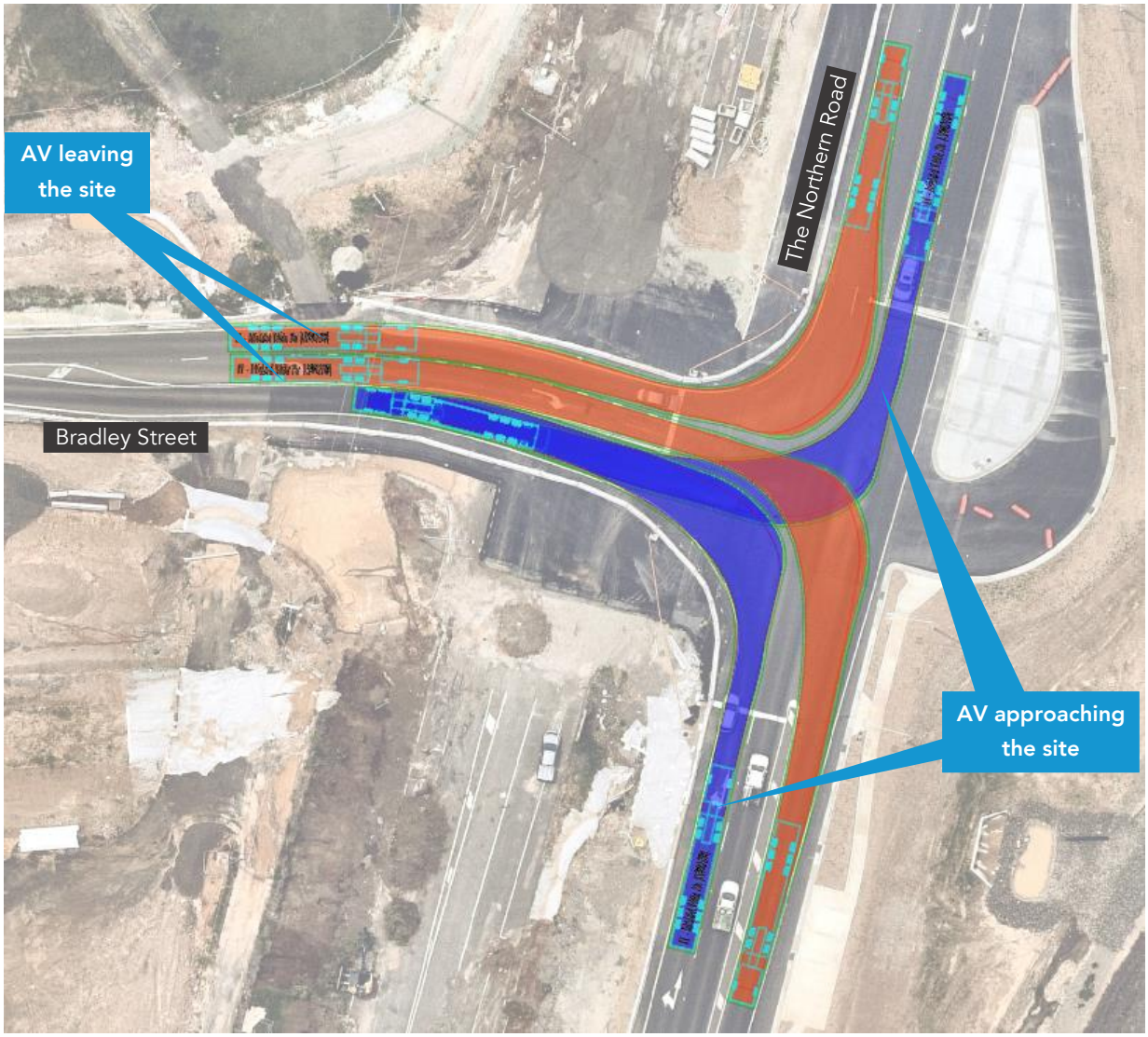

Figure 19 – AV at The Northern Road / Bradley Street intersection

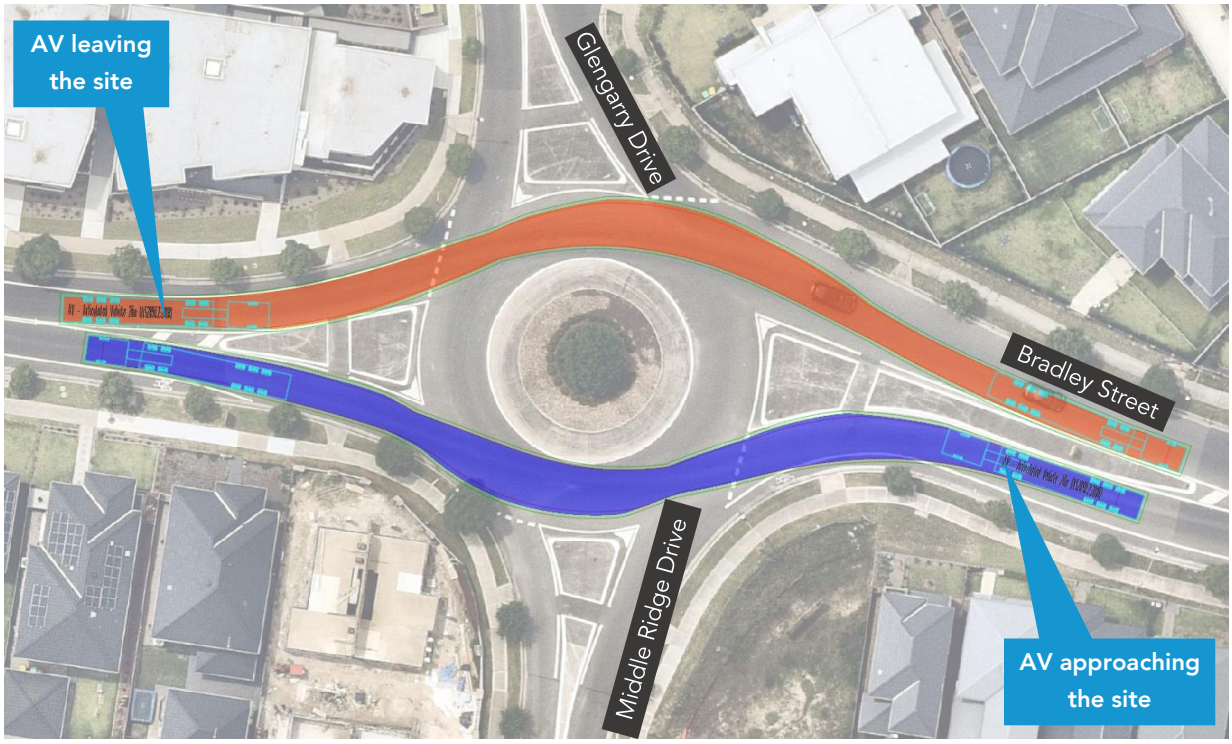

Figure 20 – AV at the Bradley Street / Glengarry Drive / Middle Ridge Drive intersection

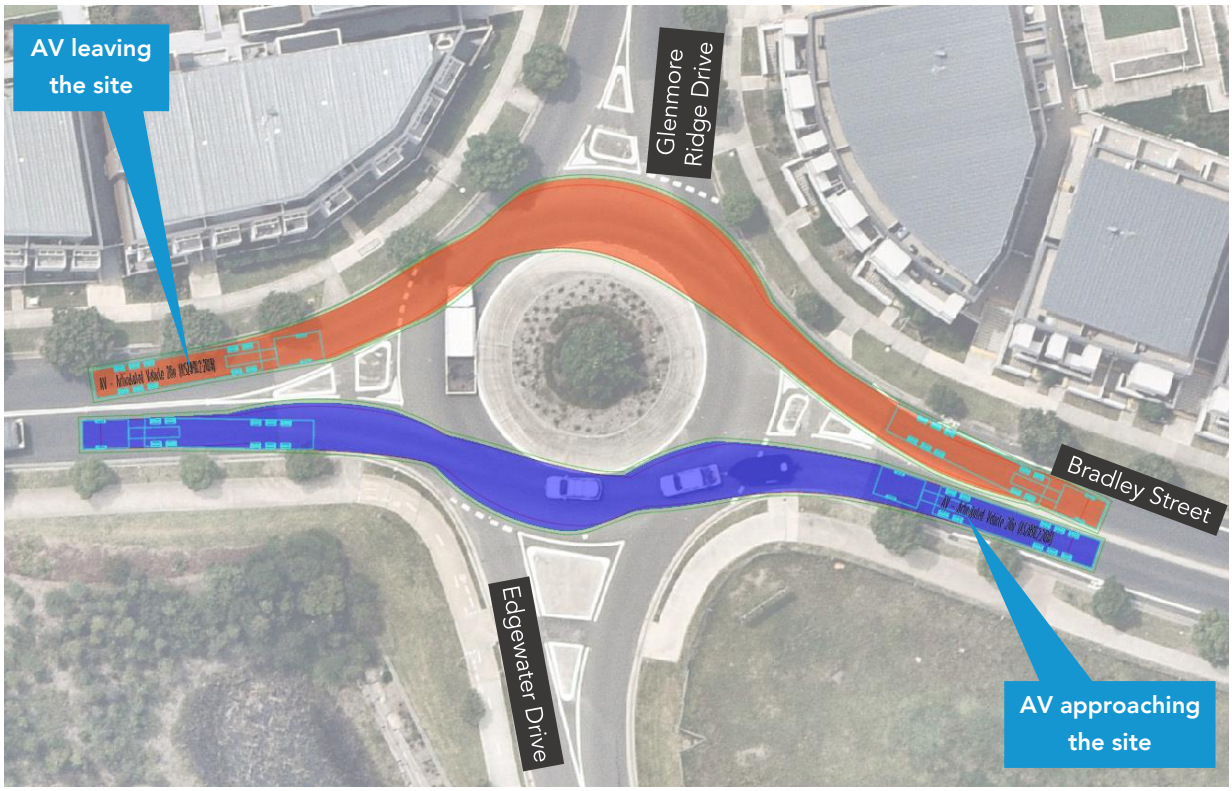

Figure 21 – AV at the Bradley Street / Glenmore Ridge Drive / Edgewater Drive intersection

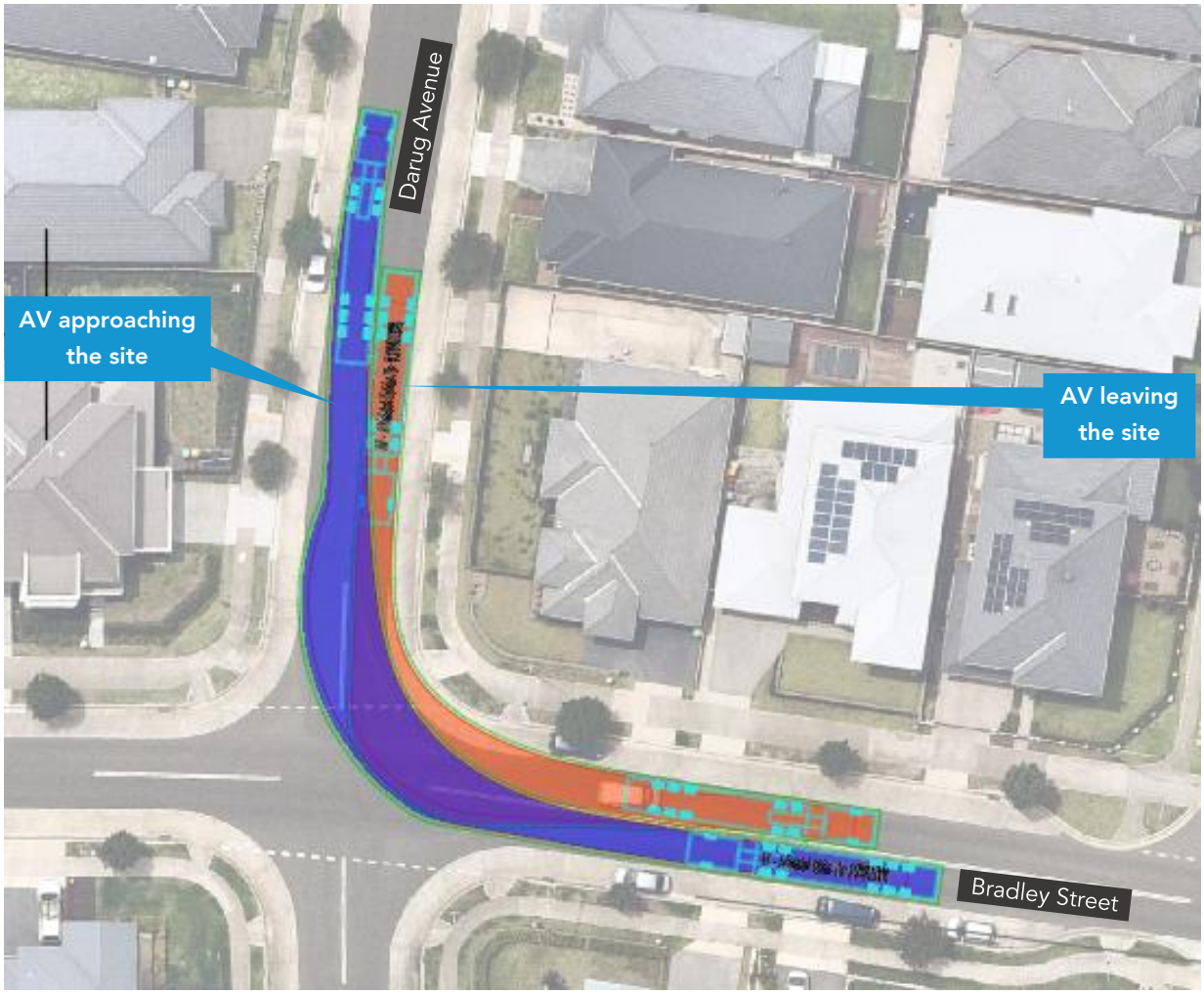

Figure 22 – AV at the Bradley Street / Darug Avenue intersection

5.10 Work Zone

No work zones are proposed during the construction of the school, as all construction activities will be undertaken within the site.

5.11 Special Deliveries

Whilst not anticipated, any oversized vehicle that is required to travel to the site will be dealt with separately, with the submission of required permits to and subsequent approval by Penrith City Council prior to any delivery.

5.12 Staff Parking

The contractor will put their usual processes in place to reduce car usage among construction staff. These measures include delivering all tools and equipment required to the site in the morning and removing it in the afternoon so that construction workers are not reliant on a car. The site personnel will be advised to carpool and use the public transport options available in the vicinity of the site (refer to Section 4.2).

All vehicles associated with the construction activities shall be parked wholly within the site. All site staff related with the works will be encouraged to use public transport. Those that drive will be able to park within the site and within the vicinity of the site.

5.13 Work Site Security

Where necessary, construction fencing around the site will be erected to provide security to the work site and protection to the general public. Prior to commencement of works the contractor will facilitate a Safety Workshop where any stakeholders shall be invited to identify site specific safety and security initiatives.

All access points are to be securely locked when construction activities are not in progress. The site perimeter fence is existing.

5.14 Plant/Equipment Management

At the commencement of construction, plant and equipment, including construction hoarding/scaffolding material, site sheds, mobile cranes and machinery will be required to be delivered to the site. The delivery and removal of plant and equipment to and from the site will be undertaken from the on-site materials handling/loading area, via the use of machine floats.

The delivery and removal of plant and equipment that requires a wide or long load vehicle will be subject to a separate application/permit and separate prior approval from Council and other relevant authorities. In order to minimise traffic disruption during the delivery of the plant and equipment, it is proposed to undertake this work during periods of reduced traffic. All plant and equipment deliveries will be carried out in accordance with Council's requirements and the NSW Police regulations.

5.15 Spoil Management

Contaminated material will be classified in accordance with the provisions of the Protection of the 'Environment Operations Act 1997 and the NSW DECC Waste Classification Guidelines, Part 1: Classifying Waste (April 2008)'.

All construction work involving the removal and disposal of asbestos cement will be undertaken by appropriately qualified contractors duly licensed with SafeWork NSW, holding either a Friable (Class A) or a Non-Friable (Class B) Asbestos Removal License whichever applies.

All vehicles leaving the site will be cleaned. The construction contractor will be responsible for locating a truck wash facility or other appropriate cleaning mechanism adjacent to the construction access driveways. Any run-off from the washing down of vehicles will be directed to the sediment control system to be located within the site.

The loading of spoil onto trucks will be carried out on-site in an approved and controlled manner. The management of the on-site materials handling/loading area and the movement of trucks on and off the site will be the responsibility of the contractor.

5.16 Staff Induction

All staff and subcontractors engaged on site will be required to undergo a site induction. The induction will include permitted access routes to and from the construction site for all vehicles, as well as standard environmental, OH&S, driver protocols and emergency procedures. Additionally, the lead contractor will

discuss CTMP requirements regularly as a part of toolbox talks and advise workers of public transport and car-pooling opportunities.

5.17 Emergency Vehicle Access

The proposed traffic control arrangements do not propose closure of any local roads. Any emergency vehicles requiring access to the project site will do so via Darug Avenue, Deerubbin Drive or Forestwood Drive.

A detailed Emergency Management Plan will be further developed by the contractor prior to site establishment works.

5.18 Pedestrian Management

Pedestrian access to and around the site is to be maintained at all times.

The entire site (and any remote work areas when applicable) will be physically separated via A-Class fencing. The access points to the site will be securely locked even when the construction activities are not occurring.

A site perimeter fence has been established and it will be fitted with appropriate public directional signage. The access points to the site will be securely locked even when construction activities are not occurring.

5.19 Access to Adjoining Properties

Access to all adjoining properties will be maintained throughout the works. The adjacent land owners will be notified of works via letter box distribution and road signage to advised of anticipated truck movements in operation with access to adjoining properties being maintained at all times.

5.20 Cumulative Effect of Adjacent Developments

During the construction phase, liaison with adjacent developments, i.e. the mixed-use development on the northern side of Deerubbin Drive, will be undertaken to mitigate the cumulative effect of the concurrent works. This will include the coordination of truck movements to prevent the combined impact of construction activities.

5.21 Occupational Health and Safety

Any workers required to undertake works or traffic control within the public domain shall be suitably trained and will be covered by adequate and appropriate insurances. All traffic control personnel will be required to hold TfNSW accreditation in accordance with Section 8 of Traffic Control at Worksites.

The comprehensive Work Health & Safety Management Plan will be provided by the Builders and shall be constantly reviewed as the design and construction methodology progress.

5.22 Maintenance of Roads and Footpaths

The roads and footpaths along the route of travel will be kept in a serviceable state at all times. Any damage arising as a result of the proposed truck movements will be treated / repaired by the principal contractor at no cost to Council.

5.23 Method of Communicating Traffic Changes

TGSs in accordance with Australian Standards (AS 1742.3 – Traffic Control Devices for Works on Roads) and TCAWS manual will advise motorist of upcoming changes in the road network.

The contractor shall each morning, prior to work commencing, ensure all signage is erected in accordance with the TGS and clearly visible. Each evening, upon completion of work, the contractor is to ensure signage is either covered or removed as required. Sign size is to be size "A".

No deviation from the approved TGS shall be permitted, unless otherwise approved by Council and certified by an TfNSW accredited personnel.

The associated TGS road signage will inform drivers of works activities in the area including truck movements in operation.

Prior to commencement of works on site the contractor is to inform neighbouring properties of proposed works and provide site contact information by means of a letter box distribution.

5.24 Departures from TCAWS

The Technical Manual – Traffic control at work sites acknowledges that during the planning or implementation of TTM, there might be instances where the mandatory, minimum requirements contained in this Technical Manual are not achievable, or are not achieving the required level of risk management. In these instances, a variation to a requirement or a departure developed and approved in accordance with this Section, may provide a better outcome. The rationale for all such decisions must be documented, as is in Table 10.

Table 10 – Departures from TCAWS

Departure Category	Departure
General departures—refers to a variation to a mandatory requirement in this Technical Manual that does not fall into a 'sign' or 'device' category	Distance - D has been reduced of the TGS at the Darug Avenue and Forestwood Drive intersection due to Forestwood Drive being a minor road with a give way line resulting in vehicles slowing down on approach of the intersection. Further, the sign T1-25 needs to be located on Forestwood Drive, as the truck movements occur on the adjacent road - Darug Avenue. The Distance D at the Bradley Street and Yerrand Avenue intersection has been reduced to reduce confusion.

5.25 Hazard and Risk Identification

All construction projects entail a set of risks—from a transport perspective—that may need to be mitigated. Some of these hazards and risks are related to:

- moving traffic
- queued traffic
- site vehicle access and egress points
- topographical constraints

This is appropriate for the construction of the New Primary School in Mulgoa Rise because of the following:

- Some pedestrian activity is expected as the site is located adjacent to the yet to be constructed mixed-use development north of Deerubbin Drive. The Construction vehicles will cross a pedestrian path when entering the site via the construction gate, thus may have potential conflicts with pedestrians.
  Risk Matrix Reference: R1
- The distance D has been reduced of the TGS at the Darug Avenue and Forestwood Drive intersection. This is to reduce confusion potentially arising from a misleading location of the T1-25, though the warning distance along Forestwood Drive is reduced.
  Risk Matrix Reference: R2
- Whilst TGSs have been designed and attached as part of this report, this is in combination with other constraints associated with the site location e.g. street sign clutter, parked vehicles and moderate pedestrians volumes may reduce visibility.
  Risk Matrix Reference: R3

As there is no guarantee that the contractor responsible for implementing the TGSs are fully aligned with the intention of this traffic report, this remains a risk to be assessed. As such, a risk matrix has been prepared as shown in Table 11 using the following definitions:

Risk Rating

- Very High (VH)
- High (H)
- Medium (M)
- Low (L)

Consequence

- Insignificant: Illness, first aid or injury not requiring medical treatment. No lost time.
- Minor: Minor injury or illness requiring medical treatment. No lost time post medical treatment.
- Moderate: Minor injuries or illnesses resulting in lost time.
- Major: 1 to 10 serious injuries or illnesses resulting in lost time or potential permanent impairment\
- Severe: single fatality and/or 11 to 20 serious injuries or illnesses* resulting in lost time or potential permanent impairment.
- Catastrophic: multiple fatalities and/or more than 20 serious injuries or illnesses* resulting in lost time or potential permanent impairment.

Likelihood

- Almost certain: expected to occur multiple times (10 or more times) during any given year
- Very likely: expected to occur occasionally (1 to 10 times) during any given year.
- Likely: expected to occur once during any given year.
- Unlikely: expected to occur once every 1 to 10 years.
- Very unlikely: expected to occur once every 10 to 100 years.
- Almost unprecedented: not expected to occur in the next 100 years.

Table 11 – Risk Matrix

Likelihood	Consequence					
	Insignificant C6	Minor C5	Moderate C4	Major C3	Severe C2	Catastrophic C1
Almost certain L1	R1, R2					
Very likely L2			R3			
Likely L3						
Unlikely L4						
Very unlikely L5						
Almost unprecedented L6						

Some recommended risk mitigation measures include:

- Council to monitor the implementation of the Traffic Guidance Schemes (TGSs). As necessary, the appropriate officer visiting the site shall have the authority to enforce compliance with illegal parking. This will also allow documentation of any form of illegal parking or parking contrary to this CTMP.
- The use of traffic controllers around the site entry gate to ensure pedestrian and traffic movements are not affected by the vehicles entering and exiting the site. Traffic Controllers are NOT to stop traffic on the public street(s) to allow trucks to enter or leave the site. They MUST wait until a suitable gap in traffic allows them to assist trucks to enter or exit the site. The Roads Act does not give any special treatment to trucks leaving a construction site - the vehicles already on the road have right-of-way.

5.26 Driver Code of Conduct

All heavy vehicle drivers are required to follow the ingress and egress routes in a "forward in, forward out" manner as specified in Section 5.8, whilst adhering to all road rules and regulations. This is essential to minimise the impacts of earthworks and construction on the local and regional road network. Should there be a Traffic Guidance Scheme (TGS) required to manage construction activity, all construction vehicles entering or exiting from the site shall operate under the direction of an TfNSW accredited traffic controller at all times; this will also minimise conflicts with other road users.

Furthermore, construction traffic activity shall only occur within the permitted hours of work (see Section 5.5) to minimise road traffic noise. All demolition and construction vehicles (excluding worker vehicles) are to be contained wholly within the site and must enter the site completely before stopping.

A Driver Code of Conduct leaflet will be prepared for distribution to truck drivers. This code of conduct will be advised to all drivers engaged on site at the staff induction or will be included within subcontract documents, as some of the drivers (concrete trucks, delivery drivers, etc) will not be inducted on-site.

5.27 Contact Details for On-Site Enquiries and Site Access

Thomas Archibald

Site Supervisor

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