

Construction Traffic Management Plan – Aerotropolis Station

SMWSASSM-PLD-AEC-TF-PLN-000001

Parklife Metro D&C

Version Control

Version	Author	Date	Comments	Reviewed by	Approved by
A	Wendy Zheng Traffic Manager	14/08/2023	First Issue	Discipline Leads	Jose Sanchez Project Director
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Glossary

Acronym	Description
AGRD	Austrroads Guide to Road Design
AGTM	Austrroads Guide to Traffic Management
AGTTM	Austrroads Guide to Temporary Traffic Management
Council	Liverpool Council
CTMF	Sydney Metro Construction Traffic Management Framework
CTMP	Construction Traffic Management Plan
DA	Development Application
DCP	Development Control Plan
DoS	Degree of Saturation
DPE	Department of Planning and Environment
HRV	Heavy Rigid Vehicle (as defined by AS2890.2:2018)
LEP	Local Environmental Plan
LGA	Local Government Area
LoS	Level of Service
MOD	Section 4.55 Modification (also referred as a S4.55)
MRV	Medium Rigid Vehicle (as defined by AS2890.2:2018)
NHVR	National Heavy Vehicle Regulator
ONRSR	Office of the National Rail Safety Regulator
OSOM	Oversize and/or overmass (OSOM) vehicles
RASS	Radar Activated Speed Signs
RMS Guide	Transport for NSW (formerly Roads and Traffic Authority), Guide to Traffic Generating Developments, 2002
RIM	Rail Infrastructure Manager
RRV	Road Rail Vehicles
RSO	Rolling Stock Operator

SCAW	Surface and Civil Alignment Work
SBT	Station Boxes and Tunnelling
SMSWA	Sydney Metro Western Sydney Airport
SSTOM	Stations, Systems, Trains, Operations and Maintenance
SRV	Small Rigid Vehicle (as defined by AS2890.2:2018)
SSTOM	Stations, Systems, Trains, Operations and Maintenance
TBM	Tunnel Boring Machines
TCAWS	Traffic control at work sites Technical Manual (version 6.1:2022 or the latest)
TGS (TCP)	Traffic Guidance Scheme (formerly known as Traffic Control Plan)
TfNSW	Transport for New South Wales
veh/hr	Vehicle movements per hour (1 vehicle in & out = 2 movements)
WPCA	Western Parkland City Authority
WSA Co	Western Sydney Airport Corporation

1 Introduction

This site-specific Construction Traffic Management Plan (CTMP) was created as per the Sydney Metro Construction Traffic Management Framework (CTMF), the general specification management of the Project and Overarching Construction Management Plan - Sydney Metro Western Sydney Airport. This CTMP also satisfies the requirement of Schedule 5, Part C of the SMWSA / WPCA Interface Agreement.

The scope of this CTMP is to detail the traffic and transport impacts and management measures associated with the traffic management stages required to facilitate the construction of Aerotropolis Station (AEC).

This site is located within Western Parkland City Authority land and will have four handover stages in order to accommodate SBT's TBM retrieval and Sydney Metro / Western Parkland City Authority (WPCA) Interface Agreement requirement.

The details of handover stages 1, 3 and 4 will be covered in this CTMP and stage 2 for TBM retrieval will be covered in the SBT Aerotropolis CTMP update.

Note that access to site in handover stage 4 is dependent on WPCA access roads AEC23 and AEC25 construction and this CTMP will be updated for the construction traffic management measures for stage 04 prior to Area Q-TA1 (AEC22 and AEC24) handover.

This CTMP and the documents referenced in the CTMP have been prepared in accordance with the relevant standards and guidelines listed in the SSTOM Overarching Construction Traffic Management Plan (SMWSASSM-PLD-1NL-PLN-000071).

This plan has been prepared to meet the following requirements including SSI 10051 Planning Approval Condition E103 and will be submitted to the Planning Secretary of the NSW Department of Planning and Environment for information.

- Environmental Impact Statement (EIS) of Sydney Metro Western Sydney Airport – Technical Paper 1 - Transport Mitigation Measures
- EIS Construction Traffic Management Framework
- Conditions of Approval (CoA) for the State Significant Infrastructure (SSI 10051)

This report has been prepared by the traffic manager who holds a SafeWork NSW Work Health & Safety Traffic Control Work card, accredited for the 'Prepare a Work Zone Traffic Management Plan'. Details of the accredited personnel is provided below:

- Wendy Zheng Ticket No. TCT1015144

This report has been reviewed by personnel who holds a SafeWork NSW Work Health & Safety Traffic Control Work card, accredited for the 'Prepare a Work Zone Traffic Management Plan'. Details of the accredited personnel is provided below:

- Dora Choi Ticket No. TCT0021456

This Construction Traffic Management Plan has been prepared to meet the requirements outlined in Appendix A and Appendix E, Section E.2 of the Transport for NSW Traffic Control at Work Sites Technical Manual (Issue No. 6.1, 2022).

2 Executive Summary

The Aerotropolis Station (AEC) site will be accessed through the haul road within Area Q-TA1(AEC22 and AEC24) during handover stages 1 to 3, accessed via the existing roundabout off Badgerys Creek Road located 1.4km north of the Badgerys Creek Road / The Northern Road intersection.

Following the completion of AEC25, the section of haul road within Area Q-TA1(AEC22 and AEC24) will be decommissioned and the access to AEC off Badgerys Creek Road will be through AEC25 and AEC23 noting AEC25 will be parallel and adjacent to AEC24.

3 Project Details

3.1 Proposed Works

The Aerotropolis Station is to be delivered in 7 stages:

- Stage 1 - Site Preparation Works
- Stage 2 - Enabling Works
- Stage 3 - Structural Works
- Stage 4 – MEP Works
- Stage 5 – Finishes and Above Ground Structures
- Stage 6 – Precinct Works
- Stage 7 – Rail Systems

3.2 Site Location

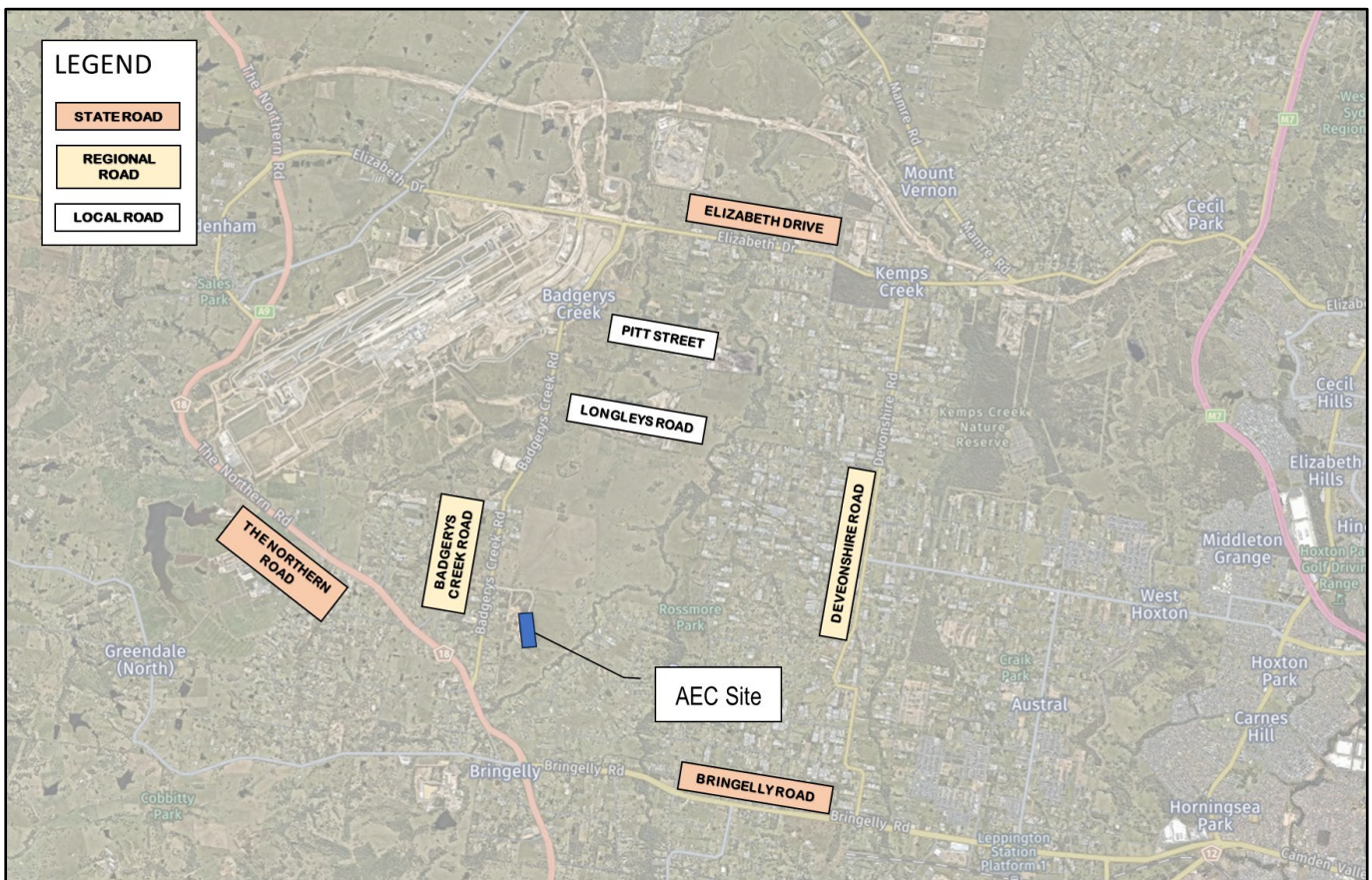


FIGURE 1: SITE LOCATION

The site is located to the east of Badgerys Creek Road, approximately 1.4km north of The Northern Road / Badgerys Creek Road intersection. Access will be via Badgerys Creek Road, Bringelly.

3.3 Timing of Works

There will be 4 stages of Aerotropolis Station site handovers between Sydney Metro and SSTOM, with the first handover on 12th October 2023 to SSTOM. The end of station construction works is in mid-2026. The proposed staged handovers are as follows:

- Stage 01: SSTOM full possession of site (12 October 23 to February 2024)
- Stage 02: SBT TBM retrieval (20-week period from February 2024)
- Stage 03: SSTOM full possession of site (August 2024 to 15 January 2026)
- Stage 04: WPCA / SSTOM shared access (16 January 2026 to 15 December 2026)

Note that Stage 02 dates and the associated Stage 01 and 03 dates are subject to change depending on TBM progress between Airport Business Park and AEC. Regular coordination meetings have been established between SSTOM and SBT to ensure smooth transition between packages of works, and continued coordination on traffic management requirements between the two works packages.

The four handover stages are presented in the figures below:

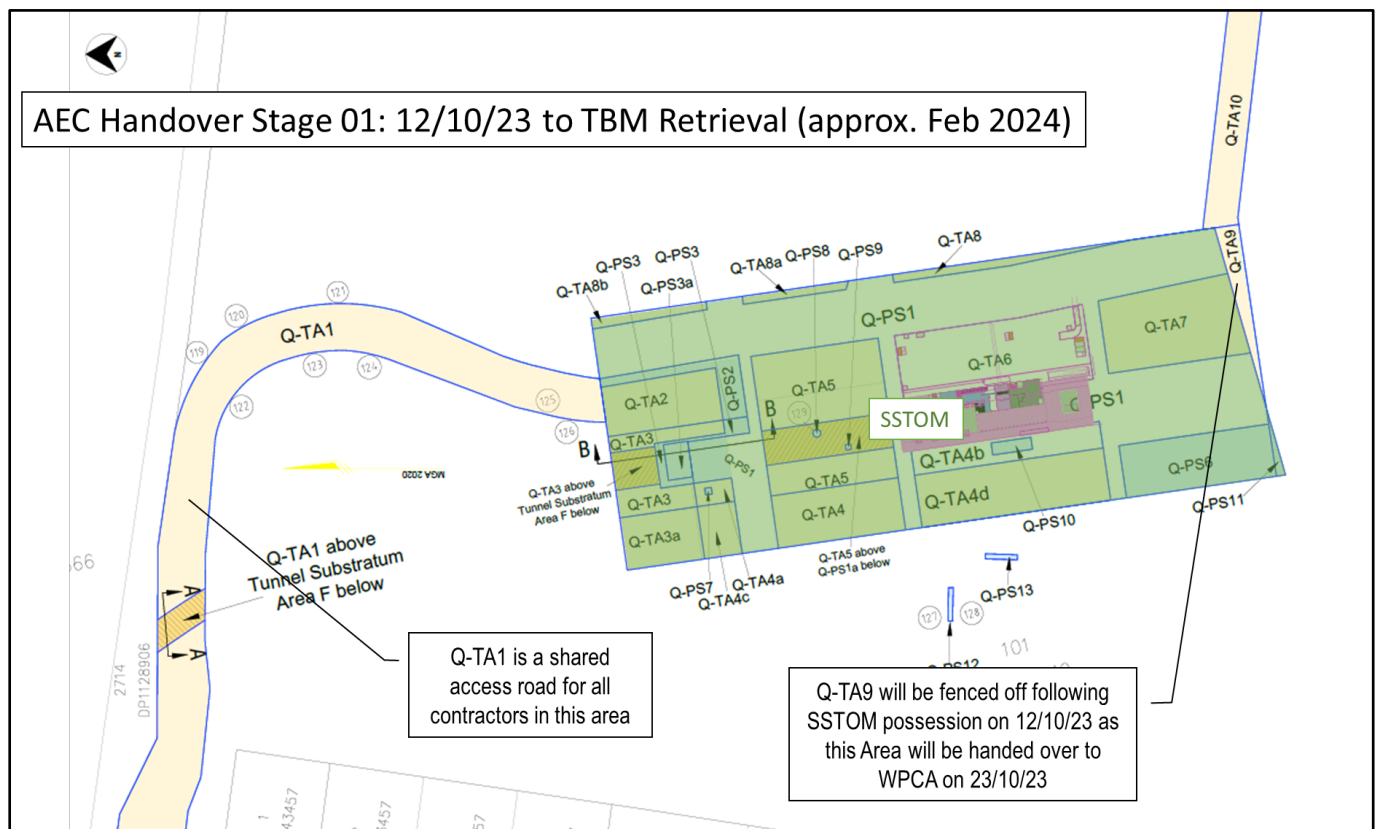


FIGURE 2: AEC STATION HANDOVER STAGE 01

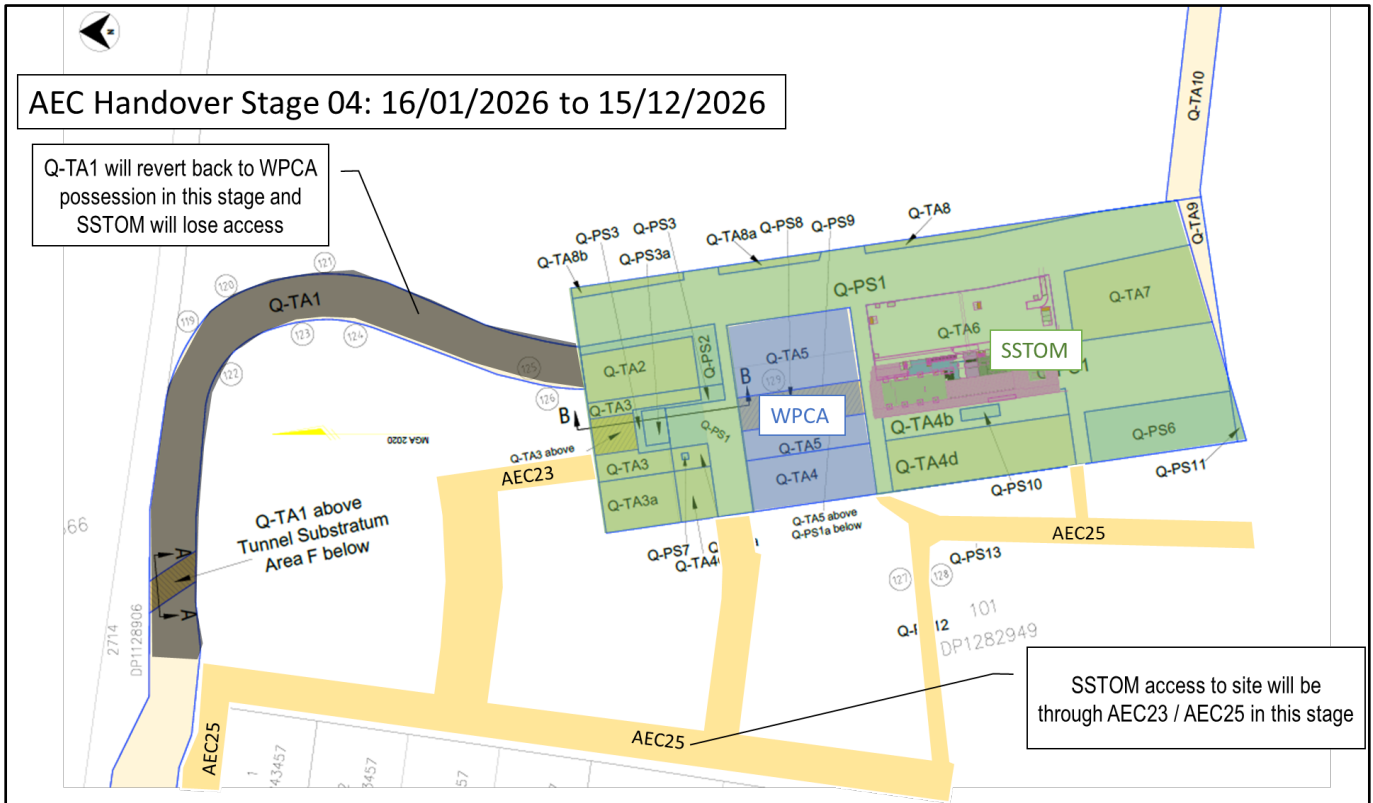


FIGURE 5: AEC STATION HANDOVER STAGE 04

Station construction works timing as outlined in Table 1.

TABLE 1: TIMING OF WORKS

Activity	Start Date	Finish Date
Stage 1 - Site Establishment	13 October 2023	21 November 2023
Stage 2 - Enabling works	23 October 2023	20 March 2024
Stage 3 - Structural Works	13 November 2023	1 April 2025
Stage 4 - MEP and VT Works	03 July 2024	07 November 2025
Stage 5 - Finishes and Above Ground Structures	26 September 2024	27 October 2025
Stage 6 - Precinct works including landscaping and external works	24 January 2025	30 April 2026
Stage 7 - Rail System Construction	29 October 2024	30 April 2026

3.4 Site Related Data

3.4.1 Road Details

The key roads surrounding the Site are identified within Figure 1 and summarised below noting Luddenham Road north of the site access is not part of the haul route:

TABLE 2: LOCAL ROAD NETWORK

Road Name	Section	Speed Limit	Parking	Traffic Volume and Peak Times	Urban / Rural
Badgerys Creek Road	Elizabeth Drive to The Northern Road	60km/hr - 80km/hr	No	-	Urban
Elizabeth Drive	The Northern Road to Badgerys Creek Road	60km/hr - 80km/hr	No	-	Urban
The Northern Road / A9	M4 to Badgerys Creek Road	80km/hr	No	-	Urban
Bringelly Road	M7 to The Northern Road	80km/hr	No	-	Urban

Note the AM / PM peaks on the road network is assumed to occur at 7.30am – 8.30am and 4.30pm – 5.30pm per the SSI-10051 EIS documentation.

3.4.2 Crash History

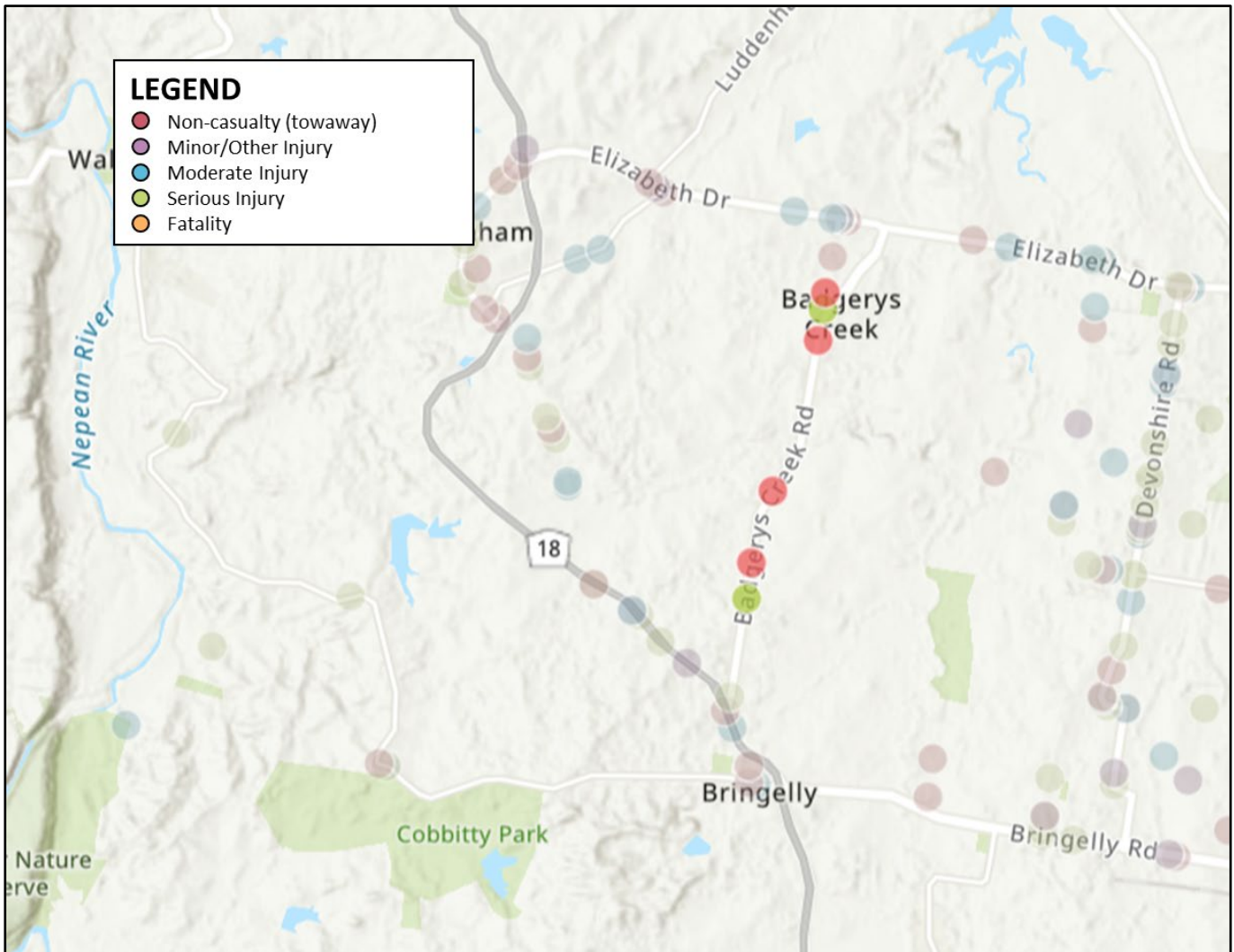


FIGURE 6: CRASH MAP

TABLE 3: CRASH HISTORY

Year	Location	RUM Code	Injury / Death
2018	Badgerys Creek Road near the Northern Road	30 – Rear end	Non-casualty (towaway)
2018	Badgerys Creek Road near the Northern Road	72 – Off road to right	Serious Injury (1)
2019	Badgerys Creek Road near Longleys Road	59 - Overtaking	Non-casualty (towaway)
2020	Badgerys Creek Road near Elizabeth Drive	67 – Struck animal	Non-casualty (towaway)

2021	Badgerys Creek Road near Jagelman Road	67 – Struck animal	Non-casualty (towaway)
2021	Badgerys Creek Road near Pitt Street	85 – Off rt/lft bnd=>obj	Serious Injury (1)
2021	Badgerys Creek Road near the Northern Road	71 – Off rd left => obj	Serious Injury (1)

An analysis of the crash history shows three crashes recorded at Badgerys Creek Road near The Northern Road intersection. However two of the crashes occurred prior to the Badgerys Creek Road / The Northern Road intersection upgrade.

As the Badgerys Creek Road and Elizabeth Drive upgrade is tied to the M12 and Western Sydney Airport construction, traffic conditions are expected to change significantly during this construction project, with both Badgerys Creek Road and Elizabeth Drive to be upgraded to urban roads.

3.4.3 Vulnerable Road Users

Vulnerable road users (VRU) are road users not in a car, bus or truck. In the event of a crash, VRUs have little to no protection from crash forces, therefore, need to be addressed within this CTMP. Table 4 provides context to VRU's surrounding the Site.

TABLE 4: PUBLIC AND ACTIVE TRANSPORT

Road Name	Pedestrian	Cycling	Public Transport
Badgerys Creek Road	Yes Footpath on either sides starting south of Elizabeth Drive roundabout and ending north of Pitt Street roundabout.	Yes - Partial No on road cycleway. Shared path on either sides starting south of Elizabeth Drive roundabout and ending north of Pitt Street roundabout.	Yes – bus routes 801 (last stop north of Gardiners Road), 1014, 2017, 2053 (first stop south of Longleys Road) Bus stops along roadway at Longleys Road and Gardiners Road only.

4 Works Proposed

4.1 Site Access (Prior to Handover Stage 04)

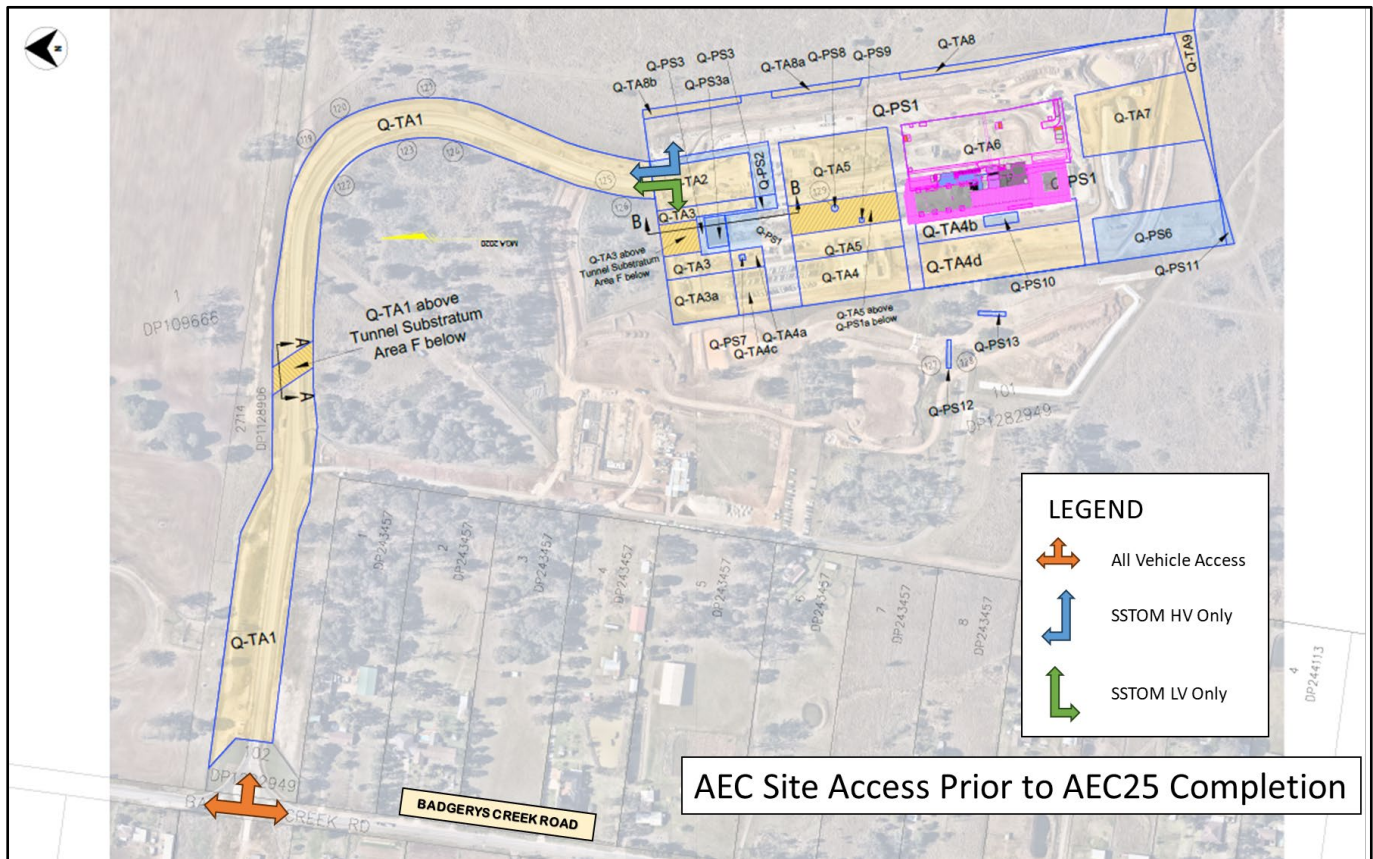


FIGURE 7: AEC ACCESS PRIOR TO HANDOVER STAGE 04

Site access for all PLM vehicles into AEC Station Site will be off Badgerys Creek Road through the roundabout as shown on Figure 7 then through the Q-TA1 haul road.

All heavy vehicles will be instructed to turn left to access the laydown area once within the AEC Station site boundary and all light vehicles will be instructed to turn right to access the site carparking areas.

Details of PLM site access during Stage 02 will be detailed in the SBT AEC CTMP for TBM retrieval.

Note if the construction lease on AEC24 (Q-TA1) expires prior to the AEC25 switch, traffic management on the haul roads between Badgerys Creek Road and the AEC Station site will be managed by WPCA's Traffic Management Plans per Clause 14.7 and Clause 3, Part 3, Schedule 6 of the SMWSA/WPCA Interface Agreement for use of the AEC24 haul road.

4.2 Site Access (Handover Stage 04)

Following the switch to AEC25, which is a local road constructed as per the Master Plan, site access for all PLM vehicles into AEC Station Site will be off Badgerys Creek Road through the roundabout as shown on Figure 8 then through the AEC25.

Heavy vehicles will be directed to access the site through AEC23 and the laydown area east of the station box and light vehicles will be directed to access the site through the southern local road forming part of AEC25.

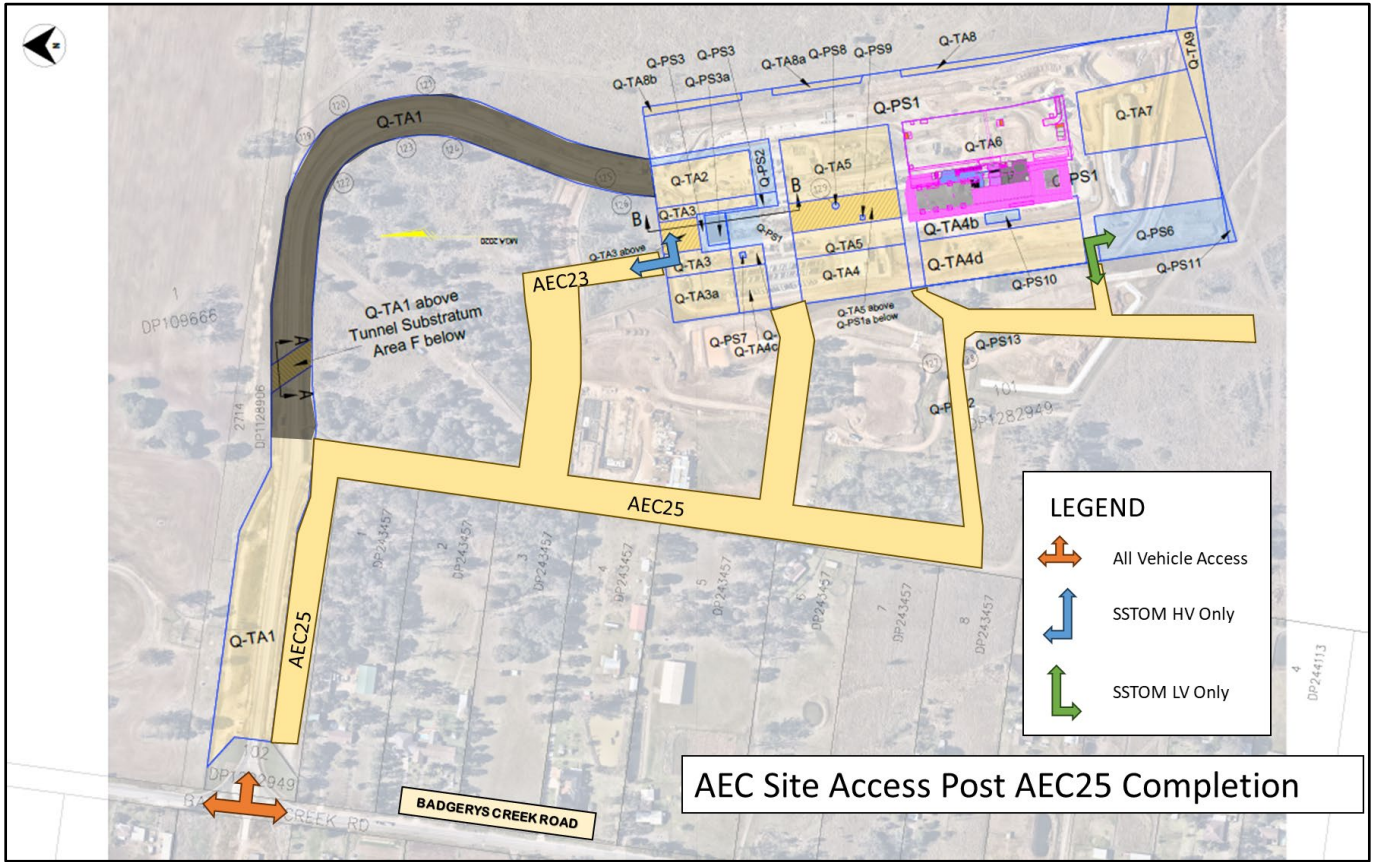


FIGURE 8: AEC ACCESS HANDOVER STAGE 04

Note in this stage traffic management on the roads between Badgers Creek Road and the AEC Station site will be managed by WPCA's Traffic Management Plans per Cl 3.4 Schedule 4, Annexure E of the SMWSA / WPCA Interface Agreement for use of the AEC25.

4.3 Station Construction Works Proposed

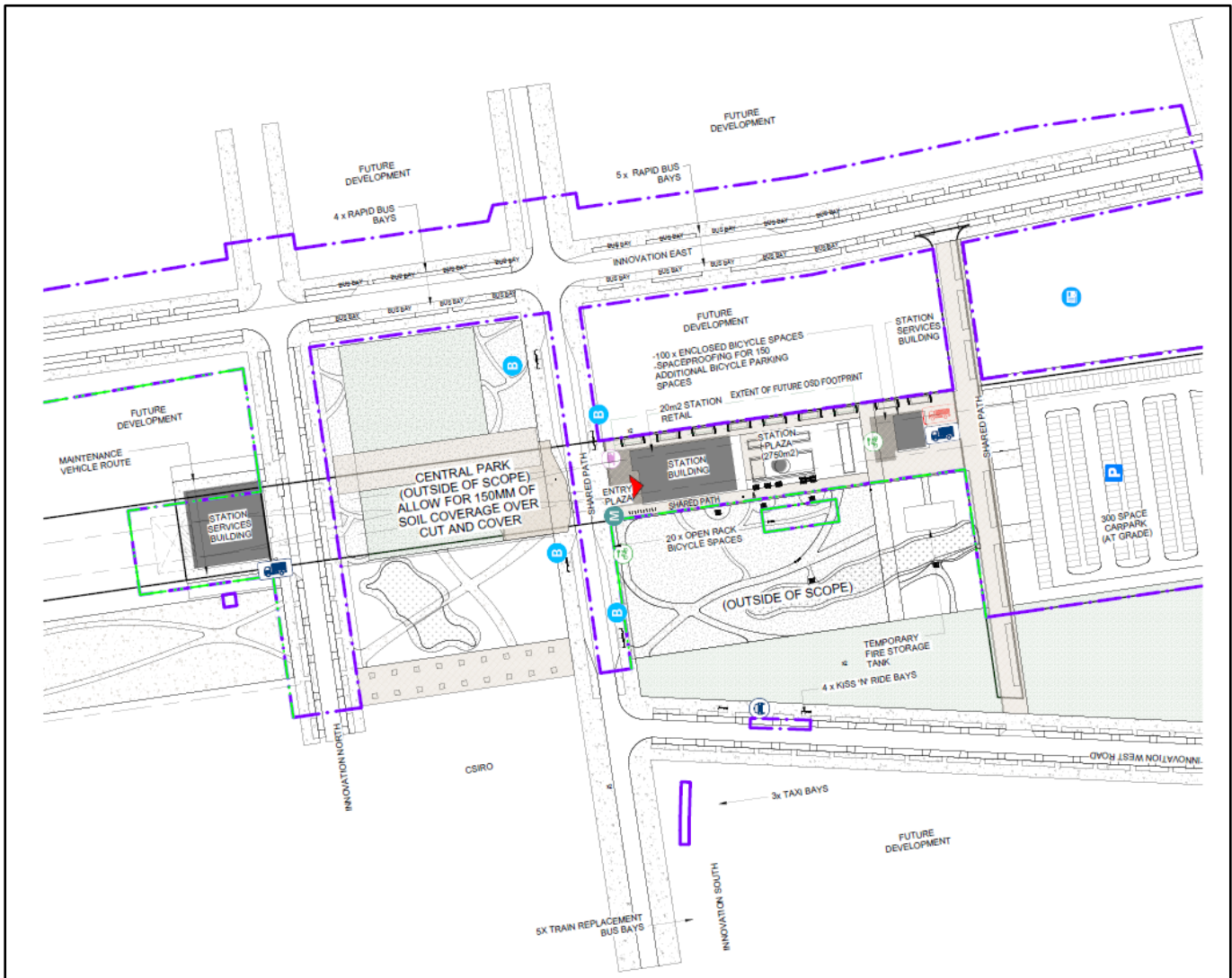


FIGURE 9: AEC STATION ARCHITECTURAL (PRELIMINARY)

The following key activities would be undertaken for the station construction:

- Stage 1: Site Preparation Works
 - Site survey
 - Minor civil works
 - Temporary power and water connections
 - Setup of site facilities including sheds and ablution blocks
 - Installation of temporary fence and access control system
 - Access roads and laydown areas
- Stage 2: Enabling Works
 - Crane and piling pads
 - Bored piles

- Detailed excavation
- In-ground services
- Waterproofing membrane
- Substructure concrete works
- Stage 3: Structural Works
 - Reinforced concrete walls and stairs
 - Reinforced concrete suspended slabs and roofs
 - Structural steel frame
 - Topping slab for platforms
 - Station canopy and roof
- Stage 4: MEP Works
 - Building services - mechanical
 - Electrical, lighting and cabling reticulation
 - Vertical transportation
 - Fire and security services
- Stage 5: Rail System
 - Track works
 - Overhead wire installation
 - Traction power
 - Signalling
 - Earthing and bonding
- Stage 6: Fit Out
 - Ceilings
 - Wall and floor finishes
 - Façade
 - Louvres and screens
 - Doors and hardware
 - FF&E and joinery
- Stage 7: Precinct Works
 - Utilities
 - Public lighting
 - Roads and drainage
 - Landscaping and public spaces

4.4 Construction Hours

Construction hours have been outlined below per Condition E38:

TABLE 5: CONSTRUCTION HOURS

Activity	Day	Time
Construction Works	Mondays to Fridays	7:00am to 6:00pm
	Saturdays	8:00am to 1:00pm
	Sundays or Public Holidays	At no time

It is anticipated that construction works may be conducted outside of the hours outlined above. Should out of work hours be required, per Conditions E41 and E42, PLM D&C will lodge an application with DPE to seek approval for these works.

4.5 Construction Vehicle Movements

4.5.1 Truck Vehicle Volume

The projected daily heavy vehicle volume for all stages of AEC construction is shown in Figure 10 with the concrete HV volumes distinguished in blue.

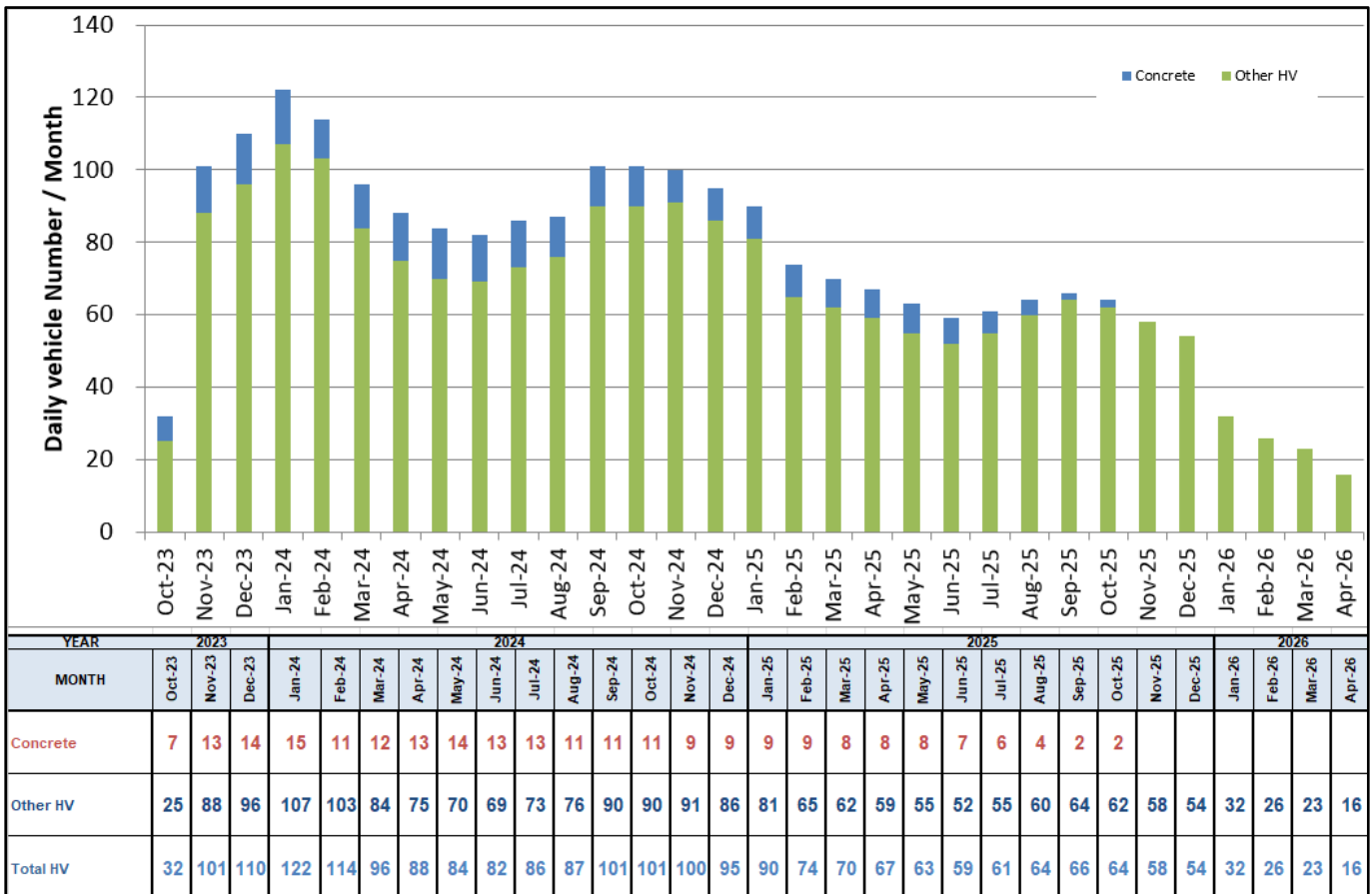


FIGURE 10: PROJECTED AEC HV NUMBERS

The anticipated heavy vehicle volume peak will start in November 2023 and will reduce after October 2024.

4.5.2 Truck Routes

It is proposed that all construction vehicles would enter and exit the Site via the routes shown in Figure 11. The routes shown are to be utilised by all construction vehicles travelling to and from the site and represents the shortest route available from / to a State Road –minimising the impacts of the construction process. A copy of the approved routes will be distributed by PLM D&C to all drivers before their arrival to Site.

All suppliers / subcontractors have been briefed to access the site from the south via The Northern Road with the exception of the concrete supplier.

Concrete for AEC will be supplied from the SSTOM Temporary Concrete Batching Plant within the ABP site utilising 12.5m long rigid agitator vehicles (12.5m HRV equivalent). No other supplier / subcontractor is expected to access the AEC site from the north.

The largest truck required for Station construction will be 19m long Articulated Vehicles (19m AVs) so no over-size over mass (OSOM) permit will be required for heavy vehicle access to site. However, in the event that an oversized or over-mass vehicles is required to travel to the Site, PLM D&C will obtain an OSOM permit from the National Heavy Vehicle Regulator (NHVR).

The swept paths (attached in Appendix A) demonstrate all critical turns at along the route shown in Figure 11. All PLM construction vehicles will drive forward in and out of the Site onto Badgers Creek Road via the existing Site access.

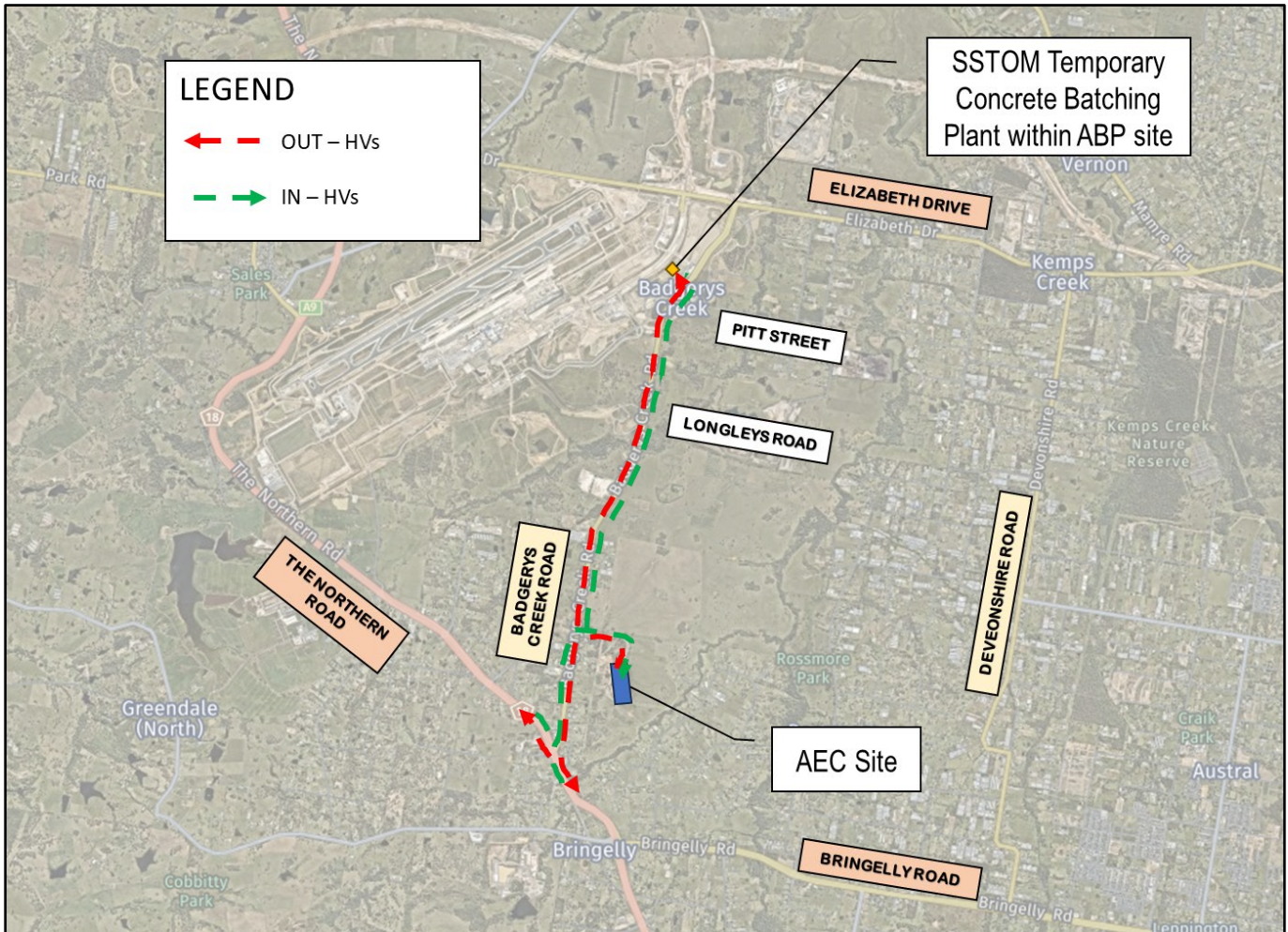


FIGURE 11: CONSTRUCTION VEHICLE ACCESS ROUTE

There is a shared path on either side of Badgerys Creek Road starting south of the Elizabeth Dr intersection and stopping north of the Pitt Street intersection separated from the traffic lane by a wide shoulder. There are also bus stops along Badgerys Creek Road. PLM will be sharing the existing access to AEC site off Badgerys Creek Road with the other WPCA contractors and will be adhering to all existing pedestrian / cyclist / public transport impact management measures.

If any access to existing properties is affected by construction vehicle access to site, traffic controllers or appropriate traffic management would be available on the accesses to direct existing property users while guiding construction vehicles.

4.6 Temporary Traffic Management Method

No works external to the Site will take place during Station construction and all deliveries will be undertaken by heavy vehicles 19m AV sized or smaller.

4.6.1 Stage 01 Handover (SSTOM only site)

SSTOM will be accessing the site through the roundabout at the intersection of Badgerys Creek Road and Area Q-TA1 haul road which was delivered by the SMWSA contractors and designed to accommodate 19m AVs turning manoeuvres.

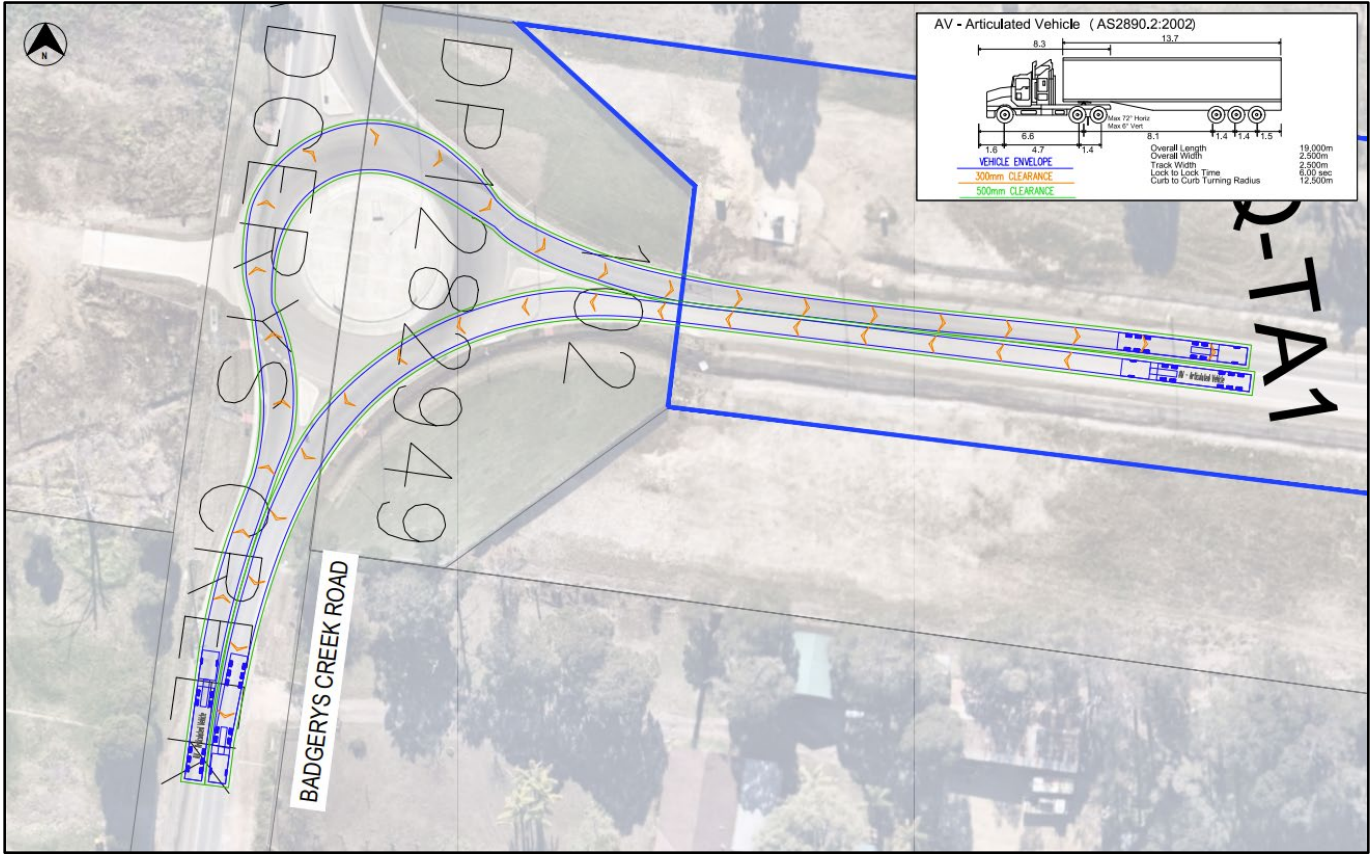


FIGURE 12: SWEEP PATH ASSESSMENT - 19M AV ACCESS OFF BADGERYS CREEK ROAD

Swept path assessment in / out of the Q-TA1 access road from Badgerys Creek Road utilizing 19m AV (Figure 12) show the roundabout is functioning as designed allowing all movements.

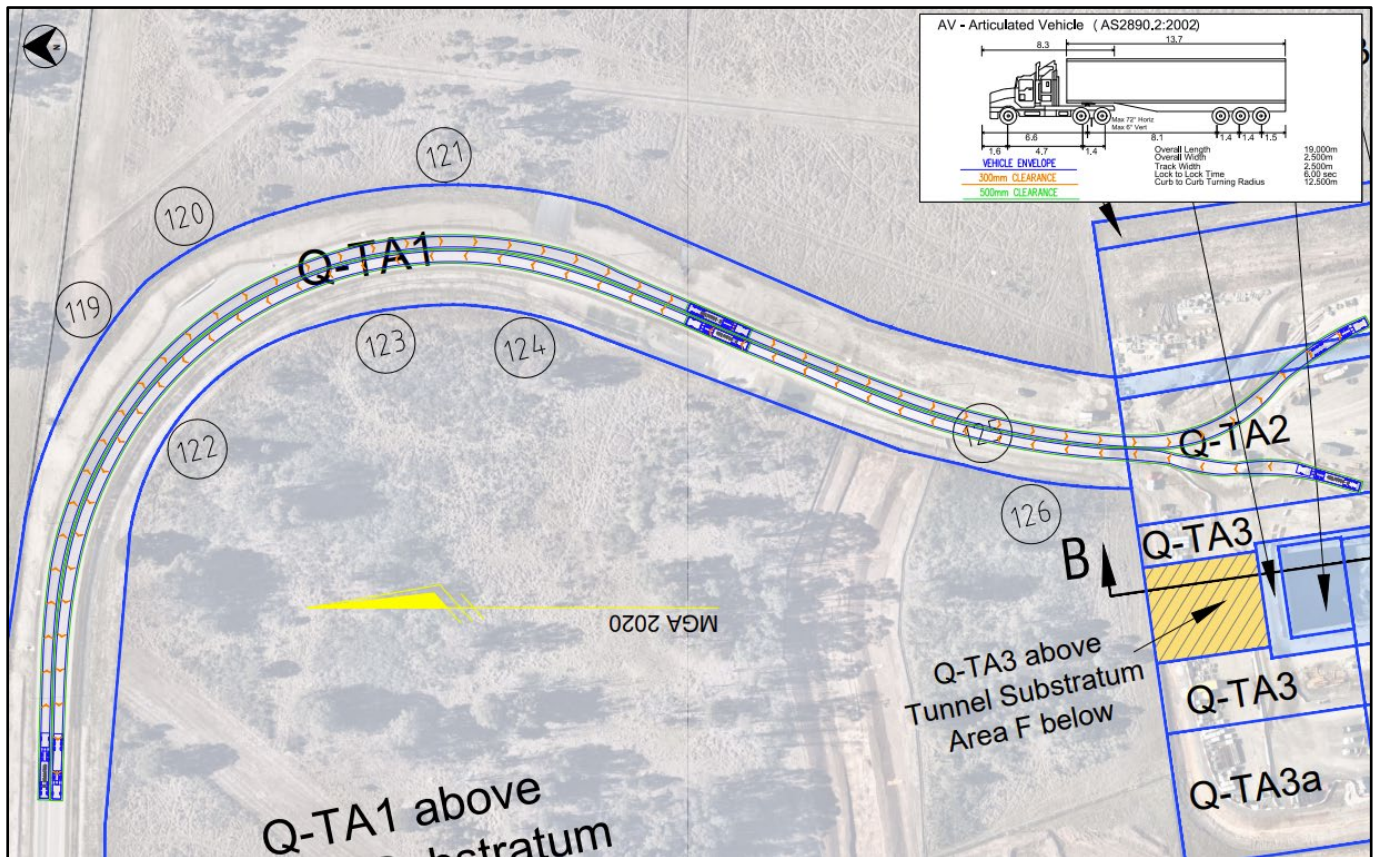


FIGURE 13: SWEEP PATH ASSESSMENT - 19M AV THROUGH Q-TA1 HAUL ROAD

Similarly, the Q-TA1 haul road has been assessed and found to be functioning as designed to allow for 19m AV simultaneous access to the site. The site is located at the end of the Q-TA1 haul road and all vehicles entering / exiting the site will drive straight on / off the haul road in a forward in / out direction (per Figure 13) requiring no further traffic management to reinforce the access arrangement.

As the Q-TA1 haul road is approximately 844 metres in length between the access roundabout along Badgerys Creek Road and the AEC site gate at the boundary of Q-TA1 and Q-TA2, SBT contractor has installed the following signage to assist with the speed and hazard management along Q-TA1. These signs comprise:

- W5-29 Kangaroo Symbolic Warning signage, approximately 141 metres east of Badgerys Creek Road along Q-TA1;
- 40km/h Road Work Speed Zone signage, approximately 432 metres east of Badgerys Creek Road along Q-TA1;
- 20km/h Speed Zone signage, approximately 592 metres east of Badgerys Creek Road along Q-TA1.

During the course of SSTOM works, other construction activities associated with WPCA are expected within the precinct, whereby increased traffic interfaces are expected between contractors using Q-TA1.

It is therefore proposed to install 30km/h speed zone signage along the length of Q-TA1, with the first pair of signage installed within 20m from the site boundary.

Signage will be repeated no further than every 200 metres to ensure the reduced speed limit is clearly sign posted as show in the Signage Plan attached in Appendix B.

The existing speed zone signage on the haul road will be replaced with the speed zone signage shown in Appendix B and the existing W5-29 sign will be retained.

Note if the construction lease on Q-TA1 (AEC24) expires prior to Stage 04 handover, PLM will need to enter into an Access Licence per SMWSA / WPCA Interface Agreement Schedule 4, Annexure E of the B3 with WPCA. Therefore, PLM will need to comply with WPCA's Traffic Management Plans per CI 3.4 Schedule 4, Annexure E of the SMWSA / WPCA Interface Agreement for use of the AEC24 (Q-TA1) haul road.

4.6.2 Stage 02 Handover (SBT TBM Retrieval)

Details of the temporary traffic management method during Stage 02 will be outlined in the SBT AEC CTMP update for TBM retrieval.

4.6.3 Stage 03 Handover (SSTOM only site)

Site will operate as per Stage 01.

4.6.4 Stage 04 Handover (Post AEC25 Completion)

Access to site off Badgerys Creek Road following AEC25 completion and handover will be through the same roundabout on Badgerys Creek Road but the haul road alignment will change from Q-TA1 to the parallel road located within AEC25.

PLM will need to enter into an Access Licence per SMWSA / WPCA TPA Schedule 4, Annexure E of the B3 with WPCA. Therefore, PLM will need to comply with WPCA's Traffic Management Plans per CI 3.4 Schedule 4, Annexure E of the SMWSA / WPCA TPA for use of the AEC25. Upon WPCA providing its Traffic Management Plan for use of the AEC25, SSTOM will make updates to detailed TGS where necessary to reflect changes to the access arrangement of the site at the AEC25 / AEC23 interface with the site boundary.

4.7 Risk Assessment

A risk assessment is aimed to identify the hazards and risks associated with the works. The purpose of this risk assessment is to determine the controls required for the protection of the road workers and road users. A Risk assessment has been completed and is attached in Appendix C.

5 Traffic Impact Management

5.1 Vehicle Impact Management

The project vehicle number at peak is shown in Table 6 noting that PLM D&C defines the AM peak as being between 7.30am – 8.30am and PM peak as being 4.30pm – 5.30pm Monday to Friday which is consistent with the EIS defined AM and PM peaks.

TABLE 6: PROJECTED VEHICLE NUMBERS

Vehicle Type	IN	OUT	TOTAL	IN	OUT	TOTAL
	EIS AM Peak Construction Movements			EIS PM Peak Construction Movements		
LV Staff	110	0	110	0	110	110
LV Deliveries	1	1	2	1	1	2
HV	13	13	26	13	13	26
	PLM AM Peak Construction Movements (AEC construction peak)			PLM PM Peak Construction Movements (AEC construction peak)		
LV Staff	110	0	110	0	110	110
LV Deliveries	1	1	2	1	1	2
HV	11	11	22	11	11	22

Note that the concrete supply heavy vehicle movements between ABP and AEC has been accounted for in the peak construction movement projected numbers for each site provided in this CTMP and the ABP CTMP (SMWSASSM-PLD-ABP-TF-PLN-000001 Rev B) and both remain within EIS peak construction movement numbers.

No queuing will be permitted on Badgerys Creek Road at any time. Heavy vehicle access to the Site will be managed and monitored by PLM D&C with all subcontractors to register for a delivery timeslot and location on the construction logistic software prior being granted access to Site.

The site superintendent will ensure that the minimum number of vehicles possible is scheduled to come in during the EIS peak hours and given that there is a significant amount of vehicle storage area on site, release the minimum number of vehicles possible from site during the EIS peak hours to minimise impact on the surrounding road network.

5.2 Pedestrian / Cyclist Impact Management

There is no formalised pedestrian and cyclist facilities and negligible foot traffic / cyclists observed in the area.

In addition, all PLM delivery drivers will be made aware of existing road conditions and presence of pedestrians and cyclists, especially along Badgerys Creek Road, between Elizabeth Drive and Pitt Street, and around the Site and through site inductions and toolbox talks of site-specific traffic risks and the requirement to allow safe passage to vulnerable road users at site access/ egress locations. This is also enforced in the Drivers Code of Conduct in Appendix F.

5.3 Public Transport Impact Management

There are four bus routes on Badgerys Creek Road – one public and three school buses. The public bus route 801 runs three services in the AM peak and three in the PM peak. The two of the three school buses run once in the AM school peak and one run in the PM school peak.

All drivers will be briefed to be aware of reduced speed limits to 30km/h when passing a bus with flashing lights on, and pedestrians alighting from buses and that buses are always given priority along the haul route.

5.4 Property and Utility Access Impact Management

Access to the residential properties along Badgerys Road will be maintained at all times and access for utilities providers/maintainers will not be impacted.

5.5 Cumulative Impacts

SSTOM and WPCA's other invitees and contractors will be sharing the site access haul road (Q-TA1 and AEC25) off Badgerys Creek Road for all stages of AEC Station construction.

SSTOM projected peak traffic movement is within the SMWSA EIS peak construction traffic movement for all stages of work.

The approved SBT CTMP for Aerotropolis (SMWSASBT-CPG-AEC-SN450-TF-PLN-000001) provided a detailed assessment of site access arrangement options and associated SIDRA Analysis. The modelled volume of peak movements was in accordance with the SMWSA EIS peak construction traffic movements.

Per the SMWSA – WPCA Interface Agreement CI 14.4 (b), SMWSA is not responsible for managing traffic volumes in connection with WPCA's works on other WPCA land, any betterment or by WPCA's other invitees or contractors exceeding the baseline traffic volumes in accordance with Schedule 3 of the Construction Lease.

Details of cumulative impact mitigation in Stage 02 handover will be covered in the SBT CTMP update for TBM retrieval.

SSTOM will coordinate with WPCA and its nominated invitees or contractors when required to manage cumulative impacts on the road network.

Additionally, SSTOM traffic management is an active participant in the TTLG, TCG and the Luddenham Transport Working Group meetings ensuring ongoing monitoring and discussion will occur over the life of the project.

5.6 Authorised Traffic Controller

No traffic controller is required at the roundabout between Q-TA1 haul road and Badgerys Creek Road.

The site access at the end of the Q-TA1 haul road will have one traffic controller for all stages of station construction to manage delivery traffic and contractor access at the Site access and be responsible for opening the site gate starting one hour before construction hours and ending one hour after.

Whilst on Site, the responsibilities of the Traffic Controller include:

- Implementation of the Traffic Guidance Scheme.

- Pedestrian and cyclist management, to ensure that adverse conflicts between vehicle movements and pedestrians do not occur along the public road network (i.e., Badgerys Creek Road).
- Ensure there is no pedestrians or bicycles along the haul roads.
- Supervision of all loading and unloading of construction materials during the deliveries in the construction phase of the project.

5.7 Kangaroo Habitat Site Controls

The AEC site and haul road Q-TA1 are located within a known kangaroo habitat area where presence of kangaroos is known.

Additional site controls to minimise the risk to kangaroos on the site haul road and site area are as follows:

- Speed on haul road will be reduced to 30km/hr to ensure drivers can stop safely in case of a kangaroo encounter (the existing speed limit is 40km/h - SSTOM will be reinforcing through additional speed zone signage along the haul road).
- Additional W5-29 signage to be placed along the haul road warning drivers of the presence of kangaroos.
- Management of roadside vegetation (i.e., regular mowing / pruning to ensure minimum vegetation height) to ensure kangaroos remain visible to drivers approaching.
- Inclusion of the operational measures in the site-specific induction for AEC, including all main contractors, sub-contractors, and all drivers.

6 Parking Management

PLM D&C will ensure the AEC construction works will have minimal impact on parking in the area.

There will be no contractor parking allowed on the surrounding road network including Badgerys Creek Road.

The on-site parking area within the AEC compound can accommodate the projected 360 light vehicle parking requirement.

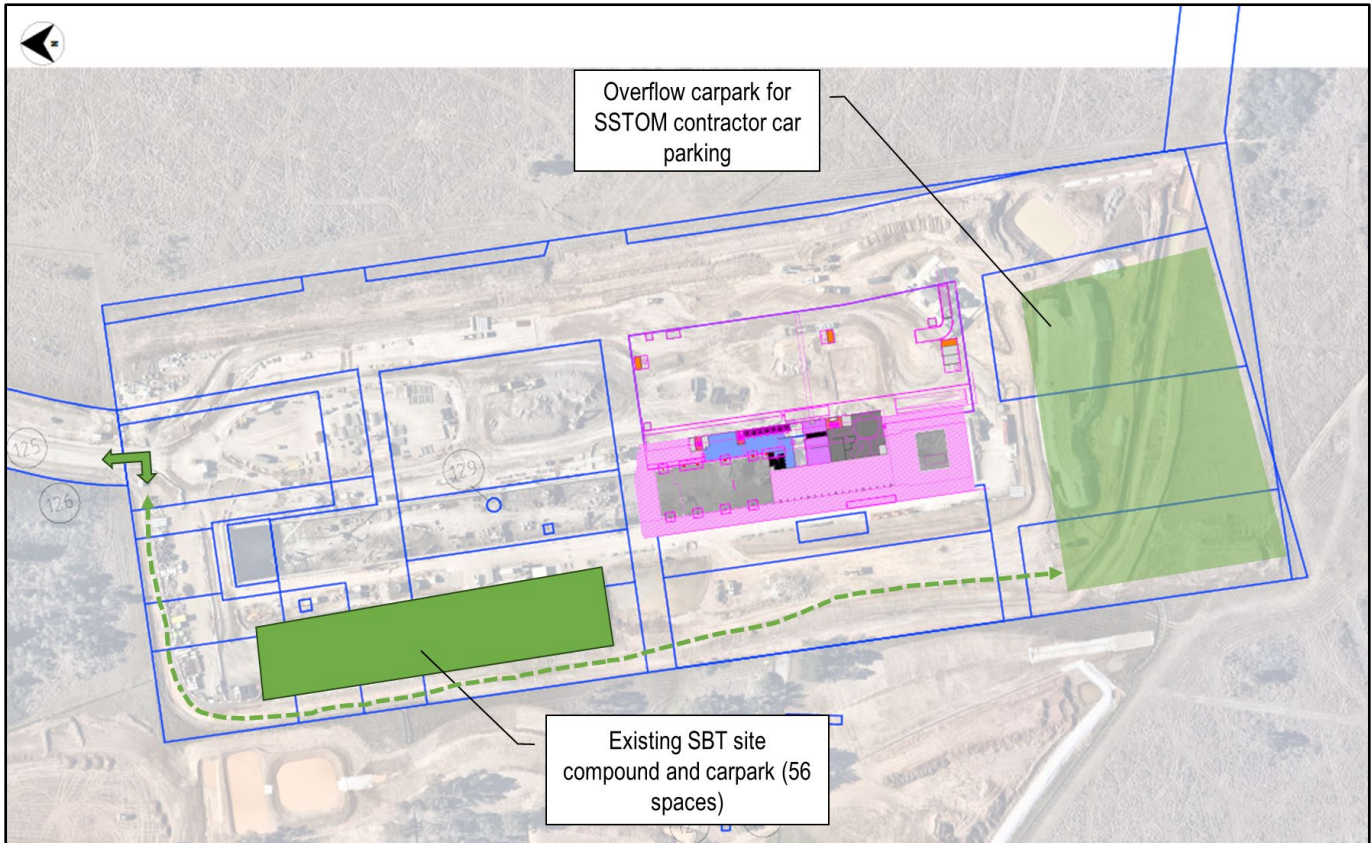


FIGURE 14: PROPOSED PARKING ARRANGEMENT ON AEC SITE

All visitors to Site will arrange the visit with PLM D&C and be provided with guidance on the exact location of the on-site visitor parking area and ensure vehicle license plate is provided in advance with visitation timeline to the traffic controllers on-site to provide guidance and be supplied with a visitor permit to display on the dashboard. The capturing of visitation timeframe is to ensure that visitor access timeframes and demand for parking can be adequately managed and do not exceed approved traffic volumes and on-site parking availability.

Subcontractors will have to register their car parking requirements with PLM D&C prior to starting on-site and will be encouraged to carpool noting that secure tool storage areas and amenities will be available within the Site.

PLM D&C will ensure that all personnel, including sub-contractors are aware of the specific requirements of TfNSW customers, general public, residents and businesses, prior to attending site through the induction process and regular updates through tool-box talks.

Due to the location of this site and its distance to either St Marys or Leppington Station, pool bus provision to / from site has been investigated and found not viable due to the long travel distance and limited public transport connectivity and significant travel times in comparison to motor vehicle based travel modes.

While the first service to St Marys start at 4.51am, services are limited to workers / contractors with convenient access to / from St Marys Station, which is generally along the T1 Western Line. As workers will need to arrive on site before

6.45am for pre-start and the drive from St Marys Station to site is 23km and take between 25 to 45 minutes, use of public transport modes for travel to / from site is not practical.

7 Agency Permits

7.1 Council Permits

No Council permits is required for Station construction. However, it is noted that PLM D&C is required to apply for the following permits with Council for the following activities which affect Council assets:

- Driveway Construction: Construction of driveways and footpath connections over the Council road reserve including kerb and gutter modifications.
- Road Reserve Occupancy: Temporary occupation or closure of a road reserve for construction or events.
- Road Reserve Opening / Excavation: Surface or deep excavation of the road reserve.
- Construction Work Zone: Dedicated right of access and parking allocation on a local road outside a development.

The proposed works consists of the installation of 30km/h speed limit road work signage (R4-212N) within Q-TA1, which is a private haulage road that is not a Council Road.

It is therefore considered that whilst approval of speed limit road work signage is delegated to Council for authorisation, the status of the land whereby the proposed installation occurs is outside of Council's jurisdiction and therefore, not expected to trigger the Local Traffic Committee Process.

7.2 Road Dilapidation Report

Before any local road, is used by Heavy Vehicles, a Road Dilapidation Report will be prepared. A copy of that report will be provided to Liverpool City Council within three (3) weeks of completion of the survey and no later than one (1) month before the road is used by Heavy Vehicles associated with the project.

If damage to roads occurs as a result of the construction of the project PLM D&C will either (at Liverpool City Council's discretion):

- Compensate Liverpool City Council for the damage caused; or
- Rectify the damage to restore the road to at least the condition it was in pre-work as identified in the Road Dilapidation Report.

7.3 OSOM Permits

No OSOM permit is needed for station construction.

7.4 Speed Zone Authorisation Permits

No SZA Permit is needed for station construction, as the proposed additional 30km/h road work speed zone are within Q-TA1 only.

8 Community Notification

PLM JV will be responsible for the dissemination of information to the community including affected residents, relevant Councils, businesses and the public.

8.1 Site Contact

The current site contact for the works identified in this CTMP is:

Joao Parames (Project Manager): +61 447 447 151

Glen Dinwoodie (Site Supervisor): +61 418 418 694

8.2 Propose Communications

- Community Notices (Notifications) issued at least 7 days prior to:
 - start of work
 - new work with a new activity that has the potential to impact on stakeholders and the community
 - handover of a construction site to a new contractor
 - activities requiring notification to comply with relevant Environmental Protection Licence (EPL) usually out of hours work.
- Precinct updates/e-update (Newsletters) - published 2x/year and for changes to planning approvals
- Email and internet updates – done with publication and delivery to letterboxes of Notifications and Newsletters.
- Advertisements – published in advance of significant traffic management changes, detours, traffic disruptions
- Advance warning sign – as noted in the CTMP, where required

Table 7 provides the proposed communications to be implemented for this CTMP.

TABLE 7: PROPOSED COMMUNICATIONS

Notification	Stage 01
Community Notice	Yes
Precinct Update / e-updated	Yes
Email	Yes
Internet	Yes
Print Advertising	Yes
Advance Warning Sign	Yes

8.3 Travelling Public

Where the SSTOM works will impact on the travelling public, PLM D&C will undertake the following communications:

- Motoring public will be forewarned of any changes including road closures, road changes and lane changes well in advance using appropriate signs including Variable Message Signs (VMS).
- Public transport interruptions will be communicated via on site signage.
- Active transport users will be provided with advance warning signs.

8.4 Variable Message Signs

Variable messages signs are not required for Stage 01 works.

If they are required at any stage of the project, they will be installed 7 days prior to any change to existing traffic conditions and per TfNSW “Instructions for the use of portable variable message signs: May 2021”.

8.5 Stakeholders

PLM D&C will liaise with relevant stakeholders regarding all relevant construction traffic management measures and will raise any potential conflict with stakeholder at the earliest time.

This will be done through the following groups:

- Traffic and Transport Liaison Group (TTLG)
- Traffic Control Group (TCG)
- Luddenham Traffic Working Group
- Western Parking City Authority Project Coordination Group (Traffic only)

There are a number of stakeholders PLM D&C will consult with during the development of this CTMP:

- Customer Journey Planning (CJP)
- Sydney Metro project team
- Liverpool City Council (PCC)
- Transport for NSW (TfNSW)
- Western Parkland City Authority (WPCA)

A copy of their review comments will be provided in Appendix D.

9 Monitoring and Review

9.1 Road Safety Audit

Road safety audits will be undertaken on this CTMP as noted in the section 10 of the Construction Traffic Management Framework. A copy of the road safety audits will be provided in Appendix E in Revision B.

9.2 Monitoring Program

This CTMP shall be subject to ongoing review and will be updated accordingly. Regular reviews will be undertaken by a holder of a SafeWork NSW “Prepare a Work Zone Traffic Management Plan” or equivalent. Review of the CTMP shall occur monthly. All and any reviews undertaken should be documented, however key considerations regarding the review of the CTMP shall be:

- Tracking deliveries against the volumes outlined within report. Deliveries will be tracked against approved volumes and will keep a vehicle log - including Rego & time of entry - for the purpose of assessing the effectiveness of these monitoring programs.
- To identify any shortfalls and develop an updated action plan to address issues that may arise during construction (Parking and access issues)
- To ensure TGS's are updated (if necessary) by “Prepare a Work Zone Traffic Management Plan” card holders to ensure they remain consistent with the set-up on-site.

The development of a program to monitor the effectiveness of this CTMP shall be established by the Contractor. This process is expected to form part of the monitoring plan required to be included as part of the overarching Construction Environmental Management Plan (CEMP), of which this CTMP forms a part.

The roadway (including footpaths) will be kept in a serviceable condition for the duration of construction. At the direction of Council, undertake remedial treatments such as patching at no cost to Council.

9.3 Work Site Inspections, Recording and Reporting

Recording and reporting of the monitoring programs shall be done in accordance within the TCAWs Manual. As such, the structure, schedule and frequency of these activities have been considered and identified.

To inspect, review and audit the temporary traffic management (TTM) arrangements implemented on site, the following actions are to be undertaken by suitably qualified personnel in accordance with TCAWS 6.1 requirements during all phases of construction, being:

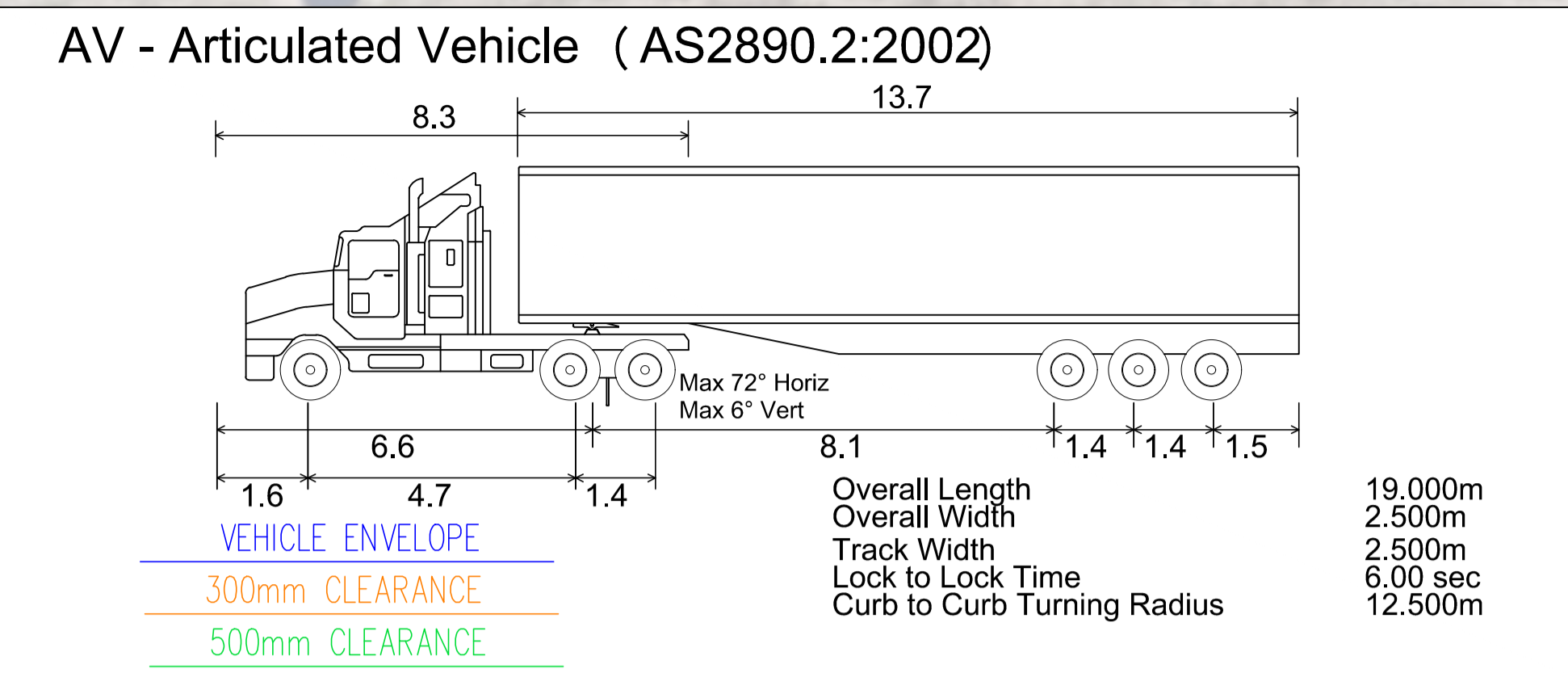
- TGS Verification
- Shift / Daily
- Weekly
- Post Completion
- Portable VMS / VSLS (when required)

All inspection forms per TCAWS 6.1 Appendix E will be uploaded into the GLAASS safety system for all site inspection purposes and data retained for monitoring.

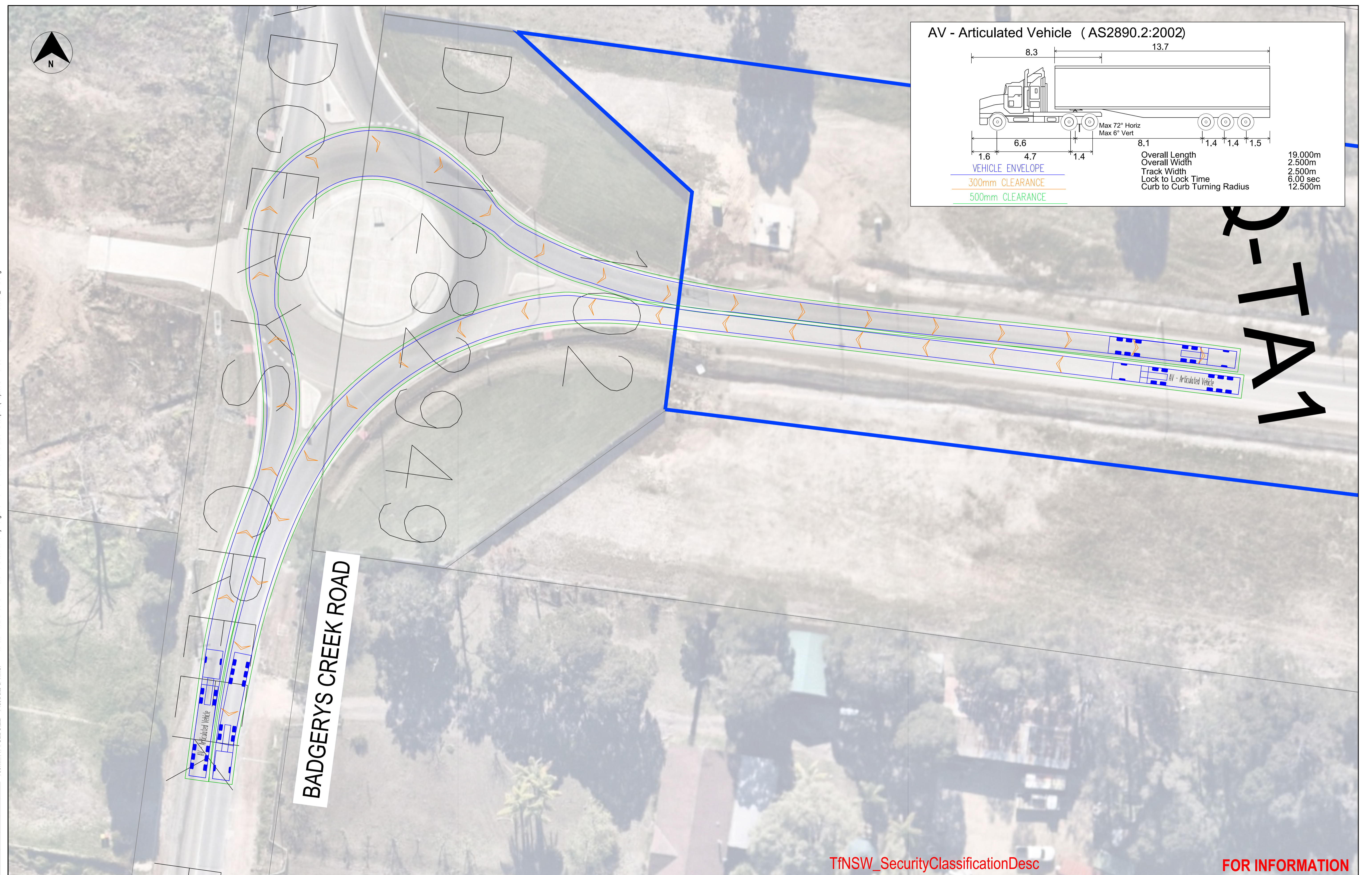
9.4 Environmental Maintenance

All works will be undertaken in accordance with the SSTOM works Site Establishment Management Plan and associated procedures and the Construction Environmental Management Plan and associated sub plans. The SSTOM works are regulated by the NSW Environment Protection Authority and works to be undertaken outside of standard construction hours will need to comply with the requirements of the Environmental Protection License (EPL).

Appendix A Swept Path Assessment



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D-TA1

BADGERYS CREEK ROAD

TfNSW_SecurityClassificationDesc

FOR INFORMATION

REV.	AMENDMENT DESCRIPTION	Design by	Verified by	Approved by	Date
Rev7	tbAMDsgts				
Rev6	tbAMDsgts				
Rev5	tbAMDsgts				
Rev4	tbAMDsgts				
Rev3	tbAMDsgts				
Rev2	tbAMDsgts				
Rev1	tbAMDsgts				

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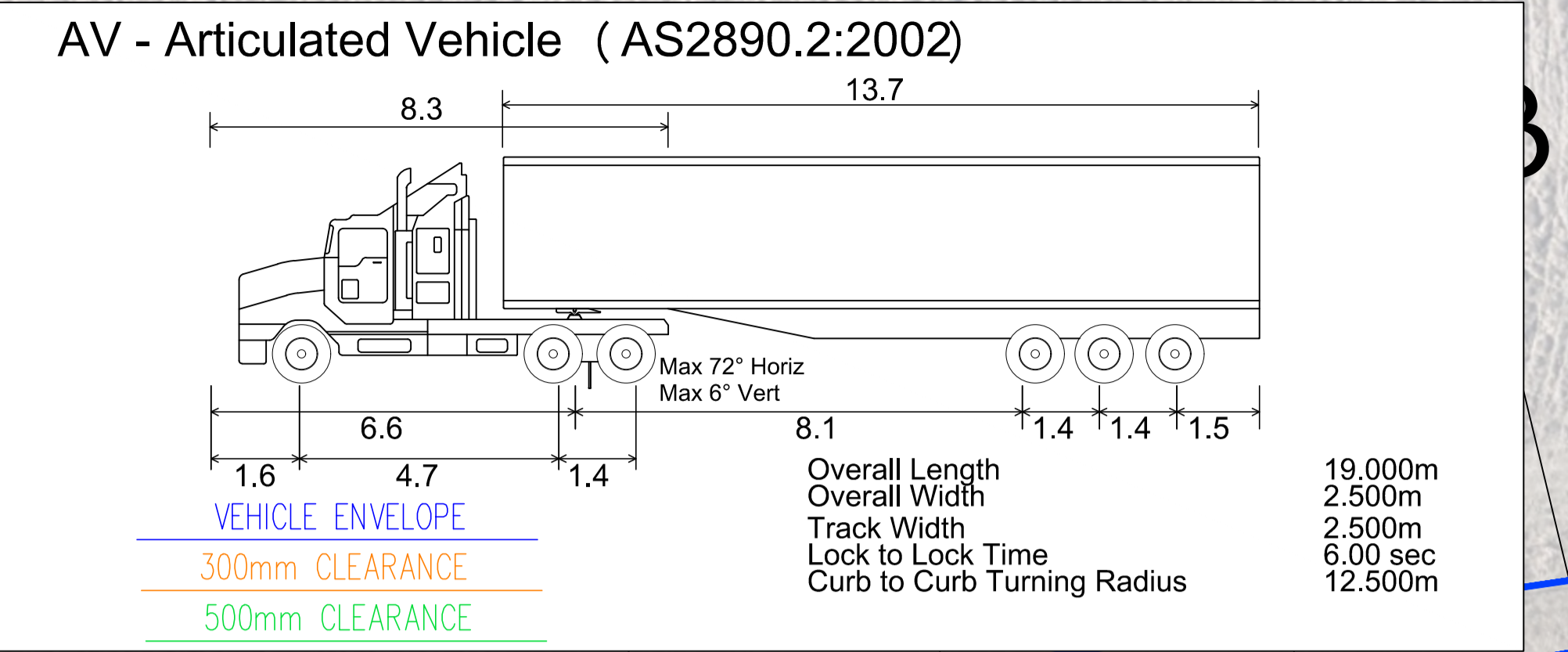
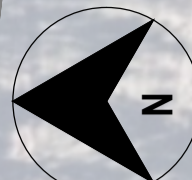
Parklife Metro D&C

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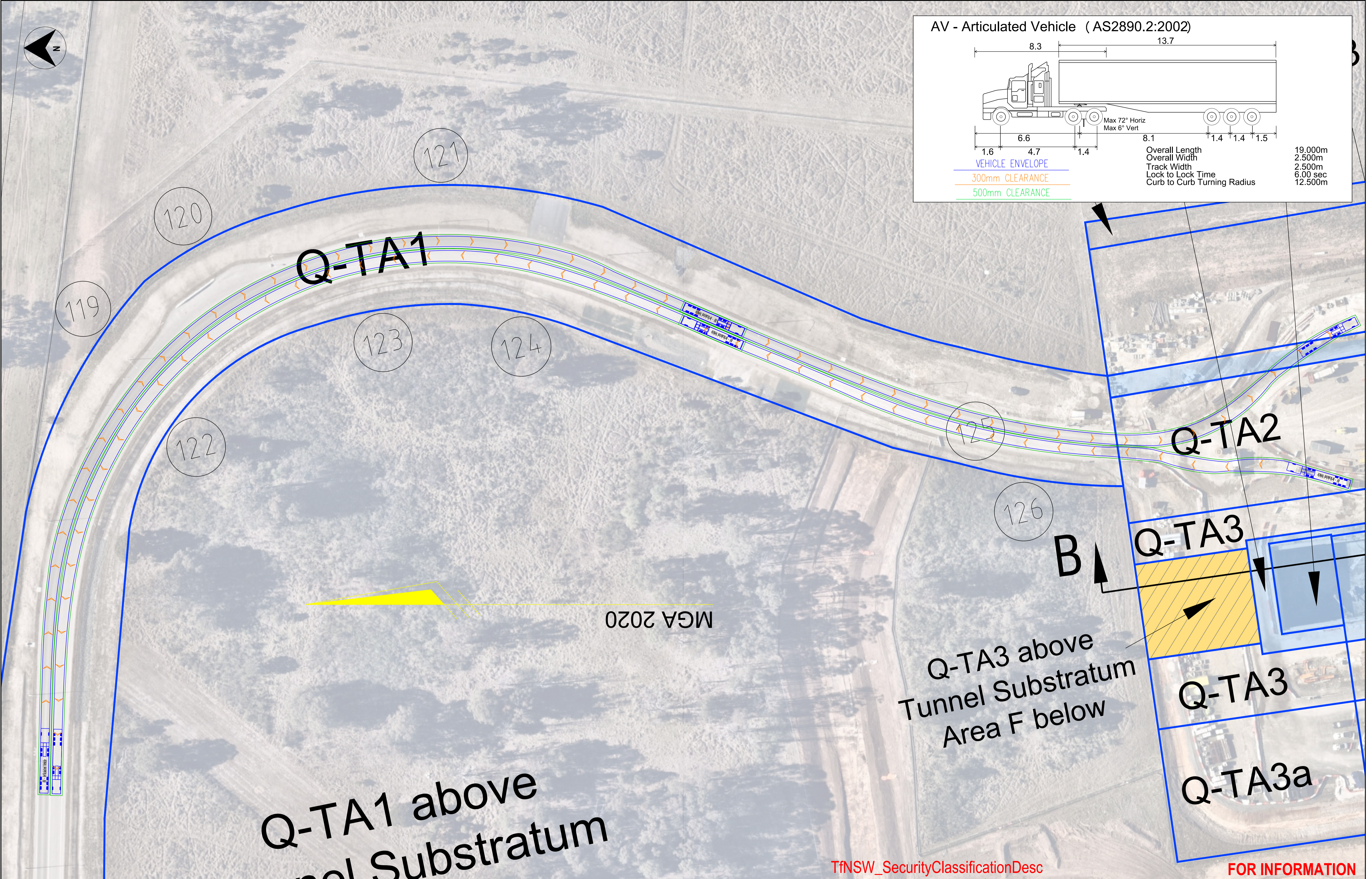
TAO DESIGN COMPANY/CONTRACTOR:

DRAWN:
 DESIGNED:
 DRG CHECK:
 DESIGN CHECK:
 APPROVED:

SYDNEY METRO - WSA - SSTOM	
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tbDetail1	tbDetail2
tbDetail2	tbDetail3
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 100mm AT FULL SIZE



**Q-TA1 above
Tunnel Substratum**

**Q-TA3 above
Tunnel Substratum
Area F below**

FOR INFORMATION

TfNSW_SecurityClassificationDesc

REV.	AMENDMENT DESCRIPTION	Design by	Verified by	Approved by	Date
Rev7	tbAMDsgts				
Rev6	tbAMDsgts				
Rev5	tbAMDsgts				
Rev4	tbAMDsgts				
Rev3	tbAMDsgts				
Rev2	tbAMDsgts				
Rev1	tbAMDsgts				

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 DESIGNED: tbDsnName
 DRG CHECK: tbDrgChkName
 DESIGN CHECK: tbDsnChkName
 APPROVED: tbApprName

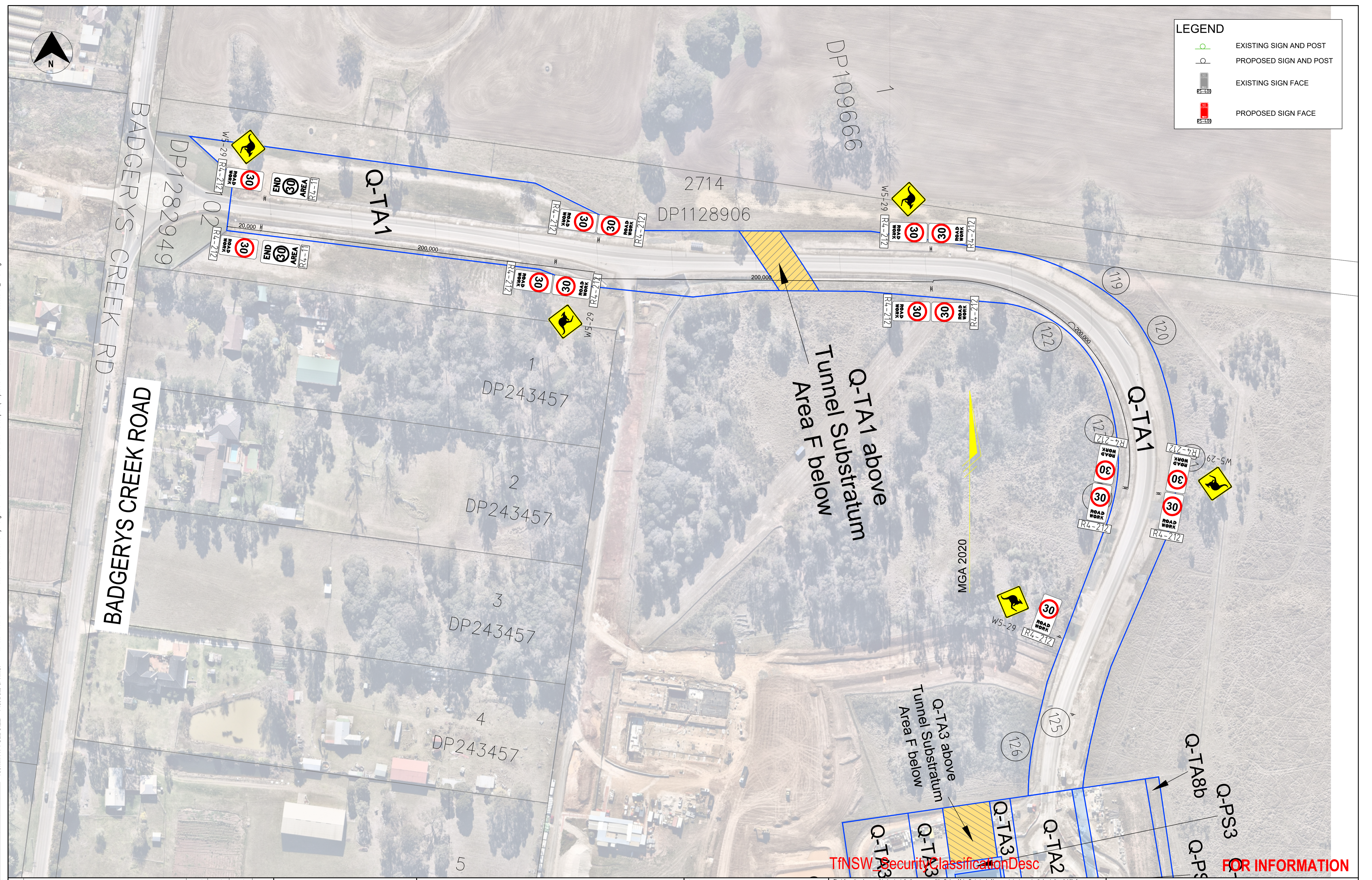
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DRG No: tbAEODrngNo			

Appendix B Q-TA1 Signage Plan



LEGEND	
	EXISTING SIGN AND POST
	PROPOSED SIGN AND POST
	EXISTING SIGN FACE
	PROPOSED SIGN FACE



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REV.	AMENDMENT DESCRIPTION	Design by	Verified by	Approved by	Date

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TAO DESIGN COMPANY/CONTRACTOR:

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DESIGNED	tbDsnName	tbDsnDate
DRG CHECK	tbDrgChkName	tbDrgChkDate
DESIGN CHECK	tbDsnChkName	tbDsnChkDate
APPROVED	tbApprName	tbApprDate

SYDNEY METRO - WSA - SSTOM

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DRG No: tbAEOdrgNo	REV	VER	
	tRev	tVer	

TfNSW Security Classification Desc FOR INFORMATION

Appendix C Risk Assessment

Sydney Metro WSA – Stabling and Maintenance Facility

Risk Assessment and Communication Tool

Site Name	Aerotropolis Station		
Site Location	Badgerys Creek Road, Bradfield		
Date of Assessment	11 August 2023		
Revision	Issue I		
Document Control			
Date Issued	Revision	Issued By	Checked By
11/08/2023	Issue I	W. Zheng	D. Odobasa

Risk Matrix							
Likelihood \ Impact		Insignificant	Minor	Moderate	Major	Severe	Catastrophic
		C6	C5	C4	C3	C2	C1
Almost certain	L1	8	19	27	29	34	36
Very Likely	L2	7	18	21	28	31	35
Likely	L3	6	11	20	23	30	33
Possible	L4	4	10	13	22	25	32
Very Unlikely	L5	3	9	12	15	24	26
Rare	L6	1	2	5	14	16	17

Risk Consequences						
	Insignificant	Minor	Moderate	Major	Severe	Catastrophic
	C6	C5	C4	C3	C2	C1
Health and Safety	Illness, first aid or injury not requiring medical treatment.	Illness or minor injuries requiring medical treatment.	Single recoverable lost time injury or illness, alternate/restricted	1-10 major injuries requiring hospitalisation and numerous days lost,	Single fatality and/or 10-20 major injuries/permanent	Multiple fatalities and/or >20 major injuries/permanent

			duties injury, or short-term occupational illness.	or medium-term occupational illness.	disabilities/chronic diseases.	disabilities/chronic diseases.
Environment	No appreciable changes to environment and/or highly localised event.	Change from normal conditions within environmental regulatory limits and environmental effects are within site boundaries.	Short-term and/or well-contained environmental effects. Minor remedial actions probably required.	Impacts external ecosystem and considerable remediation is required.	Long-term environmental impairment in neighbouring or valued ecosystems. Extensive remediation required.	Irreversible large-scale environmental impact with loss of valued ecosystems.

Likelihood		One off event (How likely?)		Repeated (How often?)
Almost certain	L1	Expected to occur frequently during time of activity or project.	> 90%	10 times or more every year
Very Likely	L2	Expected to occur occasionally during time of activity or project.	75 - 90 %	1-10 times every year
Likely	L3	More likely to occur than not occur during time of activity or project.	50 - 75 %	Once each year
Possible	L4	More likely not to occur than occur during time of activity or project.	25 - 50 %	Once every 1 to 10 years
Very Unlikely	L5	Not expected to occur during the time of activity or project.	5 - 25 %	Once every 10 to 100 years
Rare	L6	Not expected to ever occur during time of activity or project.	< 5 %	Less than once every 100 years

Risk Assessment and Communication Tool

ID. Ref	Risk and/ or Hazard	Risk Description	Location	Existing Control	Initial Risk Rating			Design Response to risk and /or hazard	Status of Risk	Assignment of risk or hazard	Residual risk rating		
					L	I	RR				C	L	RR
1	Unauthorized Access to the Site	Site prevents unauthorised access	Entire Site	Nil	L3	C2	High 28	Boundary fence will be provided as part of the main works. The design provides a defined separation between public areas and work area. Admin area is located in front of the site to minimise unauthorised visitor access	Design Solution	Main Contractor	L6	C2	Low 16
2	Interaction between pedestrians / cyclists and vehicles	Vehicles and pedestrians /cyclists to be separated as best possible	Entire Site & Access Roads	Nil	L3	C1	High 33	Dedicated footpath, pedestrian crossings and additional signage shall be provided to separate vehicles and pedestrians as best possible.	Design Solution	Main Contractor	L6	C2	Low 16
3	Potential vehicle conflict points	Vehicles can crash with each other while manoeuvring through the site	Entire Site & Access Roads	Nil	L4	C1	High 32	One-way manoeuvring around the site limits any interaction for oncoming vehicles to the access only, coupled with low speeds throughout the site.	Operational Solution	Main Contractor	L6	C2	Low 16

4	Fatigue	Injury caused by fatigue	Entire Site	Nil	L3	C2	High 30	Toolbox meetings and regular breaks (in line with WHS practices) to minimise fatigue	Operational Solution	Main Contractor	L6	C2	Low 16
5	Fall risks	Injury due to falls (in general)	Entire Site	Nil	L4	C1	High 32	Ensuring level changes across the site to be minimised as best possible, with additional black & yellow hazard tape/markings being installed where appropriate. Installation of handrails where level changes / ramps grades are significant.	Design Solution	Main Contractor	L6	C2	Low 16
6	Misdirected access into neighbouring site	Vehicle in unsafe locations	Entire Site	Nil	L4	C3	Medium 22	Ensuring appropriate directional signage has been provided to ensure vehicles do not access the wrong construction site, which could create potential safety breaches and hazards for all parties	Design Solution	Main Contractor	L5	C4	Low 12
7	Conflicting Traffic Management on shared haul road	Coordinating Traffic Controllers could create misleading	Entire Site	Nil	L4	C3	Medium 22	Toolbox meetings, regular liaison with all construction teams and review of signage plans on site in order	Operational Solution	Main Contractor	L5	C4	Low 12

		and wrong advice						to minimise contradicting signage.					
8	Kangaroos on haul road	Kangaroos hopping in front of construction vehicles	Entire Site	Nil	L4	C3	Medium 22	Toolbox meetings and site induction briefings ensuring awareness of the issue	Operational Solution	Main Contractor	L5	C4	Low 12

Appendix D Stakeholder Comments

NO.	DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*	LINKED ITEM NO	CLOSED OUT
01	18/08/2023	TFN	LWILBY	SMWSASSM-PLD-AEC-TF-PLN-000001	3.4.3 Vulnerable road users. Table 5	NA	Consider clarifying within the table "No dedicated cycling facilities". Please also confirm if it is a footpath or shared path as section 4.5.2 indicates that it is a shared path - the latter meaning cyclists can legally ride along it and therefore much less likely to use the road.	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM-PLD-AEC-TF-PLN-000001	3.4.3 Vulnerable road users. Table 5	NA	Wording in Table 5 of Section 3.4.3 has been updated to reflect the presence of a section of shared path between Elizabeth Drive and Pitt Street to align with wording of section 4.5.2.	Observation		N
02	18/08/2023	TFN	LWILBY	SMWSASSM-PLD-AEC-TF-PLN-000001	4.5.2 Truck Routes - Figure 11	NA	Please confirm within the document if these routes align with the EIS approved routes. If not, what mitigation measures have been put in place to address road safety risk.	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM-PLD-AEC-TF-PLN-000001	4.5.2 Truck Routes - Figure 11	NA	The haulage route outlined in Figure 11 fully align with the EIS approved routes.	Observation		N
03	18/08/2023	TFN	LWILBY	SMWSASSM-PLD-AEC-TF-PLN-000001	5.1 Vehicle impact management. Table 7	NA	Table 7 indicates that the total movements proposed during the peaks exceed what was in the EIS. Please confirm within the document what mitigation measures are in place to maintain safety for all road users (from higher exposure).	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM-PLD-AEC-TF-PLN-000001	5.1 Vehicle impact management. Table 7	NA	There was a typo in Table 7 that has now been corrected. The total movements proposed during the peaks are within the EIS. See updated Table 7.	Observation		N
04	18/08/2023	TFN	LWILBY	SMWSASSM-PLD-AEC-TF-PLN-000001	5.3 Public Transport Impact Management	NA	As well as drivers being aware of alighting passengers from the bus, please ensure they are aware of reduced speed limits when passing a bus with flashing lights on. Thanks.	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM-PLD-AEC-TF-PLN-000001	5.3 Public Transport Impact Management	NA	Additional text included in Section 5.3 to ensure drivers are aware of the reduced speed limits to 40km/h when passing a bus with flashing lights on.	Observation		N
05	18/08/2023	TFN	LWILBY	SMWSASSM-PLD-AEC-TF-PLN-000001	Appendix E - Road safety audit	CTMF requirements	Noting the RSAs that have been attached on other Rev B CTMPs by PLM have been of a high quality. However it would be appreciated if you can attach the completed RSAs on Rev A so we can assess the appropriateness of any mitigation measures introduced to address road safety risks raised. Currently non compliant as no completed RSA attached. Thanks.	Actual Non-Compliance		N
	12/09/2023	PLD	WZHENG	SMWSASSM-PLD-AEC-TF-PLN-000001	Appendix E - Road safety audit	CTMF requirements	We apologise for the situation and for the ATL CTMP, we will be submitting Revision A with a Road Safety Audit Report.	Actual Non-Compliance		N
06	21/08/2023	WPC	LBAXTER	SMWSASSM-PLD-AEC-TF-PLN-000001	4.6.4 Stage 04 Handover (Post AEC25 Completion)	NA	Local traffic control plans will need to be developed for each of the licenced areas. Prefereaby as a part of those licences.	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM-PLD-AEC-TF-PLN-000001	4.6.4 Stage 04 Handover (Post AEC25 Completion)	NA	As outlined in the SMWSA / WPCA TPA, it is understood that SSTOM will need to comply with WPCA's Traffic Management Plans post AEC25 completion. It is anticipated that some modifications to traffic management arragments between the Site access and AEC23 / AEC25 may be required. However, any additional local traffic control plans will require WPCA's CTMP being made available to SSTOM for coordination. Refer to Section 4.6.4	Observation		N
07	21/08/2023	WPC	RHIRST	SMWSASSM-PLD-AEC-TF-PLN-000001	4.2 Site Access (Handover Stage 04)	NA	Page 19 – AEC25 is not a haul road – it is a permanent local road constructed as per Master Plan. Page 20 – same as above Page 27 – 4.6.4 – same as above	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM-PLD-AEC-TF-PLN-000001	4.2 Site Access (Handover Stage 04)	NA	Wording on pages 19, 20 and 27 updated to reflect that AEC25 is not a haul road, but a permanent local road constructed as per Master Plan.	Observation		N
08	21/08/2023	WPC	CKNIGHT	SMWSASSM-PLD-AEC-TF-PLN-000001	5.6 Authorised Traffic Controller	NA	Pedestrians and cyclists on the haul roads – there is no pedestrian or cycling facilities along the along road	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM-PLD-AEC-TF-PLN-000001	5.6 Authorised Traffic Controller	NA	Additional wording provided in Section 5.6 to clarify that pedestrian and cyclist management relates to movements along the public road network (i.e., Badgergys Creek Road), and that the traffic controllers are to ensure no pedestrian or bicycles along haul roads.	Observation		N
09	21/08/2023	WPC	CKNIGHT	SMWSASSM-PLD-AEC-TF-PLN-000001	7.1 Council Permits	NA	Council approval for the 40km/h speed limits along the Haul Road – this is a private road that is not controlled by Council and therefore PLM can determine the speed limit for their area at their own discretion.	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM-PLD-AEC-TF-PLN-000001	7.1 Council Permits	NA	Wording in Section 7.1 stipulated that due to the status of the land of the haul road being a private road, the installation of 40km/h speed limit road work signage occurs outside of Council's jurisdiction and do not trigger the Local Traffic Committee Process.	Observation		N
10	21/08/2023	WPC	CKNIGHT	SMWSASSM-PLD-AEC-TF-PLN-000001	NA	NA	The description of the peak construction vehicle movements text and graph are not aligned	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM-PLD-AEC-TF-PLN-000001	NA	NA	Construction vehicles volume presented in Section 4.5.1 are daily heavy vehicle volumes expected for each month of SSTOM's construction program. Traffic volume outlined in Section 5.1 are for the peak hour only. Review of the information found that the volumes align and are within the EIS.	Observation		N
11	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	3.3 Timing of Works	NA	Clarification is required whether Stage 3 station works include the proposed commuter carpark and a portion of transit boulevard in Q-PS1 area adjacent to the station.	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	3.3 Timing of Works	NA	Stage 3 station works do not include the proposed commuter carpark or transit boulevard in Q-PS1.	Observation		N

NO.	DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*	LINKED ITEM NO	CLOSED OUT
12	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.2 Site Access	NA	During Stage 4, traffic management measures on the haul roads between Badgerys Creek Road and the AEC Station site will be managed by WPCA's Traffic Management Plan per CI 3.4 Schedule 4, Annexure E of the SMWSA/WPCA Interface Agreement for use of the AEC25 haul road. As such, a copy of the WPCA's Traffic Management Plan should be submitted to Council for review and included in this CTMP.	Potential Non-Compliance		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.2 Site Access	NA	Council should seek a copy of the Traffic Management Plan from WPCA directly. The CTMP provided is for SSTOM scope of works only.	Potential Non-Compliance		N
13	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.2 Site Access	NA	Design and construction timing of the proposed AEC23, AEC25 and Q-PS1 are to be provide to Council for review. Clarification is required whether the proposed ACE23 and AEC25 will be used for Stages 4-7 construction as well as the operation of AEC station.	Potential Non-Compliance		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.2 Site Access	NA	SSTOM is not in a position to provide design details, or construction timing of AEC23, AEC25, and Q-PS1 as these works are outside of the SSTOM scope of works.	Potential Non-Compliance		N
14	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.2 Site Access	NA	The design and construction of AEC23, ACE 25 and Q-PS1 will require Council's approval under Section 138 of Roads Act 1993 or/and the Environmental Planning & Assessment Act 1997.	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.2 Site Access	NA	Design and construction of AEC23, AEC25 and Q-PS1 falls outside of SSTOM scope of works. It is recommended that Council provide this requirement for Section 138 approval to WPCA for coordination.	Observation		N
15	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.2 Site Access	NA	Details of the proposed traffic switch from the first section of Q-TA1 from the existing roundabout at Badgerys Creek Road to AEC 25 are to be submitted to Council for review and approval.	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.2 Site Access	NA	When traffic switch from the first section of Q-TA1 to AEC25, as outlined in Section 4.6.4 of the CTMP, use of AEC25 is expected to occur in Stage 04 handover, whereby SSTOM will need to enter into an Access License and comply with WPCA's Traffic Management Plan for the switch to AEC25.	Observation		N
16	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	NA	NA	Council recommends that an operational plan for the AEC station interchange is to be developed in order to identify the required access roads, bus layover, intersection treatments, taxi ranks, pedestrian and cyclist access and crossing facilities for the station opening.	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	NA	NA	Operational plan for the AEC station interchange is outside of the CTMP requirements for SSTOM, and not a requirement of the SSI 10051 Conditions of Approval. Council's recommendation should be forwarded to Sydney Metro and WPCA for consideration and response.	Observation		N
17	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.6.1 Stage Handover	1 NA	It is noted that there is Kangaroo habitat area located within and around the subject construction site. Noise protection and road safety measures such as fencing should be in place to protect wildlife including Kangaroo and addressed to the satisfaction of the Department of Planning and Environment and Council.	Potential Non-Compliance		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.6.1 Stage Handover	1 NA	Fencing of the AEC Station work site area and warning signage on the haul road has been implemented by SBT. Based on advice sought by SSTOM, it is understood that fixed fencing or barriers would disrupt the kangaroo herd's mobility in the area. The kangaroos may forage and drink from areas on both sides of the haul road and a barrier may prevent the kangaroos from accessing areas they usually use. Fencing may result in moving the kangaroo herd towards Badgerys Creek Road, where the speed limit is higher and potentially result in road safety risks. Additional site control measures outlined in Section 5.7 of the CTMP. The measures were formulated based on environmental advice sourced by SSTOM.	Potential Non-Compliance		N
18	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	7.2 road dilapidation report	NA	A road dilapidation report must be prepared and submitted to Council for approval prior to the commencement of proposed staging works. Please note that Badgerys Creek Road is a regional road, under the care and control of Liverpool City Council.	Minor Non-Compliance		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	7.2 road dilapidation report	NA	SSTOM has commissioned a road dilapidation report, which will be submitted to Council.	Minor Non-Compliance		N
19	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	Appendix B - Q-TA1 Signage Plan	NA	The start and end of the proposed 40km/h speed zone along Q-TA1 is to be identified with appropriate signage and linemarking. It is recommended that advisory speed limit is to be included within the construction area, construction compound and car park.	Minor Non-Compliance		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	Appendix B - Q-TA1 Signage Plan	NA	Please refer to the updated signage plan for details of the end of 30km/h proposed. The start of the 30km/h sign has been placed in accordance with TCAWS 6.1 along Q-TA1. Given the speed zone is a temporary speed zone along a private haul road, installation of 30km/h pavement marking is not a requirement of TCAWS 6.1 and will not be provided.	Minor Non-Compliance		N
20	31/08/2023	TFN	TNG	SMWSASSM-PLD-AEC-TF-PLN-000001	Section 4.5.1	NA	Does the demand profile in Figure 7 include the SBT/SCAW demands? If excluded: 1. Any insights when the SCAW access will be required, and the associated construction demands? 2. Advise the construction demands during the 20-week TBM retrieval.	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM-PLD-AEC-TF-PLN-000001	Section 4.5.1	NA	It is noted that the demand profile in Figure 10 of Section 4.5.1 of the CTMP is for SSTOM only. SCAW do not have any access or works at Aerotropolis. SBT plus SSTOM demand during TBM retrieval will be documented by SBT in their Aerotropolis CTMP upate, as outlined in Section 1 and Section 5.5	Observation		N
21	31/08/2023	TFN	TNG	SMWSASSM-PLD-AEC-TF-PLN-000001	4.5.1_Fig. 10 & 5.1	NA	Is this chart includes concrete transporting agitator vehicles in-between ABP & AEC ? If YES, what is the possibility of updating the Fig. 10 to show (in different colours) concrete agits? This representation will allow the reviewers and the team to understand impact on road network due to long distance travelling AVs and short distance AVs.(i.e. Concrete Agits) seperately.	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM-PLD-AEC-TF-PLN-000001	4.5.1_Fig. 10 & 5.1	NA	The volumes presented in Figure 10 include concrete agitator trucks. Figure 10 has been updated to show the split between concrete HVs and all other HVs.	Observation		N

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22	31/08/2023	TFN	TNG	SMWSASSM-PLD-AEC-TF-PLN-000001	4.5.2	NA	In order to avoid AVs travelling north as per the proposed strategy (except concrete transport agits), is there any signage or traffic controllers requirement/arrangmenets inbetween AEC site & Badgery Creek roundabout ?	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM-PLD-AEC-TF-PLN-000001	4.5.2	NA	SSTOM is required to and will be implementing a vehicle management system (Voyage Control) whereby truck routes are set and reinforced. The truck routes are also reinforced through the site induction process.	Observation		N
23	31/08/2023	TFN	TNG	SMWSASSM-PLD-AEC-TF-PLN-000001	4.6.4	NA	AEC 23 & AEC 25 - Is this access road sections (stage 4 AEC access), designed to allow 19m AV simultaneous access ? SWEPT path asseemnet carried out ? Won't there be any specific traffic controlling requirments or additional signage as per the findings from SWEPT path assesment ?	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM-PLD-AEC-TF-PLN-000001	4.6.4	NA	AEC23 and AEC25 are roadways that are being delivered by WPCA, and outside of TfNSW's jurisdiction. As outlined in Section 4.6.4 of the CTMP, use of AEC25 is expected to occur in Stage 04 handover, whereby SSTOM will need to comply with WPCA's Traffic Management Plan. It is not up to SSTOM to design or comment on whether simultaneous 19m AV access is available as the design and construction of AEC25 and AEC23 is outside of SSTOM scope.	Observation		N
24	31/08/2023	TFN	TNG	SMWSASSM-PLD-AEC-TF-PLN-000001	6	NA	When & what is the peak labour count as per the manpower histograms? Have you got parking layout prepared for sharing with parties to undersatnd 360 LV parking slots mentioned in the document?	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM-PLD-AEC-TF-PLN-000001	6	NA	Labour count and manpower histograms are not available due to some final details not being available from sub-contractors. In relation to parking layout within the site, given the size of the site area, parking arrangement on-site is for SSTOM to manage and estimate of 360 LV parking spaces being available is formulated based on the site area divided by 35 square metres per parking space in accordance with Section 5.3 of Austroads Guide to Traffic Management Part 11 - Parking Management Techniques.	Observation		N
25	31/08/2023	TFN	TNG	SMWSASSM-PLD-AEC-TF-PLN-000001	Apendix B_Signage Plan	NA	As Badgery Creek speed limit might not be 40km/h, Isn't it require to use to different sign/speed to notify the vehicles existing Q-TA1 to Badagery Creek roundabout to comply?	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM-PLD-AEC-TF-PLN-000001	Apendix B_Signage Plan	NA	Signage plan has been updated to reflect the end 40km/h speed zone for vehicles exiting Q-TA1.	Observation		N

NO.	DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*	LINKED ITEM NO	CLOSED OUT
11	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	3.3 Timing of Works	NA	Clarification is required whether Stage 3 station works include the proposed commuter carpark and a portion of transit boulevard in Q-PS1 area adjacent to the station.	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	3.3 Timing of Works	NA	Stage 3 station works do not include the proposed commuter carpark or transit boulevard in Q-PS1. Refer to Ron Hirst at WPCA for this scope.	Observation		N
12	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.2 Site Access	NA	During Stage 4, traffic management measures on the haul roads between Badgerys Creek Road and the AEC Station site will be managed by WPCA's Traffic Management Plan per Cl 3.4 Schedule 4, Annexure E of the SMWSA/WPCA Interface Agreement for use of the AEC25 haul road. As such, a copy of the WPCA's Traffic Management Plan should be submitted to Council for review and included in this CTMP.	Potential Non-Compliance		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.2 Site Access	NA	Council should seek a copy of the Traffic Management Plan from WPCA directly. The CTMP provided is for SSTOM scope of works only. Refer to Ron Hirst at WPCA.	Potential Non-Compliance		N
13	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.2 Site Access	NA	Design and construction timing of the proposed AEC23, AEC25 and Q-PS1 are to be provide to Council for review. Clarification is required whether the proposed ACE23 and AEC25 will be used for Stages 4-7 construction as well as the operation of AEC station.	Potential Non-Compliance		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.2 Site Access	NA	Design and construction timing of AEC23 and AEC25 are outside of the SSTOM scope of works. Council should seek clarification from Ron Hirst of WPCA. Construction timing of the Q-PS1 is expected to be beyond 2026 and beyond the project timeframe documented in the SSTOM CTMP submitted. Refer to Ron Hirst of WPCA for further details.	Potential Non-Compliance		N
14	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.2 Site Access	NA	The design and construction of AEC23, ACE 25 and Q-PS1 will require Council's approval under Section 138 of Roads Act 1993 or/and the Environmental Planning & Assessment Act 1997.	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.2 Site Access	NA	AEC23 and AEC25 are outside of SSTOM scope of works. Refer enquiry to Ron Hirst of WPCA. Q-PS1 is located within property that is not a public road. In accordance with Section 138 of Roads Act 1993, works on Q-PS1 do not trigger S138 approval requirements from Council.	Observation		N
15	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.2 Site Access	NA	Details of the proposed traffic switch from the first section of Q-TA1 from the existing roundabout at Badgerys Creek Road to AEC 25 are to be submitted to Council for review and approval.	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.2 Site Access	NA	As outlined in Section 4.6.4 of the CTMP, traffic swich from Q-TA1 to AEC 25 will be undertaken by WPCA. Seek further information from Ron Hirst of WPCA.	Observation		N
16	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	NA	NA	Council recommends that an operational plan for the AEC station interchange is to be developed in order to identify the required access roads, bus layover, intersection treatments, taxi ranks, pedestrian and cyclist access and crossing facilities for the station opening.	Observation		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	NA	NA	Refer to Tim Dewey of Sydney Metro for information concerning the AEC Station interchange.	Observation		N
17	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.6.1 Stage Handover	1	It is noted that there is Kangaroo habitat area located within and around the subject construction site. Noise protection and road safety measures such as fencing should be in place to protect wildlife including Kangaroo and addressed to the satisfaction of the Department of Planning and Environment and Council.	Potential Non-Compliance		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	4.6.1 Stage Handover	1	Fencing of the AEC Station work site area and warning signage on the haul road has been implemented by SBT. Based on advice sought by SSTOM, it is understood that fixed fencing or barriers would disrupt the kangaroo herd's mobility in the area. The kangaroos may forage and drink from areas on both sides of the haul road and a barrier may prevent the kangaroos from accessing areas they usually use. Fencing may result in moving the kangaroo herd towards Badgerys Creek Road, where the speed limit is higher and potentially result in road safety risks. Additional site control measures outlined in Section 5.7 of the CTMP. The measures were formulated based on environmental advice sourced by SSTOM.	Potential Non-Compliance		N
18	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	7.2 road dilapidation report	NA	A road dilapidation report must be prepared and submitted to Council for approval prior to the commencement of proposed staging works. Please note that Badgerys Creek Road is a regional road, under the care and control of Liverpool City Council.	Minor Non-Compliance		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	7.2 road dilapidation report	NA	SSTOM has undertaken a road dilapidation survey and the report is being finalised. We will confirm Team Binder submission details.	Minor Non-Compliance		N
19	30/08/2023	LCC	SQU	SMWSASSM - PLD - AEC - TF - PLN - 000001	Appendix B - Q-TA1 Signage Plan	NA	The start and end of the proposed 40km/h speed zone along Q-TA1 is to be identified with appropriate signage and linemarking. It is recommended that advisory speed limit is to be included within the construction area, construction compound and car park.	Minor Non-Compliance		N
	12/09/2023	PLD	WZHENG	SMWSASSM - PLD - AEC - TF - PLN - 000001	Appendix B - Q-TA1 Signage Plan	NA	Please refer to the updated signage plan for details of the end of 30km/h proposed. The start of the 30km/h sign has been placed in accordance with TCAWS 6.1 along Q-TA1. Given the speed zone is a temporary speed zone along a private haul road, installation of 30km/h pavement marking is not a requirement of TCAWS 6.1 and will not be provided.	Minor Non-Compliance		N

Appendix E Road Safety Audit

Appendix F Drivers Code of Conduct

Drivers Code of Conduct

Safe Driving Policy for Construction of Aerotropolis Station

Objectives of the Drivers Code of conduct

- To minimise the impact of earthworks on the local and regional road network;
- To minimise conflict with other road users, especially pedestrians and cyclists;
- To minimise road traffic noise; and
- To ensure truck drivers use specified heavy vehicles routes between the Site and the sub-regional road network.

Code of Conduct

The code of conduct requires that while driving any vehicle for work-related purposes.

Drivers are to be issued with a copy of the Drivers Code of Conduct, and must comply with all of the following:

- Demonstrate safe driving and road safety activities.
- Abide by traffic, road and environmental legislations.
- Follow site signage and instructions.
- Drivers must only enter and exit the site via the approved entry and exit points and travel routes.
- Drivers must register with the PLM logistics software and receive a delivery slot before proceeding to site.
- Drivers must be aware of kangaroos and other wildlife on the haul road between Badgerys Creek Road and the site.

The below activities in any vehicles will be considered as a breach of conduct and will result in removal from site:

- Reckless or dangerous driving causing injury or death.
- Driving whilst disqualified or not correctly licensed.
- Drinking or being under the influence of drugs while driving
- Failing to stop after an incident.
- Loss of demerit points leading to suspension of licence.
- Any actions that warrant the suspension of a licence
- Exceeding the speed limit in place on any permanent or temporary roads.

Driver Responsibilities

All Drivers on site must:

- Be responsible and accountable for their actions when operating a company vehicle or driving for the purposes of work.

Traffic Management Road Safety Audit Report

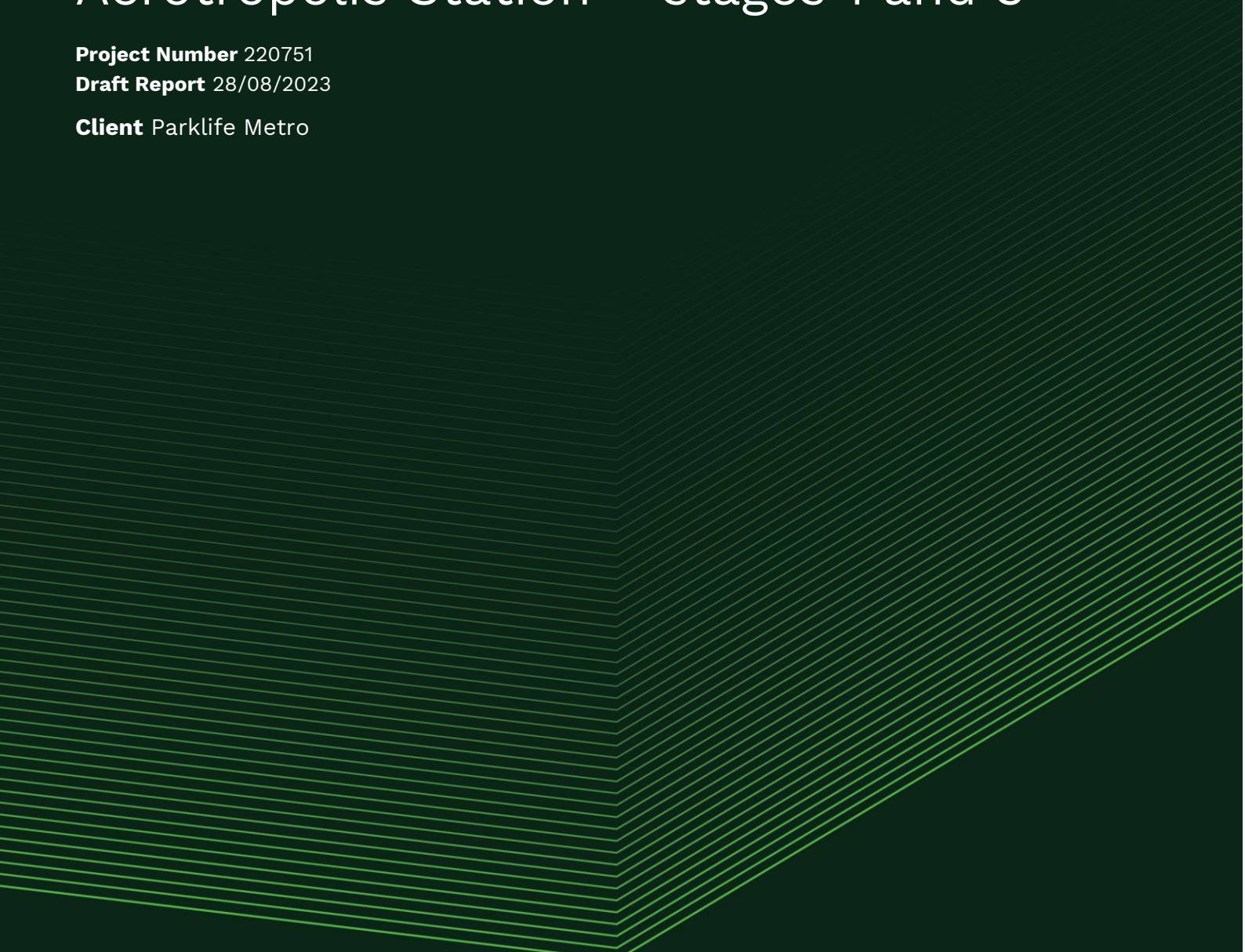
Sydney Metro – Western Sydney Airport

Aerotropolis Station – stages 1 and 3

Project Number 220751

Draft Report 28/08/2023

Client Parklife Metro



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Document control

Report title	Sydney Metro – Western Sydney Airport Aerotropolis Station – stages 1 and 3
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Project number	220751
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Client	Parklife Metro
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Client contact	Wendy Zheng (0401 969 768)
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Revision	Date issued	Revision details / status	Prepared by	Authorised by
Draft	28/08/2023	Preliminary draft	Bernard Chan Aaron Wu	Paul Mihailidis

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Appendix 1 – Severity guidance sheet

Appendix 2 – Likelihood / severity risk matrix

1 Introduction

The Sydney Metro – Western Sydney Airport project involves the construction and operation of a 23 km new metro rail line between St Marys to the north and the Western Sydney Airport Aerotropolis to the south.



Figure 1: Overview of Sydney Metro – Sydney Airport project

Parklife Metro engaged Trafficworks to undertake a road safety audit (RSA) of the site-specific Construction Traffic Management Plan (CTMP) prepared for the Aerotropolis Station. There will be 4 handover stages between Sydney Metro and Stations, systems, trains operations and maintenance (SSTOM), as outlined below:

Stage	Description	Estimated timeframe
Stage 01	SSTOM full possession of site	12 October 2023 to February 2024
Stage 02	Station boxes and tunnelling (SBT) and tunnel boring machine (TBM) retrieval	20-week period from February 2024
Stage 03	SSTOM full possession of site	August 2024 to 15 January 2026
Stage 04	Western Sydney Airport Corporation (WPCA) and SSTOM shared access	16 January 2026 to 15 December 2026

The focus of this RSA will be for handover stages 1 and 3.

The following revisions to the CTMP are anticipated, which are subject to a separate RSA:

- the CTMP will be updated to include stage 2 handover
- access to the site in handover stage 4 is dependent on the construction of WPCA access roads. The CTMP will be updated prior to stage 4 handover

We conducted this RSA in line with the procedures set out in the Austroads Guide to Road Safety Part 6: Road Safety Audits (2022). For more information, see section 2, Road Safety Audit (RSA) overview.

Both the site and the supporting documentation were reviewed to identify issues that impact road user safety – for more information, see:

- section 2.6, Supporting information used in the audit
- section 3, Site Description.

Our findings are presented in section 4.

Note that the auditor cannot guarantee that every issue that impacts road user safety has been identified.

2 Road safety audit (RSA) overview

2.1 Audit team

The audit was conducted by:

Paul Mihailidis [BEng (Civil), GradCert Mgt, MIEAust, CPEng, NER]

RSA-03-0796 – Level 3 road safety auditor (lead auditor)

and

Bernard Chan [BEng(Civil)(Hons), CPEng, NER]

RSA-03-1649 – Level 3 road safety auditor (team member)

and

Aaron Wu [BEng(Civil)(Hons)]

RSA-03-1713 – Level 2 road safety auditor (team member)

2.2 Commencement meeting

A commencement meeting was held at the Parklife offices on the morning of Thursday 29 June 2023.

2.3 Inspection

The audit included an inspection of the site during the:

- Morning of 29/06/2023 by Paul Mihailidis and Bernard Chan
- Afternoon of 25/08/2023 by Bernard Chan

The conditions during both daytime inspections were fine and sunny.

2.4 Risk ratings

The findings of this audit have been assigned a risk rating based on the likelihood of a crash occurring, together with the potential severity of that crash. For more information about:

- crash severity – see Appendix 1
- the likelihood/severity risk matrix, see Appendix 2.

The risk ratings adopted for this audit are as follows:

- Extreme – must be corrected regardless of cost

- High – should be corrected or the risk significantly reduced, even if the treatment cost is high
- Medium – should be corrected or the risk significantly reduced, if the treatment cost is moderate, but not high
- Low – should be corrected or the risk reduced if the treatment cost is low
- Negligible – no action required.

Trafficworks also denotes a risk rating of 'Note only' for:

- drafting errors, omissions and issues that are outside the scope of works
- items within the scope of works that do not represent a road safety risk.

2.5 Safe System approach

The basic principles of the Safe System approach are:

- Humans are fallible, and will inevitably make mistakes when driving, riding, or walking.
- Despite this, road trauma should not be accepted as inevitable. No one should be killed or seriously injured on our roads.
- To prevent serious trauma, the road system must be forgiving, so that the forces of collisions do not exceed the limits that the human body can tolerate.

Therefore, as far as is practically possible, infrastructure should be designed, and travel speeds managed, so that crash impact speeds are below the thresholds outlined in Appendixes 1 and 2.

Each road safety issue has been assessed based on:

- its kinetic energy transfer
- the likelihood of a serious injury or fatality occurring assessed against the thresholds outlined in Appendixes 1 and 2.

2.6 Supporting information used in the audit

The following document was used when conducting the audit:

- ‘Construction Traffic Management Plan – Aerotropolis Station’, prepared by Parklife Metro D&C. Document no. SMWSASSM-PLD-AEC-TF-PLN-000001, Rev A, dated 14/08/2023.

3 Site Description

3.1 Existing conditions

The Aerotropolis Station site access is located off Badgerys Creek Road, approximately 1.4 km north of The Northern Road. The site is accessed from Badgerys Creek Road via an existing roundabout. The subject site is shown in Figure 2 and an aerial photograph of the site access is shown in Figure 3.



Figure 2: subject site



Figure 3: Aerotropolis Station site access

Badgerys Creek Road is a regional road aligned in a north to south direction, connecting Elizabeth Drive to the north and The Northern Road to the south. Between Pitt Street and The Northern Road, Badgerys Creek Road consists of one traffic lane in each direction. Sealed shoulders exist on both sides of the road at some sections of the road.

The following posted speed limits apply to Badgerys Creek Road:

- 60 km/h between Elizabeth Drive and Jagelman Road
- 80 km/h between Jagelman Road and The Northern Road.

The speed limit on Badgerys Creek Road at the site access is 80 km/h.

3.2 Proposed conditions

The following details the traffic management arrangements proposed:

- during stages 1 – 3, the site will continue to be accessed off Badgerys Creek Road via the Q-TA1 haul road. This access will be used by all light vehicles and heavy vehicles associated with the construction works. Heavy vehicles will be instructed to turn left and light vehicles will be instructed to turn right once inside the site boundaries
- during stage 4, site access will be switched to the AEC25 haul road. During this stage, heavy vehicles will be directed to access the site through AEC23 and light vehicles will be directed to access the site from AEC25
- there will be no works external to the site during construction (i.e. no works will occur on Badgerys Creek Road)
- temporary 40 km/h work zone speed limit signs will be installed along the site access
- the largest vehicle required to access the site will be a 19 m semi-trailer
- construction works will occur between 7 am – 6 pm Mon-Fri and 8 am – 1 pm Saturday
- heavy vehicles will travel to and from the site to:
 - the SSTOM temporary concrete batching plant within the Airport Business Park Station to the north, via Badgerys Creek Road (vehicles up to 12.5 m in length)
 - The Northern Highway to the south, via Badgerys Creek Road (up to 19 m in length)
- subcontractors will register for a delivery timeslot to access the site, to prevent vehicles queueing on Badgerys Creek Road
- the site superintendent will minimise the number of vehicles scheduled to enter and depart the site during peak hours (7:30 am – 8:30 am and 4:30 pm – 5:30 pm)
- all drivers will be briefed to be made aware of pedestrians alighting from buses that operate along Badgerys Creek Road. Buses will always be given priority along Badgerys Creek Road

- access to residential properties and utility providers will be maintained at all times
- a traffic controller will be on site to manage delivery traffic and contractor access the site access. They will also open the site gate one hour before construction hours and close the gate one hour after construction hours
- no contractors will be permitted to park on Badgerys Creek Road. All staff will park within the site. Parking for up to 360 light vehicles will be provided within the site.

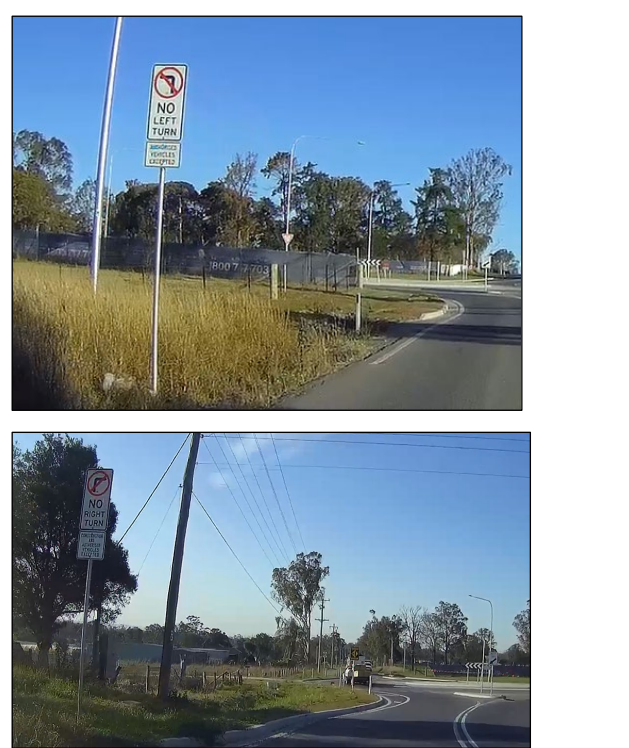
4 Findings

Table 1 outlines the findings of this audit, noting the columns to the right of the table will be completed by the client after receiving and reviewing this report.

RSAs are a formal process and the client is required to respond to the audit's findings in writing. A client is under no obligation to accept all of the audit findings and should consider these in conjunction with all other project considerations. If the client does not accept the findings, then reasons should be included within the written response.

It is not the role of the auditor to approve the client's response to the audit.

Table 1: Audit findings

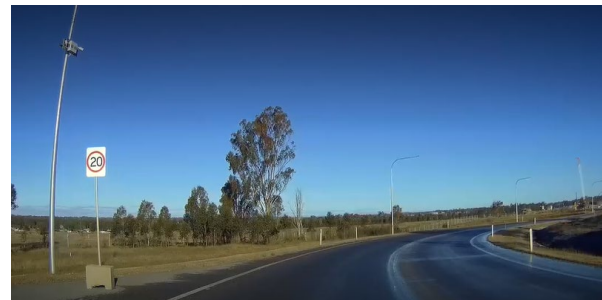
No	Audit findings	Photos	Risk rating	Client response	
				Accept: Yes/No	Reasons/Comments
1 General issues					
<p>1.1. Signs banning turns are installed on Badgerys Creek Road approaches to the roundabout providing site access.</p> <p>The signs appear small and the text may be difficult for motorists to read. It is understood that no variable message signs will not be installed warning of the site access restrictions.</p> <p>The general public may accidentally turn into the site access at the roundabout.</p>		<p>NOTE ONLY</p>	<p>Yes</p>	<p>Refer matter to Sydney Metro and TfNSW to address with SBT Traffic Team to request signage concerned be replaced with larger sized sign.</p>	

No Audit findings	Photos	Risk rating	Client response	
			Accept: Yes/No	Reasons/ Comments

1.2. The Signage Plan in Appendix B shows 40 km/h road work speed zone signs to be implemented along the Q-TA1 haul road.

There are existing 20 km/h signs on the haul road. The report indicates this will be replaced with the 40 km/h speed zone signage. However, the plan does not indicate the 20 km/h signs to be removed.

There is a small risk that the removal of the 20 km/h signs is missed. The mixture of 20 km/h and 40 km/h will create confusion to motorists.



NOTE ONLY

Yes

SSTOM Traffic Team to conduct inspection post implementation to ensure 20km/h signs are removed and 40km/h speed limit sign installed per signage plan.

No	Audit findings	Photos	Risk rating	Client response	
				Accept: Yes/No	Reasons/Comments
1.3.	<p>Section 5.3 (Public Transport Impact Management) has identified that one public bus route (route 801) and school buses operate along Badgerys Creek Road.</p> <p>There are bus stops for bus Route 801 on Badgerys Creek Road near Gardiner Road and Longleys Road. There does not appear to be nearby existing developments that would generate bus patronage near the bus stops for Route 801. Development could occur in the future during construction works and increase pedestrian movements to and from the bus stops.</p> <p>The auditors were unable to ascertain where the school buses stop along the road and if/where students cross roads to access or depart the school bus stops.</p> <p>It is acknowledged that that CTMP indicates that all drivers will be briefed to be made aware of pedestrians alighting from buses.</p>		NOTE ONLY	Yes	<p>Review of bus routing find that the existing Route 801 turns around at Badgerys Creek Road / Pitt Street and do not travel further south along Badgerys Creek Road.</p> <p>SSTOM Traffic Team to continue monitor changes to bus route and provide updated briefing to Site Team where required.</p>

Client response completed by:

5 Conclusion

This Road Safety Audit has been conducted in accordance with the procedures set out in the *Austrroads Guide to Road Safety Part 6: Road Safety Audits (2022)*.

The site was inspected and supporting documentation examined.

The findings presented in the previous section of this document are provided for consideration by the client and any other interested parties.

Auditors



Monday, 28 August 2023

Paul Mihailidis [BEng (Civil), GradCert Mgt, MIEAust, CPEng, NER]

RSA-03-0796 – Level 3 road safety auditor (lead auditor)



Monday, 28 August 2023

Bernard Chan [BEng(Civil)(Hons), CPEng, NER]

RSA-03-1649 – Level 3 road safety auditor (team member)



Monday, 28 August 2023

Aaron Wu [BEng(Civil)(Hons)]

RSA-03-1713 – Level 2 road safety auditor (team member)

Appendix 2 – Likelihood / severity risk matrix

Figure 5 presents the likelihood / severity risk matrix.

			Severity*				
			Insignificant	Minor	Moderate	Serious	Fatal
			Property damage	Minor first aid	Major first aid and/or presents to hospital (not admitted)	Admitted to hospital	Death within 30 days of crash
Likelihood (Includes exposure)	Almost Certain	One per quarter	Medium	High	High	Extreme (FSI)	Extreme (FSI)
	Likely	Quarter to 1 year	Medium	Medium	High	Extreme (FSI)	Extreme (FSI)
	Possible	1 to 3 years	Low	Medium	High	High (FSI)	Extreme (FSI)
	Unlikely	3 to 7 years	Negligible	Low	Medium	High (FSI)	Extreme (FSI)
	Rare	7 years +	Negligible	Negligible	Low	Medium (FSI)	High (FSI)

*see Severity Guidance Sheet

Safe System crash outcome threshold

Figure 5: Likelihood / severity risk matrix (Source: Austroads Guide to Road Safety Part 6 – Road Safety Audit (2022))

- Display the highest level of professional conduct when driving a vehicle at all times.
- Ensure they have a current driver licence for the class of vehicle they are driving, and this licence is to be carried at all times.
- Immediately notify their supervisor or manager if their drivers' licence has been suspended, cancelled, or has had limitations applied.
- Comply with all traffic and road legislation when driving.
- Assess hazards while driving.
- Undertake daily pre-start checks of oil, tyre pressures, radiator and battery levels of company vehicles they regularly use.
- Drive within the legal speed limits, including driving to the conditions.
- Not drive outside of the approved heavy vehicle routes. All drivers must obey weight, length and height restrictions imposed by the National Vehicle Regulator, and other Government agencies. Heavy Vehicles shall adhere to the selected routes.
- Heavy vehicle drivers must have completed the Sydney Metro Safe Heavy Vehicle Driver Introduction Programme or equivalent competency
- Be cognisant of the noise and emissions requirements imposed within the NSW/ Australian Road Rules. Works must be constructed with the aim of achieving the construction noise management levels detailed in the Construction Noise Guideline.
- Do not queue on public roads unless a prior approval has been sought.
- Be aware that at no time may a tracked plant be permitted or required on a paved road.
- Never drive under the influence of alcohol or drugs, including prescription and over the counter medication if they cause drowsiness – to do so will merit disciplinary measures.
- All drivers to report to their supervisor if they have been prescribed medication prior to the start of work.
- Wear a safety seat belt at all times when in the vehicle.
- Avoid distraction when driving – the driver will adjust car stereos/mirrors etc. before setting off or pull over safely to do so.
- Report ALL near-misses, crashes and scrapes to their manager,
- Report infringements to a manager at the earliest opportunity.
- Report vehicle defects to a manager prior to the next use of the vehicle.
- Follow the approved site access/egress routes only.
- Follow speed limits as imposed within the estate.
- Keep loads covered at all times.

The Site Team Responsibilities

The Contractor is responsible to take all steps necessary to ensure company vehicles are as safe as possible and will not require staff to drive under conditions that are unsafe.

This will be achieved by undertaking the following:

- Ensuring all vehicles are well maintained and that the equipment enhances driver, operator and passenger safety by way of:
 - Pre-commencement checks for all new plant arriving on-site and prior to undertaking any work.
 - Daily prestart inspections for all plant, vehicles and equipment currently on-site.
 - All construction plant must be fitted with a flashing light, fire extinguisher and reverse alarms (or squawkers).
 - Ensure all operators onsite have a current driver's licence of the appropriate class.
 - Ensure maintenance requirements are met and recorded.

- Identify driver training needs and arranging appropriate training or re-training. This may include providing the below:
 - Operator VOC assessment as part of all inductions.
 - Regular Toolbox discussions on safety features, managing fatigue, approved heavy routes, driver responsibility and drink-driving.
- Encouraging Safe Driving behaviour by:
 - Ensuring the subcontractor is informed if their staff become unlicensed.
 - Not covering or reimbursing staff speeding or other infringement notices
 - Ensuring Legal use of mobile phones in vehicles while driving only and that illegal use is not undertaken.
- Encouraging better fuel efficiency by:
 - Use of other transport modes or remote conferencing, whenever practical.
 - Providing training on, and circulating information about, travel planning and efficient driving habits.

Crash or incident Procedure

- Stop your vehicle as close to it as possible to the scene, making sure you are not hindering traffic. Ensure your own safety first, then help any injured people and seek assistance immediately if required.
- Ensure the following information is noted:
 - Details of the other vehicles and registration numbers (photos with time stamps)
 - Names and addresses of the other vehicle drivers.
 - Names and addresses of witnesses.
 - Insurers details
- Give the following information to the involved parties:
 - Name, address and company details
- If the damaged vehicle is not occupied, provide a note with your contact details for the owner to contact the company.
- Ensure that the police are contacted should the following circumstances occur:
 - If there is a disagreement over the cause of the crash.
 - If there are injuries.
 - If you damage property other than your own.
- As soon as reasonably practical, report all details gathered to your manager.

Environmental Procedures.

A range of measures shall be implemented to ensure the following;

- No dirt or debris from the construction vehicles is tracked on to the public road network.
- Reduce the impacts to sensitive receivers, including, where practicable, starting noisy equipment away from sensitive receivers and implementing respite periods.
- Watering of dusty activities will be undertaken, or activities temporarily halted and then resumed once weather conditions have improved.
- Containment measures for spillages will be provided at appropriate locations and in close proximity to staff car park areas, dangerous goods stores areas and main Project work areas.
- Keep an accurate record which includes the range of measures undertaken to reduce environmental impacts.