Construction Pedestrian & Traffic Management Plan;

Epping West Public School

For Hansen Yuncken c/o Schools Infrastructure

16 September 2021

parking;
traffic;
civil design;
wayfinding;

ptc.

Document Control

Epping West Public School, Construction Pedestrian & Traffic Management Plan

Issue	Date	Issue Details	Author	Reviewed	For the attention of
1	23/08/21	Draft Issue	SC/FM	SN	Sasha Vuckovic
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Contact

Dave Salangsang
+61 2 8920 0800
dave.salangsang@ptcconsultants.co

Stephen Naughton
CPEng NER RPEQ
+61 2 8920 0800
stephen.naughton@ptcconsultants.co

Dan Budai
SafeWork NSW Card No. TCT0016805 (PWZ)
+61 2 8920 0800
+61 450 524 500
dan.budai@ptcconsultants.co

Aaron Pau
SafeWork NSW Card No. TCT0000267 (PWZ)
+61 2 8920 0800
+61 433 690 172
aaron.pau@ptcconsultants.co

ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
info@ptcconsultants.co
t + 61 2 8920 0800
ptcconsultants.co

Contents

Appendices

List of Figures

List of Tables

1 Introduction

1.1 Project Summary

ptc. has been engaged by Hansen Yuncken to prepare a Construction Pedestrian & Traffic Management Plan (CPTMP) associated with the proposed redevelopment and construction of Epping West Public School, located at 96-104 Carlingford Road, Epping NSW 2121.

Ongoing consultation with TfNSW and City of Parramatta Council has been undertaken as part of regular Traffic Working Group meetings (commenced earlier in 2021) & direct submission of draft issue on 07 September 2021, addressing draft SSDA condition B13(b) (refer to Section 1.3).

The location of the site is shown in Figure 1.

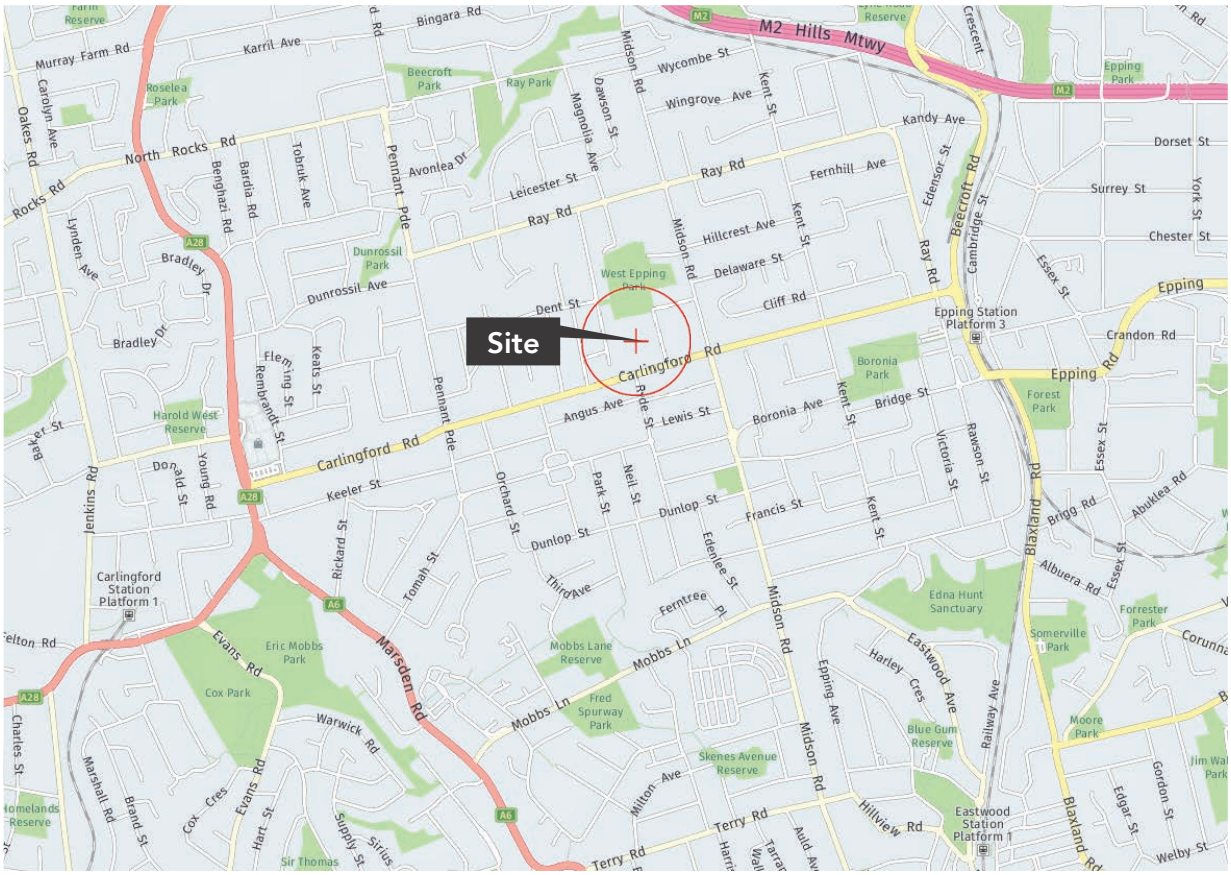


Figure 1: Site Location (Source: HereWego Maps)

1.2 Secretary's Environmental Assessment Requirements (SEARs)

As per *Section 6. Transport and Accessibility* of the Secretary's Environmental Assessment Requirements (SEARs) dated 8 October 2020, a Construction Traffic and Pedestrian Management Plan is to be prepared in accordance with the guidance provided in the TfNSW and Council advice attached to the SEARS, as follows:

TfNSW:

It is required that the applicant be conditioned to prepare a Construction Pedestrian and Traffic Management Plan (CPTMP). Prior to the issue of any construction certificate or any preparatory, demolition or excavation works, whichever is the earlier, the applicant shall prepare a Construction Pedestrian and Traffic Management Plan (CPTMP) in consultation TfNSW.

The CPTMP shall include (but not limited) the following:

- *A description of the development;*
- *Location of any proposed work zone(s)*
- *Details of crane arrangements including location of any crane(s);*
- *Haulage routes;*
- *Construction vehicle access arrangements;*
- *Proposed construction hours;*
- *Predicted number of construction vehicle movements and detail of vehicle types, noting that vehicles movements are to be minimised during peak periods;*
- *Construction program and construction methodology;*
- *Any potential impacts to general traffic, cyclists, pedestrians and light rail and bus services within the vicinity of the site from construction vehicles during the construction of the proposed works;*
- *Cumulative construction impacts of projects and*
- *Proposed mitigation measures. Should any impact be identified, the duration of the impacts and measures proposed to mitigate any associated general traffic, public transport, pedestrian and cyclist impacts should be clearly identified and included in the CPTMP.*
- *Submit a copy of the final plan to TfNSW for endorsement; and*
- *Provide the builder's direct contact number to small businesses adjoining or impacted by the construction work and the Transport Management Centre within TfNSW to resolve issues relating to traffic, public transport, freight, servicing and pedestrian access during construction in real time. The applicant is responsible for ensuring the builder's direct contact number is current during any stage of construction.*

Please send information to development.sco@transport.nsw.gov.au

1.3 Compliance with Conditions of Consent

A summary of the relevant requirements of the SSDA Conditions of Consent dated 10 September 2021 are provided below for clarity.

Condition B12

Prior to the commencement of construction, the Applicant must submit a Construction Environmental Management Plan (CEMP) to the Certifier and provide a copy to the Planning Secretary for information. The CEMP must include, but not be limited to, the following:

(c) *Construction Traffic and Pedestrian Management Sub-Plan (see condition B13);*

Refer to this report.

Condition B13

The Construction Traffic and Pedestrian Management Sub-Plan (CTPMSP) must be prepared to achieve the objective of ensuring safety and efficiency of the road network and address, but not be limited to, the following:

(a) *Be prepared by a suitably qualified and experienced person(s);*

Refer to page 2

(b) *Be prepared in consultation with Council and TfNSW;*

Refer to Section 1.1 & Appendix B

(c) *Detail the measures that are to be implemented to ensure road safety and network efficiency during construction in consideration of potential impacts on general traffic, cyclists and pedestrians and bus services; and*

Refer to Section 4.12, Section 4.18, Section 4.22 & Appendix E

(d) *Detail heavy vehicle routes, access and parking arrangements.*

Refer to Section 4.8, Section 4.9 & Appendix E

Condition B17

A Driver Code of Conduct must be prepared and communicated by the Applicant to heavy vehicle drivers and must address the following:

(a) *Minimise the impacts of earthworks and construction on the local and regional road network;*

Refer to Section 4.22 & Appendix C

(b) *Minimise conflicts with other road users;*

Refer to Appendix E

(c) *Minimise road traffic noise; and*

Refer to Section 4.4, Section 4.22 & Appendix C

(d) *Ensure truck drivers use specified routes.*

Refer to Section 4.8, Section 4.18, Section 4.22 & Appendix C

Condition B18

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 works 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 Appendix D

Condition B20

Prior to the commencement of demolition and/or removal of buildings and construction, evidence of compliance of construction parking and access arrangements with the following requirements must be submitted to the Certifier:

(a) All vehicles must enter and leave the Site in a forward direction;

Refer to 4.22 & Appendix A (Drawing 01T-0104)

(b) The swept path of the longest construction vehicle entering and exiting the site in association with the new work, as well as manoeuvrability through the site, is in accordance with the latest version of AS 2890.2; and

Refer to Appendix A (Drawings 01T-0104 and 01T-0113)

(c) The safety of vehicles and pedestrians accessing adjoining properties, where shared vehicle and pedestrian access occurs, has been addressed.
Refer to Section 4.19, Appendix A & Appendix E

2 Background Information

2.1 Site Context

The site currently lies within a Low Density Residential (R2) zone, as shown in Figure 2.

Key features surrounding the site include:

- Public Recreation (RE1) to the North;
- Classified Road Infrastructure (SP2) to the South; and
- Low Density Residential (R2) to the East and West.

The proposal relates to the following site:

- Lot 1, DP122509; and
- Lot 11, DP1099882.

Figure 2: Local land use map (Source: NSW Planning Portal)

3 Existing Transport Facilities

3.1 Road Hierarchy

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

State Roads	Freeways and Primary Arterials (TfNSW Managed)
Regional Roads	Secondary or sub arterials (Council Managed, partly funded by the State)
Local Roads	Collector and local access roads (Council Managed)

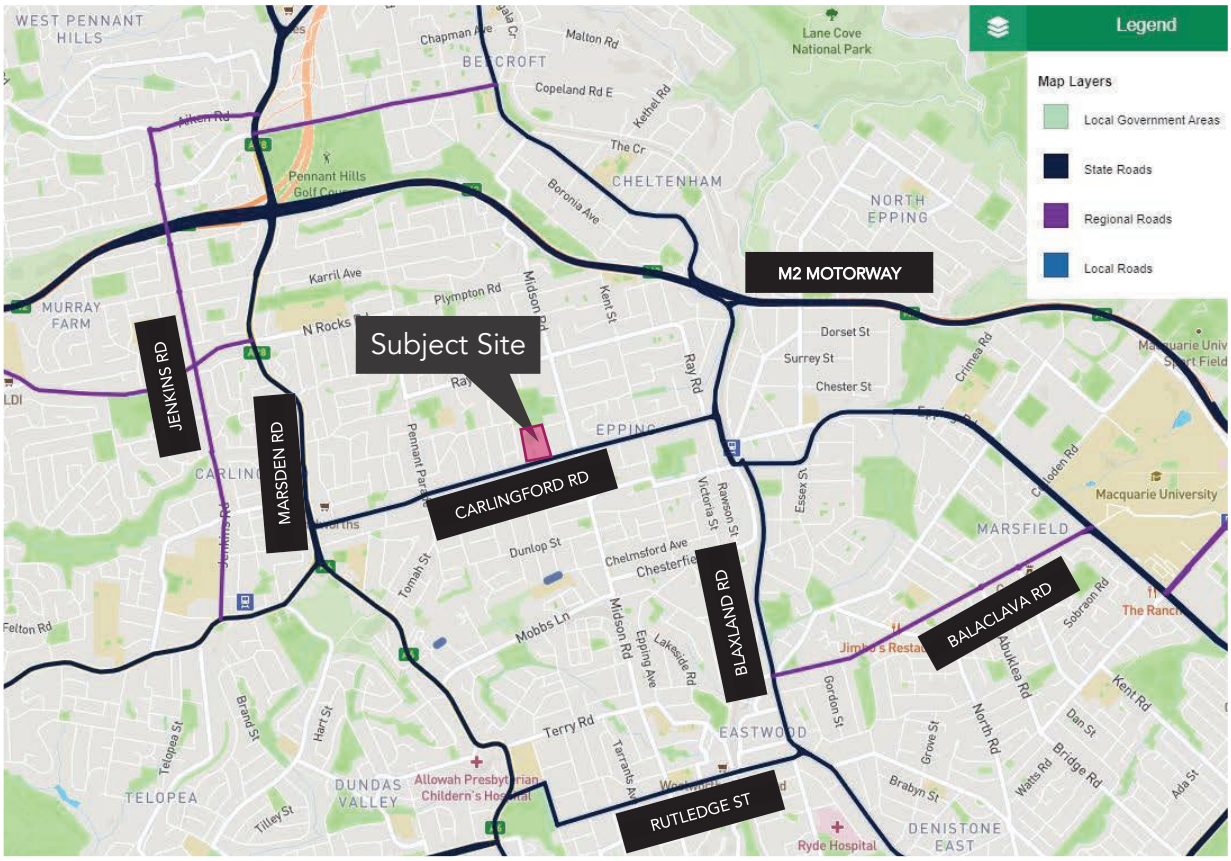


Figure 3: Road Hierarchy (Source: TfNSW NSW Road Network Classifications)

3.1.1 Existing Road Network

Table 1: Existing Road Network - Carlingford Road

Carlingford Road	
Road Classification	State Road
Alignment	East – West
Number of Lanes	1 lane eastbound, 1 lane westbound
Carriageway Type	Undivided
Carriageway Width	13 metres
Speed Limit	60 kph
School Zone	Yes
Parking Controls	No stopping, Clearway 6am-7pm M-F, 9am-6pm Sat, Sun & Public Holidays both directions
Forms Site Frontage	No

Figure 4: Carlingford Road Eastbound (Source: Google Maps)

Table 2: Existing Road Network - Wars Street

Ward Street	
Road Classification	Local Road
Alignment	North – South
Number of Lanes	1 lane northbound, 1 lane southbound
Carriageway Type	Undivided
Carriageway Width	8.5 metres
Speed Limit	50 Kph
School Zone	Yes
Parking Controls	Signed, restricted time 45 degree parking (northbound)
Forms Site Frontage	Yes

Figure 5: Ward Street Northbound (Source: Google Maps)

Table 3: Existing Road Network - Lilli Pilli Street

Lilli Pilli Street	
Road Classification	Local Road
Alignment	East – West
Number of Lanes	1 lane eastbound, 1 lane westbound
Carriageway Type	Undivided
Carriageway Width	8.5 metres
Speed Limit	50 Kph
School Zone	Yes
Parking Controls	Signed, restricted Parking on School Days eastbound
Forms Site Frontage	No

Figure 6: Lilli Pilli Street Eastbound (Source: Google Maps)

3.2 Key Intersections

The key intersections in the vicinity of the development site and their characteristics are listed below:

- Pennant Hills Road / Carlingford Road: traffic signal controlled, 3-leg intersection
- Beecroft Road / Carlingford Road: traffic signal controlled, 3-leg intersection
- Carlingford Road / Midson Road: traffic signal controlled, 4-leg intersection

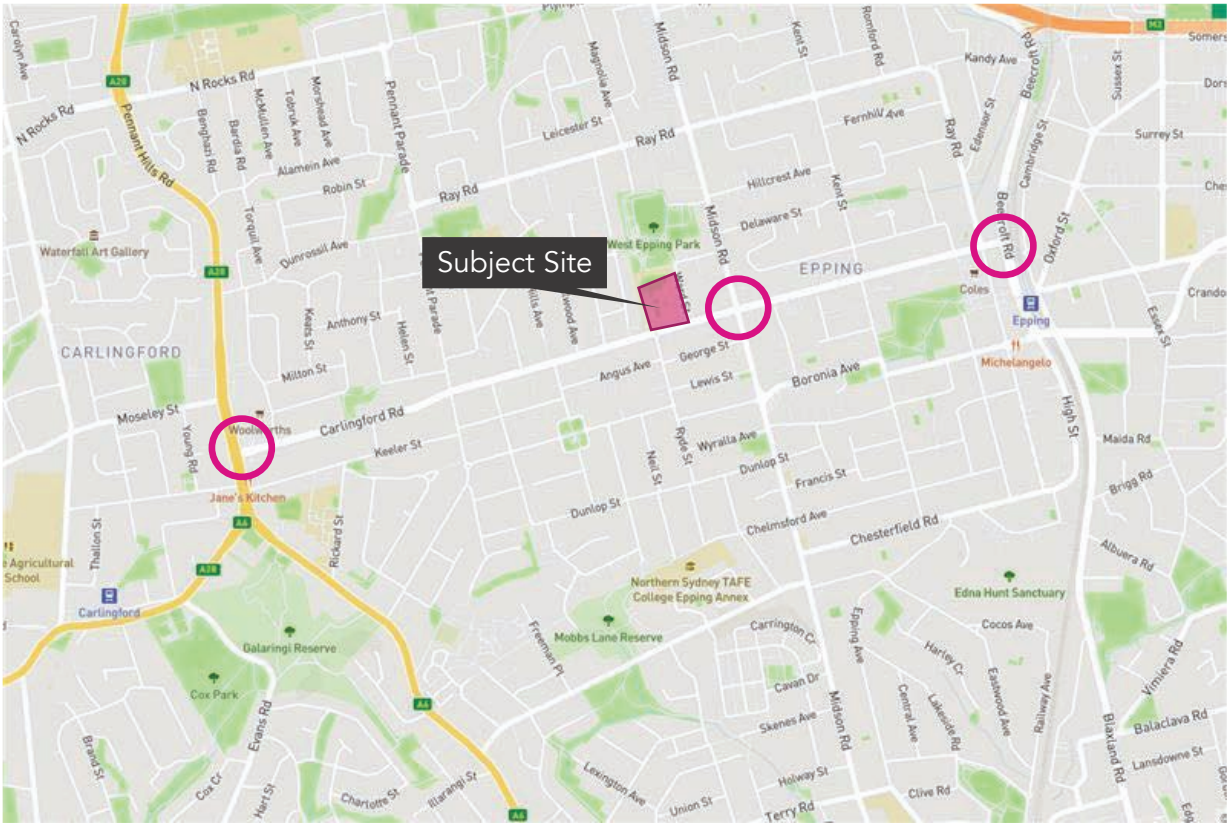


Figure 7: Key Intersections (Source: TfNSW NSW Road Network Classifications)

3.3 Public Transport

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

The area of comfortable walking distance is shown in Figure 8.

Figure 8: Public Transport Accessibility (Source: Nearmap)

3.3.1 Bus Services

The subject site is well serviced with multiple bus stops within a comfortable walking distance. A summary of the available bus routes that service the site is shown in Table 4.

Table 4: Bus Route Summary

Bus Route	Coverage (to and from)	Service Frequency
630	**Blacktown – Epping**	**Weekdays:** AM/PM peak – every 30 minutes Off Peak – every 1hr **Saturday:** No service available Sunday and public holidays: No service available
550	**Macquarie Park to Parramatta via Epping**	**Weekdays:** AM/PM peak – every 10 minutes Off Peak – every 20 minutes **Saturday:** Every 20 minutes **Sunday and public holidays:** Every 20 minutes

Bus Route	Coverage (to and from)	Service Frequency
546	**Parramatta to Epping via Oatlands & North Rocks**	**Weekdays:** AM/PM peak – every 30 minutes Off Peak – every 1 hour **Saturday:** Every 1 hour **Sunday and public holidays:** Every 1 hour
549	**Parramatta to Epping via North Rocks**	**Weekdays:** AM/PM peak – every 15 minutes Off Peak – every 1 hour **Saturday:** Every 1 hour **Sunday and public holidays:** Every 1 hour
541	**Eastwood to Epping**	**Weekdays:** AM/PM peak – every 30 minutes Off Peak – every 1 hour **Saturday:** No service available **Sunday and public holidays:** No service available

3.3.2 Active Transport

The bus routes in the vicinity of the subject site are predominantly serviced by the Carlingford Road which is within the 400m-800m walking catchment as defined by the NSW Guidelines to Walking & Cycling (2004). It is anticipated that this will encourage mode shift towards active transport. The catchments are well serviced with amenities for pedestrians such as footpaths and street lighting.

It is noted that partial low and moderate difficulty on-road cycling infrastructure are currently available within the vicinity of the site as shown in Figure 9. However, given the type of development proposed, it is anticipated that users of the development will predominantly travel to/from the Site via private vehicles.

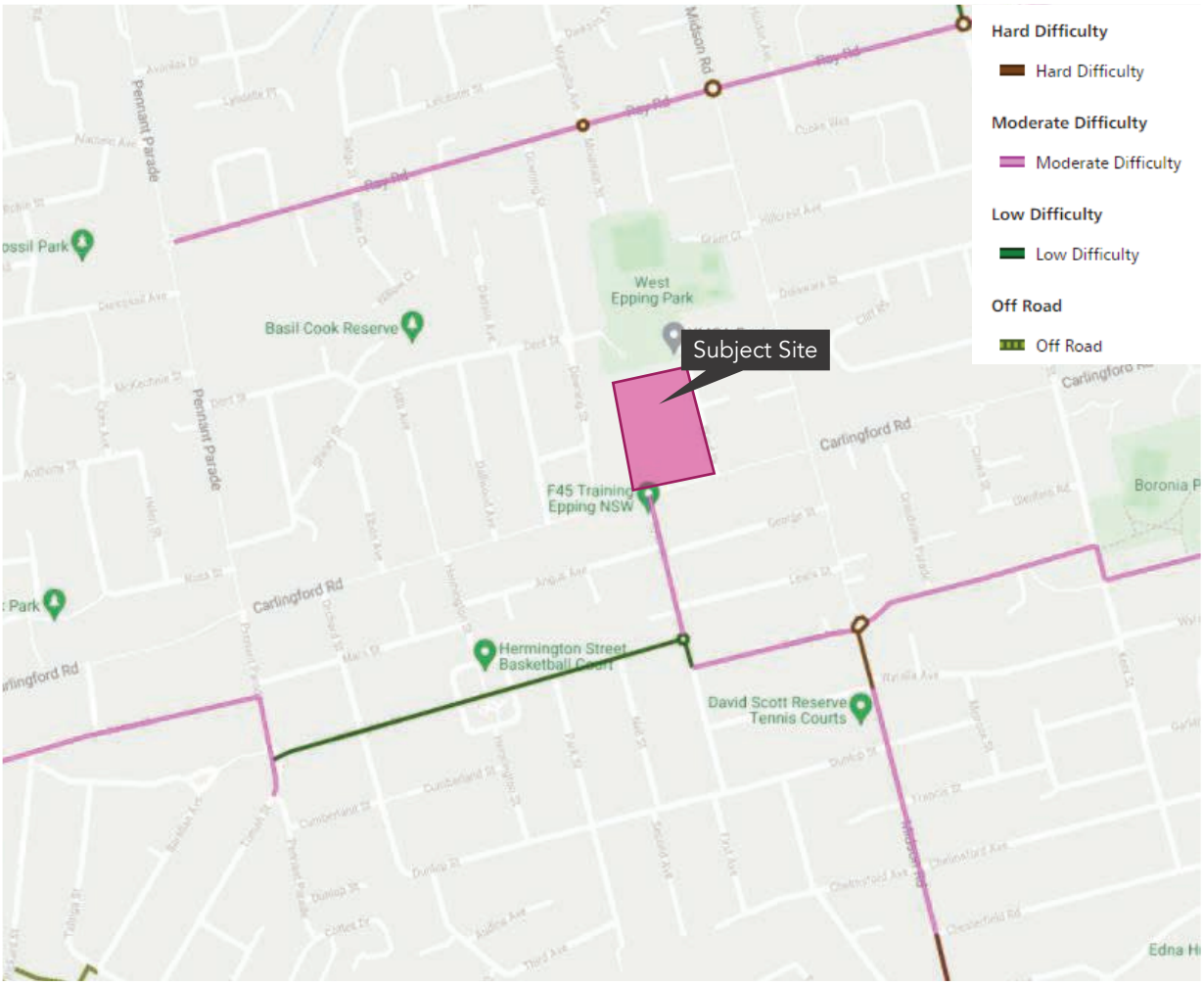


Figure 9: Cycling Infrastructure (Source: RMS Cycleway Finder)

4 Traffic Management Plan

4.1 Traffic Management Planning Process

Temporary Traffic Management (TTM) for the project has been planned in accordance with Transport for NSW, *Traffic control at work sites – Technical Manual, Issue No.6.0,* 14 September 2020 (TCAWS). The process is shown in Figure 10.

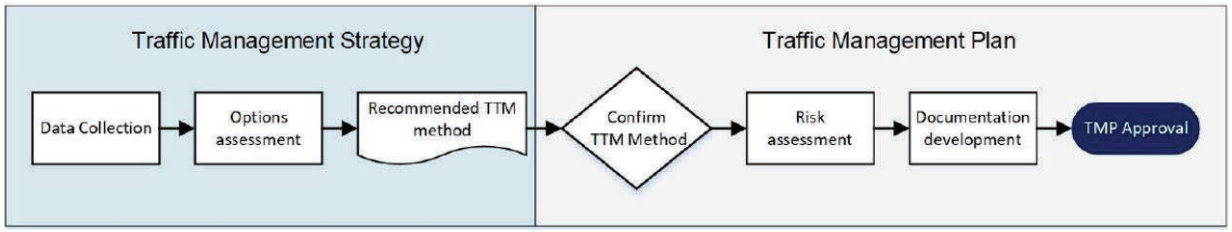


Figure 10: Traffic Management Plan process

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.

4.2 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 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 contains vegetation, existing signage and infrastructure that may obstruct signs and devices needed for certain strategies.

Work area

The area needed to safely perform the work does justify the full closure of sections of road.

Vulnerable road users

Desire lines of pedestrians, cyclists, motorcyclists and users of scooters do not impact on works or create undesired interaction between these road users and traffic

Community facilities and needs

The presence of YMCA Epping and Carlingford Road bus stops in the vicinity of the site does not create conflict with the work.

4.3 Decision of TTM Method

After considering the factors in Section 4.2, 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.

4.4 Hours of Work

All works associated with the project will be restricted to typical working hours (or stipulated by the conditions of the SSD Consent):

- Monday to Friday 7:00am to 6:00pm;
- Saturday 8:00am to 1:00pm; and
- Sunday and Public Holidays No works to be undertaken without prior approval.

Construction works are not anticipated outside of oversized vehicles for module delivery and residents will be notified of potential disruptions.

No construction or road occupancies will impede the operation of the school drop off and pick up zone.

4.5 General Requirements

In accordance with TfNSW requirements, all vehicles transporting loose materials will have the entire load covered and/or secured to prevent any items, excess dust or dirt particles depositing onto the roadway during travel to and from the site. All subcontractors shall undergo induction by the lead contractor to ensure all 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 undertake all necessary steps to rectify any road deposits caused by the construction activity.

Vehicles operating to, from and within the site shall do so in a manner that does not create unreasonable or unnecessary noise or vibration. No tracked vehicles are required nor permitted on any paved roads. Public roads and access points will not be obstructed by any materials, vehicles, refuse skips or the like, under any circumstances.

The applicant/contractor is required to follow and abide the specific standard requirements for construction management.

4.6 Construction Program

The construction is anticipated to commence in September 2021 and be completed in December 2022.

4.7 Construction Vehicle Volumes

The largest construction vehicle accessing the Site and the Works Zone will be a 20 metre Articulated Vehicle. Refer to Drawing # 01T-0103 & 01T-0104 in Appendix A for swept paths of each type of vehicle accessing the site. Table 5 below outlines the anticipated vehicle volumes per day for each stage of works.

Table 5: Construction Vehicle Demand

Stage	Vehicle Type	Vehicle Volume
Early works (i.e. demolition)	HRV	5 trips per day
Earthworks	MRV – HRV	20 trips per day
Concrete Pouring	MRV	10 trips per day
Reinforcement deliveries	Truck & dog / AV	1 trip per week
Other deliveries / telehandlers	Tipper truck & telehandler	1 trip per day

Construction vehicles are to avoid travelling to and from the site during the morning and afternoon pick up and drop off times, where possible. If access is required during these times, traffic controllers will manage any potential conflicts between vehicular and pedestrian movements (see TGS in Appendix E).

4.8 Construction Vehicle Routes

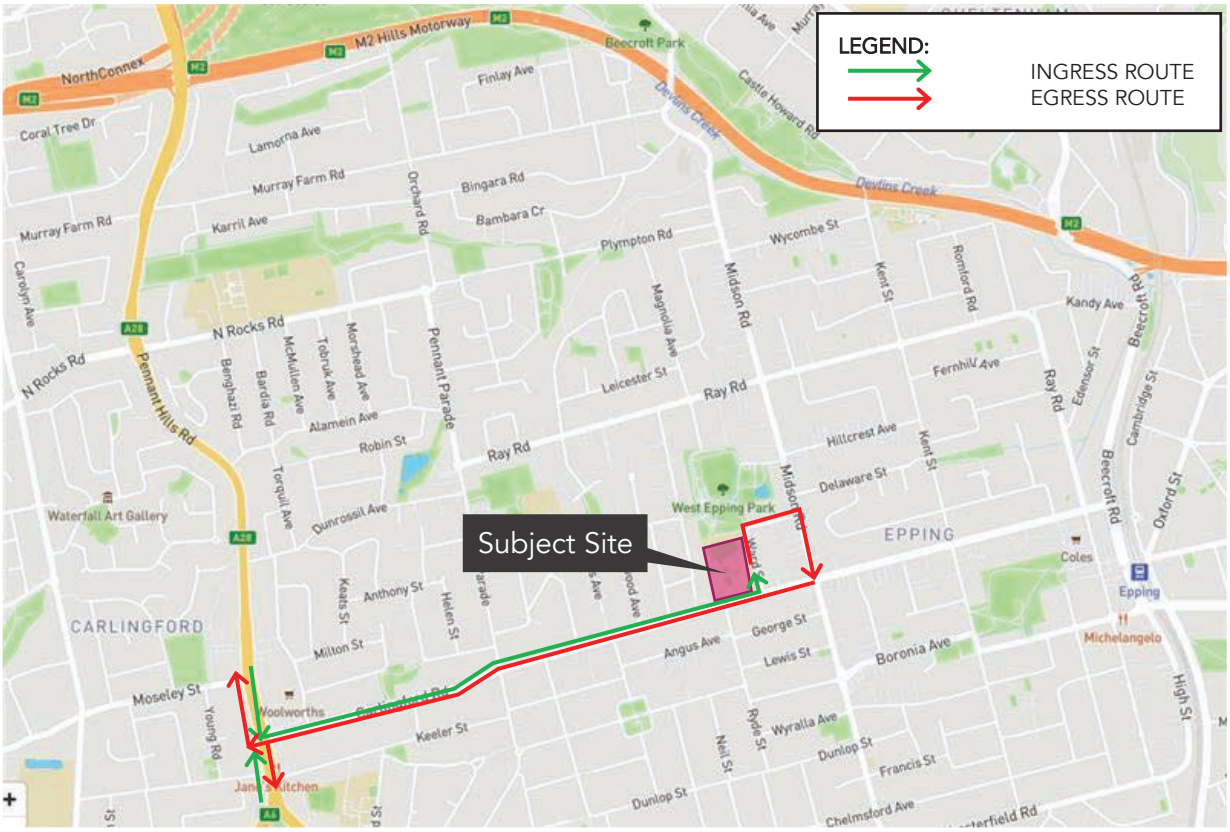


Figure 11: Construction Vehicle Ingress & Egress Routes

- Ingress route: accommodates vehicles up to/equivalent to a 20-metre Articulated Vehicle accessing a Works Zone along the western side of Ward Street
- Egress route: accommodates vehicles up to/equivalent to a 20-metre Articulated Vehicle egressing the Works Zone along the western side of Ward Street.

4.9 Access and Egress from Site

A swept path assessment has been undertaken using a 20m articulated vehicle as the largest anticipated vehicle accessing the Site. The assessment indicates that turning manoeuvres from Carlingford Road onto Ward Street will require the use of multi-lanes, which is permissible as per the *Road Rules 2014 – NSW Legislation Regulation 28*. Therefore, the assessment indicates that the existing public roadways are able to accommodate the turning manoeuvres of the construction vehicles.

Access to and from the site is to occur outside of the school drop off and pick up times, where possible. If access is required during these times, traffic controllers will manage any potential conflicts between vehicular and pedestrian movements (see TGS in Appendix E).

Access to and from the site will be managed so that no vehicles queuing will not occur on Ward St or Carlingford Road. Appropriate amount of traffic controllers will be required if sight distance is restricted around the site.

4.9.1 Road Rules 2014 – NSW Legislation Regulation 28

The following has been extracted from the road rules which allows for the use of multi-lanes to perform a left turn manoeuvre for the proposed heavy vehicles.

A driver may approach and enter the intersection from the marked lane next to the left lane as well, or instead of, the left lane if:

(a) the driver's vehicle, together with any load or projection, is 7.5 metres long, or longer, and

(b) the vehicle displays a do not overtake turning vehicle sign, and

(c) any part of the vehicle is within 50 metres of the nearest point of the intersection, and

(d) it is not practicable for the driver to turn left from within the left lane, and

(e) the driver can safely occupy the next marked lane and can safely turn left at the intersection by occupying the next marked lane, or both lanes.

The construction vehicles that require the use of multi-lanes all exceed 7.5m in length and also meets all other requirements stipulated in the regulation. Therefore, the swept path assessment has been undertaken utilising multi-lanes to perform turning manoeuvres when necessary.

4.9.2 Restricted Access Vehicle (RAV) Routes

The construction vehicles will access/egress the site via Pennant Hills Road or Beecroft Road and Carlingford Road. It is noted that these roads are approved routes with restrictions for heavy vehicle access by vehicles up to 25/26m B-Doubles, as shown in Figure 12.

However, roads with restrictions which will need to be adhered to and approved by the National Heavy Vehicle Regulator (NHVR). The Principal Controller is to ensure that all construction vehicles travelling to/from the site are to seek approval from NHVR prior to commencement of works.

Figure 12: Restricted Access Vehicle Interactive Map (Source: TfNSW Roads & Waterways)

4.10 Crane Arrangements

Modules for modular building elements are proposed to enter Ward Street overnight under the NHVR permit requirements. Clear access for residents, emergency vehicles and exiting trucks are to be maintained at all times.

Figure 13: Indicative diagram of Stage 1 Modules on Ward Street (Source: Modscape; Detailed Design Buildability Workshop)

Refer to Modscape documentation for further information on modular elements involving crane & truck deliveries, and TGS prepared for traffic management.

4.11 Works Zone / Road Occupancy

The development proposes a temporary road closure of Ward Street & Lilli Pilli Street, only maintaining resident access at these times. Temporary loss of on-street parking at the bend of Ward Street and Lilli Pilli Street is required to facilitate construction vehicle egress.

The lead contractor is to submit to Council, any relevant Works Zones and/or Road Occupancy applications.

Refer to Modscape documentation for further traffic management measures (i.e. TGS).

4.12 Pedestrian Access

Pedestrian access to and around the site is to be maintained at all times. Pedestrian gates at the Site will be controlled and restricted to approved personnel entry only.

The frontage along Ward Street is currently provided with a pedestrian footpath, where temporary fencing and management from a TfNSW accredited traffic controller will maintain pedestrian access at all times (refer to Drawing # 01T-0103 & 01T-0104 in Appendix A). The traffic controller will need to have special focus on school children movements due to the fact that the site is an operational school, particularly

around times of pickup and dropoff. If required, additional traffic controllers are to be utilised to ensure safe operation of the school and construction site during the high movement times.

4.13 Special Deliveries

Any oversized vehicles that are required to travel to the site will be dealt with separately, with the submission of relevant permits to and subsequent approval by the City of Parramatta Council prior to any delivery.

4.14 Construction Personnel Parking

There will be limited parking available on site for construction personnel due to site constraints. Contractors and construction workers are encouraged to carpool or utilise public transport within the site vicinity. Additionally, all site personnel are to be advised that they are not to park on-street in the vicinity of the development site and within 400 metres (5 minutes' walk) of the site as shown in Figure 8, previously presented in Section 3.3.

There is parking available on Dent Street to the north, however, there is no direct access back to site from that location without crossing school grounds. The methodology proposed for this construction works minimises the number of personnel and a maximum of 50 construction workers are estimated to be on site. The project team will negotiate with the school regarding onsite parking opportunities, particularly when reduced student capacity and school holidays are in place.

4.15 Work Site Security

The Site is to be secured by the use of appropriate hoarding / temporary steel fencing (specified in Australian Standards and WorkCover requirements) along the frontage of the Site on Ward Street for segregation and protection for pedestrians and the work area throughout the entire construction stage. The exact location is to be agreed prior to the commencement of the works.

All access points are to be securely locked when site activities are not in progress.

4.16 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 City of Parramatta 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 the evening/early morning period. All plant and equipment deliveries will be carried out in accordance with Council's requirements and the NSW Police regulations.

4.17 Spoil Management

Contaminated material will be checked, sorted and treated prior to the removal from the site. 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.

During the removal of asbestos material from the site, signs containing the words 'DANGER ASBESTOS REMOVAL IN PROGRESS' will be erected in prominent visible positions on the site. The signs will be in accordance with AS1319-1994 Safety signs for the occupational environment for size, illumination, location and maintenance.

All trucks removing spoil from the site will be loaded to prescribed weight limits and loose material will be covered during transport from the site. Loose material will be removed from all vehicles and/or machinery before leaving the site and entering the road system.

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.

4.18 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 procedure. Additionally, the lead contractor will discuss TMP requirements regularly as part of toolbox talks and advise workers of public transport and carpooling opportunities. There will be particular focus on the fact that the site is an operational school, and the requirements of all staff and subcontractors to adhere to Traffic Guidance Scheme requirements and the operation of the same – to ensure road safety and network efficiency.

4.19 Adjoining Properties

Access to all adjoining properties will be maintained throughout the works.

4.20 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.

4.21 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 RMS 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. Additionally, a minimum fourteen (14) days notification must be provided to adjoining property owners prior to the implementation of any temporary traffic control measures.

4.22 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 4.8, 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 the site shall operate under the direction of a TfNSW accredited traffic controller at all times, to minimise conflicts with other road users. Furthermore, construction traffic activity shall only occur within the permitted hours of work (see Section 4.4) to minimise road traffic noise.

This code of conduct will be advised to all drivers engaged on site at the staff induction, where 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 has been prepared as part of this CPTMP for distribution to truck drivers and operators, included as Appendix C.

4.23 Traffic Incident Management

In the event of an incident, the Project Manager is to be notified immediately.

During an emergency, construction personnel are to call the emergency number (000) before notifying the Project Manager.

Any incident that occurs within the public road shall be reported to Transport Management Centre (TMC).

4.24 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

To assess the transport risks associate with the construction work, a risk matrix has been prepared as shown in Table 6. The definitions of the risk matrix are as follows:

Likelihood (L)

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

Consequence (C)

- 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.

Risk Rating (R)

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

Table 6: Risk Matrix

		Consequence					
		Insignificant C6	Minor C5	Moderate C4	Major C3	Severe C2	Catastrophic C1
Likelihood	Almost unprecedented L6	L	L	L	L	M	M
	Very unlikely L5	L	L	L	M	M	H
	Unlikely L4	L	L	M	M	H	H
	Likely L3	L	M	M	H	H	VH
	Very likely L2	M	M	H	H	VH	VH
	Almost certain L1	M	H	H	VH	VH	VH

The risks of the construction activities and the proposed mitigation measures are provided in Table 7.

Table 7: Risks and Mitigations

Risk	L/C/R	Mitigation	L/C/R
Construction vehicles unexpectedly stopping/slowing down after turning off Carlingford Road and possibly being rear-ended by other motorists	L4/C4/M	Provide adequate signage to forewarn other motorists to the presence of large construction vehicles.	L5/C5/L
The partial road closure during the setup of Building S and Building T will reduce the capacities on Ward Street and limit accessibility for residents.	L1/C6/M	Provide appropriate signage prior to the setup of Building S and Building T to inform other motorists of changes in road conditions. Inform residents on what the works will involve and how the road network will be changed in advance so residents understand that Ward Street will be one way during the building setup.	L5/C6/L

4.25 Contact Details for On-Site Enquiries and Site Access

Justin Sut	Ross Cannavo
Project Manager	Site Manager
0408 507 855	0417 483 436

4.26 CPTMP Approval, Monitoring and Review

This CPTMP has been reviewed and endorsed by the designer's one-up manager who holds a current Prepare Works Zone Traffic Management Plan qualification. This approved CPTMP has been used to inform the development of all TGSs for the work.

Regular monitoring and review are to be conducted throughout the life of the project to ensure that the CPTMP remains current and addresses all risks at the work site for the duration of the project or activity.

To ensure that this CPTMP is kept up to date, the activities identified in Table 8 will be undertaken to facilitate review and continuous improvement

Table 8: Monitoring Activities

Stage	Activity	Purpose	Qualification	Tools and checklists
Planning	TGS verification	To ensure that the TGS selected or designed is suitable for the works and location.	ITCP or PWZTMP	TCAWS Appendix E.2 TGS verification checklist
During TTM	Weekly TTM inspections (includes preopening inspection)	To ensure that the CPTMP and relevant TGS are appropriate and operating safely, effectively and efficiently	PWZTMP	TCAWS Appendix E.3 Weekly TTM inspection checklist
	Shift TTM inspections	To ensure that the TGS is implemented as designed. This includes at a minimum, twice per shift and when: • A TGS is installed, changed or updated.	ITCP or PWZTMP	TCAWS Appendix E.4 Shift / Daily TTM inspection checklist

Stage	Activity	Purpose	Qualification	Tools and checklists
		• At regular frequency afterwork commences, recommended every 2hours; and • Once after care arrangements have been installed if required		
	CPTMP review	To ensure that CPTMP controls are achieving the required outcomes.	PWZTMP	Not provided
	Client inspections	Verification of TTM through the Transport Traffic Engineering Services, Work Health and Safety Branch, Surveillance Officers or other client representatives.	Divisionally determined	Not provided
Post Completion	Post-completion inspection	To ensure that the site has been demobilised as planned and is safe for opening to traffic	ITCP or PWZTMP	Appendix E.5 Post completion inspection checklist

All relevant changes must be considered and recorded in the CPTMP with any changes made by an appropriately qualified person. A copy of all documentation relating to the endorsement of the changes must be available to be accessed, either electronically or in hard copy, by the person responsible for the works.

5 TGS Confirmation and Approval

In the event a Traffic Guidance Scheme (TGS) is required, the lead contractor is to design and set out the TGS in accordance with Issue 6.0 of the Traffic control at work sites Technical Manual, November 2020 (TCAWS).

It is noted that any changes to the existing parking restrictions will require a minimum fourteen (14) days notification to adjoining property owners prior to the implementation of any temporary traffic control measures.

Any revisions or additional TGSs ones must be prepared by a PWZTMP qualified person upon engagement of the traffic management contractor and prior to commence of works on site.

5.1 TGS Verification

TCAWS TGS D.4.7 is to be approved as being appropriate for use at the work site. Site confirmation must be undertaken via the completion of the TGS verification.

A TGS verification must be undertaken to confirm the selected or designed TGS is fit for purpose. A TGS verification must be completed in accordance with Section 8.1.2 TGS verification by an ITCP or PWZTMP qualified person. TGS verification must include an inspection of the work site where the TGS will be implemented.

5.2 TGS Approval

The PWZTMP qualified person who has designed or modified the relevant TGS has approved the TGS for use. Approval of the TGS includes:

- Review of the relevant TMP, risk assessment and associated TTM specific documentation;
- Design, redesign or modification of the TGS must be in accordance with the requirements of TCAWS;
- Confirmation that the TGS provides the relevant information for the ITCP person to safely implement on-site.

The one up manager of the PWZTMP qualified person has approved the TGS, including:

- Any non-standard or unaccepted signs or devices;
- Any departures from the requirements of TCAWS;
- If a manual traffic controller is proposed for use.

6 Summary

This CPTMP has been prepared for the construction activities associated with the redevelopment work at Epping West Public School located at 96-104 Carlingford Road, Epping. This report outlines the traffic process associated with the construction work, as well as the traffic management measures to improve and regulate the safety of pedestrians, cyclists, motorists, and works in the site vicinity.

It is envisaged that this document will be continually reviewed and amended if required, in the event of changes to design, the surrounding road network, or additional requirements of Council, TfNSW, or any other relevant authority.

Appendix A Swept Path Assessment

LEGEND:

INGRESS ROUTE

EGRESS ROUTE

NOTES:

1. INGRESS ROUTE - VEHICLE LENGTH UP TO A 19m ARTICULATED VEHICLE / EQUIVALENT, ENTERING WORKS ZONE / SITE (WITH A TfNSW ACCREDITED TRAFFIC CONTROLLER)
2. INGRESS ROUTE - VEHICLE LENGTH UP TO A 12.5m HEAVY RIGID VEHICLES / EQUIVALENT, ENTERING WORKS ZONE / SITE
3. EGRESS ROUTE - VEHICLE LENGTH UP TO A 19m ARTICULATED VEHICLES / EQUIVALENT, EXITING WORKS ZONE/SITE (WITH A TfNSW ACCREDITED TRAFFIC CONTROLLER)
4. EGRESS ROUTE - VEHICLE LENGTH UP TO A 8.8m MEDIUM RIGID VEHICLE / EQUIVALENT, EXITING WORKS ZONE / SITE

DRAWING KEY

REV	DATE	DESCRIPTION	DRAWN	REVIEWED
P3	07/09/21	FOR CONSULTATION	SC	DS
P2	03/09/21	FOR INFORMATION	SC	DS
P1	23/08/21	FOR INFORMATION	SC	DS

PROJECT

EPPING WEST PUBLIC SCHOOL

DRAWING TITLE

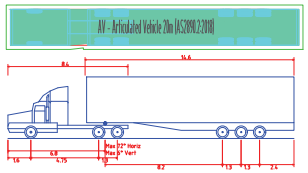
CONSTRUCTION TRAFFIC ROUTES OVERVIEW

ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
t +61 2 8920 0800
ptcconsultants.co

CLIENT	HANSEN YUNCKEN
DRAWING #	01T-0001
PROJECT #	3166
SCALE	1 : 4000 @ A1 1 : 8000 @ A3

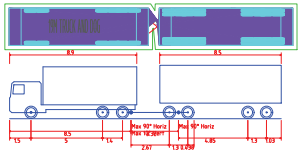
PRELIMINARY

REV P3



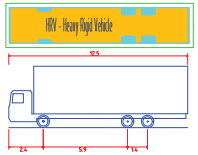
AV - Articulated Vehicle 20m (AS2890.2:2018)

Overall Length	20.000m
Overall Width	2.500m
Overall Body Height	4.301m
Min Body Ground Clearance	0.418m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m



19M TRUCK AND DOG

Overall Length	19.000m
Overall Width	2.600m
Overall Body Height	3.738m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock-to-lock time	4.00s
Wall to Wall Turning Radius	12.000m



HRV - Heavy Rigid Vehicle

Overall Length	12.500m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

DRAWING KEY

REV	DATE	DESCRIPTION	DRAWN	REVIEWED
P3	07/09/21	FOR CONSULTATION	SC	DS
P2	03/09/21	FOR INFORMATION	SC	DS
P1	23/08/21	FOR INFORMATION	SC	DS

PROJECT

EPPING WEST PUBLIC SCHOOL

DRAWING TITLE

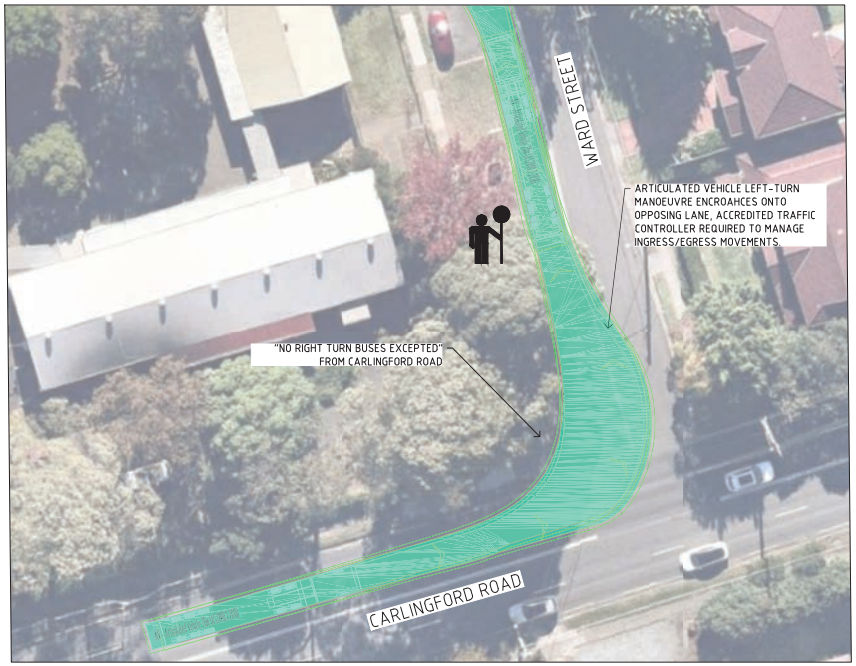
INGRESS ROUTE - PENNANT HILLS ROAD / CARLINGFORD ROAD

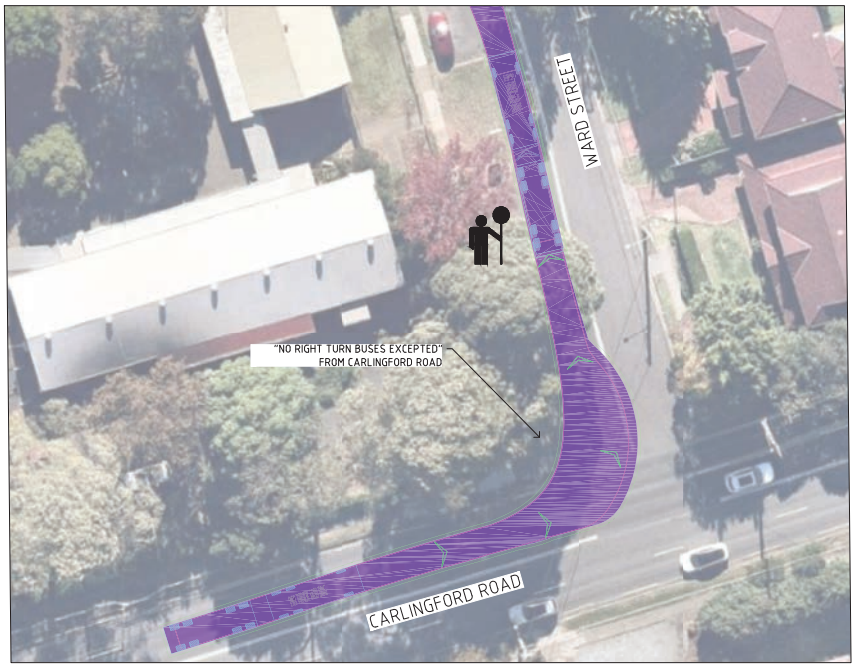
ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
t +61 2 8920 0800
ptcconsultants.co

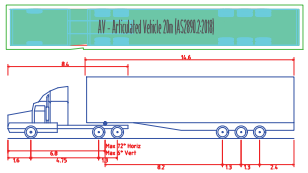
CLIENT	HANSEN YUNCKEN
DRAWING #	01T-0101
PROJECT #	3166
SCALE	1 : 500 @ A1 1 : 1000 @ A3

PRELIMINARY

REV P3

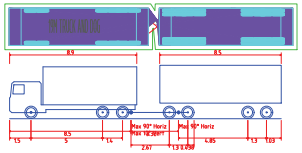






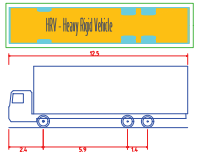
AV - Articulated Vehicle 20m (AS2890.2:2018)

Overall Length	20.000m
Overall Width	2.500m
Overall Body Height	4.301m
Min Body Ground Clearance	0.418m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m



19M TRUCK AND DOG

Overall Length	19.000m
Overall Width	2.600m
Overall Body Height	3.738m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock-to-lock time	4.00s
Wall to Wall Turning Radius	12.000m



HRV - Heavy Rigid Vehicle

Overall Length	12.500m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

DRAWING KEY

REV	DATE	DESCRIPTION	DRAWN	REVIEWED
P3	07/09/21	FOR CONSULTATION	SC	DS
P2	03/09/21	FOR INFORMATION	SC	DS
P1	23/08/21	FOR INFORMATION	SC	DS

PROJECT

EPPING WEST PUBLIC SCHOOL

DRAWING TITLE

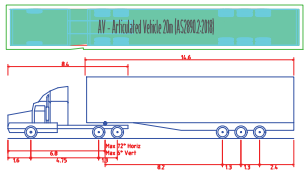
INGRESS ROUTE - CARLINGFORD ROAD / WARD STREET

ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
t +61 2 8920 0800
ptcconsultants.co

CLIENT	HANSEN YUNCKEN
DRAWING #	01T-0102
PROJECT #	3166
SCALE	1 : 250 @ A1 1 : 500 @ A3

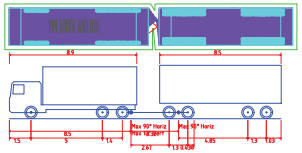
PRELIMINARY

REV P3



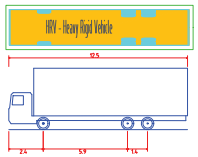
AV - Articulated Vehicle 20m (AS2890.2:2018)

Overall Length	20.000m
Overall Width	2.500m
Overall Body Height	4.301m
Min Body Ground Clearance	0.418m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m



19M TRUCK AND DOG

Overall Length	19.000m
Overall Width	2.600m
Overall Body Height	3.738m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock-to-lock time	4.00s
Wall to Wall Turning Radius	12.000m



HRV - Heavy Rigid Vehicle

Overall Length	12.500m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

DRAWING KEY

REV	DATE	DESCRIPTION	DRAWN	REVIEWED
P3	07/09/21	FOR CONSULTATION	SC	DS
P2	03/09/21	FOR INFORMATION	SC	DS
P1	23/08/21	FOR INFORMATION	SC	DS

PROJECT

EPPING WEST PUBLIC SCHOOL

DRAWING TITLE

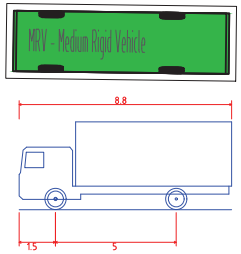
INGRESS/EGRESS ROUTE - WARD STREET (WORKS ZONE)

ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
t +61 2 8920 0800
ptcconsultants.co

CLIENT	HANSEN YUNCKEN
DRAWING #	01T-0103
PROJECT #	3166
SCALE	1 : 500 @ A1 1 : 1000 @ A3

PRELIMINARY

REV P3



MRV – Medium Rigid Vehicle	
Overall Length	8.800m
Overall Width	2.500m
Overall Body Height	3.633m
Min Body Ground Clearance	0.428m
Track Width	2.500m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10.000m

DRAWING KEY

REV	DATE	DESCRIPTION	DRAWN	REVIEWED
P3	07/09/21	FOR CONSULTATION	SC	DS
P2	03/09/21	FOR INFORMATION	SC	DS
P1	01/09/21	FOR INFORMATION	SC	DS

PROJECT
EPPING WEST PUBLIC SCHOOL

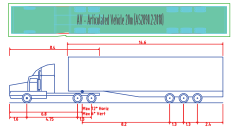
DRAWING TITLE
INGRESS/EGRESS ROUTE - WARD STREET (SITE ACCESS)

ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
t +61 2 8920 0800
ptcconsultants.co

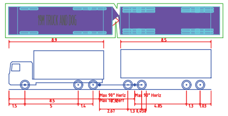
CLIENT	HANSEN YUNCKEN
DRAWING #	01T-0104
PROJECT #	3166
SCALE	1 : 500 @ A1 1 : 1000 @ A3

PRELIMINARY

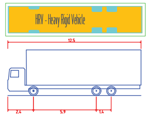
REV P3



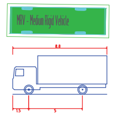
AV - Articulated Vehicle 20m (AS2890.2:2018)	
Overall Length	20.000m
Overall Width	2.500m
Overall Body Height	4.301m
Min Body Ground Clearance	0.418m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m



19M TRUCK AND DOG	
Overall Length	19.000m
Overall Width	2.600m
Overall Body Height	3.738m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock-to-lock time	4.00s
Wall to Wall Turning Radius	12.000m



HRV - Heavy Rigid Vehicle	
Overall Length	12.500m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m



MRV - Medium Rigid Vehicle	
Overall Length	8.800m
Overall Width	2.500m
Overall Body Height	3.633m
Min Body Ground Clearance	0.428m
Track Width	2.500m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	10.000m

DRAWING KEY

REV	DATE	DESCRIPTION	DRAWN	REVIEWED
P3	07/09/21	FOR CONSULTATION	SC	DS
P2	03/09/21	FOR INFORMATION	SC	DS
P1	23/08/21	FOR INFORMATION	SC	DS

PROJECT
EPPING WEST PUBLIC SCHOOL

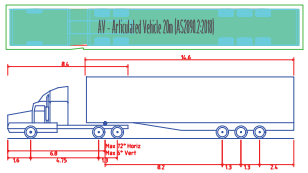
DRAWING TITLE
EGRESS ROUTE - WARD STREET / LILLI PILLI STREET

ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
t +61 2 8920 0800
ptcconsultants.co

CLIENT	HANSEN YUNCKEN
DRAWING #	01T-0111
PROJECT #	3166
SCALE	1 : 500 @ A1 1 : 1000 @ A3

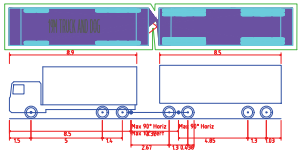
PRELIMINARY

REV P3



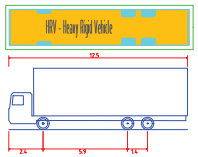
AV - Articulated Vehicle 20m (AS2890.2:2018)

Overall Length	20.000m
Overall Width	2.500m
Overall Body Height	4.301m
Min Body Ground Clearance	0.418m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m



19M TRUCK AND DOG

Overall Length	19.000m
Overall Width	2.600m
Overall Body Height	3.738m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock-to-lock time	4.00s
Wall to Wall Turning Radius	12.000m



HRV - Heavy Rigid Vehicle

Overall Length	12.500m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

DRAWING KEY

REV	DATE	DESCRIPTION	DRAWN	REVIEWED
P3	07/09/21	FOR CONSULTATION	SC	DS
P2	03/09/21	FOR INFORMATION	SC	DS
P1	23/08/21	FOR INFORMATION	SC	DS

PROJECT

EPPING WEST PUBLIC SCHOOL

DRAWING TITLE

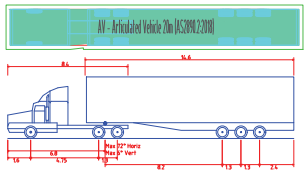
EGRESS ROUTE - LILLI PILLI STREET / MIDSON ROAD

ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
t +61 2 8920 0800
ptcconsultants.co

CLIENT	HANSEN YUNCKEN
DRAWING #	01T-0112
PROJECT #	3166
SCALE	1 : 500 @ A1 1 : 1000 @ A3

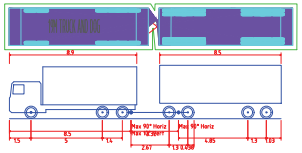
PRELIMINARY

REV P3



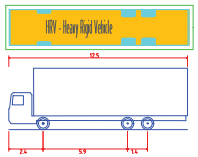
AV - Articulated Vehicle 20m (AS2890.2:2018)

Overall Length	20.000m
Overall Width	2.500m
Overall Body Height	4.301m
Min Body Ground Clearance	0.418m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m



19M TRUCK AND DOG

Overall Length	19.000m
Overall Width	2.600m
Overall Body Height	3.738m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock-to-lock time	4.00s
Wall to Wall Turning Radius	12.000m



HRV - Heavy Rigid Vehicle

Overall Length	12.500m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

DRAWING KEY

REV	DATE	DESCRIPTION	DRAWN	REVIEWED
P3	07/09/21	FOR CONSULTATION	SC	DS
P2	03/09/21	FOR INFORMATION	SC	DS
P1	23/08/21	FOR INFORMATION	SC	DS

PROJECT
EPPING WEST PUBLIC SCHOOL

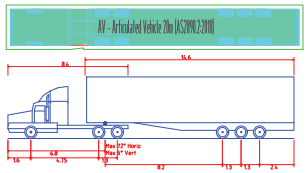
DRAWING TITLE
EGRESS ROUTE - MIDSON ROAD / CARLINGFORD ROAD

ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
t +61 2 8920 0800
ptcconsultants.co

CLIENT	HANSEN YUNCKEN
DRAWING #	01T-0113
PROJECT #	3166
SCALE	1 : 500 @ A1 1 : 1000 @ A3

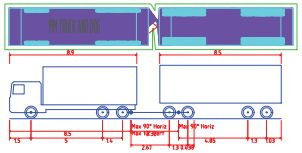
PRELIMINARY

REV P3



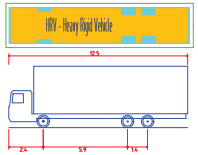
AV - Articulated Vehicle 20m (AS2890.2:2018)

Overall Length	20.000m
Overall Width	2.500m
Overall Body Height	4.301m
Min Body Ground Clearance	0.418m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m



19M TRUCK AND DOG

Overall Length	19.000m
Overall Width	2.600m
Overall Body Height	3.738m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock-to-lock time	4.00s
Wall to Wall Turning Radius	12.000m



HRV - Heavy Rigid Vehicle

Overall Length	12.500m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

DRAWING KEY

REV	DATE	DESCRIPTION	DRAWN	REVIEWED
P3	07/09/21	FOR CONSULTATION	SC	DS
P2	03/09/21	FOR INFORMATION	SC	DS
P1	23/08/21	FOR INFORMATION	SC	DS

PROJECT

EPPING WEST PUBLIC SCHOOL

DRAWING TITLE

EGRESS ROUTE - CARLINGFORD ROAD / PENNANT HILLS ROAD

ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
t +61 2 8920 0800
ptcconsultants.co

CLIENT	HANSEN YUNCKEN
DRAWING #	01T-0114
PROJECT #	3166
SCALE	1 : 500 @ A1 1 : 1000 @ A3

PRELIMINARY

REV P3

Appendix B Traffic Management Strategy – Data Collection (Mandatory)

Wednesday, September 15, 2021

Traffic management strategy - data collection (mandatory)

Project information and data collection

For the risk associated with Temporary Traffic Management to be effectively managed, it is important that the conditions and constraints associated with the works are understood. For this to be achieved, the client must collect the relevant data and information and transfer this to the delivery partner to ensure an informed TMP is developed.

Use this form to complete the Site information component of your traffic management strategy. Once you have entered all the necessary information to the form you will be able to download as pdf.

Please note - Data collected via this form will not be saved for future retrieval and cannot be edited at a later date. You will need to ensure you keep a copy for your own records.

Work related information

Project	Redevelopment of Epping West Public School
Current project phase	Pre-Construction
Activity/works	Demolition, alterations and refurbishment
Location	96-104 Carlingford Road, Epping
Start of works	Monday, September 20, 2021
End of works	Wednesday, November 30, 2022
Hours of operation	Day
Day - From: / To:	7:00 AM - 6:00 PM

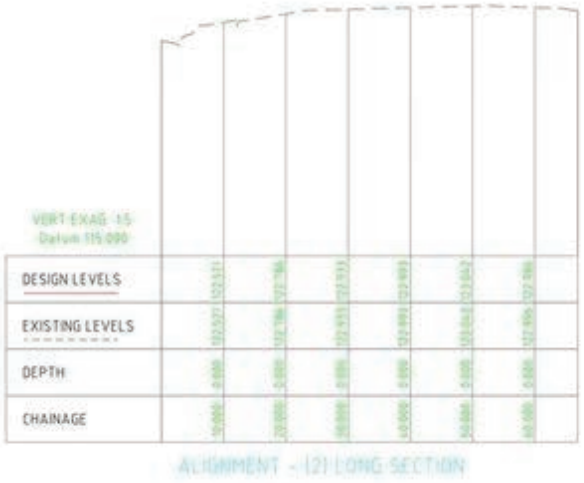
Site related information

Setting of works	Urban

Describe the unique cross-sectional features

The cross section of the site is relatively flat. The attached cross section shows the east-west cross section of the site. The cross section of the adjacent local road falls going north.

Attach a cross section of location of works



Attach a photo of location of works

Posted speed limit/s

Road name Ward Street **Limit** 50

Are intersections impacted by the project length? No

Traffic data

Traffic volumes - Average Daily Traffic (ADT): 3000

Traffic peak times AM 8:15 AM - 9:15 AM

Traffic peak times PM 3:00 PM - 4:00 PM

Traffic composition Heavy vehicles

% of Heavy vehicles: 1.1

Provide details:

The ADT and traffic composition are based on traffic survey volumes taken from the original SSDA. The

ADT was calculated based on the assumption that the peak hour traffic accounts for 10% of the average daily traffic

Vulnerable road users and other facilities

On-street parking | Transport facilities (bus stops) | Footways

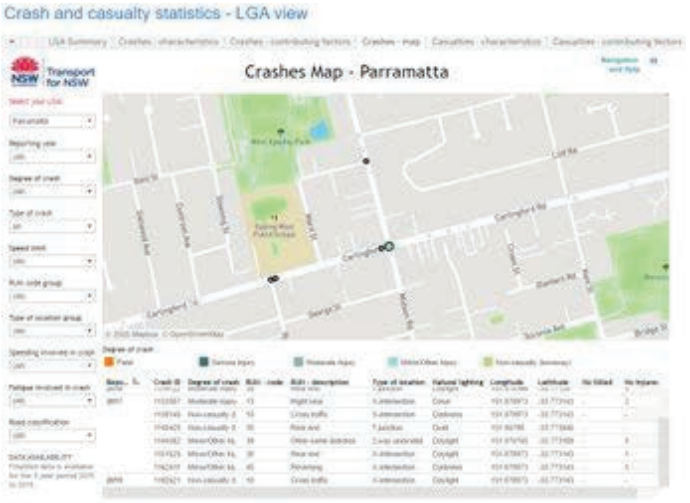
Provide further details:

The site is a primary school which will continue to be operational during the construction works. The footways and parking around the school will continue to be in use by students, parents and local residents for the majority of the construction works. During the set up for the building S and Building T a crane will need to be planted on Ward Street which will limit the parking available on Ward Street. This is to be a temporary measure for the duration of the building S and building T setup which may take approximately 1 and 2 weeks respectively. There are also bus stops located at the frontage of the site on Ward Street which are used by students.

Crash history at location

There have been 2 crashes in the last 5 years along on the Carlingford Road frontage of Epping West Public School. There has not been any crashes on Ward Street in the past 5 years.

Include any supporting documentation



Constraints

Significant traffic generators

Schools

Community facilities

Events

Schools

Specify location

96-104 Carlingford Road, Epping

Duration / time restrictions

8:00am - 4:00pm

Impacts

The works will take place within the school boundary. The construction personnel will require some parking spaces and also increase the traffic volumes along Ward Street.

Other

Road environment constraints

Construction activities are to be conducted within the site and not within the road reserve, except for public domain work associated with driveways and landscaping and the building set up works which will require the occupancy of Ward Street for the duration of the building set up to allow the planting of a crane.

Other

Completed by

Please enter your details below

First name	Aaron
Last name	Pau
Email address	aaron.pau@ptcconsultants.co
Role	Traffic Engineer
Organisation	ptc.
Division	Traffic Engineer
Date	Wednesday, September 15, 2021

Persons consulted

First name	Nazli
Last name	Tzannes
Email address	nazli.tzannes@transport.nsw.gov.au
Role	Senior Network & Safety Office
Organisation	Transport for New South Wales

Division	Network & Safety Services
Date	Wednesday, September 15, 2021
2. Add the details of another person who was consulted?	No

Delivery partner - provided to

Please enter their details below

First name	Justin
Last name	Sut
Email address	justinsut@hansenhuncken.com.au
Role	Project Manager
Organisation	Hansen Yuncken
Date	Wednesday, September 15, 2021
Send a copy of this form to the nominated delivery partner?	No

Please note - Data collected via this form will not be saved for future retrieval.
You must keep a copy for your records.

Personal Information Collection Notice

Our Privacy Statement explains why we are collecting your Personal Information and how we will use and manage it in accordance with the Privacy and Personal Information Act 1998, and, where relevant, the Health Records and Information Privacy Act 2002. You can obtain a copy of our Privacy Statement or call us on 13 22 13 to request a copy.

Post Approval – Consultation

Consultation needs to be meaningful, done with courtesy and respect and be well documented. These are people/ organisations that we need to be building meaningful relationships with.

Conditions of all consent can require consultation with a range of stakeholders. Consultation in the post approval world needs to be well documented to satisfy the condition requirements.

Examples include Council, service providers (eg. Electricity gas etc.), consult with local bus provider and TfNSW.

Read each condition carefully, any reference to consult triggers consultation.

Typically on State Significant Development, there will be a specific consultation condition as to how this piece can be appropriately addressed.

Consultation is not:

- A token gesture
- Done at the end of the piece of work,
- An email to the relevant stakeholder with no response;
- A meeting with the stakeholder with no meeting minutes.

Consultation is:

- Meaningful
- Done prior to the requirement,
- Captures an outcome,
- Identifies matters resolved,
- Identifies matters unresolved,
- Any disagreements are disclosed; and
- How we are going to address unresolved matters?

How to capture all the relevant details on consultation requirements? Any consultation requirement in a condition is required to be accompanied with the following table:

Post Approval Consultation Record

Identified Party to Consult:	City of Parramatta Council
Consultation type:	Transport Working Group (TWG) Meetings, email
When is consultation required?	Prior to the commencement of operation
Why	To discuss any relevant input from Council as required by Consolidated Conditions for SSDA 9250948 – Epping West Public School (Condition B13).
When was consultation scheduled/held	1 September 2021 7 September 2021
When was consultation held	1 September 2021 7 September 2021
Identify persons and positions who were involved	Stephen Naughton (stephen.naughton@ptcconsultants.co), Project Director, ptc. Shana Cai (shana.cai@ptcconsultants.co), Engineer, ptc. Behzad Saleh (bsaleh@cityofparramatta.nsw.gov.au) - Senior Traffic & Transport Engineer, City of Parramatta Council Nazli Tzannes (nazli.tzannes@transport.nsw.gov.au) -, Transport for NSW
Provide the details of the consultation	**1 September 2021** Transport Working Group meeting held via Teams. Council will review and comment on the strategies and targets proposed within the Green Travel Plan upon submission of the document. **7 September 2021** Council was invited by email to comment on the Construction Traffic and Pedestrian.
What specific matters were discussed?	The proposed Construction Traffic and Pedestrian Management Sub-Plan for Epping West School
What matters were resolved?	No response received yet
What matters are unresolved?	No response received yet

Any remaining points of disagreement?	N/A
How will SINSW address matters not resolved?	N/A

Appendix C Drivers Code of Conduct

Hours of Work

Monday to Friday	7:00am to 6:00pm
Saturday	8:00am to 1:00pm
Sunday and Public Holidays	No works to be undertaken without prior approval

Emergency Contact Numbers

Service NSW Transport Management Centre
131 700

Parramatta City Council
1300 617 058

Hansen Yuncken (Project Manager)
Justin Sut

0408 507 855

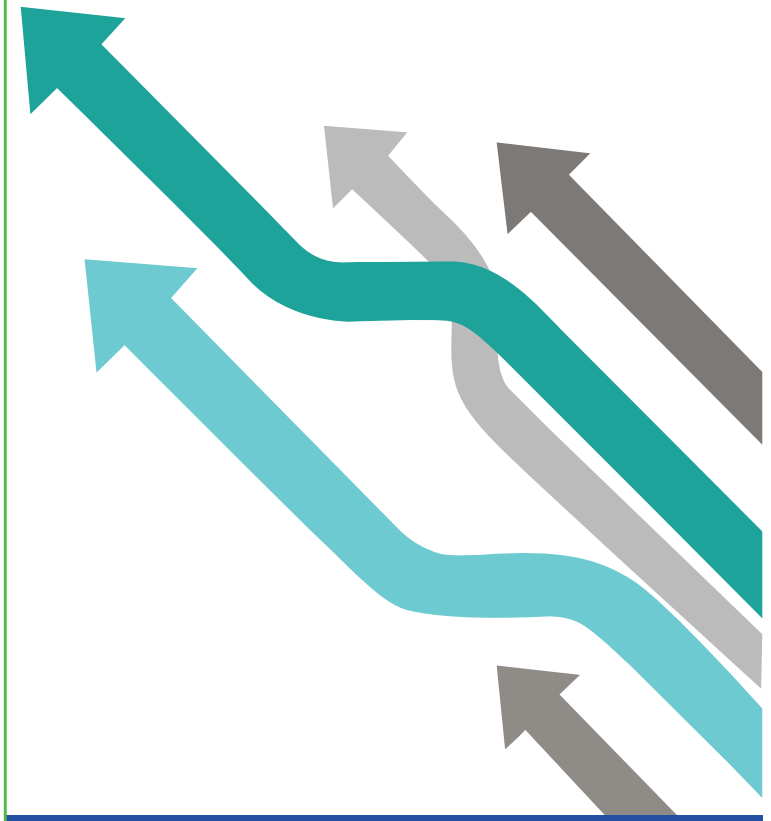
Hansen Yuncken (Site Manager)
Ross Cannavo

0417 483 436

All other Emergencies
000

HANSENYUNCKEN

NSW Department of Education
Epping West Public School



Driver Code of Conduct

This Driver Code of Conduct applies to all personnel and any other person conducting business for NSW Department of Education whether a direct employee of Hansen Yuncken or employed by another organisation providing service or working with Hansen Yuncken.

General Requirements

• As a driver you are required to know and comply with all the road rules pertaining to your vehicle;

• You are expected to hold a valid driver's licence for the class of the vehicle you are operating;

• Undertake a site induction carried out by an approved member of the construction staff or suitably qualified person;

• Participate in regular toolbox meetings with appropriate and qualified person; and

• You are to operate the vehicle in a safe manner within and outside the construction site and comply with the direction of authorised site personnel while inside the site.

Truck Routes

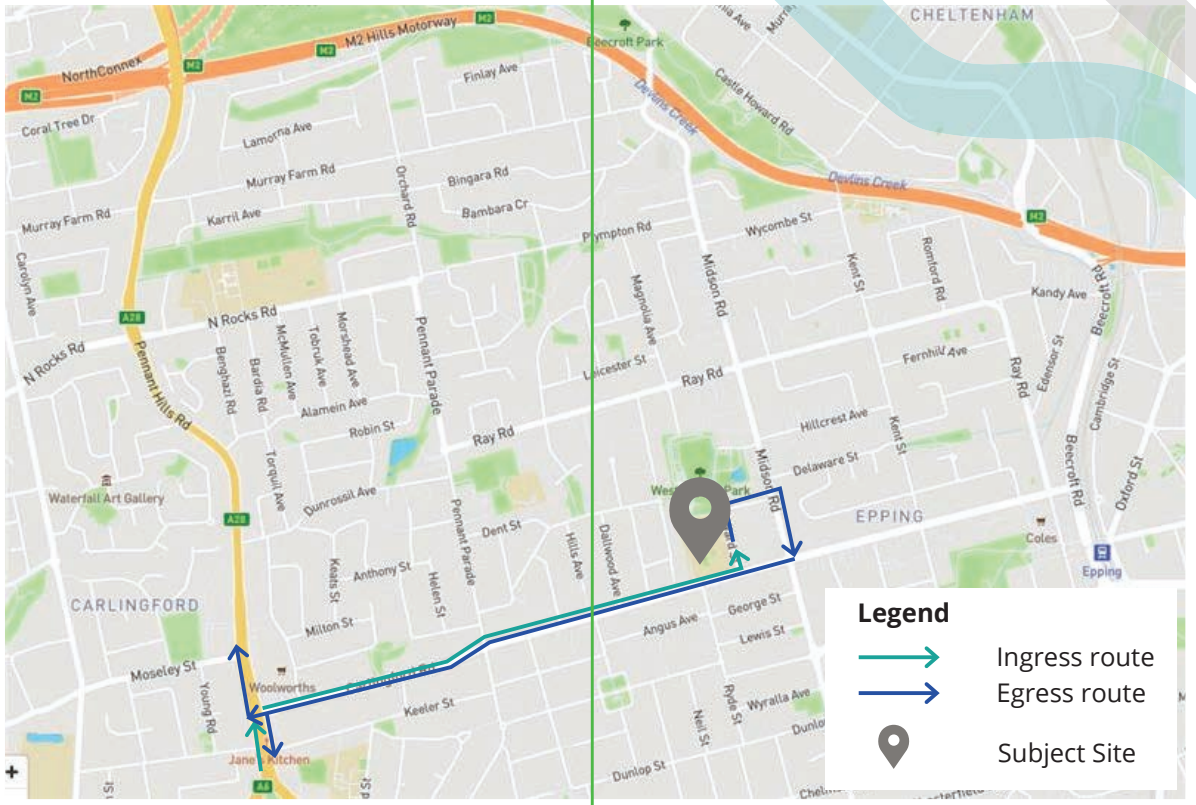
Heavy vehicle drivers are to carefully plan their routes so that state and regional roads are given priority for route selection, keeping in mind the certain restrictions during particular times of the day (i.e. approved Temporary Road Occupancy and/or Works Zone permit conditions).

Other Considerations

• Speed Limits – All heavy vehicle drivers are to observe the posted speed limits, within or outside of the construction site. Keep in mind that there are changes in traffic conditions and altered speed limits are posted on approach to the site;

• Driver Fatigue – Driver fatigue is a road safety hazard and one of the biggest causes of accidents especially for heavy vehicle drivers. All drivers have a duty to not drive a vehicle while impaired by fatigue.

• Covering Loads – RMS requires all load covers to secure and contain all materials within the vehicle and trailer;



Other Considerations

• Heavy Vehicle Interval – To increase road safety, heavy vehicles leaving the construction site should be separated, as far as practicable, a minimum of a 10-minute interval;

• Vehicle Breakdowns – In the case of a breakdown, the vehicle must be towed to the nearest breakdown point as soon as possible and reported to the Service NSW Transport Management Centre (131 700)

Appendix D Construction Worker Transportation Strategy

Construction Worker Transportation Strategy;

Epping West Public School

For Hansen Yuncken c/o Schools Infrastructure

16 September 2021

parking;
traffic;
civil design;
wayfinding;

ptc.

Document Control

Epping West Public School, Construction Worker Transportation Strategy

Issue	Date	Issue Details	Author	Reviewed	For the attention of
1	16/09/21	1st Issue	AP	DB	Justin Sut

Contact

Stephen Naughton
CPEng NER RPEQ
+61 2 8920 0800
stephen.naughton@ptcconsultants.co

Dan Budai
SafeWork NSW Card No. TCT0016805 (PWZ)
+61 2 8920 0800
+61 450 524 500
dan.budai@ptcconsultants.co

Aaron Pau
SafeWork NSW Card No. TCT0000267 (PWZ)
+61 2 8920 0800
+61 433 690 172
aaron.pau@ptcconsultants.co

ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
info@ptcconsultants.co
t + 61 2 8920 0800
ptcconsultants.co

Contents

1. Introduction

1.1 Project Summary

ptc. has been engaged by Hansen Yuncken to prepare a preliminary Construction Workers Management Strategy (CWMS) associated with the proposed redevelopment and construction of Epping West Public School, located at 96-104 Carlingford Road, Epping NSW 2121.

This CWMS is prepared to address the SSDA Condition B18, as outlined below:

Condition B18

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 works 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.

The location of the site is shown in Figure 1.

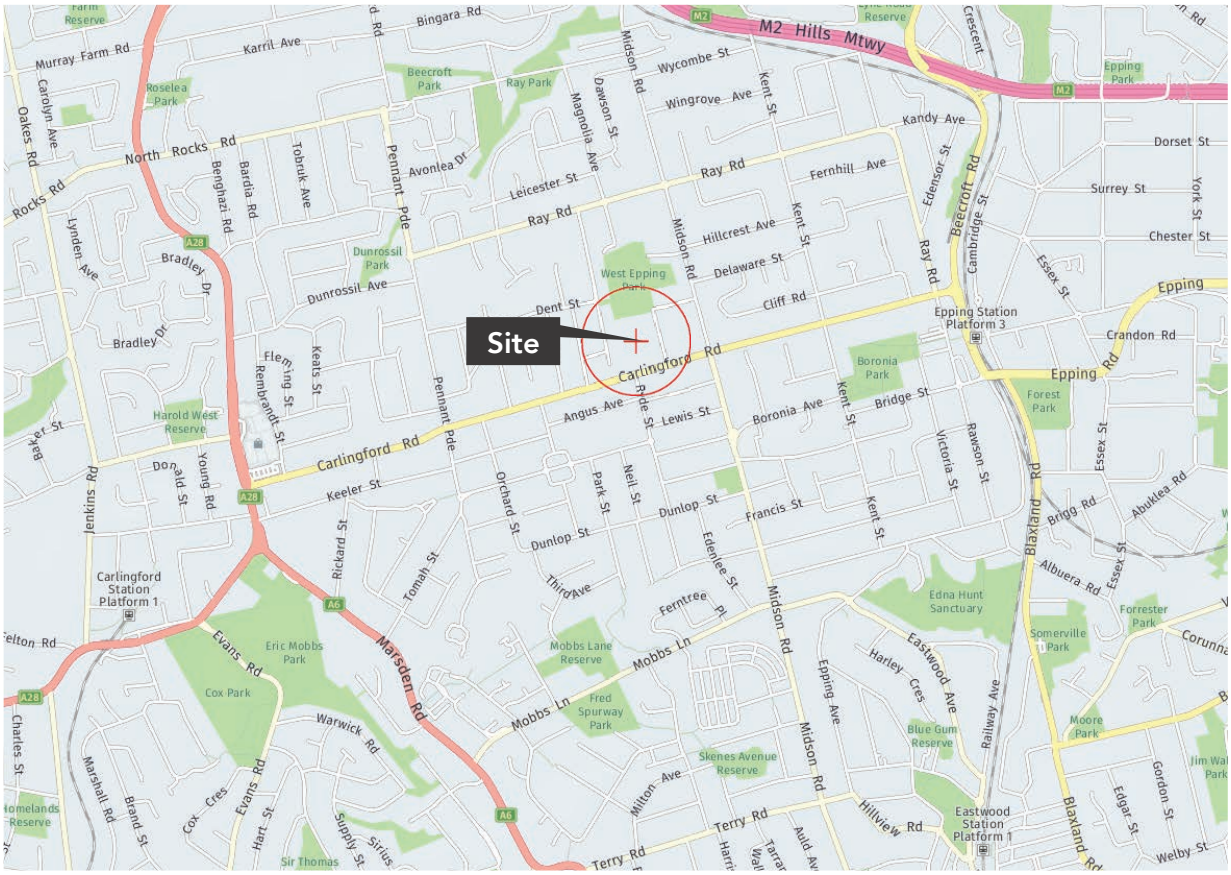


Figure 1 – Site Location (Source: HereWego Maps)

2. Background Information

2.1 Parking Facilities

Figure 2 shows nearby existing parking facilities within 1km radius – 2km radius catchments, where construction workers can transfer to connecting bus services to the construction site.

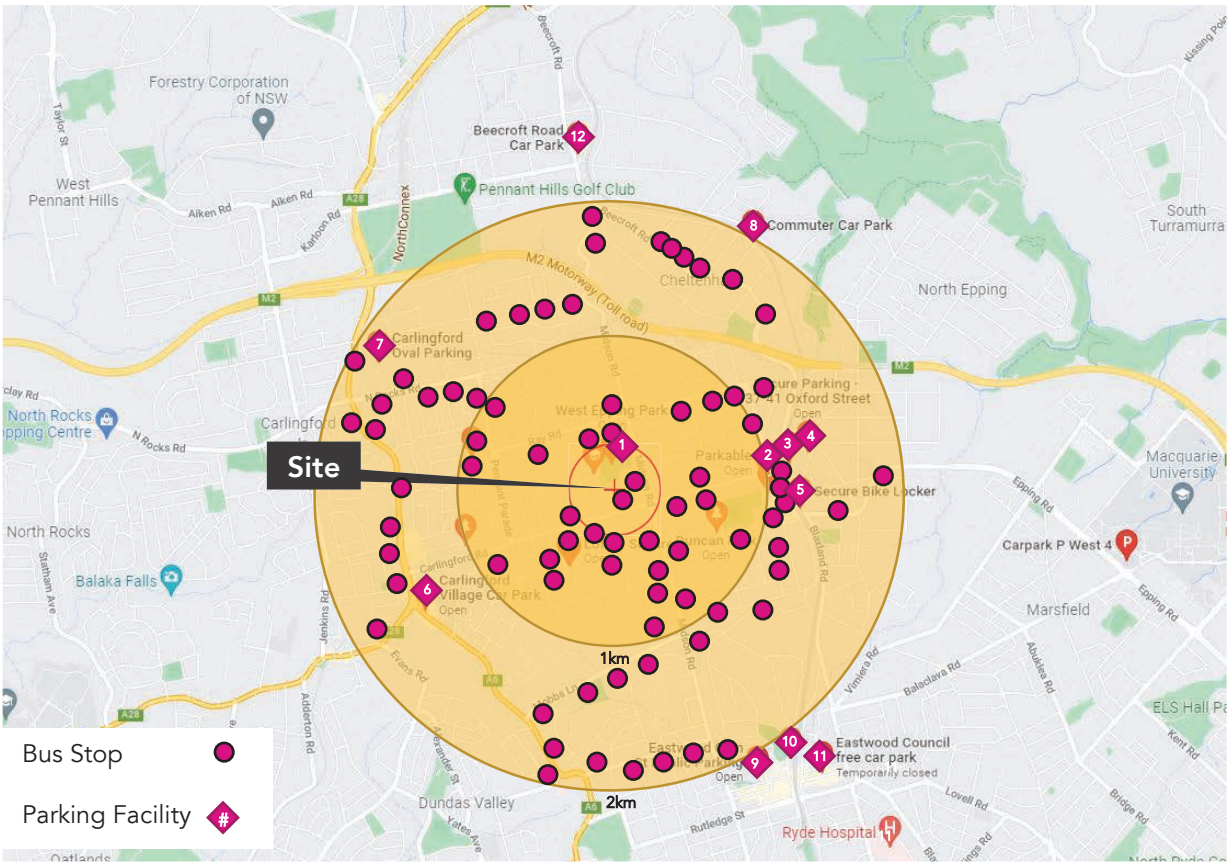


Figure 2 – Parking facilities surrounding the site within 800m – 2km radius catchments

With reference to the NSW Planning Guidelines for Walking and Cycling 2004, a catchment of up to 800m distance is considered a comfortable walking distance. For distances exceeding the 800m catchment (i.e. 1-2km radius illustrated above), public transport options in the vicinity will allow for travel mode changes (i.e. private vehicle to public transport) to access the construction site.

Table 1 below summarises the car parking facilities identified above and the opening hours and parking fees.

Table 1 – Summary of parking facilities in the vicinity of the site

Facility #	Catchment distance to Site	Description	Opening Hours	Parking Restrictions / Fees
1	Within 800m	West Epping Park	24 hours	Unrestricted off-street parking
2	Within 1km radius	Rawson Street Car Park	24 hours	2P Limit Per Day 9am – 5pm M-S
3	Within 2km radius	Epping Commuter On-Street Parking	24 hours	Free unrestricted on-street angled parking
4	Within 2km radius	Secure Parking – 37/41 Oxford St	24 hours	$6 flat rate all day parking
5	Within 2km radius	Secure Bike Locker	24 hours	$50 for 3 calendar months, $100 for 6 calendar months, $150 for 9 calendar months, $180 for 12 calendar months
6	Within 2km radius	Carlingford Village Car Park	24 hours	Customer only uncontrolled parking
7	Within 2km radius	Carlingford Oval Parking	24 hours	Unrestricted parking
8	Within 2km radius	Cheltenham Commuter On-Street Parking	24 hours	Free unrestricted on-street angled parking
9	Just outside 2km radius	Eastwood Glen St Public Parking	24 hours	3P Limit 8:45am – 6pm Mon – Sun, 6pm – 9pm Thursday
10	Just outside 2km radius	Eastwood Commuter Car Park	24 hours	Free unrestricted off-street parking
11	Just outside 2km radius	Eastwood Council Free Car Park (Temporarily closed due to Covid-19)	24 hours	2P Limit 8:45am – 6pm Mon – Sat, 6pm – 9pm Thursday
12	Just outside 2km radius	Beecroft Road Council Car Park	24 hours	Limited time free parking

2.2 Public Transport

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

The area of comfortable walking distance is shown in Figure 3.

Figure 3 - Public Transport Accessibility (Source: Nearmap)

2.2.1 Train Services

The nearest railway station to the subject site is Epping Train and Metro Station, which is approximately 1.6-km to the east. The services available within Epping Station are summarised below:

- T9 Northern Line – Hornsby to North Shore via City
- CCN Central Coast & Newcastle – Newcastle to Central via Strathfield or Gordon
- Metro North West Line – Chatswood to Tallawong

Although Epping Station is located outside of comfortable walking distance (400m – 800m) as suggested by the NSW Guidelines of Walking and Cycling (2004), transport mode change opportunities with bus services are available for commuters travelling by public transport to the site.

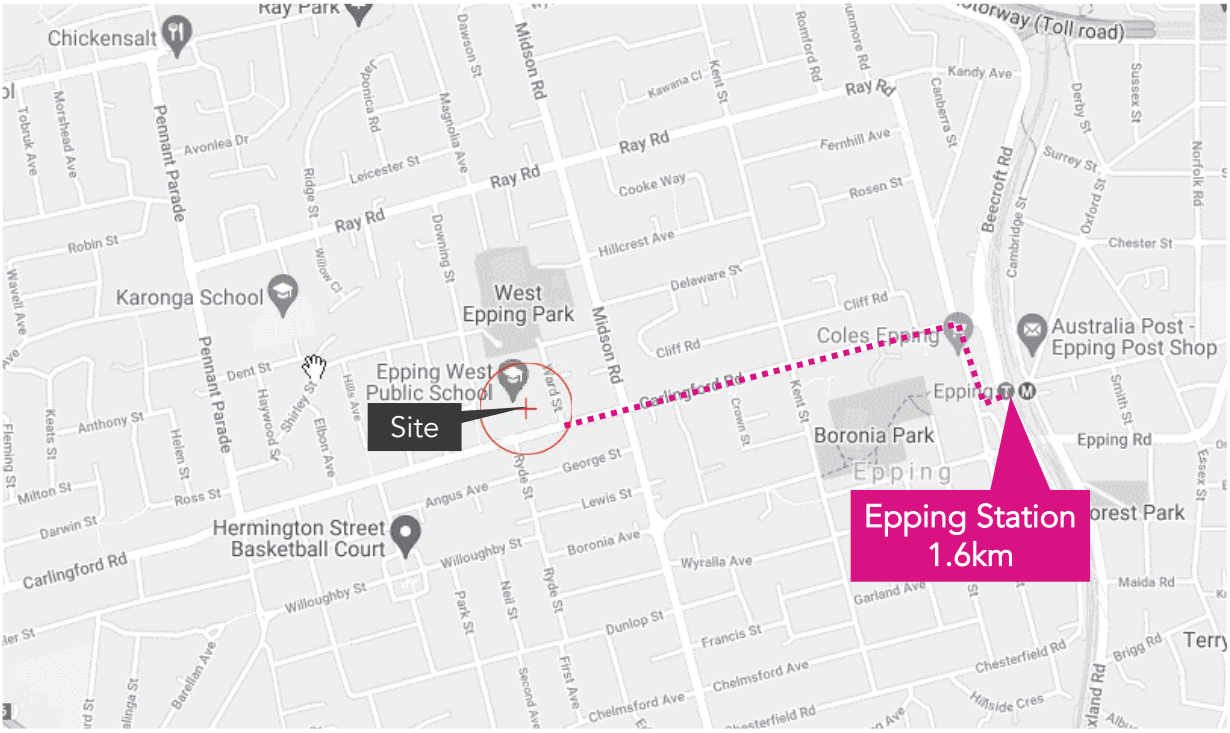


Figure 4 - Access to Epping Station

2.2.2 Bus Services

The subject site is well serviced with multiple bus stops within a comfortable walking distance. A summary of the available bus routes that service the site is shown in Table 2.

Table 2 - Bus Route Summary

Bus Route	Coverage (to and from)	Service Frequency
630	**Blacktown – Epping**	**Weekdays:** AM/PM peak – every 30 minutes Off Peak – every 1hr **Saturday:** No service available Sunday and public holidays: No service available
550	**Macquarie Park to Parramatta via Epping**	**Weekdays:** AM/PM peak – every 10 minutes Off Peak – every 20 minutes **Saturday:** Every 20 minutes **Sunday and public holidays:** Every 20 minutes
546	**Parramatta to Epping via Oatlands & North Rocks**	**Weekdays:** AM/PM peak – every 30 minutes Off Peak – every 1 hour **Saturday:** Every 1 hour **Sunday and public holidays:** Every 1 hour
549	**Parramatta to Epping via North Rocks**	**Weekdays:** AM/PM peak – every 15 minutes Off Peak – every 1 hour **Saturday:** Every 1 hour **Sunday and public holidays:** Every 1 hour
541	**Eastwood to Epping**	**Weekdays:** AM/PM peak – every 30 minutes Off Peak – every 1 hour **Saturday:** No service available **Sunday and public holidays:** No service available

2.2.3 Active Transport

It is noted that partial low and moderate difficulty on-road cycling infrastructure are currently available within the vicinity of the site as shown in Figure 5. However, given the location of the construction site, it is anticipated that users of the development will predominantly travel to/from the Site via private vehicles connecting to public or active transport modes.

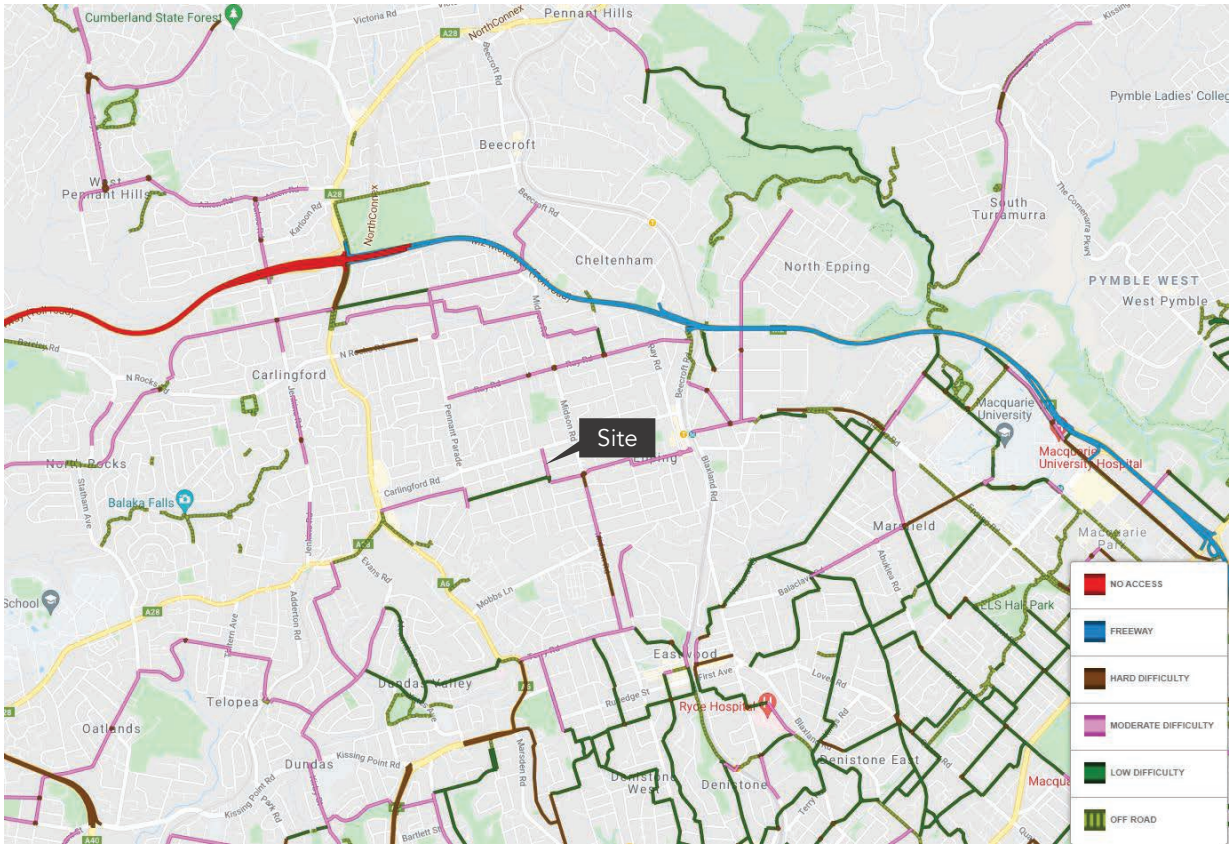


Figure 5 - Cycling Infrastructure (Source: RMS Cycleway Finder)

3. Construction Worker Transportation Strategy

3.1 Modes of Travel

A peak of approximately 50 workers is anticipated to work on site at any one time. The following summarises the transportation strategies for construction workers travelling to the site via different modes of travel.

3.1.1 Private Vehicle

It is anticipated that construction workers will most likely travel by private vehicle, which will serve as the predominant transportation mode in comparison to public transport (i.e. train or bus) or active transport (i.e. walking and cycling). Further, the current Covid-19 pandemic has also driven travel modes to skew toward private vehicle travel, comprising a higher percentage than a typical non-pandemic scenario.

Figure 2 and Table 1 presented in Section 2.1 summarises the available parking facilities within approximately 2km radius from the construction site. However, it is noted that only parking facilities no. 1, 3, 4, 7, 8 and 10 (see Table 3 below) will become parking options for construction workers due to free or low cost flat rate unrestricted parking.

Table 3 – Parking facility options for construction workers

Facility #	Location	Description	Opening Hours	Parking Restrictions / Fees
1	Within 800m	West Epping Park	24 hours	Unrestricted off-street parking
3	Within 2km radius	Epping Commuter On-Street Parking	24 hours	Free unrestricted on-street angled parking
4	Within 2km radius	Secure Parking – 37/41 Oxford St	24 hours	$6 flat rate all day parking
7	Within 2km radius	Carlingford Oval Parking	24 hours	Unrestricted parking
8	Within 2km radius	Cheltenham Commuter On-Street Parking	24 hours	Free unrestricted on-street angled parking
10	Just outside 2km radius	Eastwood Commuter Car Park	24 hours	Free unrestricted off-street parking

Parking facility 1 at West Epping Park is the closest off-street parking available for construction workers within comfortable walking distance. Though these parking spaces do not provide direct access to the site without crossing through the school, it is anticipated this is likely a suitable option due to decreased parking demand associated with West Epping Park due to the current Covid-19 pandemic.

Epping, Eastwood and Cheltenham Train Stations (parking facilities no. 3, 8 & 10) have all day free unrestricted commuter car parking that will likely be options for construction workers travelling to the

construction site to park in. Construction workers can then transfer to bus services to travel to the construction site.

As the anticipated number of construction workers are quite low, carpooling would also typically be encouraged (if considered acceptable and/or safe under advice from the Government, due to the current Covid-19 pandemic), where construction workers living within close proximity can consider.

3.1.2 Public Transport

As discussed in Section 2.2, Epping Station is the closest train station to the construction site, with various bus services also servicing the Site. Construction workers residing close to a train station are encouraged to travel to Epping Station and transfer to a connecting bus service to the Site.

Construction workers residing close to bus stops with bus services travelling to the vicinity of the site are also encouraged to travel to the site by public transport.

3.1.3 Active Transport

Secure Bike Lockers are available at Epping Train Station (parking facility no. 5), for cyclists to book and store bicycles at. Construction workers utilising this bicycle storage facility then can transfer to bus services to travel to the construction site.

Further, construction workers living within 400-800m radius to the construction site are encouraged to travel to the site by walking. Despite Epping Station being located approximately 1.6km away, walking to the site after alighting from a train service at Epping is also an option for construction workers to access the site.

3.2 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 procedure. Additionally, the lead contractor will discuss TMP requirements regularly as part of toolbox talks and advise workers of public transport and carpooling opportunities.

Parking along the site frontage (particularly Ward and Lilli Pilli Street) and within close proximity to the site is not permitted. Head contractor is to undertake measures to deter construction workers to do so (i.e. recording number plates and issuing warnings, as required). Daily checks are to be conducted by the head contractor to enforce these conditions to ensure they are adhered to, as a condition of working on the construction site.

Refer to the Construction Traffic and Pedestrian Management Plan (CTPMP) for more information and the Drivers Code of Conduct that will be issued to all staff at the site induction.

4. Summary

This Construction Workers Transportation Strategy has been prepared for the travel of construction workers to undertake redevelopment construction works located at 96-104 Carlingford Road, Epping. This report outlines the transportation strategies for construction workers, outlining available transportation modes available in the vicinity of the site for private car travel, public and active transport options.

It is anticipated that this strategy provides sufficient transportation options for construction workers to avoid private car travel to the construction site due to the insufficient parking availability on site.

Appendix E TGS

comments | A3

ptc.
Suite 502, 1 James Place
North Sydney NSW 2060
t +61 2 8920 0800
ptcconsultants.co

REV	DATE	COMMENT / DESCRIPTION	DRAWN	REVIEWED
1	16/09/21	FOR INFORMATION	AP	DB

PROJECT
EPPING WEST REDEVELOPMENT CTMP

DRAWING TITLE
Traffic Guidance Scheme (TGS) 1

CLIENT	HANSEN YUNCKEN
DRAWING #	PTC-001
PROJECT #	21-3166
SCALE	1 : 1000 @ A3

CONSTRUCTION
REV 1